HTML

1.1 Basic Of HTML

1.1.1 What is HTML, use of html, about different web browser: -

HTML stands for Hyper Text Markup Language. It is providing different tags or elements for how to manage and display content in web browser. HTML uses a system of tags and attributes to define the various elements of a web page, such as headings, paragraphs, images, links, forms, and more.

The primary use of HTML is to create the structure and content of web pages, allowing developers to define the layout and format of text, images, multimedia elements, and interactive features.

The purpose of a web browser (Chrome, Edge, Firefox, Safari) is to read HTML documents and display them correctly. A browser does not display the HTML tags, but uses them to determine how to display the document:

I. Google Chrome: Developed by Google, Chrome is one of the most widely used web browsers. It is known for its speed, security, and support for a wide range of web technologies.

II. Mozilla Firefox: Firefox is an open-source web browser developed by the Mozilla Foundation. It is highly customizable and emphasizes privacy and security.

III. Microsoft Edge: Developed by Microsoft, Edge is the default browser for Windows 10 and later versions. It provides a seamless integration with Windows and has been rebuilt using the Chromium engine, making it more compatible with modern web standards.

IV. Apple Safari: Safari is the default web browser for Apple devices, including macOS and iOS. It is known for its performance and efficiency on Apple hardware.

V. Opera: Opera is another popular web browser known for privacy. Ed, built-in features like VPN and ad blocker, and a focus on user privacy.

1.1.2 HTML Version: -

Since the early days of the World Wide Web, there have been many versions of HTML:

Year	Version
1989	Tim Berners-Lee invented www
1991	Tim Berners-Lee invented HTML
1993	Cave Raggett drafted HTML+
1995	HTML working group defined HTML 2.0
1997	W3C Recommendation: HTML 3.2
1999	W3C Recommendation: HTML 4.01
2000	W3C Recommendation: XHTML 1.0
2008	WHATWG HTML5 First Public Draft
2012	WHATWG HTML5 Living Standard
2014	W3C Recommendation: HTML5
2016	W3C Candidate Recommendation: HTML 5.1
2017	W3C Recommendation: HTML 5.1 2nd Edition
2017	W3C Recommendation: HTML 5.2

1.1.3 Structure Of HTML: -

```
<!DOCTYPE html>
<html>
        <head>
                <meta charset="UTF-8">
                <title> Page title </title>
        </head>
        <body>
                <h1> Hiiii </h1>
                <p> How are you </p>
                <h6> Nice </h6>
        </body>
</html>
```

The content inside the <body> section will be displayed in a browser. The content inside the <title> element will be shown in the browser's title bar or in the page's tab.

1.2 Basic Controls

1.2.1 form: -

A form is a container for various input element that allows users to submit data to a web server for processing. Forms are used for user interaction and data submission. That take data from user as a input, send data to server and create interactive web application.

```
<body>
        <form action="abc.html" method="post">
                <p> Enter name: </p>
                <input type="text" id="name">
                <p> Enter password: </p>
                <input type="text" id="password">
                <input type="submit" value="Login">
        </form>
</body>
```

1.2.2 input: -

The tag specifies an input field where the user can enter data. The HTML <input> tag is used to represent a form input control in HTML document. This form input control facilitate user to input data and communicate with a website or application. An input field can vary in many ways, depending on the type of attribute.

```
<body>
        <input type="text" name="txt" id="txt" >
        <input type="email" name="email" id="email">
        <input type="textarea" name="txtarea" id="txtarea" >
</body>
```

1.2.3 Text area: -

Tag defines a multi-line text input control. A text area can hold an unlimited number of characters, and the text renders in a fixed-width font (usually Courier). The size of a text area can be specified by the columns and rows attributes, or even better, through CSS' height and width properties.

```
<textarea name="textarea" id="textarea" rows="3" cols="5">

        Add your content here…..

</textarea>
```

1.2.4 selectbox: -

<select>: - <select> element is used to create a drop-down list.

