VENUE MANAGEMENT

Name: Ashwin R D
Roll No: 7376221CS120
Project Id: 12

Problem Statement: Venue Management

Technical Components

Tech stack

Frontend	Angular
Backend	Express.Js, Node.Js
Database	MongoDB
API	Rest Ful API
Deployment	None

TIMELINE OF THE PROJECT:

STAGES	STAGE DESCRIPTION	DEADLINE	STATUS
STAGE 1	Planning and Requirement Gathering		
STAGE 2	Design and Prototyping		Not Started
STAGE 3	Database Design		Not Started
STAGE 4	Backend Development		Not Started
STAGE 5	Integration and Testing		Not Started

1. PROBLEM STATEMENT:

In the real world, many organizations face significant challenges in Venue Management and Booking. Some of these issues are listed below:

- Inaccurate and Inconsistent Booking: Outdated or manual systems cause double bookings, incorrect scheduling, and revenue loss.
- Lack of Visibility and Control: Poor oversight of availability and scheduling leads to underutilized spaces and booking conflicts.
- Challenges with Complex Requirements: Managing diverse client needs and last-minute changes is difficult, especially for large events.
- Limited Expertise and Inefficient Systems: Poor software, inadequate collaboration, and lack of specialized knowledge hinder optimization and scalability.

2. INTRODUCTION:

2.1. Purpose:

The main purpose of the Venue Management and Booking System is to eliminate the manual handling of venue scheduling and automate the booking process, ensuring accurate and efficient management of events and space utilization. This document will define the requirements for a Venue Management and Booking System. This system will help organizations track venue availability, manage bookings, handle client needs, and optimize space usage, ensuring seamless operations and enhanced customer satisfaction.

2.2. Scope of the Project:

The Venue Management and Booking System will provide an automated way of managing various aspects of venue scheduling, event management, and space utilization. It will streamline the booking process, track venue availability, and manage client requirements efficiently. The system will cover the following features:

- Maintain detailed venue information.
- Track real-time booking statuses.
- Manage client and event details.
- Integrate with calendar systems.
- Optimize space allocation.
- Generate reports and insights.

3. OVERALL DESCRIPTION:

3.1 Product Perspective:

A Venue Management and Booking System is required to streamline the scheduling and management of venues. It will offer a centralized platform for managing bookings, client details, and event requirements across various venues and locations. This system will ensure efficient use of space, prevent double bookings, and provide real-time visibility into venue availability and utilization.

3.2 Product Features:

The below mentioned are the features of a Venue Management and Booking System:

- **Booking and Availability Tracking:** Continuous monitoring of booking statuses and real-time updates on venue availability.
- **Client and Event Management:** Manage, create, and oversee client information and event details to ensure all requirements are met.
- **Scheduling and Calendar Integration:** Integrate with calendar systems to provide seamless scheduling and prevent double bookings.
- **Space Utilization and Allocation:** Optimize space allocation for multiple events and adjust bookings to maximize venue usage.

3.3 User Classes and Characteristics:

Administrator: Responsible for registering the venue and managing the venues by giving access to one venue at a time.

Users: The faculties who will request the admin for the venue at a particular time by giving specific details such as faculty name, id and their purpose for the request of venue.

3.4 Operating Environment:

Modern web browsers will be able to access the web-based system. To use and access the programm, you will need a reliable internet connection.

4. FUNCTIONAL REQUIREMENTS:

4.1 Venue Management:

- **Add Venue:** Admin can input venue details including name, description, capacity to add a new venue to the system.
- **Update Venue:** Admins have the capability to modify venue information such as capacity, amenities, and location.
- **Delete Venue**: Admin can remove a venue from the system if necessary.
- **Venue Search:** Faculties can search for venues based on criteria such as location, capacity, or amenities.
- **View Venue Availability:** Faculties can view the availability status of each venue, including booked dates and times.

4.2 Booking Management:

- **Create Booking:** Faculties can initiate bookings for specific dates, times, and venues, assigning client details and event requirements.
- **Process Booking Requests:** Admins can review and approve booking requests, adjusting venue availability accordingly.

4.3 Reporting:

- **Client History:** Information about previous bookings and client interactions is available for admin to review.

4.4 Availability Tracking:

- **Real-Time Availability:** The system tracks venue availability in real-time, updating as bookings are made or cancelled.

5. NON-FUNCTIONAL REQUIREMENTS:

5.1 Performance Requirements:

- **Responsiveness:** The system should provide reasonable response times for tasks such as venue searches, booking confirmations, and report generation.

- **Scalability:** It should support many concurrent users and transactions without significant performance degradation.

- **Scalability:** The system must be scalable to handle increasing user loads and data volumes effectively.

