Student Name: BALAJI H

Seat No: 383

Project ID: 23

Project title: OD PORTAL

Technical Components

Component	Tech Stack
Backend	PYTHON AI
Frontend	HTML & CSS
Database	MySQL
API	RESTful services

Implementation Timeline

Phase	Deadline	Status	Notes
Stage 1	15/04/2024		Planning and Requirement gathering
Stage 2	26/04/2024		Design and Prototyping
Stage 3			DB Designing
Stage 4		In progress	Backend Implementation
Stage 5		Not started	Testing & Implementation

PROBLEM STATEMENT:

The task is to design and implement a portal or mobile application to facilitate the approval process for student On-Duty (OD) requests. The approval of OD requests is contingent upon meeting specific conditions aimed at maintaining a balance between academic responsibilities and extracurricular activities.

PROJECT-FLOW:

Condition:

Instruction and Scheduling FA Confirmation: The academic and placement Faculty Advisors (FA) must both attest that the student's performance is over 50% in order to guarantee that students retain good performance in both areas.

Verification of Special Lab:

The Special Lab In charge must verify the approval procedure in addition. This person has to verify the event information that the student has supplied, making sure that the OD request serves the intended goal and is advantageous to the student's academic record.

Parental Acknowledge:

The AI bot will make the call first, and then the parent's approval has to get the parent or guardian's acknowledgment, which will be kept in the database. By taking this action, parents may be sure that their children are informed of and agree to their involvement in OD activities.

Mentor Approval:

An automatic email message is created and forwarded to the appropriate mentor upon a parent's approval of a student's request for an online degree. Mentors can examine and respond to the request as soon as possible thanks to this notice, which guarantees rapid contact. The mentor will access the student's record in the database as soon as they receive the notice. Academic achievement, prior OD experience, and any pertinent notes or remarks will all be included in this thorough assessment. The mentor will then decide whether to accept or deny the OD request based on this assessment.

Important characteristics of the Portal/App include:

a. User Authentication: - Safe login processes for parents, academic FAs, placement FAs, mentors, students, and special lab supervisors.

b. Submission platform: - An easy-to-use platform where students may submit requests for OD, along with information on the event and their justifications.

c. Approval Process:- An automated process that forwards OD requests to the appropriate parties (parents, mentors, FAs, and the special lab in charge) for approval.

d. Notification System:– Provides stakeholders with up-to-date information on the progress of OD requests and approvals that are pending.

Purpose:

By implementing these improvements into place, we hope to streamline the OD clearance procedure and promote a cooperative atmosphere where parents, mentors, and students cooperate to assist kids' success in both the classroom and extracurricular activities.

Scope:

Owing of equipment like Flask for web interfaces, SQL Alchemy for database administration, and OAuth for secure authentication, efficient approval procedures are made possible by Python's flexibility. By integrating these solutions, it is easier to submit and monitor permission requests using user-friendly interfaces, which guarantees effective stakeholder communication. The process is made more efficient, scalable, and agile by the use of customized approval criteria and automated alerts.

Business Context:

Using Python to implement OD (Operational Decision) approval enables businesses to automate and expedite decision-making procedures. Utilizing Python's adaptability and extensive library, companies may create unique approval processes that are suited to their particular requirements. This method guarantees adherence to internal laws and regulations while increasing efficiency and decreasing mistakes. Businesses may simply modify and enhance their approval systems to match changing requirements and objectives thanks to Python's scalability and adaptability.

Consideration:

- Every user has an active Google account in order to be authenticated.
- Users often have access to gadgets with internet connectivity.

Dependencies:

- Integration with Google OAuth for user authentication.
- Consistent performance and availability of the existing server.

User personas:

1. Student: Engaged, curious, looks for advice.
2. Parents: Careful, encouraging, and ardent supporters of their children's futures.
3. Special Lab Supervisor: Informed, accommodating, promotes diversity.
4. Mentor: knowledgeable, encouraging, helps in growth.

User Stories:

- As a student, I wish to use OD to expand my ethical understanding and must absorb knowledge from other teams.
- As a faculty member, it is my responsibility to make sure my students have all the necessary approvals, parental consent, and student safety is confirmed.

Functional Requirements:

1. User Authentication: To manage system access, use secure login.

2. OD Request Submission: Permit users to provide OD information such as duration and goal.

3. Approval Workflow: Create a procedure wherein authorized approvers examine and accept requests for OD.

4. Notification System: Inform requesters of the progress of their requests and notify approvers of any new ones.

5. Audit Trail: Follow the submission, approval, and rejection history of OD requests.

6. Reporting & Analytics: Provide resources for analysing approval rates and OD trends.

7. Integration: You can optionally link to scheduling and HRIS systems to exchange data.

8. Access Control: Use user roles and permissions to limit access to OD data.

9. Documentation & Help: Offer instructions and resources that are easy to utilize.

10. Scalability & Performance: Make sure the system can accommodate growing demand without compromising dependability or speed.

FLOW CHART: