

Final Year Project Proposal

For probably the first time in your undergraduate/graduate program, you are required to defend a proposal for a larger project. In teams, you will be working on the common project but individual team members will be required to take on responsibilities for specific work for which each will be held accountable. Interaction, collaboration, and assistance are allowed and expected, but each person will receive an individual mark/grade for his/her work performed in the project.

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| **PROJECT TITLE:** | Ground Finder |
| **KEYWORDS:** | BookKaro, Ground, Bookme, BookMySpot |
| **DOMAIN OF THE PROJECT:** | Mobile App |
| **SUPERVISOR’S NAME:** | Miss Zain Noreen |

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| **STUDENT INFORMATION** | | | |  |
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| **PROBLEM STATEMENT** |
| GroundFinder aims to address the challenge of efficiently booking sports grounds by providing a user-friendly platform for both ground owners and sports enthusiasts. Our mission is to streamline the process of discovering, booking, and managing sports facilities while fostering a sense of community and competition. |
| **EXECUTIVE SUMMARY** |
| GroundFinder is a pioneering sports ground booking platform created to revolutionise the accessibility and preservation of sports facilities. Our mission is to simplify the process of discovering, booking, and managing sports grounds across a variety of categories, including football, cricket, and futsal. GroundFinder offers an intuitive mobile app for users and an admin panel for ground owners, streamlining operations and enhancing user experiences. With features such as dynamic booking, multiple game options, and community engagement, GroundFinder is poised to transform the sports ground booking industry. Our platform empowers users to book full or half courts, even without an opponent, while fostering a sense of community through exciting tournaments. GroundFinder's innovative approach ensures a hassle-free and engaging experience for sports enthusiasts, ground owners, and the entire sports community. |

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| **INTRODUCTION** |
| In today's fast-paced world, sports and physical activity play a vital role in promoting health and well-being. The accessibility and efficient management of sports grounds are paramount to facilitate and encourage community engagement in physical activities. GroundFinder emerged as a response to the pressing need for a user-friendly and comprehensive solution to address the challenges in booking sports facilities across various categories, including football, cricket, and futsal. |

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| **Literature Review** |
| Through our comprehensive literature review, we have uncovered compelling insights. Specifically, we have identified the specialized nature of platforms like Cricfare and Cricgroundmap, which primarily concentrate on cricket ground booking. Contrasting these specialized platforms is the innovative groundfinder app under development, marking a paradigm shift by offering a broader perspective of sports grounds, transcending the boundaries of specialization. While Cricfare and Cricgroundmap excel in cricket-specific services, the groundfinder app emerges as a pioneering platform with a generic approach, aiming to encompass all types of sports grounds. |

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| **COMPETITORS/COMPETITIVE ANALYSIS** |
| No competitors right now in Pakistan. We have a first-mover advantage. |

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| **OBJECTIVES** |
| 1. Create a standalone mobile application that facilitates direct interaction between end-users and ground owners. 2. Develop a user-friendly mobile app that empowers users to easily browse and book sports grounds according to their preferences. 3. Implement an intuitive admin panel for ground owners to efficiently manage and update their ground listings and schedules. 4. Ensure real-time availability information to improve the booking experience for users and ground owners. 5. Foster a sense of community by enabling users to connect, organise events, and participate in tournaments. 6. Provide a comprehensive solution that simplifies the process of discovering, reserving, and maintaining sports facilities. 7. Enhance the overall sports ground booking experience, making it hassle-free and engaging for both end-users and ground owners. 8. Promote the health and well-being of the community by promoting physical activity and sports engagement through easy ground access. |
| **MOTIVATION** |
| GroundFinder's significance lies in addressing the growing need for efficient sports ground booking and management. It promotes healthier lifestyles by ensuring accessible sports facilities, particularly in urban areas. By fostering community engagement and delivering a user-friendly digital solution, GroundFinder taps into the potential of technology to simplify sports ground access and enhance the well-being of users and communities. |

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| **FEATURES OF PROJECT** |
| 1. **User Registration and Profile Management**    1. User registration via email, Gmail, or Facebook.    2. User profile creation and management.    3. Personalised user profiles with preferences and history. 2. **Ground Owner Dashboard**    1. Admin panel for ground owners to manage listings.    2. Add, edit, and remove ground listings with details.    3. Set availability schedules and pricing. 3. **Dynamic Booking System**    1. Real-time availability of sports grounds.    2. Users can browse and select available grounds.    3. Booking confirmation and reminders sent to users and ground owners. 4. **Half or Full-Court Booking**    1. Users can book either half or full courts/fields.    2. Option to find opponents for half-court bookings. 5. **Community Engagement**    1. User-generated events, tournaments, and competitions.    2. Social features to connect with fellow sports enthusiasts.    3. Participation in sports events organised within the community. 6. **Search and Filter Functionality**    1. Advanced search options to find specific sports facilities.    2. Filters based on location, sports category, price, and availability.    3. Location-based services to locate nearby sports grounds. 7. **Rating and Review System**    1. User reviews and ratings for sports facilities.    2. Ground owner ratings based on user experiences.    3. Enhances trust and transparency in the platform. 8. **Secure Payment Integration**    1. Integration with secure payment gateways.    2. Handling of payments for booking sports facilities.    3. Transparent and efficient payment processes. 9. **Notifications and Alerts**    1. Push notifications for booking confirmations, reminders, and updates.    2. Email notifications for account activity and community events.    3. Keeps users and ground owners informed. 10. **Admin and Content Management**     1. Admin dashboard to manage user accounts and content.     2. Content moderation and reporting system.     3. Ensures a safe and secure user environment. 11. **Analytics and Reporting**     1. Data analytics for user behaviour and usage patterns.     2. Performance insights for ground owners.     3. Continuous improvement of the platform based on data-driven decisions. |

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| **ARCHITECTURAL DESIGN** |
| **Hardware Components:**  User Devices: Mobile devices and web browsers used by users for accessing GroundFinder.  **Software Components:**  Mobile and Web Applications: GroundFinder's user and admin interfaces are developed using React Native and React.js for mobile and web, respectively.  **Design:** |

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| **IMPLEMENTATION TOOLS AND TECHNIQUES** |
| 1. Requirements Analysis: Understand the specific needs of users and ground owners, and define detailed requirements for each feature. 2. Design: Create user interface (UI) and user experience (UX) designs to ensure a user-friendly and visually appealing application. 3. Development: Implement the mobile and web applications, server logic, database, and integration with third-party services using technologies such as React Native, React.js, Node.js, Express.js, and MongoDB. 4. Testing: Perform extensive testing, including unit testing, integration testing, and user acceptance testing, to identify and resolve any issues. 5. Deployment: Deploy the applications and server components to a production environment with cloud hosting or dedicated servers. 6. Frontend Development:    1. React Native for the mobile application.    2. React.js for the web application.    3. HTML, CSS, and JavaScript for front-end development. 7. Backend Development:    1. Node.js and Express.js for server-side logic.    2. MongoDB for data storage, ensuring scalability and flexibility. |

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| **PROJECT PLAN** |
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| **REFERENCES** |
| 1. Youtube.com 2. Google.com 3. Cricfare.com 4. Cricgroundmap.com |

**Supervisor’s Signature: - FYP-Coordinator’s Signature: -**