

Experiment No. 2

Title: Apply CSS to web pages created after developing the HTML5 pages.

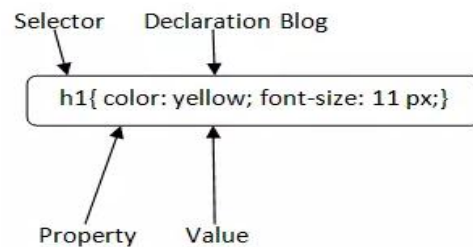
Objective: At the end of session, student will be able to apply inline CSS to web pages.

Keyword: Web Pages, HTML, CSS

Theory

CSS (Cascading Style Sheets) is a style sheet language which is used to describe the look and formatting of a document written in markup language. It provides an additional feature to HTML. It is generally used with HTML to change the style of web pages and user interfaces.

A CSS rule set contains a selector and a declaration block.



Selector: Selector indicates the HTML element you want to style.

- Use the type selector to select all elements of a particular type. The type selector is the element's name without the less-than and greater-than signs. E.g. for <p> tag the type selector, adds a border to all paragraphs by `p { border:2px solid black;}`
- Use the class selector to select all elements that you have assigned to a class. Class can be assigned to elements with class attribute in html. E.g. for elements `<p class="commondesign">` and `<b class="commondesign">` the class selector is the period followed by the name of a class. You can add universal selector, *, to select all elements in the document that have a matching class such as `*.commondesign`.

```
*.commondesign {  
    letter-spacing: 0.11em;  
}
```

- Use the ID selector to select all elements in the document, assigned to that ID. Each element has one ID. ID should be unique in a document. e.g. `<p id="my-id">` The id selector add a background color `</p>`

```
#my-id {  
    background-color: gold; }
```

Declaration Block: The declaration block can contain one or more declarations separated by a semicolon. For the above example, there are two declarations:

1. color: yellow;
2. font-size: 11 px;

Each declaration contains a property name and value, separated by a colon.

Property: A Property is a type of attribute of HTML element. It could be color, border etc.

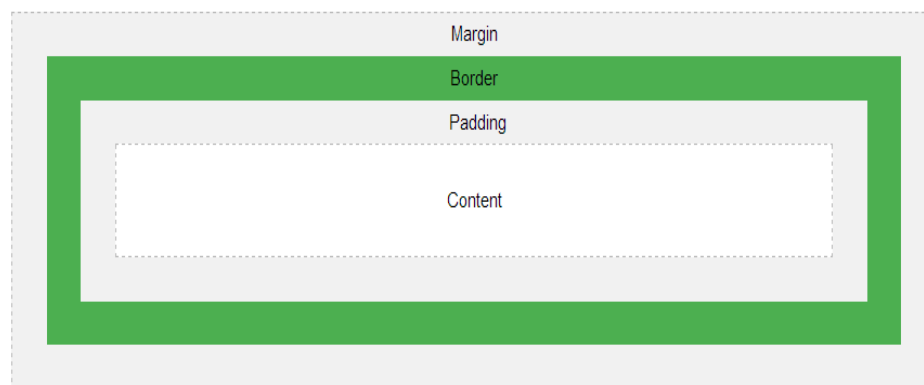
Value: Values are assigned to CSS properties. In the above example, value "yellow" is assigned to color property.

CSS is added to HTML pages to format the document according to information in the style sheet. CSS can be added to the HTML document with inline CSS, internal CSS and External CSS.

- Inline CSS is used to apply CSS on a single line or element. For example `<p style="color:blue">Hello CSS</p>`.
- Internal CSS is used to apply CSS on a single document or page. It can affect all the elements of the page. It is written inside the style tag within head section of html. `<style> p{color:blue} </style>`.
- External CSS is used to apply CSS on multiple pages or all pages. To use external CSS write all the CSS code in a css file. Its extension must be .css for example style.css. You need to link this **style.css** file to your html pages with this code `<link rel="stylesheet" type="text/css" href="style.css">`.

Box Model:

All HTML elements can be considered as boxes. In CSS, the term "box model" is used when talking about design and layout. The CSS box model is essentially a box that wraps around every HTML element. It consists of: margins, borders, padding, and the actual content. The image below illustrates the box model:



Explanation of the different parts:

- Content - The content of the box, where text and images appear
- Padding - Clears an area around the content. The padding is transparent
- Border - A border that goes around the padding and content
- Margin - Clears an area outside the border. The margin is transparent

The box model allows us to add a border around elements, and to define space between elements. Following properties can be used to design boxes

Sr.No.	Property	Use	Example
01	padding	Properties are used to generate space around content.	padding: 50px 30px 50px 80px;
02	margin	properties set the size of the white space outside the border.	margin: 100px 150px 100px 80px;

Elements provided inside HTML can be rendered in required layout. The display property is the most important CSS property for controlling such layout. The display property specifies if/how an element is displayed. Every HTML element has a default display value depending on what type of element it is. The default display value for most elements is block or inline. A block-level element always starts on a new line and takes up the full width available. An inline element does not start on a new line and only takes up as much width as necessary. display: none; is commonly used with JavaScript to hide and show elements without deleting and recreating them.

The position property specifies the type of positioning method used for an element. An element with position: static; is not positioned in any special way; it is always positioned according to the normal flow of the page. An element with position: relative; is positioned relative to its normal position. An element with position: fixed; is positioned relative to the viewport, which means it always stays in the same place even if the page is scrolled. The top, right, bottom, and left properties are used to position the element. An element with position: absolute; is positioned relative to the nearest positioned ancestor.