**SOFTWARE REQUIREMENT SPECIFICATION FOR REPEAT TASK**

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| PROJECT ID | : 6 |
| PROJECT NAME | : REPEAT TASK |

**TASK**

Similar to alarm, create repeat tasks which need to be repeated for days/weeks/months

**TECHNOLOGY STACK:**

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| Front end | Angular (Js Framework) |
| Backend | Express.js (Web framework for Node.js)  Node js (Javascript runtime environment) |
| Database | MongoDB (NOSQL Database) |
| API | Restful API |

**SCOPE OF THE PROJECT:**

The primary objective of this project is to develop a web-based application that facilitates the management of repeat tasks for a college environment, specifically designed for Heads of Departments (HODs) and professors. The system will allow HODs to assign tasks to professors and track their completion, ensuring timely notifications and efficient task management.

**TARGET USERS:**

The target users of the Repeat Task Management System are:

1. **Heads of Departments (HODs):** They will use the system to assign, track, and manage tasks for professors, ensuring that all tasks are completed on time and maintaining oversight of departmental responsibilities.
2. **Professors:** They will receive task assignments from the HODs, track their own progress, and mark tasks as completed, helping them manage their workload efficiently and stay organized.

**KEY FEATURES AND COMPONENTS:**

1. **User authentication and authorization**
   1. Secure login for HODs and professors.
   2. Role-based access control to ensure users can only access relevant features.
2. **HOD dashboard**
   1. **Task assignment:** Interface for HODs to assign tasks to professors, including task details, time, and recurrence (daily, weekly, monthly).
   2. **View tasks:** Overview of all tasks assigned to professors, including their statuses (pending, completed).
   3. **Notifications:** Alerts for uncompleted tasks when new tasks are assigned.
3. **Professor Dashboard**
   1. **View Tasks:** List of tasks assigned by the HOD, with details and deadlines.
   2. **Task completion:** Interface to mark as completed.
   3. **Notifications:** Reminders for any uncompleted tasks.
4. **Task management**
   1. **Create and assign tasks:** HODs can create tasks with details such as title, description, time, frequency, and assign them to professors.
   2. **Track task status:** Track the completion status of each task.
   3. **Recurring tasks:** Support for tasks that need to be repeated on a daily, weekly, or monthly basis.
5. **Notifications system**
   1. Automatic reminders for professors about uncompleted tasks.
   2. Notifications for HODs about task statuses and any overdue tasks.
6. **Database management**
   1. **Users table:** Stores user details, including roles (HOD or professor).
   2. **Tasks Table:** Stores task details, including title, description, time, frequency, assigned professor, and completion status.
   3. **Notifications Table:** Stores notifications for professors and HODs.

**DELIVERABLES:**

1. **Web Application:** A fully functional web-based task management system with separate dashboards for HODs and professors.
2. **User Documentation:** Comprehensive guides for HODs and professors on how to use the system effectively.
3. **Training Materials**: Tutorials and training sessions for users to ensure smooth onboarding and effective use.
4. **Technical Documentation:** Detailed documentation for system maintenance, including database schemas, API specifications, and deployment guides.

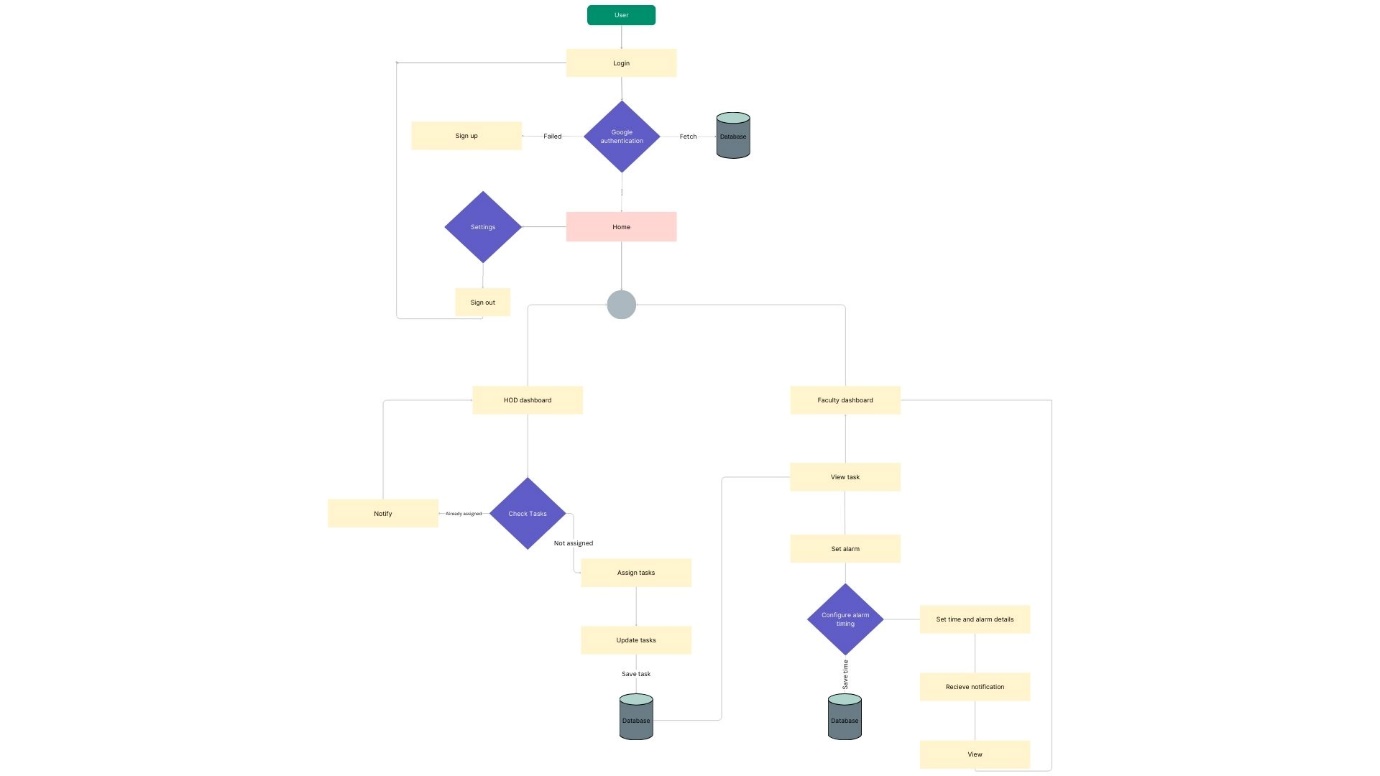
**TIMELINE:**

1. **Planning and Requirements Gathering:** 1 week
2. **Design:** 2 weeks
3. Development:
   1. User Authentication: 1 week
   2. HOD Dashboard: 2 weeks
   3. Professor Dashboard: 2 weeks
   4. Task Management and Notifications: 3 weeks
4. **Testing:** 2 weeks
5. **Deployment and Training:** 1 week
6. **Total Estimated Time:** 12 weeks

**CONSTRAINTS AND ASSUMPTIONS:**

1. **Constraints:**
   1. Limited budget and time for development.
   2. Need for user-friendly design to ensure easy adoption by non-technical users.
2. **Assumptions:**
   1. All users will have access to a computer and internet connection.
   2. HODs and professors will be cooperative and provide necessary feedback during the development phase.

**WORKFLOW:**

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