CSS Introduction

CSS (Cascading Style Sheets) is a language designed to simplify the process of making web pages presentable. It allows you to apply styles to HTML documents, describing how a webpage should look by prescribing colors, fonts, spacing, and positioning. CSS provides developers and designers with powerful control over the presentation of HTML elements.

HTML uses tags and CSS uses rulesets. CSS styles are applied to the HTML element using selectors. CSS is easy to learn and understand, but it provides powerful control over the presentation of an HTML document.

Why CSS?

- **Saves Time:** Write CSS once and reuse it across multiple HTML pages.
- **Easy Maintenance:** Change the style globally with a single modification.
- **Search Engine Friendly:** Clean coding technique that improves readability for search engines.
- **Superior Styles:** Offers a wider array of attributes compared to HTML.
- **Offline Browsing:** CSS can store web applications locally using offline cache, allowing offline viewing.

CSS Syntax

CSS consists of style rules that are interpreted by the browser and applied to the corresponding elements. A style rule set includes a selector and a declaration block.

- **Selector:** Targets specific HTML elements to apply styles.
- **Declaration:** Combination of a property and its corresponding value.
- The selector points to the HTML element that you want to style.
- The declaration block contains one or more declarations separated by semicolons.
- Each declaration includes a CSS property name and a value, separated by a colon.

Example

```
p {
  color: blue;
  text-align: center;
}
```

CSS declaration always ends with a semicolon, and declaration blocks are surrounded by curly braces. In this example, all paragraph element (<p> tag) will be centre-aligned, with a blue text color.

Web Page with & without CSS

Without CSS: In this example, we have not added any CSS style.

```
<!DOCTYPE html>
<html>
 <head>
  <title>Simple Web Page</title>
</head>

<body>
  <main>
    <h1>HTML Page</h1>
    <p>This is a basic web page.</p>
  </main>
</body>
</html>
```

Using CSS: In this example, we will add some CSS styles inside the HTML document to show how CSS makes a HTML page attractive and user-friendly.

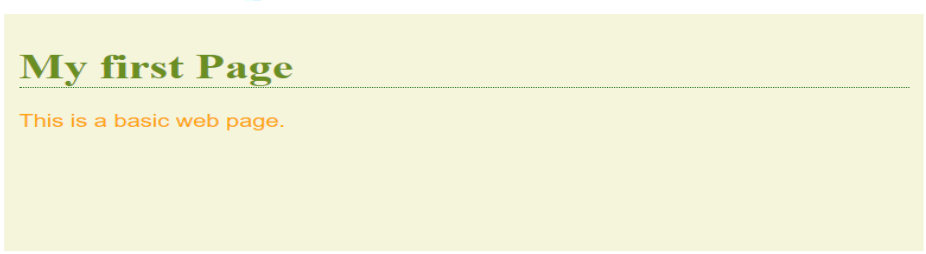
```
<!DOCTYPE html>
<html>

<head>
  <title>Simple web page</title>
  <style>
    main {
```

```
        width: 600px;
        height: 200px;
        padding: 10px;
        background: beige;
    }

    h1 {
        color: olivedrab;
        border-bottom: 1px dotted darkgreen;
    }

    p {
        font-family: sans-serif;
        color: orange;
    }
  </style>
</head>
<body>
  <main>
    <h1>My first Page</h1>
    <p>This is a basic web page.</p>
  </main>
</body>
</html>
```



CSS is essential for creating visually appealing and maintainable web pages. It enhances the website look and feel and user experience by allowing precise control over the presentation of HTML elements. Mastering CSS is crucial for effective web design and development.

Types of CSS (Cascading Style Sheet)

CSS (Cascading Style Sheets) is used to style and layout of web pages, and controlling the appearance of HTML elements. CSS targets HTML elements and applies style rules to dictate their appearance.

Below are the types of CSS:

- Inline CSS
- Internal or Embedded CSS
- External CSS

1. Inline CSS

Inline CSS involves applying styles directly to individual HTML elements using the style attribute. This method allows for specific styling of elements within the HTML document, overriding any external or internal styles.

```
<p style="color:#009900;
        font-size:50px;
        font-style:italic;
        text-align:center;">
    Inline CSS
</p>
```

Inline CSS

2. Internal or Embedded CSS

Internal or Embedded CSS is defined within the HTML document's <style> element. It applies styles to specified HTML elements. The CSS rule set should be within the HTML file in the head section i.e. the CSS is embedded within the <style> tag inside the head section of the HTML file.

```
<!DOCTYPE html>
<html>

<head>
    <style>
        .main {
            text-align: center;
        }

        .GFG {
            color: #009900;
            font-size: 50px;
            font-weight: bold;
        }

        .geeks {
            font-style: bold;
            font-size: 20px;
        }
    </style>
</head>

<body>
    <div class="main">
        <div class="GFG">Internal CSS</div>

        <div class="geeks">
            Implementation of Internal CSS
        </div>
```

```
    </div>
</body>
</html>
```

