CSS box-sizing: border-box – Complete Notes

1. What is box-sizing?

The box-sizing property in CSS controls how the total width and height of an element are calculated. It decides whether padding and border are included inside the width and height or not.
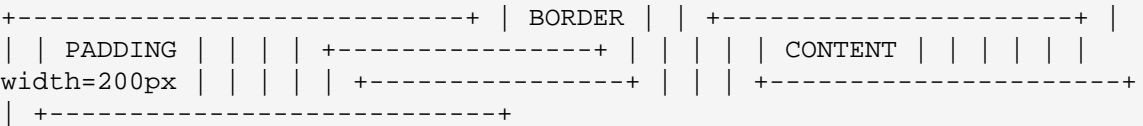
2. box-sizing: content-box (Default)

In content-box, the width and height apply only to the content. Padding and border are added outside, so the element becomes larger than the given width.
Example:

```
.box { width: 200px; padding: 20px; border: 5px solid black; box-sizing:
content-box; }
```

Diagram (content-box):

```
+---------------------------+ | BORDER | | +----------------------+ |
| | PADDING | | | | +----------------+ | | | | | CONTENT | | | | | |
width=200px | | | | | +----------------+ | | | +----------------------+
| +---------------------------+
```
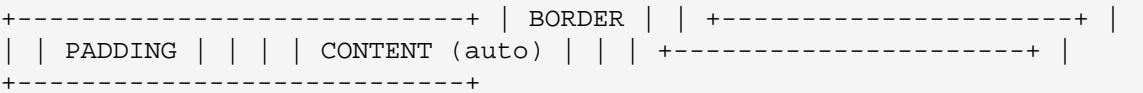
3. box-sizing: border-box

In border-box, the width and height include content, padding, and border. The overall size of the element stays fixed.
Example:

```
.box { width: 200px; padding: 20px; border: 5px solid black; box-sizing:
border-box; }
```

Diagram (border-box):

```
+---------------------------+ | BORDER | | +----------------------+ |
| | PADDING | | | | CONTENT (auto) | | | | +----------------------+ |
+---------------------------+
```

4. Difference Table

Feature	content-box	border-box
Default	Yes	No
Padding inside width	No	Yes
Border inside width	No	Yes
Layout control	Hard	Easy

5. Best Practice

```
* { box-sizing: border-box; }
```
Using border-box makes layouts predictable and prevents size-related issues.

6. One-Line Key Point

box-sizing: border-box includes padding and border inside the element's width and height.