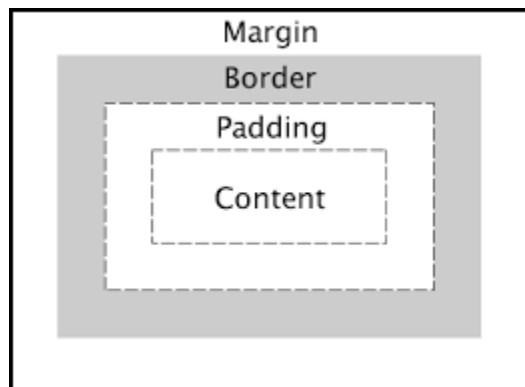


CSS Box Model

Theory Assignment 2

Q.1 Explain the CSS box model and its components (content, padding, border, margin). How does each affect the size of an element?

Ans: The box model describes how space is calculated around and inside elements — including content, padding, border, and margin.



1) Content:

- This is where your text, image, or other content lives.
- It's the innermost part of the box.
- You can set its width/height using width and height.

```
div {  
  width: 200px;  
  height: 100px;  
}
```

2) Padding:

- This is the space between the content and the border.
- It adds internal spacing inside the block.
- Increase the overall size of the element.

```
div {  
  padding: 20px;  
}
```

3) Border:

- This is the line around the padding and the content.
- You can control it's thickness, style, and color.

```
div {  
  border: 2px solid black;  
}
```

4) Margin:

- This is the space outside the element – it separates the element from others.
- Doesn't add to the element's size, but adds space around it.

```
div {  
  margin: 10px;  
}
```

How it affects the total size:

By default, total element size = width + padding + border + margin

```
css

div {
  width: 200px;
  padding: 10px;
  border: 2px solid;
  margin: 20px;
}
```

Total width:

= 200 (content) + 102 (padding) + 22 (border) = 224px

Margin is outside this, so extra $20 \times 2 = 40$ px spacing around the element.

Q.2 What is the difference between border-box and content-box box-sizing in CSS? Which is the default?

Ans: The main difference between border-box and content-box in CSS:

1) Content-box:

- Only the content is included in the width/height you set.
- Padding and border are added outside the defined size.

```
css

div {
  box-sizing: content-box; /* default
  width: 200px;
  padding: 20px;
  border: 2px solid;
}
```

- Total width = **200 + 40 (padding) + 4 (border) = 244px**

2) Border-Box:

- The padding and border are included *inside* the width/height.
- The content shrinks to make room for padding and border.

```
css

div {
  box-sizing: border-box;
  width: 200px;
  padding: 20px;
  border: 2px solid;
}
```

- Total width = 200px, not more — browser adjusts the content area to fit.

The default value of box-sizing is **border-box**.