Internship Report – Frontend Dev(Week2)

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Date: 2nd July, 2025

Internship Domain: Front-end Intern

Task: CSS - Box Model: margin, padding, border, content

Task Overview:

Today's task is to learn another concept of CSS that is Box Model: margin, padding, border, content. The goal of today's task was to learn and understand the CSS Box Model, which includes how spacing works around and inside HTML elements using content, padding, border, and margin.

Content Covered:

- Introduction to the CSS Box Model
- Understanding how each part of the model (Content, Padding, Border, Margin) works
- Practice using simple CSS code examples
- Applying visual styling to observe spacing differences
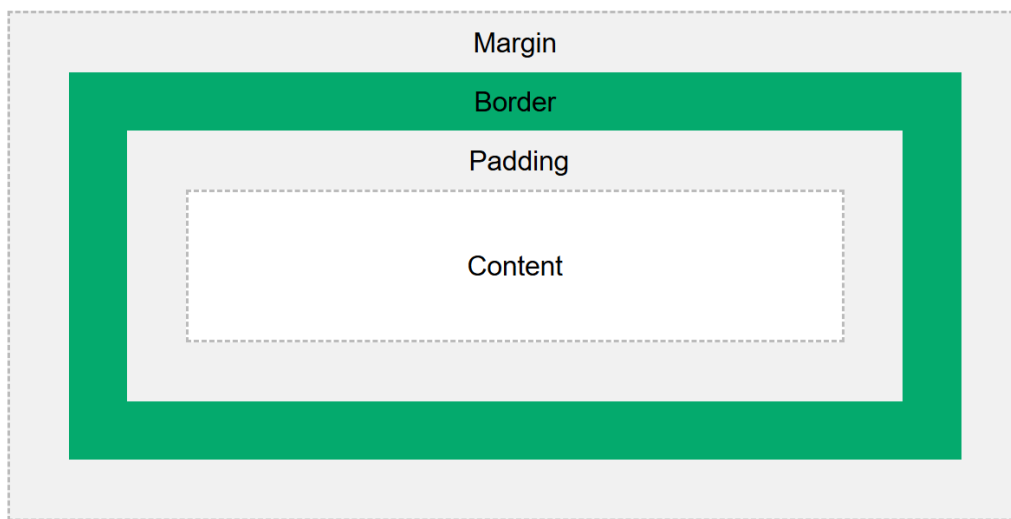
Introduction:

This report outlines the learning outcomes and practical work completed on Day 3 of Week 2 of my front-end development internship. In web development, every HTML element is treated like a box. The CSS Box Model describes how these boxes are displayed on the page. It helps control the spacing inside and around elements, which is essential for designing clean and well-structured layouts.

The CSS Box Model

It defines All HTML elements can be considered as boxes. In CSS, the term "box model" is used when talking about design and layout.

The CSS box model is essentially a box that wraps around every HTML element. It consists of

1. Content
2. Padding
3. Borders
4. Margins

Explanation:

Explanation of the different parts of Box Model:

1. <u>Content:</u>

The content of the box, where **text and images appear**. It is the innermost part of the box. The width and height of an element apply to the content area by default.

2. **Padding:**

Clears an area around the content. It is space **inside the box,** between the content and border. The padding is transparent. It increases the space around the content without affecting the element's outer boundary.

Example: This adds 20px of space around the content on all sides.

```
padding: 20px;
```

CSS has properties for specifying the padding for each side of an element:

- padding-top
- padding-right
- padding-bottom
- padding-left

We can use the padding shorthand property with four values:

div { padding: 25px 50px 75px 100px; }

3. **Border:**

A border that goes **around the padding and content**. It wraps around everything inside the box. You can set its thickness, style, and color.

Example: This creates a 2-pixel wide black line around the box.

```
border: 2px solid black;
```

The border-style property specifies what kind of border to display.

- **dotted** - Defines a dotted border
- **dashed** - Defines a dashed border
- **solid** - Defines a solid border
- **double** - Defines a double border
- **groove** - Defines a 3D grooved border.
- **none** - Defines no border

4. <u>Margin</u>

Margin is space **outside the border**; it separates this element from others. Clears an area outside the border. The margin is transparent.

