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# INTERVIEW QUESTIONS

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### Audience

These questions have been designed to meet the requirements of all those readers who are keen to prepare for the web development interview.

### Prerequisites

This book assumes you have some knowledge on Web Programming and assume you know how to work with HTML, CSS, JavaScript, PHP, MySQL and WordPress. This book will not teach you how to work with Web Programming.

### How to use this Book

This book contains most commonly asked Interview questions and answer. If you want to learn Web Development, then you can take this course on PHP Full Stack Web Developer.

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# 1. HTML



### 1. HTML

#### 1) What is HTML?

HTML stands for Hyper Text Markup Language. It is a language of World Wide Web. It is a standard text formatting language which is used to create and display pages on the Web. It makes the text more interactive and dynamic. It can turn text into images, tables, links.

#### 2) What are Tags?

HTML tags are composed of three things: an opening tag, content and ending tag. Some tags are unclosed tags.

#### 3) Do all HTML tags have an end tag?

No. There are some HTML tags that don't need a closing tag. For example: <image> tag, <br>> tag.

#### 4) What is formatting in HTML?

The HTML formatting is a process of format the text for a better look and feel. It uses different tags to make text bold, italicized, underlined..

### 5) What are some of the common lists that can be used when designing a page?

You can insert any or a combination of the following list types:

- ordered list
- unordered list
- definition list
- menu list
- directory list

Each of this list types makes use of a different tag set to compose

#### 6) How do you insert a comment in HTML?

Comments in HTML begins with "<!--" and ends with "-->". For example:<!-- A SAMPLE COMMENT -->

#### 7) Do all character entities display properly on all systems?

No, there are some character entities that cannot be displayed when the operating system that the browser is running on does not support the characters. When that happens, these characters are displayed as boxes.

#### 8) What is an image map?

Image map lets you link to many different web pages using a single image. You can define shapes in images that you want to make part of an image mapping.

#### 9) What is the advantage of collapsing white space?

White spaces are a blank sequence of space characters, which is treated as a single space character in HTML. Because the browser collapses multiple spaces into a single space, you can indent lines of text without worrying about multiple spaces. This enables you to organize the HTML code into a much more readable format.

#### 10) How do you insert a copyright symbol on a browser page?

To insert the copyright symbol, you need to type © or & #169; in an HTML file.

#### 11) How do you create links to sections within the same page?

Links can be created using the <a> tag, with referencing through the use of the number (#) symbol. For example, you can have one line as <a href="#topmost">BACK TO TOP</a>, which would result in the words "BACK TO TOP" appearing on the webpage and links to a bookmark named topmost. You then create a separate tag command

like <a name="topmost"> somewhere on the top of the same webpage so that the user will be linked to that spot when he clicked on "BACK TO TOP".

# 12) Is there any way to keep list elements straight in an HTML file?

By using indents, you can keep the list elements straight. If you indent each subnested list in further than the parent list that contains it, you can at a glance determine the various lists and the elements that it contains.

# 13) If you see a web address on a magazine, to which web page does it point?

Every web page on the web can have a separate web address. Most of these addresses are relative to the top-most web page. The published web address that appears within magazines typically points this top-most page. From this top level page, you can access all other pages within the website.

#### 14) What is the use of alternative text in image mapping?

When you use image maps, it can easily become confusing and difficult to determine which hotspots correspond to which links. Using alternative text lets, you put a descriptive text on each hotspot link.

#### 15) Do older HTML files work on newer browsers?

Yes, older HTML files are compliant to the HTML standard. Most older files work on the newer browsers, though some features may not work.

#### 16) Does a hyperlink apply to text only?

No, hyperlinks can be used in the text as well as images. That means you can convert an image into a link that will allow users to link to

another page when clicked. Surround the image within the <a href="""...</a> tag combinations.

### 17) If the user's operating system does not support the needed character, how can the symbol be represented?

In cases wherein their operating system does not support a particular character, it is still possible to display that character by showing it as an image instead.

#### 18) How do you change the number type in the middle of a list?

The tag includes two attributes – type and value. The type attribute can be used to change the numbering type for any list item. The value attribute can change the number index.

#### 19) What are style sheets?

Style sheets enable you to build consistent, transportable, and welldefined style templates. These templates can be linked to several different web pages, making it easy to maintain and change the look and feel of all the web pages within site.

#### 20) State bullet types available in HTML

With ordered lists, you can select to use some different list types including alphabetical and Roman numerals. The type attribute for unordered lists can be set to disc, square, or circle.

#### 21) How do you create multicolored text in a webpage?

To create text with different colors, use the <font color="color">...</font> tags for every character that you want to apply color. You can use this tag combination as many times as needed, surrounding a single character or an entire word.

### 22) Why are there both numerical and named character entity values?

The numerical values are taken from the ASCII values for the various characters, but these can be difficult to remember. Because of this, named character entity values were created to make it easier for web page designers to use.

#### 23) What are empty elements?

HTML elements with no content are called empty elements. For example: <br>, <hr> etc.

# 24) What is the advantage of grouping several checkboxes together?

Although checkboxes don't affect one another, grouping checkboxes together help to organize them. Checkbox buttons can have their name and do not need to belong to a group. A single web page can have many different groups of checkboxes.

#### 25) What will happen if you overlap sets of tags?

If two sets of HTML tags are overlapped, only the first tag will be recognized. You will find this problem when the text does not display properly on the browser screen.

#### 26) What are applets?

Applets are small programs that can be embedded within web pages to perform some specific functionality, such as computations, animations, and information processing. Applets are written using the Java language.

### 27) What if there is no text between the tags or if a text was omitted by mistake? Will it affect the display of the HTML file?

If there is no text between the tags, then there is nothing to format. Therefore no formatting will appear. Some tags, especially tags

without a closing tag like the <img> tag, do not require any text between them.

#### 28) Is it possible to set specific colors for table borders?

You can specify a border color using style sheets, but the colors for a table that does not use style sheets will be the same as the text color.

### 29) How do you create a link that will connect to another web page when clicked?

To create hyperlinks, or links that connect to another web page, use the href tag. The general format for this is: <a href="site">text</a> Replace "site" with the actual page URL that is supposed to be linked to when the text is clicked.

#### 30) What other ways can be used to align images and wrap text?

Tables can be used to position text and images. Another useful way to wrap text around an image is to use style sheets.

#### 31) Can a single text link point to two different web pages?

No. The <a> tag can accept only a single href attribute, and it can point to only a single web page.

### 32) What is the difference between the directory and menu lists and the unordered list?

The key difference is that the directory and menu lists do not include attributes for changing the bullet style.

#### 33) Can you change the color of bullets?

The bullet color is always the same as that of the first character in the list item. If you surround the and the first character with a set

of <font> tags with the color attribute set, the bullet color, and the first character will be a different color from the text.

#### 34) What are the limits of the text field size?

The default size for a text field is around 13 characters. However, if you include the size attribute, you can set the size value to be as low as 1. The maximum size value will be determined by the browser width. If the size attribute is set to 0, the size will be set to the default size of 13 characters.

# 35) Do tags always need to come at the start of a row or column?

Any tag can be changed to a tag. This causes the text contained within the tag to be displayed as bold in the browser. Although tags are mainly used for headings, they do not need to be used exclusively for headings.

# 36) What is the relationship between the border and rule attributes?

Default cell borders, with a thickness of 1 pixel, are automatically added between cells if the border attribute is set to a nonzero value. Likewise, If the border attribute is not included, a default 1-pixel border appears if the rules attribute is added to the tag.

#### 37) What is a marquee?

A marquee allows you to put a scrolling text in a web page. To do this, place whatever text you want to appear scrolling within the <marquee> and </marquee> tags.

### 38) How do you create text on a webpage that will allow you to send an email when clicked?

To change text into a clickable link to send email, use the mailto command within the href tag. The format is as follows:

<a href="mailto:youremailaddress">text to be clicked</a>

#### 39) Are <br> tags the only way to separate sections of text?

No. The <br> tag is only one way to separate lines of text. Other tags, like the tag and <blockquote> tag, also separate sections of text.

# 40) Are there instances where the text will appear outside of the browser?

By default, the text is wrapped to appear within the browser window. However, if the text is part of a table cell with a defined width, the text could extend beyond the browser window.

#### 41) How are active links different from normal links?

The default color for normal and active links is blue. Some browsers recognize an active link when the mouse cursor is placed over that link; others recognize active links when the link has the focus. Those that don't have a mouse cursor over that link is considered a normal link.

# 42) Do style sheets limit the number of new style definitions that can be included within the brackets?

Style sheets do not limit the number of style definitions that can be included within the brackets for a given selector. Every new style definition, however, must be separated from the others by a semicolon symbol.

# 43) Can I specify fractional weight values such as 670 or 973 for font weight?

Implementation largely depends on the browser, but the standard does not support fractional weight values. Acceptable values must end with two zeroes.

### 44) What is the hierarchy that is being followed when it comes to style sheets?

If a single selector includes three different style definitions, the definition that is closest to the actual tag takes precedence. Inline style takes priority over embedded style sheets, which takes priority over external style sheets.

#### 45) Can several selectors with class names be grouped together?

You can define several selectors with the same style definition by separating them with commas. This same technique also works for selectors with class names.

#### 46) What happens if you open the external CSS file in a browser?

When you try to open the external CSS file in a browser, the browser cannot open the file, because the file has a different extension. The only way to use an external CSS file is to reference it using <link/> tag within another HTML document.

# 47) How do you make a picture into a background image of a web page?

To do this, place a tag code after the </head> tag as follows:

<body background = "image.gif">

#### 48) What happens if the list-style-type property is used on a nonlist element like a paragraph?

If the list-style-type property is used on a non-list element like a paragraph, the property will be ignored and do not affect the paragraph.

#### 49) When is it appropriate to use frames?

Frames can make navigating a site much easier. If the main links to the site are located in a frame that appears at the top or along the

edge of the browser, the content for those links can be displayed in the remainder of the browser window.

# 50) What happens if the number of values in the rows or cols attribute doesn't add up to 100 percent?

The browser sizes the frames relative to the total sum of the values. If the cols attribute is set to 100%, 200% the browser displays two vertical frames with the second being twice as big as the first.

#### 51) Which browsers support HTML5?

The latest versions of Google Chrome, Apple Safari, Mozilla Firefox, and Opera all support most of the HTML5 features.

#### 52) Name two new tags included in the HTML 5

<Video> and <Audio> are new tags which are included in HTML5 version. They are mainly used as a replacement for Flash, Silverlight, and similar technologies to play multimedia items.

### 53) Do you know which are two semantic tags are included in HTML5 version?

The <article> and <section> tags are two new tags that are included in HTML5. Articles can be composed of multiple sections that can have multiple articles. An article tag represents a full block of content which is a section of a bigger whole.

#### 54) What is <figure> in HTML5?

This tag represents a piece of self-contained flow content. It is mostly used as a single unit as a reference the main flow of the document.

#### 55) What is the use of Canvas element?

The canvas element helps to build charts, graphs, bypass Photoshop to create 2D images and place them directly into HTML5 code.

### 56) What are the new FORM elements which are available in HTML5?

The new Form elements in HTML5 offers much better functionality than the earlier versions.

The tags given provided to carry out these functions are:

1) <datalist> – This tag is use to specify a list of options for input controls.

2) <keygen> – This tag represents a key-pair generator field.

3) <output> – It represents the result of any scripting calculation.

#### 57) Tell me two benefits of HTML5 Web Storage?

Two main benefits of HTML5 Web Storage:

It can store up to 10 MB data which is certainly more than what cookies have.

Web storage data cannot be transferred with the HTTP request. It helps to increase the performance of the application.

#### 58) What are two types of Web Storage in HTML5?

Two storage types of HTML5 are:

Session Storage:

It stores data of current session only. It means that the data stored in session storage clear automatically when the browser is closed.

Local Storage:

Local storage is another type of HTML5 Web Storage. In local storage, data is not deleted automatically when the current browser window is closed.

#### 59) What is the Application Cache in HTML5 and why it is used?

The Application Cache concept means that a web application is cached. It can be accessible without the need for internet connection.

Some advantages of Application Cache:

Offline browsing – Web users can also use the application when they are offline.

Speed – Cached resources load quicker

Reduce the server load – The web browser will only download updated resources from the server.

#### 60) Explain five new input types provided by HTML5 for forms?

Following are the important, new data types offered by HTML5:

Date: It allows the user to select a date.

datetime-local: This input type allows the user to select a date and time without time zone.

datetime: This input type allows the user to select a date and time with time zone.

month: It enables the user to select a month and year

email: These input fields used to contain an e-mail address.

#### 61) What is Quirks mode in HTML5?

If we do not include the <!DOCTYPE> element in our HTML page or Document, it will go to Quirks Mode. In this mode, the HTML element depends on the browser.

Hence the content will be displayed according to the browser.

#### 62) What is the SVG element?

SVG is a followed XML format; it stands for Scalable Vector Graphics which is used to create vector graphics with the support for interactivity and animation.

SVG is resolution independent as it's not losing its quality when they are resized or zoomed

#### 63) What is Web Workers?

Web Workers is a code of JavaScript which runs in the background threads without disturbing the performance of the page. It is used for computing-heavy tasks like an access database or function.

#### 64) Differentiate between HTML and XHTML?

Below are the differences between HTML and XHTML:

HTML stands for Hypertext Markup Language, whereas XHTML stands for Extensible Markup Language.

A static webpage is an html web page and dynamic web pages are XHTML.

XHTML are more stricter than HTML.

An XML application of HTML is defined as XHTML.

All modern browsers support XHTML.

#### 65) How can we create a hyperlink in HTML?

An anchor tag or <a> tag in HTML is used to create hyperlinks which create a path between two different HTML web pages.

Hyperlinks can be displayed in three ways:

Unvisited Link – These links are blue in color and underlined.

Visited Link – These links are purple in color and underlined.

Active Link – These links are red in color and underlined.

#### 66) What does HTML stand for?

HTML stands for Hypertext Markup Language.

#### 67) In how many ways can a heading be written in HTML?

A heading is a block level element which is used to give a heading to the particular section or topic.

A total of 6 types of headings can be written in HTML:

```
<!DOCTYPE html>
<html>
<head>
<style>
h1{
        color: red;
}
h2{
         color: blue;
}
h3{
         color : green;
}
h4{
          color: purple;
}
h5{
         color: yellow;
}
h6{
        color: orange;
}
</style>
</head>
<body>
```

```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```

</body>

</html>

#### Output:

Heading 1
Heading 2
Heading 3
Heading 4
Heading 5
Heading 6

#### 68) Explain list elements in HTML?

The list elements in HTML are:

Ordered List () – An Ordered List or ol tag are the list which will list the items in an ordered way, i.e. numbered or alphabetically.

Unordered List () – An Unordered List or ul tag is the list which will list the items in an unordered way, i.e. in bulleted format or in any other format.

Definition List (<dl>) – A definition List or dl tag arranges the items in the way in which they are arranged in a dictionary.

#### 69) Why Meta tags are used in HTML?

Meta tags in html are used by the developer to tell the browser about the page description, author of the template, character set, keywords and many more.

Meta tags are used for search engine optimization to tell the search engine about the page contents.

```
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale = 1.0">
<meta name="description" content="HTML interview questions">
<meta name="author" content="Author Name">
<meta name="copyright" content="All Rights Reserved">
```

#### 70) What are the different browsers that support HTML5?

All modern browsers support HTML5 elements except some old browsers. But fortunately, most of the browsers will take html5 elements as inline elements.

#### 71) What are <br> tags in HTML?

<br> tags are used to enter a new line into the HTML contents. These tags are generally used to separate two different lines of text between each other.

#### 72) Can we change inline elements into block-level elements?

Yes, we can change inline elements into block-level elements by adding display equal to block in its CSS tag. Writing it will change the inline elements into block elements and then inline elements will also take the full width of the container.

display: block;

### 73) Can we modify the attribute's value of the HTML tag dynamically?

Yes, we can modify the value of the attributes by using JavaScript.

Below is the input element whose attribute will be modified from text to password, JS code to modify the attribute value:

```
<input type="text" id="inputField">
document.getElementById("inputField").attr("type", "password");
```

#### 74) Describe HTML?

Hypertext Markup Language or HTML is a markup language which is used to create website templates or WebPages to present the content on the World Wide Web.

HTML pages are saved by adding .html or .html in web page name.

#### 75) Write the basic structure of the HTML template?

The basic structure of the HTML template is:

```
<html>
<head>
<title></title>
</head>
<body>
</body></html>
```

#### 76) What is HTML5?

HTML5 is the latest or updated version of markup language that defines HTML.

### 77) Name some new features which were not present in HTML but are added to HTML5?

Some new features in HTML5 include:

DOCTYPE declaration - <!DOCTYPE html>

section – Section tag defines a section in the document, such as a header, footer or in other sections of the document. It is used to define the structure of the document. <section></section>

header – Header tag defines the head section of the document. A header section always sticks at the top of the document. <header></header>

footer – Footer tag defines the footer section of the document. A footer section always sticks at the bottom of the document. <footer></footer>

article – Article tag defines an independent piece of the content of a document. <article> </article>

main – The main tag defines the main section in the document which contains the main content of the document. <main></main>

figcaption – Figcaption tag defines the caption for the media element such as an image or video. <figcaption></figcaption>

### 77) What is Anchor tag and how can you open an URL into a new tab when clicked?

Anchor tag in HTML is used for linking between two sections or two different web pages or website templates.

To open an url into a new tab in the browser upon a click, we need to add target attribute equal to \_blank.

```
<a href="#" target="_blank"></a>
```

78) Write an HTML code to form a table to show the below values in a tabular form with heading as Roll No., Student name, Subject Name, and values as

1, Ram, Physics

2, Shyam, Math

3, Murli, Chemistry

To represent the above values in an HTML table format, the code will be:

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
border: 1px solid black;
}
</style>
</head>
<body>
 Roll No. 
> Student Name 
 Subject Name 
1 
Ram
 Physics
```

```
 2
```

Output:

Roll No.	Student Name	Subject Name
1	Ram	Physics
2	Shyam	Math
3	Murli	Chemistry

#### 79) What are inline elements and block-level elements in HTML?

Block elements are the blocks that take the full available width and always start from a new line. It will stretch itself to the full available width of the available container width. Block level elements are <div>, , <img>, <section> and many more.

Inline elements are the elements that will only take the width that is required to fit into the container.

For Example, take the flow of text on the page. When the line of the text takes the full width of the container it wraps itself into a new line and again goes in the same way.

Whereas the inline element will take only that much space or width that it is needed for them. Inline elements are <span>, <label>, <a>, <b> and many more.

#### 80) What new features were added to HTML5?

It introduced a number of semantic elements, which is to say elements that convey meaning. Some of the new semantic elements are <header>, <footer>, <section>, and <article> . They are semantic in that they are not just simple containers, but they tell the browser more about their contents.

There are additional form element types,

like "number", "date", "calendar" and "range". Video and audio elements have also been added, as well as new graphic elements, such as <svg> and <canvas>.

#### 81) What is the difference between HTML elements and tags?

#### Elements

Each part of a web page, such as a paragraph, an image, a link or anything else you can interact with, is an element. Each type of element has its own behaviour - for example you can click on links, or type in text boxes.

#### Tags

An HTML document is a simple, plain text document, which you are able to open with any text editor on your computer. When you open one, you'll see the document is made up of tags, which are keywords surrounded by angled brackets, each of which describes an HTML element. Here you can see HTML tags telling the browser how to render the text element inside:

<span>This text is surrounded by HTML tags!</span>

Most tags have opening and closing tags. The opening tag is written with the tag name in angled brackets, like <tagname> whereas the closing tag adds a forward slash: </tagname>. Anything between these opening and closing tags is considered to be contents of that tag.

Some tags, like the <img> tag are self-closing. This means that they cannot have any content. For example, an image can't contain additional HTML elements within it. The only way to change their behavior or appearance is through attributes or CSS.

<img src="http://placekitten.com/200/300" />

#### 82) What are attributes and how do you use them?

Each tag can also have additional attributes, which change the way the tag behaves or is displayed. For example, an <input> tag has a type attribute, which you can use to specify whether it's a text field, checkbox, radio button or one of many more options.

Attributes are specified directly after the name of the tag, inside the two angled brackets. They should only ever appear in opening tags or in self-closing tags - they can never be in closing tags. They are followed by an equals sign = and the chosen value in double quotes ". Take care not to include any spaces before and after the equals sign! Multiple attributes can be defined on a single tag, separated by a space.

```
<!-- Text field -->
<input type="text" />
<!-- Checkbox -->
<input type="checkbox" />
<!-- Radio button -->
<input type="radio" value="on" />
```

There are some attributes that are available on every single tag - like the style attribute - however, most tags also have their own specific ones as those attributes simply wouldn't make sense on tags of a different type (like an image source attribute on a paragraph tag).

#### 83) When should you use comments?

Sometimes it can be useful to add code comments to your HTML document. These will not be displayed in the browser, but they can be useful to leave notes for yourself and other developers as to what a section of HTML is for. The start of the comment is denoted by <!-

- and the end is marked by -->. Anything in the middle will be completely ignored, even if it contains valid HTML.

```
<!-- This is a comment! -->
<!-- Comments can
span multiple
lines too -->
<!-- All of this is ignored. Even valid HTML like this: <span>Ska-
doosh!</span> -->
```

While comments are useful, try to keep them to a minimum. Only use them when something is not quite clear enough, or else your documents will become more 'comment' than code!

### 84) What's the difference between a block-level element and an inline element?

Each element in HTML is displayed in one of a few ways. By default, most tags are either displayed as block-level or inline. This value can be overridden using css.

Block

As the name suggests, a block-level element is drawn as a block that stretches to fill the full width available to it (the width of its container) and will always start on a new line.

Examples of elements that are block-level by default: <div>, <img>, <section>, <form>, <nav>.

Inline

Unlike the block-level elements, inline elements are drawn where they are defined and only take up space that is absolutely needed. The easiest way to understand how they work is to look at how text flows on a page. When a line of text gets to the end of the space available, it wraps onto the next line and happily keeps going. If you

were to tack more text onto an existing line of text, it will stay on the same line, as if it was all part of the same text to begin with.

Examples of elements that are inline by default: <span>, <b>, <strong>, <a>, <input>.

#### 85) Do you know what these tags are used for?

There are a lot of different HTML elements, which can be a little overwhelming. Luckily, they are also generally pretty intuitive! To help you prepare for a pop quiz in your next interview, we've organized some of the most common elements in sections below:

Text

Tag	Description
р	Paragraph block. Has margin above and below by default.
span	Inline text, no distinguishing styling by default. Generally used to style parts of a block of text differently (e.g. underlined, different background or font)
a	Anchor or link. The href attribute defines where it takes you upon clicking it. This can be a reference point on the same page or a different page.
button	A clickable element styled differently depending on the browser and operating system (e.g. Windows, Mac, Linux) used, though these can be overridden. What happens upon click is up to you to decide!
strong, b	Renders a piece of text bold.
i	Renders a piece of text italic.

#### Tag Description

These are headings of different levels. For example, you

- h1, h2, would generally have a single h1 tag, which can have
- ..., h6 multiple h2 tags inside of it. Each of those in turn can have multiple h3 tags inside them, and so on.

Denotes a line break. HTML ignores white space in your code when it becomes more than a single space. Therefore,

br to break text onto a different line, you can use this tag. Alternatively, you could put the different pieces of text in two separate block-level elements.

#### Layout

ol

li

#### Tag Description

div This is your basic container element. It is a block-level element but has no additional styling by default.

This stands for <u>unordered list</u>, also known as a bulleted list. Inside the ul element you can have any number of li

elements. Using CSS you can define whether it displays as bullet points, empty circles or squares.

Stands for ordered list. Each item inside this list will have an incremented number or symbol beside them (e.g. 1, 2, 3 or a, b, c). The symbols can be numbers, letters or roman numerals.

Stands for list item. These live inside ul or ol elements. Each li is a separate item in the list, denoted by bullet point, number or any other symbol chosen by you.

table Sometimes you need to display related data in a table format. Hurray for tables! Just be sure not to use them for

Τаσ	Description
Tag	Description

your page's layout, or you might get a phone call from the 90s.

tr Used to define table rows inside table elements.

td Used to define table cells inside tr elements, which in turn are inside a table element.

Optional (but recommended) part of your table. Use it to

thead group a table row (tr) that contains the column titles of your table.

Like thead, this is optional. If you have a thead in your table,

tbody you should also include a tbody. It should contain all rows that are not in your thead.

Behaves like a div but it's used to mark a specific section of a page. Each section can have its own h1 tag, whereas

- section normally you should only have one h1 per page. Introduced in HTML5.
- nav Behaves like a ul but specifically for navigation items. Introduced in HTML5.

