Register Number: 7376222AL109

Student Name : AMEEN AHMED H

Seat No : 186

Project ID : 02

Project title : PROJECT TRACKING

Technical Components

Component	Tech Stack
Frontend	HTML , CSS , JAVASCRIPT
Backend	Django
Database	MySQL
API	RESTful services

Implementation Timeline

PHASE	DEADLINE	STATUS	NOTES
Stage 1	-	Under Process	Planning and Requirement Gathering
Stage 2	-	Not Started	Design and Prototyping
Stage 3	-	Not Started	DB Design and Implementation
Stage 4	-	Not Started	Backend Development
Stage 5	-	Not Started	Integration and Testing
Stage 6	-	Not Started	Deployment

PROBLEM STATEMENT:

For projects to be successfully completed within the allotted time, money, and scope, effective project tracking is crucial. In order to track progress, assign resources, and guarantee that tasks are finished on schedule, this project intends to create an extensive project tracking system. Team members' capacity to collaborate, communicate, and take responsibility will all be enhanced by the system:

- **Monitoring Progress:** Keep tabs on the advancement of each assignment as well as the project as a whole.
- **Resource Management:** To avoid bottlenecks and guarantee maximum utilization, allocate and manage resources efficiently.
- **Timeline Management:** Monitor project timelines in real-time to make sure tasks are finished by the deadline.
- **Collaboration:** Encourage team members to communicate with one other and work together.
- **Reporting:** Produce reports that include information about the state of the project, how resources are being used, and any possible dangers.

PROJECT-FLOW:

Purpose:

- ☐ The goal is to make project management easier by offering a centralized platform for teamwork, resource optimisation, and real-time tracking.
- ☐ It seeks to guarantee timely completion of projects, improve visibility, and support efficient communication.
- ☐ Enhancing organizational effectiveness and completion rates serves as the ultimate objective.

Scope:

- ☐ For projects of various complexity levels, Project-Flow will provide task management, resource allocation, and real-time progress tracking.
- ☐ It will provide tools for effective risk management, collaboration among teams, and thorough reporting.
- ☐ The technology will function in tandem with current technologies to improve productivity and guarantee thorough project management.

Business Context:

- ☐ The project's goal is to put in place a thorough tracking system for company activities, guaranteeing efficiency and visibility in real time.
- ☐ This system will increase decision-making, optimize resource allocation, and streamline procedures.
- ☐ It is essential for attaining strategic objectives and performance optimisation.

Considerations:

- ☐ **Data Security and Privacy:** Ensuring that the tracking system conforms with data protection laws and protects confidential company data from breaches or unwanted access.
- ☐ **Scalability and Integration:** In order to accommodate future expansion and technological breakthroughs, the system must be designed to be both scalable and readily integrated with current platforms and tools.

Dependencies:

- ☐ **Frameworks and Libraries:** To construct the tracking system, you'll need crucial Python libraries like Flask or Django for web development, Pandas for data processing, and SQLAlchemy for database ORM (Object-Relational Mapping).
- ☐ **APIs and External Services:** Functionality and interoperability of the system will depend on integration with external services like cloud storage (like AWS S3), authentication services (like OAuth), and third-party APIs for data sharing and real-time changes.

User Personas:

- ☐ **Student:** Needs an up-to-date schedule to effectively plan activities.
- ☐ **Admin Staff:** Manages system operations, resolves conflicts, and approves mail requests.

User Stories:

- ☐ **Student (User):** As a student, I want to track my project progress in real-time so that I can stay organized and meet deadlines effectively.
- ☐ **Admin Staff (Admin):** As an admin, I want to monitor all student projects and generate reports on progress, so I can provide support and identify areas needing improvement.

