

Revolutionizing Sports Management with a Cutting-Edge Application

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Abstract

This project aims to create a sports mobile application tailored for college settings, addressing the need for efficient sports management and engagement within educational institutions. The mobile app will offer a comprehensive platform for students, staff, and sports enthusiasts to access sports-related information, schedules, and resources. It will include features such as event schedules, team management, user profiles, real-time notifications, and social interaction elements. The application will be designed to enhance user experience, encourage participation in sports activities, and promote a sense of community and healthy competition on college campuses. The project will leverage modern mobile app development technologies and best practices to deliver a user-friendly, reliable, and feature-rich solution to meet the specific sports management requirements of colleges.

Keywords: Educational Institutions; Mobile Application; Sports Management; Sports Enthusiasts; User-Friendly;

1. Introduction

Sports have been an integral part of college life, promoting physical well-being, teamwork, and community engagement. Colleges and universities around the world are home to a myriad of sports activities, including competitive teams, intramural leagues, and a vibrant fan base. However, managing these sports-related functions efficiently can be a challenging endeavor. Coordinating teams, events, athlete development, and fan engagement demands a systematic and well-structured approach. Sports management encompasses a wide range of functions, including event planning, facility management, and fan engagement. Coordinating these diverse aspects of the sports world is a complex and challenging task that requires a well-organized and integrated approach. To address these challenges and streamline sports management processes, the development of a modern sports management app is proposed.. This app will leverage technology to provide a comprehensive and user-friendly platform for managing sports-related activities efficiently and effectively. To bring sports management into the digital age, we propose the development of a comprehensive Sports Management App tailored specifically for college campuses. [1]

2. Proposed Techniques

2.1. In-App Layers Communication

In-App Players Communication is a critical feature that enables players to connect with their teammates and coaches directly within the sports management app. It provides convenient platform for players to share updates, discuss strategies, and coordinate practices and game-day preparations. [2]

2.2. Practice and Training Plans

Practice and Training Plans are a fundamental aspect of sports development, allowing coaches to design and schedule training sessions tailored to specific goals. Coaches can create detailed training regimens, directly within the app. [3]

2.3. Performance Tracking

Performance Tracking empowers players and coaches to monitor and analyze performance metrics, such as speed, endurance, and skill proficiency. The feature records data during practices and competitions, enabling comprehensive assessments of strengths and weaknesses. [4]

2.4. Trainer and Coach Management

Trainer & Coach Management simplifies the process of managing coaching staff and trainers, helping sports organizations ensure that their teams receive expert guidance. The system can assign coaches to

specific teams and manage their schedules and competition. [5]

2.5. Resource Management

Equipment & Resource Management streamlines the organization and allocation of sports facilities, equipment, and resources. It enables colleges to manage equipment inventories, track maintenance schedules, and optimize resource usage. [6]

2.6. Ticketing and Scheduling

Ticketing and Scheduling is crucial for the effective management of sports events, whether they are college games or competitions. The feature allows event organizers to create event schedules and allocate venues, making it easy for fans to check game times and locations. [7]

2.7. Player Health Management

Player Health Management is focused on ensuring the well-being and safety of players throughout their sports journey. It enables players to record and monitor their health, including injuries, and coaches can organize diet plans.

