CSS Lecture 1 – *Foundations of CSS*

What is CSS? (15 mins)

- CSS = Cascading Style Sheets
- Controls:
  - Text (color, fonts, size)
  - Layout (spacing, positioning)
  - Backgrounds & Borders

```
<p style="color: red;">This is red text.</p>
```

📍 Analogy: HTML is the skeleton, CSS is the clothes + design.

Ways to Apply CSS

1) **Inline CSS** – inside an element

```
ndex.html > html > body > h1
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-wi
    <title>Document</title>
</head>
<body>
<h1 style="color: blue;">Hello World</h1>

</body>
</html>
```

Internal CSS – inside <style> in <head>

```
dex.html > html > head > style > h1
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-widt
    <title>Document</title>
    <style>
    h1 { color: green; }
</style>

</head>
<body>
<h1 >Hello World</h1>

</body>
</html>
```

External CSS (Best) – separate .css file

```
index.html > html > head > link
1   <!DOCTYPE html>
2   <html lang="en">
3   <head>
4       <meta charset="UTF-8">
5       <meta name="viewport" content="width=device-wi
6       <title>Document</title>
7       <link rel="stylesheet" href="style.css">
8   </head>
9   <body>
0   <h1 >Hello World</h1>
1
2   </body>
3   </html>
```

For real projects, always use **external CSS**.

. CSS Selectors

- **Element Selector:** p { color: red; }
- **Class Selector:** .title { font-size: 20px; }
- **ID Selector:** #main { background: yellow; }
- **Universal Selector:** * { margin: 0; }
- **Grouping Selector:** h1, h2 { color: blue; }

📍 Activity: Change different parts of a page using **class vs ID**.

1) What is a Class? .className

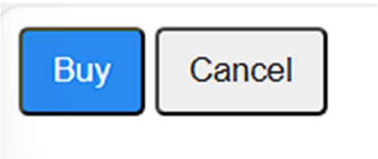
- A **class** is an attribute on an HTML element that groups elements for styling or JS.
- Multiple elements can share the same class. An element can have many classes.
- Syntax in HTML: ...
- CSS target: .card { /* styles */ }
- Use cases: buttons, repeated card components, text styles, utility helpers
-

```
</head>
<body>
<button class="btn primary">Buy</button>
<button class="btn secondary">Cancel</button>

</body>
```

INTERSKILL SOLUTIONS

-
```
style.css > ...
.btn { padding: 8px 12px; border-radius: 4px; }
.primary { background: #2b8aef; color: white; }
.secondary { background: #eee; color: #333; }
```



What is an ID? #idName

- An **id** is meant to uniquely identify one element on the page. Use it for single elements (header, main footer, modal).
- In HTML: ...
- CSS: #main-header { background: yellow; }
- Because IDs are unique, ID selectors are more *specific* (priority is higher) than class selectors.

When to use ID vs class

- Use **id** only for element that appears once and when you need a unique hook (rare in CSS; often used for JS or anchors).
- Use **class** for styling or repeated structures. In modern practice, prefer classes for styling and reserve ids for JS anchors or accessibility where uniqueness is required.

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3) Element Selector & Universal & Grouping

- **Element selector:** p { color: red; } — targets all <p> tags.
- **Universal selector:** * { margin: 0; } — targets all elements (use sparingly).

INTERSKILL SOLUTIONS

- **Grouping selector:** h1, h2 { color: blue; } — same style for multiple elements.

Task (Perform the Following task)

Goal: Show difference between .class and #id and selector paths.

(Copy and paste foll code into vs code and perform css)

```
<div id="box" class="box card">
  <h2 class="title">Profile</h2>
  <p class="lead">Hello student</p>
  <button class="btn primary">Click</button>
</div>
<div class="box">
  <h2 class="title">Other</h2>
  <p>Another box</p>
</div>
```

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <link rel="stylesheet" href="style.css">
</head>
<body>
 <div id="box" class="box card">
  <h2 class="title">Profile</h2>
  <p class="lead">Hello student</p>
  <button class="btn primary">Click</button>
</div>

<div class="box">
  <h2 class="title">Other</h2>
  <p>Another box</p>
</div>

</body>
</html>
```

SKILL SOLUTIONS

Tasks

1) Make .box have a light gray background and padding.
2) Make .title blue (affects all .title elements).
3) Make #box .title red — only the title in the first box should become red.
4) Try div .title { color: green; } placed after #box .title — does it override?
5) (No, because #box .title is more specific even if earlier; if div .title is later but less specific it still loses.)
6) Make .btn style and .primary modifier:

5. Colors, Fonts & Background (15 mins)

- **Colors:** color: red; or #ff0000; or rgb(255,0,0);
- **Fonts:** font-family: Arial; font-size: 18px;
- **Backgrounds:**

```
body {
  background-color: lightgray;
  background-image: url("image.jpg");
  background-repeat: no-repeat;
  background-size: cover;
}
```

6. CSS Box Model (20 mins)

Explain with diagram:

- **Content → Padding → Border → Margin**

Example: