IQRA University, Islamabad, Chak Shahzad

Project Proposal
(SCOPE DOCUMENT)

For

Frustal Field Reservation System
By

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4-Week Progress Report for Futsal Field Reservation System

Date: [20-03-2025**]**
Submitted By:
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Supervisor:
 Mam Nazish Bashir
Project Title:
 Futsal Field Reservation System

Week 1: Project Initialization and Database Setup

Environment Setup:
Installed and configured Node.js, Express.js, and MongoDB.

Database Design:
 Created schemas for Users, Grounds, Bookings, and Teams using Mongoose.

API Development:
 Developed basic routes for user authentication (login/signup).

Supervisor Review:
Presented the initial setup and authentication flow.

Outcome: Successful database connection and user management implementation.

Week 2: Ground Booking System Implementation
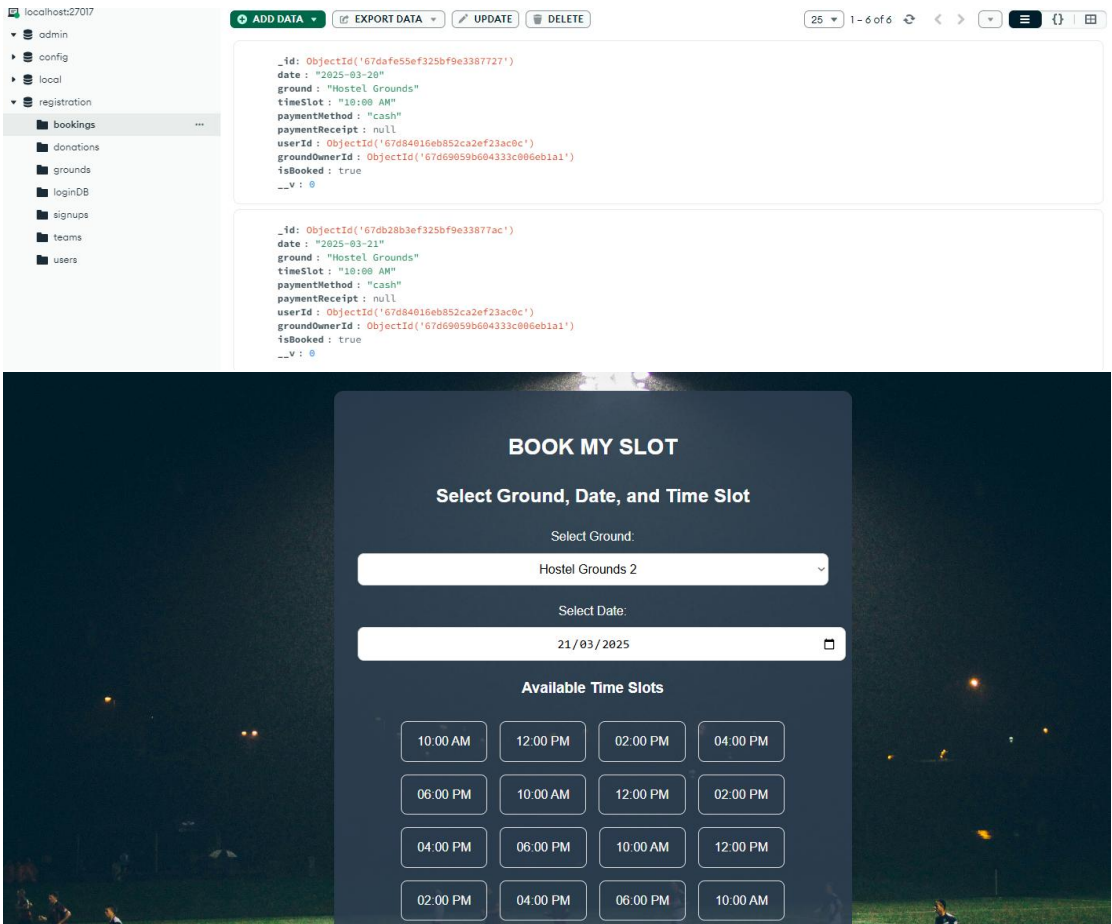
Ground Management:
Developed APIs for ground owners to add, edit, and delete grounds.

Booking Module:
Implemented real-time ground availability checks and booking confirmation using MongoDB.

Notification System:
Added basic booking confirmation messages.

