

# Technical Requirements Document for Task Management App

## Introduction:

The purpose of this document is to outline the technical requirements for the Task Management App. The Task Management App will be developed using the following technologies: React, Express JS, TypeScript, and Sequelize-Typescript.

## Technical Requirements:

1. Front-end Framework:
  - The app will be developed using React.
  - The UI will be developed using the Material UI library.
2. Back-end Framework:
  - The app will use Express JS as the back-end framework.
3. Programming Language:
  - The app will be developed using TypeScript.
4. Database:
  - The app will use a PostgreSQL database for storing project data.
  - The database schema will be defined using Sequelize-Typescript.
5. RESTful API:
  - The app will use a RESTful API to communicate between the front-end and back-end.
  - The API will be designed to be scalable and maintainable.
6. Authentication and Authorization:
  - The app will use JSON Web Tokens (JWT) for authentication and authorization.
  - Users will be required to log in to the app using their email address and password.
  - Users will be authorized based on their role within the project (project manager or team member).
7. Testing:
  - The app will use Jest and Enzyme for unit testing and integration testing.
  - The app will be tested on various devices and screen sizes to ensure compatibility.
8. Deployment:
  - The app will be deployed on a cloud hosting platform, such as AWS or Heroku.
  - The deployment process will be automated using tools like GitLab CI/CD.

## Conclusion:

The Task Management App will be developed using React, Express JS, TypeScript, and Sequelize-Typescript. These technologies will ensure that the app is scalable, maintainable, and meets the requirements outlined in the User Requirements Document. By following these technical requirements, the Task Management App will be a reliable and efficient tool for users to manage their tasks and projects.