**Kasivishwanathan**

9791179519

[dmkv03@gmail.com](mailto:dmkv03@gmail.com)

Task-3 Report

**Task Title**: Development of a To-Do Application

**Task Description**:

The goal was to design and develop a user-friendly To-Do application using HTML, CSS, and JavaScript. The app allows users to manage their tasks efficiently by providing functionalities to add, edit, delete, prioritize tasks, and mark them as completed or pending. Additionally, the app saves tasks to local storage, enabling users to revisit their tasks later. The recent addition includes a theme toggle functionality to switch between dark mode and light mode.

**Steps Taken**:

1. **Project Planning**:
   * Defined the project requirements and functionalities.
   * Created a basic wireframe and flowchart for the application.
2. **Setup Project Structure**:
   * Created a directory for the project.
   * Added HTML, CSS, and JavaScript files.
3. **Developed HTML Structure**:
   * Designed the basic layout using HTML.
   * Included input fields for task description and priority, buttons for adding tasks, and a toggle button for dark mode and light mode.
4. **Styled the Application with CSS**:
   * Applied CSS to enhance the visual appeal and user interface of the application.
   * Ensured responsive design for various screen sizes.
   * Added styles for dark mode and light mode.
5. **Implemented JavaScript Functionality**:
   * Added event listeners for user interactions (adding, editing, deleting, completing tasks, and toggling themes).
   * Implemented functions to manage task states, priorities, and theme toggling.
   * Used local storage to save and retrieve tasks.
6. **Testing and Debugging**:
   * Tested the application thoroughly to identify and fix bugs.
   * Ensured that all functionalities work as expected, including dark mode and light mode switching.
7. **Documentation**:
   * Documented the code for better understanding and maintenance.
   * Prepared the project report.

**Challenges Faced**:

1. **Theme Toggling**:
   * Implementing a seamless transition between dark mode and light mode.
   * Ensuring consistent styling across different modes without affecting user experience.
2. **User Interface Design**:
   * Creating an intuitive and visually appealing interface for the application.
   * Balancing aesthetics with functionality and responsiveness.

**Solutions Implemented**:

1. **Dynamic Theme Styling**:
   * Utilized CSS variables and JavaScript to dynamically change theme styles.
   * Ensured smooth transition effects for theme switching.
2. **Iterative Design Process**:
   * Involved iterative testing and feedback collection to refine the user interface.
   * Implemented responsive design principles to enhance usability across devices.

**Learnings**:

1. **Advanced CSS Techniques**:
   * Enhanced skills in CSS for creating responsive layouts and dynamic styling.
   * Explored advanced concepts such as CSS variables for theme management.
2. **Interactive JavaScript Development**:
   * Gained proficiency in event handling and DOM manipulation using JavaScript.
   * Learned effective strategies for implementing dynamic functionalities in web applications.

**Project Update**:

The To-Do application has been successfully developed with all the specified features implemented, including the recent addition of dark mode and light mode toggling functionality. The app has undergone thorough testing and is fully functional. Documentation has been completed, and the project is ready for review and deployment.