Sports Performance Analytics App and Dashboard Design Document

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Introduction

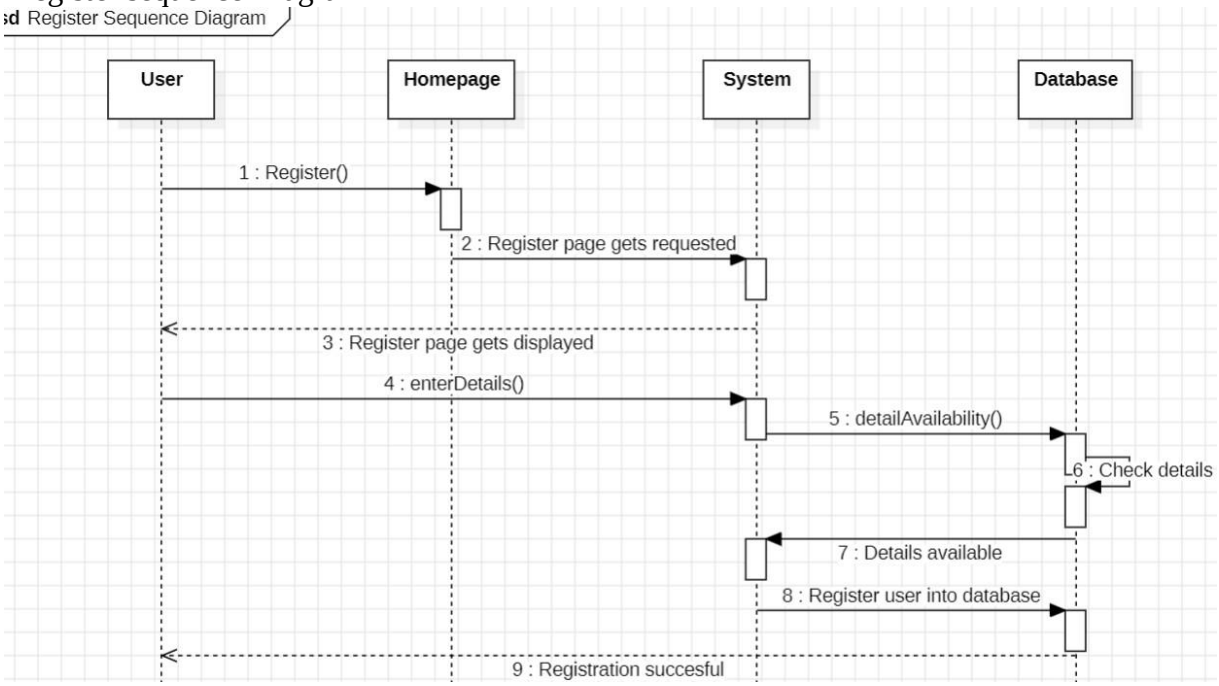
This system will give a high-level overview of the Sports Performance Analytics App and Dashboard's modelling and design in this section. The application's structure and functionality are explained in part by the design documentation. It lists the main features and navigational elements that make up the functionality of the application.

