FRONT END INTERVIEW QSN

**HTML INTERVIEW QUESTION**

**1)What is HTML ?**

Html stands for hypertext markup lang and . it’s the standard text formatting lang used for creating and displaying web pages on the internet or world wide web. It is the skeleton of web pages.

**2)What are the HTML tags ?**

Html tags are used for placing the element in the proper and appropriate format. Tag use the symbols < and > to set them apart from the HTML content. HTML uses a wide range of tags to define the structure and content of web documents. Here is a list of some commonly used HTML tags:

Document Structure tags: <html/> , <head/> , <title/>, <meta/>, <style/>, <script/>, <link/>.

Formatting tags: <strong> : Indicates strong importance (typically bold).

<em>: Emphasizes text (typically italic).

<u>: Underlines text.

<mark>: Highlights text.

<sub>: Represents subscript text.

<sup>: Represents superscript text.

Images and Multimedia tags: <img>: Embeds images.

<audio>: Embeds audio content.

<video>: Embeds video content.

<iframe>: Embeds an external webpage within the current document.

Forms and Input Elements: <form>: Defines an HTML form.

<input>: Represents an input field (e.g., text input, checkboxes, radio buttons).

<textarea>: Represents a multi-line text input area.

<select>: Creates a dropdown selection list.

<button>: Defines a clickable button.

<label>: Labels form elements.

<fieldset>: Groups related form elements.

<legend>: Provides a caption for a <fieldset>

**Semantic tags** (HTML5): <header>, <nav>, <main>, <section>, <article>, <aside>, <footer>:

<aside>: Contains content that is tangentially related to the content around it, such as sidebars, pull quotes, or advertisements.

Semantic elements that provide meaning and structure to web content.

3)**What are the HTML attributes ?**

Attributes are the properties that can be added to an html tag.

Attributes provide metadata or instructions about how the element should behave or how it should be rendered by the browser

attribute or added right after the name of the html tag inside the bracket.

Ex – <img src="image.jpg" alt="An example image">

Here src and alt are attributes.

<span style="color: blue; font-size: 16px;">Blue text with larger font size.</span>

Here style is attributes .

<a href="https://www.example.com">Visit Example.com</a>

Here href is attributes.

4) **What is a Marquee in HTML?**

for scrolling the text on the webpage, marquee is used.

Its scrolls the image or text up, down, left, or right automatically.

to apply for a marquee. You have to use <marquee> tags.

**5) How do you separate a section of text in H T M L?**

We separated sections of text in HTML using the below tag.

<br> tags: It is used to separate the line of text. It breaks the current line and shift the flow of the text to the new line.

<p> tag: This tag is to write a text in the next paragraph line.

<blockquote> tag: This tag is used to define a large quote section.

6**) Define the list types in HTML?**

There are three types of list in html.

Ordered list : The order list, use <ol> tag and display element in a number format.

Unordered list: The phone order list usage <ul> tag and display element in the bullet format.

Definition list: The definition list uses, <dl>, <dt> ,<dd> tags and display elements in definition form, like in a dictionary.

**7) Differentiate between order list and order list.?**

An unordered list uses <ul> <ul/> tag and each element of the list is written between in <li> <li/> list tags

An ordered list uses <ol><ol/> tags and each element of the list is written between in <li><li/> tags .

**8) How do you display a table in a html web page?**

The html <table> tag table used to display data in a tabular format.

It is also used to manage the layout of the pages. For example, header section navigation bar, body content, and footer section.

Some tag uses to create a table –

<table> : its define a table

<tr> : it define a row in a table

<th> : it define a header cell in a table

<td> : it deine a cell in a table

<caption> : it define the table caption

<thead>: its used to group the header content in a table

<tfooter> : it is used to group the footer content in a table.

<tbody>: it is used to group the body content in a table.

