Experiment # 07

**Basics of HTML and CSS**

**Objective**

* Basic use of CSS
* How to make a Form
* How to add list and table in a web page
* How to add table in a web page
* How to add audio and video file

# What is CSS?

**CSS** stands for **C**ascading **S**tyle **S**heets. CSS describes **how HTML elements are to be displayed on screen, paper, or in other media**. CSS **saves a lot of work**. It can control the layout of multiple web pages all at once.

CSS can be added to HTML elements in 3 ways:

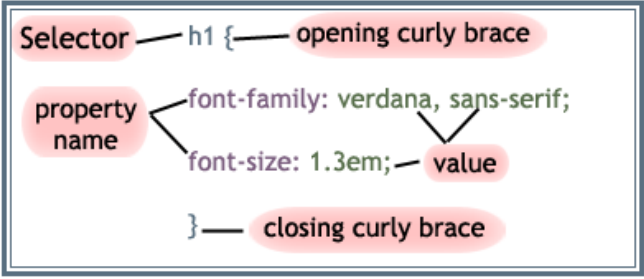
* **Inline** - by using the style attribute in HTML elements
* **Internal** - by using a <style> element in the <head> section
* **External** - by using an external CSS file

The most common way to add CSS, is to keep the styles in separate CSS files. However, here we will use inline and internal styling, because this is easier to demonstrate, and easier for you to try it yourself.

**Syntax to use CSS**

A style sheet consists of one or more rules that describe how document elements should be displayed.

A rule in CSS has two parts: the selector and the declaration. The declaration also has two parts, the property and the value.



**Inline CSS**

An inline CSS is used to apply a unique style to a single HTML element. An inline CSS uses the style attribute of an HTML element.

This example sets the text color of the <h1> element to blue:

**Example**

<h1 style="color:blue;">This is a Blue Heading</h1>

**Internal CSS**

An internal CSS is used to define a style for a single HTML page.

An internal CSS is defined in the <head> section of an HTML page, within a <style> element:

**Example**

<!DOCTYPE html>  
<html>  
<head>  
<style>  
body {  
 background-color: powderblue;  
 }  
h1   {color: blue;}  
p    {color: red;}  
</style>  
</head>

**CSS Fonts**

The CSS color property defines the text color to be used.

The CSS font-family property defines the font to be used.

The CSS font-size property defines the text size to be used.

**Example**

h1 {  
    color: blue;  
    font-family: verdana;  
    font-size: 300%;  
}

**CSS Border**

The CSS border property defines a border around an HTML element:

p {  
    border: 1px solid powderblue;  
}

**CSS Padding**

The CSS padding property defines a padding (space) between the text and the border:

p {  
    border: 1px solid powderblue;  
    padding: 30px;  
}

**CSS Margin**

The CSS margin property defines a margin (space) outside the border:

p {  
    border: 1px solid powderblue;  
    margin: 50px;  
}

# Forms

**Input Type Text**

The HTML <form> element defines a form that is used to collect user input:

<form>  
<input type="text"> defines a **one-line text input field**  
</form>

**Example**

<form>  
  First name:<br>  
  <input type="text" name="firstname"><br>  
  Last name:<br>  
  <input type="text" name="lastname">

</form>

**Some Important Input Types**

* <input type="password"> defines a **password field**
* <input type="submit"> defines a button for **submitting** form data to a **form-handler**

<input type="submit" value="Submit">

* <input type="reset"> defines a **reset button** that will reset all form values to their default values

<input type="reset">

* <input type="radio"> defines a **radio button**

<input type="radio" name="gender" value="male">Male

* <input type="checkbox"> defines a **checkbox**

<input type="checkbox" name="vehicle1" value="Bike">CheckBox<br>

* <input type="button"> defines a **button**

<input type="button" onclick="alert('Hello World!')" value="Click Me">

* The <input type="date"> is used for input fields that should contain a date

<input type="date" name="bday" max="1979-12-31">

* The <input type="datetime-local"> specifies a date and time input field, with no time zone
* The <input type="email"> is used for input fields that should contain an e-mail address
* The <input type="range"> defines a control for entering a number whose exact value is not important (like a slider control). Default range is 0 to 100. However, you can set restrictions on what numbers are accepted with the min, max, and step attributes
* The <input type="search"> is used for search fields (a search field behaves like a regular text field).
* The <input type="tel"> is used for input fields that should contain a telephone number
* The <input type="time"> allows the user to select a time (no time zone).
* The <input type="week"> allows the user to select a week and year.

