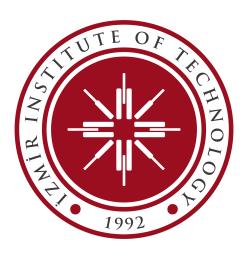
CENG318 Human Computer Interaction Spring 2023

Project Title: Wire Sports App Group 15 Final Report

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Abstract

WIRE is a responsive web-based application that has evolved into a social platform for sports enthusiasts to create, search, share, and join sports events within their local communities. This report provides an overview of the project's scope, methodology, and outcomes. The project's focus shifted from team and league management to facilitating seamless participation in sports events organized by users. The methodology involved selecting frameworks like React and utilizing Firebase for the back end. Related works in sports team management and social platforms for sports communities are reviewed. Preliminary experiments and results are discussed. WIRE empowers users to actively engage in local sports events, fostering social connections and providing a competitive medium. The report concludes with insights and future directions for enhancing WIRE's functionality and user experience.

1 Introduction

WIRE is a responsive web-based application designed to cater to the needs of sports enthusiasts by providing a platform for creating, searching, sharing, and joining sports events. The primary objective of WIRE is to facilitate seamless participation in various sports activities within the local community. With WIRE, users can easily discover and engage in sports events created by fellow users, fostering social connections and providing a competitive medium for sports enthusiasts.

The initial emphasis on generating athlete or fan profiles, joining or creating sports teams, and competing with other teams has been shifted in response to changing project requirements. Instead, the focus is now on making it simple for users to create, search for, share, and participate in sporting activities that the platform's users have arranged. In order to better match with the current objectives of delivering a streamlined experience based around particular sports events, the creation of sports teams and leagues has been discontinued.

By adapting to the refined project scope, WIRE aims to empower sports enthusiasts to discover and participate in a wide range of sports activities, fostering a vibrant and engaging sports community within the platform.

2 Literature Review

In the current market, various sports team management applications, including TeamSnap, SportEasy, and LeagueApps, are available. These applications primarily focus on providing teams with tools for managing schedules, rosters, and communication. However, they lack emphasis on fostering the social aspect of the sports community.

On the other side, the Nike Training Club app and Strava are excellent at monitoring individual progress and upholding individual sporting routines. They are well-known in these fields, but they fall short when it comes to team sports and setting up events for individuals to participate in.

In the product offerings page, Nike (2021) does not mentions any features specifically designed to enhance the social aspects of sports. The focus appears to be primarily on tracking individual progress and providing personal training experiences. Similarly, in the features page published by Strava (2020), there is no indication of offerings specifically tailored for team-based sports such as football or baseball. The emphasis of Strava seems to be on individual activity tracking and performance analysis.

In his article, Chenghao (2018) emphasizes the significance of social media in establishing relationships, reducing marketing costs, and increasing engagement for athletes, sports organizations, and fans. Additionally, Maryville (2020) mentions that athletes can leverage social media to raise awareness about social issues. However, these existing apps fail to prioritize the social aspect of sports communities.

WIRE distinguishes itself from its rivals by emphasizing the social component of sports teams and leagues. WIRE, in contrast to other apps, makes it simple for users to get in touch with nearby athletes and supporters. Additionally, WIRE is more user-friendly and available for local interactions because it enables users to build leagues and teams without the requirement for lengthy official documentation. WIRE sets itself apart from other sports team management apps on the market by putting a strong emphasis on social interaction and community development.

3 Methodology

The final version of the project adopted a specific methodology for the development of WIRE. The following steps outline the approach taken:

1.Evaluation of Frameworks and Technologies: Different frameworks and technologies were tested initially to determine the most suitable ones for the project's needs. After careful consideration, React was chosen for the front end, utilizing packages like router and icons to enhance functionality. For the back end, a comparison was made between SQLite, node.js, and Firebase, and ultimately Firebase was deemed the most appropriate due to its robust features and ease of implementation.

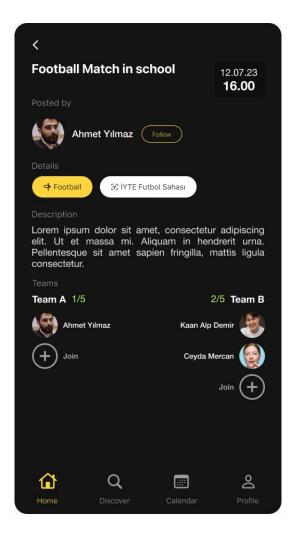
2.Design Process: We used Figma as the design tool to create the visual layout of the application. Continuous refinements and changes were made to improve the user interface and experience.

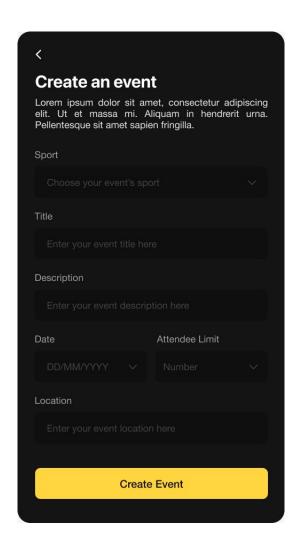
3.Iterative Development: We embraced an iterative development process, with regular meetings held after significant development milestones. This allowed for the collection of feedback, necessary adjustments, and ensured that the application met the users' needs.

