BANNARI AMMAN INSTITUTE OF TECHNOLOGY
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Stay Ahead

Student Name: PRASANTH M

Project ID: 12

Project title: VENUE MANAGEMENT

Technical Components

COMPONENT	TECH STACK
FRONT END	React.js
BACK END	Node.js , Express.js
DATABASE	MongoDB
API	Open API

MongoDB: As the database management system, MongoDB provides a flexible and scalable solution for storing and retrieving user data, such as profiles, posts, connections, and job listings. Its document-oriented structure allows for efficient storage and querying of complex data structures.

Express.js: This web application framework for Node.js serves as the back end server, handling HTTP requests and responses. Express.js is used to build RESTful APIs for various functionalities like user authentication, CRUD operations on data, and integrating with third-party services (e.g., Google Auth).

React.js: As the front-end library, React.js is responsible for building the user interface components and handling the interactive elements of the portal. It enables the creation of reusable UI components for features like profile editing, feed display, messaging, and job application forms.

Node.js: This JavaScript runtime environment powers the back end server and provides an efficient event-driven architecture for handling concurrent connections. Node.js is used to run the Express.js server and handle real-time operations like websocket communication for instant messaging.

Implementation Timeline

Phase	Deadline	Status	Notes
Stage 1	**25-07-2024**	**Approved**	**Planning and Requirement Gathering**
Stage 2	-	**In progress**	**Design and Prototyping**
Stage 3	-		**DataBase Designing**
Stage 4	-		**Back end implementation**
Stage 5	-		**Testing & implementation**

Phase Notes

- Stage 1 - Planning and Requirement gathering
- Stage 2 - Design and Prototyping
- Stage 3 - DB Designing
- Stage 4 - Back end Implementation
- Stage 5 - Testing & Implementation

PROBLEM STATEMENT:

The ongoing system of overseeing setting appointments for personnel instructional courses, workshops, and club exercises at our organization is wasteful and inclined to mistakes because of its manual nature. Employees face huge difficulties, including booking clashes, absence of ongoing perceivability of scene accessibility, and troublesome authoritative assignments. This results in underutilization of scenes, defers in correspondence, and in general shortcomings in the preparation and execution of occasions. To resolve these issues, there is a requirement for an incorporated, computerized Scene Executives Framework utilizing the MERN stack (MongoDB, Express.js, React.js, Node.js). This framework will give continuous admittance to scene accessibility, smooth out the booking system, diminish authoritative responsibility, and upgrade correspondence among workforce and managerial staff. By carrying out this arrangement, we plan to guarantee ideal use of settings, limit booking clashes, and work on the general proficiency of the scene board inside the organization.

PROJECT-FLOW:

Purpose:

The reason for this venture is to foster a unified, computerized Scene the board Framework to smooth out the method involved with booking and overseeing settings for workforce instructional courses, classes, and club exercises. This framework means to limit planning clashes, diminish regulatory responsibility, and upgrade general productivity in scene usage.

Scope:

The extent of this undertaking incorporates the improvement of an electronic application utilizing the MERN stack (MongoDB, Express.js, React.js, Node.js). Key highlights will incorporate client confirmation, continuous scene accessibility, booking the board, robotized warnings, and authoritative announcing apparatuses.

Business Context:

Productive setting the board is fundamental for smooth staff activities. The ongoing manual cycle is mistake inclined, influencing effectiveness and fulfillment. A robotized framework will improve association and efficiency.

Consideration:

- All faculty possess active Google accounts for authentication.
- Users have regular access to internet-enabled devices.

Dependencies:

Achievement depends on partner input, specialized assets, and front end-back end combination. Coordination with the IT division for arrangement and support is fundamental.

User personas:

- **Faculty:** Requires a venue for Academic,training,program like club activities ,orientation programs ,etc... for these purposes .
- **Admin Staff:** Manages empty venues, resolves need for venues , and approves venue requests.

User Stories:

- Faculty can book their venues for their specific needs .
- As a faculty member, I need to ensure the needs like if they want to give aptitude training for

to 4 departments they can choose venues like auditorium and seminar halls.

Functional Requirements:

1. **User Authentication:**
   - Faculty members and administrative staff must be able to create accounts and log in.
   - Role-based access control to differentiate between faculty and admin functionalities.

2. **Venue Availability:**
   - Provide a real-time view of all available venues.
   - Display detailed information about each venue, including capacity, facilities, and location.