Visual

Tag Description

img Used to show images on your page. Use the src attribute to specify which file you'd like it to load.

Like img, this is used to display video on your page. If you video don't want to embed video from another source (like YouTube or Vimeo), then this is your best bet. Use source tags with the

#### Tag Description

src attribute inside the video tag to specify which file to load, including backup options with different file types.

Just make sure your video is small in file size or you might get some angry emails. You can specify whether you want it to show video controls (like a play/pause button) and whether it autoplays. Older browsers do not support this.

Similar to the above elements, but of course this only loads audio. As with the video element, this will display audio audio controls if you specify so. As before, use source tags with the src attribute inside the audio tag to specify which file to load, including backup options with different file types.

#### Forms

As the name suggests, this creates a form. Every input element inside a form tag belongs to that form. The action and method attributes are used to specify what to do when submitting the form.

These elements are very versatile and can take on many forms using the type attribute, from text fields and radio

input forms using the type attribute, from text fields and radio buttons, to date fields and Submit buttons.

textarea These are larger than simple text fields and allow the user to enter line breaks as well. The size can be adjusted.

This defines a label for an input element. When using the for attribute, this can be clicked on to select its associated

label for attribute, this can be clicked on to select its a input field.

Tag Description

Your classic dropdown. Each item inside the dropdown list

- select is defined using the option tag, nested inside the select tag. You can of course have many option tags inside a select.
- option An individual item in a dropdown list.

#### 86) How is an HTML document structured?

While each page is different, there are a few rules around the overall structure of the HTML document. Let's look at the structure below:

#### DOCTYPE tag

DOCTYPE is a special tag and must be the first one in an HTML document. It tells the browser what version of HTML you want to use. You can read more about this and the latest version (HTML5) in the next section. For now, you'll likely want to use the following:

<!DOCTYPE html>

#### HTML tag

Next, we have the <html> tag. Each document only has one <html> tag, and it serves as a 'container' for the rest of the page's elements. You will place the rest of your html code for the page within the <html> tag.

```
<html>
<!-- The rest of your code -->
</html>
```

#### Head tag

The first element inside the <html> tag is the <head> tag. Content inside this tag is only meant for the browser and is not visible on the page directly. Among other things, it contains the title of your page

(as shown in your browser tab), the character set used to display content and more metadata (meaning data about data). This is also where you define CSS and load some JavaScript (more about that later).

```
<head>
<title>The title of your page</title>
<meta charset="UTF-8">
<meta name="description" content="A description of your page">
</head>
```

Body tag

After the <head> tag, still inside the <html> tag, we have the <body> tag. It contains all the content that's displayed in the browser.

<body>

```
<h1>Welcome to my website!</h1>
```

```
This is where I'll put some content :)
```

</body>

#### All together now

#### With all of the above rules combined, we get something like this:

```
</html>
```

#### 87) What do you know about HTML5?

Throughout the history of the internet, there have been many versions of the HTML standard. The versions varied in features and how strict they were. In 2014, the official recommendation for HTML5 by the <u>World Wide Web Consortium</u> was released. It is a living standard, meaning new features can be added over time.

#### 88) Are there changes to DOCTYPE for HTML5?

The DOCTYPE for HTML5 is simple. Once you've added this to your page, the browser will interpret everything else as HTML5.

<!DOCTYPE html>

# 89) How do you apply CSS styles to a web page?

When you've got a good grasp of HTML, your interviewer may ask you some questions on how HTML works with CSS and JavaScript, to tie everything together. If you are planning on working as a front end developer, employers prefer some proficiency in all three languages.

CSS (Cascading Style Sheets) allows you to change the look of elements on the page, transforming it from a simple text document to a fully fledged website.

There are three main ways to apply CSS styles to a webpage:

Inline styles

You can add a style attribute to almost any tag. Inside this attribute you can write your CSS rules.

```
<div style="background-color: red;">A container with a red
background.</div>
```

#### HTML

A style block

You are able to define one or more style blocks inside the head section of your HTML document. Inside these blocks you can write your CSS rules. You will have to specify which elements on the page you'd like to style. In the below example, we're targeting the <body> tag and an element with a class attribute equal to .button.

```
<head>
<style>
body {
font-size: 16px;
}
.button {
padding: 10px;
}
</style>
```

</head>

Link to a CSS file

By far the most recommended option is to link to a CSS file. This way you are able to keep the content (HTML) separate from the way you present that content (CSS). It also means you can use the same styles on multiple pages. To link to a CSS file, you will have to add a <link> tag to the <head> section in your document with an href attribute that specifies the location of the CSS file.

```
<head>
<link rel="stylesheet" href="styles.css">
</head>
```

# 90) How do you apply JavaScript to a web page?

#### HTML

In order to add interactivity to your page, other than what's already provided through HTML, you will need JavaScript. It is a scripting language that allows you to interact with certain elements on the page, based on user input. As with CSS, there are three main ways of including JavaScript:

#### Inline

Certain HTML elements allow you to execute a piece of JavaScript when a certain event occurs. For example, a button allows you to run a script when you click on it. These events are accessed through attributes and differ based on the events that are available on each element. The following example shows an alert with a message when the user clicks on it.

<button onclick="alert('You clicked on me!');">Click me!</button>

#### A script block

You can define a script block anywhere on the page, which will get executed as soon as the browser reaches that part of the document. Note that this can be inside the <head> or <body> section of your document.

```
<script>
  var x = 5;
  var y = 6;
  var result = x + y;
  alert("X + Y is equal to " + result);
</script>
```

Link to a JavaScript file

Again, as with CSS, this is the preferred way of including JavaScript. It allows you to keep the content of the page separate to how users interact with that content, and it allows you to load the same script on multiple pages. As with the script block, you can load a JavaScript

#### HTML

file from the <head> or <body>, but keep in mind it will be loaded in the order you've structured your document.

<script src="my-code.js"></script>

# 2. CSS



# **2. CSS**

### 1) What is CSS?

CSS stands for Cascading Style Sheet. It is a popular styling language which is used with HTML to design websites. It can also be used with any XML documents including plain XML, SVG, and XUL.

#### 2) What is the origin of CSS?

SGML (Standard Generalized Markup Language) is the origin of CSS. It is a language that defines markup languages.

#### 3) What are the different variations of CSS?

Following are the different variations of CSS:

- CSS1
- CSS2
- CSS2.1
- CSS3
- CSS4

#### 4) How can you integrate CSS on a web page?

There are three methods to integrate CSS on web pages.

- 1. Inline method It is used to insert style sheets in HTML document
- 2. Embedded/Internal method It is used to add a unique style to a single document
- 3. Linked/Imported/External method It is used when you want to make changes on multiple pages.

#### 5) What are the advantages of CSS?

- Bandwidth
- Site-wide consistency
- Page reformatting
- Accessibility
- Content separated from presentation

# 6) What are the limitations of CSS?

- Ascending by selectors is not possible
- Limitations of vertical control
- No expressions
- No column declaration
- Pseudo-class not controlled by dynamic behavior
- Rules, styles, targeting specific text not possible

# 7) What are the CSS frameworks?

CSS frameworks are the preplanned libraries which make easy and more standard compliant web page styling. The frequently used CSS frameworks are: -

- Bootstrap
- Foundation
- Semantic UI
- Gumby
- Ulkit

# 8) Why background and color are the separate properties if they should always be set together?

There are two reasons behind this:

- It enhances the legibility of style sheets. The background property is a complex property in CSS, and if it is combined with color, the complexity will further increase.
- Color is an inherited property while the background is not. So this can make confusion further.

# 9) What is Embedded Style Sheet?

An Embedded style sheet is a CSS style specification method used with HTML. You can embed the entire stylesheet in an HTML document by using the STYLE element. <u>More details...</u>

- 1. <style>
- 2. body {
- 3. background-color: linen;
- 4. }
- 5. h1 {
- 6. color: red;
- 7. margin-left: 80px;
- 8. }
- 9. </style>

# 10) What are the advantages of Embedded Style Sheets?

- You can create classes for use on multiple tag types in the document.
- You can use selector and grouping methods to apply styles in complex situations.
- No extra download is required to import the information.

# 11) What is a CSS selector?

It is a string that identifies the elements to which a particular declaration apply. It is also referred as a link between the HTML document and the style sheet. It is equivalent of HTML elements. There are several different types of selectors in CSS: -

- CSS Element Selector
- CSS Id Selector
- CSS Class Selector
- CSS Universal Selector
- CSS Group Selector

#### 12) Name some CSS style components?

Some CSS Style components are:

- Selector
- Property
- Value

# 13) What is the use of CSS Opacity?

The CSS opacity property is used to specify the transparency of an element. In simple word, you can say that it specifies the clarity of the image. In technical terms, Opacity is defined as the degree to which light is allowed to travel through an object. For example:

- 1. <style>
- 2. img.trans {
- 3. opacity: 0.4;

```
4. filter: alpha(opacity=40); /* For IE8 and earlier */
5. }
6. </style>
```

#### 14) Explain universal selector?

The universal selector matches the name of any of the element type instead of selecting elements of a specific type.

- 1. <style>
- 2. \* {
- 3. color: green;
- 4. font-size: 20px;
- 5. }
- 6. </style>

# 15) Name the property used to specify the background color of an element?

The background-color property is used to specify the background color of the element. For example:

- 1. <style>
- 2. h2,p{
- 3. background-color: #b0d4de;
- 4. }
- 5. </style>

#### 16) What is the use of % unit?

It is used for defining percentage values.

# 17) Which command is used for the selection of all the elements of a paragraph?

The p[lang] command is used for selecting all the elements of a paragraph.

# 18) Name the property for controlling the image repetition of the background?

The background-repeat property repeats the background image horizontally and vertically. Some images are repeated only horizontally or vertically.

- 1. <style>
- 2. body {
- background-image: url("paper1.gif");
- 4. margin-left:100px;
- 5. }
- 6. </style>

# 19) Name the property for controlling the image position in the background?

The background-position property is used to define the initial position of the background image. By default, the background image is placed on the top-left of the webpage.

You can set the following positions:

- 1. center
- 2. top
- 3. bottom
- 4. left
- 5. right
- 1. background: white url('good-morning.jpg');
- 2. background-repeat: no-repeat;
- 3. background-attachment: fixed;
- 4. background-position: center;

# 20) Name the property for controlling the image scroll in the background?

The background-attachment property is used to specify if the background image is fixed or scroll with the rest of the page in the browser window. If you set fixed the background image, then the image not move during scrolling in the browser. Let's take an example with the fixed background image.

- 1. background: white url('bbb.gif');
- 2. background-repeat: no-repeat;
- 3. background-attachment: fixed;

# 21) What is the use of ruleset?

The ruleset is used to identify that selectors can be attached with other selectors. It has two parts:

- Selector Selector indicates the HTML element you want to style.
- Declaration Block The declaration block can contain one or more declarations separated by a semicolon.

# 22) What is the difference between class selectors and id selectors?

An overall block is given to class selector while id selectors take only a single element differing from other elements.

# **CSS Class Selector**

- 1. <style>
- 2. .center {
- 3. text-align: center;
- 4. color: blue;
- 5. }
- 6. </style>

# **CSS Id Selector**

- 1. <style>
- 2. #para1 {
- 3. text-align: center;
- 4. color: blue;

5. }

6. </style>

# 23) What are the advantages of External Style Sheets?

- You can create classes for reusing it in many documents.
- By using it, you can control the styles of multiple documents from one file.
- In complex situations, you can use selectors and grouping methods to apply styles.

# 24) What is the difference between inline, embedded and external style sheets?

**Inline**: Inline Style Sheet is used to style only a small piece of code.

# Syntax

1. <htmltag style="cssproperty1:value; cssproperty2:value;"> </ht mltag>

2.

**Embedded**: Embedded style sheets are put between the <head>...</head> tags.

# Syntax

- 1. <style>
- 2. body {
- 3. background-color: linen;
- 4. }

```
    5. h1 {
    6. color: red;
    7. margin-left: 80px;
    8. }
    9. </style>
    10.
```

**External**: This is used to apply the style to all the pages within your website by changing just one style sheet.

#### Syntax

- 1. <head>
- 2. k rel="stylesheet" type="text/css" href="mystyle.css">
- 3. </head>

# 25) What is RWD?

RWD stands for Responsive Web Design. This technique is used to display the designed page perfectly on every screen size and device, for example, mobile, tablet, desktop and laptop. You don't need to create a different page for each device.

# 26) What are the benefits of CSS sprites?

If a web page has a large number of images that take a longer time to load because each image separately sends out an HTTP request. The concept of CSS sprites is used to reduce the loading time for a web page because it combines the various small images into one image. It reduces the number of HTTP requests and hence the loading time.

# 27) What is the difference between logical tags and physical tags?

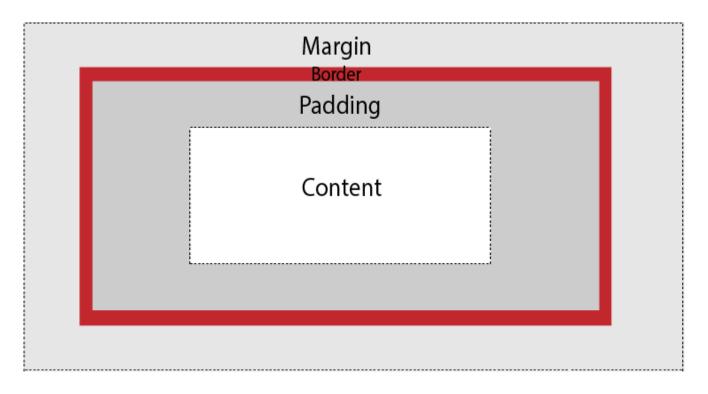
- Physical tags are referred to as presentational markup while logical tags are useless for appearances.
- Physical tags are newer versions, on the other hand, logical tags are old and concentrate on content.

# 28) What is the CSS Box model and what are its elements?

The CSS box model is used to define the design and layout of elements of CSS.

The elements are:

- Margin It removes the area around the border. It is transparent.
- Border It represents the area around the padding
- Padding It removes the area around the content. It is transparent.
- Content It represents the content like text, images, etc.



#### 29) What is the float property of CSS?

The CSS float property is used to move the image to the right or left along with the texts to be wrapped around it. It doesn't change the property of the elements used before it.

To understand its purpose and origin, let's take a look at its print display. In the print display, an image is set into the page such that text wraps around it as needed.

Its web layout is also just similar to print layout.

#### **30)** How to restore the default property value using CSS?

In short, there is no easy way to restore to default values to whatever a browser uses.

The closest option is to use the 'initial' property value, which restores the default CSS values, rather than the browser's default styles.

# 31) What is the purpose of the z-index and how is it used?

The z-index helps to specify the stack order of positioned elements that may overlap one another. The z-index default value is zero and can take on either a positive or negative number.

An element with a higher z-index is always stacked above than a lower index.

Z-Index can take the following values:

- **Auto:** Sets the stack order equal to its parents.
- **Number:** Orders the stack order.

- Initial: Sets this property to its default value (0).
- Inherit: Inherits this property from its parent element.

# 32) Explain the difference between visibility: hidden and display: none?

**visibility: hidden** hides the element, but it occupies space and affects the layout of the document.

- 1. <!DOCTYPE html>
- 2. <html>
- 3. <head>
- 4. <style>
- 5. h1.vis {
- 6. visibility: visible;
- 7.}
- 8.
- 9. h1.hid {
- 10. visibility: hidden;
- 11. }
- 12. </style>
- 13. </head>
- 14. <body>
- 15. <h1 class="vis">It is visible</h1>
- 16. <h1 class="hid">It is hidden</h1>
- 17.
- 18. Note Second heading is hidden, but it still occupy spa ce.
- 19. </body>
- 20. </html>
- 21.

**display: none** also hides the element but not occupy space. It will not affect the layout of the document.

1. <!DOCTYPE html> 2. <html> 3. <head> 4. <style> 5. h1.vis { display: block; 6. 7. } 8. 9. h1.hid { display: none; 10. 11. } 12. </style> 13. </head> 14. <body> 15. <h1 class="vis">It is visible</h1> <h1 class="hid">It is hidden</h1> 16. 17. Note - Second heading is hidden and not occupy spac 18. e. 19. </body> 20. </html>

# 34) What is tweening?

It is the process of generating intermediate frames between two images.

It gives the impression that the first image has smoothly evolved into the second one.

It is an important method used in all types of animations.

In CSS3, Transforms (matrix, translate, rotate, scale) module can be used to achieve tweening.

### 35) What is the difference between CSS2 and CSS3?

The main difference between CSS2 and CSS3 is that CSS3 is divided into different sections which are also known as modules. Unlike CSS2, CSS3 modules are supported by many browsers.

Apart from that, CSS3 contains new General Sibling Combinators which is responsible for matching the sibling elements with the given elements.

#### 34) How can CSS be cascaded to mix with user's personal sheet?

Properties can be a set in recommended places and the document modified for CSS to mix with user's personal sheet.

#### 35) What is at-rule?

Rule, which is applicable in the entire sheet and not partly, is known as at-rule. It is preceded by @ followed by A-Z, a-z or 0-9

#### 36) Are quotes mandatory in URL's?

Quotes are optional in URL's, and it can be single or double.

#### 37) What is Alternate Style Sheet?

Alternate Style Sheets allows the user to select the style in which the page is displayed using the view>page style menu. Through Alternate Style Sheet, user can see a multiple version of the page on their needs and preferences.

#### 38) Define property?

A style, that helps in influencing CSS. E.g. FONT. They have corresponding values or properties within them, like FONT has different style like bold, italic etc.

# 39) Define Attribute Selector ?

It is defined by a set of elements, value and its parts.

# 40) How comments can be added in CSS?

The comments in CSS can be added with /\* and \*/.

# 41) What is Inline style?

the Inline style in a CSS is used to add up styling to individual HTML elements.

# 42) Which among the following is more precedent: CSS properties or HTML procedures?

CSS is more precedent over HTML procedures. Browsers, which do not have CSS support, display HTML attributes.

# 43) Why is @import only at the top?

@import is preferred only at the top, to avoid any overriding rules. Generally, ranking order is followed in most programming languages such as Java, Modula, etc. In C, the # is a prominent example of a @import being at the top.

# 44) How can the gap under the image be removed?

As images being inline elements are treated same as texts, so there is a gap left, which can be removed by:

1 img { display: block ; }

# 45) How can backward compatibility be designed in CSS?

HTML sheet methods is collaborated with CSS and used accordingly.

# 46) What is progressive enhancement?

It's an alternative to graceful degradation, which concentrates on the matter of the web. The functionality is same, but it provides an extra edge to users having the latest bandwidth. It has been into prominent use recently with mobile internet connections expanding their base.

# 47) What is graceful degradation?

In case the component fails, it will continue to work properly in the presence of a graceful degradation. The latest browser application is used when a webpage is designed. As it is not available to everyone, there is a basic functionality, which enables its use to a wider audience. In case the image is unavailable for viewing, text is shown with the alt tag.

# 48) How does Z index function?

Overlapping may occur while using CSS for positioning HTML elements. Z index helps in specifying the overlapping element. It is a number which can be positive or negative, the default value being zero.

# 49) Define float property of CSS?

By float property, the image can be moved to the right or the left along with the text to be wrapped around it. Elements before this property is applied do not change their properties.

# 50) How can the dimension be defined of an element?

Dimension properties can be defined by:

- Height
- Max-height
- Max-width
- Min-height
- Min-width
- Width

# 51) What is contextual selector?

Selector used to select special occurrences of an element is called contextual selector. A space separates the individual selectors. Only the last element of the pattern is addressed in this kind of selector. For e.g.: TD P TEXT {color: blue}

# 52) Compare RGB values with Hexadecimal color codes ?

A color can be specified in two ways:

- A color is represented by 6 characters i.e. hexadecimal color coding. It is a combination of numbers and letters and is preceded by #. e.g.: g {color: #00cjfi}
- A color is represented by a mixture of red, green and blue. The value of a color can also be specified. e.g.: rgb(r,g,b): In this type the values can be in between the integers 0 and 255. rgb(r%,g%,b%): red, green and blue percentage is shown.

# 53) Define Image sprites with context to CSS?

When a set of images is collaborated into one image, it is known as 'Image Sprites'. As the loading every image on a webpage consumes time, using image sprites lessens the time taken and gives information quickly.

CSS coding:

1 img.add { width: 60px; height: 55px; background: url (image.god) 0 1 0; }

# 54) Compare Grouping and Nesting in CSS?

Grouping: Selectors can be grouped having the same values of property and the code be reduced. E.g. :

```
1 h1 {
2
3 color: blue;
4
5 }
6
7 h2 {
8
9 color: blue;
10
11}
12
13p{
14
15 color: blue;
16
17}
```

It can be seen from the code that every element shares the same property. Rewriting can be avoided by writing each selector separated by a comma.

Nesting: Specifying a selector within a selector is called nesting.

1 P 2 3 { 4 5 color: red; 6 7 text-align: left; 8 9 } 10 11.marked 12 13 { 14 15 background-color: blue; 16 17} 18 19.marked p 20 21 { 22 23 color: green; 24 25}

### 55) What is CSS Box Model and what are its elements?

This box defines design and layout of elements of CSS. The elements are:

Margin: the top most layer, the overall structure is shown
Border: the padding and content option with a border around it is shown. Background color affects the border.
Padding: Space is shown. Background colour affects the border.
Content: Actual content is shown.

#### 56) Enlist the various Media types used?

Different media has different properties as they are case insensitive.

They are:

- Aural for sound synthesizers and speech
- Print gives a preview of the content when printed
- Projection- projects the CSS on projectors.
- Handheld- uses handheld devices.
- Screen- computers and laptop screens.

# 57) Can default property value be restored through CSS? If yes, how?

In CSS, you cannot revert back to old values due to lack of default values. The property can be re- declared to get the default property.

# 58) What happens if 100% width is used along with floats all across the page?

While making the float declaration, 1 pixel is added every time it is used in the form of the border, and even more float is allowed thereafter.

#### 59) How to overrule underlining Hyperlinks?

Control statements and external style sheets are used to overrule underlining Hyperlinks.

E.g.:

```
1 B {
2
3 text-decoration: none;
4
5 }
6
7 <B href="career.html" style="text-decoration: none">link text</B>
```

# 60) What is Pseudo-elements ?

Pseudo-elements are used to add special effects to some selectors. CSS in used to apply styles in HTML mark-up. In some cases when extra mark-up or styling is not possible for the document, then there is a feature available in CSS known as pseudoelements. It will allow extra mark-up to the document without disturbing the actual document.

# 61) Can more than one declaration be added in CSS?

Yes, it can be achieved by using a semicolon.

# 62) Differentiate Class selector from ID selector?

While an overall block is given to class selector, ID selector prefers only a single element differing from other elements. In other words, ID are uniques while classes are not. Its possible that an element has both class and ID.

# 63) What is the usage of Class selector?

Selectors that are unique to a specific style, are called CLASS selectors. Declaration of style and association with HTML can be made through this. Syntax:

Classname it can be A-Z, a-z or digits. .top {font: 14em ;}, class selector <Body class= "top"> this class is associated with element </body>

# 64) Why is it easy to insert a file by importing it?

Importing enables combining external sheets to be inserted in many sheets. Different files and sheets can be used to have different functions. Syntax:

@import notation, used with <Style> tag.

# 65) Enlist the various fonts' attributes? They are:

- Font-style
- Font-variant
- Font-weight
- Font-size/line-height
- Font-family
- Caption
- Icon

# 66) Comment on the Case-sensitivity of CSS ?

Although, there are no case-sensitivity of CSS, nevertheless font families, URL's of images, etc is. Only when XML declarations along with XHTML DOCTYPE are being used on the page, CSS is case sensitive.

# 67) Describe 'ruleset'?

Ruleset : Selectors can be attached to other selectors to be identified by ruleset.

It has two parts:

- Selector, e.g. R and
- declaration {text-indent: 11pt}

# 68) Differentiate Style Sheet concept from HTML?

While HTML provides easy structure method, it lacks styling, unlike Style sheets. Moreover, style sheets have better browser capabilities and formatting options.

# 69) Differentiate logical tags from physical tags?

- While physical tags are also referred to as presentational markup, logical tags are useless for appearances.
- Physical tags are newer versions while logical tags are old and concentrate on content.

# 70) Enlist the media types CSS allows?

The design and customization of documents are rendered by media. By applying media control over the external style sheets, they can be retrieved and used by loading it from the network.

# 71) What does CSS selector mean?

A string equivalent of HTML elements by which declarations or a set of it, is declared and is a link that can be referred for linking HTML and Style sheet is CSS selector.

# 72) Discuss the merits and demerits of Embedded Style Sheets?

Merits of Embedded Style Sheets:

- Multiple tag types can be created in a single document.
- Styles, in complex situations, can be applied by using Selector and Grouping methods.
- Extra download is unnecessary.

