

HTML and Co.

1. What is HTML and what is its purpose?

→ Hypertext Markup Language, HTML is a programming language used to describe the structure of web pages.

→ HTML makes it possible to create static pages with text, headings, tables, lists, images, links, and so on.

2. What is the difference between HTML and XHTML.

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

XHTML is basically an extension of HTML, which is ~~less~~ stricter than HTML. Both language are used to create web and Android applications.

HTML is SGML based, whereas XHTML is an XML-based language.

3. What are the new features introduced in HTML5?

→ Video and audio: Allows developers to embed audio and video on their website

→ Input types: New input types include date, email, month, number, range, and url.

→ Semantic elements: New semantic elements include footer, header, sections and article

→ canvas: A new tag that renders images in an HTML document

• Name attribute: Allows developers to add a cryptographic name to all styles and scripts.

- Web storage - Allows data to be stored in the application cache and indexed database.

b. How do you include comments in HTML?

→ In HTML comment begins with `<!--` and ends with `-->`

→ Head comments are visible to anyone that views the page source code, but are not rendered when the HTML document is rendered by a browser.

c. Explain the difference between `<div>` and

`<span>` tags

`<span>` and `<div>` both generate HTML elements that group together related parts of a web page. However, they serve different functions.

# An element is used for block-level organization and `<span>` is used for inline organization and styling.

d. What do you mean by implicit inheritance?

→ `<a href="a.html"> link to some file`

• What is the difference between `<ol>` and `<ul>`?

• `<ol>` is numbered list

• `<ul>` is ordered list → maybe 1, 2, 3, etc.

e. What are semantic elements in HTML and what they are used for?

→ The semantic tags help the search engines and other users to determine the structure and content of web pages.

→ The page needs with semantic elements

1. What is the purpose of `<header>`, `<nav>`, `<section>`, and `<footer>` tags in HTML5?
2. `<h1> to <h6>`
3. `<img>`



10) How do you embed an image in HTML?



11) Explain the difference between (strong) & (em) tags

→ the `em` tag is used to define emphasized text. The content inside is typically displayed in italic & a screen reader will pronounce the words in `em` with an emphasis using verbal stress.

→ which text on text engine should give the special meaning

12) How do you create stable in HTML?  
with `table`

<tbl>

<th> company </th>

<th> contacts </th>

<th> location </th>

</tbl>

<tr>

<td> WCL </td>

<td> infsys </td>

<td> sepro </td>

</tr>

</table>

13) What and how do you create a form? HTML and form tag is used to create an HTML form for user input.

14) What are some new input types introduced in HTML5?

→ date, datetime, datetime-local, time, week, month, email, tel, URL, search, range, color and number. to improve the user experience and to make the forms more interactive.

15) How do you include audio and video content in HTML?

→ `audio` & `controls`  
<source src=" " type="audio/mpeg">  
</audio> your browser supports audio tag

→ `video` & `controls` width="320" height="200"  
<source src=" " type="video/mp4">

your browser supports video tag  
</video>

16) What is purpose of `iframe` tag and how it is used

→ inline frame is a HTML element that adds another HTML page within the document. It essentially puts another webpage within the parent page. They are commonly used for advertisements.



→ `<iframe src="default.asp" width="100%" height="300" style="border:none;">`  
`</frame>`

17) How do you add CSS styles to HTML elements?  
by inline, internal & external

18) What is the role of alt attribute in `<img></img>`?  
→ to tell information about the image.

19) How do you create a numbered list with custom numbering styles in HTML?

→ we can create an ordered list using the `<ol><ol>` tag and define the list item using `<li><li>`. `type="1"` - this creates a numbered list starting from one.

`type="A"` - this creates a list numbered with uppercase letters starting from A, `type="a"` - this creates a list numbered with lowercase letters starting from a

20) What is different between `<script async>` and `<script defer>`.

Async allows your script to run as soon as it's loaded, without blocking other elements on the page. Defer means your script will only execute after the page has finished loading.

21) What is responsive web design?

→ responsive web design is a way to put together a website so that it automatically scales its content and elements to match the screen size on which it is viewed.

It keeps images from being larger than the screen width, and prevents visitors on mobile devices from needing to do extra work to read your content.

22) How do you make website responsive.  
using CSS

→ Resizing, hiding, shrinking or enlarging the website.

media queries

CSS flexbox

responsive images

fluid grids

typography

23) What is media query in CSS, and how is it used for responsive design?

→ in CSS, a media query is used to apply a set of styles based on the browser characteristics including width, height, or screen resolution.



Q4) Explain the difference between fluid layout & a fixed layout in terms of responsiveness.

→ Responsive web design is a method that makes web pages work well on all devices, regardless of their size.

Responsive layouts change based on the device's size and capabilities.

Fixed layouts have a fixed width that doesn't change based on the device or screen size. The components inside a fixed layout may have percentage widths.

Q5) How do you make images responsive in CSS?

→ setting the width of the image to be a percentage of its parent container, rather than fixed pixel value.

Q6) What are breakpoints in responsive design, & how they determined

→ Breakpoints in responsive design are points at which the display of content changes to different screen resolutions. They are used to define a website's responsive behavior, ensuring that it looks and functions well across various devices.

