(TR-102) MASTERING THE SEMANTIC WEB –

Training Day 2 Report :

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What is CSS?

CSS (Cascading Style Sheets) is a style sheet language used to control the layout and appearance of HTML documents. It is a powerful tool for styling web pages and enhancing their user experience

Types of CSS

There are three main types of CSS:

1. Inline CSS:

This type of CSS is used to style a single HTML element directly within the HTML code. It is less efficient and more challenging to manage compared to other types.

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Example

```html
<!DOCTYPE html>
<html>
  <body>
    <h1 style="color: blue; text-align: center;">This is a placeholder of heading</h1>
    <p style="color: red;">This is a placeholder for a paragraph.</p>
  </body>
</html>
```

In this example, the style attribute is used to apply inline styles directly to the HTML elements. The color property is set to blue for the heading and red for the paragraph, and the text-align property is set to center for the heading

2. <u>Internal CSS</u>:

This type of CSS is used to style a single web page by defining styles within the <head> section of the HTML document. It is more time-consuming and less efficient for styling multiple pages.

Example

```html
<!DOCTYPE html>
<html>
  <head>
    <title>Internal CSS Example</title>
```

```
    <style>
     body {
       background-color: powderblue;
     }
     h1 {
       color: blue;
     }
     p {
       color: red;
     }
    </style>
  </head>
  <body>
   <h1>This is a heading</h1>
   <p>This is a paragraph.</p>
  </body>
</html>
```

3.<u>External CSS</u>:

- This type of CSS is used to link all web pages with an external file. It is more efficient for styling extensive web pages and increases the readability of the CSS files.
- External CSS is used to define styles for multiple HTML pages. It is defined in a separate file with a .css extension

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and linked to the HTML document using the <link> element in the <head> section.

Example

HTML File

```html
<!DOCTYPE html>
<html>
  <head>
    <title>External CSS Example</title>
    <link rel="stylesheet" type="text/css" href="styles.css">
  </head>
  <body>
    <h1>This is a heading</h1>
    <p>This is a paragraph.</p>
  </body>
</html>
```

CSS File

```css
body {
  background-color: powderblue;
}

h1 {
  color: blue;
}
```

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```
p {
  color: red;
}
```

How to Style with CSS:

To style with CSS, we can use various selectors and properties. Here are some key concepts:

- Selectors: These are used to pinpoint the HTML components on web pages that need styling. There are different types of selectors, including simple selectors, combinator selectors, pseudo-class selectors, pseudo-elements selectors, and attribute selectors.
- Properties: These define the styles to be applied to the selected HTML elements. Some common properties include color, font-size, background-color, border, and text-align.
- Values: These specify the values for the properties. For example, color: red sets the text color to red

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Concept of Class and Id:

<u>ID</u>

- IDs are used to identify a single, unique element on a web page.
- An ID must be unique within the HTML document - there can only be one element with a given ID.
- IDs are defined using the # symbol followed by the ID name, e.g. #my-unique-id.
- IDs have a high level of specificity, meaning they take precedence over other selectors like classes.
- IDs are commonly used to apply styles to a specific, unique element.

<u>Class</u>

- Classes are used to group and style multiple elements on a web page.
- The same class can be applied to any number of HTML elements.
- Classes are defined using the . symbol followed by the class name, e.g. .my-class.
- Classes have a lower specificity than IDs, so styles applied via a class can be overridden by styles applied via an ID.
- Classes are commonly used to apply styles to a group of elements with similar characteristics

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Div in CSS:

In CSS, a <div> element is a generic container that can hold any other HTML elements. It is used to group similar content together and apply styles to it. The <div> element is a block-level element, which means it takes up the full width of its parent element and creates a line break before and after it.

Example of Using <div> in CSS

```
<!DOCTYPE html>
<html>

<head>
   <link rel="stylesheet" href="color.css">
   <title>
      HTML Div Tag
   </title>
</head>

<body>
   <center>
      <div class="color">
         <!--open tag of Div!-->
         <caption>
            <h1>GEEKSFORGEEKS</h1>
```

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```html
        </caption>
        <h1>Inline CSS is not USED in THIS method.
        </h1>
    </div>
    <!--closing tag of Div!-->
  </center>
</body>

</html>
```

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