Demerits of Embedded Style Sheets:

• Multiple documents cannot be controlled.

#### 73) What benefits and demerits do External Style Sheets have?

Benefits:

- One file can be used to control multiple documents having different styles.
- Multiple HTML elements can have many documents, which can have classes.
- To group styles in composite situations, methods as selector and grouping are used.

#### 74) In how many ways can a CSS be integrated as a web page?

CSS can be integrated in three ways:

- Inline: Style attribute can be used to have CSS applied HTML elements.
- Embedded: The Head element can have a Style element within which the code can be placed.
- Linked/ Imported: CSS can be placed in an external file and linked via link element.

# 75) Who maintains the CSS specifications?

World Wide Web Consortium maintains the CSS specifications

76) Who maintains the CSS specifications?

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# 77) How block elements can be centered with CSS1?

Block level elements can be centered by:

The margin-left and margin-right properties can be set to some explicit value:

```
1 BODY {
2
3 width: 40em;
4
5 background: fluorescent;
6
7 }
8
9 P {
10
11 width: 30em;
12
13 margin-right: auto;
14
15 margin-left: auto
16
17}
```

In this case, the left and right margins will be each, five ems wide since they split up the ten ems left over from (40em-30em). It was unnecessary for setting up an explicit width for the BODY element; it was done here for simplicity.

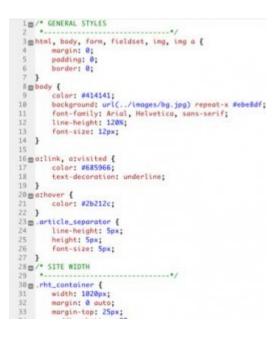
#### 78) What are CSS frameworks?

It is a pre-planned libraries, which allows easier and more standardscompliant webpage styling, using CSS language.

#### 79) What are the advantages of CSS?

Advantages are:

- Bandwidth
- Site-wide consistency
- Page reformatting
- Accessibility
- Content separated from presentation



# 80) What are the limitations of CSS?

Limitations are:

- Ascending by selectors is not possible
- Limitations of vertical control
- No expressions
- No column declaration
- Pseudo-class not controlled by dynamic behavior

• Rules, styles, targeting specific text not possible

### 81) Differentiate between the ID and class?

Both id and class is been used in HTML and assigns the value from CSS.

#### Please find below the differences:

- Id is a kind of element which uniquely assigns a name to a particular element whereas class has an element with a certain set of properties which can be used for the complete block.
- The id can be used as an element because it can uniquely identify it whereas class is also defined to block the element and applies too many tags wherever it is used.
- Id provides the restriction to use its properties to one specific element whereas in class the inheritance is applied to a specific block or group of the element.

# 82) How is the concept of inheritance applied in CSS?

Inheritance is a concept in which the child class will inherit the properties of its parent class.

It is a concept which is been used in many languages and is the easy way of defining the same property again.

It is used in CSS to define the hierarchy from the top level to the bottom level. Inherited properties can be overridden by the children class if the child uses the same name.

#### **Example:**

Body {font-size: 15pt;}

# And another definition is being defined in the child class

Body {font-size: 15pt;} H1 {font-size: 18pt;}

All the paragraph text will be displayed using the property and will be defined in the body except for the H1 style which will show the text in font 18 only.

# 83) Differentiate between inline and block element

Inline element does not have an element to set width and height and also it does not have the line break.

**Example:** em, strong, etc.

# 84) Define different cascading methods that can be used inside the cascading order?

# Cascading order is itself a sorting method that allows many other different sorting methods:

**#1) Sort by origin:** There are some rules which can provide the alternate way which can be defined as:

- Normal weight of style sheet of a particular provider will be overridden by the increased weight of the user's style sheet.
- Stylesheet rules of a particular user will be overridden by the normal width of the provider's style sheet.

**#2) Sort by selector's specificity:** Less specific selector is been overridden by the more specific selector.

**Example**, A Contextual selector is less specific in comparison to the ID selector which is a more specific one and with that contextual selector is been overridden by the ID selector.

**#3) Sort by order specified:** This comes in the scenario when the two selectors are same in weight and the other properties than the specification which will be seen for overriding.

# Example:

All other styles will be seen overridden if the style attribute is used for inline style.

And also if the link element is used for external style, then it will override the imported style.

# 85) Define 'important' declarations used in CSS?

Important declarations are defined as that declaration which is having more importance than the normal declaration.

While executing, these declarations override the declaration which is having less importance.

**Example,** if there are two users Having important declaration then one of the declarations will override the declaration of another user.

# For Example:

Body {background: #FF00FF !important; color: blue}

In this body background has more weight than the color.

# 86) What are the differences between relative and absolute in CSS?

The main difference between relative and absolute is that "relative" is used for the same tag in CSS and it means that if we write the

left:10px then the padding will shift to 10px in the left while absolute is totally relative to the non-static parent.

It means if we write left:10px then the result will be 10px far from the left edge of the parent element.

# 87) What are navigation bars in CSS?

By using navigation bars we can make an ordinary HTML page into a user-specific and more dynamic web page.

Basically, it is a list of links, hence use of and elements makes the perfect sense.

```
ul {
list-style-type: none;
margin: 0;
padding: 0;
}
```

# 89) Write all the position states used in CSS?

# In CSS, there are four position states as stated below:

- Static(default)
- Relative
- Fixed
- absolute

# 90) What is CSS opacity?

It is the property which elaborates the transparency of an element.

By this property, we can transparent the image that can take the values from 0.0-1.0, if the value is lower then the image is more

transparent. IE8 and earlier version of the browser can take the values from 0-100.

```
img {
  opacity: 0.6;
filter: alpha(opacity=60); /* For IE8 and earlier */}
```

#### 91) Explain the concept of pseudo-elements in CSS?

It is a feature of CSS which is used to style the given parts of an element.

For Example, we can style the first letter or line of an HTML element.

```
selector::pseudo-element {
property:value;
}
```

#### 92) What is a CSS pseudo class?

It is a class which is used to define a special state of an HTML element.

This class can be used by styling an element when a user snooped over it and also it can style an HTML element when it gets the focus.

```
selector:pseudo-class {
property:value;
}
```

#### 93) How can we add icons to the web page?

We can add icons to the HTML webpage by using an icon library like font-awesome.

We have to add the name of the given icon class to any inline HTML element. (<i> or <span>). Icons in the icon libraries are scalable vectors that can be customized with CSS.

#### 94) What is the use of the Box Model in CSS?

In CSS, the box model is a box that binds all the HTML elements and it includes features like margins, border, padding, and the actual content.

By using box model we will get the authority to add the borders all around the elements and we can also define the space between the elements.

### 95) What is the difference between padding and margin?

In CSS, the margin is the property by which we can create space around elements. We can even create space to the exterior defined borders.

#### In CSS we have margin property as follows:

- margin-top
- margin-right
- margin-bottom
- Margin-left

#### Margin property has some defined values as shown below.

- **Auto** using this property browser calculates the margin.
- **Length** It sets the margin values in px,pt,cm etc.
- % It sets the width % of the element.
- **Inherit** By this property we can inherit the margin property from the parent element.

In CSS, padding is the property by which we can generate space around an element's content as well as inside any known border.

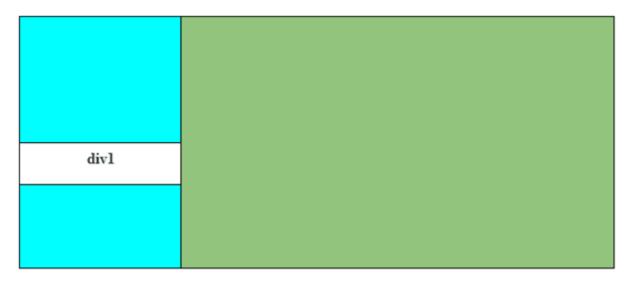
### CSS padding also has properties like,

- 1. Padding-top
- 2. Padding-right
- 3. Padding-bottom
- 4. Padding-left

Negative values are not allowed in padding.

```
div {
padding-top: 60px;
padding-right: 40px;
padding-bottom: 50px;
padding-left: 70px;
}
```

# 96) How to align image vertically in a division which spans vertically in the whole webpage?



**Answer:** It can be done by using the syntax verticle-align: middle in the <div1> element and even we can bind the two text spans around with another span and after this, we have to use verticle-align: middle in the content #icon.

### 97) Write all the properties of flexbox?

There are several properties of flexbox that are used in the HTML webpage.

# They are:

- flex-direction
- flex-wrap
- flex-flow
- justify-content
- align-items
- align-content

# 98) What is CSS flexbox?

It allows you to design a flexible responsive layout structure without using any float or positioning property of CSS. To use CSS flexbox you need to define a flex container initially.

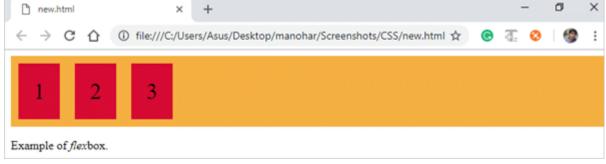
# Example:

<!DOCTYPE html> <html> <head>

```
<style>
.flex-container {
display: flex;
background-color: #f4b042;
```

}

```
.flex-container > div {
 background-color: #d60a33;
 margin: 10px;
 padding: 20px;
font-size: 30px;
}
</style>
</head>
<body>
<div class="flex-container">
 <div>1</div>
 <div>2</div>
 <div>3</div>
</div>
 Example of <em>flex</em>box.
</body>
</html>
```



#### 99) What are gradients in CSS?

It is a property of CSS which allows you to display a smooth transformation between two or more than two specified colors.

There are two types of gradients that are present in CSS. They are:

- Linear gradient
- Radial Gradient

#### 100) How will you add border images to an HTML element?

We can set the image to be used as the border image alongside an element by using the property of CSS "border-image".

#### Example:

```
#borderimg {
    border: 15px solid transparent;
    padding: 20px;
    border-image: url(border.png) 30 round;
}
```



#### 1) What is JavaScript?

JavaScript is a scripting language. It is different from Java language. It is object-based, lightweight, cross-platform translated language. It is widely used for client-side validation. The JavaScript Translator (embedded in the browser) is responsible for translating the JavaScript code for the web browser.

#### 2) List some features of JavaScript?

Some of the features of JavaScript are:

- Lightweight
- Interpreted programming language
- Good for the applications which are network-centric
- Complementary to Java
- Complementary to HTML
- Open source
- Cross-platform

#### 3) List some of the advantages of JavaScript

Some of the advantages of JavaScript are:

- Server interaction is less
- Feedback to the visitors is immediate
- Interactivity is high
- Interfaces are richer

#### 4) List some of the disadvantages of JavaScript?

Some of the disadvantages of JavaScript are:

- No support for multithreading
- No support for multiprocessing
- Reading and writing of files is not allowed
- No support for networking applications.

# 5) Define a named function in JavaScript?

The function which has named at the time of definition is called a named function. For example

- 1. function msg()
- 2. {
- 3. document.writeln("Named Function");
- 4. }
- 5. msg();

### 6) Name the types of functions?The types of function are:

- Named These type of functions contains name at the time of definition. For Example:
- 1. function display()
- 2. {
- 3. document.writeln("Named Function");
- 4. }
- 5. display();

•

- Anonymous These type of functions doesn't contain any name. They are declared dynamically at runtime.
- 1. var display=function()
- 2. {
- 3. document.writeln("Anonymous Function");
- 4. }
- 5. display();

#### 7) Define anonymous function?

It is a function that has no name. These functions are declared dynamically at runtime using the function operator instead of the function declaration. The function operator is more flexible than a function declaration. It can be easily used in the place of an expression. For example:

- 1. var display=function()
- 2. {
- 3. alert("Anonymous Function is invoked");
- 4. }
- 5. display();

#### 8) Can an anonymous function be assigned to a variable?

Yes, you can assign an anonymous function to a variable.

#### 9) In JavaScript what is an argument object?

The variables of JavaScript represent the arguments that are passed to a function.

# 10) Define closure?

In JavaScript, we need closures when a variable which is defined outside the scope in reference is accessed from some inner scope.

- 1. var num = 10;
- 2. function sum()
- 3. {
- 4. document.writeln(num+num);
- 5. }
- 6. sum();

# 11) If we want to return the character from a specific index which method is used?

The JavaScript string charAt() method is used to find out a char value present at the specified index. The index number starts from 0 and goes to n-1, where n is the length of the string. The index value can't be a negative, greater than or equal to the length of the string. For example:

- 1. var str="phpbootcamp";
- 2. document.writeln(str.charAt(4));

#### 12) What is the difference between JavaScript and JScript?

Netscape provided the JavaScript language. Microsoft changed the name and called it JScript to avoid the trademark issue. In other words, you can say JScript is the same as JavaScript, but Microsoft provides it.

### 13) How to write a hello world example of JavaScript?

A simple example of JavaScript hello world is given below. You need to place it inside the body tag of HTML.

- 1. <script type="text/javascript">
- document.write("JavaScript Hello World!");
- 3. </script>

#### 14) How to use external JavaScript file?

I am assuming that js file name is message.js, place the following script tag inside the head tag.

1. <script type="text/javascript" src="message.js"></script>

### 15) Is JavaScript case sensitive language?

Yes, JavaScript is a case sensitive language. For example:

 Var msg = "JavaScript is a casesensitive language"; //Here, var should be used to declare a vari able

- 2. function display()
- 3. {
- 4. document.writeln(msg); // It will not display the result.
- 5. }
- 6. display();

#### 16) What is BOM?

**BOM** stands for *Browser Object Model*. It provides interaction with the browser. The default object of a browser is a window. So, you can call all the functions of the window by specifying the window or directly. The window object provides various properties like document, history, screen, navigator, location, innerHeight, innerWidth,

#### 17) What is DOM? What is the use of document object?

**DOM** stands for *Document Object Model*. A document object represents the HTML document. It can be used to access and change the content of HTML.

#### 18) What is the use of window object?

The window object is created automatically by the browser that represents a window of a browser. It is not an object of JavaScript. It is a browser object.

The window object is used to display the popup dialog box. Let's see with description.

Method	Description
alert()	displays the alert box containing the message with ok button.

- confirm() displays the confirm dialog box containing the message with ok and cancel button.
- prompt() displays a dialog box to get input from the user.
- open() opens the new window.
- close() closes the current window.

setTimeout() performs the action after specified time like calling function, evaluating expressions.

### 19) What is the use of history object?

The history object of a browser can be used to switch to history pages such as back and forward from the current page or another page. There are three methods of history object.

- 1. history.back() It loads the previous page.
- 2. history.forward() It loads the next page.
- 3. history.go(number) The number may be positive for forward, negative for backward. It loads the given page number.

### 20) How to write a comment in JavaScript?

There are two types of comments in JavaScript.

- 1. Single Line Comment: It is represented by // (double forward slash)
- 2. Multi-Line Comment: Slash represents it with asterisk symbol as /\* write comment here \*/

### 21) How to create a function in JavaScript?

To create a function in JavaScript, follow the following syntax.

function function\_name(){

//function body

}

#### 22) What are the JavaScript data types?

There are two types of data types in JavaScript:

1.

1. Primitive Data Types - The primitive data types are as follows:

Data Type	Description
String	represents a sequence of characters, e.g., "hello"
Number	represents numeric values, e.g., 100
Boolean	represents boolean value either false or true
Undefined	represents an undefined value
Null	represents null, i.e., no value at all

1.

1. Non-primitive Data Types - The non-primitive data types are as follows:

Data Type	Description
Object	represents an instance through which we can access members
Array	represents a group of similar values
RegExp	represents regular expression

#### 23) What is the difference between == and ===?

The == operator checks equality only whereas === checks equality, and data type, i.e., a value must be of the same type.

#### 24) How to write HTML code dynamically using JavaScript?

The innerHTML property is used to write the HTML code using JavaScript dynamically. Let's see a simple example:

1. document.getElementById('mylocation').innerHTML="<h2>This is heading using JavaScript</h2>";

#### 25) How to write normal text code using JavaScript dynamically?

The innerText property is used to write the simple text using JavaScript dynamically. Let's see a simple example:

 document.getElementById('mylocation').innerText="This is text using JavaScript";

#### 26) How to create objects in JavaScript?

There are 3 ways to create an object in JavaScript. By object literal By creating an instance of Object By Object Constructor Let's see a simple code to create an object using object literal. emp={id:102,name:"Rahul Kumar",salary:50000}

#### 27) How to create an array in JavaScript?

There are 3 ways to create an array in JavaScript.

- 1. By array literal
- 2. By creating an instance of Array
- 3. By using an Array constructor

Let's see a simple code to create an array using object literal.

1. var emp=["Shyam","Vimal","Ratan"];

#### 28) What does the isNaN() function?

The isNan() function returns true if the variable value is not a number. For example:

- 1. function number(num) {
- 2. if (isNaN(num)) {
- 3. return "Not a Number";
- 4. }
- 5. return "Number";
- 6. }
- 7. console.log(number('1000F'));
- 8. // expected output: "Not a Number"
- 9.
- 10. console.log(number('1000'));
- 11. // expected output: "Number"

#### 29) What is the output of 10+20+"30" in JavaScript?

3030 because 10+20 will be 30. If there is numeric value before and after +, it treats as binary + (arithmetic operator).

- 1. function display()
- 2. {
- 3. document.writeln(10+20+"30");
- 4. }
- 5. display();

#### 30) What is the output of "10"+20+30 in JavaScript?

102030 because after a string all the + will be treated as string concatenation operator (not binary +).

- 1. function display()
- 2. {
- 3. document.writeln("10"+20+30);
- 4. }
- 5. display();

# 31) Difference between Client side JavaScript and Server side JavaScript?

**Client-side JavaScript** comprises the basic language and predefined objects which are relevant to running JavaScript in a browser. The client-side JavaScript is embedded directly by in the HTML pages. The browser interprets this script at runtime.

**Server-side JavaScript** also resembles client-side JavaScript. It has a relevant JavaScript which is to run in a server. The server-side JavaScript are deployed only after compilation.

#### 32) In which location cookies are stored on the hard disk?

The storage of cookies on the hard disk depends on the OS and the browser.

The Netscape Navigator on Windows uses a cookies.txt file that contains all the cookies. The path is c:\Program Files\Netscape\Users\username\cookies.txt

The Internet Explorer stores the cookies on a file username@website.txt. The path is: c:\Windows\Cookies\username@Website.txt.

#### 33) What is the real name of JavaScript?

The original name was **Mocha**, a name chosen by Marc Andreessen, founder of Netscape. In September of 1995, the name was changed to LiveScript. In December 1995, after receiving a trademark license from Sun, the name JavaScript was adopted.

34) What is the difference between undefined value and null value?**Undefined value:** A value that is not defined and has no keyword is known as undefined value. For example:

1. int number;//Here, a number has an undefined value.

**Null value:** A value that is explicitly specified by the keyword "null" is known as a null value. For example:

1. String str=null;//Here, str has a null value.

#### 35) How to set the cursor to wait in JavaScript?

The cursor can be set to wait in JavaScript by using the property "cursor". The following example illustrates the usage:

- 1. <script>
- 2. window.document.body.style.cursor = "wait";
- 3. </script>

### 36) What is this [[[]]]?

This is a three-dimensional array.

1. var myArray = [[[]]];

37) Are Java and JavaScript same?No, Java and JavaScript are the two different languages. Java is a robust, secured and object-oriented programming language whereas JavaScript is a client-side scripting language with some limitations.

#### 38) What is negative infinity?

Negative Infinity is a number in JavaScript which can be derived by dividing the negative number by zero. For example:

- 1. var num=-5;
- 2. function display()
- 3. {
- 4. document.writeln(num/0);
- 5. }
- 6. display();

7. //expected output: -Infinity

# 39) What is the difference between View state and Session state?

"View state" is specific to a page in a session whereas "Session state" is specific to a user or browser that can be accessed across all pages in the web application.

#### 40) What are the pop-up boxes available in JavaScript?

- Alert Box
- Confirm Box
- Prompt Box

#### Example of alert() in JavaScript

- 1. <script type="text/javascript">
- 2. function msg(){
- 3. alert("Hello Alert Box");
- 4. }
- 5. </script>
- 6. <input type="button" value="click" onclick="msg()"/>

#### Example of confirm() in JavaScript

- 1. <script type="text/javascript">
- 2. function msg(){
- 3. var v= confirm("Are u sure?");
- 4. if(v==true){
- 5. alert("ok");

6. }		
7. else{		
8. alert("cancel");		
9. }		
10.		
11.	}	
12.		
13.		
14.	<input onclick="msg(&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;)" type="button" value="delete record"/>	

# Example of prompt() in JavaScript

- 1. <script type="text/javascript">
- 2. function msg(){
- 3. var v= prompt("Who are you?");
- 4. alert("I am "+v);
- 5.
- 6. }
- 7. </script>
- 8.
- 9. <input type="button" value="click" onclick="msg()"/>

#### 41) How can we detect OS of the client machine using

JavaScript?The **navigator.appVersion** string can be used to detect the operating system on the client machine.

#### 42) How to submit a form using JavaScript by clicking a link?

Let's see the JavaScript code to submit the form by clicking the link.

- 1. <form name="myform" action="index.php">
- 2. Search: <input type='text' name='query' />
- 3. <a href="javascript: submitform()">Search</a>
- 4. </form>
- 5. <script type="text/javascript">
- 6. function submitform()
- 7. {
- 8. document.myform.submit();
- 9. }
- 10. </script>

### 43) Is JavaScript faster than ASP script?

Yes, because it doesn't require web server's support for execution.

### 44) How to handle exceptions in JavaScript?

By the help of try/catch block, we can handle exceptions in JavaScript. JavaScript supports try, catch, finally and throw keywords for exception handling.

# 45) How to change the background color of HTML document using JavaScript?

- 1. <script type="text/javascript">
- document.body.bgColor="pink";
- 3. </script>

#### 45) How to handle exceptions in JavaScript?

By the help of try/catch block, we can handle exceptions in JavaScript. JavaScript supports try, catch, finally and throw keywords for exception handling.

### 46) How to validate a form in JavaScript?

- 1. <script>
- 2. function validateform(){
- 3. var name=document.myform.name.value;
- 4. var password=document.myform.password.value;

5.

- 6. if (name==null || name==""){
- 7. alert("Name can't be blank");
- 8. return false;
- 9. }else if(password.length<6){
- 10. alert("Password must be at least 6 characters long.");
- 11. return false;
- 12. }
- 13. }
- 14. </script>
- 15. <body>
- 16. <form name="myform" method="post" action="abc.jsp" o
   nsubmit="return validateform()" >
- 17. Name: <input type="text" name="name"><br/>
- 18. Password: <input type="password" name="password"><b r/>
- 19. <input type="submit" value="register">
- 20. </form>

# 47) How to validate email in JavaScript?

- 1. <script>
- 2. function validateemail()
- 3. {
- 4. var x=document.myform.email.value;
- 5. var atposition=x.indexOf("@");
- 6. var dotposition=x.lastIndexOf(".");
- 7. if (atposition<1 || dotposition<atposition+2 || dotposition+2>=
   x.length){

- alert("Please enter a valid email address \n atpostion:"+atposition+"\n dotposition:"+dotpo sition);
- 9. return false;
- 10. }
- 11. }
- 12. </script>
- 13. <body>
- 14. <form name="myform" method="post" action="#" onsub mit="return validateemail();">
- 15. Email: <input type="text" name="email"><br/>
- 16.
- 17. <input type="submit" value="register">
- 18. </form>

# 48) What is this keyword in JavaScript?

The this keyword is a reference variable that refers to the current object. For example:

- 1. var address=
- 2. {
- 3. company:"phpbotcamp",
- 4. city:"singapore",
- 5. state:"UP",
- 6. fullAddress:function()
- 7. {
- 8. return this.company+" "+this.city+" "+this.state;
- 9. }
- 10. };
- 11. var fetch=address.fullAddress();
- 12. document.writeln(fetch);

#### 49) What is the requirement of debugging in JavaScript?

JavaScript didn't show any error message in a browser. However, these mistakes can affect the output. The best practice to find out the error is to debug the code. The code can be debugged easily by using web browsers like Google Chrome, Mozilla Firebox.

To perform debugging, we can use any of the following approaches:

- Using console.log() method
- Using debugger keyword

#### 50) What is the use of debugger keyword in JavaScript?

JavaScript debugger keyword sets the breakpoint through the code itself. The debugger stops the execution of the program at the position it is applied. Now, we can start the flow of execution manually. If an exception occurs, the execution will stop again on that particular line.. For example:

- 1. function display()
- 2. {
- 3. x = 10;
- 4. y = 15;
- 5. z = x + y;
- 6. debugger;
- 7. document.write(z);
- 8. document.write(a);
- 9. }
- 10. display();

### 51) What is the role of a strict mode in JavaScript?

The JavaScript strict mode is used to generates silent errors. It provides "use strict"; expression to enable the strict mode. This expression can only be placed as the first statement in a script or a function.