3. Implementation Details

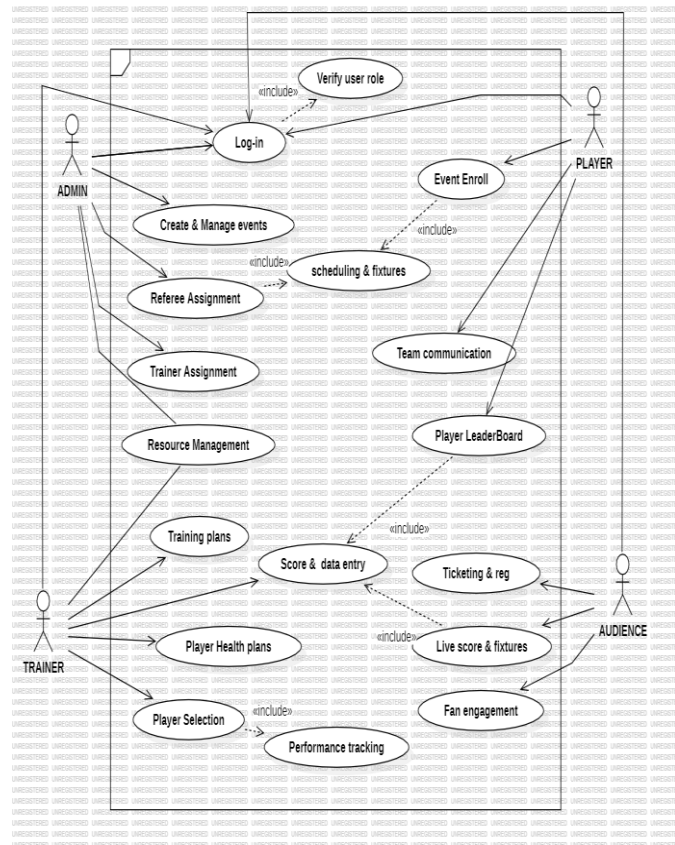


Figure 1 Use Case Diagram

Figure 1 shows Implementation of the College Sports Management App project will focus on transforming the project's design and planning into a fully functional and user-friendly system. The cross-platform mobile application using flutter framework will be developed to ensure compatibility with both iOS and Android devices. Development will follow established coding standards and best practices to craft the apps front-end and back-end. The database structure, designed during the planning phase, will be realized. Database management systems such as MySQL or PostgreSQL will be employed to create the necessary tables, relationships, and indexes. [8]

3.1. Core Users

The College Sports Management App is designed to serve a diverse range of audiences within the college environment, including:

- Student-athletes and team members.
- Coaches, trainers, and sports administrators.
- Sports fans and supporters.

The app will cater to these distinct user groups, providing role-specific access and features tailored to their needs.

3.2. Implementation Flow

As the first phase of the project implementation is concerned with the registration module and the audience module, the features for the audience user include user registration, view game fixtures, event registration and live score tracking. The first phase of the project involves creating multiple user interface screens. This includes creating a splash screen, login screen and sign-up screen and the home screen for the audience module. [9]

4. Results

The implementation of the College Sports Management App has culminated in a comprehensive and user-friendly sports management system tailored for college environments. This chapter presents an overview of the achieved results, including system functionality, and notable outcomes. [10]

4.1. Splash Screen

The Figure 2 represents the outcome of the splash screen of the application. This is the on-boarding screen of the application where it lives for some initial period of time.