Application Model

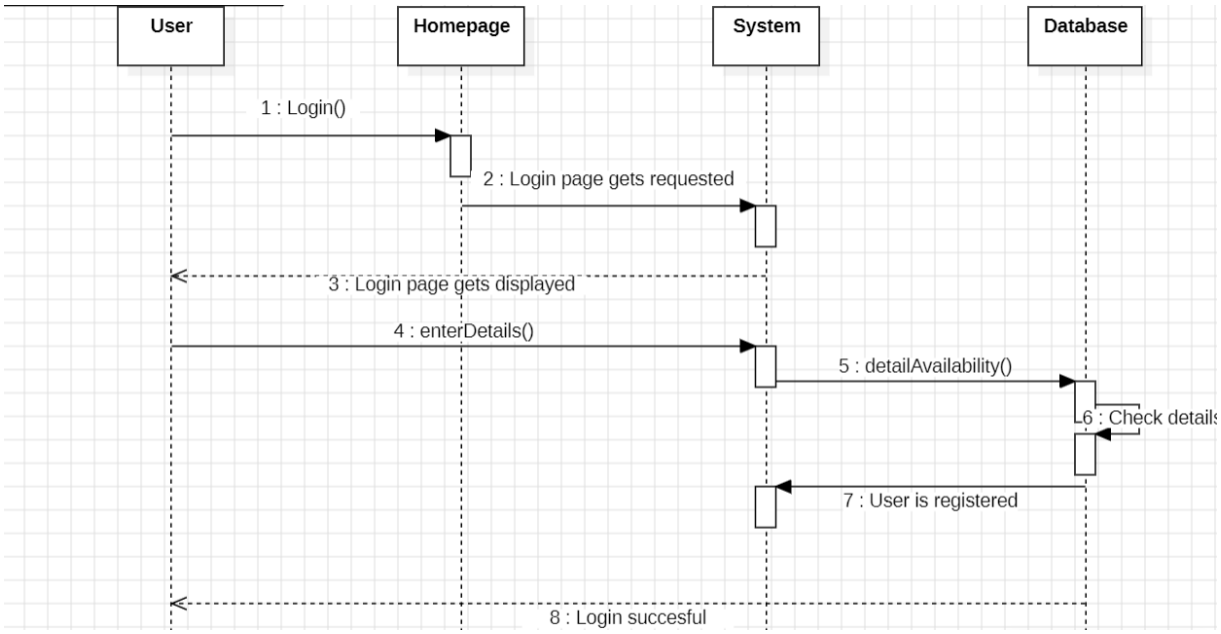
System Architecture: The client-server architecture of the application is used. It consists of a client-side component that facilitates user interactions across several platforms and a serverside component that handles data processing and storage.

Sequence Diagrams

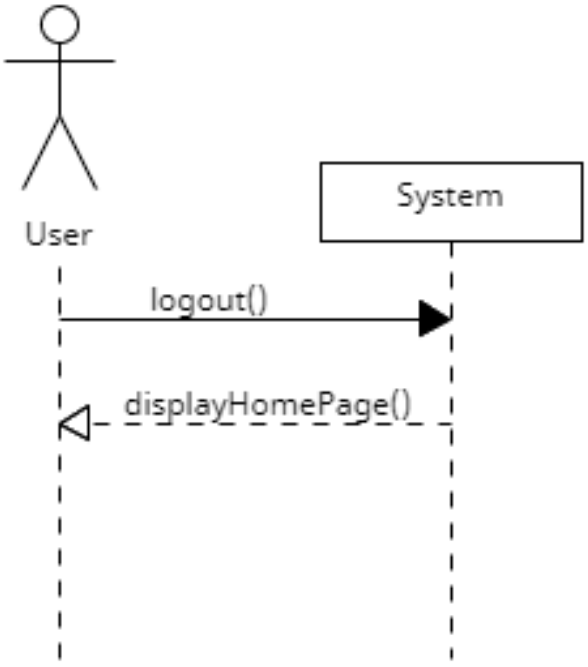
Register sequence Diagram



Login System Sequence Diagram



Logout Sequence Diagram



User Interfaces

Multi-Platform GUI: The application aims for a consistent, user-friendly interface across multiple platforms, including desktop and mobile.