Practical ex –

<!DOCTYPE html>

<html>

<head>

<title>Sample Table</title>

</head>

<body>

<h1>Sample HTML Table</h1>

<table border="1">

<caption>Employee Information</caption>

<thead>

<tr>

<th>ID</th>

<th>Name</th>

<th>Position</th>

</tr>

</thead>

<tbody>

<tr>

<td>101</td>

<td>John Doe</td>

<td>Software Engineer</td>

</tr>

**<tr>**

**<td>102</td>**

**<td>Jane Smith</td>**

**<td>Product Manager</td>**

**</tr>**

**<tr>**

**<td>103</td>**

**<td>Mike Johnson</td>**

**<td>Designer</td>**

**</tr>**

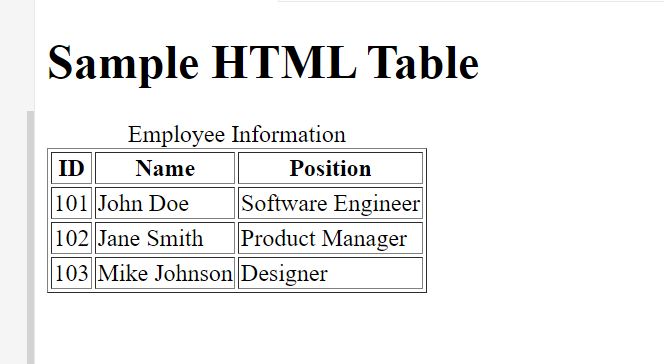
</tbody>

</table>

</body>

</html>

**OutPut -**

****

**9) How do you insert a comment in HTML ?**

We can insert a comment in HTML by –

<!—comment text -->

**10) How do you insert a copyright symbol in a HTML ?**

You can insert a copyright symbol by using &copy; or &#169; inside in body tag in a HTML file.

11**) What is white space in HTML?**

An empty sequence of space character is called the white space in html.

This white space is considered as a single space character in the html.

Wo space help the browser could not be multiple spaces into one single spaces.

In html whitespace refers to any spaces, tabs, line breaks,.

12) **How do you create links to different sections within the same HTML web page?**

We use the <a> tag, along with the referencing through the use of the # symbol, to create several links to different sections(section is text jispe click kr hum new web page pe pahuchte hai) within the same web page.

**13) How do you create a hyperlink in HTML?**

We can use the anchor tag Shakti<a> to create a hyperlink in HTML that links one page to another page.

**14) Define an image map in HTML?**

An image map help in linking with the different kinds of new features using a single image.

The image map can be used for defining shapes in the images that are made part of the image mapping process.

**15) Why do we use a style sheet in HTML?**

A style sheet helps in creating a well-defined template for an HTML webpage that hold the css style of html page .

A single style sheet template can be linked to various web pages wch make it easier to maintain and change the look of the website .

**16) What is SVG in HTML ?**

SVG, which stands for Scalable Vector Graphics, is an XML-based markup language which used to describe the vector or raster graphic, svg images and their behaviour are defined in XML text files. it is mostly used in HTML to create two-dimensional vector graphics in X,Y coordinate system and vector type diagram like pie chart.

Unlike raster images (such as JPEG or PNG), SVG graphics are resolution-independent and can be scaled to any size without loss of quality**.**

**17) What would happen if there is no text between the html tag?**

In that case, therefore, nothing will appear on the screen if there is no text present between the tags.

However some tag such as <img> tag , do not require any text between them.

**18) How do you create nested web pages in HTML ?**

Nested web pages basically mean a webpage within a Web page.(ek website k under dusra website basically)

We can create nested web pages in HTML using the built-in frame tag.

EX –

<!DOCTYPE html>

<html>

<body>

<p> specify the size of the iframe using the height and width attributes: </p>

<iframe src = <https://simplilearn.com/> height=”600” width=”800”> </iframe>

</body>

</html>

Here in our website or webpage it contain simplilearn website .

In other word Creating nested web pages in HTML involves organizing your website's content into a hierarchical structure, with some pages serving as parent or container pages and others as child or subpages.

**19) How do you add button in html?**

We can use the built-in <button> tag in html to add a button to an html web page.

Ex –

<html>

<body>

<button name=”button” type=”button”> CLICK ME </button>

</body>

</html>

20) **What are the different types of headings in HTML?**

There are six types of heading tag in html, which are defined with the <h1> to <h6> tags. Each type of heading tag display different text size from another.

<h1> is the largest heading tag and <h6> is smallest tag.

**21) What is the alt attribute in HTML?**

The alt attribute is used for displaying a text in a place of an image whenever the image cannot be loaded. Go to any technical issue.

