**Task manager**

* it should be able to create an account using their email and a password.
* password recovery options. -must have recovery options through which they can get back to their login
* should be able to create, view, edit, and delete tasks
* Each task must include a title and description.
* Tasks should be displayed in a list format.
* set a due date and time for each task.
* Display due dates in the task list.
* set reminders for tasks at specific intervals before the due date.
* Implement push notifications to remind users of upcoming tasks.
* assign priority levels to tasks (e.g., High, Medium, Low).
* Allow tasks to be set as repeating with options for daily, weekly, monthly, and yearly intervals.
* specify end conditions for repeating tasks (e.g., after a certain number of occurrences or on a specific date).
* categorize tasks (e.g., Work, Personal, college).
* break down larger tasks into smaller, manageable subtasks.
* indicate that one task must be completed before another can start.
* assign tasks to other users or team members.
* Provide a dashboard that gives an overview of tasks, deadlines, and progress.
* Include multiple views such as list view, calendar view,.
* view settings, and task management options.
* Implement role-based access control to define permissions for different users (e.g., admin, editor, viewer).

**Requirement collection:**

**Account Creation**

* Allow users to create an account by providing an email address and a password.
* Check if the email looks like a proper email.
* Ensure the password is at least a certain length and contains a mix of letters, numbers, and special characters.
* Check if the entered email and password match what is stored in the database.

**Task Creation**

* Task creation allows users to add new tasks to their to-do list, specifying what needs to be done and any details related to the task.
* **Title:** Users can give their task a short, descriptive name.
* **Description:** Users can provide additional details about the task.

**Task Viewing**

* Task viewing is the feature that allows users to see a list of all their tasks in one place.
* Show a list of tasks, with each task's title and description.
* Make it easy for users to browse through their tasks and find the ones they need to focus on.

**Task Editing and Deletion**

* Task editing allows users to change the details of an existing task, and task deletion lets them remove tasks they no longer need.
* Users can change the title or description of a task if their plans change.
* Users can remove tasks that are completed or no longer relevant.
* The due date and time feature allows users to set specific deadlines for their tasks. This helps users stay organized and ensures they complete tasks on time

**Steps:**

* **Set Due Date and Time:** Users can specify the exact date and time when a task needs to be completed.
* **Display Due Dates:** The due date and time are shown in the task list so users can easily see upcoming deadlines.

**Priority levels**

* Priority levels help users to organize and focus on tasks based on their importance. Tasks can be marked as High, Medium, or Low priority, making it easier to manage workloads and ensure critical tasks are completed first.
  + **High Priority:** These tasks are the most important and should be completed first. They might have urgent deadlines or significant consequences if not done promptly.
  + **Medium Priority:** These tasks are important but not as urgent as high-priority tasks. They should be completed after high-priority tasks.
  + **Low Priority:** These tasks are less critical and can be completed when there is extra time. They often have flexible deadlines

**Repeating Tasks**

* **What It Is:** Repeating tasks allow users to create tasks that automatically repeat at specified intervals. This is useful for tasks that occur regularly, such as weekly meetings or monthly reports.
* **Steps:** Daily, Weekly, Monthly, and Yearly Intervals:
  + **Daily:** The task repeats every day.
  + **Weekly:** The task repeats every week on the same day.
  + **Monthly:** The task repeats every month on the same date or day (e.g., the 15th of each month or the third Monday).
  + **Yearly:** The task repeats every year on the same date (e.g., a birthday or annual report).

**Reminders and Notification**

* Reminders and notifications alert users about upcoming tasks, helping them stay on track and ensuring they don't forget important tasks.
* Set Reminders for Tasks at Specific Intervals Before the Due Date
  + **Minutes Before:** Remind the user 15 minutes before the task is due.
  + **Hours Before:** Remind the user 1 hour before the task is due.
  + **Days Before:** Remind the user 1 day before the task is due.
* Push notifications are alerts sent to the user's device to remind them of an upcoming task. These notifications can appear even if the user is not actively using the app

**Assign Tasks:**

* The ability to assign tasks allows users to delegate tasks to other users or team members.
* When creating or editing a task, users can choose another user or team member to assign the task to.

**Notification:**

* The user receives a notification about the new task assigned to them.
* **Task Management:** The assigned task appears in the assignee’s task list.

**Role-Based Access Control**

* Role-based allows the system to define and manage permissions for different types of users (e.g., admin, editor, viewer). This ensures that users have appropriate access based on their roles.

**Roles:**

* **Admin:** Has full access to all features and settings. Can create, view, edit, delete tasks, and manage users and roles.
* **Editor:** Can create, view, edit, and delete tasks but cannot manage users or roles.

**Viewer:**

* Can only view tasks and cannot make any changes.

**Dashboard :**

* A dashboard provides users with a centralized view of key information such as tasks, deadlines, and progress. It offers a snapshot of their workload and helps them prioritize tasks effectively.
* The dashboard should summarize the number of tasks and their statuses (e.g., pending, completed, overdue).

**Deadlines:**

* Display upcoming task deadlines prominently.

**Progress:**

* Show progress towards goals or completion of tasks, if applicable

**Multiple views :**

* Multiple views provide users with different ways to visualize and manage their tasks. The most common views are list view and calendar view.

**List View:**

* Displays tasks in a structured list format, showing details such as title, description, due date, and priority.

**Calendar View:**

* Presents tasks on a calendar interface, highlighting due dates and offering a visual representation of task schedules.

**View settings:**

* View settings allow users to customize how they interact with their tasks, tailoring the interface to their preferences and needs.

**User story**

**As a user :**

1. I want to create an account and log in, so that my tasks are saved.
2. I want to have a password recovery option so that I can get back to login.
3. I want to create new tasks, so that I can keep track of what needs to be done.
4. I want to view ,edit, delete the tasks.so that i could adjust it as i need.
5. I want to have a title, description for scheduling the task and the task must be in list format.
6. I want to categorize tasks into different projects or categories, so that I can organize my work effectively.
7. I want to set priorities for my tasks (e.g high, medium, low), so that I can focus on what’s most important.
8. I want to set due dates and receive reminders for my tasks, so that I don't miss any deadlines.
9. I want my task to be repeated daily,weekly,monthly,yearly intervals.
10. I want to mark tasks as completed and see my progress, so that I can stay motivated.tasks.
11. I want to share tasks and projects with friends, so that we can collaborate and work together.
12. I must have an option to assign task to other users or team members
13. I want to search for specific tasks and filter them by priority, due date, or project, so that I can quickly find what I need.
14. I want to receive notifications for upcoming deadlines and task updates, so that I stay informed.
15. I want a dashboard where it gives an overview of tasks,deadlines,and progress.
16. I want role based access control to define permission for different users.
17. I want multiple views such as list view and calendar view so that i could assign tasks before according to the dates.

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