

Sports Booking Application Report

College ID: IEC2021055

Introduction

This project aims to develop a user-friendly sports booking application for a sports technology company's operations team. The goal is to create a system that allows the team to manage bookings effectively across multiple sports and facilities, enhancing the overall customer experience.

Design Decisions

During the design phase, I focused on creating a robust data model to accurately represent the relationships between various entities, such as centers, sports, courts, and bookings. I opted for a RESTful API structure to facilitate seamless communication between the frontend and backend. For the user interface, I chose [Your chosen frontend framework, e.g., React or Angular], which allows for efficient component-based development and easy state management.

Implementation Details

The backend is built using Node.js with TypeScript, leveraging Express.js to handle routing and API requests. I selected [Your chosen database, e.g., MongoDB or PostgreSQL] for data storage, as it provides the flexibility needed for this application's dynamic nature. The frontend interface was crafted to ensure a straightforward experience for the operations team, allowing them to quickly navigate through available bookings and make new reservations.

Challenges and Solutions

One of the primary challenges I encountered was preventing double bookings on the same court at overlapping times. To address this, I implemented logic that checks for existing bookings before allowing new reservations. Additionally, I aimed to ensure the user interface remained intuitive, even as I incorporated various functionalities. Feedback from early testing sessions helped refine the UI and improve usability.

Future Improvements

Looking ahead, I plan to introduce user authentication using JWT tokens to enhance security. I also envision further refining the UI to improve aesthetics and responsiveness. Additionally, making the application mobile-friendly is a priority to cater to users who may wish to book on the go.

Deployment

The application has been successfully deployed on Vercel. Here are the links to access the deployed applications: [Book My Court \(test-task-psi-five.vercel.app\)](#)