Sports Booking App for Operations Team

Sports Management System Report

College ID: IIT2021271

1. Abstract

The Sports Management System aims to streamline the management of sports activities, including booking facilities, managing user registrations, and overseeing events. The system leverages a MERN stack (MongoDB, Express.js, React.js, Node.js) architecture, providing a robust and scalable solution for sports organizations.

2. Introduction

The increasing popularity of sports and recreational activities necessitates efficient management systems. This project addresses the challenges faced by sports organizations in managing facilities, schedules, and user interactions. By implementing a web-based application, users can easily book facilities, view events, and manage their profiles, enhancing their overall experience.

3. Problem Statement

Many sports organizations struggle with managing bookings, user registrations, and event schedules manually. This often leads to double bookings, confusion among users, and inefficient management of resources. The Sports Management System provides a comprehensive solution to these challenges, enabling seamless operations and improved user satisfaction.

4. Proposed Methodology

4.1 Architecture

The system is built on the MERN stack, consisting of:

- MongoDB for database management.
- Express.js as the backend framework.
- React.js for building the user interface.

- Node.js for server-side scripting.

4.2 Features

- User Registration and Login: Users can create accounts and log in securely.
- Facility Booking: Users can view available facilities and make bookings.
- Event Management: Administrators can create, update, and delete events.
- User Dashboard: Users can manage their profiles, view booking history, and receive notifications.

5. Prerequisites

- Node.js: Version 14 or later.
- MongoDB: Local installation or cloud-based (e.g., MongoDB Atlas).
- Git: Version control for managing the codebase.

6. Setup and Installation

6.1 Cloning the Repository

bash

git clone https://github.com/Gauravjnviit1/Gauravjnviit1-Sports_Management_System.git

cd Gauravjnviit1-Sports_Management_System

6.2 Installing Dependencies

Backend:

bash

cd backend

npm install

Frontend:

bash

cd ../frontend

npm install

6.3 Running the Application

Backend:

bash

cd backend

npm start

Frontend:

bash

cd ../frontend

npm start

7. Deployment

7.1 Backend Deployment

The backend can be deployed using Heroku:

bash

Copy code

heroku create <your-app-name>

git push heroku main

7.2 Frontend Deployment

The frontend can be deployed using Vercel:

bash

Copy code

vercel

8. Assumptions and Limitations

Assumptions

- Users have basic knowledge of web applications.
- Access to the necessary accounts for deployment (Heroku, Vercel).

Limitations

- Requires internet access for cloud-based services.
- Dependency on third-party services (e.g., MongoDB Atlas) for database management.

9. Conclusion

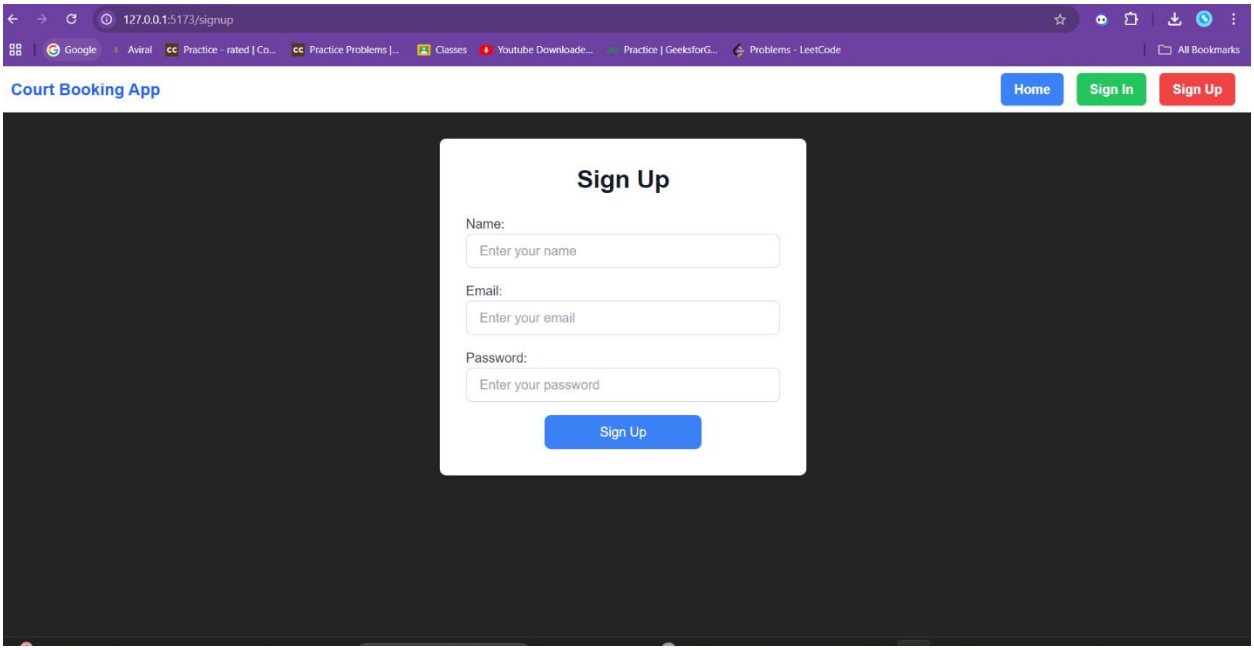
The Sports Management System provides an efficient and user-friendly solution for managing sports activities. By utilizing modern web technologies, it enhances the user experience and simplifies administrative tasks for sports organizations.

