**HTML**

1. **Basics of HTML**

In this section, I learned about HTML, its uses, and its structure. HTML is the basic language used to create web pages. It allows web browsers to interpret and display content on the internet.

HTML stands for Hyper Text Markup Language, which is used to create the structure of web pages. I learned that HTML forms the foundation for websites by using tags and elements to structure content. Web browsers like Google Chrome and Microsoft Edge read these HTML files and render the content visually.

HTML has evolved over the years, with different versions adding more capabilities. I learned about the progression from older versions like HTML4 to the modern HTML5, which includes new tags, multimedia support, and better structure.

A well-structured HTML document has specific elements like doctype, head, and body. I learned how to properly organize an HTML document by ensuring these elements are used correctly.

1. **Basic Controls**

Basic controls in HTML help gather information from users. These include forms, input fields, text area, checkboxes, radio buttons, and more. Understanding how to use these controls is key to building interactive websites.

Forms are used to collect user input, and I learned about form attributes like 'method' (GET/POST) and 'action'.

Various input controls such as text fields, checkboxes, radio buttons, select boxes, and file upload inputs are essential for gathering user data. I learned how to implement these elements in an HTML form.

**Some form attributes:**

1. Action: The action attribute defines the action to be performed when the form is submitted.
2. Method: The method attribute specifies the HTTP method to be used when submitting the form data.
3. Target: The target attribute specifies where to display the response that is received after submitting the form.

**Some form elements:**

1. <input>: The <input> element can be displayed in several ways, depending on the type attribute.
2. <label>: The <label> element defines a label for several form elements.
3. <select>: The <select> element defines a drop-down list.
4. <textarea>: The <textarea> element defines a multi-line input field (a text area).
5. <button>: The <button> element defines a clickable button.
6. **Control’s Attributes**

HTML controls have attributes like name, id, value, and class. These attributes help identify, style, and handle elements in forms. I learned how to use these attributes to manage form data effectively.

1. name: The name attribute in HTML is used to specify a name for an HTML element. It is commonly used with form elements to identify the data when it is submitted to a server.
2. value: The value attribute in HTML is used to specify the initial value of an input element or other elements where applicable.
3. class: The class attribute in HTML is used to assign one or more class names to an element. These class names can be used to apply CSS styles or target the element with JavaScript. It allows for grouping and styling multiple elements with the same class name.
4. id: The id attribute in HTML is used to uniquely identify an element on a webpage. It serves as a unique identifier, meaning no two elements on the same page should have the same id.
5. **Basic tag with its attribute**

I explored essential HTML tags like <img> for embedding images and <a> for creating hyperlinks. I also learned about meta tags, which supply metadata about a webpage, such as its author, description, and keywords, enhancing SEO and accessibility.

A responsive website dynamically adjusts its layout to suit various screen sizes and devices, ensuring optimal user experience across platforms. This adaptability is achieved through techniques like flexible grids, media queries, and responsive images. Such designs improve usability and accessibility, catering to diverse devices from desktops to smartphones.