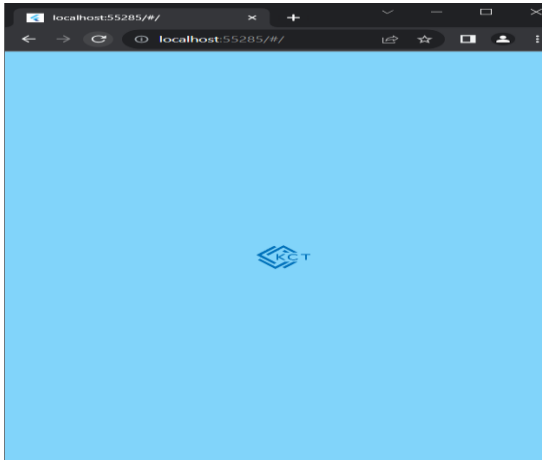


Figure 2 Splash Screen

4.2. User Registration

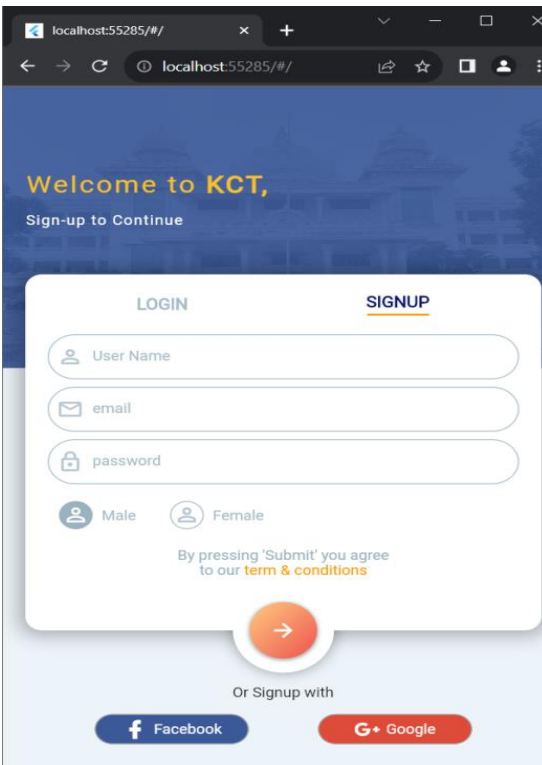


Figure 3 Signup Screen

The Figure 3 shows the sign-up screen of the application. The new users directed to the sign-up screen where they can create an account by giving the required details. Once they have registered they will be redirected to the sign-in screen. The new users directed to the sign-up screen where they can create an account by giving the required details. Once they have registered they will be redirected to the sign-in screen. The Figure 4 represents the login screen

where all the registered users will be redirected here and once they make a successful login they will be redirected to the home screen.

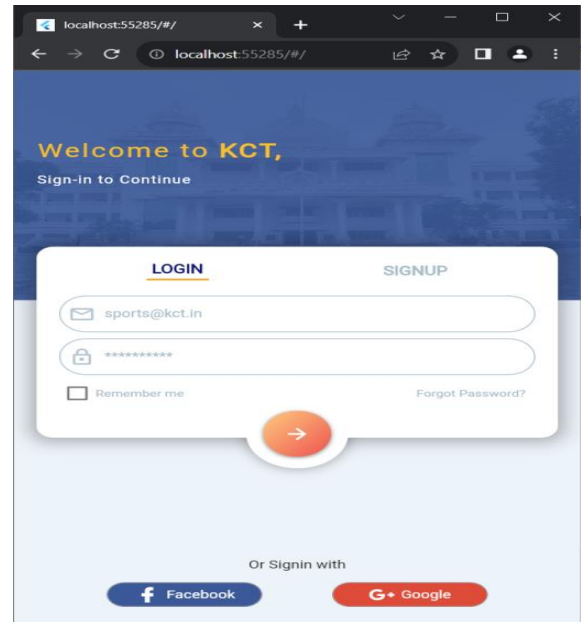


Figure 4 Login Screen

4.3. Home Screen

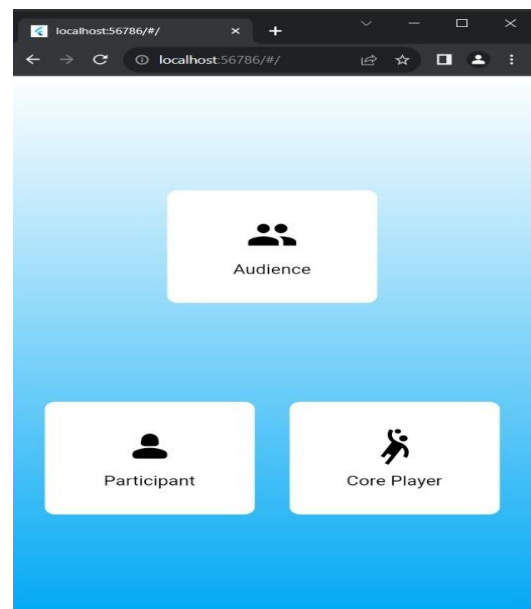


Figure 4 Home Screen

The Figure 5 shows the home screen of the application where once the login is successful every user will be re-directed here. In the home screen by clicking the role of the user it will be navigated to their respective screens.