<option>: - <option> tags inside the <select> element define the available options in the list.

```
<body>
        <select name="select" id="select">
                <option value="1"> Option-1 </option>
                <option value="2"> Option-2 </option>
                <option value="3"> Option-3 </option>
                <option value="4"> Option-4 </option>
                <option value="5"> Option-5 </option>
        </select>
</body>
```

1.2.5 checkbox: -

Checkboxes let a user select ZERO or MORE options from a limited number of choices.

```
<form>

        <input type="checkbox" name="game1" value="Cricket">Cricket

        <input type="checkbox" name="game2" value="Hockey"> Hockey

        <input type="checkbox" name="game3" value="Basketball"> Basketball

</form>
```

1.2.6 radio button: -

Radio buttons let a user select ONLY ONE of a limited number of choices:

```
<form>
    <input type="radio" name="gender"  value="male">Male
    <input type="radio" name="gender"  value="female">Female
</form>
```

1.2.7 button: -

The button element is clickable button.

```
<body>
    <button> Click here </button>
</body>
```

1.2.8 submit input: -

This input type is used for submit data to the web browser.

```
<form>
    <input type="submit" value="submit">
</form>
```

1.2.9 File Control with its attribute: -

<input> element with type="file" attribute to create a file control that allows user to select and upload file from their local system.

```
<body>
    <form action="#" method="post" enctype="multipart/form-data">
            <input type="file" name="file" id="file" accept=".pdf , .docs">
            <input type="submit" value="upload">
    </form>
</body>
```

1.3 Control's Attribute

1.3.1 Name: -

The 'name' attribute is used to give name to the element. It is primarily used when submitting data to the server.

<input type="text" name="uname">

1.3.2 Id: -

The 'id' attribute is used to uniquely identify an HTML element within the page. It is especially helpful when you want to target specific elements using JavaScript or CSS. Each element on the page should have a unique id.

<div id="div1" > …. </div>

1.3.3 Value: -

The 'value' attribute is used to set the initial or default value of form elements. The element will display the specified value when the page loads.

<select>

<option value="option1">Option 1</option>

</select>

1.3.4 Class: -

The class attribute is used to assign one or more classes to an HTML element. Classes are used for grouping elements together, allowing you to apply styles or JavaScript behavior to multiple elements with the same class.

<p class="highlight-text">

Given paragraph is highlighted…

</p>

1.4   Basic Tag with its attribute

1.4.1 Img tag and a tag: -

Image tag: -

HTML img tag is used to display image on the web page. HTML img tag is an empty tag that contains attributes only, closing tags are not used in HTML image element. The src and alt are important attributes of HTML img tag. All attributes of HTML image tag are given below.

src : It is a necessary attribute that describes the source or path of the image. It instructs the browser where to look for the image on the server.

Alt : The alt attribute defines an alternate text for the image, if it can't be displayed. The value of the alt attribute describes the image in words.

```
<img src="animal.jpg" height="180" width="300" alt="animal image">
```

Anchor tag: -

The primary purpose of an anchor tag is to link one page to another page or to a section of the same page. The anchor tag is also known as a Hyperlink. Like any other HTML tags, you use the following construct to create an anchor tag:

```
<a href="https://www.google.com"> Welcome to the google</a>
```

The value of the href attribute is usually a URL pointing to a web page.

1.4.2 What is meta tag, use of meta tag: -

Metadata is data (information) about data. The <meta> tag provides metadata about the HTML document. Metadata will not be displayed on the page but will be machine parable. Meta elements are typically used to specify page description, keywords, author of the document, last modified, and other metadata.

```
<head>
        <meta charset="UTF-8">
        <meta name="description" content="Free Web tutorials">
        <meta name="keywords" content="HTML, CSS, JavaScript">
        <meta name="author" content="John Doe">
```

```
<meta name="viewport" content="width=device-width, initial-
scale=1.0">

</head>
```

1.4.3 What is responsive website, how user can do it?

A responsive website is a type of website design that adapts and adjusts its layout and content based on the user's device and screen size. The goal of responsive web design is to provide an optimal viewing experience, ensuring that users can easily access and interact with the website, whether they are using a desktop computer, laptop, tablet, or smartphone.

To create a responsive website, add the following <meta> tag to all your web pages:

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```