BANNARI AMMAN INSTITUTE OF TECHNOLOGY
An Autonomous Institution Affiliated to Anna University - Chennai, Accredited by NAAC with A+ Grade
Sathyamangalam - 638401 Erode District, Tamil Nadu, India

Training and Placement Self-Intensive Training

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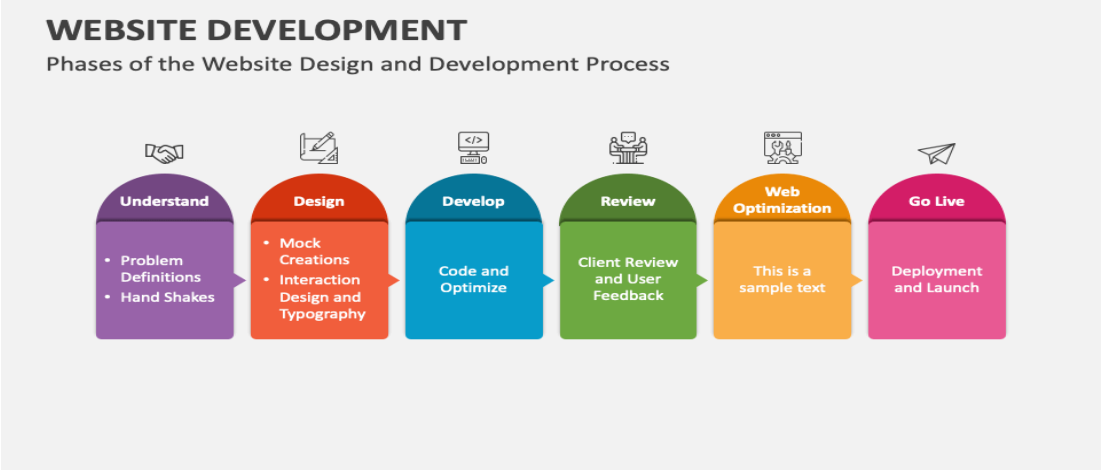
Problem Statement ID: 10



FULL STACK WEB DEVELOPMENT

Project Name: Review Scheduling Portal for TAC

Problem Statement: To build a Review Scheduling Portal for TAC

Description: Build the system to schedule the review for the booked appointments domain wise. Criterion:

(a) Slot open for Students and Reviewers.

(b) Slot is automatically closed if it meets the fixed number of bookings or when within the time limit.

(c) Schedule the review by using data from students and reviewers

Technical Components

Component	Tech Stack
Backend	Node.js
Frontend	React.js
Database	MongoDB (NoSQL)
API	Open API

Implementation Timeline

Phase	Deadline	Status	Notes
Stage 1	02/05/2024	Under Review	Planning and Requirement gathering
Stage 2		Not started	Design and Prototyping
Stage 3		Not started	DB Designing
Stage 4		Not started	Backend Implementation
Stage 5		Not started	Testing & Implementation

Current stage: Stage-1 Planning and Requirement Gathering.

INTRODUCTION:

The Review Scheduling Portal for TAC aims to streamline the process of booking review slots for student projects within the institution. Currently, students rely on a Google Forms system for booking, which creates a manual workload for the TAC team in consolidating information and assigning reviewers. This application will replace the Google Forms method and introduce features to improve efficiency for both students and the TAC team.

PROJECT-FLOW:

Purpose:

The purpose of this project is to develop a robust web portal that streamlines the TAC review scheduling process. By providing a user-friendly interface for students to book review slots and for reviewers to manage their schedules, the portal aims to enhance efficiency and convenience for all stakeholders involved.

Scope:

The scope of the project includes the design, development, and implementation of the scheduling portal. This encompasses user authentication, slot booking functionality, notification systems, and administrative controls. The portal will integrate seamlessly with existing institutional processes while laying the foundation for *future enhancements*, such as integration with the *Reward points system.*

Business Context:

The project aligns with the institution's strategic goal of preparing students for the demands of the industry by fostering practical skills development. By facilitating the scheduling of TAC reviews, the portal contributes to the overall objective of enhancing student employability and readiness for the workforce.

Considerations:

- Integration with existing reward points system: While not included in the initial scope, the portal design will allow for future integration with the reward points system operated by the institution.
- User authentication and authorization: Ensuring secure access to the portal for students, reviewers, and administrators.
- Real-time slot availability display: Providing accurate and up-to-date information on available review slots to facilitate efficient scheduling.