For example:

"use strict";

x=10;

console.log(x);

# 52) What is the use of Math object in JavaScript?

The JavaScript math object provides several constants and methods to perform a mathematical operation. Unlike date object, it doesn't have constructors. For example:

function display1()

{

document.writeln(Math.random());

}

display1();

# 53) What is the use of a Date object in JavaScript?

The JavaScript date object can be used to get a year, month and day. You can display a timer on the webpage by the help of JavaScript date object.

```
function display()
```

{

```
var date=new Date();
```

```
var day=date.getDate();
```

```
var month=date.getMonth()+1;
```

```
var year=date.getFullYear();
```

```
document.write("<br>Date is: "+day+"/"+month+"/"+year);
```

}

display();

### 54) What is the use of a Number object in JavaScript?

The JavaScript number object enables you to represent a numeric value. It may be integer or floating-point. JavaScript number object follows the IEEE standard to represent the floating-point numbers.

function display()

{

var x=102;//integer value

var y=102.7;//floating point value

var z=13e4;//exponent value, output: 130000

var n=new Number(16);//integer value by number object

```
document.write(x+" "+y+" "+z+" "+n);
```

}

display();

### 55) What is the use of a Set object in JavaScript?

The JavaScript Set object is used to store the elements with unique values. The values can be of any type i.e. whether primitive values or object references.

For example:

```
function display3() {
```

```
var set = new Set(); set.add("jQuery"); set.add("AngularJS");
set.add("Bootstrap"); for (let elements of set) {
  document.writeln(elements+"
"); } }
```

display3();

# 56) What is the use of a Map object in JavaScript?

The JavaScript Map object is used to map keys to values. It stores each element as key-value pair. It operates the elements such as search, update and delete on the basis of specified key. For example:

function display()

{

var map=new Map();

map.set(1,"jQuery");

map.set(2,"AngularJS");

map.set(3,"Bootstrap");

document.writeln(map.get(1)+"<br>");

document.writeln(map.get(2)+"<br>");

document.writeln(map.get(3));

}

display();

#### 57) What is the use of a WeakMap object in JavaScript?

The JavaScript WeakMap object is a type of collection which is almost similar to Map. It stores each element as a key-value pair where keys are weakly referenced. Here, the keys are objects and the values are arbitrary values. For example:

function display() { var wm = new WeakMap(); var obj1 = {};

var obj2 = {};

var obj3= {};

wm.set(obj1, "jQuery");

wm.set(obj2, "AngularJS");

```
wm.set(obj3,"Bootstrap");
```

```
document.writeln(wm.has(obj2));
```

}

display();

# 58) What are the decodeURI() and encodeURI()?

EncodeURI() is used to convert URL into their hex coding. And DecodeURI() is used to convert the encoded URL back to normal.

<script>

```
var uri="my test.asp?name=ståle&car=saab";
```

document.write(encodeURI(uri)+ "<br>");

```
document.write(decodeURI(uri));
```

</script>

Output -

```
my%20test.asp?name=st%C3%A5le&car=saab
```

my test.asp?name=ståle&car=saab

# 59) Define unescape() and escape() functions?

The escape () function is responsible for coding a string so as to make the transfer of the information from one computer to the other, across a network.

For Example:

<script>

```
document.write(escape("Hello? How are you!"));
</script>
```

```
Output: Hello%3F%20How%20are%20you%21
```

The unescape() function is very important as it decodes the coded string.

It works in the following way. For example:

<script>

```
document.write(unescape("Hello%3F%20How%20are%20you
%21"));
```

</script>

```
Output: Hello? How are you!
```

#### 60) What is the difference between .call() and .apply()?

The function .call() and .apply() are very similar in their usage except a little difference. .call() is used when the number of the function's arguments are known to the programmer, as they have to be mentioned as arguments in the call statement. On the other hand, .apply() is used when the number is not known. The function .apply() expects the argument to be an array.

The basic difference between .call() and .apply() is in the way arguments are passed to the function. Their usage can be illustrated by the given example.

```
someObject.myMethod.call(someOtherObject, '<', '>'); // alerts
'<Bar>'
```

someObject.myMethod.apply(someOtherObject, ['<', '>']); // alerts
'<Bar>'

#### 61) Define event bubbling?

JavaScript allows DOM elements to be nested inside each other. In such a case, if the handler of the child is clicked, the handler of parent will also work as if it were clicked too.

#### 62) Is JavaScript case sensitive? Give an example?

Yes, JavaScript is case sensitive. For example, a function parseInt is not same as the function Parseint.

#### 63) What boolean operators can be used in JavaScript?

The 'And' Operator (&&), 'Or' Operator (||) and the 'Not' Operator (!) can be used in JavaScript.

\*Operators are without the parenthesis.

# 64) How can a particular frame be targeted, from a hyperlink, in JavaScript?

This can be done by including the name of the required frame in the hyperlink using the 'target' attribute.

<a href="/newpage.htm" target="newframe">>New Page</a>

#### 65) What is the role of break and continue statements?

Break statement is used to come out of the current loop while the continue statement continues the current loop with a new recurrence.

# 66) Write the point of difference between web-garden and a web-farm?

Both web-garden and web-farm are web hosting systems. The only difference is that web-garden is a setup that includes many processors in a single server while web-farm is a larger setup that uses more than one server.

#### 67) How are object properties assigned?

Assigning properties to objects is done in the same way as a value is assigned to a variable. For example, a form object's action value is assigned as 'submit' in the following manner -Document.form.action="submit"

# 68) What is the method for reading and writing a file in JavaScript?

This can be done by Using JavaScript extensions (runs from JavaScript Editor), example for opening of a file -

fh = fopen(getScriptPath(), 0);

# 69) How are DOM utilized in JavaScript?

DOM stands for Document Object Model and is responsible for how various objects in a document interact with each other. DOM is required for developing web pages, which includes objects like paragraph, links, etc. These objects can be operated to include actions like add or delete. DOM is also required to add extra capabilities to a web page. On top of that, the use of API gives an advantage over other existing models.

# 70) How are event handlers utilized in JavaScript?

Events are the actions that result from activities, such as clicking a link or filling a form, by the user. An event handler is required to manage proper execution of all these events. Event handlers are an extra attribute of the object. This attribute includes event's name and the action taken if the event takes place.

# 71) Explain the role of deferred scripts in JavaScript?

By default, the parsing of the HTML code, during page loading, is paused until the script has not stopped executing. It means, if the

server is slow or the script is particularly heavy, then the webpage is displayed with a delay. While using Deferred, scripts delays execution of the script till the time HTML parser is running. This reduces the loading time of web pages and they get displayed faster.

#### 72) What are the various functional components in JavaScript?

The different functional components in JavaScript are-

**First-class functions:** Functions in JavaScript are utilized as first class objects. This usually means that these functions can be passed as arguments to other functions, returned as values from other functions, assigned to variables or can also be stored in data structures.

**Nested functions:** The functions, which are defined inside other functions, are called Nested functions. They are called 'everytime' the main function is invoked.

# 73) Whether JavaScript has concept level scope?

No. JavaScript does not have concept level scope. The variable declared inside the function has scope inside the function.

### 74) What is break and continue statements?

Break statement exits from the current loop.

Continue statement continues with next statement of the loop

75) What are the two basic groups of dataypes in JavaScript?

They are as –

- Primitive
- Reference types.

Primitive types are number and Boolean data types. Reference types are more complex types like strings and dates.

### 76) Write about the errors shown in JavaScript?

JavaScript gives a message if it encounters an error. The recognized errors are -

- Load-time errors: The errors shown at the time of the page loading are counted under Load-time errors. These errors are encountered by the use of improper syntax, and thus are detected while the page is getting loaded.
- Run-time errors: This is the error that comes up while the program is running. It is caused by illegal operations, for example, division of a number by zero, or trying to access a non-existent area of the memory.
- Logic errors: It is caused by the use of syntactically correct code, which does not fulfill the required task. For example, an infinite loop.

### 77) What are Screen objects?

Screen objects are used to read the information from the client's screen. The properties of screen objects are -

- AvailHeight: Gives the height of client's screen
- AvailWidth: Gives the width of client's screen.
- ColorDepth: Gives the bit depth of images on the client's screen
- Height: Gives the total height of the client's screen, including the taskbar
- Width: Gives the total width of the client's screen, including the taskbar

### 78) Explain the unshift() method ?

This method is functional at the starting of the array, unlike the push(). It adds the desired number of elements to the top of an array. For example -

```
var name = [ "john" ];
name.unshift( "charlie" );
name.unshift( "joseph", "Jane" );
console.log(name);
```

The output is shown below:

```
[" joseph "," Jane ", " charlie ", " john "]
```

### 79) Define unescape() and escape() functions?

The escape () function is responsible for coding a string so as to make the transfer of the information from one computer to the other, across a network.

For Example:

<script>

```
document.write(escape("Hello? How are you!"));
</script>
```

Output: Hello%3F%20How%20are%20you%21

The unescape() function is very important as it decodes the coded string.

It works in the following way. For example:

<script>

#### **3.** JAVASCRIPT

document.write(unescape("Hello%3F%20How%20are%20you %21")); </script>

Output: Hello? How are you!

### 80) What are the decodeURI() and encodeURI()?

EncodeURI() is used to convert URL into their hex coding. And DecodeURI() is used to convert the encoded URL back to normal.

<script>

```
var uri="my test.asp?name=ståle&car=saab";
```

document.write(encodeURI(uri)+ "<br>");

```
document.write(decodeURI(uri));
```

</script>

Output -

my%20test.asp?name=st%C3%A5le&car=saab

my test.asp?name=ståle&car=saab

### 81) Why it is not advised to use innerHTML in JavaScript?

innerHTML content is refreshed every time and thus is slower. There is no scope for validation in innerHTML and, therefore, it is easier to insert rouge code in the document and, thus, make the web page unstable.

#### 82) What does the following statement declares?

var myArray = [[[]]];

It declares a three dimensional array.

#### 83) How are JavaScript and ECMA Script related?

ECMA Script are like rules and guideline while Javascript is a scripting language used for web development.

#### 84) What is namespacing in JavaScript and how is it used?

Namespacing is used for grouping the desired functions, variables etc. under a unique name. It is a name that has been attached to the desired functions, objects and properties. This improves modularity in the coding and enables code reuse.

### 85) How can JavaScript codes be hidden from old browsers that don't support JavaScript?

For hiding JavaScript codes from old browsers:

Add "<!--" without the quotes in the code just after the <script> tag.

Add "//-->" without the quotes in the code just before the <script> tag.

Old browsers will now treat this JavaScript code as a long HTML comment. While, a browser that supports JavaScript, will take the "<!-----" and "//--->" as one-line comments.





### 4. PHP

### 1) Who is the father of PHP?

Rasmus Lerdorf is known as the father of PHP.

### 2) What is PHP?

PHP stands for Hypertext Preprocessor. It is an open source serverside scripting language which is widely used for web development. It supports many databases like MySQL, Oracle, Sybase, Solid, PostgreSQL, generic ODBC etc.

#### 3) What is PEAR in PHP?

PEAR is a framework and repository for reusable PHP components. PEAR stands for PHP Extension and Application Repository. It contains all types of PHP code snippets and libraries.

It also provides a command line interface to install "packages" automatically.

### 4) What does the initials of PHP stand for?

PHP means PHP: Hypertext Preprocessor.

### 5) Which programming language does PHP resemble to?

PHP syntax resembles Perl and C

### 6) What is Open Source Software?

Software in which the source codes are freely used, modify, and shared by anyone are called Open Source Software. These can also be distributed under licenses that adhere with the Open Source Definition.

### 7) What is the difference between include(), include\_once() and require\_once()

The include() statement includes and evaluates a specified line i.e. it will include a file based in the given path. require() does the same thing expect upon failure it will generate a fatal error and halt the script whereas include() will just gives a warning and allow script to continue. require\_once() will check if the file already has been included and if so it will not include the file again.

### 8) Differences between GET, POST and REQUEST methods?

GET and POST are used to send information from client browser to web server. In case of GET the information is send via GET method in name/value pair and is URL encoded. The default GET has a limit of 512.

#### 9) What is the difference between \$name and \$\$name?

\$name is variable where as \$\$name is reference variable like \$name=sonia and \$\$name=singh so \$sonia value is singh.

### 10) How can we submit a form without a submit button?

Java script submit() function is used for submit form without submit button on click call document.formname.submit()

## 11) In how many ways we can retrieve the data in the result set of MySQL using PHP?

We can do it by 4 Ways

mysql\_fetch\_row.

mysql\_fetch\_array

mysql\_fetch\_object

mysql\_fetch\_assoc

## 12) What is the difference between mysql\_fetch\_object and mysql\_fetch\_array?

mysql\_fetch\_object() is similar to mysql\_fetch\_array(), with one difference – an object is returned, instead of an array. Indirectly, that means that you can only access the data by the field names, and not by their offsets (numbers are illegal property names).

### 13) What are the differences between Get and post methods.

There are some defference between GET and POST method

1. GET Method have some limit like only 2Kb data able to send for request. But in POST method unlimited data can we send

2. when we use GET method requested data show in url but Not in POST method so POST method is good for send sensetive request

### 14) How can we extract string "pcds.co.in " from a string "http://info@pcds.co.in using regular expression of PHP?

preg\_match("/^http:\/\/.+@(.+)\$/","http://info@pcds.co.in",\$matches); echo \$matches[1];

### 15) How can we create a database using PHP and MySQL?

We can create MySQL database with the use of mysql\_create\_db("Database Name")

### 16) What are the differences between require and include?

Both include and require used to include a file but when included file not found Include send Warning where as Require send Fatal Error .

### 17) Can we use include ("xyz.PHP") two times in a PHP page "index.PHP"?

Yes we can use include("xyz.php") more than one time in any page. but it create a prob when xyz.php file contain some functions declaration then error will come for already declared function in this file else not a prob like if you want to show same content two time in page then must incude it two time not a prob

## 18) What are the different tables(Engine) present in MySQL, which one is default?

Following tables (Storage Engine) we can create

1. MyISAM(The default storage engine IN MYSQL Each MyISAM table is stored on disk in three files. The files have names that begin with the table name and have an extension to indicate the file type. An .frm file stores the table format. The data file has an .MYD (MYData) extension. The index file has an .MYI (MYIndex) extension.)

2. InnoDB(InnoDB is a transaction-safe (ACID compliant) storage engine for MySQL that has commit, rollback, and crash-recovery capabilities to protect user data.)

3. Merge

4. Heap (MEMORY)(The MEMORY storage engine creates tables with contents that are stored in memory. Formerly, these were known as HEAP tables. MEMORY is the preferred term, although HEAP remains supported for backward compatibility. )

5. BDB (BerkeleyDB)(Sleepycat Software has provided MySQL with the Berkeley DB transactional storage engine. This storage engine typically is called BDB for short. BDB tables may have a greater chance of surviving crashes and are also capable of COMMIT and ROLLBACK operations on transactions)

6. EXAMPLE

7. FEDERATED (It is a storage engine that accesses data in tables of remote databases rather than in local tables. )

9. CSV (The CSV storage engine stores data in text files using commaseparated values format.)

10. BLACKHOLE (The BLACKHOLE storage engine acts as a "black hole" that accepts data but throws it away and does not store it. Retrievals always return an empty result)

### 19) What is use of header() function in php?

The header() function sends a raw HTTP header to a client.We can use herder() function for redirection of pages. It is important to notice that header() must be called before any actual output is seen..

### 20) How can I execute a PHP script using command line?

Just run the PHP CLI (Command Line Interface) program and provide the PHP script file name as the command line argument.

### 21) Suppose your Zend engine supports the mode Then how can u configure your PHP Zend engine to support mode?

In php.ini file:

set

short\_open\_tag=on

to make PHP support

### 22) Shopping cart online validation i.e. how can we configure Paypal,etc.?

Nothing more we have to do only redirect to the payPal url after submit all information needed by paypal like amount, adresss etc.

### 23) What is meant by nl2br()?

Inserts HTML line breaks (

) before all newlines in a string.

### 24) What is htaccess? Why do we use this and Where?

.htaccess files are configuration files of Apache Server which provide a way to make configuration changes on a per-directory basis. A file, containing one or more configuration directives, is placed in a particular document directory, and the directives apply to that directory, and all subdirectories thereof.

#### 25) How we get IP address of client, previous reference page etc?

By using \$\_SERVER['REMOTE\_ADDR'], \$\_SERVER['HTTP\_REFERER'] etc.

#### 26) What is PHP?

PHP is a server side scripting language commonly used for web applications. PHP has many frameworks and cms for creating websites.Even a non technical person can cretae sites using its CMS.WordPress,osCommerce are the famus CMS of php.It is also an object oriented programming language like java,C-sharp etc.It is very eazy for learning.

### 27) What is the use of "echo" in php?

It is used to print a data in the webpage, Example: , The following code print the text in the webpage.

### 28) How to include a file to a php page?

We can include a file using "include() " or "require()" function with file path as its parameter.

### 29) What's the difference between include and require?

If the file is not found by require(), it will cause a fatal error and halt the execution of the script. If the file is not found by include(), a warning will be issued, but execution will continue.

### 30) require\_once(), require(), include().What is difference between them?

require() includes and evaluates a specific file, while require\_once() does that only if it has not been included before (on the same page). So, require\_once() is recommended to use when you want to include a file where you have a lot of functions for example. This way you make sure you don't include the file more times and you will not get the "function re-declared" error.

### 31) Differences between GET and POST methods?

We can send 1024 bytes using GET method but POST method can transfer large amount of data and POST is the secure method than GET method.

### 32) How to declare an array in php?

Eg : var \$arr = array('apple', 'grape', 'lemon');

### 33) What is the use of 'print' in php?

This is not actually a real function, It is a language construct. So you can use with out parentheses with its argument list.

Example print('PHP Interview questions');

print 'Job Interview ');

### 34) What is use of in\_array() function in php?

in\_array used to checks if a value exists in an array

### What is use of count() function in php?

count() is used to count all elements in an array, or something in an object

### 35) What's the difference between include and require?

It's how they handle failures. If the file is not found by require(), it will cause a fatal error and halt the execution of the script. If the file is not found by include(), a warning will be issued, but execution will continue.

### 36) What is the difference between Session and Cookie?

The main difference between sessions and cookies is that sessions are stored on the server, and cookies are stored on the user's computers in the text file format. Cookies can not hold multiple variables,But Session can hold multiple variables.We can set expiry for a cookie,The session only remains active as long as the browser is open.Users do not have access to the data you stored in Session,Since it is stored in the server.Session is mainly used for login/logout purpose while cookies using for user activity tracking.

### 37) How to set cookies in PHP?

Setcookie("sample", "ram", time()+3600);

### 38) How to Retrieve a Cookie Value?

eg : echo \$\_COOKIE["user"];

### 39) How to create a session? How to set a value in session ? How to Remove data from a session?

Create session : session\_start();

Set value into session : \$\_SESSION['USER\_ID']=1;

Remove data from a session : unset(\$\_SESSION['USER\_ID'];

### 40) What types of loops exist in php?

for,while,do while and foreach (NB: You should learn its usage)

### 41) How to create a mysql connection?

mysql\_connect(servername,username,password);

### 42) How to select a database?

mysql\_select\_db(\$db\_name);

### 43) How to execute an sql query? How to fetch its result?

\$my\_qry = mysql\_query("SELECT \* FROM `users` WHERE `u\_id`='1'; ");

\$result = mysql\_fetch\_array(\$my\_qry);

echo \$result['First\_name'];

### 44) Write a program using while loop

```
$my_qry = mysql_query("SELECT * FROM `users` WHERE `u_id`='1';
");
while($result = mysql_fetch_array($my_qry))
{
  echo $result['First_name'.]."
  ';
}
```

### 45) How we can retrieve the data in the result set of MySQL using PHP?

mysql\_fetch\_row

mysql\_fetch\_array

mysql\_fetch\_object

mysql\_fetch\_assoc

### 46) What is the use of explode() function?

Syntax : array explode ( string \$delimiter , string \$string [, int \$limit ] );

This function breaks a string into an array. Each of the array elements is a substring of string formed by splitting it on boundaries formed by the string delimiter.

### 47) What is the difference between explode() and split() functions?

Split function splits string into array by regular expression. Explode splits a string into array by string.

#### 48) How to redirect a page in php?

The following code can be used for it, header("Location:index.php");

### 49) How stop the execution of a php script?

exit() function is used to stop the execution of a page

### 50) How to set a page as a home page in a php based site?

index.php is the default name of the home page in php based sites.

# 51) What are the reasons for selecting lamp (Linux, apache, MySQL, PHP) instead of combination of other software programs, servers and operating systems?

All of those are open source resource. Security of Linux is very very more than windows. Apache is a better server that IIS both in functionality and security. MySQL is world most popular open source database. PHP is more faster that asp or any other scripting language.

### 52) How can we encrypt and decrypt a data present in a MySQL table using MySQL?

AES\_ENCRYPT () and AES\_DECRYPT ()

#### 53) How can we encrypt the username and password using PHP?

The functions in this section perform encryption and decryption, and compression and uncompression:

Encryption Decryption

AES\_ENCRYT() AES\_DECRYPT()

ENCODE() DECODE()

DES\_ENCRYPT() DES\_DECRYPT()

ENCRYPT() Not available

MD5() Not available

OLD\_PASSWORD() Not available

PASSWORD() Not available

SHA() or SHA1() Not available

Not available UNCOMPRESSED\_LENGTH()

### 54) What are the features and advantages of object-oriented programming?

One of the main advantages of OO programming is its ease of modification; objects can easily be modified and added to a system there by reducing maintenance costs. OO programming is also considered to be better at modeling the real world than is procedural programming. It allows for more complicated and flexible interactions. OO systems are also easier for non-technical personnel to understand and easier for them to participate in the maintenance and enhancement of a system because it appeals to natural human cognition patterns. For some systems, an OO approach can speed

development time since many objects are standard across systems and can be reused. Components that manage dates, shipping, shopping carts, etc. can be purchased and easily

modified for a specific system

### 55) What are the differences between procedure-oriented languages and object-oriented languages?

There are lot of difference between procedure language and object oriented like below

1>Procedure language easy for new developer but complex to understand whole software as compare to object oriented model

2>In Procedure language it is difficult to use design pattern mvc , Singleton pattern etc but in OOP you we able to develop design pattern

3>IN OOP language we able to ree use code like Inheritance ,polymorphism etc but this type of thing not available in procedure language on that our Fonda use COPY and PASTE .

### 56) What is the use of friend function?

Sometimes a function is best shared among a number of different classes. Such functions can be declared either as member functions of one class or as global functions. In either case they can be set to be friends of other classes, by using a friend specifier in the class that is admitting them. Such functions can use all attributes of the class which names them as a friend, as if they were themselves members of that class. A friend declaration is essentially a prototype for a member function, but instead of requiring an implementation with the name of that class attached by the double colon syntax, a global function or member function of another class provides the match.

### 57) What are the differences between public, private, protected, static, transient, final and volatile?

Public: Public declared items can be accessed everywhere.

Protected: Protected limits access to inherited and parent classes (and to the class that defines the item).

Private: Private limits visibility only to the class that defines the item.

Static: A static variable exists only in a local function scope, but it does not lose its value when program execution leaves this scope.

Final: Final keyword prevents child classes from overriding a method by prefixing the definition with final. If the class itself is being defined final then it cannot be extended.

transient: A transient variable is a variable that may not be serialized.

volatile: a variable that might be concurrently modified by multiple threads should be declared volatile. Variables declared to be volatile will not be optimized by the compiler because their value can change at any time.

### 58) What are the different types of errors in PHP?

Three are three types of errors:1. Notices: These are trivial, noncritical errors that PHP encounters while executing a script – for example, accessing a variable that has not yet been defined. By default, such errors are not displayed to the user at all  $\hat{a} {\ensuremath{ \in } }^{\ensuremath{ \ast } }$  although, as you

will see, you can change this default behavior.

2. Warnings: These are more serious errors – for example, attempting to include() a file which does not exist. By default, these errors are displayed to the user, but they do not result in script termination.

3. Fatal errors: These are critical errors – for example, instantiating an object of a non-existent class, or calling a non-existent function. These errors cause the immediate termination

of the script, and PHP's default behavior is to display them to the user when they take place.

### 59) What is the functionality of the function strstr and stristr?

strstr Returns part of string from the first occurrence of needle(sub string that we finding out ) to the end of string.

