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

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SEAT NO : 205

PROJECT ID : 5

PROJECT TITLE : RESOURCE BOOKING SYSTEM

TECHNICAL COMPONENTS

COMPONENT	TECH STACK
FRONT END	HTML , CSS , JS
BACK END	PYTHON , DJANGO
DATABASE	MySQL
API	OPENAPI

PROBLEM STATEMENT:

The decentralized nature of resource booking within educational institutions leads to several challenges, including:

● **Inconsistent Booking Procedures**:
Different departments and administrative units handle facility reservations independently, resulting in duplication of efforts and inconsistent booking processes.

● **Conflicting Schedules:**
Students, faculty, and staff often encounter overlapping booking requests for facilities, leading to scheduling conflicts and inefficiencies.

● **Fragmented Communication:**
Important booking updates and notifications are scattered across various channels, making it difficult for users to stay informed about facility availability and booking statuses.

● **Administrative Burden:**
Managing facility reservations, resolving conflicts, and ensuring timely communication of booking confirmations impose a significant administrative burden on staff and faculty.

PROJECT-FLOW:

Purpose:

To develop a centralized resource booking system that efficiently manages facility reservations, resolves scheduling conflicts, and improves communication regarding booking statuses.

Scope:

This system includes user authentication, a booking request form, conflict detection, confirmation notifications, and a dashboard for viewing and managing bookings. It integrates with existing communication channels to ensure seamless coordination and transparency in the booking process.

BUSINESS CONTEXT:

The centralized resource booking system aims to streamline facility management processes at BIT, thereby enhancing organizational efficiency by minimizing scheduling conflicts and improving resource utilization. Primary stakeholders include students, faculty, administrative staff.

CONSIDERATION:

● All users possess active google accounts for authentication.
● Users have regular access to internet-enabled devices.

DEPENDENCIES:

● Integration with google oauth for user authentication.
● Consistent performance and availability of the existing communication channels(gmail).

USER PERSONAS:

Student:

Needs to reserve facilities for academic projects and extracurricular activities.

Faculty:

Requires access to a user-friendly platform for booking classrooms, labs, and other facilities for teaching and research purposes.

Admin Staff:

Manages facility reservations, resolves conflicts, and oversees the booking process.

USER STORIES:

● As a student, I want to check the availability of classrooms and labs to schedule group study sessions effectively.

● As a faculty member, I need to submit booking requests for seminar halls and auditoriums to organize academic events and presentations.

FUNCTIONAL REQUIREMENTS:

User Authentication: Secure login using google oauth.

Booking Request Form: Users input booking details such as facility, date, time, and purpose.

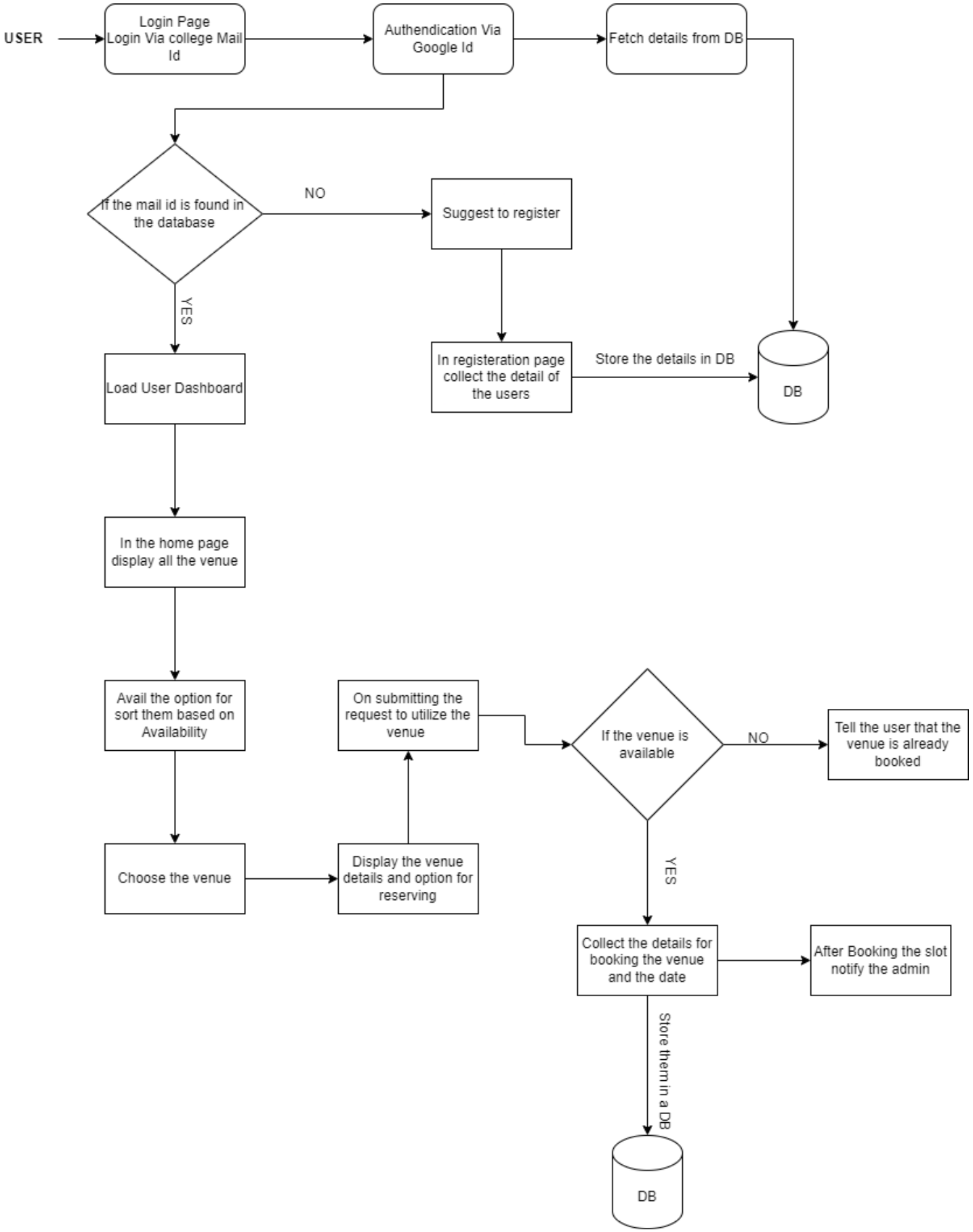
Conflict Detection: Automatic detection of scheduling conflicts with options for resolution.

