

# Introduction to CSS

CSS (Cascading Style Sheets) is used to style and layout web pages — for example, to change the font, color, size, and spacing of content, split it into multiple columns, or add animations. CSS works alongside HTML to make web pages visually appealing and consistent across devices.

## 1. CSS Selectors

Selectors are patterns used to select the HTML elements you want to style.

- **Element Selector:** Selects elements based on the HTML tag name.
- **Class Selector:** Selects elements with a specific class attribute (prefixed with `.``).
- **ID Selector:** Selects a specific element based on its ID (prefixed with `#`).

**Example:**

```
/* Element Selector */
p {
  color: blue;
}

/* Class Selector */
.intro {
  font-size: 18px;
  color: green;
}

/* ID Selector */
#main-title {
  text-align: center;
  font-weight: bold;
}
```

## 2. Colors and Fonts

CSS allows setting colors using names, HEX, RGB, or HSL values. You can also control font style, family, and size.

**Example:**

```
body {
  background-color: #f0f8ff;
  color: #333;
  font-family: 'Poppins', sans-serif;
  font-size: 16px;
}
```

## 3. Text Alignment & Font Size

Text can be aligned using `text-align``, and size can be set using `font-size``. Common values include `left``, `center``, and `right``.

**Example:**

```
h1 {
  text-align: center;
```

```
font-size: 36px;
}

p {
text-align: justify;
font-size: 18px;
}
```

## 4. CSS Box Model

The box model defines how elements are displayed as rectangular boxes. Each element consists of: 1. Content — The actual text or image. 2. Padding — Space between content and border. 3. Border — Surrounds the padding and content. 4. Margin — Space outside the border, separating it from other elements.

### Example:

```
div {
margin: 20px;
padding: 15px;
border: 2px solid #000;
background-color: #e3f2fd;
}
```

Visual Representation of the Box Model:

```
[ Margin ]
↓
[ Border ]
↓
[ Padding ]
↓
[ Content ]
```

### Summary:

- CSS enhances the presentation of HTML.
- Selectors define which elements are styled.
- The box model determines layout and spacing.
- Fonts, colors, and alignment make text more readable and attractive.