10. Links to Deployed Applications

- Frontend Application: https://gauravjnviit1-sports-management-system-2ms7.vercel.app/
- Backend Application: https://gauravjnviit1-sports-management-system.vercel.app/?vercelToolbarCode=CN9ty83SVwF9bq1

8. Conclusion

This booking app is designed to simplify and streamline booking management for sports centers. It prevents double-bookings and enables real-time viewing and creation of reservations, providing an efficient solution for the company's operations team.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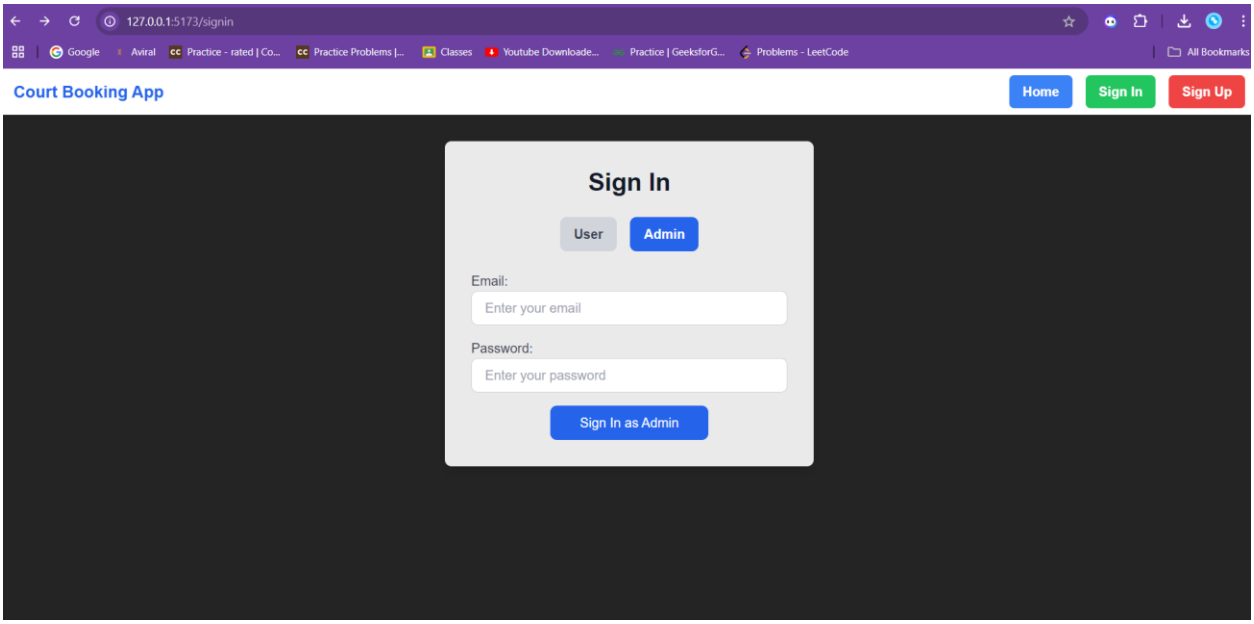
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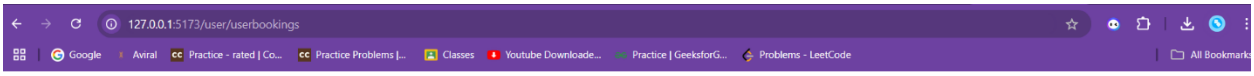

My Bookings

Select a centre

Select a sport

Select a time Slot

Date:

mm/dd/yyyy

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