

Web Dev Day 3: CSS & JS

Website Development
UBC | Coding Pals

Comments

Defined by `/ *` to open a comment and `* /` to close a comment

VSCode shortcut of “`ctrl + /`” on Windows or “`command + /`” on Mac also works for comments

Pseudo-class Selector

You can also select elements based on their current states.

This is achieved by the “:” operator. Some examples include :hover, :focus, :visited, :disable, :active.

The pseudo selector must come after a properly defined selector (example below targets <a> tag)

```
a:hover {  
    Color: red;  
}
```

Today, I learned about **HTML**

I love coding!

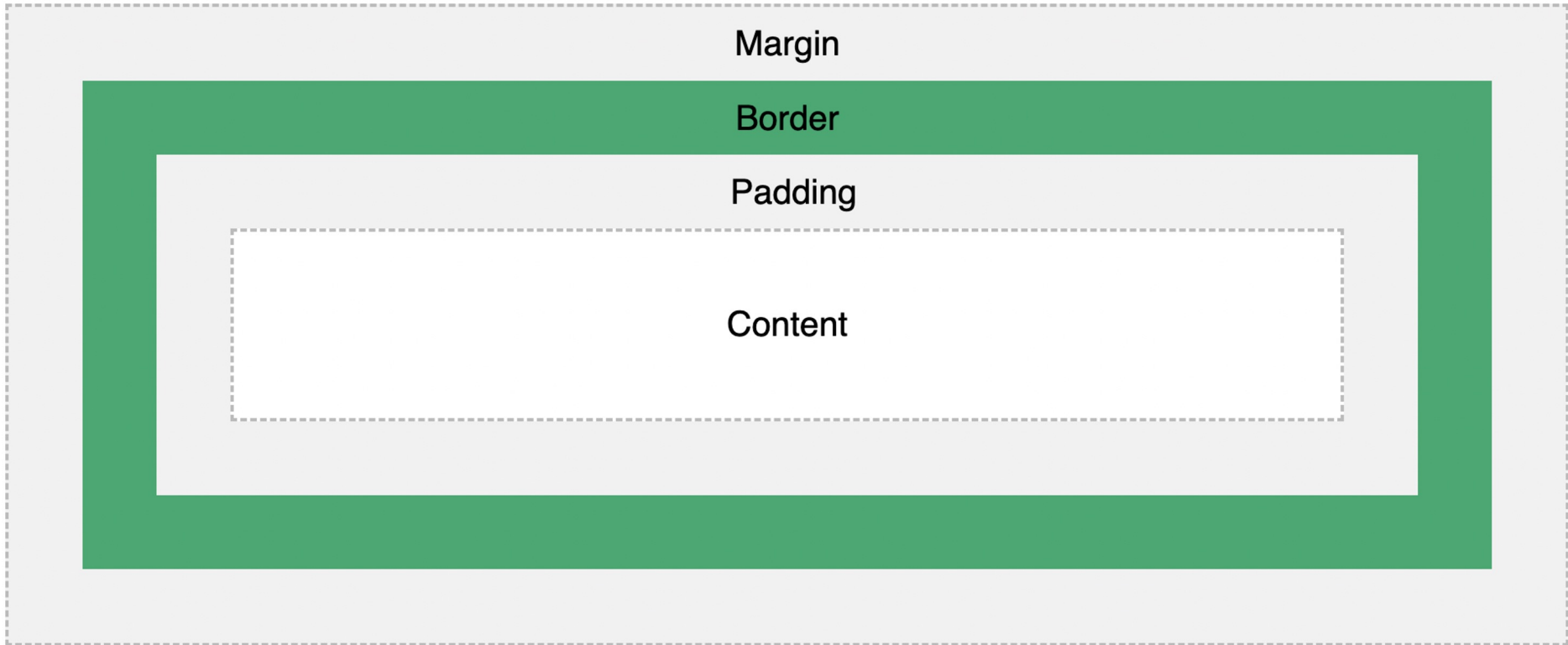
Today is a good day. I got a big fish and a small turtle.

Link without _blank

Link with _blank

Water is also called H₂O

Box Model (Padding, Border, Margin)



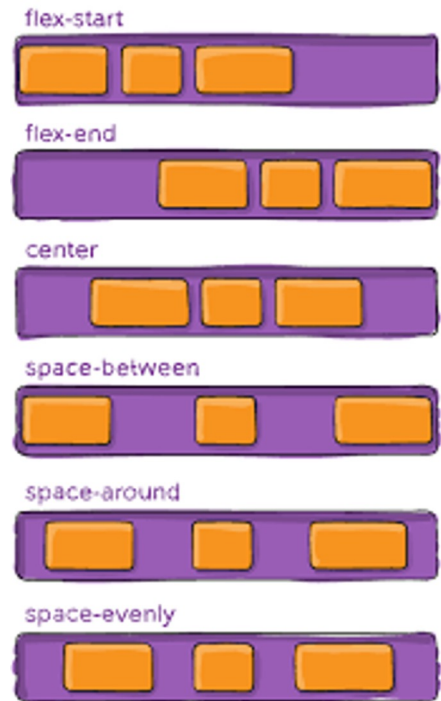
Display

Display lets us manipulate the positioning and placement of elements

We can change inline elements to block and block elements to inline

By using “display: flex” we can change spacing with the “justify-content” property as shown below in the following ways:

- I. **inline/ block/ inline-block** = How items are positioned in relative to other elements
- II. **flex-start** = Default value. Items are positioned at the beginning of the container
- III. **flex-end** = Items are positioned at the end of the container
- IV. **center** = Items are positioned in the center of the container
- V. **space-between** = Items will have space between them
- VI. **space-around** = Items will have space before, between, and after them
- VII. **space-evenly** = Items will have equal space around them



```
p {  
  display: flex;  
  justify-content: center;  
}
```

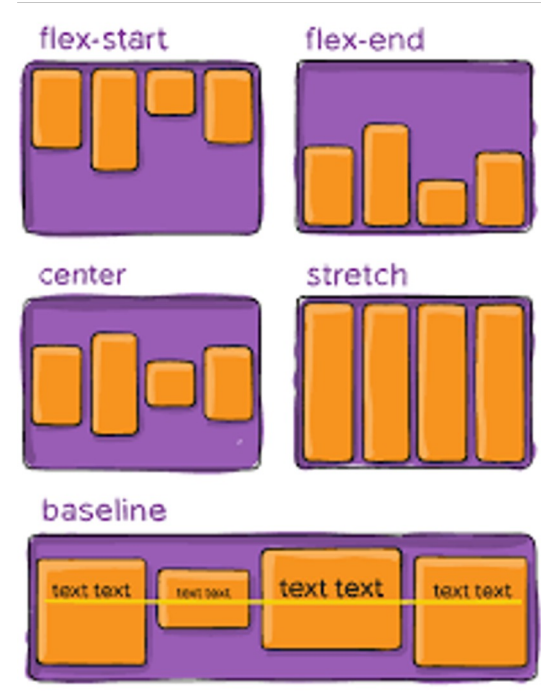
Align Items

Another useful attribute with flex displays is called align-items

For all the elements in your div they need to be aligned

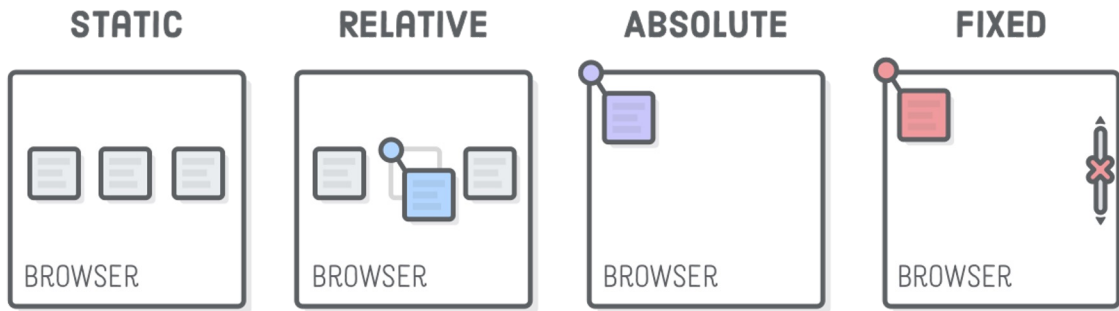
Options:

- I. flex-start = Align everything to the top
- II. flex-end = Align everything to the bottom
- III. center = Align everything in the center
- IV. stretch = Stretches everything to top & bottom
- V. baseline = Align texts to be on the same level



Position

- Static
- Relative
 - top, bottom, left, right
- Absolute
- Fixed
- Sticky
- Z-index



Absolute vs. Fixed vs. Sticky

Specificity (Overriding)

Hierarchy:

1. Inline styles - Example: `<h1 style="color: pink;">`
2. IDs - Example: `#navbar`
3. Classes, pseudo-classes, attribute selectors - Example: `.test`, `:hover`, `[href]`
4. Elements and pseudo-elements - Example: `h1`, `:before`

!important

Combinators

- descendant selector (space)
- child selector (>)
- adjacent sibling selector (+)
- general sibling selector (~)

div p	Selects all <p> elements inside <div> elements
div > p	Selects all <p> elements where the parent is a <div> element
div + p	Selects the first <p> element that are placed immediately after <div> elements
p ~ ul	Selects every element that are preceded by a <p> element

Multiple Selector

With a comma, we can select multiple selectors and have them all have the same attributes specified in the code block.