\$email= 'sonialouder@gmail.com';

\$domain = strstr(\$email, '@');

echo \$domain; // prints @gmail.com

here @ is the needle

stristr is case-insensitive means able not able to diffrenciate between a and A

### 60) What are the differences between PHP 3 and PHP 4 and PHP5?

There are lot of difference among these three version of php

1>Php3 is oldest version after that php4 came and current version is php5 (php5.3) where php6 have to come

2>Difference mean oldest version have less functionality as compare to new one like php5 have all OOPs concept now where as php3 was pure procedural language constructive like C

In PHP5 1. Implementation of exceptions and exception handling

2. Type hinting which allows you to force the type of a specific argument

3. Overloading of methods through the \_\_call function

4. Full constructors and destructors etc through a \_\_constuctor and \_\_destructor function

5. \_\_autoload function for dynamically including certain include files depending on the class you are trying to create.

6 Finality : can now use the final keyword to indicate that a method cannot be overridden by a child. You can also declare an entire class as final which prevents it from having any children at all.

7 Interfaces & Abstract Classes

8 Passed by Reference :

9 An \_\_clone method if you really want to duplicate an object

10 Numbers of Functions Deprecated in php 5.x like ereg,ereg\_replace,magic\_quotes\_runtime,

session\_register,register\_globals, split(), call\_user\_method() etc

#### 61) How can we convert asp pages to PHP pages?

there are lots of tools available for asp to PHP conversion. you can search Google for that. the best one is available at http://asp2php.naken.cc./

### 62) What is the functionality of the function html entities?

Convert all applicable characters to HTML entities This function is identical to htmlspecialchars() in all ways, except with htmlentities(), all characters which have HTML character entity equivalents are translated into these entities.

### 63) How can we get second of the current time using date function?

\$second = date("s");

### 64) How can we convert the time zones using PHP?

By using date\_default\_timezone\_get and

date\_default\_timezone\_set function on PHP 5.1.0

', date(DATE\_RFC1123, \$stamp) ,'

';?>

### 65) What is meant by urlencode and urldocode?

URLencode returns a string in which all non-alphanumeric characters except -\_. have been replaced with a percent (%) sign followed by two hex digits and spaces encoded as plus (+) signs. It is encoded the

same way that the posted data from a WWW form is encoded, that is the same way as in

application/x-www-form-urlencoded media type.

urldecode decodes any %##

encoding in the given string.

### 66) What is the difference between the functions unlink and unset?

unlink() deletes the given file from the file system.

unset() makes a variable undefined.

### 67) How can we register the variables into a session?

\$\_SESSION['name'] = "sonia";

## 68) How can we get the properties (size, type, width, height) of an image using PHP image functions?

TO know the Image type use exif\_imagetype () function

TO know the Image size use getimagesize () function

TO know the image width use imagesx () function

TO know the image height use imagesy() function t

### 69) How can we get the browser properties using PHP?

By using

\$\_SERVER['HTTP\_USER\_AGENT']

variable.

### 70) What is the maximum size of a file that can be uploaded using PHP and how can we change this?

By default the maximum size is 2MB. and we can change the following setup at php.iniupload\_max\_filesize = 2M

### 71) How can we increase the execution time of a PHP script?

by changing the following setup at php.inimax\_execution\_time = 30; Maximum execution time of each script, in seconds

### 72) How can we take a backup of a MySQL table and how can we restore it?

To backup: BACKUP TABLE tbl\_name[,tbl\_name…] TO /path/to/backup/directory' RESTORE TABLE tbl\_name[,tbl\_name…] FROM '/path/to/backup/directory'mysqldump: Dumping Table Structure and DataUtility to dump a database or a collection of database for backup or for transferring the data to another SQL server (not necessarily a MySQL server). The dump will contain SQL statements to create the table and/or populate the table. -t, –nocreate-info Don't write table creation information (the CREATE TABLE statement). -d, –no-data Don't write any row information for the table. This is very useful if you just want to get a dump of the structure for a table!

### 73) How can we optimize or increase the speed of a MySQL select query?

first of all instead of using select \* from table1, use select column1, column2, column3.. from table1 Look for the opportunity to introduce index in the table you

are querying.use limit keyword if you are looking for any specific number of rows from the result set.

#### 74) How many ways can we get the value of current session id?

session\_id() returns the session id for the current session.

### 75) How can we destroy the session, how can we unset the variable of a session?

ssession\_unregister " Unregister a global variable from the current session

session\_unset " Free all session variables

#### 76) How can we encrypt password using PHP?

crypt () function is used to create one way encryption. It takes one input string and one optional parameter. The function is defined as: crypt (input\_string, salt), where input\_string consists of the string that has to be encrypted and salt is an optional parameter. PHP uses DES for encryption. The format is as follows:

#### 77) How can we set and destroy the cookie n php?

By using setcookie(name, value, expire, path, domain); function we can set the cookie in php ; Set the cookies in past for destroy. like

setcookie("user", "sonia", time()+3600); for set the cookie
setcookie("user", "", time()-3600); for destroy or delete the cookies;

### 78) How many ways we can pass the variable through the navigation

#### between the pages?

GET/QueryString

POST

### 79) What is the difference between ereg\_replace() and eregi\_replace()?

eregi\_replace() function is identical to ereg\_replace() except that this ignores case distinction when matching alphabetic characters.eregi\_replace() function is identical to ereg\_replace() except that this ignores case distinction when matching alphabetic characters.

### 80) What are the different functions in sorting an array?

Sort(), arsort(), asort(), ksort(), natsort(), natcasesort(), rsort(), usort(), array\_multisort(), and uksort().

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### 81) How can we know the count/number of elements of an array?

2 ways

a) sizeof(\$urarray) This function is an alias of count()

b) count(\$urarray)

#### 82) what is session\_set\_save\_handler in PHP?

session\_set\_save\_handler() sets the user-level session storage functions which are used for storing and retrieving data associated with a session. This is most useful when a storage method other than those supplied by PHP sessions is preferred. i.e. Storing the session data in a local database.

### 83) How can I know that a variable is a number or not using a JavaScript?

bool is\_numeric (mixed var) Returns TRUE if var is a number or a numeric string, FALSE otherwise.or use isNaN(mixed var)The isNaN() function is used to check if a value is not a number.

### 84) List out some tools through which we can draw E-R diagrams for mysql.

Case Studio

Smart Draw

### 85) How can I retrieve values from one database server and store them in other database server using PHP?

we can always fetch from one database and rewrite to another. here is a nice solution of it.

\$db1 = mysql\_connect("host","user","pwd")

mysql\_select\_db("db1", \$db1);

```
$res1 = mysql_query("query",$db1);$db2 =
```

mysql\_connect("host","user","pwd")

mysql\_select\_db("db2", \$db2);

\$res2 = mysql\_query("query",\$db2);At this point you can only fetch
records from you previous ResultSet,

i.e \$res1 â€" But you cannot execute new query in \$db1, even if you supply the link as because the link was overwritten by the new db.so at this point the following script will fail

```
$res3 = mysql_query("query",$db1); //this will failSo how to solve
```

that?

take a look below.

\$db1 = mysql\_connect("host","user","pwd")

mysql\_select\_db("db1", \$db1);

\$res1 = mysql\_query("query",\$db1);

\$db2 = mysql\_connect("host","user","pwd", true)

mysql\_select\_db("db2", \$db2);

\$res2 = mysql\_query("query",\$db2);

So mysql\_connect has another optional boolean parameter which indicates whether a link will be created or not. as we connect to the

#### **4.** PHP

\$db2 with this optional parameter set to 'true', so both link will remain live.

now the following query will execute successfully.

\$res3 = mysql\_query("query",\$db1);

### 86) List out the predefined classes in PHP?

AES\_ENCRYPT () and AES\_DECRYPT ()

### 87) How can we encrypt and decrypt a data present in a MySQL table using MySQL?

Directory

stdClass

\_\_PHP\_Incomplete\_Class

exception

php\_user\_filter

### 88) How can I make a script that can be bi-language (supports English, German)?

You can maintain two separate language file for each of the language. all the labels are putted in both language files as variables and assign those variables in the PHP source. on runtime choose the required language option.

### 89) What are the difference between abstract class and interface?

Abstract class: abstract classes are the class where one or more methods are abstract but not necessarily all method has to be abstract.

Abstract methods are the methods, which are declare in its class but not define. The definition of those methods must be in its extending

Interface class: Interfaces are one type of class where all the methods are abstract. That means all the methods only declared but not defined.

All the methods must be define by its implemented class.

### 90) How can we send mail using JavaScript?

JavaScript does not have any networking capabilities as it is designed to work on client site. As a result we can not send mails using JavaScript. But we can call the client side mail protocol mailto

via JavaScript to prompt for an email to send. this requires the client to approve it.

### 91) How can we repair a MySQL table?

The syntex for repairing a MySQL table is REPAIR TABLENAME, [TABLENAME, ], [Quick],[Extended] This command will repair the table specified if the quick is given the MySQL will do a repair of only the index tree if the extended is given it will create index row by row

### 92) What are the advantages of stored procedures, triggers, indexes?

A stored procedure is a set of SQL commands that can be compiled and stored in the server. Once this has been done, clients don't need to keep re-issuing the entire query but can refer to the stored procedure.

This provides better overall performance because the query has to be parsed only once, and less information needs to be sent between the server and the client. You can also raise the conceptual level by having libraries of functions in the server. However, stored procedures of

course do increase the load on the database server system, as more of the work is done on the server side and less on the client (application) side.Triggers will also be implemented. A trigger is effectively a type of stored procedure, one that is invoked when a particular event occurs.

For example, you can install a stored procedure that is triggered each time a record is deleted from a transaction table and that stored procedure automatically deletes the corresponding customer from a customer table when all his transactions are deleted. Indexes are used to find rows with specific column values quickly.

Without an index, MySQL must begin with the first row and then read through the entire table to find the relevant rows. The larger the table, the more this costs. If the table has an index for the columns in question, MySQL can quickly determine the position to seek to in the middle of the data file without having to look at all the data. If a table has 1,000 rows, this is at least 100 times faster than reading sequentially. If you need to access most of the rows, it is faster to

read sequentially, because this minimizes disk seeks.

### 93) What is the maximum length of a table name, database name, and fieldname in MySQL?

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The following table describes the maximum length for each type of identifier.

Identifier Maximum Length (bytes)

Database 64

Table64

Column 64

Index 64

Alias 255

There are some restrictions on the characters that may appear in identifiers:

#### 94) How many values can the SET function of MySQL take?

MySQL set can take zero or more values but at the maximum it can take 64 values

### 95) What are the other commands to know the structure of table using MySQL commands except explain command?

describe Table-Name;

### 96) How many tables will create when we create table, what are they?

The '.frm' file stores the table definition.

The data file has a '.MYD' (MYData) extension.

The index file has a '.MYI' (MYIndex) extension,

### 97) What is the purpose of the following files having extensions 1) .frm 2) .myd 3) .myi? What do these files contain?

In MySql, the default table type is MyISAM.

Each MyISAM table is stored on disk in three files. The files have

names that begin with the table name and have an extension to indicate

the file type.

The '.frm' file stores the table definition.

The data file has a '.MYD' (MYData) extension.

The index file has a '.MYI' (MYIndex) extension,

### 98) What is maximum size of a database in MySQL?

If the operating system or filesystem places a limit on the number of files in a directory, MySQL is bound by that constraint. The efficiency of the operating system in handling large numbers of files in a directory can place a practical limit on the number of tables in a database.

If the time required to open a file in the directory increases significantly as the number of files increases, database performance can be adversely affected.

The amount of available disk space limits the number of tables. MySQL 3.22 had a 4GB (4 gigabyte) limit on table size. With the MyISAM storage engine in MySQL 3.23, the maximum table size was increased to 65536 terabytes (2567 – 1 bytes). With this larger allowed table size, the maximum effective table size for MySQL databases is usually determined by operating system constraints on file sizes, not by MySQL internal limits. The InnoDB storage engine maintains InnoDB tables

within a tablespace that can be created from several files. This allows a table to exceed the maximum individual file size. The tablespace can include raw disk partitions, which allows extremely large tables. The maximum tablespace size is 64TB.

The following table lists some examples of operating system file-size limits. This is only a rough guide and is not intended to be definitive.

For the most up-to-date information, be sure to check the documentation specific to your operating system.

Operating System File-size LimitLinux 2.2-Intel 32-bit 2GB (LFS:

4GB)

Linux 2.4+ (using ext3 filesystem) 4TB

Solaris 9/10 16TB

NetWare w/NSS filesystem 8TB

Win32 w/ FAT/FAT32 2GB/4GB

Win32 w/ NTFS 2TB (possibly larger)

MacOS X w/ HFS+ 2TB

#### 99) Give the syntax of Grant and Revoke commands?

The generic syntax for grant is as following

> GRANT [rights] on [database/s] TO [username@hostname]

IDENTIFIED BY [password]

now rights can be

a) All privileges

b) combination of create, drop, select, insert, update and delete etc.We can grant rights on all databse by using \*.\* or some specific database by database.\* or a specific table by database.table\_name username@hotsname can be either username@localhost, username@hostname and username@% where hostname is any valid hostname and % represents any name,

the \*.\* any condition password is simply the password of user

The generic syntax for revoke is as following

> REVOKE [rights] on [database/s] FROM [username@hostname]

now rights can be as explained above

a) All privileges

b) combination of create, drop, select, insert, update and delete etc. username@hotsname can be either username@localhost, username@hostname

and username@% where hostname is any valid hostname and % represents any name,

the \*.\* any condition

#### 100) Explain Normalization concept?

The normalization process involves getting our data to conform to three progressive normal forms, and a higher level of normalization cannot be achieved until the previous levels have been achieved (there are actually five normal forms, but the last two are mainly academic and will not be discussed).First Normal Form The First Normal Form (or 1NF) involves removal of redundant data from

horizontal rows. We want to ensure that there is no duplication of data in a given row, and that every column stores the least amount of information possible (making the field atomic).

Second Normal Form Where the First Normal Form deals with redundancy of data across a

horizontal row, Second Normal Form (or 2NF) deals with redundancy of data in vertical columns. As stated earlier, the normal forms are progressive, so to achieve Second Normal Form, your tables must already be in First Normal Form.

Third Normal Form I have a confession to make; I do not often use Third Normal Form. In Third Normal Form we are looking for data in our tables that is not fully dependent on the primary key, but dependent on another value in the table.

# 101) How can we find the number of rows in a table using MySQL?

Use this for mysql

>SELECT COUNT(\*) FROM table\_name;

# 102) How can we find the number of rows in a result set using PHP?

\$result = mysql\_query(\$sql, \$db\_link);

\$num\_rows = mysql\_num\_rows(\$result);

echo "\$num\_rows rows found";

# 103) How many ways we can we find the current date using MySQL?

SELECT CURDATE(); CURRENT\_DATE() = CURDATE() for time use SELECT CURTIME(); CURRENT\_TIME() = CURTIME()

# 104) What are the advantages and disadvantages of Cascading Style Sheets?

External Style SheetsAdvantagesCan control styles for multiple documents at once. Classes can be created for use on multiple HTML element types in many documents.

Selector and grouping methods can be used to apply styles under complex contexts Disadvantages An extra download is required to import style information for each document The rendering of the document may be delayed until the external style sheet is loaded Becomes slightly unwieldy for small quantities of style definitions Embedded Style Sheets

Advantages

Classes can be created for use on multiple tag types in the document.

Selector and grouping methods can be used to apply styles under complex contexts.

No additional downloads necessary to receive style information

Disadvantages

This method can not control styles for multiple documents at once Inline Styles

### Advantages

Useful for small quantities of style definitions. Can override other style specification methods at the local level so only exceptions need to be listed in conjunction with other style methods

### Disadvantages

Does not distance style information from content (a main goal of SGML/HTML). Can not control styles for multiple documents at once.

Author can not create or control classes of elements to control multiple element types within the document. Selector grouping methods can not be used to create complex element addressing scenarios

# 105) What type of inheritance that PHP supports?

In PHP an extended class is always dependent on a single base class, that is, multiple inheritance is not supported. Classes are extended using the keyword 'extends'.

# 106) What is the difference between Primary Key and Unique key?

Primary Key: A column in a table whose values uniquely identify the rows in the table. A primary key value cannot be NULL.

Unique Key: Unique Keys are used to uniquely identify each row in the table. There can be one and only one row for each unique key value. So NULL can be a unique key. There can be only one primary key for a table but there can be more

than one unique for a table.

### 107) what is garbage collection? default time ? refresh time?

Garbage Collection is an automated part of PHP, If the Garbage Collection process runs, it then analyzes any files in the /tmp for any session files that have not been accessed in a certain amount of time and physically deletes them. Garbage Collection process only runs in the default session save directory, which is /tmp. If you opt to save your sessions in a different directory, the Garbage Collection process will ignore it. the Garbage Collection process does not

differentiate between which sessions belong to whom when run. This is especially important note on shared web servers. If the process is run, it deletes ALL files that have not been accessed in the directory. There are 3 PHP.ini variables, which deal with the garbage collector: PHP ini value name default session.gc\_maxlifetime 1440 seconds or 24 minutes session.gc\_probability 1 session.gc\_divisor 100

# 108) What are the advantages/disadvantages of MySQL and PHP?

ORDER BY [col1],[col2],…,[coln]; Tels DBMS according to what columns it should sort the result. If two rows will hawe the same value in col1 it will try to sort them according to col2 and so on.GROUP BY [col1],[col2],…,[coln]; Tels DBMS to group results with same value of column col1. You can use COUNT(col1), SUM(col1), AVG(col1) with it, if you want to count all items in group, sum all values or view average

# 109) What is the difference between char and varchar data types?

Set char to occupy n bytes and it will take n bytes even if u r storing a value of n-m bytes Set varchar to occupy n bytes and it will take only the required space and will not use the n bytes

eg. name char(15) will waste 10 bytes if we store 'romharshan', if each char takes a byte

eg. name varchar(15) will just use 5 bytes if we store 'romharshan', if each char takes a byte. rest 10 bytes will be free.

### 110) What is the functionality of md5 function in PHP?

Calculate the md5 hash of a string. The hash is a 32-character hexadecimal number. I use it to generate keys which I use to identify users etc. If I add random no techniques to it the md5 generated now will be totally different for the same string I am using.

### 111) How can I load data from a text file into a table?

you can use LOAD DATA INFILE file\_name; syntax to load data from a text file. but you have to make sure that

- a) data is delimited
- b) columns and data matched correctly

# 112) How can we know the number of days between two given dates using MySQL?

SELECT DATEDIFF("2007-03-07","2005-01-01");

# 113) How can we know the number of days between two given dates using PHP?

```
$date1 = date("Y-m-d");
$date2 = "2006-08-15";
$days = (strtotime($date1) - strtotime($date2)) / (60 * 60 * 24);
```

# 114) How we load all classes that placed in different directory in one PHP File , means how to do auto load classes

# by using spl\_autoload\_register('autoloader::funtion');

```
Like below

class autoloader

{

public static function moduleautoloader($class)

{

$path = $_SERVER['DOCUMENT_ROOT'] . "/modules/{$class}.php";

if (is_readable($path)) require $path;

}

public static function daoautoloader($class)

{

$path = $_SERVER['DOCUMENT_ROOT'] .

"/dataobjects/{$class}.php";

if (is_readable($path)) require $path;

}
```

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```
public static function includesautoloader($class)
{
    $path = $_SERVER['DOCUMENT_ROOT'] . "/includes/{$class}.php";
    if (is_readable($path)) require $path;
    }
    spl_autoload_register('autoloader::includesautoloader');
    spl_autoload_register('autoloader::daoautoloader');
    spl_autoload_register('autoloader::moduleautoloader');
```

# 115) How many types of Inheritances used in PHP and how we achieve it

As far PHP concern it only support single Inheritance in scripting.

we can also use interface to achieve multiple inheritance.

#### 116) PHP how to know user has read the email?

Using Disposition-Notification-To: in mailheader we can get read receipt.

Add the possibility to define a read receipt when sending an email.

Itâ€TMs quite straightforward, just edit email.php, and add this at vars definitions:

var \$readReceipt = null;

And then, at †createHeaderâ€TM function add:

if (!empty(\$this->readReceipt)) {

```
$this->__header .= †Disposition-Notification-To: †. $this-
>__formatAddress($this->readReceipt) . $this->_newLine;
}
```

## 116) What are default session time and path?

default session time in PHP is 1440 seconds or 24 minutes Default session save path id temporary folder /tmp

# 117) how to track user logged out or not? when user is idle ?

By checking the session variable exist or not while loading th page.

As the session will exist longer as till browser closes. The default behaviour for sessions is to keep a session open indefinitely and only to expire a session when the browser is closed.

This behaviour can be changed in the php.ini file by altering the line session.cookie\_lifetime = 0 to a value in seconds.

If you wanted the session to finish in 5 minutes you would set this to session.cookie\_lifetime = 300 and restart your httpd server.

# 118) how to track no of user logged in ?

whenever a user logs in track the IP, userID etc..and store it in a DB with a active flag while log out or sesion expire make it inactive. At any time by counting the no: of active records we can get the no: of visitors.

# 119) in PHP for pdf which library used?

The PDF functions in PHP can create PDF files using the PDFlib library With version 6, PDFlib offers an object-oriented API for PHP 5 in addition to the function-oriented API for PHP 4. There is also the » Panda module. FPDF is a PHP class which allows to generate PDF files with pure PHP, that is to say without using the PDFlib library. F from FPDF stands for Free: you may use it for any kind of usage and modify it to suit your needs. FPDF requires no extension (except zlib to activate compression and GD for GIF support) and works with PHP4 and PHP5.

## 120) for image work which library?

we will need to compile PHP with the GD library of image functions for this to work. GD and PHP may also require other libraries, depending on which image formats you want to work with.

### 121) what is design pattern? singleton pattern?

A design pattern is a general reusable solution to a commonly occurring problem in software design.

The Singleton design pattern allows many parts of a program to share a single resource without having to work out the details of the sharing themselves.

### 122) what are magic methods?

Magic methods are the members functions that is available to all the instance of class Magic methods always starts with "\_\_". Eg. \_\_construct All magic methods needs to be declared as public To use magic method they should be defined within the class or program scope Various Magic Methods used in PHP 5 are: \_\_construct()

\_\_destruct() \_\_set() \_\_get() \_\_call() \_\_toString() \_\_sleep() \_\_wakeup() \_\_isset() \_\_unset() \_\_autoload() \_\_clone()

#### 123) what is magic quotes?

Magic Quotes is a process that automagically escapes nooming data to the PHP script. Itâ€TMs preferred to code with magic quotes off and to instead escape the data at runtime, as needed. This feature has been DEPRECATED as of PHP 5.3.0 and REMOVED as of PHP 6.0.0. Relying on this feature is highly discouraged

### 124) what is cross site scripting? SQL injection?

Cross-site scripting (XSS) is a type of computer security vulnerability typically found in web applications which allow code injection by malicious web users into the web pages viewed by other users. Examples of such code include HTML code and client-side scripts.

SQL injection is a code injection technique that exploits a security vulnerability occurring in the database layer of an application. The vulnerability is present when user input is either incorrectly filtered for string literal escape characters embedded in SQL statements or user input is not strongly typed and thereby unexpectedly executed

### 125) what is URL rewriting?

Using URL rewriting we can convert dynamic URI to static URL Static URLs are known to be better than Dynamic URLs because of a number of reasons

1. Static URLs typically Rank better in Search Engines.

2. Search Engines are known to index the content of dynamic pages a lot slower compared to static pages.

3. Static URLs are always more friendlier looking to the End Users. along with this we can use URL rewriting in adding variables [cookies] to the URL to handle the sessions.

### 126) what is the major php security hole? how to avoid?

1. Never include, require, or otherwise open a file with a filename based on user input, without thoroughly checking it first.

2. Be careful with eval() Placing user-inputted values into the eval() function can be extremely dangerous. You essentially give the malicious user the ability to execute any command he or she wishes!

3. Be careful when using register\_globals = ON It was originally designed to make programming in PHP easier (and that it did), but misuse of it often led to security holes

4. Never run unescaped queries

5. For protected areas, use sessions or validate the login every time.

6. If you don't want the file contents to be seen, give the file a .php extension.

# 127) Whether PHP supports Microsoft SQL server ?

The SQL Server Driver for PHP v1.0 is designed to enable reliable, scalable integration with SQL Server for PHP applications deployed on the Windows platform. The Driver for PHP is a PHP 5 extension that allows the reading and writing of SQL Server data from within PHP scripts. using MSSQL or ODBC modules we can access Microsoft SQL server

### 128) what is MVC? why its been used?

Model-view-controller (MVC) is an architectural pattern used in software engineering. Successful use of the pattern isolates business logic from user interface considerations, resulting in an application where it is easier to modify either the visual appearance of the application or the underlying business rules without affecting the other. In MVC, the model represents the information (the data) of the application; the view corresponds to elements of the user interface such as text, checkbox items, and so forth; and the controller manages the communication of data and the business rules used to manipulate the data to and from the model. WHY ITS NEEDED IS 1 Modular separation of function 2 Easier to maintain 3 View-Controller separation means:

A Tweaking design (HTML) without altering code B â€" Web design staff can modify UI without understanding code

#### 129) what is framework? how it works? what is advantage?

In general, a framework is a real or conceptual structure intended to serve as a support or guide for the building of something that expands the structure into something useful. Advantages : Consistent Programming Model Direct Support for Security Simplified Development Efforts Easy Application Deployment and Maintenance

#### 130) what is CURL?

CURL means Client URL Library

curl is a command line tool for transferring files with URL syntax, supporting FTP, FTPS, HTTP, HTTPS, SCP, SFTP, TFTP, TELNET, DICT, LDAP, LDAPS and FILE. curl supports SSL certificates, HTTP

POST, HTTP PUT, FTP uploading, HTTP form based upload, proxies, cookies, user+password authentication (Basic, Digest, NTLM, Negotiate, kerberos…), file transfer resume, proxy tunneling and a busload of other useful tricks.

CURL allows you to connect and communicate to many different types of servers with many different types of protocols. libcurl currently supports the http, https, ftp, gopher, telnet, dict, file, and ldap protocols. libcurl also supports HTTPS certificates, HTTP POST, HTTP PUT, FTP uploading (this can also be done with PHPâ€TMs ftp extension), HTTP form based upload, proxies, cookies, and user+password authentication.

### 131) what is PDO?

The PDO (PHP Data Objects) extension defines a lightweight, consistent interface for accessing databases in PHP. if you are using the PDO API, you could switch the database server you used, from say PgSQL to MySQL, and only need to make minor changes to your PHP code.

While PDO has its advantages, such as a clean, simple, portable API but its main disadvantage is that it doesn't allow you to use all of the advanced features that are available in the latest versions of MySQL server. For example, PDO does not allow you to use MySQL's

support for Multiple Statements.

Just need to use below code for connect mysql using PDO

try {