Example: This creates 30px of space outside the box, separating it from other elements.

```
margin: 30px;
```

CSS has properties for specifying the margin for each side of an element:
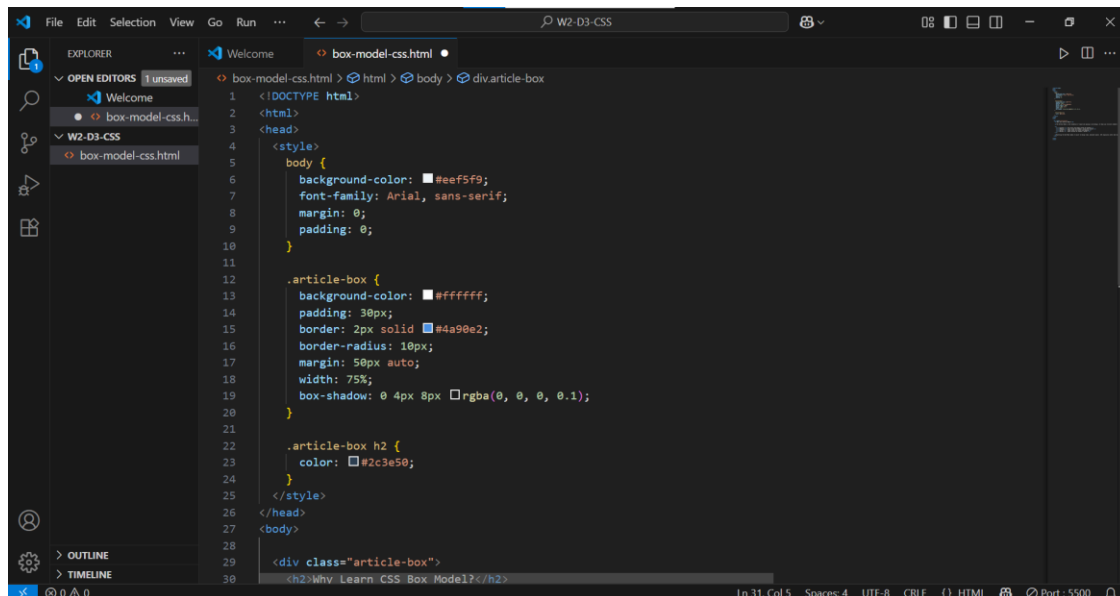
- margin-top
- margin-right
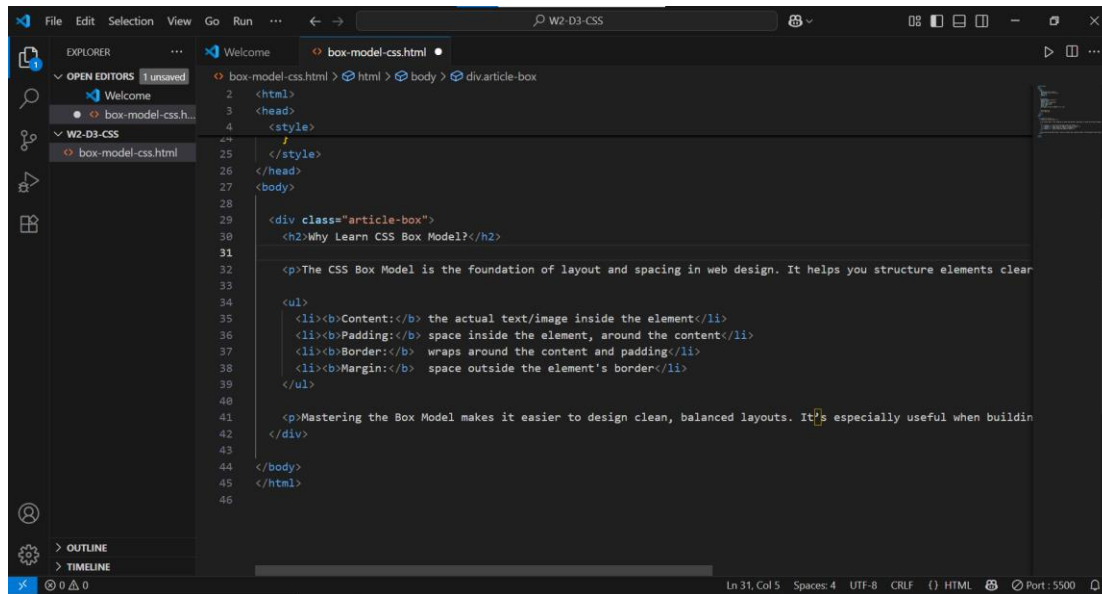- margin-bottom
- margin-left

