

CVWO Task Management App Plan

Overview

This application aims to be a simple, intuitive task management program that serves the purpose of a To-Do List with added functionality such as categorizing and color coding of tasks, scheduling of notifications, and an authentication system that allows user to log in from different devices to access their To-Do list.

The backend will be written in Golang using sql package to interact with the database, and the frontend will be built using React. A React UI library, MUI, will also be used here.

This plan details a mockup of the UI to be implemented, the use cases of the application, and the structure of the relational database used.

UI mockup

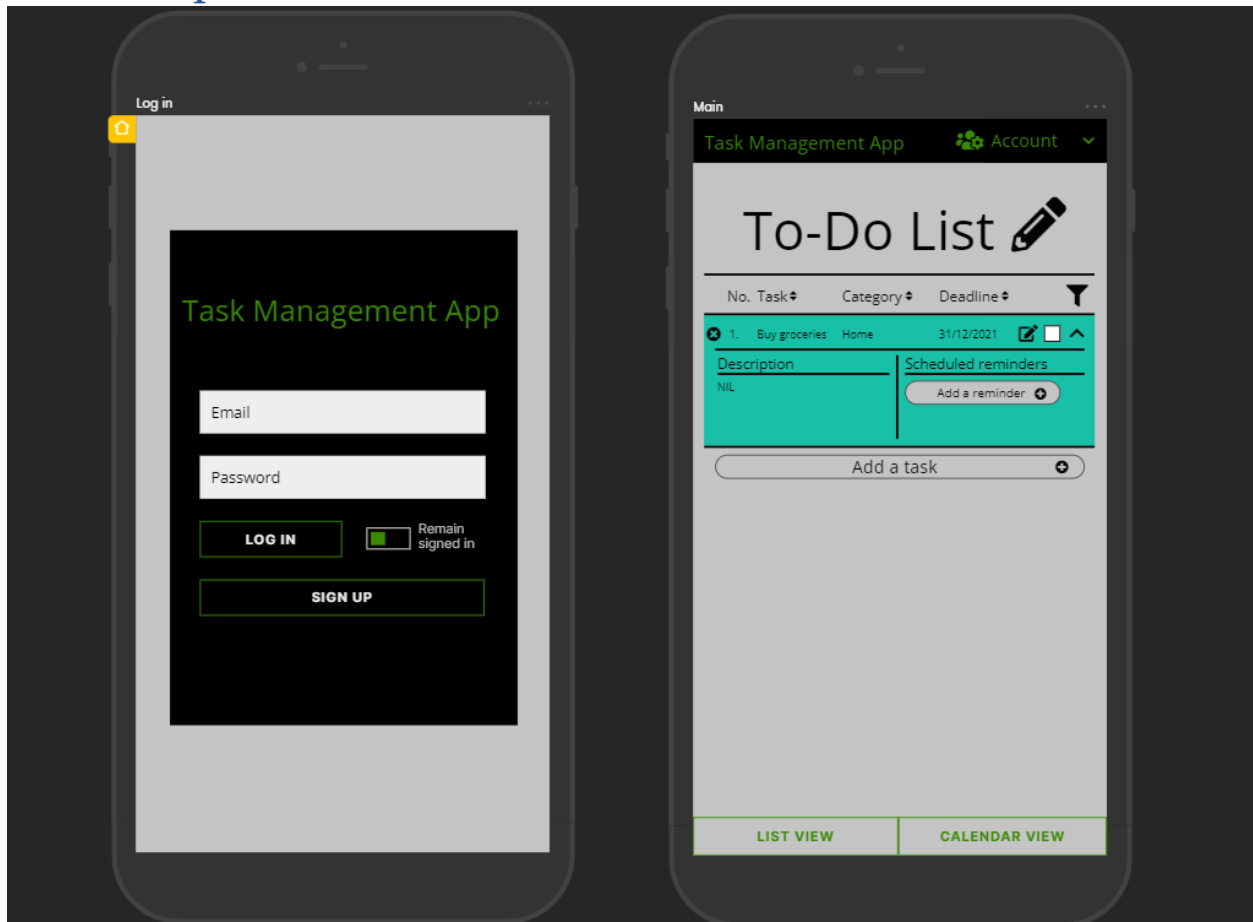


Figure 1: Mockup of UI

Use Cases

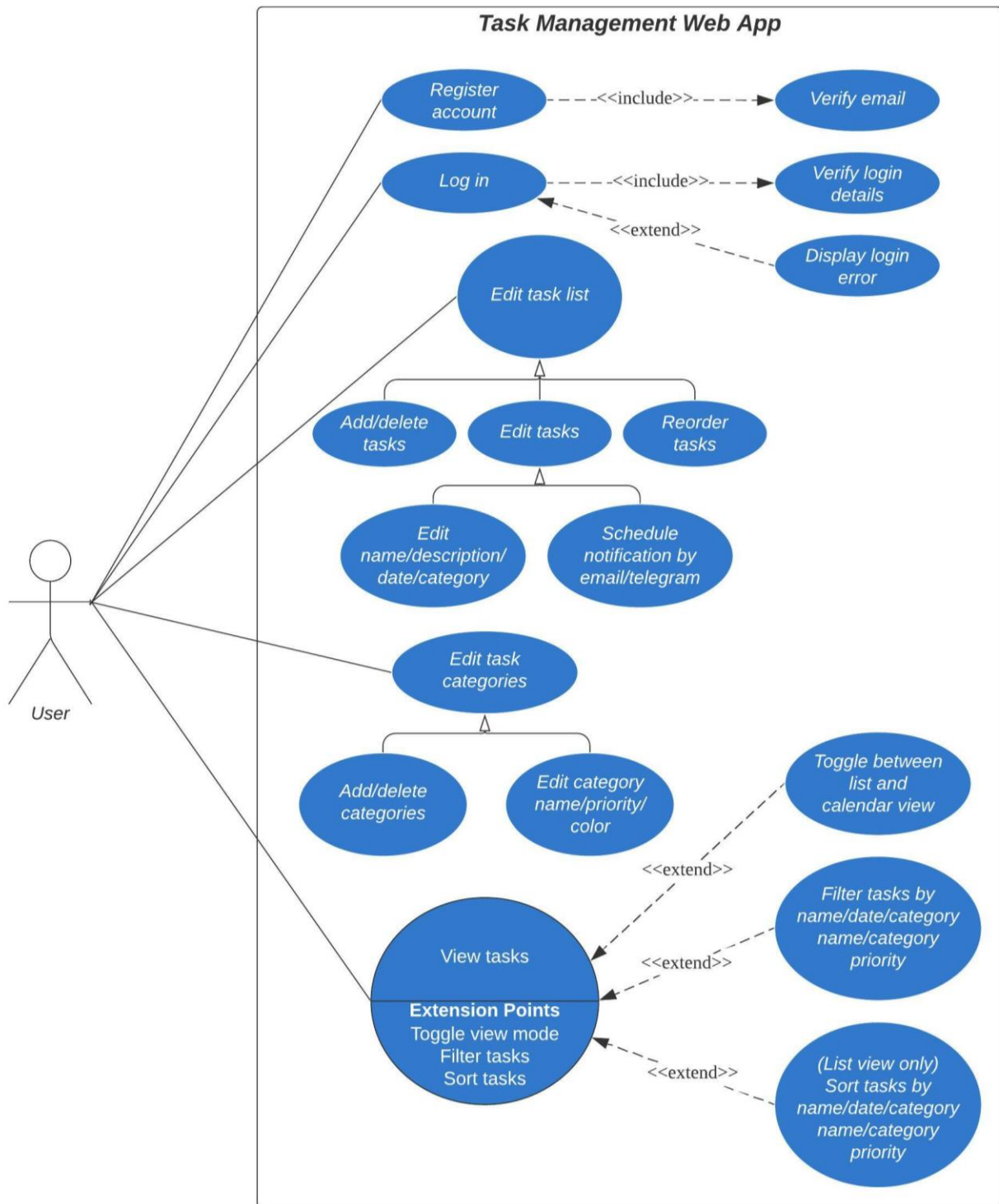


Figure 2: UML Use Case Diagram

The main functionalities of the app are detailed in Figure 2 above. In summary, the User registers an account/logs in, edits the task list by creating, deleting or modifying existing tasks and task categories, and views the tasks.