```
$dbh = new PDO("mysql:host=$hostname;dbname=databasename",
$username,
```

```
$password);
$sql = "SELECT * FROM employee";
foreach ($dbh->query($sql) as $row)
{
  print $row['employee_name'] .' - '. $row['employee_age'] ;
 }
}
catch(PDOException $e)
{
 echo $e->getMessage();
 }
```

# 132) What is PHP's mysqli Extension?

The mysqli extension, or as it is sometimes known, the MySQL improved extension, was developed to take advantage of new features found in MySQL systems versions 4.1.3 and newer. The mysqli extension is included with PHP versions 5 and later.

The mysqli extension has a number of benefits, the key enhancements over the mysql extension being:

```
=>Object-oriented interface
```

=>Support for Prepared Statements

=>Support for Multiple Statements

=>Support for Transactions

=>Enhanced debugging capabilities

=>Embedded server support

# 135) What is the difference between mysql\_fetch\_array() and mysql\_fetch\_assoc() ?

mysql\_fetch\_assoc function Fetch a result row as an associative array, Whilemysql\_fetch\_array() fetches an associative array, a numeric array, or both

# 136) What is the importance of "method" attribute in a html form?

"method" attribute determines how to send the form-data into the server.There are two methods, get and post. The default method is get.This sends the form information by appending it on the URL.Information sent from a form with the POST method is invisible to others and has no limits on the amount of information to send.

# 137) What is the importance of "action" attribute in a html form?

The action attribute determines where to send the form-data in the form submission.

# 138) What is the use of "enctype" attribute in a html form?

The enctype attribute determines how the form-data should be encoded when submitting it to the server. We need to set enctype as "multipart/form-data" when we are using a form for uploading files.

### 139) Define Object-Oriented Methodology

Object orientation is a software/Web development methodology that is based on the modeling a real world system. An object is the core concept involved in the object orientation. An object is the copy of the real world enity. An object oriented model is a collection of objects and its inter-relationships.

### 140) How do you define a constant?

Using define() directive, like define ("MYCONSTANT",150)

#### 141) Difference between mysql\_connect and mysql\_pconnect?

There is a good page in the php manual on the subject, in short mysql\_pconnect() makes a persistent connection to the database which means a SQL link that do not close when the execution of your script ends. mysql\_connect()provides only for the databasenewconnection while using mysql\_pconnect , the function would first try to find a (persistent) link that's already open with the same host, username and password. If one is found, an identifier for it will be returned instead of opening a new connection... the connection to the SQL server will not be closed when the execution of the script ends. Instead, the link will remain open for future use.

### 142) What is the use of "ksort" in php?

It is used for sort an array by key in reverse order.

#### 143) What is the difference between \$var and \$\$var?

They are both variables. But \$var is a variable with a fixed name. \$\$var is a variable who's name is stored in \$var. For example, if \$var contains "message", \$\$var is the same as \$message.

#### 144) Explain the difference b/w static and dynamic websites?

In static websites, content can't be changed after running the script. You can't change anything in the site. It is predefined.

In dynamic websites, content of script can be changed at the run time. Its content is regenerated every time a user visit or reload. Google, yahoo and every search engine is the example of dynamic website.

#### 145) What is the name of scripting engine in PHP?

The scripting engine that powers PHP is called Zend Engine 2.

# 146) What are the popular Content Management Systems (CMS) in PHP?

WordPress

Joomla

Magento

Drupal etc.

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#### 147) What are the popular frameworks in PHP?

- CakePHP Codelgniter Yii 2 Symfony
- Zend Framework etc.

#### 148) List some of the features of PHP7.

Scalar type declarations Return type declarations Null coalescing operator (??) Spaceship operator Constant arrays using define() Anonymous classes Closure::call method Group use declaration Generator return expressions Generator delegation

#### 149) What is "echo" in PHP?

PHP echo output one or more string. It is a language construct not a function. So use of parentheses is not required. But if you want to

#### **4.** PHP

pass more than one parameter to echo, use of parentheses is required.

Syntax:void echo ( string \$arg1 [, string \$... ] )

#### 150) What is "print" in PHP?

PHP print output a string. It is a language construct not a function. So use of parentheses is not required with the argument list. Unlike echo, it always returns 1.

Syntax: int print ( string \$arg)

#### 151) What does accessing a class via :: means?

:: is used to access static methods that do not require object initialization.

#### 152) How a variable is declared in PHP?

PHP variable is a name of memory location that holds data. It is a temporary storage.

Syntax: \$variableName=value;

#### 153) What is the difference between \$message and \$\$message?

\$message stores variable data while \$\$message is used to store variable of variables.

\$message stores fixed data whereas the data stored in \$\$message may be changed dynamically.

### 154) What are the ways to define a constant in PHP?

PHP constants are name or identifier that can't be changed during execution of the script. PHP constants are defined in two ways:

Using define() function

Using const() function

# 155) What are magic constants in PHP?

PHP magic constants are predefined constants which changes on the basis of their use. They start with a double underscore (\_\_) and end with a double underscore (\_\_).

# 156) How many data types are there in PHP?

PHP data types are used to hold different types of data or values. There are 8 primitive data types which are further categorized in 3 types:

Scalar types Compound types

Special types

# 157) How to do single and multi line comment in PHP?

PHP single line comment is done in two ways:

Using // (C++ style single line comment) Using # (Unix Shell style single line comment) PHP multi line comment is done by enclosing all lines within /\* \*/.

## 158) What are the different loops in PHP?

For, while, do-while and for each.

# 159) What is the use of count() function in PHP?

The PHP count() function is used to count total elements in the array, or something an object.

# 160) What is the use of header() function in PHP?

The header() function is used to send a raw HTTP header to a client. It must be called before sending the actual output. For example, you can't print any HTML element before using this function.

### 161) What does isset() function?

The isset() function checks if the variable is defined and not null.

# 162) Explain PHP parameterized functions.

PHP parameterized functions are functions with parameters. You can pass any number of parameters inside a function. These passed parameters act as variables inside your function. They are specified inside the parentheses, after function name. Output depends upon dynamic values passed as parameters into function.

#### 163) Explain PHP variable length argument function

PHP supports variable length argument function. It means you can pass 0, 1 or n number of arguments in function. To do this, you need to use 3 ellipses (dots) before the argument name. The 3 dot concept is implemented for variable length argument since PHP 5.6.

### 164) Explain PHP variable length argument function.

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#### 165) What is the array in PHP?

Array is used to store multiple values in single value. In PHP, it orders maps of pairs of keys and values. It stores the collection of data type.

### 166) How many types of array are there in PHP?

There are three types of array in PHP:

Indexed array Associative array Multidimensional array

### 167) Explain some of the PHP array functions?

There are many array functions in PHP:

```
array()
array_change_key_case()
array_chunk()
count()
sort()
array_reverse()
array_search()
array_intersect()
```

# 168) What is the difference between indexed and associative array?

The indexed array holds elements in an indexed form which is represented by number starting from 0 and incremented by 1. For example:

```
$season=array("summer","winter","spring","autumn");
```

The associative array holds elements with name. For example:

```
$salary=array("Sonoo"=>"350000","John"=>"450000","Kartik"=>"20000
0");
```

# 169) How to get the length of string?

The strlen() function is used to get the length of string.

## 170) Explain some of the PHP string functions?

There are many array functions in PHP:

strtolower() strtoupper() ucfirst() lcfirst() ucwords() strrev() strlen()

### 171) What are the methods to submit form in PHP?

There are two methods GET and POST.

#### 172) How can you submit a form without a submit button?

You can use JavaScript submit() function to submit the form without explicitly clicking any submit button.

#### 173) What are the ways to include file in PHP?

PHP allows you to include file so that page content can be reused again. There are two ways to include file in PHP.

1.include

2.require

#### 174) Differentiate between require and include?

Require and include both are used to include a file, but if file is not found include sends warning whereas require sends Fatal error.

### 175) Explain setcookie() function in PHP?

PHP setcookie() function is used to set cookie with HTTP response. Once cookie is set, you can access it by \$\_COOKIE superglobal variable.

Syntax:

bool setcookie ( string \$name [, string \$value [, int \$expire = 0 [,
string \$path

[, string \$domain [, bool \$secure = false [, bool \$httponly = false ]]]]]])

#### 151) What does accessing a class via :: means?

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```

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**4.** PHP

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strlen()

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Syntax:

bool setcookie ( string \$name [, string \$value [, int \$expire = 0 [,
string \$path

[, string \$domain [, bool \$secure = false [, bool \$httponly = false ]]]]]])

### 176) How can you retrieve a cookie value?

echo \$\_COOKIE ["user"];

### 177) What is a session?

PHP Engine creates a logical object to preserve data across subsequent HTTP requests, which is known as session.

Sessions generally store temporary data to allow multiple PHP pages to offer a complete functional transaction for the same user.

Simply, it maintains data of an user (browser).

## 179) What is \$\_SESSION in PHP?

PHP \$\_SESSION is an associative array that contains all session variables. It is used to set and get session variable values.

## 180) What is PHP session\_start() and session\_destroy() function?

PHP session\_start() function is used to start the session. It starts a new or resumes the existing session. It returns the existing session if session is created already. If session is not available, it creates and returns new sessions.

### 181) Write syntax to open a file in PHP?

PHP fopen() function is used to open file or URL and returns resource. It accepts two arguments: \$filename and \$mode.

Syntax:

resource fopen ( string \$filename , string \$mode [, bool \$use\_include\_path = false [, resource \$context ]] )

### 182) How to read a file in PHP?

PHP provides various functions to read data from file. There are different functions that allow you to read all file data, read data line by line and read data character by character.

PHP file read functions are given below:

fread()

fgets()

fgetc()

#### 183) How to write in a file in PHP?

PHP fwrite() and fputs() functions are used to write data into file. To write data into file, you need to use w, r+, w+, x, x+, c or c+ mode.

### 184) How to delete file in PHP?

The unlink() function is used to delete file in PHP.

bool unlink (string \$filename)

# 185) What is the method to execute a PHP script from the command line?

You should just run the PHP command line interface (CLI) and specify the file name of the script to be executed as follows.

#### 186) How to upload file in PHP?

The move\_uploaded\_file() function is used to upload file in PHP.

bool move\_uploaded\_file ( string \$filename , string \$destination )

#### 187) How to download file in PHP?

The readfile() function is used to download file in PHP.

int readfile ( string \$filename )

#### 188) How can you send email in PHP?

The mail() function is used to send email in PHP.

bool mail(\$to,\$subject,\$message,\$header);

#### 189) How do you connect MySQL database with PHP?

There are two methods to connect MySQL database with PHP. Procedural and object oriented style.

### 190) How to create database connection and query in PHP?

Since PHP 4.3, mysql\_reate\_db() is deprecated. Now you can use following 2 alternatives.

mysqli\_query()

PDO::\_query()

#### 191) How to create connection in PHP?

The mysqli\_connect() function is used to create connection in PHP.

resource mysqli\_connect (server, username, password)

#### 192) How can we increase execution time of a PHP script?

By default, maximum execution time for PHP scripts is set to 30 seconds. If a script takes more than 30 seconds, PHP stops the script and returns an error.

You can change the script run time by changing the max\_execution\_time directive in php.ini file.

When a script is called, set\_time\_limit function restarts the timeout counter from zero. It means, if default timer is set to 30 sec, and 20 sec is specified in function set\_time\_limit(), then script will run for 45 seconds. If 0sec is specified in this function, script takes unlimited time.

# 193) How to stop the execution of PHP script?

The exit() function is used to stop the execution of PHP script.

### 194) What are the encryption functions in PHP?

CRYPT() and MD5()

#### 195) What is htaccess in PHP?

The .htaccess is a configuration file on Apache server. You can change configuration settings using directives in Apache configuration files like .htaccess and httpd.conf.

## 196) Explain PHP explode() function.

The PHP explode() function breaks a string into an array.

# 197) Explain PHP split() function.

The PHP split() function splits string into an array by regular expression.

### 198) How can we get IP address of a client in PHP?

\$\_SERVER["REMOTE\_ADDR"];

# 199) What's the difference between the include() and require() functions?

They both include a specific file but on require the process exits with a fatal error if the file can't be included, while include statement may still pass and jump to the next step in the execution.

### 200) What's the difference between unset() and unlink()

unset() sets a variable to "undefined" while unlink() deletes a file we pass to it from the file system.

# 201) Explain how you can update Memcached when you make changes to PHP?

When PHP changes you can update Memcached by

Clearing the Cache proactively: Clearing the cache when an insert or update is made

Resetting the Cache: It is similar to the first method but rather than just deleting the keys and waiting for the next request for the data to refresh the cache, reset the values after the insert or update.

# 202) Explain whether it is possible to share a single instance of a Memcache between multiple PHP projects?

Yes, it is possible to share a single instance of Memcache between multiple projects. Memcache is a memory store space, and you can run memcache on one or more servers. You can also configure your client to speak to a particular set of instances. So, you can run two different Memcache processes on the same host and yet they are completely independent. Unless, if you have partitioned your data, then it becomes necessary to know from which instance to get the data from or to put into.

#### 203) Is it possible to use COM component in PHP?

Yes, it's possible to integrate (Distributed) Component Object Model components ((D)COM) in PHP scripts which is provided as a framework.

#### 204) What is the difference between characters and 4?

\034 is octal 34 and \x34 is hex 34..

# 205) What are the three classes of errors that can occur in PHP?

The three basic classes of errors are notices (non-critical), warnings (serious errors) and fatal errors (critical errors)..

# 206) Is it possible to protect special characters in a query string?

Yes, we use the urlencode() function to be able to protect special characters.

# 207) What is the difference between ereg\_replace() and eregi\_replace()?

The function eregi\_replace() is identical to the function ereg\_replace() except that it ignores case distinction when matching alphabetic characters.

# 208) Is it possible to submit a form with a dedicated button?

It is possible to use the document.form.submit() function to submit the form. For example: .

## 209) what is the difference between for and foreach?

for is expressed as follows:

for (expr1; expr2; expr3)

statement

The first expression is executed once at the beginning. In each iteration, expr2 is evaluated. If it is TRUE, the loop continues, and the statements inside for are executed. If it evaluates to FALSE, the execution of the loop ends. expr3 is tested at the end of each iteration.

However, foreach provides an easy way to iterate over arrays, and it is only used with arrays and objects.

# 210) What is the difference between the functions strstr() and stristr()?

The string function strstr(string allString, string occ) returns part of allString from the first occurrence of occ to the end of allString. This function is case-sensitive. stristr() is identical to strstr() except that it is case insensitive.

# 211) How can we determine whether a variable is set?

TThe boolean function isset determines if a variable is set and is not NULL.

## 212) How is it possible to parse a configuration file?

The function parse\_ini\_file() enables us to load in the ini file specified in filename and returns the settings in it in an associative array.

## 213) What does the expression Exception::\_\_toString means?

Exception::\_\_toString gives the String representation of the exception.

# 214) what is the difference between Exception::getMessage and Exception:: getLine?

Exception::getMessage lets us getting the Exception message and Exception::getLine lets us getting the line in which the exception occurred..

# 215) What is the goto statement useful for?

The goto statement can be placed to enable jumping inside the PHP program. The target is pointed by a label followed by a colon, and the instruction is specified as a goto statement followed by the desired target label.

# 216) How can we determine whether a PHP variable is an instantiated object of a certain class?

To be able to verify whether a PHP variable is an instantiated object of a certain class we use instanceof.

## 217) What is the differences between \$a != \$b and \$a !== \$b?

!= means inequality (TRUE if \$a is not equal to \$b) and !== means non-identity (TRUE if \$a is not identical to \$b).

#### 218) What does the array operator '===' means?

\$a === \$b TRUE if \$a and \$b have the same key/value pairs in the same order and of the same types.

## 219) What are the two main string operators?

The first is the concatenation operator ('.'), which returns the concatenation of its right and left arguments. The second is ('.='), which appends the argument on the right to the argument on the left.

# 220) what the difference between the 'BITWISE AND' operator and the 'LOGICAL AND' operator?

The .htaccess is a configuration file on Apache server. You can change configuration settings using directives in Apache configuration files like .htaccess and httpd.co.

# 221) What does the scope of variables mean?

The scope of a variable is the context within which it is defined. For the most part, all PHP variables only have a single scope. This single scope spans included and required files as well.

# 222) What does \$\_FILES means?

**\$\_**FILES is an associative array composed of items sent to the current script via the HTTP POST method.

#### 223) What's the difference between \_\_sleep and \_\_wakeup?

\_\_sleep returns the array of all the variables that need to be saved, while \_\_wakeup retrieves them..

## 224) What does \$GLOBALS mean?

\$GLOBALS is associative array including references to all variables which are currently defined in the global scope of the script..

# 225) What is the meaning of a Persistent Cookie?

A persistent cookie is permanently stored in a cookie file on the browser's computer. By default, cookies are temporary and are erased if we close the browser.

#### 226) Compare PHP & JAVA

| 227) What is Zend Engine?  |     |                       |                 |
|----------------------------|-----|-----------------------|-----------------|
| Rich set of APIs           |     | No                    | Yes             |
| Language type              |     | Dynamic typed         | Static typed    |
| Deployment are programming | a   | Server-side scripting | General purpose |
| Criteria                   | PHP |                       | Java            |

Zend Engine is used internally by PHP as a compiler and runtime engine. PHP Scripts are loaded into memory and compiled into Zend opcodes.

These opcodes are executed, and the HTML generated is sent to the client.

The Zend Engine provides memory and resource management, and other standard services for the PHP language. Its performance, reliability and extensibility played a significant role in PHP's increasing popularity.

# 228) What library is used for pdf in PHP?

The PDF functions in PHP can create PDF files using the PDFlib library Version 6. PDFlib offers an object-oriented API for PHP 5 in addition to the function-oriented API for PHP 4.

There is also the » Panda module. FPDF is a PHP class, which allows generating PDF files with pure PHP (without using the PDFlib library.)

F from FPDF stands for Free: you may use it for any kind of usage and modify it to suit your needs. FPDF requires no extension (except zlib to activate compression and GD for GIF support) and works with PHP4 and PHP5.

# 229) What are some new features introduced in PHP7?

Zend Engine 3 performance improvements and 64-bit integer support on Windows

uniform variable syntax AST-based compilation process

added Closure::call()

bitwise shift consistency across platforms

(null coalesce) operator

Unicode codepoint escape syntax

return type declarations

and scalar type (integer, float, string and boolean) declarations.

# 230) What is htaccess? Why do we use this and where?

htaccess files are configuration files of Apache Server that provide a way to make configuration changes on a per-directory basis. A file, containing one or more configuration directives, is placed in a particular document directory, and the directives apply to that directory, and all subdirectories thereof.

These .htaccess files are used to change the functionality and features of Apache web server.

For instance, htaccess file is used for url rewrite.

-> It is used to make the site password protected.

-> .htaccess file can restrict some ip addresses so that on restricted ip addresses, the site will not open.

# 231) How can we increase the execution time of a PHP script?

Default time allowed for the PHP scripts to execute is 30 secs mentioned in the php.ini file. The function used is set\_time\_limit(int sec). If the value passed is '0', it takes unlimited time. It should be noted that if the default timer is set to 30 sec, and 20 sec is specified in set\_time\_limit(), the script will run for 45 seconds.

This time can be increased by modifying the max\_execution\_time in secs. The time must be changed keeping the environment of the

server. This is because modifying the execution time will affect all the sites hosted by the server.

The script execution time can be increased by

Using sleep() function in PHP script

Using set\_time\_limit() function

The default limit is 30 seconds. The time limit can be set to zero to impose no time limit to pause.

# 232) Explain soundex() and metaphone().

soundex()

The soundex() function calculates the soundex key of a string. A soundex key is a four character long alphanumeric strings that represents English pronunciation of a word. The soundex() function can be used for spelling applications.

\$str= "hello";

Echo soundex(\$str);

?>

metaphone()

the metaphone() function calculates the metaphone key of a string. A metaphone key represents how a string sounds if pronounced by an English person. This function can also be used for spelling applications.

echo metaphone("world");

#### ?>

#### 233) What is smarty?

Smarty is a template engine written in PHP. Typically, these templates will include variables —like {\$variable} — and a range of logical and loop operators to allow adaptability within of the template.

# 234) What is Memcache?

Memcache is a technology that caches objects in memory such that your web application can get to them really fast. It is used by sites such as Digg.com, Facebook.com and NowPublic.com and is widely recognized as an essential ingredient in scaling any LAMP.

#### 235) How can we execute a PHP script using command line?

Just run the PHP CLI (Command Line Interface) program and provide the PHP script file name as the command line argument. For example, "php myScript.php", assuming "php" is the command to invoke the CLI program.

Remember that if your PHP script was written for the Web CGI interface, it may not execute properly in command line environment.

# 236) How to scrape data from website using CURL?

To scrap the data from website, Website must be public and open for scrapable.

In the blow code, just update the CURLOPT\_URL to which websites data you want to scrap.