We can use the margin shorthand property with four values: **p { margin: 25px 50px 75px 100px; }**
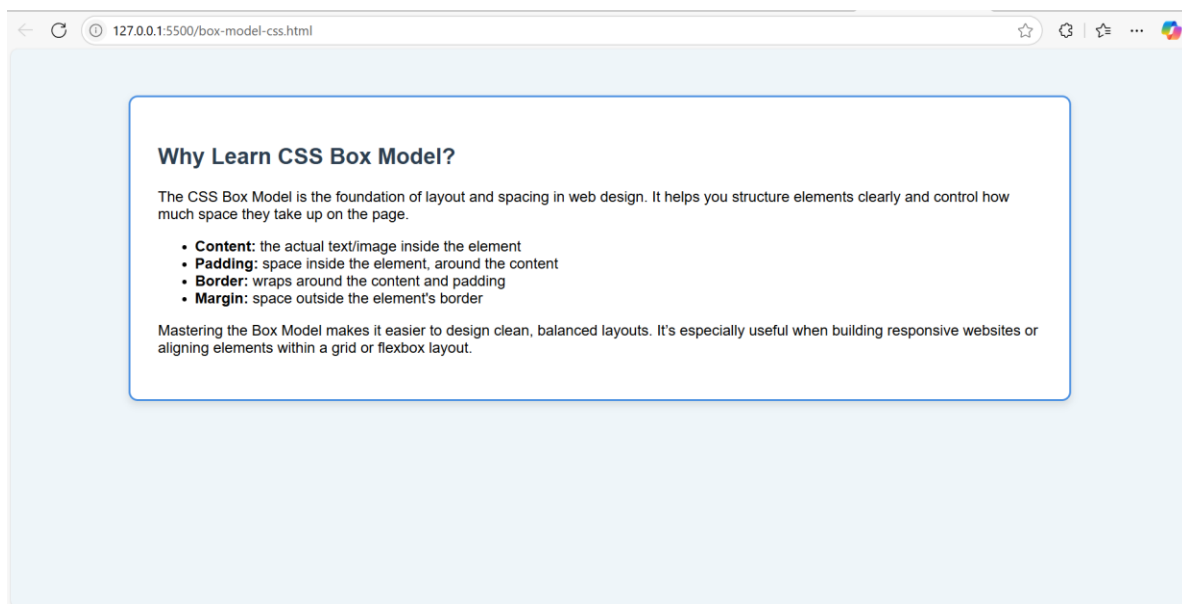
Code Implementation:

<u>Code 1:</u>

This code creates a clean, styled **content box** using the **CSS Box Model**. It includes **padding, border, margin**, and a box shadow to visually separate the box from the background. The content explains the Box Model with a **heading, paragraphs, and a list**.

