***Full Stack Web Development Internship Report***

***Name:*** TANISH SHISHODIA  
***Branch*:** CSE

***Sec:*** D

***Roll No*:** 2300290100259  
***Internship Provider*:** Microsoft Learn Student Ambassador (MLSA)

**Objective of the Internship:**

The objective of the Microsoft Learn Student Ambassador (MLSA) internship in Full Stack Web Development was to gain hands-on experience in building dynamic, user-friendly web applications. The goal was to strengthen both frontend and backend development skills by working on real-world projects, learning to manage databases, and understanding web architecture.

**Software and Tools Used:**

Throughout the internship, the following software and tools were utilized:

* **Frontend Technologies:** HTML, CSS, JavaScript
* **APIs:** OpenWeatherMap API (for fetching weather data)
* **Version Control:** GitHub (for version control and collaboration)
* **Other Tools:** Visual Studio Code (IDE)

**Project 1: Simple Calculator**

**Objective:**The goal of this project is to build a functional calculator using HTML, CSS, and JavaScript, allowing users to perform basic arithmetic operations like addition, subtraction, multiplication, and division.

**Description:**The project involves creating a simple user interface using HTML and CSS to display a calculator layout with buttons for numbers, operations, and a display screen to show inputs and results. JavaScript handles the logic for the calculator's functionality, including capturing button clicks, performing calculations, and updating the display dynamically.

**Key Learnings:**

1. **HTML Structure:** Understanding how to set up a clean, accessible layout using semantic HTML elements.
2. **CSS Styling:** Learning how to style the calculator's display, buttons, and layout to achieve a visually appealing and user-friendly design.
3. **JavaScript Logic:** Gaining experience with event listeners, functions, and conditional statements to handle arithmetic operations and manage user input.
4. **Debugging:** Identifying and fixing issues in JavaScript to ensure smooth functionality for various user inputs and operations.
5. **DOM Manipulation:** Using JavaScript to dynamically update the calculator’s display as users interact with it.

**Project 2: Todo List Application**

**Objective:** To create a simple application where users can add, delete, and manage a list of tasks.

**Description:** The project involved building an interactive web page where users can input tasks. The user input is captured via a form, and tasks are displayed dynamically as a list. Users can delete tasks individually, with updates reflecting instantly without the need for a page reload. This project involved learning how to handle JavaScript events (like form submission), manipulate the DOM to create dynamic elements, and implement simple CSS for styling.

**Key Learnings:** This project enhanced skills in JavaScript functions, event handling, and DOM manipulation, while also practicing basic web design with HTML and CSS.

**Conclusion:**

The MLSA internship provided a comprehensive learning experience in full-stack web development. By working on these projects, I developed a deeper understanding of both frontend and backend processes, improved problem-solving skills, and learned to integrate various technologies and tools effectively. The hands-on approach helped in building confidence in tackling real-world web development challenges.