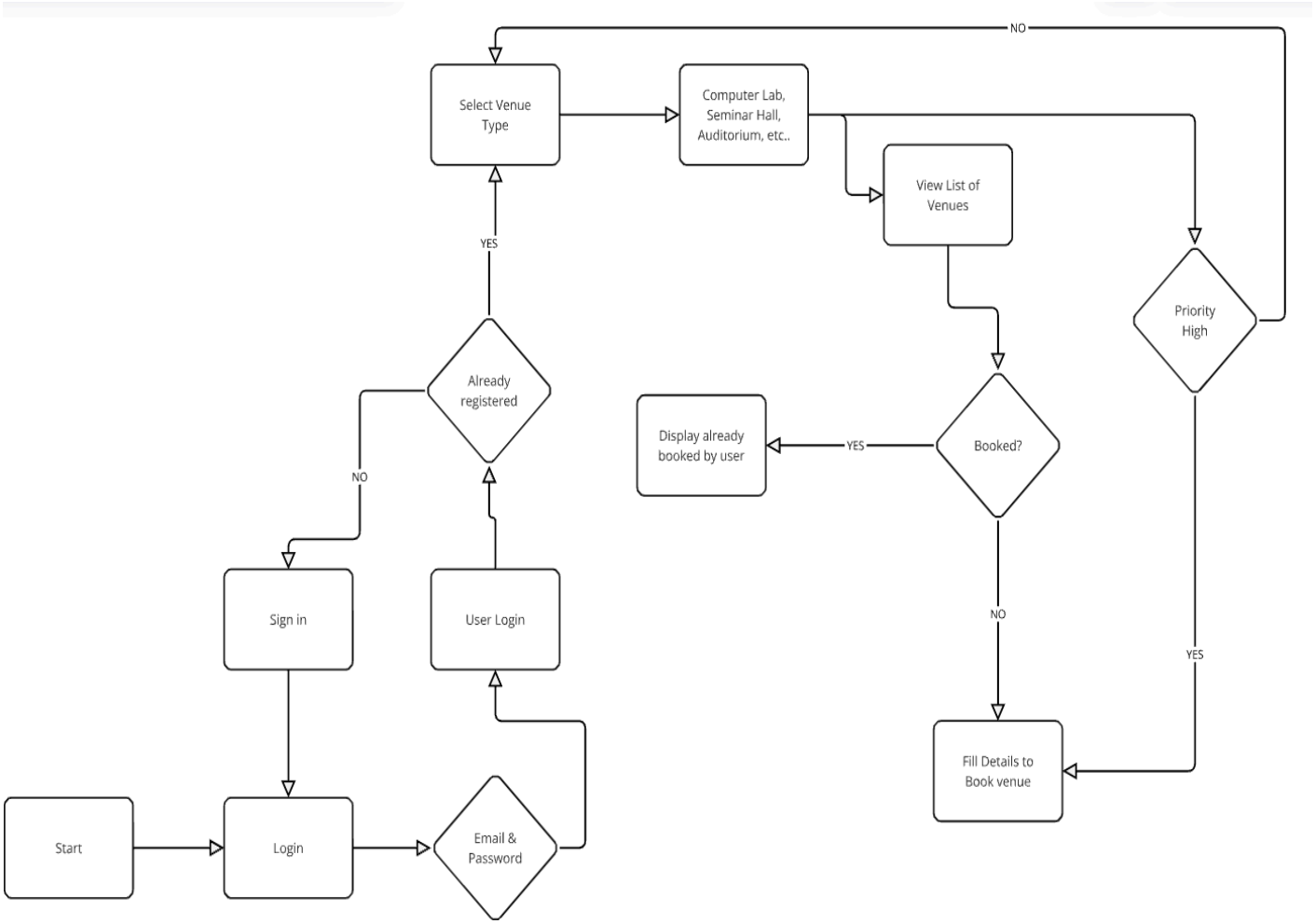
3. **Booking Management:**
   - Allow faculty members to book venues online.
   - Enable users to modify or cancel their bookings.
   - Prevent double bookings by ensuring a venue cannot be booked if it is already reserved.

4. **Calendar Integration:**
   - Provide a calendar view to display all bookings and availability.
   - Allow users to filter bookings by date, time, or venue.