Database

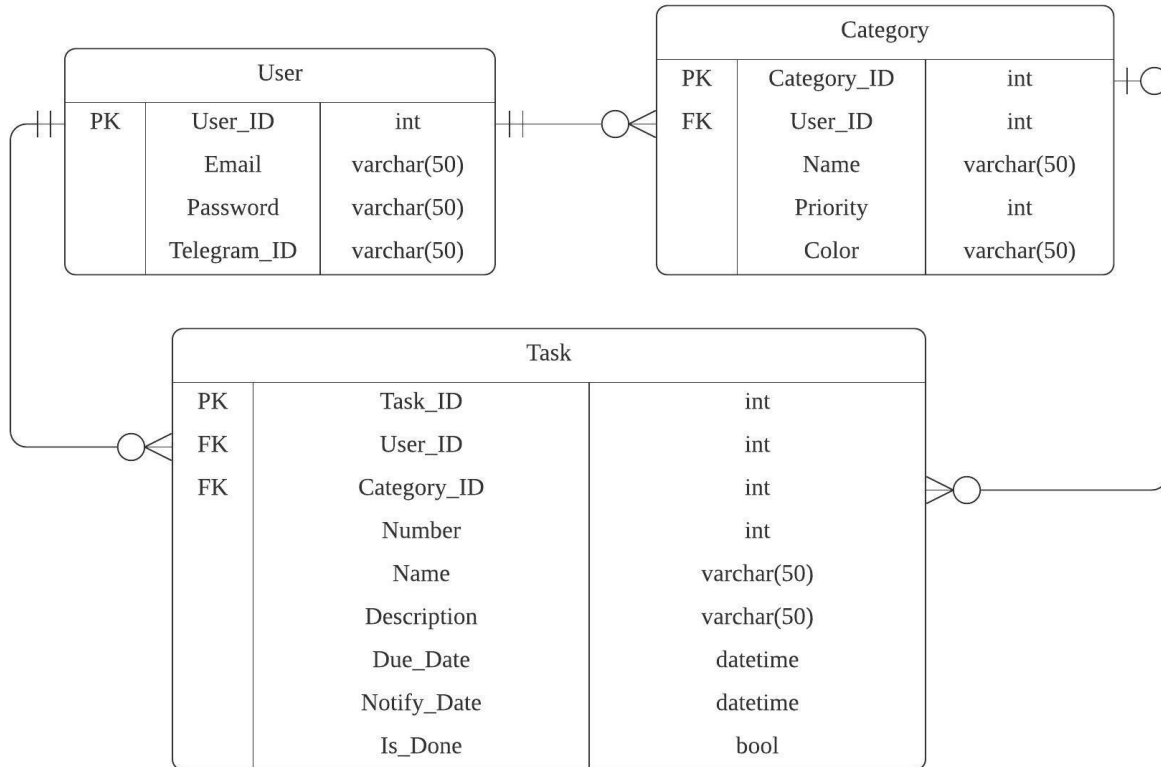


Figure 3: Database ER Diagram

With reference to Figure 3 above, there will be 3 tables in the Database: **User**, that stores the account information; **Category**, that stores the categories created by users; and **Task**, that stores the tasks users add to their To-Do list.

Each Task is associated with only one User and at most one Category (tasks can be uncategorized).

Each Category is associated with only one User (each User can come up with their own unique categories).