Confirmation Notifications: Users receive notifications confirming their booking requests.

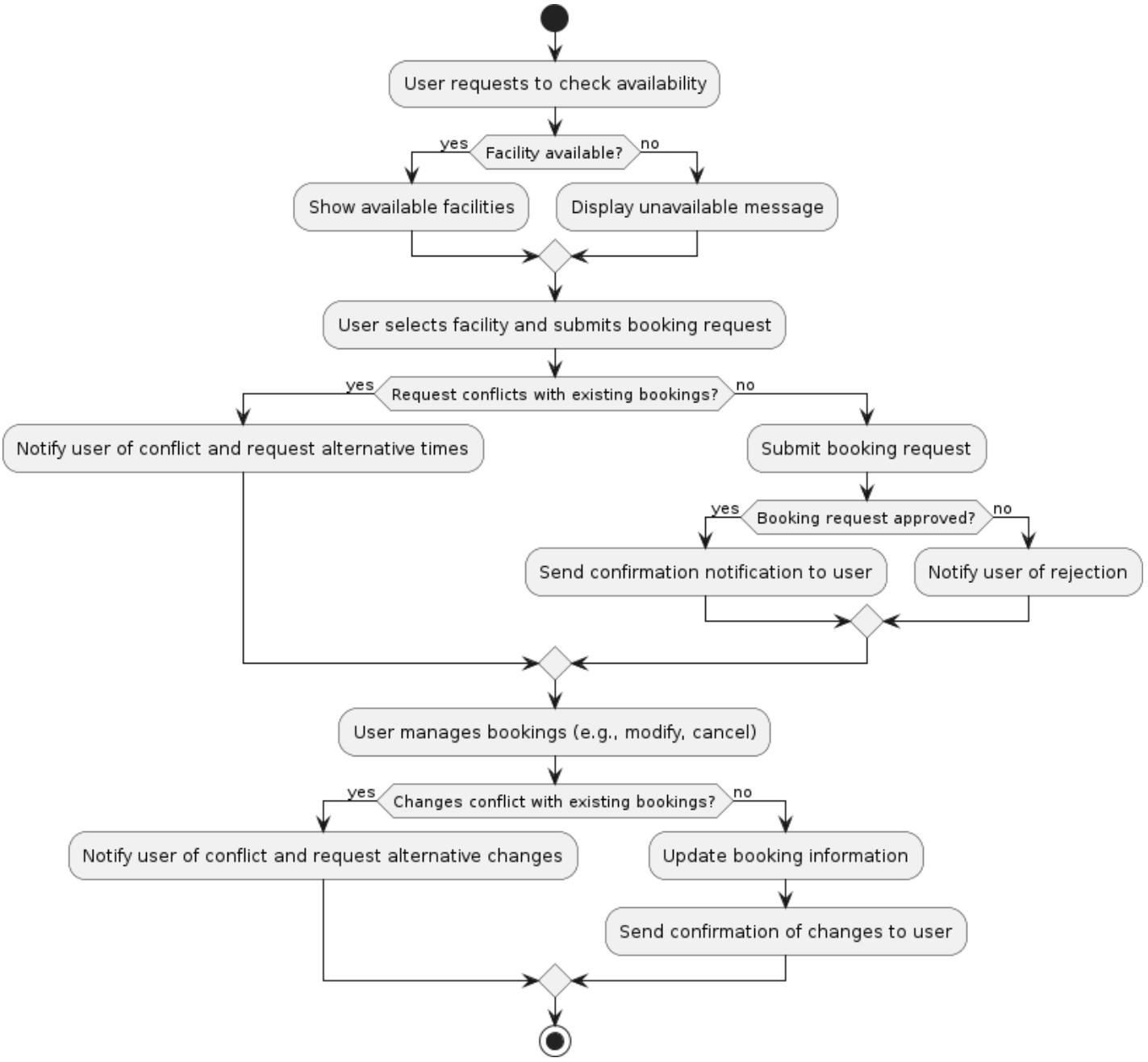
Dashboard: Real-time viewing and management of facility bookings.

Communication Integration: Seamless integration with existing communication channels(gmail) for booking updates and notifications.

USER-SIDE WORKFLOW:



ADMIN-SIDE WORKFLOW:



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