5.2 Security Requirements:

- **Access Control:** Access control mechanisms should prevent unauthorized users from accessing sensitive information and features.

- **Authentication:** User authentication mechanisms should ensure the privacy and integrity of data.

5.3 Usability and User Interface Requirements:

- **Simplicity:** The user interface should be simple, intuitive, and consistent across all modules and functionalities.

- **Error Handling:** Clear error alerts and validation feedback should prevent improper data entry.

- **Training Materials:** Sufficient help files, training materials, and user manuals should be provided to assist users.

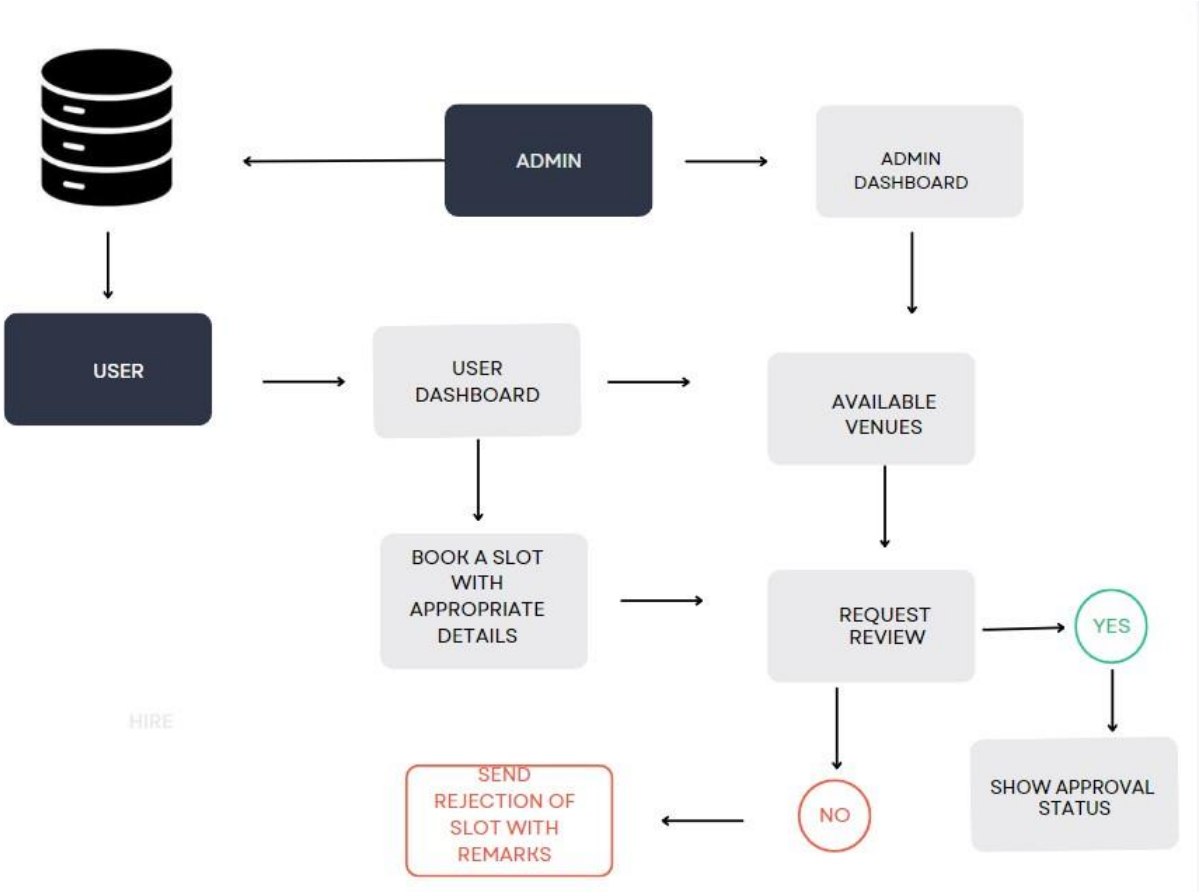
5.4 Reliability and Availability Requirements:

- **High Uptime:** The system should maintain a high uptime with minimal scheduled downtime for maintenance or upgrades.

- **Fault Tolerance:** It must be resilient to errors and capable of recovering gracefully from malfunctions.

- **Redundancy:** Suitable redundancy and failover solutions should ensure continuous availability and business continuity.

FLOW CHART


ADMIN
ADMIN DASHBOARD
USER
USER DASHBOARD
AVAILABLE VENUES
BOOK A SLOT WITH APPROPRIATE DETAILS
REQUEST REVIEW
YES
NO
SHOW APPROVAL STATUS
SEND REJECTION OF SLOT WITH REMARKS