```
$ch = curl_init();
curl_setopt($ch, CURLOPT_URL, "http://www.web-technology-
experts-notes.in/");
curl_setopt($ch, CURLOPT_RETURNTRANSFER, 1);
curl_setopt($ch, CURLOPT_HEADER, 0);
$output = curl_exec($ch);
curl_close($ch);
echo $output;
```

# 237) Explain the difference between \$message and \$\$message?

\$message is used to store variable data. \$\$message can be used to store variable of a variable. Data stored in \$message is fixed while data stored in \$\$message can be changed dynamically.

Example:

\$var1 = 'Variable 1'

\$\$var1= 'variable2'

This can be interpreted as \$ Variable 1='variable2';

For me to print value of both variables, I will write

\$var1 \$(\$var1)

\$message is a variable and \$\$message is a variable of another variable.

Example

\$Message = "YOU";

\$you= "Me";

echo \$message //Output:- you

echo \$\$message //output :-Me

\$\$message allows the developer to change the name of the variable dynamically.

# 238) How urlencode and urldecode can be used?

Urlencode can be used to encode a string that can be used in a url. It encodes the same way as posted data from web page is encoded. It returns the encoded string.

Syntax:

urlencode (string \$str)

urlencode () is the function that can be used conveniently to encode a string before using in a query part of a URL. This is a convenient way for passing variables to the next page.

Syntax:

urldecode (string \$str)

urldecode() is the function that is used to decode the encoded string. Urldecode can be used to decode a string. Decodes any %## encoding in the given string (Inserted by urlencode.)

# 239) How to set HTTP header to UTF-8 using?

header('Content-Type: text/html; charset=utf-8');

# 240) Which PHP Extension help to debug the code?

Xdebug: – It uses the DBGp debugging protocol for debugging. The debug information that Xdebug can provide includes the following:

stack and function traces in error messages with: full parameter display for user defined functions function name, file name and line indications support for member functions memory allocation protection for infinite recursions Xdebug also provides:

profiling information for PHP scripts

code coverage analysis

Capabilities to debug your scripts interactively with a debugger frontend.[4]

Xdebug is also available via PECL

# 241) How can I execute an anonymous function?

call\_user\_func(function() { echo 'anonymous function called.'; });

# 242) Explain how to send large amounts of emails using PHP.

There are different methods through which we can send mails in PHP. They are as follows:

## PHP mail() function

It implicitly sends a message to SMTP server, which is configured in the php.ini file. This function is used by the base class of MIME message composing and sending package.

#### SMTP server relay

They are used to relay the messages to an intermediate SMTP server. This server stores the messages temporarily and will try to deliver them in the destination SMTP server.

Sending urgent messages by doing direct delivery to the destination SMTP server

A variable named direct\_delivery is provided by the smtp\_message\_class sub-class, which connects to the destination SMTP server and sends the message directly.

#### 243) Explain how to get DNS servers of a domain name.

Include Net/DNS.php file in the beginning of the script

Create an object for DNS resolver by using \$ndr = Net\_DNS\_Resolver()

Query the ip address using \$ndr->search("somesite.com","A") and assign to a relevant variable. Ex: \$result

Now, display the value of \$result

# 245) How can I measure the speed of code written in PHP?

\$startTime= microtime(true);
/\*\* Write here you code to check \*\*/
/\*\* Write here you code to check \*\*/
\$endTime= microtime(true);
echo 'Time Taken to execute the code:'.\$endTime-\$startTime

# 246) How can we resolve maximum allocation time exceeds error?

We can resolve these errors through php.ini file or through .htaccess file.

From php.ini file, increase the max\_execution\_time =360 (or more according to need)

and change memory\_limit =128M (or more according to need)

From php file, we can increase time by writing ini\_set('max\_execution\_time',360 ) at top of php page to increase the execution time.And to change memory\_limit write ini\_set('memory\_limit ,128M )

From .htaccess file, we can increase time and memory by:

# 247) In how many ways can you retrieve data in the result set of MySQL using PHP? What is the difference between mysql\_fetch\_object and mysql\_fetch\_array?

We can retrieve data in the result set of MySQL using PHP in four Ways

mysqli\_fetch\_row >> Get a result row as an enumerated array

mysqli\_fetch\_array >> Fetch a result row as associative and numeric array

mysqli\_fetch\_object >> Returns the current row of a result set as an object

mysqli\_fetch\_assoc >> Fetch a result row as an associative array

mysqli\_fetch\_object() is similar to mysqli\_fetch\_array(), with one difference –

an object is returned instead of an array, which implies that that we can only access the data by the field names, and not by their offsets (numbers are illegal property names).

# 248) How do we change a password for an existing user via mysqladmin?

mysqladmin -u root -p password "newpassword"

# 249) How to Get the Uploaded File Information in the Receiving Script?

Once the Web server received the uploaded file, it will call the PHP script specified in the form action attribute to process them. This

received PHP script can get the uploaded file information through a predefined array called \$\_FILES. Uploaded file information is organized in \$\_FILES as a two-dimensional array as:

\$\_FILES[\$fieldName]['name'] : Original file name on the browser system.

\$\_FILES[\$fieldName]['type'] : the file type determined by the browser.

\$\_FILES[\$fieldName]['size'] : Number of bytes of the file content.

\$\_FILES[\$fieldName]['tmp\_name'] : a temporary filename of the file in which the uploaded file was stored on the server.

\$\_FILES[\$fieldName]['error'] an error code associated with this file upload.

The \$fieldName is the name used in the .

# 250) How to protect Special Characters in Query String?

If you want to include special characters like spaces in the query string, you need to protect them by applying the urlencode() translation function. The script below shows how to use urlencode():

# 5. MySQL



# 5. MySQL

# 1) What's Mysql ?

MySQL (pronounced "sequel") is an open source relational database management system (RDBMS) that uses Structured Query Language (SQL), the most popular language for adding, accessing, and processing data in a database. Because it is open source, anyone can download MySQL and tailor it to their needs in accordance with the general public license. MySQL is noted mainly for its speed, reliability, and flexibility.

# 2) What Is Ddl, Dml And Dcl ?

If you look at the large variety of SQL commands, they can be divided into three large subgroups. Data Definition Language deals with database schemas and descriptions of how the data should reside in the database, therefore language statements like CREATE TABLE or ALTER TABLE belong to DDL. DML deals with data manipulation, and therefore includes most common SQL statements such SELECT, INSERT, etc. Data Control Language includes commands such as GRANT, and mostly concerns with rights, permissions and other controls of the database system.

#### 3) How Do You Get The Number Of Rows Affected By Query?

SELECT COUNT (user\_id) FROM users would only return the number of user\_id's.

# 4) If The Value In The Column Is Repeatable, How Do You Find Out The Unique Values?

Use DISTINCT in the query, such as SELECT DISTINCT user\_firstname FROM users; You can also ask for a number of distinct values by saying SELECT COUNT (DISTINCT user\_firstname) FROM users;

## 5) How Do You Return The A Hundred Books Starting From 25th?

SELECT book\_title FROM books LIMIT 25, 100. The first number in LIMIT is the offset, the second is the number.

# 6) You Wrote A Search Engine That Should Retrieve 10 Results At A Time, But At The Same Time You'd Like To Know How Many Rows There're Total. How Do You Display That To The User?

SELECT SQL\_CALC\_FOUND\_ROWS page\_title FROM web\_pages LIMIT 1,10; SELECT FOUND\_ROWS(); The second query (not that COUNT() is never used) will tell you how many results there're total, so you can display a phrase "Found 13,450,600 results, displaying 1-10". Note that FOUND\_ROWS does not pay attention to the LIMITs you specified and always returns the total number of rows affected by query.

# 7) How Would You Write A Query To Select All Teams That Won Either 2, 4, 6 Or 8 Games?

SELECT team\_name FROM teams WHERE team\_won IN (2, 4, 6, 8)

## 8) How Would You Select All The Users, Whose Phone Number Is Null?

SELECT user\_name FROM users WHERE ISNULL(user\_phonenumber);

# 9) What Does This Query Mean: Select User\_name, User\_isp From Users Left Join Isps Using (user\_id) ?

It's equivalent to saying SELECT user\_name, user\_isp FROM users LEFT JOIN isps WHERE users.user\_id=isps.user\_id

# 10) How Do You Find Out Which Auto Increment Was Assigned On The Last Insert?

SELECT LAST\_INSERT\_ID() will return the last value assigned by the auto\_increment function. Note that you don't have to specify the table name.

# 11) What Does -i-am-a-dummy Flag To Do When Starting Mysql?

Makes the MySQL engine refuse UPDATE and DELETE commands where the WHERE clause is not present.

## 12) On Executing The Delete Statement I Keep Getting The Error About Foreign Key Constraint Failing. What Do I Do?

What it means is that so of the data that you're trying to delete is still alive in another table. Like if you have a table for universities and a table for students, which contains the ID of the university they go to, running a delete on a university table will fail if the students table still contains people enrolled at that university. Proper way to do it would be to delete the offending data first, and then delete the university in question. Quick way would involve running SET foreign\_key\_checks=0 before the DELETE command, and setting the parameter back to 1 after the DELETE is done. If your foreign key was formulated with ON DELETE CASCADE, the data in dependent tables will be removed automatically.

#### 13) When Would You Use Order By In Delete Statement?

When you're not deleting by row ID. Such as in DELETE FROM techpreparation\_com\_questions ORDER BY timestamp LIMIT 1.

#### 14) How Can You See All Indexes Defined For A Table?

SHOW INDEX FROM techpreparation\_questions;

# 15) How Would You Change A Column From Varchar(10) To Varchar(50)?

ALTER TABLE techpreparation\_questions CHANGE techpreparation\_content techpreparation\_CONTENT VARCHAR(50).

## 16) How Would You Delete A Column?

ALTER TABLE techpreparation\_answers DROP answer\_user\_id.

# 17) How Would You Change A Table To Innodb?

ALTER TABLE techpreparation\_questions ENGINE innodb;

# 18) When You Create A Table, And Then Run Show Create Table On It, You Occasionally Get Different Results Than What You Typed In. What Does Mysql Modify In Your Newly Created Tables?

- 1. VARCHARs with length less than 4 become CHARs
- 2. CHARs with length more than 3 become VARCHARs.
- 3. NOT NULL gets added to the columns declared as PRIMARY KEYs
- 4. Default values such as NULL are specified for each column

# 19) How Do I Find Out All Databases Starting With 'tech' To Which I Have Access To?

SHOW DATABASES LIKE 'tech%';

# 20) How Do You Concatenate Strings In Mysql?

CONCAT (string1, string2, string3)

# 21) How Do You Get A Portion Of A String?

SELECT SUBSTR(title, 1, 10) from techpreparation\_questions;

# 22) What's The Difference Between Char\_length And Length?

The first is, naturally, the character count. The second is byte count. For the Latin characters the numbers are the same, but they're not the same for Unicode and other encodings.

# 23) How Do You Convert A String To Utf-8?

SELECT (techpreparation\_question USING utf8);

# 24) What Do % And \_ Mean Inside Like Statement?

% corresponds to 0 or more characters, \_ is exactly one character.

# 25) What Does + Mean In Regexp?

At least one character. Appendix G. Regular Expressions from MySQL manual is worth perusing before the interview.

# **26) How Do You Get The Month From A Timestamp?**SELECT MONTH(techpreparation\_timestamp) from techpreparation\_questions;

# 27) How Do You Offload The Time/date Handling To Mysql?

SELECT DATE\_FORMAT(techpreparation\_timestamp, '%Y-%m-%d') from techpreparation\_questions; A similar TIME\_FORMAT function deals with time.

# 28) How Do You Add Three Minutes To A Date?

ADDDATE(techpreparation\_publication\_date, INTERVAL 3 MINUTE)

# 29) What's The Difference Between Unix Timestamps And Mysql Timestamps?

Internally Unix timestamps are stored as 32-bit integers, while MySQL timestamps are stored in a similar manner, but represented in readable YYYY-MM-DD HH:MM:SS format.

# 30) How Do You Convert Between Unix Timestamps And Mysql Timestamps?

UNIX\_TIMESTAMP converts from MySQL timestamp to Unix timestamp, FROM\_UNIXTIME converts from Unix timestamp to MySQL timestamp.

# 31) What Are Enums Used For In Mysql?

You can limit the possible values that go into the table. CREATE TABLE months (month ENUM 'January', 'February', 'March',...); INSERT months VALUES ('April');

# 32) How Are Enums And Sets Represented Internally?

As unique integers representing the powers of two, due to storage optimizations.

# 33) How Do You Start And Stop Mysql On Windows?

net start MySQL, net stop MySQL

# 34) How Do You Start Mysql On Linux?

/etc/init.d/mysql start.

## 35) Explain The Difference Between Mysql And Mysql Interfaces In Php?

mysql is the object-oriented version of mysql library functions.

# 36) What's The Default Port For Mysql Server?

3306 is the default port for MYSQL.

# 37) What Does Tee Command Do In Mysql?

tee followed by a filename turns on MySQL logging to a specified file. It can be stopped by command note.

# 38) Can You Save Your Connection Settings To A Conf File?

Yes, and name it ~/.my.conf. You might want to change the permissions on the file to 600, so that it's not readable by others.

# 39) How Do You Change A Password For An Existing User Via Mysqladmin?

mysqladmin -u root -p password "newpassword"

# 40) Use Mysqldump To Create A Copy Of The Database?

mysqldump -h mysqlhost -u username -p mydatabasename > dbdump.sql

# 41) Have You Ever Used Mysql Administrator And Mysql Query Browser?

Describe the tasks you accomplished with these tools.

# 42) What Are Some Good Ideas Regarding User Security In Mysql?

There is no user without a password. There is no user without a user name. There is no user whose Host column contains % (which here indicates that the user can log in from anywhere in the network or the Internet). There are as few users as possible (in the ideal case only root) who have unrestricted access.

# 43) Explain The Difference Between Myisam Static And Myisam Dynamic. ?

In MyISAM static all the fields have fixed width. The Dynamic MyISAM table would include fields such as TEXT, BLOB, etc. to accommodate

the data types with various lengths. MyISAM Static would be easier to restore in case of corruption, since even though you might lose some data, you know exactly where to look for the beginning of the next record.

## 44) What Does Myisamchk Do?

It compressed the MyISAM tables, which reduces their disk usage.

# 45) Explain Advantages Of Innodb Over Myisam?

Row-level locking, transactions, foreign key constraints and crash recovery.

# 46) Explain Advantages Of Myisam Over Innodb?

Much more conservative approach to disk space management - each MyISAM table is stored in a separate file, which could be compressed then with myisamchk if needed. With InnoDB the tables are stored in tablespace, and not much further optimization is possible. All data except for TEXT and BLOB can occupy 8,000 bytes at most. No full text indexing is available for InnoDB. TRhe COUNT(\*)s execute slower than in MyISAM due to tablespace complexity.

# 47) What Are Heap Tables In Mysql?

HEAP tables are in-memory. They are usually used for high-speed temporary storage. No TEXT or

BLOB fields are allowed within HEAP tables. You can only use the comparison operators = and <=>. HEAP tables do not support AUTO\_INCREMENT. Indexes must be NOT NULL.

# 48) How Do You Control The Max Size Of A Heap Table?

MySQL config variable max\_heap\_table\_size.

# 49) What Are Csv Tables?

Those are the special tables, data for which is saved into commaseparated values files. They cannot be indexed.

## 50) Explain Federated Tables?

Introduced in MySQL 5.0, federated tables allow access to the tables located on other databases on other servers.

# 51) What Is Serial Data Type In Mysql?

BIGINT NOT NULL PRIMARY KEY AUTO\_INCREMENT

SERIAL is an alias for BIGINT UNSIGNED NOT NULL AUTO\_INCREMENT UNIQUE.

# 52) What Happens When The Column Is Set To Auto Increment And You Reach The Maximum Value For That Table?

It stops incrementing. It does not overflow to 0 to prevent data losses, but further inserts are going to produce an error, since the key has been used already.

# 53) Explain The Difference Between Bool, Tinyint And Bit.?

Prior to MySQL 5.0.3: those are all synonyms. After MySQL 5.0.3: BIT data type can store 8 bytes of data and should be used for binary data.

# 54) Explain The Difference Between Float, Double And Real.?

**FLOATs** store floating point numbers with 8 place accuracy and take up 4 bytes.

**DOUBLES** store floating point numbers with 16 place accuracy and take up 8 bytes.

**REAL** is a synonym of FLOAT for now.

# 55) If You Specify The Data Type As Decimal (5,2), What's The Range Of Values That Can Go In This Table?

999.99 to -99.99. Note that with the negative number the minus sign is considered one of the digits.

# 56) What Happens If A Table Has One Column Defined As Timestamp?

That field gets the current timestamp whenever the row gets altered.

## 57) But What If You Really Want To Store The Timestamp Data, Such As The Publication Date Of The Article?

Create two columns of type TIMESTAMP and use the second one for your real data.

# 58) Explain Data Type Timestamp Default Current\_timestamp On Update Current\_timestamp ?

The column exhibits the same behavior as a single timestamp column in a table with no other timestamp columns.

# 59) What Does Timestamp On Update Current\_timestamp Data Type Do?

On initialization places a zero in that column, on future updates puts the current value of the timestamp in.

# 60) Explain Timestamp Default 2006:09:02 17:38:44? On Update Current\_timestamp. ?

A default value is used on initialization, a current timestamp is inserted on update of the row.

# 61) If I Created A Column With Data Type Varchar(3), What Would I Expect To See In Mysql Table?

CHAR(3), since MySQL automatically adjusted the data type.

# 62) General Information About Mysql.

MySQL is a very fast, multi-threaded, multi-user, and robust SQL (Structured Query Language) database server.

# 63) Why Sql Is A Database Management System?

A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or the vast amounts of information in a corporate network. To add, access, and process data stored in a computer database, you need a database management system such as MySQL. Since computers are very good at handling large amounts of data, database management plays a central role in computing, as stand-alone utilities, or as parts of other applications.

# 64) Why Use Mysql?

MySQL is very fast, reliable, and easy to use. If that is what you are looking for, you should give it a try. MySQL also has a very practical set of features developed in very close cooperation with our users. You can find a performance comparison of MySQL to some other database managers on our benchmark page. See section 12.7 Using Your Own Benchmarks. MySQL was originally developed to handle very large databases much faster than existing solutions and has been successfully used in highly demanding production environments for several years. Though under constant development, MySQL today offers a rich and very useful set of functions. The connectivity, speed, and security make MySQL highly suited for accessing databases on the Internet.

# 65) How Mysql Optimizes Distinct?

DISTINCT is converted to a GROUP BY on all columns, DISTINCT combined with ORDER BY will in many cases also need a temporary table.

When combining LIMIT # with DISTINCT, MySQL will stop as soon as it finds # unique rows.

If you don't use columns from all used tables, MySQL will stop the scanning of the not used tables as soon as it has found the first match.

SELECT DISTINCT t1.a FROM t1,t2 where t1.a=t2.a;

In the case, assuming t1 is used before t2 (check with EXPLAIN), then MySQL will stop reading from t2 (for that particular row in t1) when the first row in t2 is found.

# 66) How Mysql Optimizes Limit?

In some cases MySQL will handle the query differently when you are using LIMIT # and not using HAVING:

If you are selecting only a few rows with LIMIT, MySQL will use indexes in some cases when it normally would prefer to do a full table scan.

If you use LIMIT # with ORDER BY, MySQL will end the sorting as soon as it has found the first # lines instead of sorting the whole table.

When combining LIMIT # with DISTINCT, MySQL will stop as soon as it finds # unique rows.

In some cases a GROUP BY can be resolved by reading the key in order (or do a sort on the key) and then calculate summaries until the key value changes. In this case LIMIT # will not calculate any unnecessary GROUP BY's. As soon as MySQL has sent the first # rows to the client, it will abort the query.

LIMIT 0 will always quickly return an empty set. This is useful to check the query and to get the column types of the result columns.

The size of temporary tables uses the LIMIT # to calculate how much space is needed to resolve the query.

# 67) Mysql - Speed Of Delete Queries?

If you want to delete all rows in the table, you should use TRUNCATE TABLE table\_name. The time to delete a record is exactly proportional to the number of indexes. To delete records more quickly, you can increase the size of the index cache.

# 68) What Is The Difference Between Mysql\_fetch\_array And Mysql\_fetch\_object?

mysql\_fetch\_array — Fetch a result row as an associative ARRAY, a numeric array, or both mysql\_fetch\_object — Fetch a result row as an OBJECT.

# 69) What Are The Different Table Present In Mysql?

**MyISAM :** This is default. Based on Indexed Sequntial Access Method. The above SQL will create a MyISA table.

#### ISAM : same

**HEAP :** Fast data access, but will loose data if there is a crash. Cannot have BLOB, TEXT & AUTO INCRIMENT fields

**BDB :** Supports Transactions using COMMIT & ROLLBACK. Slower that others.

InoDB : same as BDB

## 70) What Is Primary Key?

A primary key is a single column or multiple columns defined to have unique values that can be used as row identifications.

#### 71) What Is Foreign Key?

A foreign key is a single column or multiple columns defined to have values that can be mapped to a primary key in another table.

#### 72) What Is Index?

An index is a single column or multiple columns defined to have values pre-sorted to speed up data retrieval speed.

## 73) What Is Join?

Join is data retrieval operation that combines rows from multiple tables under certain matching conditions to form a single row.

#### 74. What Is Union?

Join is data retrieval operation that combines multiple query outputs of the same structure into a single output. By default the MySQL UNION removes all duplicate rows from the result set even if you don't explicit using DISTINCT after the keyword UNION.

SELECT customerNumber id, contactLastname name FROM customers UNION SELECT employeeNurrber id, firstname name FROM employees

#### id name

103 Schmitt 112 King 114 Ferguson 119 Labrune 121 Bergulfsen

## 75) What Is Isam?

ISAM (Indexed Sequential Access Method) was developed by IBM to store and retrieve data on secondary storage systems like tapes.

## 76) What Is Innodb?

InnoDB is a transaction safe storage engine developed by Innobase Oy (an Oracle company now).

#### 77) What Is Bdb (berkeleydb)?

BDB (BerkeleyDB) is transaction safe storage engine originally developed at U.C. Berkeley. It is now developed by Sleepycat Software, Inc. (an Oracle company now).

#### 78) What Is Csv?

CSV (Comma Separated Values) is a file format used to store database table contents, where one table row is stored as one line in the file, and each data field is separated with comma.

#### 79) What Is Transaction?

A transaction is a logical unit of work requested by a user to be applied to the database objects. MySQL server introduces the transaction concept to allow users to group one or more SQL statements into a single transaction, so that the effects of all the SQL statements in a transaction can be either all committed (applied to the database) or all rolled back (undone from the database).

#### 80) What Is Commit?

Commit is a way to terminate a transaction with all database changes to be saved permanently to the database server.

#### 81) What Is Rollback?

Rollback is a way to terminate a transaction with all database changes not saving to the database server.

## 82) How Many Groups Of Data Types?

MySQL support 3 groups of data types as listed below:

*String Data Types* - CHAR, NCHAR, VARCHAR, NVARCHAR, BINARY, VARBINARY, TINYBLOB, TINYTEXT, BLOB, TEXT, MEDIUMBLOB, MEDIUMTEXT, LONGBLOB, LONGTEXT, ENUM, SET.

*Numeric Data Types* - BIT, TINYINT, BOOLEAN, SMALLINT, MEDIUMINT, INTEGER, BIGINT, FLOAT, DOUBLE, REAL, DECIMAL.

*Date and Time Data Types* - DATE, DATETIME, TIMESTAMP, TIME, YEAR.

#### 83) What Is The Differences Between Char And Nchar?

Both CHAR and NCHAR are fixed length string data types. But they have the following differences:

- CHARs full name is CHARACTER.
- NCHARs full name is NATIONAL CHARACTER.
- By default, CHAR uses ASCII character set. So 1 character is always stored as 1 byte.
- By default, NCHAR uses Unicode character set. NCHAR data are stored in UTF8 format. So 1 character could be stored as 1 byte or upto 4 bytes.

• Both CHAR and NCHAR columns are defined with fixed lengths in units of characters.

## 84) How To Escape Special Characters In Sql Statements?

There are a number of special characters that needs to be escaped (protected), if you want to include them in a character string. Here are some basic character escaping rules:

- The escape character () needs to be escaped as (\).
- The single quote (') needs to be escaped as (') or (") in singlequote quoted strings.
- The double quote () needs to be escaped as (") or ("") in doublequote quoted strings.
- The wild card character for a single character () needs to be escaped as (\_).
- The wild card character for multiple characters (%) needs to be escaped as (%).
- The tab character needs to be escaped as (t).
- The new line character needs to be escaped as (n).
- The carriage return character needs to be escaped as (r).

# 85) How To Concatenate Two Character Strings?

If you want concatenate multiple character strings into one, you need to use the CONCAT() function. Here are some good examples:

SELECT CONCAT('Welcome',' to') FROM DUAL; Welcome to SELECT CONCAT(wj','center','.com') FROM DUAL; wisdomjobs.com

#### 86) How To Enter Characters As Hex Numbers?

If you want to enter characters as HEX numbers, you can quote HEX numbers with single quotes and a prefix of (X), or just prefix HEX

numbers with (Ox). A HEX number string will be automatically converted into a character string, if the expression context is a string. Here are some good examples:

SELECT X313233' FROM DUAL; 123 SELECT 0x414243 FROM DUAL; ABC

## 87) How To Enter Boolean Values In Sql Statements?

If you want to enter Boolean values in SQL statements, you use (TRUE), (FALSE), (true), or (false). Here are some good examples:

SELECT TRUE, true, FALSE, false FROM DUAL;

# 88. How To Convert Numeric Values To Character Strings?

You can convert numeric values to character strings by using the CAST(value AS CHAR) function as shown in the following examples:

SELECT CAST(4123.45700 AS CHAR) FROM DUAL; 4123.45700

# 89) How To Get Rid Of The Last 2 0's? SELECT CAST(4.12345700E+3

AS CHAR) FROM DUAL; 4123.457 SELECT CAST(1/3 AS CHAR); 0.3333

# 90) How To Use In Conditions?

An IN condition is single value again a list of values. It returns TRUE, if the specified value is in the list. Otherwise, it returns FALSE. Some examples are :

SELECT 3 IN (1,2,3,4,5) FROM DUAL;

