

Identifiers in HTML (Class and ID) & Basic CSS Syntax

1. Identifiers in HTML: `class` and `id`

In HTML, **identifiers** (like `class` and `id`) are used to uniquely identify or group elements for styling and scripting. They help us target specific HTML elements when applying CSS or JavaScript.

Class (`class`)

- **Purpose:** A `class` is used to group multiple elements together that share common styles. You can apply the same class to many elements.
- **Syntax:** The `class` attribute can be applied to any HTML element.

Example:

```
<p class="intro">This is an introductory paragraph.</p>
<p class="intro">This is another paragraph with the same class.</p>
```

- **CSS Usage:** You can style all elements with the same class using the `.` (dot) selector.

Example:

```
.intro {
  font-style: italic;
  color: darkblue;
}
```

ID (`id`)

- **Purpose:** The `id` is used to uniquely identify a single element. Each `id` must be unique within a page (no two elements should have the same `id`).
- **Syntax:** The `id` attribute is applied to a single HTML element.

Example:

```
<div id="header">This is the header of the page.</div>
```

- **CSS Usage:** To style an element with a specific `id`, use the `#` (hashtag) selector.

Example:

```
#header {
  background-color: lightblue;
  text-align: center;
}
```

Key Differences Between `class` and `id`:

- **Reusability:** A `class` can be used on multiple elements, while an `id` should only be used once on a page.
 - **Specificity:** An `id` has higher specificity in CSS, meaning styles applied to an `id` will override styles applied to a `class` in case of conflicts.
-

2. Basic CSS Syntax

CSS (Cascading Style Sheets) is used to style and format the layout of web pages. It works by applying rules to HTML elements based on selectors. Each CSS rule consists of a **selector** and **declarations**.

CSS Rule Structure:

A CSS rule has two main parts:

1. **Selector:** The element or elements you want to style.
2. **Declaration Block:** Contains one or more property-value pairs enclosed in curly braces `{ }`.

General Syntax:

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

Example:

```
css  
Copy  
p {  
  color: blue; /* This sets the text color of all <p> elements to blue */  
  font-size: 16px; /* This sets the font size of <p> elements to 16px */  
}
```

CSS Declaration:

- **Property:** Defines the aspect of the element you want to change (e.g., `color`, `font-size`, `margin`, `background`).
- **Value:** Specifies the setting or value for the property (e.g., `red`, `16px`, `bold`).

Example:

```
h1 {  
  color: red; /* Text color */  
  font-size: 32px; /* Font size */  
  text-align: center; /* Text alignment */  
}
```

CSS Example with `class` and `id`

You can combine `class` and `id` with CSS selectors to style specific elements on the page:

HTML:

```
<p class="intro">This is an introductory paragraph.</p>
<p class="intro">This is another introductory paragraph.</p>
<div id="header">Welcome to My Website</div>
```

CSS:

```
/* Class selector */
.intro {
  color: green;
  font-style: italic;
}

/* ID selector */
#header {
  background-color: lightgray;
  text-align: center;
  padding: 10px;
}
```

In the example above:

- All paragraphs with the `class="intro"` will be styled with green italic text.
- The `div` with `id="header"` will have a light gray background and centered text.

Summary

- **Class (`class`):** Used for styling multiple elements. Targeted with a dot `.` in CSS.
- **ID (`id`):** Used for styling a single unique element. Targeted with a hash `#` in CSS.
- **CSS Syntax:** A rule consists of a selector (target element) and declarations (styling rules). Declarations are written as `property: value;` inside curly braces.

This basic understanding of **HTML identifiers** (`class` and `id`) and **CSS syntax** will form the foundation for creating well-structured and styled web pages.