**Requirements Document**

**Project Description**

This project is a simple, full-stack web application designed for user authentication and a basic task management feature. Users can register, log in, and, upon authentication, access a TODO list where they can add and remove tasks. The app uses MongoDB for data storage, Node.js with Express for the backend, and React for the frontend interface.

**Feature List**

*User Registration*

* Allows new users to create an account by providing a name, email, and password.

*User Login*

* Authenticates users using their email and password, issues a JWT token upon successful login, and redirects users to the home page.

*TODO List Management*

* Provides a simple interface for authenticated users to manage a list of tasks. Users can add new tasks and remove existing ones. This feature is only accessible after login.

**List of Technical Tasks for Each Feature**

*User Registration*

* Create a registration API endpoint (/api/users) in the backend.
* Validate form inputs for name, email, and password.
* Hash user passwords before saving to MongoDB.
* Provide feedback to the user on registration success or failure.
* Redirect to login page upon successful registration.

*User Login*

* Create a login API endpoint (/api/login) in the backend.
* Validate user credentials and compare hashed passwords.
* Generate a JWT token upon successful authentication.
* Store the token in localStorage on the frontend.
* Redirect to the TODO list page upon successful login.

**TODO List Management**

* Create the Home component with a TODO list UI in React.
* Allow users to add and remove tasks (client-side only).
* Add logout functionality to clear the token from localStorage and redirect to the login page.

Styling

* Apply modern and responsive CSS styling for all components to enhance user experience.