Only use multiple selector when you are sure that you want the elements to be absolutely the same, or else it will take a long time to implement specific changes.

```
h2, h3 {  
  font-family: 'Arial';  
  font-size: large;  
  font-weight: bold;  
}
```

```
td, li, p {  
  font-family: 'Times New Roman';  
  font-size: medium;  
  font-weight: normal;  
}
```

CSS Battle

<https://cssbattle.dev/>

Create an account and play a few rounds!

JavaScript

What is JavaScript?

Adds functionality to our websites

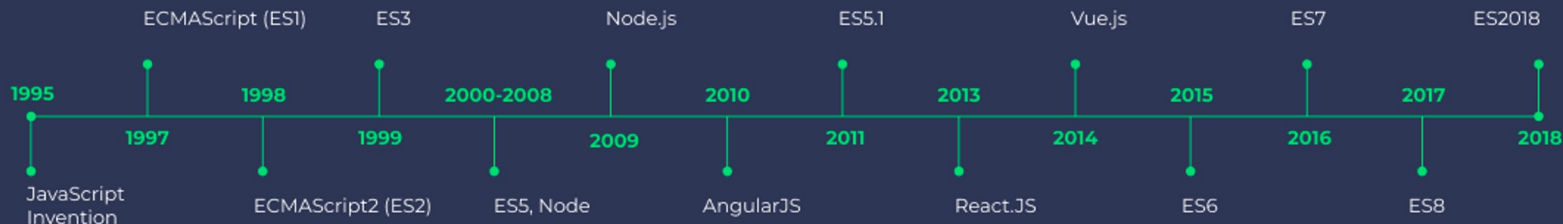
Can now be used to make:

- Mobile apps
- Web apps
- Games
- And more!

(not actually related to the programming language Java)

History of JS

JavaScript versions timeline



Making a JavaScript File

Create a new file in your largest directory and name it “app.js”

Your directory should look something like this:

Make sure that your main HTML file and the app.js file are on the same “level”

✓ WEBDEV CAMP

> images

JS app.js

<> day3.html

styles.css

What is NodeJS?

JavaScript is built for web browsers to run, not for your computers to run

Node JS allows us to run JavaScript on our computers without needing to use a web browser to do it

- Helpful for testing specific code if you want to look at it without opening up your website or if you are using JavaScript for purposes other than making a website

Installing NodeJS

Step 1: Head to <https://nodejs.org/en/>

Step 2: Click the green button on the LEFT to install the recommended version of Node JS

Step 3: Run through the remaining steps of installation after opening the file that was just downloaded



Node.js® is a JavaScript runtime built on [Chrome's V8 JavaScript engine](#).

Download for macOS (x64)

16.16.0 LTS

Recommended For Most Users

18.7.0 Current

Latest Features

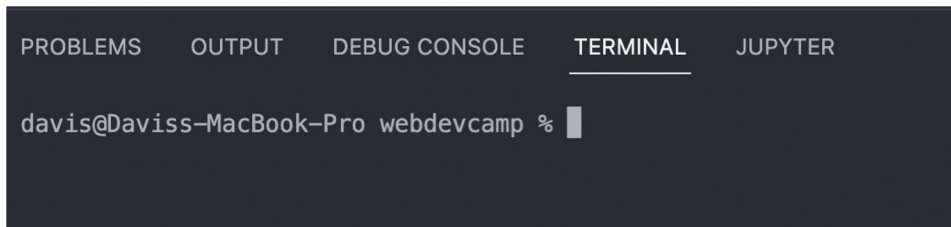
[Other Downloads](#) | [Changelog](#) | [API Docs](#) [Other Downloads](#) | [Changelog](#) | [API Docs](#)

Or have a look at the [Long Term Support \(LTS\) schedule](#)

Using NodeJS

Step 1: Open a terminal session with either:

- Control + Shift + ` on Windows
- Command + Shift + ` on Mac

A screenshot of a terminal window within a code editor. The terminal has a dark background with light gray text. At the top, there are tabs for 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL' (which is selected and underlined), and 'JUPYTER'. Below the tabs, the terminal shows the prompt 'davis@Daviss-MacBook-Pro webdevcamp %' followed by a white cursor bar.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  JUPYTER
davis@Daviss-MacBook-Pro webdevcamp %
```

Step 2: Type “node app.js” to run the file named app.js with node

Step 3: Hit enter and the file should run (nothing should happen since we have nothing in the file right now)

Linking our JavaScript to HTML

2 ways to link our JS and HTML

1. Write the JS directly in the HTML file

```
<script>console.log("hi");</script>
```

1. Link the JS to the HTML with src

```
<script src="app.js"></script>
```

Using JS to Change HTML

Create a button tag in HTML with the <button> tag

Set the “onclick” attribute to change the text from black to blue

We can reference our HTML document with the “document” keyword in JS

We can call an element by ID with “getElementById”

```
<button onclick="document.getElementById('idname').style.color = 'blue'">Click Me!</button>
```

Challenge

Challenge & Homework

Place a button on some of the calendar dates where you are available with the text “Available on this day!”

If the button is pressed, make the text on the button change to “Unavailable”