CASCADING STYLE SHEET (CSS)

Class 01
Introduction to CSS (Cascading Style Sheet)

What is CSS?

- ⮑ CSS stands for Cascading Style Sheets.
- ⮑ It is used to style and layout web pages.
- ⮑ It controls the color, font, size, spacing, and positioning of HTML elements.

Why Use CSS?

- ⮑ Separates content from design (HTML for structure, CSS for style).
- ⮑ Improves maintainability of web pages.
- ⮑ Enhances user experience with better design.
- ⮑ Reduces code duplication using reusable styles.

Why the word "cascade"?

CSS follows a cascading order, meaning:

- ⮑ Multiple styles can apply to an element.
- ⮑ The most specific or latest rule wins if there are conflicts.
- ⮑ Rules are inherited from parent elements unless overridden.

How Cascading Works?

When multiple CSS rules apply to an element, the browser follows these three principles to determine the final style:

1. **Source Order (Last Rule Wins)**

   If two rules have the same specificity, the one that comes later in the stylesheet is applied.

   ```css
   p {
     color: blue;
   }
   p {
     color: red; /* This rule applies because it comes later */
   }
   ```

2. **Specificity (More Specific Wins)**

   If two rules apply to the same element, the more specific selector takes priority.

   ```css
   p { color: blue; }        /* Less specific */
   #unique { color: red; }   /* More specific */
   ```

3. **Importance (`!important` Wins Over All)**

    The `!important` declaration overrides other rules, even those with higher specificity.

    ```css
    p {
      color: blue !important;
    }
    p {
      color: red;
    }
    ```

Ways to Add CSS to HTML?

There are three ways to apply CSS:

1. **Inline CSS**
2. **Internal CSS**
3. **External CSS**

1. Inline CSS

Added directly inside an HTML tag using the `style` attribute.

```html
<p style="color: blue; font-size: 20px;">Hello, CSS!</p>
```

2. Internal CSS

Defined inside a `<style>` tag within the `<head>` section of an HTML document.

```html
<head>
  <style>
    p {
      color: blue;
      font-size: 20px;
    }
  </style>
</head>
```

CASCADING STYLE SHEET (CSS)

CSS

3. External CSS
Stored in a separate `.css` file and linked to the HTML document.

```html
<head>
  <link rel="stylesheet" href="styles.css">
</head>
```

CSS Syntax

CSS follows a rule-based structure. Each rule consists of a selector and a declaration block. Selectors pick the HTML elements, while declaration blocks contain pairs of properties and values.

The general syntax for writing CSS.

```css
selector {
  property: value;
}
```

Example

```css
h1 {
  color: red;
  font-size: 24px;
}
```

`h1` → Selector (the element to style).

`color` → Property (what to change).

`red` → Value (the change applied).