Code 2:
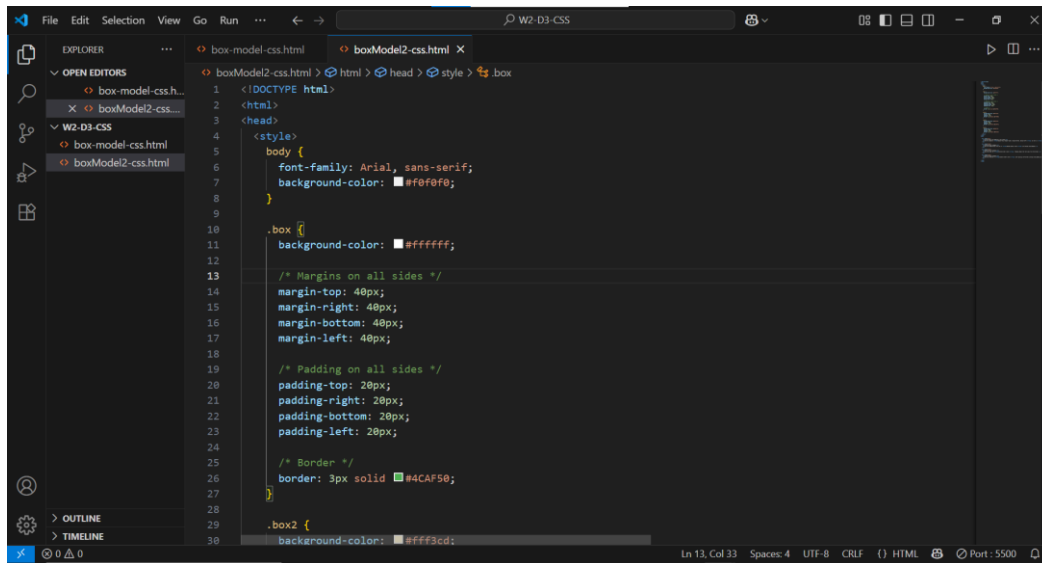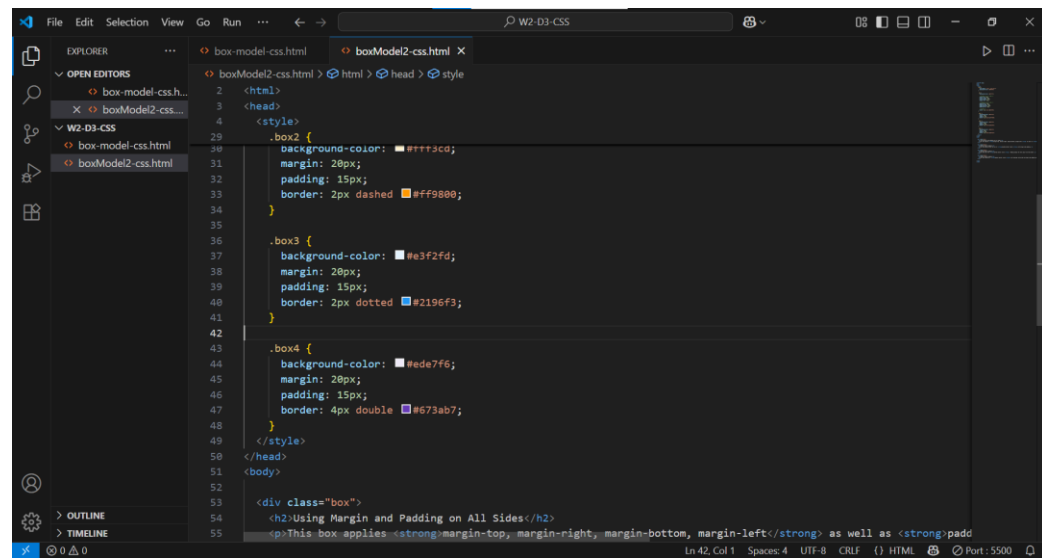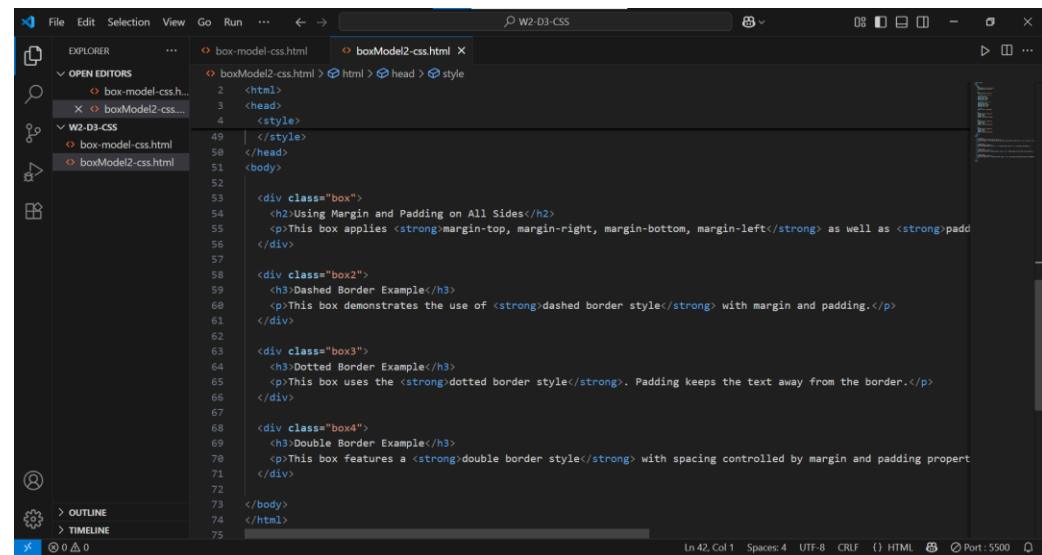
This code demonstrates the **CSS Box Model** using individual **margin and padding properties** for all four sides of each box. It also shows **different border-style** values including solid, dashed, dotted, and double. Each box contains simple content to visually explain spacing and border effects.
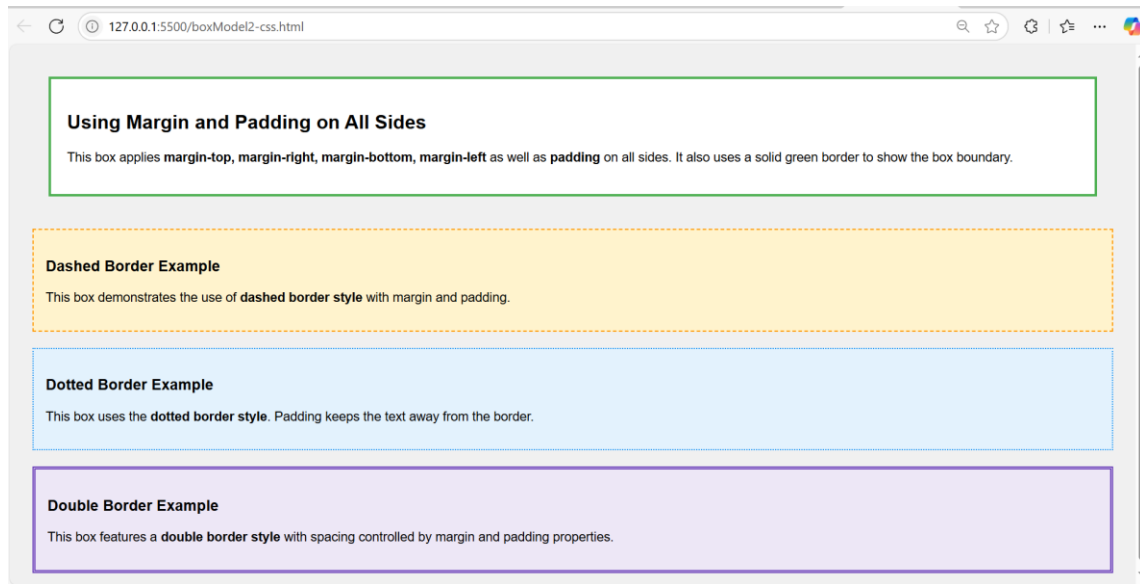
```html
<!DOCTYPE html>
<html>
<head>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #f0f0f0;
    }

    .box {
      background-color: #ffffff;

      /* Margins on all sides */
      margin-top: 40px;
      margin-right: 40px;
      margin-bottom: 40px;
      margin-left: 40px;

      /* Padding on all sides */
      padding-top: 20px;
      padding-right: 20px;
      padding-bottom: 20px;
      padding-left: 20px;

      /* Border */
      border: 3px solid #4CAF50;
    }

    .box2 {
      background-color: #fff3cd;
```



```html
<html>
<head>
  <style>
    .box2 {
      background-color: #fff3cd;
      margin: 20px;
      padding: 15px;
      border: 2px dashed #ff9800;
    }

    .box3 {
      background-color: #e3f2fd;
      margin: 20px;
      padding: 15px;
      border: 2px dotted #2196f3;
    }

    .box4 {
      background-color: #ede7f6;
      margin: 20px;
      padding: 15px;
      border: 4px double #673ab7;
    }
  </style>
</head>
<body>

  <div class="box">
    <h2>Using Margin and Padding on All Sides</h2>
    <p>This box applies <strong>margin-top, margin-right, margin-bottom, margin-left</strong> as well as <strong>padd
```



```html