**Example:**

Birthday (date and time):

<input type="datetime-local" name="bdaytime"><br>

Range

<input type="range" name="points" min="0" max="10"><br>

Telephone:

<input type="tel" name="usrtel"><br>

E-mail:

<input type="email" name="email"><br>

Select a file: <input type="file" name="myFile"><br>

Birthday (month and year):

<input type="month" name="bdaymonth"><br>

Quantity (between 1 and 5):

<input type="number" name="quantity" min="1" max="5"><br>

Quantity:

<input type="number" name="points" min="0" max="100" step="10" value="30"><br>

Range

<input type="range" name="points" min="0" max="10"><br>

Search Google:

<input type="search" name="googlesearch"><br>

Add your homepage:

<input type="url" name="homepage"><br>

Select a time:

<input type="time" name="usr\_time"><br>

Select a week:

<input type="week" name="week\_year">

# Lists

HTML provides a simple way to show unordered lists (bullet lists) or ordered lists (numbered lists).

1. **Unordered HTML List**

An unordered list starts with the <ul> tag. Each list item starts with the <li> tag. The list items will be marked with bullets (small black circles) by default.

The CSS list-style-type property is used to define the style of the list item marker:

|  |  |
| --- | --- |
| **Value** | **Description** |
| disc | Sets the list item marker to a bullet (default) |
| circle | Sets the list item marker to a circle |
| square | Sets the list item marker to a square |
| none | The list items will not be marked |

**Example - Disc**

<ul style="list-style-type:disc">  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ul>

1. **Ordered HTML List**

An ordered list starts with the <ol> tag. Each list item starts with the <li> tag. The list items will be marked with numbers by default.

The type attribute of the <ol> tag, defines the type of the list item marker:

|  |  |
| --- | --- |
| **Type** | **Description** |
| type="1" | The list items will be numbered with numbers (default) |
| type="A" | The list items will be numbered with uppercase letters |
| type="a" | The list items will be numbered with lowercase letters |
| type="I" | The list items will be numbered with uppercase roman numbers |
| type="i" | The list items will be numbered with lowercase roman numbers |

**Example: Numbers**

<ol type="1">  
  <li>Coffee</li>  
  <li>Tea</li>  
  <li>Milk</li>  
</ol>

1. **HTML Description Lists**

HTML also supports description lists. A description list is a list of terms, with a description of each term. The <dl> tag defines the description list, the <dt> tag defines the term (name), and the <dd> tag describes each term:

**Example**

<dl>  
  <dt>Coffee</dt>  
  <dd>- black hot drink</dd>  
  <dt>Milk</dt>  
  <dd>- white cold drink</dd>  
</dl>

# Tables

An HTML table is defined with the <table> tag. Each table row is defined with the <tr> tag. A table header is defined with the <th> tag. By default, table headings are bold and centered. A table data/cell is defined with the <td> tag.

<table style="width:100%">  
  <tr>  
    <th>Firstname</th>  
    <th>Lastname</th>   
    <th>Age</th>  
  </tr>  
  <tr>  
    <td>Jill</td>  
    <td>Smith</td>   
    <td>50</td>  
  </tr>  
</table>

**Adding a Border**

If you do not specify a border for the table, it will be displayed without borders.

A border is set using the CSS border property:

**Adding Cell Padding**

Cell padding specifies the space between the cell content and its borders. If you do not specify a padding, the table cells will be displayed without padding. To set the padding, use the CSS padding property:

**Adding Border Spacing**

Border spacing specifies the space between the cells.

To set the border spacing for a table, use the CSS border-spacing property:

# Multimedia

Multimedia comes in many different formats. It can be almost anything you can hear or see. Examples: Images, music, sound, videos, records, films, animations, and more. Web pages often contain multimedia elements of different types and formats

**Multimedia Formats**

Multimedia elements (like audio or video) are stored in media files. The most common way to discover the type of a file, is to look at the file extension. Multimedia files have formats and different extensions like: .swf, .wav, .mp3, .mp4, .mpg, .wmv, and .avi.

**HTML Audio**

<audio controls>

<source src="horse.mp3" type="audio/mpeg">

</audio>

**HTML Video**

<video width="400" controls>

<source src="mov\_bbb.mp4" type="video/mp4">

</video>

**YouTube Video**

<iframe width="420" height="345" src="https://www.youtube.com/embed/tgbNymZ7vqY">

</iframe>

**Lab Tasks**

1. Make five web pages having following definitions
   1. First page contains the information about you and links of all other four pages with bullets. Also mention copyrights
   2. Second page contains the introduction of HTML and CSS with proper headings and format
   3. Third page contains the introduction of tables with example
   4. Fourth page contains the introduction of multimedia with examples
   5. Fifth page contains definition and explanation of each Form Types

**Note:** Use proper format, style and color combination for each page. All pages should be interlinked with each other’s with proper indicator