

CSS Box Model

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

Ans :

In CSS, every HTML element is treated like a rectangular box. The box model describes how the size of that box is calculated and how spacing works around it. Here are its main four parts from the inside out (components) :

1. Content :

The innermost area where the text, images, or other content lives.
You can control its size using width and height.

2. Padding :

The space between the content and the border. It pushes the border away from the content, making the box appear bigger without changing the content area size.

Controlled with: padding all side [top , bottom , left , right]

3. Border :

A line that wraps around the padding and content.

Controlled with: Border-width, style, color

4. Margin :

The outermost space, outside the border, creating distance between this element and others.

Controlled with: margin-top, bottom, left, right

Affect the size of an element :-

1. Content : This is the base size of the element. If you set width:10px that's just for the content area - padding, border, and margin will be added on top unless you use box-sizing: border-box.

2. Padding : It adds to the total visible size of the element.

3. Border : It adds thickness to the box, making the element bigger visually.
 4. Margin : It does not increase the size of the element itself, but increases the space the element takes up in the layout.
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Question 2: What is the difference between border-box and content-box box-sizing in CSS? Which is the default?

Ans :

Box-sizing controls how the browser calculates the total width and height of an element.

There are two main values you'll encounter: content-box (default) and box-sizing.

1. content-box (default) :

The width and height you set apply only to the content area. Any padding and border are added on top of that width and height, increasing the total size.

Example : .box {

```
    box-sizing: content-box;

    width: 200px;

    padding: 20px;

    border: 5px solid;

}
```

Output : The actual rendered box is larger than the width we set.

2. Box-sizing :

The width and height you set include content, padding, and border. The browser shrinks the content area to make padding and borders fit inside the declared size.

Example : .box {

 box-sizing: border-box;

 width: 200px;

 padding: 20px;

 border: 5px solid;

}

Output : The actual rendered box stays at 200px wide.

Default : The default box-sizing in CSS is content-box.