Ex- <img src = “tulip.jpg” allt=”Tulip Image “ />

**22) how do you add color to text in a html ?**

You can add a color to text by using style attribute.

Ex - <p style = “color:blue”> Hello world </p>

**23) How do you add a CSS styling in HTML ?**

There are 3 ways to including the CSS with HTML –

Inline CSS: it is used when less amount of styling is needed or in case where only a single element has to be styled.

**External style sheet**: it is used when the same style is applied to many elements in HTML pages.

**Internal style sheet**: An internal style sheet in HTML is a way to define and apply CSS styles directly within an HTML document. Unlike external style sheets (which are separate CSS files linked to the HTML document)

internal style sheets are defined within the <style> tag in the document's <head> section.

**24) What hierarchy do the style sheets follow ?**

if a single selector includes three different style definitions. The definition that is closest to the actual tag takes precedence and most specificity.

Inline style has the most priority over internal style sheet which have more priority over external style sheet.

**25) How do you add JavaScript to an HTML webpage ?**

there are three main ways to add javascript in HTML document .

inline: You can add JavaScript to your html element directly whenever a certain event occurs

script tag: you can create a script tag anywhere on the HTML page and write a js code inside them.

External Js file: we can create a separate Js file to write Js code to keep HTML code clutter-free.

**CSS INTERVIEW QUESTION**

1. **Name some CSS frameworks.?**

Css frameworks are library that Is used to give style and look of webpage .

Some of css framework is Bootstrap , Gumby , Ukit , Semantic UI , etc

1. **What do you understand by the universal selector?**

The universal selector in CSS is represented by an asterisk \*, keyword and it selects and applies styles to all elements on a web page **or** typically the entire document

Ex –

\* {

Color : blue;

Font-size : 10px;

}

1. **Tell us about the use of ruleset ?**

In CSS, a ruleset (or rule set) is a combination of a selector and a declaration block that defines how a particular set of HTML elements should be styled.

Type of selector: already define in css interview page (Go and check)

Declaration Block: The declaration block is enclosed in curly braces {} and contains one or more CSS property-value pairs. And contain one or more semi column,

In practice, a ruleset is used to define how elements selected by the selector should be displayed or formatted on a web page. Here's a complete example of a ruleset:

p {

color: #333; /\* Text color is dark gray \*/

font-size: 18px; /\* Font size is 18 pixels \*/

margin-top: 10px; /\* Top margin is 10 pixels \*/

}

Note : Here p stand for paragraph is a inline selector .

1. **What is css box model ?**

Already explain in Css interview qsn page .

1. **Differentiate between CSS3 and CSS2 ?**

CSS3 and CSS2 (Cascading Style Sheets Level 3 and Level 2) are different versions of the CSS specification used to style and format web documents.

CSS3 –

1) both css and HTML put into a single file.

2)CSS2 introduced basic selectors like element selectors, class selectors, ID selectors, and descendant selectors.

3)CSS3 introduces the "box-sizing" property, allowing control over how width and height are calculated, and adds properties for rounded corners and shadows (border-radius, box-shadow)

4)CSS3 introduces RGBA colors (for specifying color with alpha transparency) and HSL (Hue, Saturation, Lightness) colors, providing more flexible color options.

5) CSS2 does not include built-in support for animations and transitions

CSS2 –

1)CSS2 introduced basic selectors like element selectors, class selectors, ID selectors, and descendant selectors.

2) CSS2 defines the basic box model, which includes properties like width, height, margin, padding, and border.

3)CSS2 supports basic color properties but does not include RGBA colors or HSL-based colors.

4) CSS2 does not include built-in support for animations and transitions .

1. **What is meant by RGB stream ?**

RGB represent color is in Css. Where R stands for red, G stands for green , and B stands for blue. The intensity of color is represented using number zero to 0 to 256.

1. **What was the purpose of developing CSS?**

CSS was developed to define the visual appearance of website that allowed developer to separate the structure and content of a website that was not possible before. And style and look of Html web page .

1. **What is the difference between a class and ID?**

Classes are used to group multiple HTML elements that share the same styling or behavior. i.e. applying styles to multiple elements with similar characteristics.

Classes are defined in HTML using the class attribute and are preceded by a period (dot) in CSS.

