

# Padel Court Booking & Management App

### **Overview**

The Padel Court Booking App is a lightweight, cross-platform solution built to simplify the process of reserving padel courts for players, while giving club owners and administrators robust tools to manage availability, bookings, and user data. Built using the MERN stack and React Native, the app is optimized for real-time availability tracking and secure payment processing, ensuring a seamless booking experience for all users.

## **Problem Statement**

Booking padel courts often involves outdated, manual processes such as calls, spreadsheets, or inconsistent scheduling platforms. This creates friction for players and makes it difficult for club owners to manage court usage, availability, and payments in real-time. There was a need for a streamlined, modern app focused purely on essential booking and management features.

### Solution Offered

We developed a minimalistic yet powerful booking app tailored for both players and court managers. Players can search and book courts with real-time availability, while club owners can manage court schedules, view bookings, and receive payments in advance. An admin dashboard enables centralized oversight of users, bookings, and analytics. The platform focuses on speed, simplicity, and mobile-first usability, omitting secondary features like chat and reviews in the MVP phase to maintain focus.

# **Core Features**

- **★** Rea For Players l-time API integrations for flights, hotels, and activities via Duffel
  - Search and view padel court availability in real time
  - Book courts with advance payment
  - Manage bookings and receive confirmation notifications
- ★ One-click booking for flights, stays, and experiences
  - Add, edit, and remove courts
  - Update court availability and review player bookings
  - Access user details and court-specific schedules
- **Admin** panel to manage users, bookings, and analytics
  - Manage all users, bookings, and court records
  - Control global app settings and view usage statistics

## **Technical Challenges**

### • Real-Time Availability Sync

Built a real-time data sync mechanism to prevent double bookings and ensure instant court availability updates.

#### • Scalable System Architecture

Designed a modular and scalable backend using the MERN stack to handle growing user and club traffic without performance drops.

.47 =

### • Secure Payment Integration

Integrated reliable payment gateways with encryption and validation for upfront payments.

## Conclusion

This Padel Court Booking App delivers a fast, reliable, and easy-to-use platform for both players and club owners. Focused on the core features of real-time availability, booking management, and secure payments, the solution enhances operational efficiency and user satisfaction while remaining scalable for future enhancements.

## **Screenshots**

9.41	241	9:41
------	-----	------