- Notification system: Implementing automated notifications to remind users of booked slots and upcoming reviews.

Responsive design: Ensuring that the portal is accessible and user-friendly across different devices and screen sizes.

Dependencies:

- Availability of development resources: The successful completion of the project depends on the availability of project management support, and access to necessary development tools and technologies.
- Access to institutional data and systems: Integration with existing institutional databases or systems may be required to retrieve relevant information for user authentication and scheduling.
- Compliance considerations: The project must adhere to data protection regulations and institutional policies regarding user privacy and data security.

TOTAL NO OF DAYS: 7

Phases	No of days
Student slot booking (incl of 24hrs spare time).	3 days
Faculty slot booking (incl of 24hrs spare time).	2 days
Time for making changes by TAC-team	1 day
Publishing official mail	7th day

TARGET USERS AND STAKE HOLDERS:

- Students: The primary users who will book review slots for their self-built projects
- TAC Reviewers (Staff): Faculty members who will review student projects based on their expertise and project requirements.
- Admins: Depending on the system configuration, an admin role is required to manage opening/closing booking windows for students.

USER STORIES:

- As a **Student**, I want to view available review slots in real-time so I can book a convenient time slot for my project review.
- As a **Student**, I want to receive confirmation emails and reminders for my booked slots.
- As a **Student**, I want to be able to modify my booked slot within a 24-hour window in case my schedule changes. (Optional, based on your decision)
- As a **TAC Reviewer**, I want to see student-booked slots categorized by project type (e.g., software development, hardware design) so I can efficiently select projects that align with my expertise and available time.
- As a **TAC Reviewer**, I want to view key student information (e.g., project title, brief description) alongside booked slots to gain context before accepting a review.
- As a **TAC Reviewer**, I want to be able to modify my booked slot within a 24-hour window in case my schedule changes.
- As a **TAC Reviewer**, I want to receive confirmation emails and reminders for my booked slots.

FUNCTIONAL REQUIREMENTS:

Authentication:

- Student, Reviewer and the admin will be authenticated carefully as it is a standalone portal.
- All three have different set of permissions
- Student and Reviewer will be authenticated with bitsathy mail-id.
- Admin will be authenticated with special Username, Password.

Students:

- View available review slots in real-time.
- Book review slots according to their preferred time and date.
- Students are allowed to book only their slots.
- Receive confirmation emails and reminders for booked slots.
- Modify booked slots within a 24-hour window (if applicable).

