

On my 20th day at Surfboard Payments internship, I focused again on binary search, trying to write a code for my own algorithm. This task was very challenging for me, as it required a deep understanding of how binary search works and how to implement it efficiently in JavaScript. Although I struggled to complete the task, I learned several important concepts along the way. I spent a lot of time understanding how loops and arrays work in JavaScript since they are essential for implementing binary search.

Binary search is an algorithm used to find an element in a sorted array by repeatedly dividing the search range in half. To implement it, I had to use a loop or recursion to check the middle element and determine whether to search in the left or right half of the array. While the concept seemed simple in theory, writing the code from scratch was much more difficult than I expected. I faced issues with indexing, handling edge cases, and ensuring that my code did not run into infinite loops or logical errors.

While working on this task, I explored different types of loops in JavaScript, such as "for," "while," and "do-while" loops. I also deepened my understanding of arrays, learning how to manipulate them using various methods like "push," "pop," "slice," and "splice." These concepts are crucial for working with binary search because the algorithm requires accessing and modifying elements within an array.

Despite not being able to complete the algorithm, I made significant progress in understanding its structure and logic. I attempted multiple approaches, analyzed why they failed, and kept refining my code. This experience taught me that problem-solving in programming often involves trial and error and that persistence is key to improving my coding skills. Even though the task remains unfinished, I am confident that with more practice and learning, I will eventually be able to implement a working binary search algorithm on my own. This day was a valuable learning experience, and I am motivated to keep improving my knowledge of JavaScript and algorithm development.