

Getting Started with JavaScript

Class 1 Content

Preparation

GOALS

By the end of this lesson, you will be able to:

1. **Grasp the primary purpose of JavaScript**
2. **Setup our tools and developer environment**
3. **Build our first JavaScript project**

Updated Hello World From JavaScript!

Welcome to the Codefi Coding Bootcamp!

Click Me to Update the Background!

CONCEPTS

- **JavaScript:** *JavaScript* is one of the core programming languages of the Web. Over 97% of websites use JavaScript to add interactivity and functionality to their page. JavaScript can be used to build interactive websites, mobile-apps, backend API's, desktop applications, and even for machine learning!
 - **DevTools:** *DevTools* are the tools built directly into the browser which provide developers the ability to diagnose problems quickly, check network performance, write simple scripts, inspect the webpage, and more.
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Walkthrough

STEP 1: JAVASCRIPT COURSE OVERVIEW

Aim: View the applications and projects we will be building



| <https://codefi-bootcamp-projects.netlify.com> |

- ☐ Walkthrough Project 1
 - ☐ Walkthrough Project 2
 - ☐ Walkthrough Project 3
-

STEP 2: SETTING UP OUR TOOLS

Aim: Play around with the Chrome DevTools



| <https://www.google.com> |

- ☐ Open up the Chrome Developer Tools
 - Walkthrough the different tabs and give brief overview on their function



| *Dev Tools Elements Tab* |

- ☐ Change Google Search button text
 - Use the element selector and click on the word "Google Search"
 - Change the input value to "Bing Search"
 - Change the input background-color to "red"



| *Dev Tools Console Tab* |

- ☐ Create a variable that stores the value of an expression

```
const myVariable = 2 * 4;  
console.log(myVariable);
```



Check: Refresh the page and mix it up!

- Make the background a different color
 - Change the navbar links
 - Try to create a new variable and place it in on the page
 - Be creative and explore
-

STEP 3: JAVASCRIPT HELLO WORLD

Aim: Create a "Hello World" App using JavaScript

| ~Starter Code/index.html |

- ☐ Create HTML Boilerplate Code
 - Fill out the Title
 - Add Comments for Metadata, main content, and Javascript
 - Add a link to the stylesheet

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <!-- * META DATA * -->
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width, initial-
scale=1.0" />

    <!-- Links -->
    <link rel="stylesheet" href="./styles.css" />

    <!-- Title -->
    <title>Hello World JavaScript</title>
  </head>

  <body>
    <!-- * MAIN CONTENT * -->

    <!-- * JAVASCRIPT * -->
  </body>
</html>
```



- ☐ Add the Main HTML Content
 - Create a `<section></section>` element with a class of "container"
 - Create an `<h1></h1>` element inside the `<section></section>` tags
 - Create an `<h2></h2>` element with a class of "heading-two" below the `<h1></h1>`
 - Create a `<button></button>` with a class of "btn-primary" below the `<h2></h2>`

```
<!-- * MAIN CONTENT * -->
<section class="container">
  <h1>Hello World!</h1>
  <h2 class="heading-two">Welcome to the Codefi Coding Bootcamp!</h2>

  <button class="btn-primary">Click Me to Update the Background!
</button>
</section>
```

- Open up your file on "LiveServer"



| Chrome DevTools Console Tab |

- ☐ Alter the Heading's Content & Color
 - Create a new variable `const myHeading` and set it equal to the first `<h1>` tag using `querySelector()`
 - Use the `.innerText` property on the `myHeading` variable to change the text content to "JavaScript Hello World"
 - Use the `.style.color` property selector to change the `myHeading` variable to "blue"

```
// Selects the first "h1" tag in the document
const myHeading = document.querySelector("h1");

// Changes the inner text content of the heading we selected
myHeading.innerText = "JavaScript Hello World";

