

Module-1 (HTML/HTML-5)

1). What is HTML?

- HTML stands for Hyper Text Markup Language
 - HTML is the standard markup language for creating Web pages
 - HTML describes the structure of a Web page
 - HTML consists of a series of elements/tag
 - HTML elements tell the browser how to display the content
 - HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.
- Paragraph, heading, list, table, forms, images, links.

2). What is Tag?

- **A tag is an element used in various technical languages such as HTML, XML, and other markup languages.** It is used to insert documents, folders, images, or files that enhance the look and feel of content or perform an action.
- Each tag is enclosed between two angle brackets (usually less than and greater than). In [HTML](#), it is mandatory to close an open tag. The opened tags are closed using forward slash, open tag name, and the two angle brackets.
- Below are the few given [HTML tags](#) that are widely used:

<html> tag

- The <html> tag defines the root or the lading code of an HTML document. This tag works as a container that contains all other HTML elements.

3). What is Web Pages?

- A **web page** (or **webpage**) is a [hypertext](#) document on the [World Wide Web](#). Web pages are delivered by a [web server](#) to the user and displayed in a [web browser](#).^[1] A [website](#) consists of many web pages

linked together under a common domain name. The name "web page" is a metaphor of paper pages bound together into a book.

4).What is home Page?

- A home page is the default or front page of a site. It is the first page that visitors see when they load a URL. Web managers can control the home page as a way of directing the user experience.
- Home pages are located in the root directory of the website. Many home pages act as a virtual directory for a site — they provide top-level menus where visitors can go deeper into various areas of the site.

5). What is Anchor tag?

- The `<a>` tag defines a hyperlink, which is used to link from one page to another.
- The most important attribute of the `<a>` element is the `href` attribute, which indicates the link's destination.
- By default, links will appear as follows in all browsers:
 - An unvisited link is underlined and blue
 - A visited link is underlined and purple
 - An active link is underlined and red

6).How Many List Tag & Types?

- There are 3 Types of lists in HTML, namely:
 - Unordered List
 - Ordered List
 - Definition List Or Description List

7).what is the difference between a web browser and a web server?

- A web browser acts as a link/ interface between a client and a server. Its primary function is to display various web documents to the clients requesting them. A web server functions to accept browser

requests, generate responses, maintain the web apps, and accept the client data.

8).Full form of http

- HTTP full form Hyper text transfer protocol

9). Full form of FTP.

- FTP full form File Transfer Protocol

10).What is a domain?

- A domain name is a unique, easy-to-remember address used to access websites, such as 'google.com', and 'facebook.com'. Users can connect to websites using domain names thanks to the DNS system.

11).What is the full form Of URL?

- Uniform Resource Locator

12).What is a web design and basic requirement?

- Web designers create the design and layout of a website with their technical expertise and knowledge while keeping in mind the client's requirements. They have a deep understanding of UI (user interface) and UX (user experience) and are adept at using design programs for creating visual elements.

13).Which resolution is better for the perfect design?

- So going with a design file resolution that's 1440px or 1920px wide is a great start. The next decision will be to decide what maximum size the main container should have, within which you'll have your columns. This is even more important than what size your design file has.

14).Explain problem specification with browser compatibility?

- Different browsers and devices may support different codecs, and compatibility issues can arise if a specific codec is not supported.

Solution: Compatibility testing verifies that the media files encoded with different codecs are played back correctly and consistently across the supported platforms.

15). Is HTML case sensitive?

- HTML is not a Case Sensitive Language because, during parsing, all HTML elements are converted to lowercase first. HTML5, the latest version of HTML, which is a new web standard, is also case insensitive. XHTML, an older version of HTML, was case-sensitive for lowercase letters.

16). Explain what is the use of editors and their types?

- Editors or text editors are software programs that enable the user to create and edit text files. In the field of programming, the term editor usually refers to source code editors that include many special features for writing and editing code.

17). How to create hyperlink in HTML ?