3. External CSS

External CSS contains separate CSS files that contain only style properties with the help of tag attributes (For example class, id, heading, … etc). CSS property is written in a separate file with a .css extension and should be linked to the HTML document using a **link** tag. It means that, for each element, style can be set only once and will be applied across web pages.

```
<!DOCTYPE html>
<html>
<head>
    <link rel="stylesheet" href="style.css">
</head>
<body>
    <div class="main">
        <div class="GFG">External CSS </div>
        <div id="geeks">
            This shows implementation of External CSS
        </div>
    </div>
</body>
</html>
```

Css

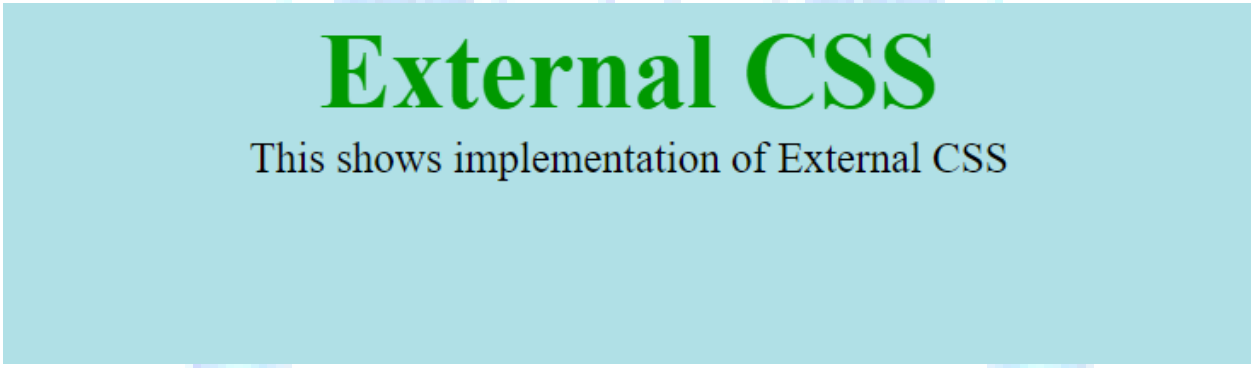
```
body {
```

```
    background-color: powderblue;
}

.main {
    text-align: center;
}

.GFG {
    color: #009900;
    font-size: 50px;
    font-weight: bold;
}

#geeks {
    font-style: bold;
    font-size: 20px;
}
```



CSS Syntax

CSS (Cascading Style Sheets) is a stylesheet language used to describe the presentation of a document written in HTML. Understanding CSS syntax is fundamental for creating visually appealing and well-structured web pages.

Basic CSS Syntax

CSS is written as rulesets. A ruleset consists of a selector and a declaration block. Here's the basic structure

HTML

```
<html>

<head>
  <style>
    /* CSS Rule */
    h1 {
      color: blue;
      /* Property: value */
      font-size: 24px;
    }

    p {
      color: green;
      font-size: 16px;
    }
  </style>
</head>

<body>
  <h1>Hello, World!</h1>
  <p>This is a simple paragraph.</p>
</body>
</html>
```

- **h1:** This selector targets all <h1> elements on the page. The style applied to <h1> will set the text color to blue and the font size to 24px.

- **p:** This selector targets all <p> elements. The text color will be green and the font size will be 16px.

CSS Syntax Breakdown

1. **Selectors:** Selectors are used to "select" the HTML element you want to style. It can be an element type (e.g., h1), a class (e.g., .class-name), an ID (e.g., #id-name), or a combination of these.
    1. **Type Selector:** Targets all elements of a specific type, like h1, p, div, etc.
    2. **Class Selector:** Targets elements with a specific class. Example: .my-class { }
    3. **ID Selector:** Targets an element with a specific ID. Example: #my-id { }
    4. **Universal Selector:** Targets all elements (*).
2. **Properties:** Properties are the aspects of the selected elements you want to style (like color, width, height, etc.).
    1. **color:** Defines the text color.
    2. **background-color:** Defines the background color of an element.
    3. **font-size:** Sets the size of the font.
    4. **margin:** Specifies the space around an element.
    5. **padding:** Defines the space between the element's content and its border.
3. **Values:** Values define the specifics of the property you want to apply, such as a color name, a number (e.g., 16px), or percentages (e.g., 50%).

Selectors in CSS

Selectors define which HTML elements are styled. CSS offers several types of selectors.

Universal Selector: Applies styles to all elements**.**

```
* {
   margin: 0;
   padding: 0;
}
```

Type Selector: Targets specific HTML elements.

```
h1 {
   font-family: Arial, sans-serif;
}
```

Class Selector: Styles elements with a specific class attribute

```
.box {
   border: 1px solid black;
   padding: 10px;
}
```

ID Selector: Targets a single element with a specific ID.

```
#header {
   background-color: lightgray;
}
```