**What is CSS?**

CSS stands for **Cascading Style Sheets**, it is a simple design language intended to simplify the process of making web pages presentable using CSS properties. CSS specify how an HTML element should be displayed on the web page

**Why Use CSS**?

**CSS Saves Time:** You can write CSS once and then reuse same sheet in multiple HTML pages.

**Pages Load Faster:** If you are using CSS, you do not need to write HTML tag or attributes every time. Just write one CSS rule of a tag and apply it to all the occurrences of that tag.

**Easy Maintenance:** To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.

**Superior Styles to HTML:** CSS has a much wider array of attributes than HTML, so you can get a far better look to your HTML page.

**Multiple Device Compatibility:** For the same HTML document, different versions of a website can be presented for different screen widths

**Global Web Standards:** Now most of the HTML attributes are being deprecated and it is being recommended to use CSS.

**CSS History and Versions**

Current version of CSS3 and early versions were CSS1 and CSS2.

Cascading Style Sheets level 1 (CSS1) came out of W3C as a recommendation in December 1996. This version describes the CSS language as well as a simple visual formatting model for all the HTML tags.

CSS2 became a W3C recommendation in May 1998 and builds on CSS1. This version adds support for media-specific style sheets e.g. printers and aural devices, downloadable fonts, element positioning and tables.

CSS3 was became a W3C recommendation in June 1999 and builds on older versions CSS. It has divided into documentations is called as Modules and here each module having new extension features defined in CSS2.

**Types of CSS**

.

**Inline CSS:** Inline CSS are directly applied on the HTML elements.

HTML element is having an attribute called style.

**Syntax:**

<p *style*="font-size: 60px; font-family: 'Times New Roman', Times, serif;">Hello</p>

Problem with inline CSS is, it is not reusable. This style is applied only to one element.

**Internal CSS:** Internal CSS are defined in the HTML head section inside of [**<style>**](https://www.tutorialspoint.com/html/html_style_tag.htm) tag. Internal CSS is reusable, it allows to define style once and applied to more than one tag within same page.

**Syntax:**

**<head>**

**<style>**

**selector**

**{**

**css-property:value;**

**css-property:value;**

**}**

**selector**

**{**

**Css-property:value;**

**Css-property:value;**

**}**

**</style>**

**</head>**

**Example:**

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

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

    <title>Inline CSS</title>

    <style>

        p{

           font-size: 40px;

           font-family: 'Gill Sans', 'Gill Sans MT', Calibri, 'Trebuchet MS', sans-serif;

           color: blue;

        }

    </style>

</head>

<body>

    <p >Hello</p>

    <p>Hyper Text Markup Language</p>

    <p>Cacading Style Sheets</p>

    <p>Bootstrap</p>

    <p>JavaScript</p>

</body>

</html>

**External CSS:** External CSS are defined in a separate file that contains only CSS properties, this is the recomended way to use CSS when you are working on projects. It is easy to maintain and multiple CSS files can be created and you can use them by improting it into your HTML document using HTML [**<link>**](https://www.tutorialspoint.com/html/html_link_tag.htm) tag.

**Syntax:**

**<link rel=”stylesheet” href=”path”>**

**style1.css (css folder)**

p{

    font-size: 40px;

    font-family: 'Gill Sans', 'Gill Sans MT', Calibri, 'Trebuchet MS', sans-serif;

    color:blue;

}

**Example**

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

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

    <title>Inline CSS</title>

    <link *rel*="stylesheet" *href*="css/style1.css">

</head>

<body>

    <p >Hello</p>

    <p>Hyper Text Markup Language</p>

    <p>Cacading Style Sheets</p>

    <p>Bootstrap</p>

    <p>JavaScript</p>

</body>

</html>

**CSS Syntax**

Following is the syntax of styling using CSS.

selector {

property: value;

}

**Selector:** CSS [**selectors**](https://www.tutorialspoint.com/css/css_selectors.htm) are used to select the HTML element or groups of elements you want to style on a web page.

**Property:** A CSS property is an aspect or characteristic of an HTML element that can be styled or modified using CSS, such as color, font-size, or margin.

**Value:** Values are assigned to properties. For example, color property can have value like red, green etc.

**Multiple Style Rules**

If you want to define multiple rules for a single selectors you can specify those in single block separated by a **semicolon (;)**.

Syntax

selector{

property1: value1;

property2: value2;

property3: value3;

}

CSS Selectors are used to select the HTML elements you want to style on a web page. They allow you to target specific elements or groups of elements to apply styles like colors, fonts, margins, and more.

