

Module 3 - Lecture 2

CSS Selectors and Layout



CSS: Selectors



 element is
parent of
elements and child
of <main>

 elements are
children of

 elements are
siblings of each
other

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>

<body>
  <header>
    <h1>Header</h1>
  </header>

  <main>
    <ul>
      <li>Item One</li>
      <li>Item Two</li>
      <li>Item Three</li>
    </ul>
  </main>
</body>

</html>
```

HTML id attribute

- A unique, case-sensitive name to identify an element.
- Enables CSS and JavaScript to select elements directly.
- Anchor elements can navigate directly to another element by id.

```
<a href="#paraObviousPoint">Link to p</a>
```

```
<p id="paraObviousPoint">
```

```
  Above point sounds a bit obvious.
```

```
  Remove/rewrite?
```

```
</p>
```

HTML class attribute

- A space separated list of case-sensitive class names for an element.
- Enables CSS and JavaScript to select elements that share a class name.

```
<p class="note editorial">
```

```
  Above point sounds a bit obvious.
```

```
  Remove/rewrite?
```

```
</p>
```

CSS Selector Types

Name	Syntax	Example	Description
All / Wildcard	*	*	Every element
Element	element	h1	All h1 elements
ID	#elementId	#application	Element with the id “application”
Class	.className	.btn-primary	Elements with the class “btn-primary”
Descendant	element element	main li	li elements that are descendants of a main element
Child	element > element	ul > li	li elements that are children of a ul element
Attribute	[attribute=value]	[id=application]	Elements with an attribute id=”application”
Surrounding	+ or ~	#item ~ li	All list items after Element with id “item”

Pseudo-Class Selectors

- Targets an element based on an element's state. Prefaced with a colon.

Some examples:

a:visited -> anchor elements that have been visited

input:disabled -> input elements that are currently disabled

table tr:nth-child(even) -> even numbered rows in a table

Ref:

<https://developer.mozilla.org/en-US/docs/Web/CSS/Pseudo-classes>

Combining CSS Selectors Using Boolean Logic (AND)

- Selectors can be combined together to indicate multiple selectors have to be true (AND)

#content div > ul.list

- SELECT a ul element with class name “list”
- AND the ul element is a child of a div element
- AND the div element is a descendant of an element with an id “content”

Combining CSS Selectors Using Boolean Logic (OR)

- Selectors can be combined together with a comma to indicate this selector or that selector have to be true (OR)

div, span, #content

- SELECT div elements, span elements, or an element with id “content”

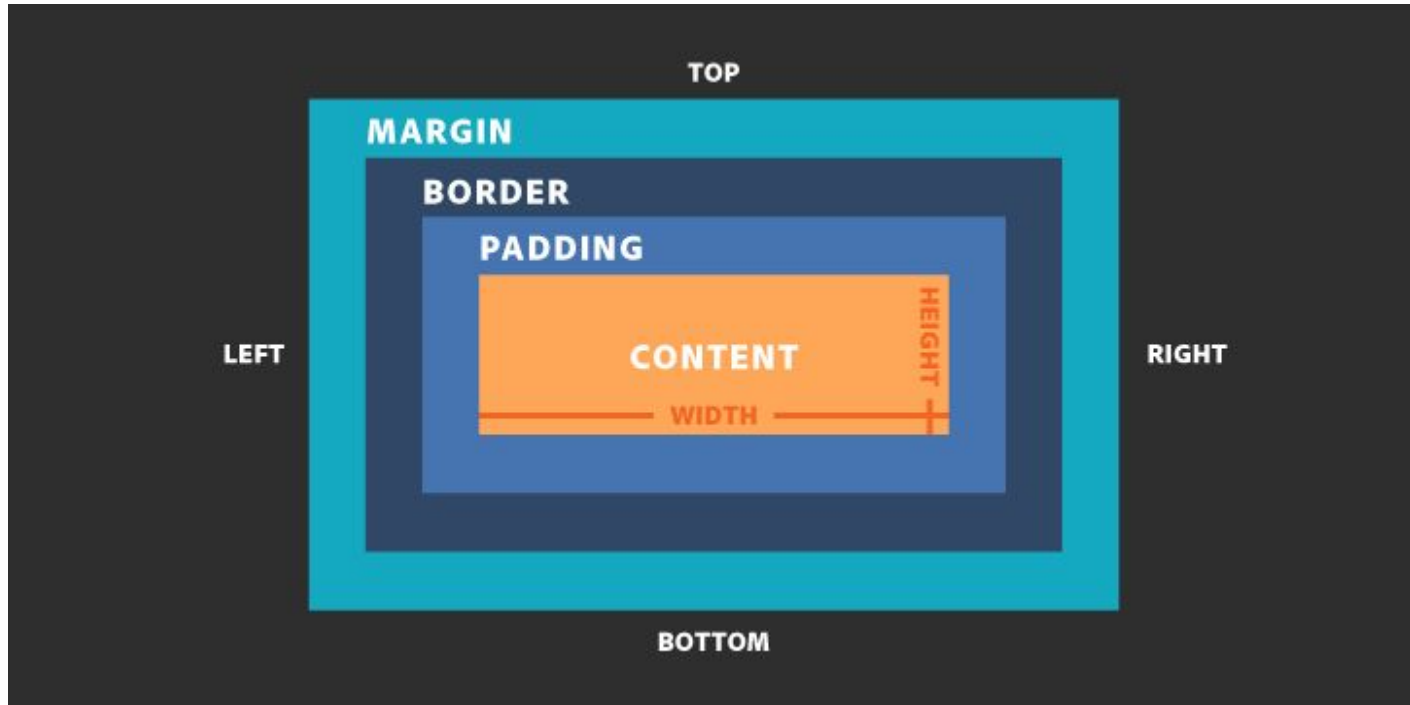
Specificity

- Specificity is a weight that is applied to a given CSS declaration, determined by the number of each selector type in the matching selector. When multiple declarations have equal specificity, the last declaration found in the CSS is applied to the element.
- Hierarchy of specificity (weight):
 - Inline styles (1000)
 - ID selectors (100)
 - Class, Attribute, Pseudo selectors (10 each)
 - Element selectors (1 each)
- Applying **!important** to a selector will override specificity.
 - Best to avoid using this!

CSS: Layout

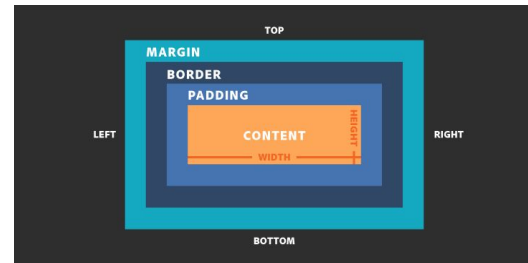


CSS Box Model



CSS Box Model

- Every element in a browser is rendered as a box.
- Every element is made up of content, padding, border, and margin.
- Margin, Border, and Padding each have 4 component widths, a top, right, bottom, left width (think clockwise from the top).