4.4. Audience Screen

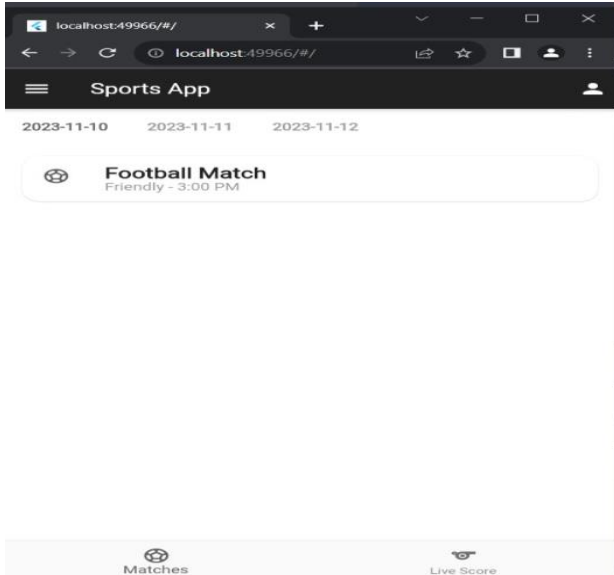


Figure 6 Audience Screen

The Figure 6 shows the home screen of the audience where, if the user is audience they will be redirected here. Figure 8 shows the bottom navigation screen shows the functionality of the audience such as view matches and live score.

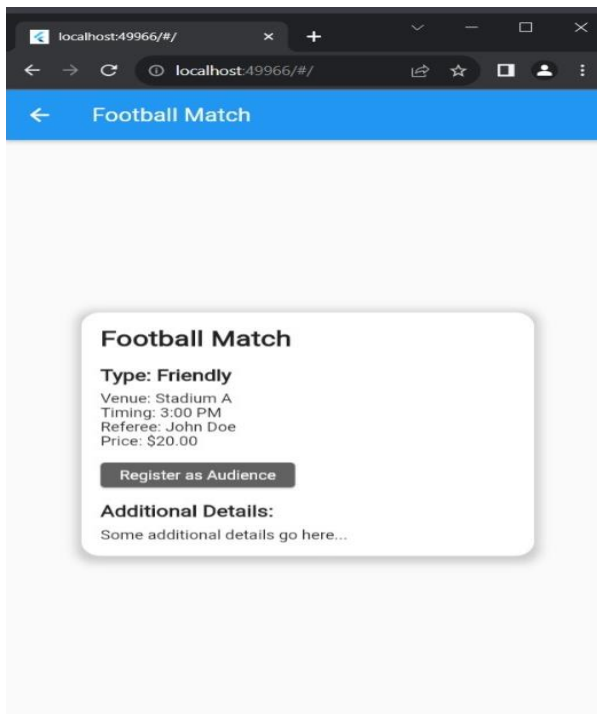


Figure 7 Match Screen

The Figure 7 shows the matches screen where the ongoing matches, upcoming matches will be displayed and along with that match description, fixtures and schedules of the match, registration for a match and the live score option will be displayed.

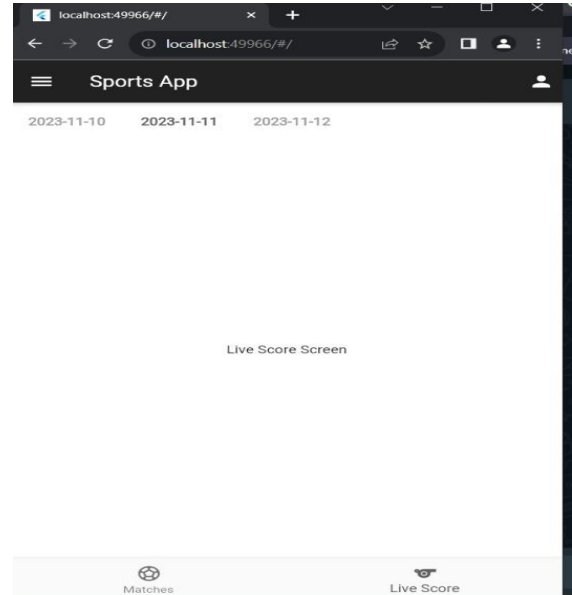


Figure 8 Live Score

Conclusion

The Sports Management App represents a significant milestone in the world of sports administration, sports development, and audience engagement. This project, which aimed to create a user-friendly, and data-driven platform, has successfully addressed the unique needs of audience and sports enthusiasts. It underscores the commitment to ongoing improvement and adaptation to meet the ever-changing needs of the sports community.

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