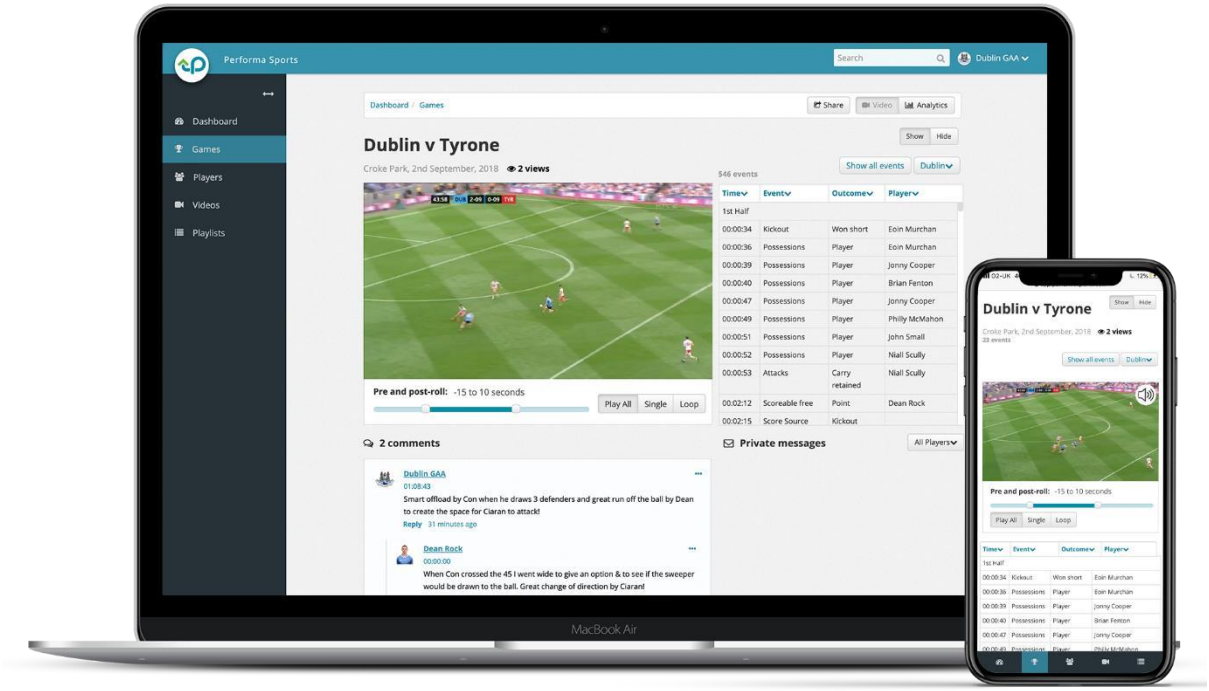


Figure 1Prototype [*Performance Analysis Game Changer | Performa Sports*]

Navigation Sequence

- Homepage: Users start at the homepage, offering a dashboard view of available functions.
- Login/Registration: New users can register, or existing users can log in.
- Data Analysis: Users upload sports performance data for analysis.
- Visualisations: Data is processed, and users can view various visualisations.
- Video Analysis: Additional functionality to process and analyse video data.
- Profile Management: Users can access and edit their profiles.
- Feedback and Support: A section where people can ask for help or offer feedback.
- Data Storage and Retrieval: Functions for secure data storage and retrieval.
- Data Sharing and Collaboration: Allows for users to share data and collaborate with others.
- Log Out: Allows users to log out of the application.

Architectural Components

Client-Side: The user interface is provided by the client-side application component, and it communicates with the server-side component.

Server-Side: This part of the system handles requests from the client-side application and processes and stores data in a secure manner.

Database Backend: Data is reliably stored in a relational database.

Web server: in charge of providing web content and letting the client-side and server-side components communicate with one another.