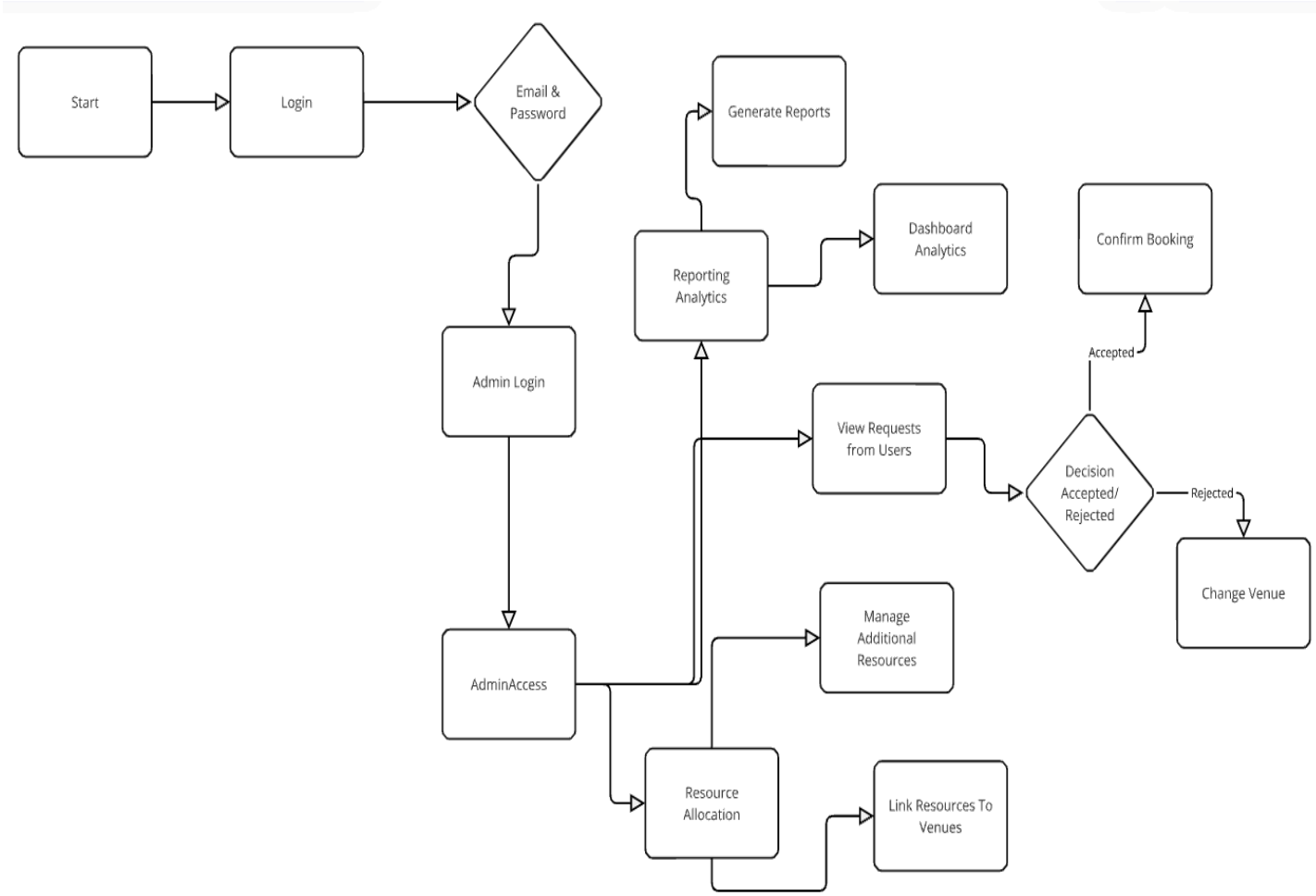
5. **Administrative Features:**
   - Admin users must be able to add, update, or remove venues.
   - Generate reports on venue usage, booking trends, and other relevant metrics.
   - Manage user accounts and permissions.
6. **User Dashboard:**
   - Provide a personalized dashboard for users to view their upcoming bookings and booking history.
   - Display notifications and alerts relevant to the user.
7. **Data Security:**
   - Ensure secure storage and transmission of user data.
   - Implement measures to protect against unauthorized access and data breaches.
8. **Mobile Responsiveness:**
   - Ensure the system is fully responsive and usable on mobile devices.

FLOW CHART:

User Login



Admin Login


Start
Login
Email & Password
Generate Reports
Dashboard Analytics
Confirm Booking
Reporting Analytics
Admin Login
Accepted
View Requests from Users
Decision Accepted/ Rejected
Rejected
Change Venue
Manage Additional Resources
AdminAccess
Resource Allocation
Link Resources To Venues