

# **Week 2: JavaScript Basics**

## **Day 8: Introduction to JavaScript**

- **Topics Covered:** Variables, data types, and basic operators.
- **What I Learned:** I learned the basic building blocks of JavaScript, including how to declare variables using `let`, `const`, and `var`. I also learned about different data types like strings, numbers, and booleans.
- **Challenges:** Understanding the difference between `let`, `const`, and `var` took me some time, but I practiced to see the scope and use cases of each one.

## **Day 9: Functions and Loops**

- **Topics Covered:** Functions, parameters, return values, `for` loops, and `while` loops.
- **What I Learned:** Today I created simple functions and used loops to repeat code. I also learned how to pass arguments into functions and return values.
- **Challenges:** Loops were confusing at first because I kept running into infinite loops, but I figured out how to manage loop conditions properly.

## **Day 10: Arrays and Objects**

- **Topics Covered:** Arrays, objects, and iterating over them.
- **What I Learned:** I learned how to work with arrays and objects in JavaScript. I also learned how to loop through arrays using `for` and `forEach`.
- **Challenges:** Understanding object properties and methods was a little tricky, but after writing a few examples, it became more clear.

## **Day 11: DOM Manipulation**

- **Topics Covered:** Accessing and modifying DOM elements with JavaScript.
- **What I Learned:** I learned how to manipulate HTML elements dynamically using JavaScript. I practiced selecting elements with `document.querySelector()` and modifying their content, style, and attributes.
- **Challenges:** Manipulating the DOM with JavaScript was initially overwhelming, but after practicing, I feel more confident.

## **Day 12: Event Handling**

- **Topics Covered:** Adding event listeners to elements (click, change, submit, etc.).

- **What I Learned:** Today I learned how to add interactivity to web pages by handling events like clicks, form submissions, and input changes.
- **Challenges:** Understanding event propagation (bubbling and capturing) was a bit tricky, but I'm starting to get the hang of it.

#### **Day 13: JSON and AJAX**

- **Topics Covered:** Fetching data from APIs with JavaScript, parsing JSON data.
- **What I Learned:** I learned how to fetch data from external APIs using the `fetch()` function. I also learned how to handle JSON data by parsing it into JavaScript objects.
- **Challenges:** Handling asynchronous code with `async/await` took a bit of time to understand. I still need more practice with promises and `async` functions.

#### **Day 14: Review and Practice**

- **What I Learned:** I spent the day reviewing JavaScript concepts and building a small interactive to-do list app using HTML, CSS, and JavaScript.
- **Challenges:** Keeping track of all the different JavaScript concepts (variables, functions, DOM manipulation, events) was overwhelming, but I learned a lot through hands-on practice.