// Changes the text color of the heading we selected
myHeading.style.color = "blue";
```



- ☐ Move the JavaScript Code to the HTML File
 - Add `<script></script>` tags at the bottom of the `<body></body>` in the HTML file
 - Inside the script tag, create a variable that represents the `<h1></h1>` on the document by selecting the tag
 - Inside the script tag, create another variable that represents the `<h2></h2>` on the document by selecting it's class name
 - Change the `.innerText` of the variable representing the `<h1>` to say "JavaScript Hello World!"
 - Change the `.style.color` of the variable representing the `<h2>` to be the hex color code of "#134e4a"

```
<script>
// Selects the first <h1> element
const headingOne = document.querySelector("h1");

// Selects the element with a class name of "heading-two"
const headingTwo = document.querySelector(".heading-two");

// Changes the "headingOne" variable's text content
headingOne.innerText = "Updated Hello World From JavaScript!";

// Changes the "headingTwo" variable's text color
```

```
headingTwo.style.color = "#134e4a";  
</script>
```



- ☐ Change the Background on Button Click Event
 - As an attribute on the HTML `<button></button>` tag, create an `onclick="changeBackground()"` function call
 - Inside the script tag, create yet another variable that represents the `<body></body>` on the document by selecting the tag
 - Create the `changeBackground()` function at the bottom of the script file that selects the `bodyEl` variable and changes the `.style.backgroundColor` to the hex value `"#0c4a6e"`
 - Because the text is hardly visible, change the color of the `headingOne` variable to `"#f0f9ff"` and the `headingTwo` variable to `"#7dd3fc"` after the button is clicked

```
<script>  
  // Selects the first <h1> element  
  const headingOne = document.querySelector("h1");  
  
  // Selects the element with a class name of "heading-two"  
  const headingTwo = document.querySelector(".heading-two");  
  
  // Selects the body element  
  const bodyEl = document.querySelector("body");  
  
  // Changes the "headingOne" variable's text content  
  headingOne.innerText = "Updated Hello World From JavaScript!";  
  
  // Changes the "headingTwo" variable's text color  
  headingTwo.style.color = "#134e4a";  
  
  // Change the body's background color, and the text color on click  
  function updateColors() {  
    bodyEl.style.backgroundColor = "#0c4a6e";  
    headingOne.style.color = "#f0f9ff";  
    headingTwo.style.color = "#7dd3fc";  
  }  
</script>
```



- ☐ Move the JavaScript Code a Dedicated File
 - Create a new JavaScript file in the main folder titled `main.js`
 - Copy the code inside the script and paste it into the file
 - Add a `src` property on the `<script>` tag and link it to the file we just created.

```
// Selects the first <h1> element
const headingOne = document.querySelector("h1");

// Selects the element with a class name of "heading-two"
const headingTwo = document.querySelector(".heading-two");

// Selects the body element
const bodyEl = document.querySelector("body");

// Changes the "headingOne" variable's text content
headingOne.innerText = "Updated Hello World From JavaScript!";

// Changes the "headingTwo" variable's text color
headingTwo.style.color = "#134e4a";

// Change the body's background color, and the text color on click
function updateColors() {
  bodyEl.style.backgroundColor = "#0c4a6e";
  headingOne.style.color = "#f0f9ff";
  headingTwo.style.color = "#7dd3fc";
}
```



Check: Ensure All the Code Still Works

- Try clicking the button and see if the background and text indeed do change
- Walk over the code one line at a time... do you understand how everything is working?

Review

ACCOMPLISHMENTS

Congratulations yet again! 🎉 🎊

Feel proud that **you learned something new and valuable today.**

Learning to code is a journey, and you are taking the necessary steps to improve your skills and opportunities for the future.

Good on you!

Specifically, we learned how to:

- Better understand the role and function of JavaScript in Web Development
- How to run JavaScript code in the Dev Tools, HTML file, and as a dedicated JS file
- Change the background color of the body on click of a button

RESOURCES

[Javascript Introduction for Beginners \(Video\)](#)

[An Introduction to JavaScript \(Article\)](#)
