Project Report

MERN Stack Development

Task Management System with Completion Tracking
(Enhanced with Tailwind CSS and DevUI)

Introduction:

This project report details the development of a task management system built using the MERN stack (MongoDB, Express.js, React.js, and Node.js) during a one-week training program. The project incorporates additional tools and libraries to enhance functionality and development efficiency.

Project Description:

The application is a web-based task management system with functionalities for both administrators and members. It allows for task creation, assignment, completion tracking, user management, and leverages modern UI components for a polished user experience.

Features:

- **User Authentication:**
    - Login and signup functionalities are implemented for user access control.
    - Admin having access to user details.

- **Role-Based Dashboard:**
    - **Admin Dashboard**:
        - View a table containing names and email addresses of all registered users.
        - View a table listing all created tasks, including:

- Task details (description, etc.)

- Assigned member information

- Completion status (complete/incomplete)

- "Delete" button for removing tasks

  - Assign tasks to members.

  - Logout

- **Member Dashboard**:

  - View assigned tasks.

  - Mark assigned tasks as complete.

  - Logout

- **Database:**

  - MongoDB Atlas is used to store user and task data.

  - Brought in sync to frontend via Javascript.

Development Stack:

- Frontend: React.js

- Backend: Express.js, Node.js

- Database: MongoDB Atlas

- UI Styling: Tailwind CSS

- UI Components: DevUI

- Development Tools:

  - nodemon (development server)

  - Vite (bundler)

Project Timeline:

- Start Date: February 29th, 2024

- Submission Date: March 11th, 2024

Technical Details:

The project has been built in a really short span of time, limiting us from expanding to the wider sources.

- Users can create their accounts, as well as sign up for one.

- The UI Styling has been made simplified by use of Tailwind CSS.

- The interface has been framed up through the components provided by DevUI.

- Vite 5.1.5 has been used as the bundler for all the targets accomplished.

Conclusion:

This project successfully demonstrates the development of a task management system with enhanced features and a polished user interface within a one-week timeframe. The application leverages the MERN stack along with Tailwind CSS, DevUI components, and a bundler to streamline development and deliver a user-friendly experience.

Future Enhancements:

- Implement functionalities for assigning tasks with deadlines and priorities.

- Develop a system for progress tracking on assigned tasks.

- Integrate file attachments for tasks.

- Implement team features allowing task assignment to groups.