

Experiment No: 7

Design a web page of your home town with an attractive background color, text color, an Image, font etc. (use internal CSS).

Date:

Competency and Practical Skills:

Relevant CO: 1

Objectives:

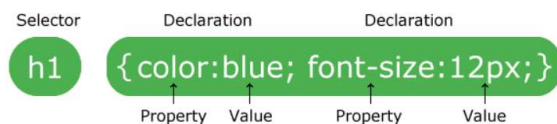
1. To understand how CSS works.

Theory:

Introduction To CSS

- CSS stands for Cascading Style Sheets
- CSS describes how HTML elements are to be displayed.
- CSS saves a lot of work. It can control the layout of multiple web pages all at once
- External stylesheets are stored in CSS files
- HTML was NEVER intended to contain tags for formatting a web page! HTML was created to describe the content of a web page.
- When tags like , and color attributes were added to the HTML 3.2 specification, it started a nightmare for web developers. Development of large websites, where fonts and color information were added to every single page, became a long and expensive process.
- To solve this problem, the World Wide Web Consortium (W3C) created CSS.
- CSS removed the style formatting from the HTML page!

CSS Syntax



- A CSS rule-set consists of a selector and a declaration block:
- The selector points to the HTML element 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.
- declaration blocks are surrounded by curly braces.

Example: In this example all <p> elements will be center-aligned, with a red text color

Code	Output
<pre><!DOCTYPE html> <html> <head> <style> p { color: red; text-align: center; } </style> </head> <body> <p>Hello World!</p> <p>These paragraphs are styled with CSS.</p> </body> </html></pre>	<p>Hello World!</p> <p>These paragraphs are styled with CSS.</p>

- p is a selector in CSS (it points to the HTML element you want to style: <p>).
- color is a property, and red is the property value
- text-align is a property, and center is the property value

CSS Selectors

- **CSS Element Selector**
 - o The element selector selects HTML elements based on the element name.
 - o Example:

<pre>p { text-align: center; color: red; }</pre>	
--	--

- The CSS id Selector
 - o The id selector uses the id attribute of an HTML element to select a specific element.
 - o The id of an element is unique within a page, so the id selector is used to select one unique element!
 - o To select an element with a specific id, write a hash (#) character, followed by the id of the element.
 - o Example

```
<!DOCTYPE html>
<html>
<head>
<style>
#para1 {
  text-align: center;
  color: red;
}
</style>
</head>
<body>
<p id="para1">Hello World!</p>
<p>This paragraph is not affected
by the style.</p>
</body>
</html>
```

- CSS Class Selector

- The class selector selects HTML elements with a specific class attribute.
- To select elements with a specific class, write a period (.) character, followed by the class name.
- Example
 - In this example all HTML elements with class="center" will be red and center-aligned:

```
<!DOCTYPE html>
<html>
<head>
<style>
.center {
  text-align: center;
  color: red;
}
</style>
</head>
<body>
<h1 class="center">Red and center-
aligned heading</h1>
<p class="center">Red and center-
aligned paragraph.</p>
</body>
</html>
```

- CSS Universal Selector

- The universal selector (*) selects all HTML elements on the page.
- Example

```
<!DOCTYPE html>
<html>
<head>
<style>
* {
  text-align: center;
  color: blue;
}
</style>
</head>
<body>
<h1>Hello world!</h1>
<p>Every element on the page will be
affected by the style.</p>
<p id="para1">Me too!</p>
<p>And me!</p>
</body>
</html>
```

- CSS Grouping Selector

- The grouping selector selects all the HTML elements with the same style definitions.
- To group selectors, separate each selector with a comma.
- Example:

```
h1, h2, p {
  text-align: center;
  color: red;
}
```

- The CSS Pseudo Class Selector

- Some selectors can be considered different because of the way the element they belong to works.
- For example, the anchor that creates a link between documents can have pseudo classes attached to it simply because it is not known at the time of writing the markup what the state will be.
- It could be visited, not visited, or in the process of being selected.
- CSS pseudo-classes are used to add special effects to some selectors. You do not need to use JavaScript or any other script to use those effects.
- selector: pseudo-class {property: value}
- CSS classes can also be used with pseudo-classes
- selector.class: pseudo-class {property: value}

- **Example**

```
a : link { color: red}
a : active { color: yellow}
a : visited { color: green}
a : hover { font-weight: bold}
a : link : hover {font-weight:bold}
```

- **Types Of CSS**

- External CSS
- Internal CSS
- Inline CSS

- **Internal CSS**

- An internal style sheet may be used if one single HTML page has a unique style.
- The internal style is defined inside the <style> element, inside the head section.
- Example:

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-color: linen;
}
h1 {
  color: maroon;
  margin-left: 40px;
}
</style>
</head>
<body>
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
</body>
</html>
```

-CSS Background Color

- The background-color property specifies the background color of an element.
- With CSS, a color is most often specified by:
 - a valid color name - like "red"
 - a HEX value - like "#ff0000"
 - an RGB value - like "rgb (255,0,0)"

Example:

```
body {  
  background-color: lightblue;  
}
```

-CSS Text Color

- text color can be set using color property

Example:

```
<h1 style="color:Tomato;">Hello  
World</h1>
```

Implementation:

Design a web page of your home town with an attractive background color, text color, an Image, font etc. (use internal CSS).

Output:**Conclusion:**

Quiz:

1. Explain the syntax of the CSS.
2. What is internal CSS?
3. Explain CSS class and Id selector.

Suggested Reference:

- https://www.w3schools.com/css/css_syntax.asp
- <https://www.geeksforgeeks.org/types-of-css-cascading-style-sheet/>

References used by the students:**Rubric wise marks obtained:**

Rubrics	1	2	3	Total
Marks				