CASCADING STYLE SHEETS (CSS)

CSS MODULE 1

○   Introduction,

○   Syntax,

○   Selectors,

○   Ways to insert CSS,

○   Comments

Introduction to CSS

- **CSS** = **Cascading Style Sheets**
- Used to **style and design** web pages.
- Controls **color, fonts, spacing, layout, and background**.
- Makes web pages **attractive and consistent**.
- CSS can be used with **html, XHTML and XML.**
- **Separates content** (HTML) from **design** (CSS).
- **A single CSS file** can style **multiple web pages**

Advantages of CSS

1. **Saves Time** – Write once, use on many pages.
2. **Faster Loading** – Reduces HTML code and improves speed.
3. **Easy Maintenance** – One change affects all linked pages.
4. **Better Design** – Offers more styling options than HTML.
5. **Device Friendly** – Works on multiple devices (PC, mobile, tablet).
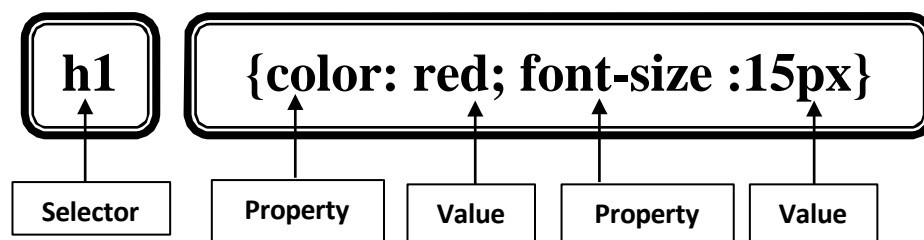
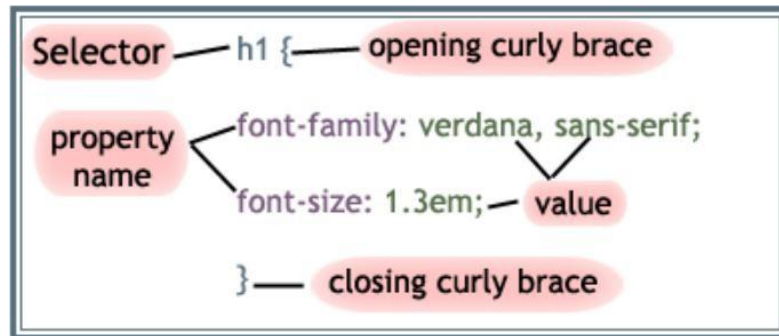## CSS Syntax

A CSS style rule is made of three parts:

1. **Selector**
2. **Property**
3. **Value**

The format or syntax of CSS is:

```
Selector {property: value}
```

Example:

```
h1    {color: red; font-size :15px}
```

Selector Property Value Property Value

```
Selector
 {
          property1: some value;
          property2: some value;
 }
```

Examples :

Single Property:

body { background-color: black; }

Multiple Properties:

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

Quoted Value (for multi-word fonts):

body { font-family: "sans serif"; }

Grouping Selectors:

h1, h2, h3 { color: yellow; }

CSS Selectors

Three types of CSS Selectors:

1. **The Element selectors**
2. **The ID Selectors**
3. **The Class Selectors**

1. The Element selectors

- **Element Selector** targets **all HTML elements** of a specific type.

- CSS declarations are written **inside curly braces { }.**

- Each **property-value pair** ends with a **semicolon (;).**

Example -

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

Usage : `<p>This is paragraph</p>`

2. ID selectors

- It uses the **id attribute** in HTML.

- The selector starts with a **# (hash)** symbol in CSS.

- Each ID must be **unique** (used only once per page).

Example –

```
#welcome{
color:red;
text-align:center;  }
```

Usage : `<p id="welcome">`Welcome to the 1st CSS Document `</p>`

3. Class selectors

- **Class Selector** is used to **apply the same style** to **multiple HTML elements.**

- It helps to **group elements** with a common design.

- The class selector starts with a **dot (.)** in CSS.

- Defined using the **class attribute** in HTML.

Example : `.center {text-align:center;}`

Usage : `<h2 class="center">Summary</h2>`

Some of the other selectors are used in CSS, they are :

4. Universal selector

- The **universal selector** is represented by an **asterisk (*)**.

- It **selects all elements** on a webpage.

- Used to apply a **common style** to every HTML element.

   Example-

```
*{
Color:#000000;
}
```

5. Attribute Selector

You can also apply styles to HTML elements with particular attributes.

```
input[type="text"]
{
color: #000000;
}
```

Usage : `<input type="text" name="fullname">`

`<input type="submit" />` element is unaffected, and the color applied only to the desired text fields.

Ways to insert CSS

There are three ways of inserting a style sheet:
1. **External style sheet**
2. **Internal style sheet**
3. **Inline style**

External style sheet

- An external style sheet is a separate CSS file that contains all the styles for a website.
- It is ideal when the same style is applied to multiple pages.

How to Link an External CSS File:

```
<head>
 <link rel="stylesheet" type="text/css" href="mystyle.css">
</head>
```

- rel="stylesheet" → Specifies that the file is a stylesheet.

- type="text/css" → Specifies the type of content.

- href="mystyle.css" → Path to the external CSS file.

Creating an External CSS File:

- Can be written in any text editor.

- Do not include HTML tags in the CSS file.

- Save the file with a .css extension.

Example (mystyle.css file):

```
.color1{
  color: blue;
}

p {
  margin-left: 20px;
}
```

Notes : Do not leave spaces between the property value and the units!

Example - "margin- left:20 px"

Internal style sheet

You define internal styles in the head section of an HTML page, by using the <style> tag, like this:

```
<head>
      <style type="text/css">
            h1 {
            color:red;
            }
            body {
            background-color:green;
            }
      </style>
</head>
```

Inline style sheet

To use inline styles you use the style attribute in the relevant tag. The style attribute can contain any CSS property.

Example :

```
<p style="color:green; margin-left:20px">
    This is a paragraph.
</p>
```

CSS Comments

What is a CSS Comment?

- Comments are **notes inside CSS code**.
- They are **ignored by browsers** and **don't affect the design**.
- Used to **explain code**.

Syntax :

- **Start** with /*
- **End** with */
- Can span **multiple lines**:

Example:

/*
This is a
multi-line comment
in CSS
*/

/* This is a CSS comment */