Full Stack Web Development Internship Report

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Internship Provider: Microsoft Learn Student Ambassador (MLSA)

Objective of the Internship:

The Microsoft Learn Student Ambassador (MLSA) internship was designed to enhance skills in full-stack web development. The focus was on learning to build robust web applications from the ground up, gaining experience in both frontend development, and working with real-world APIs.

Software and Tools Used:

- Frontend Technologies: HTML, CSS, JavaScript (ES6)
- APIs: OpenWeatherMap API (for weather data)
- **Version Control:** GitHub (for tracking code changes and collaboration)
- Other Tools: Visual Studio Code (IDE)

Project 1: Todo List Application

- **Objective:** To develop a functional to-do list application for managing daily tasks.
- **Description:** The project aimed at creating a user-friendly to-do list where users could add, manage, and remove tasks. The app utilized JavaScript for adding interactivity, allowing users to input tasks via a form and see the tasks dynamically added to the list. Each task could be deleted with a click, with changes reflected instantly without refreshing the page. CSS was used to style the interface, and JavaScript's event handling was critical in implementing the features.
- **Key Learnings:** This project improved skills in JavaScript for event handling and DOM manipulation, reinforced by a solid understanding of how to create interactive web elements using HTML and CSS.

Project 2: Weather App

- **Objective:** To create an application that fetches and displays real-time weather information for any city.
- **Description:** The Weather App used the OpenWeatherMap API to gather weather data. Users could input the name of a city, and the app would return details like temperature, weather description, humidity, and wind speed. This project helped Raunak learn how to

- work with asynchronous API requests using JavaScript's fetch method, and dynamically update the UI based on the API responses.
- **Key Learnings:** This project solidified the understanding of APIs and how to handle asynchronous operations in JavaScript. Raunak also learned how to effectively structure a web application that retrieves external data and presents it dynamically to users.

Conclusion:

The MLSA internship provided a valuable hands-on experience in full-stack web development. Raunak's experience in building the Todo List and Weather App projects helped develop problem-solving skills, and improve proficiency in working with APIs, DOM manipulation, and building responsive, user-centric web applications.