

Internship Report – Week 4 – Day 4

Topic: Loops and Arrays

Date: 17 July, 2025

Overview

The fourth day of the internship was dedicated to understanding looping structures and array data handling in JavaScript. These are fundamental tools used to automate repetitive tasks and work with lists of data efficiently.

Key Concepts Covered

- **Loops in JavaScript:**

The session introduced three primary looping constructs — for, while, and do-while loops. Each loop type was discussed in terms of its structure, use cases, and execution flow.

1. The for loop is generally used when the number of iterations is known.
2. The while loop is used when the condition must be evaluated before each iteration.
3. The do-while loop guarantees at least one execution before checking the condition.

- **Use Cases of Loops:**

Examples included repeated printing, condition checking, and executing blocks of code until a condition is met.

- **Arrays in JavaScript:**

Arrays were introduced as a way to store and manage ordered collections of data. Interns learned how to create arrays, access elements by index, and perform basic operations like adding or removing elements.

- **Combining Loops and Arrays:**

The concept of iterating over arrays using loops was demonstrated to show how data can be processed efficiently.

Learning Outcome

By the end of the session, interns were able to understand how to perform repetitive tasks using loops and manipulate lists of data using arrays — a foundational skill for JavaScript programming.

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