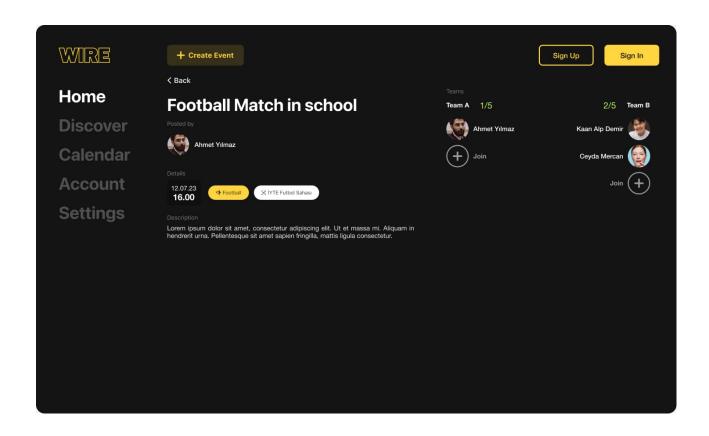
4. Transition from Android Development: Due to time constraints and falling behind schedule, the decision was made to prioritize other aspects of the project, leading to the discontinuation of Android development.

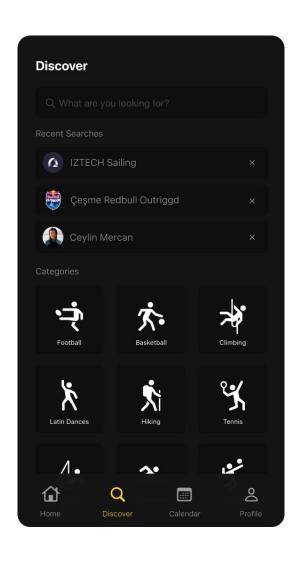
React and Firebase were picked for front-end and back-end development, respectively, as part of the methodology's thorough selection of frameworks and technologies. In order to assure continual progress, an iterative strategy was used along with regular meetings. To satisfy project limits and produce a high-caliber application, strategic choices were made, such as concentrating on Firebase and ceasing Android development.

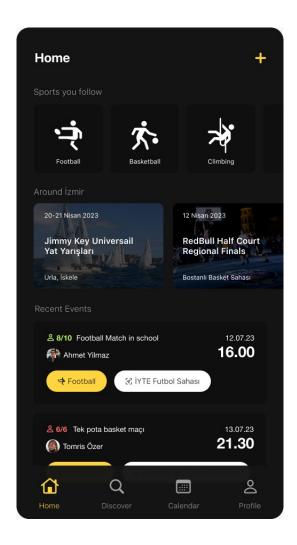
4 Experimental Results











5 Conclusions and Future Works

The project has reached significant milestones in developing the WIRE application, which has evolved into a social platform for sports enthusiasts to create, search, share, and join local sports events. The Introduction section provided an overview of the project's aim and objectives, emphasizing the importance of fostering social connections and providing a competitive medium for sports enthusiasts. The Literature Review section discussed existing sports team management applications and highlighted the gap in emphasizing the social aspect of sports communities.

The Methodology section outlined the approach taken in selecting frameworks and technologies, focusing on React for the front end and utilizing Firebase for the back end. The iterative development process and user-centered design principles ensured the application's intuitiveness and usability. The transition from team-based features to event-focused functionality allowed for a streamlined user experience.

The Experiment Results section showcased the outcomes of preliminary experiments conducted during the development process. The decision to prioritize the creation, search, sharing, and joining of sports events was supported by user feedback and aligns with the project's refined objectives. The utilization of React and Firebase demonstrated their effectiveness in achieving the desired functionalities.

The work carried out in this project is important and provides value to the literature, industry, and market. By emphasizing the social aspect of sports communities, WIRE addresses a gap in existing sports team management applications. This unique focus on creating, searching, sharing, and joining sports events within local communities promotes social connections among sports enthusiasts and enhances their engagement in sports activities.

Future Works:

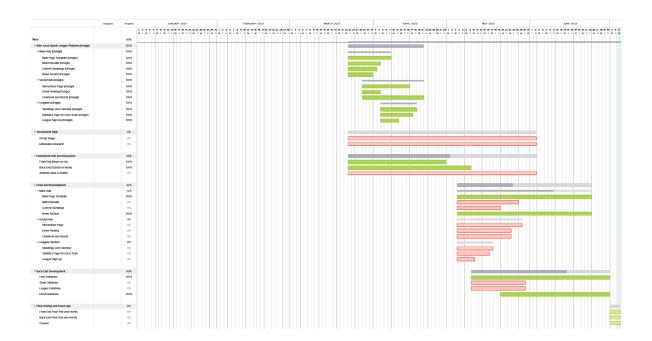
For further processes, several avenues for future development and enhancement of WIRE can be explored. We can incorporate advanced search filters and personalized recommendations based on user preferences can enhance the event discovery experience. Also, integrating social features such as user profiles, activity feeds, and messaging functionality can further foster community engagement.

Furthermore, expanding the platform to support multi-sport events and integrating additional payment gateways for event registrations can increase its versatility and user convenience. Continual usability testing and feedback collection will be crucial in refining the application's user interface and addressing any pain points.

Lastly, WIRE can be promoted inside target communities by looking into relationships with local sports organizations, sponsors, and community leaders, which will increase its user base and overall impact. WIRE will continue to be a vital and pertinent platform for sports aficionados with regular upgrades and changes based on user feedback and cutting-edge technologies.

In conclusion, the development of WIRE as a social platform for sports events has demonstrated its potential in addressing the needs of sports enthusiasts and fostering community engagement. The project's future endeavors will focus on further enhancing the application's features, expanding its reach, and delivering an exceptional user experience.

6 Weekly Schedule/Project Plan



References

Chenghao, M. (2018). The Impact of Social Media in Sports. SportDigest.

Maryville, U. (2020). Social media in sports: Does tech help or hurt sports culture?

Nike, I. (2021). What does nike training club offer?

Strava, I. (2020). Strava features.