BANNARI AMMAN INSTITUTE OF TECHNOLOGY
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Stay Ahead

**STUDENT NAME:** RAVIRAGAV N M

**SEAT NO:**330

**PROJECT ID:**10

**PROJECT TITLE:** REVIEW SCHEDULING PORTAL FOR TAC

## TECHNICAL COMPONENTS

| COMPONENT | TECH STACK |
|---|---|
| Frontend | Angular |
| Backend | Express.js, Node.js |
| Database | MongoDB |
| API | REST Ful API / GraphQL API |

## IMPLEMENTATION TIMELINE

| Phase | Deadline | Status | Notes |
|---|---|---|---|
| **Stage 1** | | In Progress | 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 |

## PROBLEM STATEMENT:

The centralized nature of slot booking within educational institutions leads to several challenges, including:

- **Inconsistent Availability:** Different departments and administrative units manage slot scheduling independently, leading to inconsistencies in availability and overlapping slots.
- **Confusion and Missed Opportunities:** Students and faculty may face scheduling conflicts or miss opportunities due to the lack of a centralized system to manage slots effectively.
- **Fragmented Communication:** Important information regarding slot availability and changes may get lost in the volume of emails or communications, making it difficult for users to stay informed
- **Managing slot availability:** resolving conflicts, and ensuring timely updates impose a significant administrative burden on staff and faculty.

## PROJECT-FLOW:

### Purpose:

To develop a centralized slot booking system that efficiently manages the scheduling of reviews for booked appointments across domains, addressing existing issues of scheduling conflicts and communication inconsistencies.

### Scope:

This system encompasses user authentication, slot creation by admins, slot selection and rescheduling by students, slot booking and rescheduling by faculty, automatic slot closure based on maximum bookings, and the provision of downloadable excel sheets for faculty. It aims to integrate seamlessly with existing platforms to ensure smooth communication and scheduling processes.

**Business Context:**

The centralized slot booking system is designed to enhance scheduling clarity and effectiveness within the educational institution, thereby minimizing conflicts and improving organizational efficiency. Key stakeholders include students, faculty, administrative staff, and the IT department, all of whom will benefit from streamlined scheduling processes and improved communication channels.

**Admin Dashboard:**

- Ability to create slots for reviews across domains seven days in advance
- Domain-wise slot allocation to ensure efficient scheduling.
- Automatic closure of slots when the maximum number of bookings is reached.

**Student Interface:**

- Access to view available slots within their domain.
- Option to select a slot for review within the given time frame.
- Ability to reschedule their booked slot within 24 hours of initial booking.

**Faculty Interface:**

- Separate interface to view available slots for review.
- Option to book a slot for review within their domain.
- Ability to reschedule their booked slot within 48 hours of initial booking.

**Excel Sheet Download:**

- Faculty can download excel sheets containing their scheduled reviews for easy reference and management.

**Considerations:**

- All users are authenticated using their active Google accounts.
- Users have consistent access to internet-enabled devices.

**Dependencies:**

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

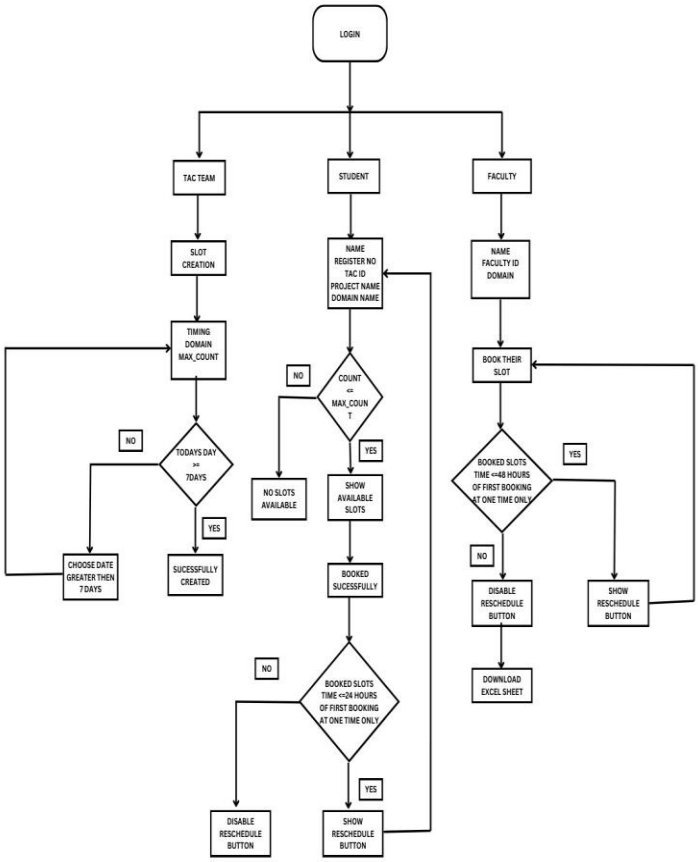
**User Personas**:

- Tac Team: They can create a slot for students' domain wise and a fixed number of counts.
- Student: They can book their slot for project review domain wise.
- Faculty: They can also book a slot for students' review, and they reschedule for 48 hours.