- The `<a>` tag defines a hyperlink, which is used to link from one page to another. The most important attribute of the `<a>` element is the href attribute, which indicates the link's destination. By default, links will appear as follows in all browsers: An unvisited link is underlined and blue.

18). Relative paths make your hypertext links_____ .

- PORTABLE

19). In the following example, which type of HTML link is defined?

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

20). Why are images used on web pages?

- To engage visitors, to help users understand content better therefore informing them and answering their questions. All of these things result in a better user experience which is a significant ranking factor for Google.

21). What is the default value of the "target" attribute?

- A target attribute with the value of "_self" opens the linked document in the same frame as it was clicked (this is the default and usually does not need to be specified).

22). Types of List in HTML.

ans. Ordered, Unordered and Definition list

23). Which html tags are used to create table structure? Explain in brief at least five

- An HTML table consists of one <table> element and one or more <tr>, <th>, and <td> elements. The <tr> element defines a table row, the <th> element defines a table header, and the <td> element defines a table cell. An HTML table may also include <caption>, <colgroup>, <thead>, <tfoot>, and <tbody> elements.

24). What is a caption?

- the words that are written above or below a picture, photograph, etc. to explain what it is about

25). Which attribute allows you to add descriptive text to a table?

- Caption

26). Which HTML attribute is used to set the space between cells in an HTML element?

- The HTML <table> cellpadding Attribute is used to specify the space between the cells.

27). Which attribute do you use to span table cells across table columns?

- The colspan attribute defines the number of columns a table cell should span.

28). Which has higher priority in Table -- cell settings or table settings ?

ans. Cell settings

29). HTML attribute values are usually enclosed in?

- Attributes are always added to the start tag of an HTML element. Attribute values should always be enclosed in quotes. Double style

quotes (" ") are the most common, but single style quotes (' ') are also allowed.

30). HTML Entities. To display a less than sign we must write:

- To display a less than sign (<) we must write: < or < Entity names are easier to remember than entity numbers.

31). For a radio button to be marked as on what is the recommended attribute and value?

- Defines a by default checked radio button. We should specify the value attribute so that the information is delivered to the server, on form submission. If the value attribute is not specified, the form data assigns a value 'on' to the entire radio group (this isn't a good practice).

32). HTML 5 What is a new attribute for both and <input>?

- placeholder
- autofocus
- autocomplete
- required
- pattern
- list
- multiple
- novalidate
- formnovalidate

- form
- formaction
- formenctype
- formmethod
- formtarget

33). HTML What is the internal/wire format of input type="date" in HTML5?

ans. - YYYY-MM-DD

34). What are the Input types in HTML ?

- `<input type="button">`
- `<input type="checkbox">`
- `<input type="color">`
- `<input type="date">`
- `<input type="datetime-local">`
- `<input type="email">`
- `<input type="file">`
- `<input type="hidden">`
- `<input type="image">`
- `<input type="month">`
- `<input type="number">`
- `<input type="password">`
- `<input type="radio">`
- `<input type="range">`
- `<input type="reset">`
- `<input type="search">`
- `<input type="submit">`
- `<input type="tel">`
- `<input type="text">`
- `<input type="time">`
- `<input type="url">`

- `<input type="week">`

35). What are new Input types included in HTML5 ?

- HTML 5 introduces several input types like Date, 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.

36). What is the use of ?

- The `<fieldset>` tag is used to group related elements in a form. The `<fieldset>` tag draws a box around the related elements.

37). What is the use of tag ?

- The `<nav>` tag is used for declaring the navigational section in HTML documents. Websites typically have sections dedicated to navigational links, which enables users to navigate the site. These links can be placed inside a nav tag.

38). Difference between `` and `<div>` tag ?

- Span and div are both generic HTML elements that group together related parts of a web page serving different functions. `<div>` is a block-level element and `` is an inline element.

39). How to embed Javascript in HTML ?