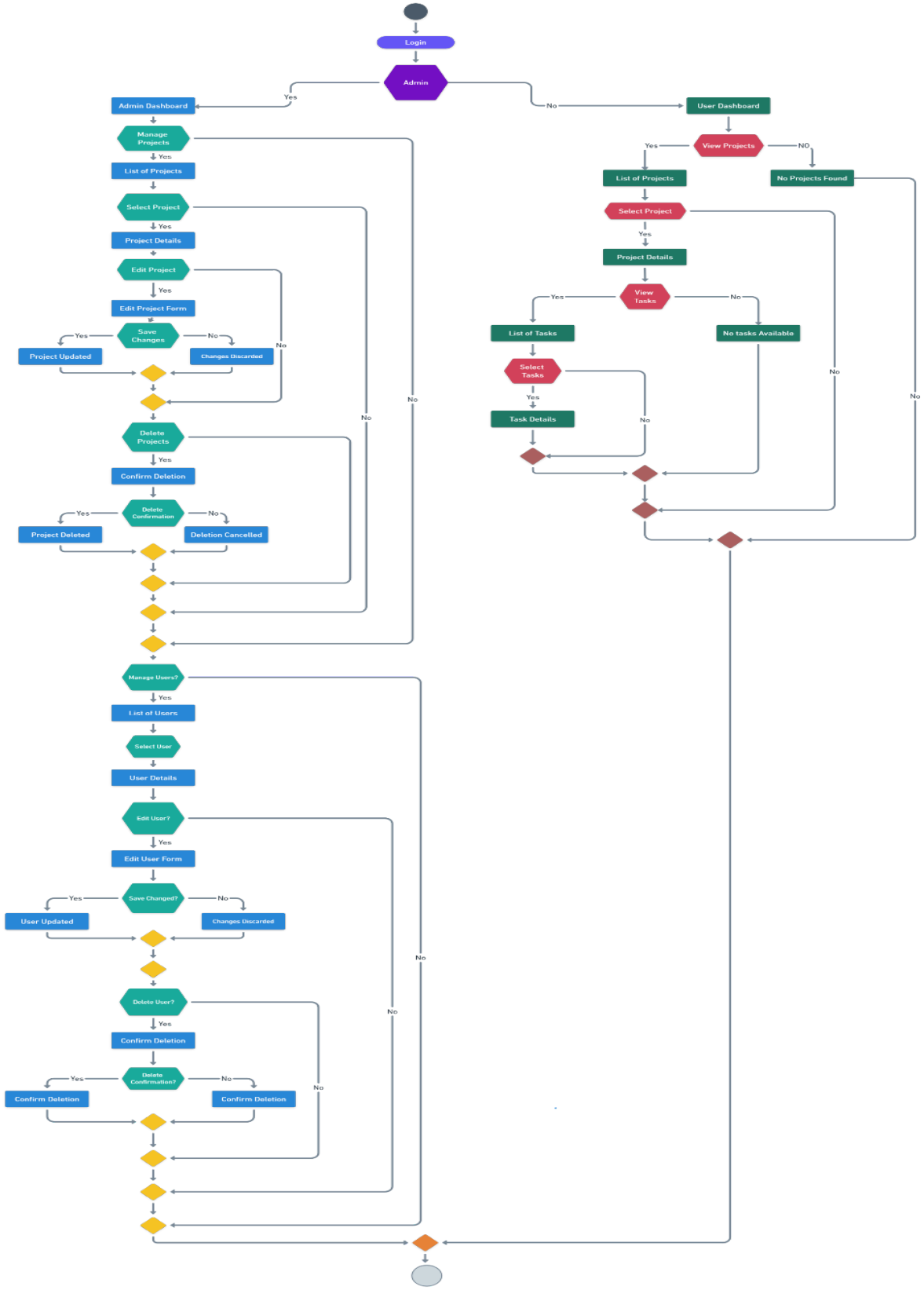
Functional Requirements:

- ☐ **User Authentication:** The system must allow users to securely register, log in, and manage their profiles.
- ☐ **Project Tracking:** Users should be able to create, update, and manage multiple projects, including setting deadlines and milestones.
- ☐ **Progress Monitoring:** The system must provide real-time status updates and visual representations (e.g., Gantt charts) of project progress.
- ☐ **Reporting Tools:** Admin staff should be able to generate detailed reports on project statuses, user engagement, and performance metrics.
- ☐ **Notifications and Reminders:** The system must send automated notifications and reminders to users about upcoming deadlines and important updates related to their projects.

Non-Functional Requirements:

- ☐ **Performance and Scalability:** Handle up to 10,000 concurrent users with minimal latency and scale to support growing demands.
- ☐ **Reliability and Security:** Ensure 99.9% uptime with robust failover mechanisms, data redundancy, and compliance with data protection regulations.
- ☐ **Usability and Integration:** Provide an intuitive, accessible interface and seamless integration with popular tools and devices for flexible access.

FLOWCHART: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Yes
No
Admin Dashboard
Manage Projects
Yes
List of Projects
Select Project
Yes
Project Details
Edit Project
Yes
Edit Project Form
Save Changes
Yes
No
Project Updated
Changes Discarded
No
Delete Projects
Yes
Confirm Deletion
Delete Confirmation
Yes
No
Project Deleted
Deletion Cancelled
No
No
Manage Users?
Yes
List of Users
Select User
User Details
Edit User?
Yes
Edit User Form
Save Changed?
Yes
No
User Updated
Changes Discarded
Delete User?
Yes
Confirm Deletion
Delete Confirmation?
Yes
No
Confirm Deletion
Confirm Deletion
No
No
User Dashboard
Yes
View Projects
NO
List of Projects
No Projects Found
Select Project
Yes
Project Details
Yes
View Tasks
No
List of Tasks
No tasks Available
Select Tasks
Yes
Task Details
No
No
No

ER DIAGRAM (DB DESIGN):