```
1
SELECT 3 NOT IN (1,2,3,4,5) FROM DUAL;
0
SELECT Y' IN ('F','Y',I) FROM DUAL;
1
```

#### 91) How To Use Like Conditions?

A LIKE condition is also called pattern patch. There are 3 main rules on using LIKE condition:

- is used in the pattern to match any one character.
- % is used in the pattern to match any zero or more characters.
- ESCAPE clause is used to provide the escape character in the pattern.

#### 92) How To Present A Past Time In Hours, Minutes And Seconds?

If you want show an article was posted "n hours n minutes and n seconds ago', you can use the TIMEDIFF(NOWO, pastTime) function as shown in the following are:

SELECT TIMEDIFF(NOWO, '2006-07-01 04:09:49') FROM DUAL; 06:42:58 SELECT TIM E\_FORMAT(TI M EDI FF( NOWO, '2006-06-30 04:09:49'), '%H hours, %i minutes and %s seconds ago.') FROM DUAL; 30 hours, 45 minutes and 22 seconds ago.

#### 93) How To Add A New Column To An Existing Table In Mysql?

ALTER TABLE tip ADD COLUMN author VARCHAR(40); Query OK, 1 row affected (0.18 sec) Records: 1 Duplicates: 0 Warnings: 0

#### 94) How To Delete An Existing Column In A Table?

5. MySQL

ALTER TABLE tip DROP COLUMN create\_date; Query OK, 1 row affected (0.48 sec) Records: 1 Duplicates: 0 Warnings: 0

### 95) How To Rename An Existing Column In A Table?

ALTER TABLE tip CHANGE COLUMN subject title VARCHAR(60);

**96) How To Rename An Existing Table In Mysql?** ALTER TABLE tip RENAME TO faq;

### 97) How To Create A Table Index In Mvsql?

If you have a table with a lots of rows, and you know that one of the columns will be used often as a search criteria, you can add an index for that column to improve the search performance. To add an index, you can use the "CREATE INDEX" statement as shown in the following script:

mysql> CREATE TABLE tip (id INTEGER PRIMARY KEY, subject VARCHAR(80) NOT NULL, description VARCHAR(256) NOT NULL, create\_date DATE NULL); Query OK, 0 rows affected (0.08 sec) mysql> CREATE INDEX tip\_subject ON tip(subject); Query OK, 0 rows affected (0.19 sec) Records: 0 Duplicates: 0 Warnings: 0

### 98) How To Get A List Of Indexes Of An Existing Table?

If you want to see the index you have just created for an existing table, you can use the "SHOW INDEX FROM tableName" command to get a list of all indexes in a given table.

### 99) How To Drop An Existing Index In Mysql?

If you don't need an existing index any more, you should delete it with the "DROP INDEX indexName ON tableName" statement. Here is an example SQL script :

mysqi> DROP INDEX tip\_subject ON tip; Query OK, 0 rows affected (0.13 sec) Records: 0 Duplicates: 0 Warnings: 0

#### 100. How To Drop An Existing View In Mysql?

If you have an existing view, and you dont want it anymore, you can delete it by using the "DROP VIEW viewName" statement

# 6. WORDPRESS



#### 1) What is WordPress?

WordPress is an Open Source Content Management System (CMS) and a blogging tool, based on PHP and MySQL. It is free of cost, and you can use it for any personal and commercial website. Wordpress is the most popular blogging system and used for more than 60 million websites. It is licensed under GPL.

#### 2) Is a website on WordPress safe and secure?

WordPress is safe and secure to operate. You need not worry about anything but, still, it is suggested to update your site with latest WordPress version to avoid hacking.

### 3) Is there any limitation for WordPress website?

WordPress can be used for e-commerce sites, membership sites, photo galleries and any other type of site you can think. Following are some disadvantages of WordPress:

- Using several plugins can make the website heavy to load and run.
- PHP knowledge is required to make modifications or changes in the WordPress website.
- Sometimes software needs to be updated to keep the WordPress up-to-date with the current browsers and mobile devices. Updating WordPress version leads to loss of data, so a backup copy of the website is required.
- Modifying and formatting the graphic images and tables is difficult.

#### 4) When was the Wordpress released initially?

When is it announced as open source software?WordPress was initially released on 27th May 2003 by Matt Mullenweg and Mike Little. WordPress was announced as open source in October 2009.

#### 5) What is the latest version of WordPress?

The latest version of WordPress is 4.9.8 released on Aug 02, 2018.

#### 6) What are the system requirements for installing WordPress?

#### Database - MySQL 5.0 +

- Web Server -
  - WAMP (Windows)
  - LAMP (Linux)
  - XAMP (Multi-platform)
  - MAMP (Macintosh)
- Operating System Cross-platform
- Browser Support IE (Internet Explorer 8+), Firefox, Google Chrome, Safari, Opera
- PHP Compatibility PHP 5.2+

# 7) What are the steps should be followed for installing WordPress?

- Download Wordpress from www.wordpress.org
- Extract the downloaded files and upload it on your web server or localhost.
- Open your web browser and navigate to the WordPress file path. Then you see the first screen of the WordPress installer.
- In the next step, please select your preferred language.
- In the next step, you see the information needed for the database before proceeding the WordPress installation.
- enter the details of your Mysql database.
- Wordpress checks the details provided by you and gives you a confirmation screen.
- In the next step, you have to enter the administration details.
- After entering the administration details, click on "Install WordPress" button.

- After successful installation, you get a screen stating "success." You can see the username and the password on this screen.
- Enter your username and password on the next screen and click 'login.'

# 8) Explain the components shown on the Home screen of WordPress.

- Dashboard menu: This component of home screen provides the navigation menu options for posts, media library, pages, and comments on the left side of the screen.
- Screen options: This component of the home screen display different types of widgets which can be shown or hidden on some screen. This component also contains the checkboxes to show or hide different screen options and also allow to customize sections on the admin screen.
- Welcome: This component of the home page help us to customize WordPress theme by clicking on the customize your site button. Also, the center column provides some of the useful links such as creating a page and view the front end of your web page, creating a blog post. Moreover, the last column contains links to the menus, widgets, settings related to comments.
- Quick Draft: This component of the home screen includes a mini post editor which is used to write, save, and publish the post from the admin dashboard. This include title of the draft followed by some notes about the draft and save it as a draft.
- Wordpress news: This component of home screen displays the latest news regarding the latest software update of WordPress.
- Activity: This component of the home screen shows the latest comments, recent posts published. It also allows you to reply, edit, delete, approve, or disapprove the comments. You can also move comments to spam.

• At a Glance: This component of home screen displays an overview of your blog?s posts, number of published posts and pages, and number of comments.

# 9) Is it possible to SEO a WordPress site to show it on Google first page?

WordPress has an inbuilt SEO search engine benefit. You can also have an additional plug-in in WordPress to help with SEO and rank on a favorite search engine like Google.

#### 10) What is the difference between character 23 and x23?

Here 23 specifies the octal 23 and x23 determine the hex 23.

### 11) What are the hooks? Define different types of hooks in WordPress.

Hooks enable users to create WordPress themes or plug-ins with shortcode without changing the original files.

There are two types of hooks:

**Action hooks**: Action hooks facilitate you to insert an additional code from an outside resource.

**Filter hooks**: Filter hooks facilitate you to add content or text at the end of the post.

### 12) What are the most exciting and useful features of WordPress?

These are the features which make WordPress very popular:

- Easy to install and upgrade
- In-built SEO engine
- Free and easy theme selection

- Flexibility
- Multilingual- available in more than 70 languages
- Own data- no unwanted advert on your website
- Flexibility and Easy publishing option.

#### 13) Why does WordPress use MySQL?

Following are the reasons to use MySQL with WordPress:

- Open source
- Extremely fast
- A widely available database server
- Supported by low-cost Linux hosting

#### 14) How many tables are there in WordPress by default?

At present version, there are about 11 tables in WordPress by default. You can check the number of tables in WordPress by phpMyAdmin.

- wp\_commentmeta
- wp\_comments
- wp\_links
- wp\_options
- wp\_postmeta
- wp\_posts
- wp\_terms
- wp\_term\_relationships
- wp\_term\_taxonomy
- wp\_usermeta
- wp\_users

#### 15) What is by default prefix of WordPress tables?

The wp\_ is by default prefix of WordPress tables.

#### 16) In WordPress, objects are passed by value or by reference.

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In WordPress, all objects are passed by value.

### 17) How can you call a constructor for a parent class?

You can call a constructor for a parent class by this way:

Parents:: constructor(\$value)

#### 18) In which cases, WordPress is not suitable for a website?

These are some situations when WordPress is not recommended:

- If the client is working on the non-CMS based project.
- For sophisticated and innovative e-commerce sites.
- Sites which require custom scripting solutions.

# 19) Is WordPress the best CMS or any other CMS is better than WordPress?

No doubt WordPress is good CMS, but Drupal and Joomla are considered better CMS than WordPress to work.

# 20) Which is considered more secured wordpress.com or wordpress.org?

Wordpress.com is relatively more secure than wordpress.org because they limit the themes and does not allow plugin's installation. However, security depends on the hosting company of your website and also what steps they are taking to prevent the security problems.

### 21) Explain posts in WordPress.

Posts allow you to write a blog and post it on your site. They are listed in reverse chronological order on the front page of your blog.

### 22) Explain pages in WordPress.

Pages are different from posts. They are static, and they do not change often. You can add pages containing information about you and your site.

#### 23) What is the difference between WordPress posts and pages?

WordPress posts are content published on a site with an exact date and time. They can be categorized systematically by category and tags. They are listed in reverse chronological order on a website.

WordPress pages are static and do not frequently change such as contact us, about us, privacy policy. They don?t have a date and time published. However, the database stores their published date and time.

#### 24) What is a loop in WordPress?

WordPress uses PHP codes to display posts. This PHP code is known as a loop.

#### 25) How can you disable WordPress comment?

You can disable the WordPress comment on the dashboard. On the panel, under the options- discussion you find "Allow people to post the comment." Uncheck this to disable comment.

#### 26) How can you edit a WordPress comment?

You can edit WordPress comment using the dashboard. From the panel, under the Comments option, select edit to edit a comment.

#### 27) Explain moderate comment in WordPress.

Comments by visitors on a post are not published directly unless the admin provides it. It is called moderation. To change comment moderation setting, select Settings option from the dashboard and check the option "Comment must be manually approved."

### 28) How to allow only registered users to comment on WordPress?

If you don't want a comment from a new user on your blog, check the option "Users must be registered and logged in to comment" from Discussions under the Settings option.

#### 29) Explain Avatar and Gravatar in WordPress.

Word Avatar is used for a user's profile image in online communications. Gravatar is a web-based service which allows its users to use the Avatar image.

### 30) How can you handle the situation if your WordPress site is hacked?

You should follow these steps:

- Install security plugins like WP security
- Re-install the latest version of WordPress
- Change password and user-ids for all your users
- Check your themes and plug-ins are up to date

#### 31) Explain Categories in WordPress.

Categories allow a user to divide its content into different sections. Different topics publishing on a single website can be divided into different groups. It tells a reader what a post is about and they can easily find their content from a lot.

#### 32) How to convert a category into the tag?

WordPress provides you an option to change category into tag and tag into a category. For this, you need to install Categories and Tags Converter from Import option under Tools section.

#### 33) Explain Tags in WordPress.

With the help of tags, similar posts can be grouped. Hence, it makes more comfortable for the users to search for a particular post. Tags are similar to categories but still different.

# 34) Explain the difference between WordPress Categories and Tags.

WordPress Categories are broad-ranging. It helps a user to identify about a blog. It is possible for a post to have more than one category. A post must have at least one category.

WordPress Tags are like categories, but they are used to describe a post more specifically. Tags are not necessary for every post.

#### 35) How many types of users WordPress have?

WordPress user role determines access permission to the users of a WordPress site.

- **Administrator**: They have full rights over a site.
- **Editor**: They deal with the content section of a website.
- **Author**: They only deal with their posts. They can delete their post even after publishing.
- **Contributor**: A contributor doesn't have the right to publish their post or page. They need to send it to the administrator for review.
- **Subscriber**: Users who are subscribed to your site can log in and update their profile.
- **Follower**: They don't have any right. They can only read and comment on your post.
- **Viewer**: They can only read and comment on a post.

#### 36) What are WordPress Themes?

With the help of a WordPress theme, you can design the layout and appearance of your website in the front-end.

#### 37) How will you select a WordPress theme?

WordPress theme should complement your site. It can be either free or paid. An ideal theme should have qualities like simple, responsive, supports plugins, SEO friendly.

# 38) What is the difference between custom themes and normal themes?

Custom themes are very straightforward to format. You don't need much technical knowledge to change in the coding part. The custom theme allows for SEO search, but with an SEO plugin available it would not make much difference to a normal theme.

# 39) What is the difference between free and paid WordPress theme?

Free and premium WordPress themes are different in many ways. With free themes, you have to compromise with the quality as many other sites using the same theme. Problems in premium themes solved more quickly than in free themes.

#### 40) What are WordPress Plugins?

WordPress plugins are programs written in PHP scripting language that extends the functionality or add some new features to a WordPress site. They provide additional functions to an application.

### 41) When will you not be able to see the plugin menu on a WordPress site?

When a site is hosted on free wrodpress.com, plugin menu will not appear. Also if you don't have an account for the administrator level, you can't see the plugin menu.

### 42) What are the plugins you can use to create a contact form in WordPress?

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You can use a plug-in like Gravity forms or a free plugin contact form 7 to create a contact form in WordPress.

# 43) Explain the difference between WordPress Themes and Plugins.

A theme is an external effect of a website's presentation and designing. Whereas, a plugin is an interior effect which adds or remove some functions to a site.

You can customize some functionality in themes instead of installing the plugin, but plugins can't replace themes.

#### 44) How to update a WordPress site?

You should always update your site to the latest version of WordPress. Whenever there is a new WordPress version, you receive an update message on your admin screen.

There are two methods to update a WordPress site:

- One-click update
- Manually update

#### 45) How to improve security on a WordPress site.

Security in a WordPress site is essential as these websites are favorite targets for hackers. A site can't be perfectly secured, but one can at least reduce the risk by applying different security measures.

Some of the measures to secure a WordPress site are given below:

- Choosing a host
- Strong password
- 2 step login authentication
- Limit number of login attempts
- Use SSL

• Keep site update

#### 46) How to reset password in WordPress?

If you forget or lost the password of your account, WordPress gives you an option to reset it through different methods.

There are four ways to reset WordPress password:

- Change password from the dashboard
- Reset password via email
- Manually reset the password through database via PhpMyAdmin
- Using emergency password reset script

#### 47) How to optimize WordPress site performance?

Optimization increases the speed of your site and gives the best possible outcome. It improves the ranking of a website.

There are many tricks to optimize a WordPress site. Some of them are given below:

- Use CDN
- Use a caching plugin
- Use a simple theme/framework
- Keep site updated
- Split long posts into smaller pages

#### 48) What are template tags in WordPress?

Template tags are used within themes to retrieve content from your database. It is a piece of code that tells WordPress to get something from the database.

#### 49) What are meta-tags in WordPress?

Meta-tags are keyword and description used to display website or page information.

#### 50) What are custom fields in WordPress?

Custom fields are also called post meta. It is a feature through which users can add arbitrary information when writing a post. These metadata can be displayed using template tags in WordPress themes.

#### 51) How to take the backup of a WordPress site?

A backup is just the copy of your original site through which you can restore your original site if anything goes wrong. Keeping a backup on the safe side is always advisable.

A site is generally made up of two parts. One is all the installed themes/plugins, media and other is Database which stores all your blogs, posts, and comments. Without files, there is no site, and without the database, there is no data. Hence both of them is important and need a backup.

#### 52) Why is Backup important?

Backup allows you to retrieve your site back if something goes wrong or if your site breaks. There could be many reasons for this like external attack, hacking, server down.

You can lose everything from data to all the posts on your site. The backup is essential to avoid it.

Securing your backup is also an important issue. Make sure to update your plugins and themes regularly or in a specified interval. Use strong Username and Password. Database name should also be uncommon.

#### 53) How to Backup WordPress root Files?

There are many files in your WordPress directory. These files can be downloaded back from wordpress.org site. Some of them can be retrieved back but some can't.

The wp-content directory contains all your installed themes and plugins including all your media files like images, audio or video files which you uploaded on your site. Hence, it makes it personal and unique.

The wp-config.php file consists of your Database and other personnel options which make it also a unique file.

Both the above files can't be replaced by other default files. Hence, they need to be backed up.

#### 54) Explain the steps involved in the backup of the database.

In the database, all your posts, media files, comments, and metadata stored. It also contains user's information and all your plugin settings. All these information are personal and unique. If you lose them, they are gone permanently. Select your WordPress database (which you created during the installation of WordPress).

- Click on Export.
- Quick is used when the database is small. Custom is used when the database is large. Suppose we are choosing Custom.
- After choosing Custom, a table appears. Select all the tables.
- Now come to the Output section.
- Choose SQL from the Format drop-down menu.

- Check "Add drop table." It is useful for overwriting an existing table.
- Check "If not exists." It prevents errors when tables are already there.
- Now click Go. Your data will be saved in your system.

#### 55) Which licensing authority is responsible for WordPress?

WordPress is licensed under GPLv2 (GNU General Public License) which makes it free and open-source software. Each copy of WordPress has a licensed copy with it.

#### 56) What is GNU?

The GNU General Public License is called GPL in short. It has some terms and conditions to copy, modify and distribute the software licensed under its name.

GNU makes sure that any software source-code licensed under it has to make originating source code open and freely available to all its users. Here, freely doesn't mean by cost but it says that it is freely available to users to distribute and modify the code, but they can't impose any restrictions on further distribution, the source code has to be made available.

#### 57) What is WordPress?

Word press is a best Open Source CMS which allows it to be used free of cost. You can use it on any personal or commercial website without having to pay a single penny for it. It is built on PHP/MySQL (which is again Open Source) and licensed under GPL.

#### 58) How safe is a website on WordPress?

The word press is safe to operate, but still, it is suggested to keep updating with the latest version of WordPress to avoid hacking.

#### 59) Are there any limitations to a WordPress website?

You can use WordPress for e-commerce sites, membership sites, photo galleries and any other type of site you can think of. The website is created using the same HTML code as any other site, so there are no limitations there either.

# 60) Do you need to have a blog in order to use WordPress for a site?

WordPress was originally used as blogging software though it has since become popular for the website also. It is not necessary to have a blog to use WordPress. Still having a blog is commendable as it will help in search engine optimization.

# 61) From SEO point of view is WordPress helpful? Will it show the website on Google?

It is one of the benefits of using WordPress; it has inbuilt SEO search engine. Also, you can have an additional plug-in in WordPress to help with SEO and rank on a popular search engine like Google.

#### 62) What is the current version of WordPress?

You need to quote the current version of WordPress available in the market along with the release date.

# 63) What are the types of hooks in WordPress and mention their functions?

There are two types of hooks 1) Action hooks 2) Filter hooks

Hooks allow a user to create WordPress theme or plugin with shortcode without changing the original files. Action hooks allow you to insert an additional code from an outside resource, whereas, Filter hooks will only allow you to add content or text at the end of the post.

#### 64) What do you mean by a custom field in WordPress?

The custom field is a meta-data that allows you to store arbitrary information in the WordPress post. Through custom field, extra information can be added to the post.

#### 65) What are the positive aspects of WordPress?

Few positive aspects of WordPress are

- Easy installation and upgrade
- In-built SEO engine
- Easy theme system
- Flexibility
- Multilingual- available in more than 70 languages
- Own data- no unwanted advert on your website
- Flexibility and Easy publishing option.

### 66) What are the rules that you have to follow for WordPress plugin development?

- Create a unique name
- Create the plugin's folder
- Create a sub-folder for PHP files, translations, and assets
- Create the main plug-in file and fill in the header information
- Create activation and de-activation functions
- Create an uninstall script
- Create a readme.txt file
- To detect paths to plugin file use proper constants and functions.

#### 67) What is the prefix of WordPress tables by default?

By default, wp\_ is the prefix for WordPress.

#### 68) Why does WordPress use MySQL?

MySQL is widely available database server and is extremely fast. It is an open source, and it is available at no cost also it is supported by many low-cost Linux hosts so its easy for anyone to host their website.

#### 69) Is it possible to rename the WordPress folder?

Yes, it is possible to rename the WordPress folder. If WordPress is already installed, you have to log in to the weblog as the administrator and then change the settings

WordPress address (URI) :

Blog address( URI) :

After making the changes, you can rename the folder or directory with the WordPress file in it.

#### 70) How many tables are there in WordPress by default?

There are about 11 tables in WordPress by default. Note: With succeeding releases of WordPress this number will change. You need to check phpMyAdmin to determine the number of tables in a vanilla version of latest WordPress installation.

#### 71) What is WordPress loop?

To display post WordPress use PHP code, this code is known as a loop.

#### 72) How can you disable the WordPress comment?

If you go to the dashboard under options "discussion, there is a comment " Allow people to post comment" try unchecking the comment.

### 73) What are the steps you can take if your WordPress file is hacked?

- Install security plugins like WP security
- Re-install the latest version of WordPress
- Change password and user-ids for all your users
- Check your themes and plug-ins are up to date.

#### 74) What are the template tags in WordPress?

In WordPress template tags is a code that instructs WordPress to "do" or "get" something.

#### 75) Does WordPress have cookies?

Yes, WordPress has cookies, and WordPress uses cookies for verification of users while logged in.

#### 76) In which cases you don't see plugin menu?

You can't see your plugin menu when the blog is hosted on free wordpress.com as you cannot add plugin there. Also, if you do not have an account of an administrator level on your WordPress is not possible to see the plugin.

### 77) At what instance you get locked out of your WordPress admin and look at your website as a blank screen?

This would likely happen when you have pasted the code from a website with wrong formats, also when you have pasted the code in an incorrect location. It may also happen when your IP is banned

#### 78) Why you use a static front page in WordPress?

Some WordPress users want their WordPress installation to be more than a blog site. To give their page a look more like a real website page some users use static front page.

## 79) What are the plugins you can use to create a contact form in WordPress?

To create a contact form in WordPress, you can use a plugin like Gravity forms or also you can use a free plugin contact form 7.

#### 80) Why does widget not show up in the sidebar?

While using a widget, you have to ensure whether your theme supports the widget and if it does then, it must show the sidebar. If in any case if it happens that you don't see the sidebar, then it might be missing the "function.php" file or file similar to that. This can also happen if you have forgotten to save the changes in the widget or to refresh the older display of the page.

#### 81) Is there any limitation for using WordPress?

No, there is no limitation for using WordPress. WordPress can be used for innumerable purpose membership site, e-commerce site, photo-gallery and many more.

### 82) How is creating a site on wordpress.org different from wordpress.com?

Most of the things are similar in both except the choices of themes and the use of plugins.

### 83) Why is wordpress.com considered more secure than wordpress.org?

WordPress.com is considered more secure than wordpress.org because they limit the themes and also does not allow installing plugins. However, the security is more dependable on how the hosting company is hosting your website(wordpress.org) & also what are the steps they are taking to prevent the security problems.

#### 84) Do de-activated plugins slow down a WordPress site?

No, de-activated plugins cannot slow down the WordPress site. Wordpress only loads the active plugins and ignores everything else.

#### 85) In what case we cannot recommend WordPress to our client?

We cannot recommend WordPress in the following situation:

- If the client is working on a non-CMS base project
- If a site wants complex or innovative e-commerce
- In case of enterprise intranet solution
- Sites are requiring custom scripting solutions.

#### 86) What are the essential features you look for a theme?

Theme selection differs according to the requirement, but an ideal theme would be something that would not restrict to use the number of pages, plugins or static homepage.

#### 87) What is a Child Theme?

The child theme is an extension of the parent theme. If you make changes to the main/parent theme, any update will undo the changes. With a child theme, the customizations are preserved on an update.

#### 88) How can you create a static page with WordPress?

To create a static page in WordPress, in the page section you have to upload a PHP file to the server in the theme folder, and then select that as your template. It allows you to add any page and look that you wanted for your blog and it will remain static.

#### 89) Is there any other CMS better WordPress?

WordPress is no doubt a good CMS, but Drupal and Joomla are among the best CMS you can work with.

#### 90) Which is the best multilingual plugin for WordPress?

Keeping all the limitations in mind, WPML would be the best multilingual plugin for WordPress.

#### 91) Can you update your own content on the site?

It depends on the type of the site or project, but yes one can update their own content on the site.

#### 92) What are meta-tags?

Meta-tags are keywords and description used to display website or page information.

### 93) What should one use for plugin development — custom post types or custom database tables?

There is no specific preference for plugin development; it depends on what type of plugin's one has to develop. Though few recommend custom post type, as it has few benefits compared to a custom database table.

# 94) Can you host WordPress using Amazon web services such as EC2, RDS, EBS, etc.?

Yes, you can host using Amazon web services.

#### 95) Is there any way to write series in WordPress?

You can use organize series plugin to write series in WordPress.

### 96) What are the reasons why one should not hack WordPress core file?

The best reason not to hack the core files is that whatever you might be doing has to be reworked as a patch.

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