- JavaScript code can be embedded inline into an HTML document by using the dedicated HTML tag `<script>`. This HTML tag wraps around the JS code. The `<script>` tag can be placed either in the `<head>` section of your HTML or in the `<body>` section. The placement entirely depends on when you want the JS code to load.

40). How do we specify line breaks in HTML ?

- The `
` tag inserts a single line break. The `
` tag is useful for writing addresses or poems. The `
` tag is an empty tag which means that it has no end tag.

41). Explain HTML 5 Element ?

- Represents a piece of content that is only slightly related to the rest of the page. Defines an audio file. This is used for rendering dynamic bitmap graphics on the fly, such as graphs or games.

42). Which tag is used in HTML5 to display video ?

- The `<video>` tag is used to embed video content in a document, such as a movie clip or other video streams.

43). HTML Event Attributes onunload fires

- The `onunload` attribute fires once a page has unloaded (or the browser window has been closed). `onunload` occurs when the user navigates away from the page (by clicking on a link, submitting a form, closing the browser window, etc.)

Module-3 (javascript)

1). JavaScript is developed by_____ .

- Brendan Eich

2). Javascript is a typed language.

- Unlike C#, JavaScript is a weakly typed programming language because you do not have to specify the variable type in advance.

3). Are java and javascript the same?

- While Java is an object-based programming language, JavaScript is an OOP(object-oriented program. JavaScript is more commonly used in web applications like browsers, while Java is more widely used in app development, smart devices and back-end applications.

4). Which of the following attributes of the form tag is not set by using a document object in JavaScript?

5). What property would you use to redirect a visitor to another page?

- To redirect to a new URL or page, you assign the new URL to the location. href property or use the location.

6). What are the following looping structures available in javascripts?

JavaScript supports different kinds of loops:

- **for** - loops through a block of code a number of times
- **for/in** - loops through the properties of an object
- **for/of** - loops through the values of an iterable object
- **while** - loops through a block of code while a specified condition is true
- **do/while** - also loops through a block of code while a specified condition is true

7). What is the meaning of the "this" keyword in javascript?

- Fig: JavaScript “this” keyword. “This” keyword refers to an object that is executing the current piece of code. It references the object that is executing the current function. If the function being referenced is a regular function, “this” references the global object.

8). Choose the client-side JavaScript object

- File Upload

9) What is Java Script ?

Ans. Java script is the programming language for the web. Java script can update and change both HTML and CSS. Java script can calcite, manipulate and validate data.

10) What is the use of isNaN function ?

Ans. The Javascript isNaN() function is used to check whether a given value is an illegal number or not. It returns true if the value is a NaN else returns false. It is different from the Number. isNaN() Method. Syntax: isNaN(value) value: it is required value passed in the isNaN() function.

11) What is negative infinity ?

Ans. The negative infinity in Javascript is a constant value that is used to represent a value that is the lowest available. This means that no other number is lesser than this value. It can be generated using a selfmade function or by an arithmetic operation. Negative infinity is different from mathematical infinity. Syntax: Number.NEGATIVE_INFINITY

12) Which company developed Javascript ?

Ans. Javascript was created at Netscape communications by Brendan Eich in 1995. Netscape and Eich designed Javascript as a scripting language for use with the company’s flagship web browser, Netscape Navigator.

13) What are undeclared and undefined variable ?

Ans. Undefined : It occurs when a variable has been declared but has not been assigned any value. Undefined is not a keyword. Undeclared : It occurs when we try to access any variable that is not initialized or declared earlier using the var or const keyword.

14) Write a code for adding new elements dynamically ?

Ans.

15) What is the difference between ViewState and SessionState ?

Ans. The basic difference between these two is that the ViewState is to manage state at the client's end, making state management easy for end-user while SessionState manages state at the server's end, making it easy to manage content from this end too. ViewState : It is maintained at only one level; that is page-level. Changes made on a single page is not visible on other pages. Information that is gathered in view state is stored for the clients only and cannot be transferred to any other place. View State is synonymous with serializable data only. SessionState : It is maintained at session-level and data can be accessed across all pages in the web application. The information is stored within the server and can be accessed by any person that has access to the server where the information is stored.