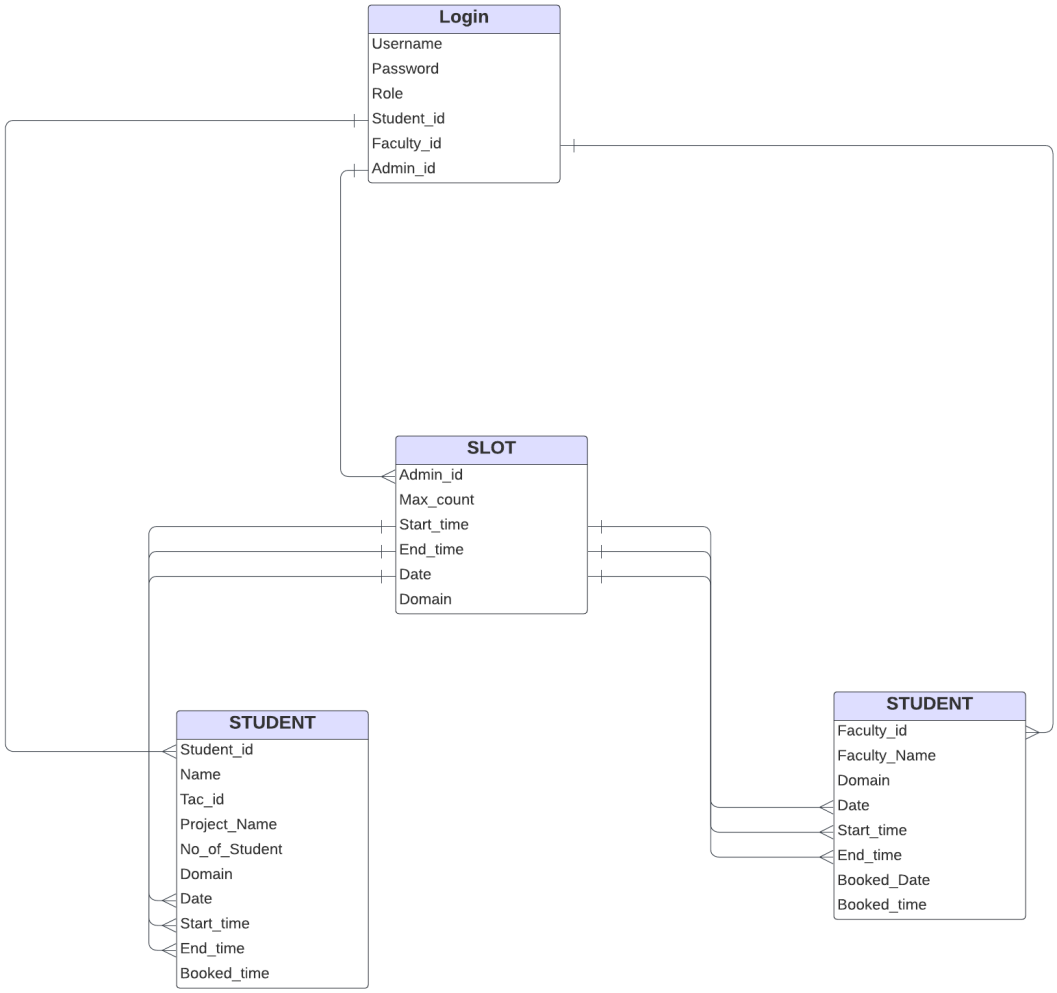
**Functional Requirement**

- User Authentication**:** Secure login using Google OAuth.
- Slot Creation: Admins can create review slots for students across domains seven days in advance.
- Slot Booking: Students can choose available slots within their domain and reschedule within 24 hours of initial booking.
- Automated Slot Closure: Slots are automatically closed when the maximum number of bookings is reached.
- Excel Sheet Download: Faculty can download Excel sheets containing their scheduled review appointments for easy reference.

# FLOW CHART


LOGIN
TAC TEAM
STUDENT
FACULTY
SLOT CREATION
NAME REGISTER NO TAC ID PROJECT NAME DOMAIN NAME
NAME FACULTY ID DOMAIN
TIMING DOMAIN MAX_COUNT
BOOK THEIR SLOT
NO
COUNT <= MAX_COUNT
YES
NO
TODAYS DAY >= 7DAYS
YES
NO SLOTS AVAILABLE
SHOW AVAILABLE SLOTS
BOOKED SLOTS TIME <=48 HOURS OF FIRST BOOKING AT ONE TIME ONLY
YES
NO
CHOOSE DATE GREATER THEN 7 DAYS
SUCESSFULLY CREATED
BOOKED SUCESSFULLY
DISABLE RESCHEDULE BUTTON
SHOW RESCHEDULE BUTTON
NO
BOOKED SLOTS TIME <=24 HOURS OF FIRST BOOKING AT ONE TIME ONLY
DOWNLOAD EXCEL SHEET
YES
DISABLE RESCHEDULE BUTTON
SHOW RESCHEDULE BUTTON

# ER DIAGRAM


Login
Username
Password
Role
Student_id
Faculty_id
Admin_id
SLOT
Admin_id
Max_count
Start_time
End_time
Date
Domain
STUDENT
Student_id
Name
Tac_id
Project_Name
No_of_Student
Domain
Date
Start_time
End_time
Booked_time
STUDENT
Faculty_id
Faculty_Name
Domain
Date
Start_time
End_time
Booked_Date
Booked_time

**BACKEND**

**User entity**

| | |
|---|---|
| username | VARCHAR |
| password | VARCHAR |
| role | CHAR |
| Student-id | VARCHAR |
| Faculty-id | VARCHAR |
| Admin-id | VARCHAR |

**Slot Entity**

| | |
|---|---|
| Admin_id | INT |
| domain | CHAR |
| Max-count | INT |
| Start-date | DATE |
| Start-time | TIME |
| End-time | TIME |

**Student Entity**

| | |
|---|---|
| Student-id | VARCHAR |
| Tac-id | INT |
| Project-name | VARCHAR |
| No-of-student | INT |
| Choose-domain | CHAR |
| Booked-date | DATE |
| Booked-time | TIME |

**Faculty Entity**

| | |
|---|---|
| Faculty-id | VARCHAR |
| Faculty-name | VARCHAR |
| Faculty-domain | CHAR |
| Booked-date | DATE |
| Booked-time | TIME |