- When adjusting the width and height of an element you are adjusting the width and height of the CONTENT only. Margin, padding, and border sizes are independent.
- **This can be altered using the box-sizing property.** border-box sizing includes padding and border when calculating the content size.

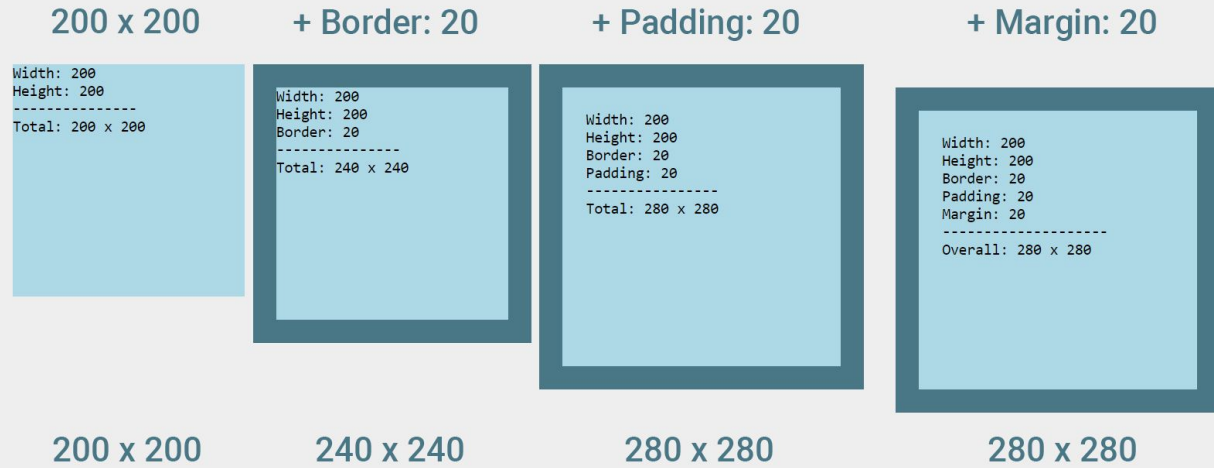


box-sizing: content-box vs. border-box

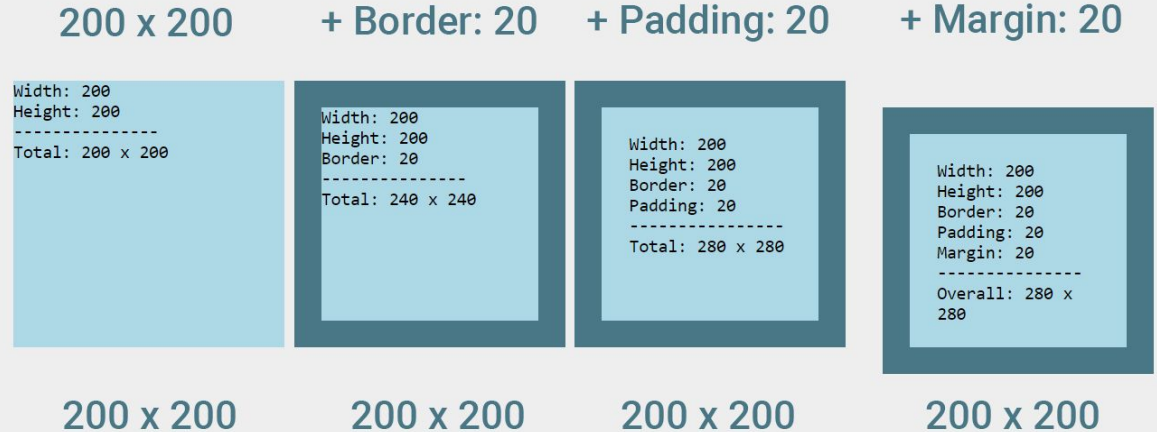
- When adjusting the width and height of an element you are adjusting the width and height of the CONTENT only. Margin, padding, and border sizes are independent.
- This is the default behavior for many elements and is referred to as context-box sizing.
- **This can be altered using the box-sizing property.** border-box sizing includes padding and border when calculating the content size.



context-box

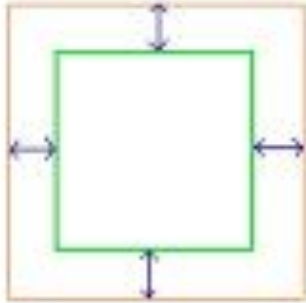


border-box

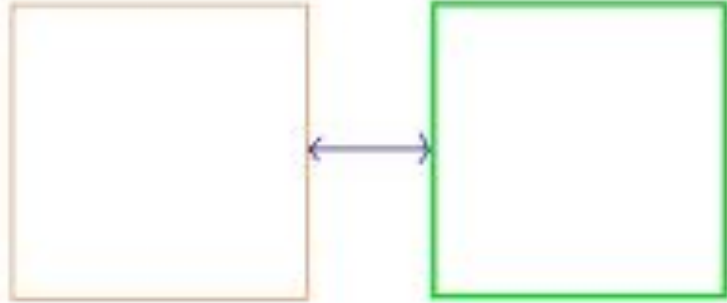


Padding vs. Margin

- Use margin to separate the box from things outside it
- Use padding to move the contents away from the edges of the box.



Padding



Margin



Padding vs. Margin

This is an awesome paragraph.

This is another awesome paragraph.

This is an awesome paragraph.

This is another awesome paragraph.

This is an awesome paragraph.

This is another awesome paragraph.

This is an awesome paragraph.

This is another awesome paragraph.

Submit

Submit



Inline vs Block

 **WEB BASICS** CSS

`display: inline`

inline


inline

inline

inline

Displays an element as an inline element. Any height and width properties will have no effect

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 **WEB BASICS** CSS