ID: IDs are unique. identify a single HTML element on a page. It is used to give style to a single Html element. for multiple element style we will have to create multiple Id. IDs are defined in HTML using the id attribute and are preceded by a hash (#) in CSS.

IDs have higher specificity than classes.

1. **Explain a few advantages of CSS ?**

Reusability: CSS styles can be reused across multiple elements or pages. By defining classes and IDs, you can apply the same styles to different parts of your website, reducing redundancy and saving development time.

Separation of Content: CSS allows you to separate the content (HTML) of a web page in different file and CSS in different file. This separation enhances code maintainability and makes it easier to update and modify the appearance of a website without altering the content.

**10)Define Z – index ?**

z-index is a CSS property that specifies the stacking order of elements in a web page along the z-axis (depth). It determines which elements appear in front of or behind other elements when they overlap in the two-dimensional space of a web page**.**

It default value is zero and can take both negative and positive values.

Elements with higher z-index values are placed in front of elements with lower z-index values.

11)**What are the benefit of CSS Sprites?**

CSS sprites are a technique used in web development to combine multiple images into a single image file. With css sprites multiple image is not an issue.

Reduced HTTP Requests: One of the primary advantages of CSS sprites is that they reduce the number of HTTP requests made to the server. Instead of loading multiple individual images, you load a single sprite image. This can significantly improve page load times.

Blinking is not seen .

Better SEO Performance: CSS sprites can positively impact SEO by improving page load times. Faster-loading pages are generally favored by search engines, which can result in better search rankings.

Reduced Bandwidth Usage: By reducing the number of image requests, CSS sprites can lead to significant bandwidth savings, making your website more cost-effective, especially if you pay for bandwidth usage.

**12) How can you target h3 and h2 with the same styling?**

Multiple element can be targeted by separating with comma

Ex-

h2, h3 {

Color:red;

}

**13) How can you use css to control image repetition ?**

Background-repeat property is used to control the image repetition..

P {

Background-repeat: none;

}

<body>

<p> <img src=”rose.jpg” alt= “rose image” /> </p>

</body>

14) Names of font-related CsS attributes.?

The font-related css attributes are font-style , font-variant , font-weight , font-size . etc.

**15) define contextual selectors ?**

Contextual selectors in CSS, also known as contextual or descendant selectors, are a type of CSS selector that allows you to target elements based on their relationship to other elements within the HTML document's structure.

Ex-

div p {

/\* CSS styles for <p> elements within a <div> \*/

}

**16) Explain responsive web design?**

Responsive design is a web page creation approach that uses flexible images, flexible layouts, and CSS media queries.

The design approach aims to build web pages that detect the orientation and screen size of the visitors so that the layout can be changed accordingly

**17) when should you use translate() instead of absolute positioning ?**

Translate property is use to perform animation, changing opacity, or transform value i.e adujust position of element in top,right ,bottom,left .

translate() can be used with media queries and CSS transforms to create responsive designs and layouts that adjust fluidly to different screen sizes.

Where as absolute is ideal when you need to position an element precisely relative to its nearest positioned ancestor or div container (an ancestor with a position property:relative) .

Translate is more efficient and results in shorter paint times .

**18)Name different way to position some aspects in CSS?**

There are five different position ascepts in css –

Static , fixed , relative , absolut , sticky

**19) What are Mixins (SAAS Concept)?**

Mixins are a programming concept often used in CSS preprocessors like Sass and Less, as well as in some programming languages like Ruby and Python. They allow you to define reusable blocks of code that can be included or "mixed in" to other parts of your code. In the context of CSS preprocessors, mixins are primarily used for generating reusable CSS rules and properties.

**20) What is Meant by CSS working under the hood?**

When a browser displays a document, it combines style information and HTML document content.

The document is preceded in two stages.

• Conversion of HTML and CSS into a document object model

• DOM displays the content of the browser.

This is called css working under the hood.

**21) Tell us about the CSS float property.?**

The Css float property is used to position an image to the right or left as needed, including texture wrapping around it.

In other word The CSS float property is used to specify how an element should be positioned within its containing element and how surrounding content should flow around it.