**Types of Selectors**

1. [Universal Selectors](https://www.tutorialspoint.com/css/css_selectors.htm#universal_selectors)
2. [Element Selectors](https://www.tutorialspoint.com/css/css_selectors.htm#element_selectors)
3. [Class Selectors](https://www.tutorialspoint.com/css/css_selectors.htm#class_selectors)
4. [Id Selectors](https://www.tutorialspoint.com/css/css_selectors.htm#id_selectors)
5. [Attribute Selectors](https://www.tutorialspoint.com/css/css_selectors.htm#attribute_selectors)
6. [Group Selectors](https://www.tutorialspoint.com/css/css_selectors.htm#group_selectors)
7. [Pseudo-element Selectors](https://www.tutorialspoint.com/css/css_selectors.htm#pseudo-element_selectors)
8. [Pseudo-class Selectors](https://www.tutorialspoint.com/css/css_selectors.htm#pseudo-class_selectors)
9. [Descendant Selectors](https://www.tutorialspoint.com/css/css_selectors.htm#descendant_selectors)
10. [Child Selectors](https://www.tutorialspoint.com/css/css_selectors.htm#child_selectors)
11. [Adjacent Sibling Selectors](https://www.tutorialspoint.com/css/css_selectors.htm#adjacent_sibling_selectors)
12. [General Sibling Selectors](https://www.tutorialspoint.com/css/css_selectors.htm#general_sibling_selectors)

**CSS Universal Selector**

Universal selector, denoted by an asterisk mark **(\*)**, is a special selector that matches all elements in an HTML document. These are generally used to add a same length margin and padding to all the elements in document.

Syntax

\* {

margin: 0;

padding: 0;

}

As per the above syntax, the universal selector is used to apply a margin and padding of 0 to all HTML elements.

**Example**

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

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

    <title>Document</title>

    <style>

        \*{

            font-size: 40px;

            color:blue;

            font-family: Arial, Helvetica, sans-serif;

        }

    </style>

</head>

<body>

    <h1>UI Technologies</h1>

    <h2>HTML</h2>

    <h2>CSS</h2>

    <h2>JavaScript</h2>

    <h2>Bootstrap</h2>

    <p>UI stands for User Interface</p>

    <div>

        <span>UI</span>

    </div>

    <table border="1">

        <tr>

            <th>Rollno</th>

            <th>Name</th>

        </tr>

    </table>

</body>

</html>

**CSS Element Selector**

A element selector targets an HTML element, such as [**<h1>**](https://www.tutorialspoint.com/html/html_hn_tag.htm)**,**[**<p>**](https://www.tutorialspoint.com/html/html_p_tag.htm), etc. This is used when we want to apply similar style to all the <p> tags or <h1> tags in the document.

Syntax

/\* Sets text color of all p tags to green \*/

p {

color: green;

}

/\* Add underline to all h1 tags in document \*/

h1 {

text-decoration-line: underline;

}

**Example:**

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

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

    <title>Document</title>

    <style>

        h1 {

            color:blue;

        }

        h2 {

            color:red;

        }

        p

        {

            color:blueviolet;

        }

        span {

            font-weight: bold;

        }

        th {

            font-size: 40px;

            font-family: Arial, Helvetica, sans-serif;

        }

    </style>

</head>

<body>

    <h1>UI Technologies</h1>

    <h2>HTML</h2>

    <h2>CSS</h2>

    <h2>JavaScript</h2>

    <h2>Bootstrap</h2>

    <p>UI stands for User Interface</p>

    <div>

        <span>UI</span>

    </div>

    <table border="1">

        <tr>

            <th>Rollno</th>

            <th>Name</th>

        </tr>

    </table>

</body>

</html>

**CSS Class Selector**

A class selector targets an element with a specific value for its [**class attribute**](https://www.tutorialspoint.com/html/html_class_attribute.htm) to style it. A class in CSS is denoted by **"."** (period) symbol.

**Example:**

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

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

    <title>Document</title>

    <style>

        .header1 {

            font-size: 40px;

            text-decoration-line: underline;

        }

        .header2 {

            font-size: 30px;

            font-family: Arial, Helvetica, sans-serif;

        }

    </style>

</head>

<body>

    <h1 *class*="header1">UI Technologies</h1>

    <h2 *class*="header2">HTML</h2>

    <h2>CSS</h2>

    <h2>JavaScript</h2>

    <h2 *class*="header2">Bootstrap</h2>

    <p>UI stands for User Interface</p>

    <div>

        <span>UI</span>

    </div>

    <table border="1">

        <tr>

            <th>Rollno</th>

            <th>Name</th>

        </tr>

    </table>

</body>

</html>

**CSS ID Selector**

An ID selector targets single element with a particular value for [**id attribute**](https://www.tutorialspoint.com/html/html_id_attribute.htm) to style it. An id in CSS is denoted by "#" (hash) symbol. Same class can be applied to multiple elements, but an id is unique for an element.

**Syntax:**

#style-p {

color: green;

font-size: 25px;

}

**Example:**

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

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

    <title>Document</title>

    <style>

        #id1 {

            font-size: 30px;

            color:blue;

        }

    </style>

</head>

<body>

    <h1 >UI Technologies</h1>

    <h2 *id*="id1" >HTML</h2>

    <h2>CSS</h2>

    <h2>JavaScript</h2>

    <h2 >Bootstrap</h2>

    <p>UI stands for User Interface</p>

    <div>

        <span>UI</span>

    </div>

    <table border="1">

        <tr>

            <th>Rollno</th>

            <th>Name</th>

        </tr>

    </table>

</body>

</html>