

# Web Development Notes: Class 4

## CSS Fundamentals

### 1. What is CSS?

CSS stands for **Cascading Style Sheets**. While HTML provides the structure (the skeleton), CSS provides the style (the skin, clothes, and makeup). It controls colors, fonts, layouts, and spacing.

### 2. CSS Syntax

A CSS rule-set consists of a **selector** and a **declaration block**.

CSS

```
h1 {  
  color: blue;  
  font-size: 12px;  
}
```

- **Selector (h1)**: The HTML element you want to style.
- **Property (color)**: The aspect you want to change.
- **Value (blue)**: The setting you want to apply.

### 3. The Three Main Selectors

1. **Element Selector**: Targets all tags of a specific type.

CSS

```
p { color: red; } /* All paragraphs turn red */
```

2.

**Class Selector:** Targets elements with a specific `class` attribute. Starts with a dot (`.`).

CSS

```
.btn { background: black; } /* HTML: <button class="btn"> */
```

3.

**ID Selector:** Targets a single element with a unique `id`. Starts with a hash (`#`).

CSS

```
#header { height: 100px; } /* HTML: <div id="header"> */
```

## 4. The Box Model

Every element in Web Design is a rectangular box. The Box Model talks about the spacing around that box.

- **Content:** The text or image inside.
- **Padding:** Space *inside* the border (between content and border).
- **Border:** A line going around the padding and content.
- **Margin:** Space *outside* the border (separates the element from neighbors).