<html>
<head>
  <style>
  </style>
</head>
<body>

  <div class="box">
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    <p>This box applies <strong>margin-top, margin-right, margin-bottom, margin-left</strong> as well as <strong>padd
  </div>

  <div class="box2">
    <h3>Dashed Border Example</h3>
    <p>This box demonstrates the use of <strong>dashed border style</strong> with margin and padding.</p>
  </div>

  <div class="box3">
    <h3>Dotted Border Example</h3>
    <p>This box uses the <strong>dotted border style</strong>. Padding keeps the text away from the border.</p>
  </div>

  <div class="box4">
    <h3>Double Border Example</h3>
    <p>This box features a <strong>double border style</strong> with spacing controlled by margin and padding propert
  </div>

</body>
</html>
```

Using Margin and Padding on All Sides

This box applies **margin-top, margin-right, margin-bottom, margin-left** as well as **padding** on all sides. It also uses a solid green border to show the box boundary.

Dashed Border Example

This box demonstrates the use of **dashed border style** with margin and padding.

Dotted Border Example

This box uses the **dotted border style**. Padding keeps the text away from the border.

Double Border Example

This box features a **double border style** with spacing controlled by margin and padding properties.

Conclusion:

In short, I have learned that the CSS Box Model is a foundational concept that helps us control the spacing and layout of elements on a webpage. By understanding content, padding, border, and margin, we can design user interfaces that are clean, responsive, and visually appealing.