`display: inline-block`


inline-block

inline-block

inline-block

Displays an element as an inline-level block container. You CAN set height and width values.

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 **WEB BASICS** CSS

`display: block`

block

block

Displays an element as a block element. It starts on a new line and takes up the whole width.

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Default of inline*

- span
- a
- img

*Not exhaustive lists

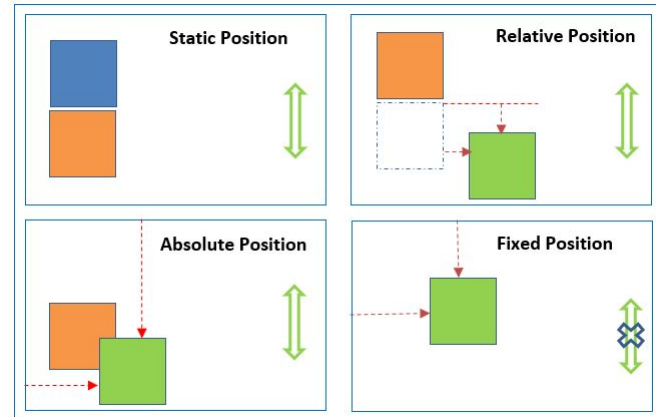
Default of block*

- div
- h1
- p
- section
- li



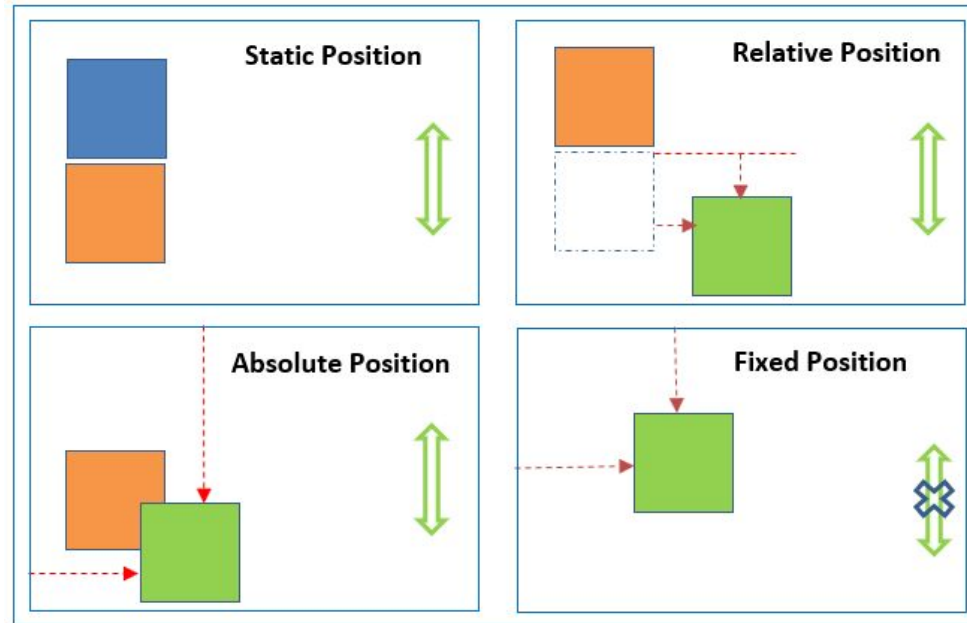
Position

- The **normal flow** of a page is for elements to appear left to right and top to bottom based on the order in which they appear in the HTML document and the rules of block and inline display. This is also referred to as **Static**.
- There are options for other types of positioning. **Relative**, **Absolute**, and **Fixed**.



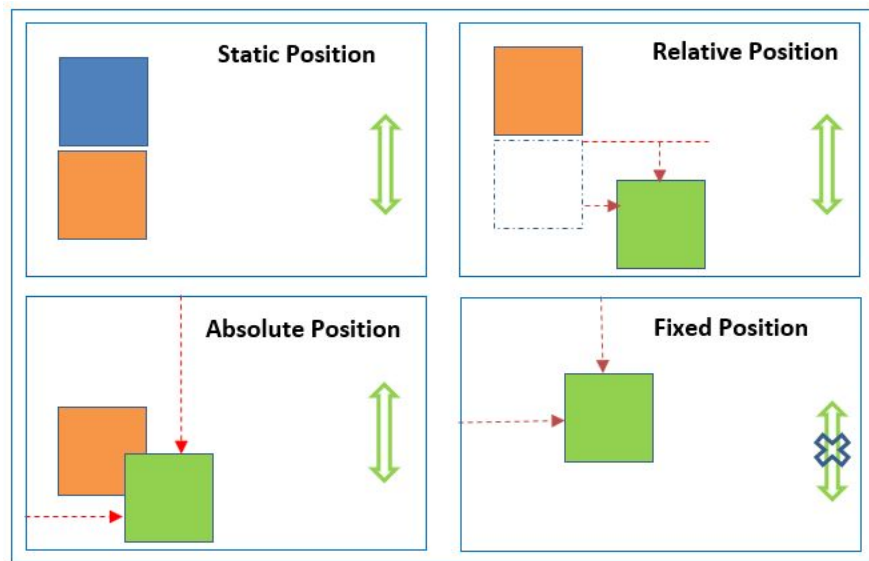
Relative Position

- **Relative** position means **relative to where it would otherwise be positioned in the normal flow**.



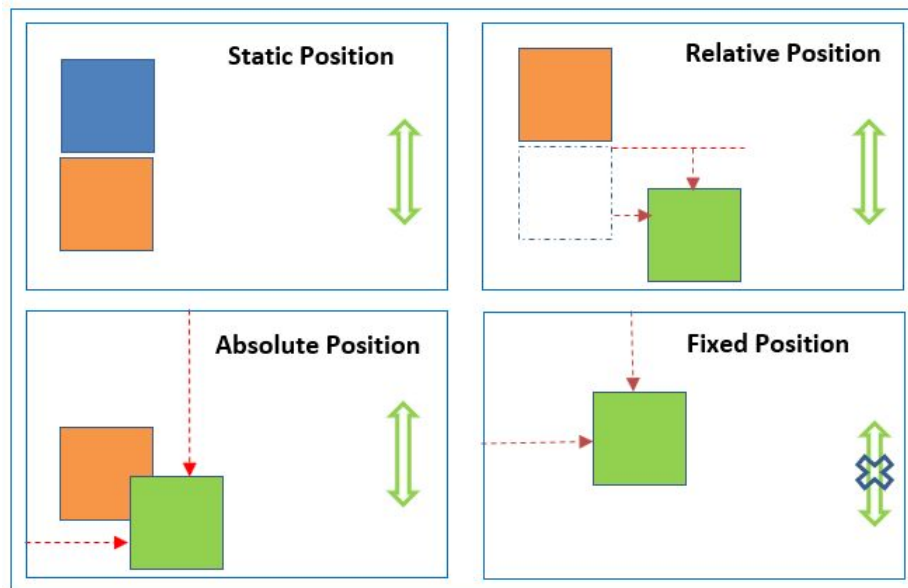
Absolute Position

- **Absolute** position places the element relative to the parent ancestor—that is, the containing element—**exactly where you specify**.
- These elements are removed from the flow of the page.
- These elements will scroll with the page.



Fixed Position

- **Fixed** position is **relative to the browser window**.
- These elements are removed from the flow of the page.
- These elements will not scroll with the page.



Relative Sizing

FONTS

- **em** and root em (or **rem**) are sizing measurements relative to the font size.

ELEMENTS