Supervisor Feedback:
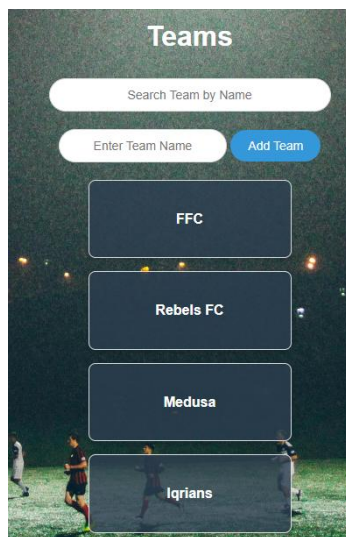 Demonstrated the ground booking process.

Outcome: Ground booking functionality is operational with validation in place.

Week 3: Team Data Management

Team Creation:
 Added functionality for users to create and manage teams.

Data Storage:
All team information is securely stored in the database.

Supervisor Approval:

 Displayed a working demo of the team management module.

Outcome: Team data management

Week 4: Planning for AI Chatbox and Graphical Dashboard
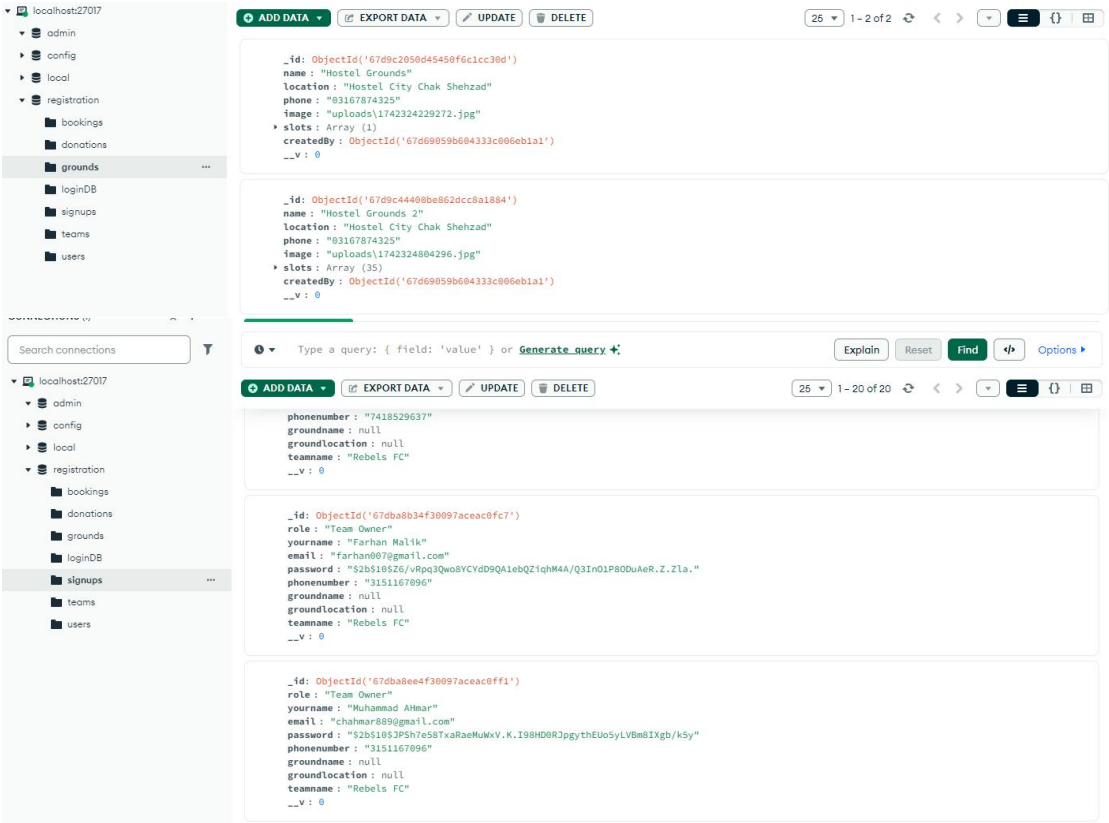
AI Chatbox Planning:

Researched options for integrating an AI-based chat system using NLP.

Planned to use Socket.IO for real-time chat functionality.

Graphical Dashboard Design:

Designed a prototype for a dashboard.

Visual representation of booking statistics, user activity, and team performance.

Supervisor Input: Discussed and received approval for the AI chatbox and dashboard development.

Outcome: Finalized the plan for the next phase of implementation.

Next Steps:

AI Chatbox Development: Integrate an AI-powered chatbox for smooth communication between ground owners and users.

Graphical Dashboard Creation: Visualize system data through interactive charts and graphs.

Advanced Notifications: Implement reminders and alerts for upcoming matches and bookings.

Feedback Integration: Apply supervisor's suggestions to enhance user experience.

Conclusion:

Significant progress has been made with the implementation of user authentication, ground booking, and team management. The next phase will focus on enhancing user experience with the AI chat-box and a graphical dashboard.

Prepared By:

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