16) What is === operator ?

Ans. JavaScript strict Equality Operator is used to compare two operands and return true if both the value and type of operands are the same. Since type conversion is not done, so even if the value stored in operands is the same but their type is different the operation will return false. Syntax : `a===b`

17) How can the style/class of an element be changed ?

Ans. The class name is used as a selector in HTML which helps to give some value to the element attributes. The `document.getElementById()` method is used to return the element in the document with the "id" attribute and the "className" attribute can be used to change/append the class of the element.

18) How to read and write file using javascript ?

Ans. On the client side , you can't read or write files in javascript browsers. The fs module in Node.js may be used to accomplish this on the server-side. It has methods for reading and writing files on the file system that are both synchronous and asynchronous. Let's demonstrate some examples of reading and writing files with the node.js fs module. The fs.readFile(). And rs.writeFile(). Methods are used to read and write of a file using javascript. The file is read using the fs.readFile() function, which is an inbuilt method. This technique reads the full file into memory and stores it in a buffer. The fs.writeFile() function is used to write data to a file in an asynchronous manner. If the file already exists, it will be replaced.

19) What are all the looping structures in javascript ?

Ans. Looping in programming languages is a feature that facilities the execution of a set of instructions/functions repeatedly while some condition evalutes to true. There are mainly two types of loops:

a) Entry Controlled loop : In these types of loops, the test condition is tested before entering the loop body. The For loop and while loop are entry-controlled loops

b) Exit Controlled loop : In these types of loops the test condition is tested or evaluated at the end of the loop body. Therefore, the loop body will execute at least once, irrespective of whether the test condition is true or false. The do-while loop is exit controlled loop.

20) How can you convert the string of any base to an integer in javascript ?

Ans. In this article, we will convert a string into an integer in javascript. In javascript parseInt(). Function is used to convert the passed-in string parameter or value to an integer value itself. This function returns an integer of the base which is specified in the second argument of the parseInt() function. Javascript

parseInt() function returns Nan when the string doesn't contain a number. We can convert a string to javascript by the following methods : a. Using the parseInt() method b. Using the Number() method c. Using the Unary operator

21) What is the function of the delete operator ?

Ans. Delete is comparatively a lesser-known operator in javascript. This operator is more specifically used to delete javascript object properties. The javascript pop() , shift() or splice() methods are available to delete an element from an array. But because of the key value pair in an object, deleting is more complicated. Note that, delete operator only works on objects and not on variables or functions Syntax : Delete object //or Delete object.property //or Delete object['property']

22) What are all the types of Pop up boxes available in javascript ?

Ans. In javascript, popup boxes are used to display the message or notification to the user. There are three types of pop-up boxes in javascript namely Alert box, Confirm Box, and Prompt box. Alert Box : It is used when a warning message is needed to be produced. When the alert box is displayed to the user, the user needs to press ok and proceed. Prompt Box : It is a type of pop up box which is used to get the user input for further use. After entering the required details user have to click ok to proceed next stage else by pressing the cancel button user returns the null value. Confirm Box : It is a type of pop-up box that is used to get authorization or permission from the user. The user has to press the ok or cancel button to proceed.

23) What is the use of void(0) ?

Ans. It is often used when inserting an expression in a web page might produce some unwanted effect. To remove this effect, "javascript:void(0)" is used. This expression returns undefined primitive value. This is often used with hyperlinks. Sometimes, you will decide to call some javascript from inside a link. Normally, when you click a link, the browser loads a brand new page or refreshes the same page. But you most likely don't desire this to happen if you

have hooked up some javascript thereto link. To prevent the page from refreshing, you could use void(0).

24) How can a page be forced to load another page in javascript ?

