Day 2: CSS, CSS Selectors & Box Model

1. CSS (Cascading Style Sheets)

CSS is a stylesheet language used to describe the look and formatting of a document written in HTML. It controls layout and positioning, fonts and text styles, colors and backgrounds, margins, padding, and borders.

Ways to Apply CSS:
- Inline: <h1 style="color:red;">Heading</h1>
- Internal: <style> tag within <head>
- External: <link rel="stylesheet" href="style.css">

Hands-on Example:
HTML:

```
<!DOCTYPE html>
<html>
<head>
  <title>CSS Demo</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <h1>Welcome to CSS</h1>
  <p>This is a paragraph styled using external CSS.</p>
</body>
</html>
```

CSS (styles.css):

```
h1 {
  color: darkblue;
  font-size: 36px;
}

p {
  color: gray;
  font-family: Arial;
}
```

2. CSS Selectors

CSS selectors target HTML elements and apply styles.

Common Selector Types:

- Element: p {}

- Class: .highlight {}

- ID: #main-header {}

- Grouping: h1, p {}

- Descendant: div p {}

- Universal: * {}

- Attribute: input[type="text"] {}

Hands-on Example:

HTML:

```
<div class="box">
  <h2 id="main-title">CSS Selectors</h2>
  <p>This is a paragraph.</p>
  <p class="highlight">This is highlighted.</p>
  <input type="text" placeholder="Type something" />
</div>
```

CSS:

```
#main-title {
  color: green;
}

.highlight {
  background: yellow;
}

input[type="text"] {
  border: 2px solid orange;
}

.box p {
```

```
  font-style: italic;
}
```

3. CSS Box Model

The Box Model defines how elements are structured and spaced:

[Margin]
  [Border]
    [Padding]
      [Content]

Components:
- Content: The actual text or image
- Padding: Space between content and border
- Border: Surrounds padding
- Margin: Space outside the border

Tip: Use box-sizing: border-box to avoid size issues.

Hands-on Example:
HTML:
```
<div class="card">Hello, Box Model!</div>
```

CSS:
```
.card {
  width: 200px;
  padding: 20px;
  border: 5px solid blue;
  margin: 30px;
  background: lightgray;
}
```

Summary Checklist

- CSS basics and how to apply them (inline, internal, external)

Day 2: CSS, CSS Selectors & Box Model

- Different types of CSS selectors

- Understanding and implementing the box model

- Hands-on examples for each concept