INTERNSHIP REPORT TASK-2

Name: Atmakuri Manoj Kumar

Email ID: manojkumarathmakuri@gmail.com

Task Title: Enhanced TO-DO App Development.

Task Description:

Develop a TO-DO application with the following functionalities:

1. Basic task management (add, edit, delete tasks).

2. Task prioritization (High, Medium, Low).

3. Due date assignment for tasks.

4. Local storage for saving tasks.

5. Search and filter tasks based on text, priority, and status.

6. Highlight overdue tasks.

7. Include detailed task descriptions.

Steps Taken:

1. Setup Basic Project Structure:

 - Created the project structure with `index.html`, `styles.css`, and `script.js`.

2. HTML Structure:

 - Designed the basic layout of the application with input fields for task title, description, priority, and due date.

 - Added buttons for adding tasks and filtering tasks by priority and status.

3. CSS Styling:

 - Styled the application for a clean and user-friendly interface.

 - Included styles for different task states (completed, overdue).

4. JavaScript Functionality:

   - Implemented task addition, editing, deletion, and completion toggle.

   - Integrated local storage to save and load tasks.

   - Added functionalities to filter tasks by priority and status.

   - Included search functionality to filter tasks by text.

   - Sorted tasks by priority and due date.

   - Highlighted overdue tasks.

5. Testing:

   - Tested the application for adding, editing, deleting, and completing tasks.

   - Verified the proper functioning of local storage.

   - Ensured correct filtering and searching of tasks.

   - Tested the prioritization and overdue highlighting features.

Challenges Faced:

1. Priority Sorting:

   - Ensuring that tasks are correctly sorted by priority and due date was initially challenging.

2. Overdue Highlighting:

   - Properly identifying and highlighting overdue tasks required careful date comparison logic.

3. User Interface:

   - Designing an intuitive and responsive UI that accommodates all functionalities was a challenge.

Solutions Implemented:

1. Priority Sorting:

   - Used a sorting algorithm that first sorts tasks by priority and then by due date.

- Implemented priority levels as "High", "Medium", and "Low" with corresponding sort values.

2. Overdue Highlighting:

  - Compared the task due date with the current date to determine overdue status.

  - Added CSS classes to highlight overdue tasks.

3. User Interface:

  - Iterated on the design with feedback to improve the layout and usability.

  - Ensured input fields and buttons were appropriately placed and responsive.

Learnings:

1. JavaScript DOM Manipulation:

  - Improved skills in dynamically creating and manipulating DOM elements using JavaScript.

2. Local Storage:

  - Gained a better understanding of how to use local storage to persist data between sessions.

3. Date Handling:

  - Enhanced knowledge in handling and comparing dates in JavaScript.

4. User Interface Design:

  - Learned effective ways to design and style a user-friendly interface.

Project Update:

The TO-DO application is now fully functional with the following features:

- Task management (add, edit, delete, complete).

- Task prioritization and sorting by priority and due date.

- Assignment of due dates to tasks with overdue highlighting.

- Local storage integration for task persistence.

- Search functionality and filtering by task text, priority, and status.

- Task descriptions and improved user interface.

The next steps include further testing, gathering user feedback, and making iterative improvements based on the feedback received.