**22) what do you understand by pseudo-elements?**

Pseudo-elements in CSS are special selectors that allow you to target and style specific parts of an HTML element. Pseudo-elements are denoted by double colons (::) and are used to style elements or parts of elements that are not part of the actual document's structure.

Some common pseudo-elements include ::before, ::after, ::first-line, and ::first-letter.

**::first-line and ::first-letter**: These pseudo-elements allow you to style the first line or the first letter of an element's content.

Ex –

<!DOCTYPE html>

<html>

<head>

<style>

p::first-line {

color: #ff0000;

font-variant: small-caps;

}

p::first-letter {

font-size:150%;

color: green;

}

</style>

</head>

<body>

Output :

<p>You can use the ::first-line pseudo-element to add a special effect to the first line of a text. Some more text. And even more, and more, and more, and more, and more, and more, and more, and more, and more, and more, and more, and more.</p>

</body>

</html>

Note: here first line will be in red color and first letter is green color and size increase by 150%.

**::before and ::after:** These pseudo-elements allow you to insert content before or after the content of an element. They are often used for decorative elements or to add icons or symbols.

Ex –

<!DOCTYPE html>

<html>

<head>

<style>

h1::before {

content: url(smiley.gif);

}

h2::after {

content: “Hey whats up!”

color: blue;

font-style: italic;

font-weight: bold;

}

</style>

</head>

<body>

**Output** -

 <h1>This is a heading</h1>

<p>The ::before pseudo-element inserts content before the content of an element.</p>

<h2>This is a heading</h1>

***Hey whats up!***

**23) Differentiate Between logical and physical tags.?**

In HTML, the terms "logical tags" and "physical tags" refer to different ways of describing elements based on their function and meaning in the document structure.

Logical Tags: Logical tags, also known as semantic tags or structural tags, are elements that describe the meaning or purpose of the content they enclose.

1. **<header>**: Represents a container for introductory content or a set of navigational links.
2. **<nav>**: Represents a section of navigation links.
3. **<main>**: Represents the main content of the document.
4. **<article>**: Represents a self-contained composition, such as a blog post or news article.
5. **<section>**: Represents a standalone section of content within a document.
6. **<aside>**: Represents content that is tangentially related to the content around it.
7. **<footer>**: Represents a container for the footer content of a document

Physical Tags: Physical tags, on the other hand, are elements that describe how content should be presented or formatted visually. They are focused on the appearance and layout of content.

Examples of physical tags include:

1. **<b>**: Makes text bold.
2. **<i>**: Renders text in italics.
3. **<u>**: Underlines text.
4. **<font>**: Defines font properties like size, color, and face.
5. **<center>**: Aligns content in the center of its container.
6. **<strike>**: Strikes through text.
7. **<br>**: Inserts a line break

24) How media types in CSS work ?

There are four type of media properties .

1. All → It’s the default property. Used for all media-type devices.
2. Screen → Used for computer screen, mobile screen.
3. Print → Used for printers.
4. Speech → Used for screen readers.

Ex –

@media print {

h2 {

Background-color: blue;

}

}

**25) Tell us about CSS3 ?**

CSS3, short for Cascading Style Sheets Level 3, is the latest and most advanced version of the CSS (Cascading Style Sheets) language used for describing the presentation and visual styling of web documents, including HTML and XML documents .

Some advanced feature is - box model, gradient apply , providing media query for responsiveness, and transformations: CSS3 includes 2D and 3D transformation capabilities, allowing you to scale, rotate, skew, and translate (shift position) elements in both 2D and 3D space using properties like transform, rotate, and scale .

**26) what are CSS image scripts?**

A group of images placed into one image is a CSS image script. It can reduce load time and project multiple images into a single web page

**27) Explain CSS Specificity ?**

CSS specificity is a rank or a score that decides a style declaration to be used to an element. I

ID sector has high specificity, while universal sector (\*) has low specificity.

**28) Define gradient in CSS ?**

A property of CSS that allow displaying a smooth transformation between two or more specific colors, which called a gradient.

The type of gradient are linear and radial.

Linear gradients: it create a transition of colors along a straight line.

They are defined using the linear-gradient() function.

Ex - background: linear-gradient(to right, #ff0000, #0000ff);

Radial gradients create a transition of colors radiating from a central point.