- Sizing of elements can also be done in **percentages**, from **0-100%**
 - This is not the same as viewport sizing. A percentage is based on an element's parent.
- CSS3 introduced a unit of sizing that enables sizing relative to the height and width of the viewport (browser window).
 - The unit is **vh for viewport height** and **vw for viewport width**. Each ranges from 0 - 100, meaning 0 to 100% of the viewport.



Float

The float property specifies if the element should be taken from the normal flow and placed along the left or right side of the container. Text and inline elements wrap around it.

- **none:** element does not float.
- **left:** element floats to the left of its container.
- **right:** element floats to the right of its container.
- **inherit:** element inherits the float direction of its parent.

float: none;

Aquí un párrafo de texto situado antes de la imagen, dentro de un div contenedor



Aquí otro párrafo de texto. CSS es un lenguaje utilizado en la presentación de documentos HTML. Un documento HTML viene siendo coloquialmente "una página web". Así, podemos decir que el lenguaje CSS sirve para dotar de presentación y aspecto, de "estilo", a una página web.

float: left;

Aquí un párrafo de texto situado antes de la imagen, dentro de un div contenedor



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float: right;

Aquí un párrafo de texto situado antes de la imagen, dentro de un div contenedor



Aquí otro párrafo de texto. CSS es un lenguaje utilizado en la presentación de documentos HTML. Un documento HTML viene siendo coloquialmente "una página web". Así, podemos decir que el lenguaje CSS sirve para dotar de presentación y aspecto, de "estilo", a una página web.

QUESTIONS?