Ans. We can use window.location property inside the script tag to forcefully load another page in javascript. It is a reference to a Location object that is it represents the current location of the document. We can change the URL of a window by accessing it.

25) What are the disadvantages of using innerhtml in javascript ?

Ans. Disadvantages : a. The use of innerHTML very slow b. Preserves event handlers attached to any DOM elements c. Content is replaced everywhere d. Appending to innerHTML is not supported e. Old content replaced issue f. Can break the document g. Can also be used for cross-site scripting (XSS)

MODULE 7

1). What is jQuery?

Ans. jQuery is a lightweight, "write less, do more", JavaScript library.

The purpose of jQuery is to make it much easier to use JavaScript on your website.

jQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code.

jQuery also simplifies a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.

2). How to Apply CSS Using JQuery, How to Add Class and Remove Class in JQuery, JQuery Animation?

Ans. Here are some ways to apply CSS using jQuery:

- Using the `.addClass()` method: This method adds the specified class to the selected elements.
- Using the `.removeClass()` method: This method removes the specified class from the selected elements.
- Using the `.toggleClass()` method: This method adds the specified class if it is not already present, or removes it if it is already present.
- Using the `.css()` method: This method allows you to set or get the CSS properties of the selected elements.

Here are some ways to add and remove classes in jQuery:

- Using the `.addClass()` method: This method adds the specified class to the selected elements.
- Using the `.removeClass()` method: This method removes the specified class from the selected elements.
- Using the `.toggleClass()` method: This method adds the specified class if it is not already present, or removes it if it is already present.

Here are some ways to animate using jQuery:

- Using the `.animate()` method: This method animates the selected elements to the specified properties.
- Using the `.stop()` method: This method stops the currently running animations on the selected elements.
- Using the `.queue()` method: This method allows you to queue animations on the selected elements.

3). How to create slider with animation?

Ans.

Module 8) Bootstrap Basic & Advanced

1). What are the advantages of Bootstrap?

Ans. Bootstrap is a framework that can be used for designing and developing websites. It has many advantages, including:

- **Saves time:** Bootstrap provides ready-made components and styles that can be customized and combined. It also offers CSS-Less functionality and cross-browser compatibility.
- **Easy to use:** Bootstrap is simple to use and can be integrated with other frameworks. It has detailed documentation and a large community that supports it.
- **Responsive:** Bootstrap is a fully responsive platform that supports a fluid grid layout. It can adjust the style, design, and view of webpages based on screen orientation and size.
- **Consistent:** Bootstrap follows a standard design and coding convention, and uses a mobile-first approach. It can also maintain consistency among projects when using multiple developer teams.
- **Regular updates:** Bootstrap provides regular updates.
- **Supported by all popular browsers:** Bootstrap is supported by all popular browsers.

2). What is a Bootstrap Container, and how does it work?

Ans. Containers are the most basic layout element in Bootstrap and are required when using our default grid system. Containers are used to contain, pad, and (sometimes) center the content within them. While containers can be nested, most layouts do not require a nested container.

3). What are the default Bootstrap text settings?

Ans. Bootstrap 4 Default Settings Bootstrap 4 uses a default font-size of 16px, and its line-height is 1.5. The default font-family is "Helvetica Neue",

Helvetica, Arial, sans-serif. In addition, all <p> elements have margin-top: 0 and margin-bottom: 1rem (16px by default).

4). What do you know about the Bootstrap Grid System?

Ans. Bootstrap's grid system uses a series of containers, rows, and columns to layout and align content. It's built with flexbox and is fully responsive. Below is an example and an in-depth look at how the grid comes together.

5). What is the difference between Bootstrap 4 and Bootstrap 5

Ans. Bootstrap 5 has six levels: xs, sm, md, lg, xl, and xxl. Bootstrap 4 includes jquery and all associated plug-ins. JQuery has been deleted and replaced with vanilla JS and several functional plug-ins in Bootstrap 5. Bootstrap 4 provides a few colors for a web page.

6).