They are defined using the radial-gradient() function

Ex- background: radial-gradient(circle, #ff0000, #0000ff);

**29) what is common between class and Id ?**

The class is use to give style and design for multiple element .

Where as id is use to give style and design for single element .

**JAVASCRIPT INTERVIEW QUESTION**

1. **What is Javascript ?**

Javascript is a popular web scripting language that is used for client-side and server-side development.

It is used to create interactive abd dynamic web page i.e change according to condition . its also supporting Object oriented programming abilities.

It is a high level dynamically type lang that is interepreted i.e It is not compiled into machine code, before it is run. It is a case sensitive language.

**2) What is difference between java and JavaScript ?**

Javascript is an object-oriented scripting language.

java is object oriented programming language.

Java: Java is a statically typed language, which means you have to declare the type of a variable when you define it, and it is compiled into bytecode that runs on the Java Virtual Machine (JVM).

:JavaScript is a dynamically typed language, which means variable types are determined at runtime, and it is interpreted by web browsers. Its does not need compilation .

Java is used for a wide range of applications, including desktop software, mobile app development (Android), server-side web development (Java EE, Spring), embedded systems, and more.

JavaScript is primarily used for web development, both on the client side browser and server side (with help of Node.js).

**3)What are the various data type in JavaScript ?**

Already written in JS note

**4) What are the features of JavaScript?**

Lightweight and Fast: JavaScript is a lightweight language, making it an ideal choice for web development. It executes quickly in web browsers, enhancing the user experience

Client-Side Scripting: JavaScript is primarily used for client-side scripting, allowing developers to create interactive and dynamic web pages. It can manipulate the Document Object Model (DOM) to update content and respond to user interactions.

Cross-Platform Compatibility: JavaScript is supported by all major web browsers, making it a cross-platform language. Code written in JavaScript can run on different operating systems and devices without modification..

It is a dynamic typed lang i.e. we do not have to declare the data type of a variable at the time of declaration. The variable will be checked during the run time.

Server-Side Development: With the introduction of Node.js, JavaScript can also be used for server-side development and integration with front-end and back-end (with the help of node.js)technology both here.

**5) How do you create an object in JavaScript?**

Object is the combination of key pair value enclosed in curly braces {} .

Object literal Notation: This is the simplest and most commonly used way to create an object.

const person = {

firstName: "John",

lastName: "Doe",

age: 30,

email: "john@example.com",

};

**Constructor Function**: You can create objects using constructor functions. Constructor functions are regular functions that are used with the new keyword to create instances of objects. Here's an example:

function Person(firstName, lastName, age, email) {

this.firstName = firstName;

this.lastName = lastName;

this.age = age;

this.email = email;

}

const person = new Person("John", "Doe", 30, "john@example.com");

**Class Syntax (ES6):**ES6 introduced class syntax for creating objects in a more structured and familiar way. Under the hood, classes are still constructor functions.

Ex -

class Person {

constructor(firstName, lastName, age, email) {

this.firstName = firstName;

this.lastName = lastName;

this.age = age;

this.email = email;

}

greet() {

console.log(`Hello, my name is ${this.firstName} ${this.lastName}`);

}

}

const person = new Person("John", "Doe", 30, "john@example.com");

**6) How do you create an array in JavaScript?**

This is the simple way to create array in js by using the array literal -

Var a = [];

Var b = [“a”, ‘b’ ,23, 0.2, ‘rahul’ ]

**7) What are the built-in methods in JavaScript?**

JavaScript has many built in method to provide functionality needed for a web app .

Some of them are mentioned in this table –

Date() – return the present date and time

Concat() – join two string and return the new string

Push() – add a item in last to an array

Pop() – remove the last element from an array

Length() – return the length of a string .

**8) What are the scope of variable in Js?**

There are 2 types of scope -

1)Global scope or functional scope: var

2) block scope or local scope: const , let

**9) What is this keyword in js?**

Already explained in JS notes

**10) What are the conventions of naming in variables?**

Variable name in js cannot be similar to that of reserved keyword. ex-var, let , const, etc

Variable names can not begin with a numeric value, they must only begin with a letter or an underscore character.

Variable names are case-sensitive.

**11) What is callback in JAVAsCRIPT?**

Already mention in Js notes

12)