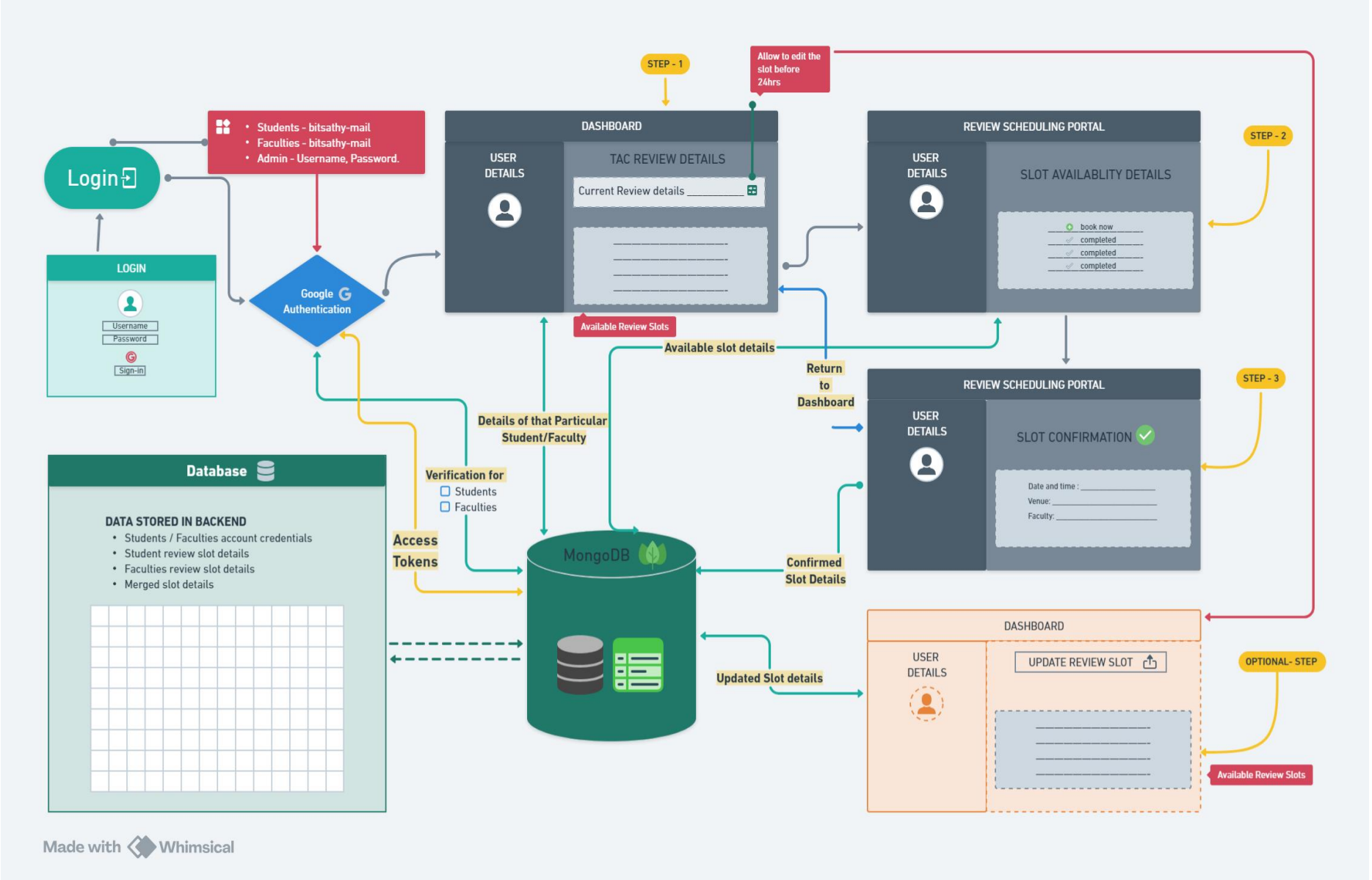
TAC Reviewers (Staff):

- View student-booked slots categorized by project type (or relevant filters).
- Select students to review based on their expertise, project requirements and their availability.
- View key student information alongside booked slots (optional).
- Manage their schedule by accepting or declining review requests from students.
- Modify booked slots within a 24-hour window (if applicable).

Slot booking back-end:

- The number of students in each slot will be identified before slot booking of reviewer.
- The slots with no students will be ignored/hidden for reviewer.
- A Maximum of 10 students could be allotted to and should be booked by the faculty.
- Both in students slot booking and reviewer slot booking, the booked slot will be differentiated from not booked slots (like blurring or changing colour).
- Excel sheet will be generated after combining and making the final schedule.
- We will have unique parameters to classify the student's data like Roll no, Project ID etc.
- Available venues data will be added to the back-end in prior and the allocation of venue is done on first come first serve basis.

Flowchart:


STEP - 1
Allow to edit the slot before 24hrs
Students - bitsathy-mail
Faculties - bitsathy-mail
Admin - Username, Password.
Login
DASHBOARD
USER DETAILS
TAC REVIEW DETAILS
Current Review details
REVIEW SCHEDULING PORTAL
USER DETAILS
SLOT AVAILABLITY DETAILS
book now
completed
completed
completed
STEP - 2
LOGIN
Username
Password
Sign-in
Google Authentication
Available Review Slots
Available slot details
Return to Dashboard
Details of that Particular Student/Faculty
REVIEW SCHEDULING PORTAL
USER DETAILS
SLOT CONFIRMATION
Date and time :
Venue:
Faculty:
STEP - 3
Database
DATA STORED IN BACKEND
Students / Faculties account credentials
Student review slot details
Faculties review slot details
Merged slot details
Verification for
Students
Faculties
Access Tokens
MongoDB
Confirmed Slot Details
DASHBOARD
USER DETAILS
UPDATE REVIEW SLOT
OPTIONAL- STEP
Updated Slot details
Available Review Slots
Made with Whimsical