Q7) How can you hide van specific screen size elements using CSS?

→ To hide an element in a responsive layout, we need to use the CSS display property set to its none value along with the @media rule.

Q8) What is the max-width property in responsive CSS?

→ It sets the maximum width for an element & prevents the user value of the width property from becoming larger than the value specified by max-width.

Q9) How do you create a responsive navigation menu using CSS?

→ Use the direct child selector to select the links within the navigation items

→ Set the text color to 'ghostwhite'

→ Remove text decoration

→ Apply a font weight of 500

→ Set the font size to 16 pixels

→ Set the transition for smooth hover effect

→ Add a transition for smooth hover effect

→ Stick to pre-decided brand colors to make

the design more consistent

Q10). Explain the concept of mobile-first design and how it relates to responsive CSS.

→ Keeping the design website and application with the mobile user in mind first then we scale it to desktops and other mobile devices

→ Increases engagement and enhances overall SEO performance.

Q11) What is CSS flexbox & what problems does it solve?



- CSS flex box works in one direction.
- Arranges items on a web page
- Makes it easy to design flexible & effective layouts

32) diff between flex container and flex item  
→ flex container is the parent element, while flex items are the children.

- 33) How do you create a flex container in CSS?
- An area of ~~an~~ ~~area~~ contains
  - 1. Set the display property of the container's area to flex or inline-flex
  - 2. Use display: flex to declare the outer element as a flex container
  - 3. Use a CSS selector to select the parent div that contains the children
  - 4. Write display: flex.

34) What are the main properties used to control the layout in flexbox?

→ flex-direction - specifies the direction of the flexible items inside a flex container

→ flex-flow

A shorthand property for flex-direction and flex-wrap

→ flex-wrap

Specifies whether the flex items should wrap or not, if there is not enough room for them on one flex line

35) Items within a flex container  
→ by adding flex-direction property to the flex container

- Setting flex-direction: row - reverse will keep the items displaying along the row, however the start/end lines are switched

36) flex-grow → how much space after item can take up in a flex container

flex-shrink → tells the browser what the minimum size of an element should be, the default value is 1, which is saying "take up the same amount of space as all times".  
flex-basis → property defines the size of the flex item along the main axis of the flex container. The main axis is horizontal if the flex-direction is set to row, and vertical if the flex-direction is set to column

37) How do you align flex items horizontally and vertically with a flex container?

→ main axis - justify-content - flex-start  
- flex-end  
- center  
- space-between  
- space-around  
- space-evenly

→ align-items - flex-start  
- flex-end  
- center



38) Explain the difference between justify-content and align-items properties in flexbox.  
→ justify-content - controls alignment of all items on the main axis.  
→ align-items - controls alignment of all items on the cross axis

39) How can you control order of flex items using CSS flexbox?

- using order property, so right here.
- the default order of items is 0
- to make other elements to high then set the third item to 1, & others to higher value

40) What are flexbox breakpoints and how can they be used for responsive design.

- • flex-containers
  - display: flex;
  - flex
- the website content responds according to the device width allowing you to show the best possible layout to the user.

41) What gives information about the tag to get to know what it gives  
→ to explain the difference between global attributes and HTML specific attributes  
→ most HTML attributes are specified to be used with particular elements. However, several attributes are available for use on all HTML elements. These are called global attributes. Define a shortcut key which can be used to select or activate these elements

42) How do you add attributes to an HTML element?

1. Add a class attribute to an element. e.g Attribute ("class", "democlass")
2. Change an input field to an input button; myinput; Set Attribute ("type", "button") before: —
3. Add a href attribute to an a element myanchor; SetAttribute ("href", "http://www.W3Schools.com");

Before

43) What is the purpose of the id attribute in HTML, and how is it unique?

- id we have unique element and can modify the element at the specific id



45) What is difference between the class attribute and the id attribute?

- class attribute - Can modify the change the change all set of same class attribute
- id - Specify the particular item to change at a elements to make a change.

46) Explain the role of the href attribute in HTML, particularly in the context of links & anchors.

- In links like including the inline css into the header file.
- and in anchor tag to move to target website by clicking on that.

47) How do you add alternative text to an image using the alt attribute?

- Every `img src=" " alt=" " />`
- Every `img src=" " alt=" " />`

48) What is the purpose of the target attribute in HTML links, and what are its possible values?

- The target attributes are the links in anchor tag which will take to the destination

49) Src attribute is nothing but for audio, video, images, specifies the path to which the destination reaches.

50) What is the purpose of the disabled attribute, and how it is used in HTML form elements?

- The disabled attribute can be set to keep a user from using the element until some other condition has been met (like selecting a checkbox, etc). Then, a javascript could remove the disabled value, and make the element enable again.

### JS questions

51) Is there any relation between Java and

JavaScript.

- Compiled Java
- Backend

- JVM or in browser
- static type checking
- Allows security

JS

- interpreted
- mainly for frontend
- Executed in the browser
- dynamic type checking
- web app

52) Is JS a compiled or interpreted language?

- It is interpreted language, because the execution of code takes place by line by line and the error detects by line by line.

53) Is JavaScript a case-sensitive language?

- Yes, keywords, variables, function names and any other identifiers must always be typed with a consistent capitalization of letters, while not while.



54) what is node.js  
→ cross-platform, open source JavaScript runtime environment that can run on windows, linux, Unix, macos, & more, Node.js runs on the V8 JS engine, & executes JS code outside.

55) what is difference between let & var.  
→ main difference is let is not hoistable Var is hoistable to the top of current scope

56) what is difference between undeclared and undefined variables

→ The variable is not declared, undefined is the variable is not initialized with a value

57) what is Hoisting

→ Declaring the variable to the top of the scope  
→ and can only possible with var keyword

58) what is Scope in JS

→ The scope is where the Variable declaration accessible in a particular block like if, while, do, while, ...

59) what are reserved words? Can I use reserved words as identifiers?

→ No, we can't use reserved keywords as identifiers, because they are specific for some stuff in function

60) Why do we declare a strict mode?  
How do you declare a strict mode  
→ Instead of this we use in defining variable inside the method reference to global object along  
→ does not allow to declare a variable, globally  
→ in function it is undefined

61) what are the problems with global

61) Variables  
→ they are not specific to a particular scope  
→ has accessibility throughout the program

62) what is NaN property

→ It is for NaN checks whether it is a number or not.  
→ while converting to upper or lowercase  
→ In explicit conversion, can't convert the string to Number type, throws NaN property

63) what is the purpose of delete operator

→ deallocate a memory space that was dynamically allocated using the new operator. In other words it is used to release the objects from memory.



65) difference between null & undefined  
→ null means does not have value;  
→ undefined is not initialized value

66) what are bitwise operators.  
→ And && true if both are true  
→ OR || {true if anyone is true}  
→ != Not Checks for not of the value

67) Can I redeclare let + const  
→ NO

68) Does const variable makes the value immutable  
→ Yes

69) what is ES6? List down some features of ES6

- let + const keywords
- Arrow functions
- multi-line strings
- Default Parameters
- Template literals
- Destructuring Assignment
- Enhanced Object literals
- Promises

70) what are the possible ways to create an object in JS  
→ functions as constructor  
→ with Clarity  
→ Objects

71) difference between splice & slice  
→ slice can make new array of updated list  
→ it takes 2 arguments index value and last particular index

→ splice (index, remove, add)  
→ gives array of modification  
→ gives array of modification  
→ splice we can remove elements.

72) what is the difference b/w

a) == != operators  
→ checks if == both are equal , not  
in the type of data only value  
→ it makes implicit conversion  
→ == this will not give true for same  
value with different datatype.

b) = !=

↓ Assignment operator  
!= checks for condition

c) /= +=

→ this is updating & storing  
⇒ still String

73) what is HOF

→ The function which takes another function name as a argument and it returns another function



7a) what is currying function.

- A function with multiple arguments  
into a nested series of functions, each takes a single argument

7g) what are arrow function.

- functions with ⇒ are arrow function,
- if the function has one line then it implicitly return value
- otherwise we have to use return keyword
- call is possible (Constructor not possible)
- not have own this, refers to outer function or global value

7b) what is spread operator

- can be used to store multiple values at a time into a variable
- and can combine other values,
- can pass this as a argument. in a function parameter

7f) what is rest parameter:

- it have ... followed by name parameter name

7g) what happen if you don't use rest parameter for the last argument

- then the value are not concat

7g) what are regex

- you to check for a specific pattern in a string

8g) how do you search a string for a pattern

- using regex → checks the matching string in a pattern
- it has . includes

8l) purpose of switch case

- checks based on different cases
- the value goes with flow if we don't mention the break or continue keyword.

- continue key skips the case
- has a default keyword returns if nothing is a matching

8s) what are they convention to be followed for switch case?

- should has cases
- default keyword
- break keyword to stop

83) primitive datatypes :

- null
- undefined
- boolean
- number
- string

The value of this is not object being with value we can't perform any operations or inbuilt function



85) Object properties

- Object prop
- Object["prop"]

86) What are function parameters.

- Not perform type checking.
- not checks the number of arguments received
- Not specify the datatypes for parameters

87) Different ways to create a infinite loop

- using do-while loop
- with condition

88) What are template literals.

- The literals with backtick, used to make anything to string and it is also feature, dynamically add input / store the data.

89) What are default values in destructuring assignment

- the values are the same as the value present in the assignment operator
- the variable is not same.

q1) how do you map variables

- by assign the variable name with different name.

q2). Is that possible to use switch case?

- provides an expression that can be constant or literal expression that can be evaluated

q3) What are difference b/w for in for of statements

- for in , where checks for index
- for of where checks for value

q4) difference between arguments objects and rest parameter.

- The arguments objects is not a real array, while rest parameter are array instances, methods like shift(), map(), forEach

q5) what are the difference b/w spread operators & rest parameter

- Spread operator combines all the values of spread operator into a single array

→ Spread operator holds the instance of array

- rest parameter is the parameter name followed three dots