Prototype User Interfaces

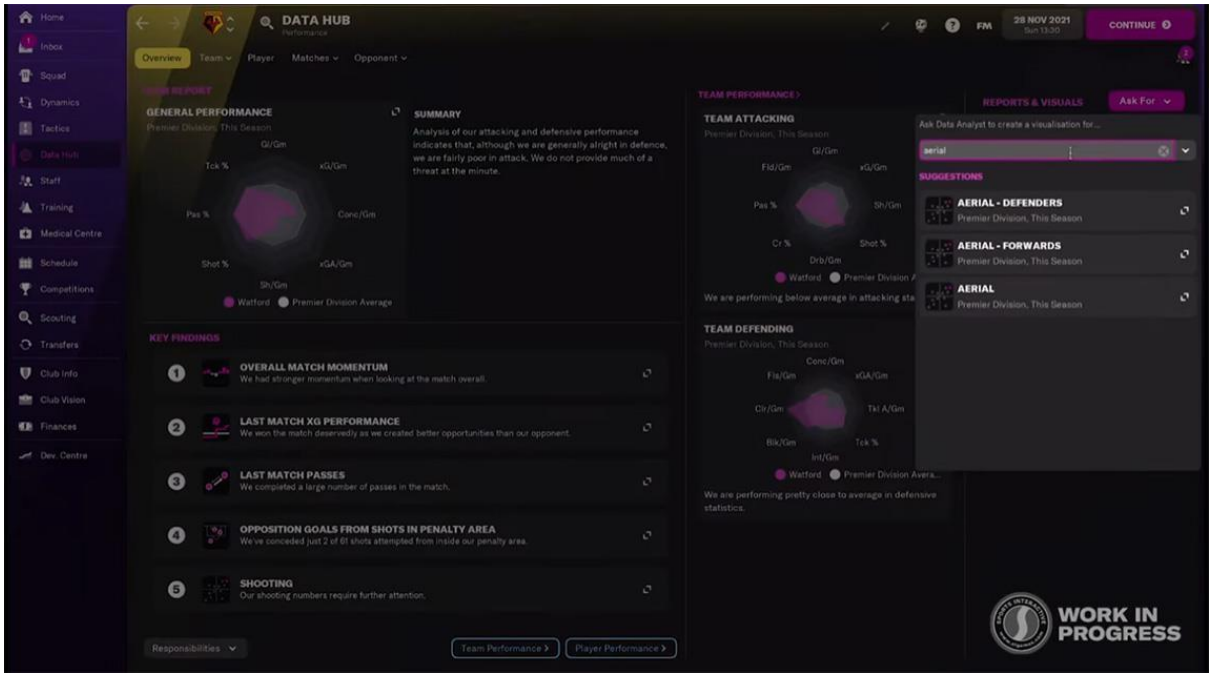


Figure 2

In figure 2 we can see from the coach perspective, Requesting feedback and Visuals from his analyst.

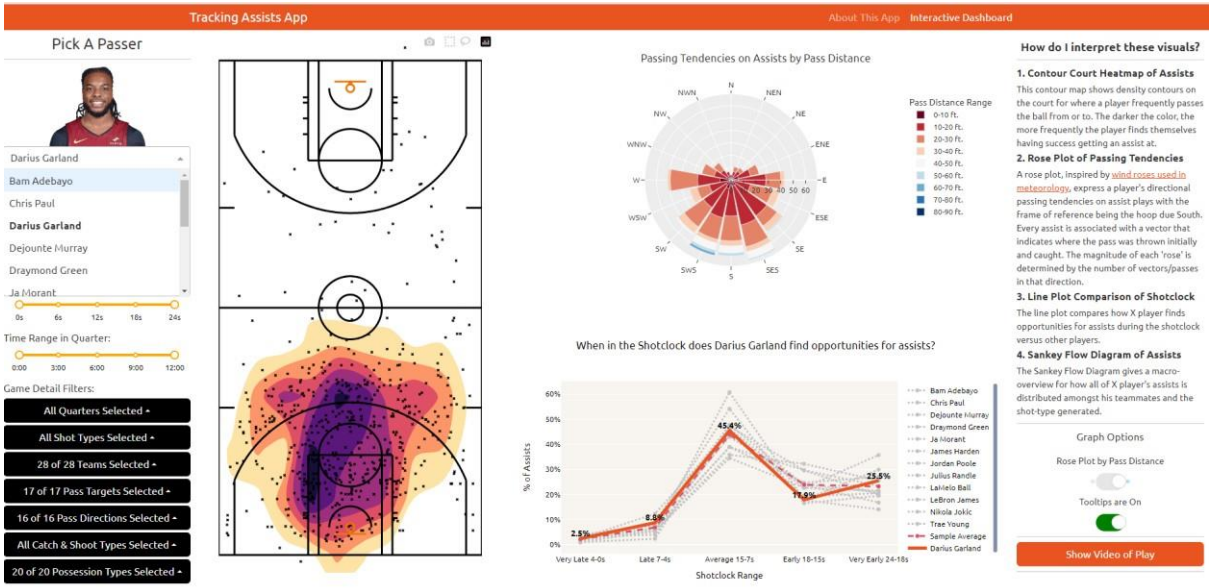


Figure 3 https://www.isportsanalysis.com/clubsvideo-channel/index.php

Here we can see the tracked stats and performances from each player.

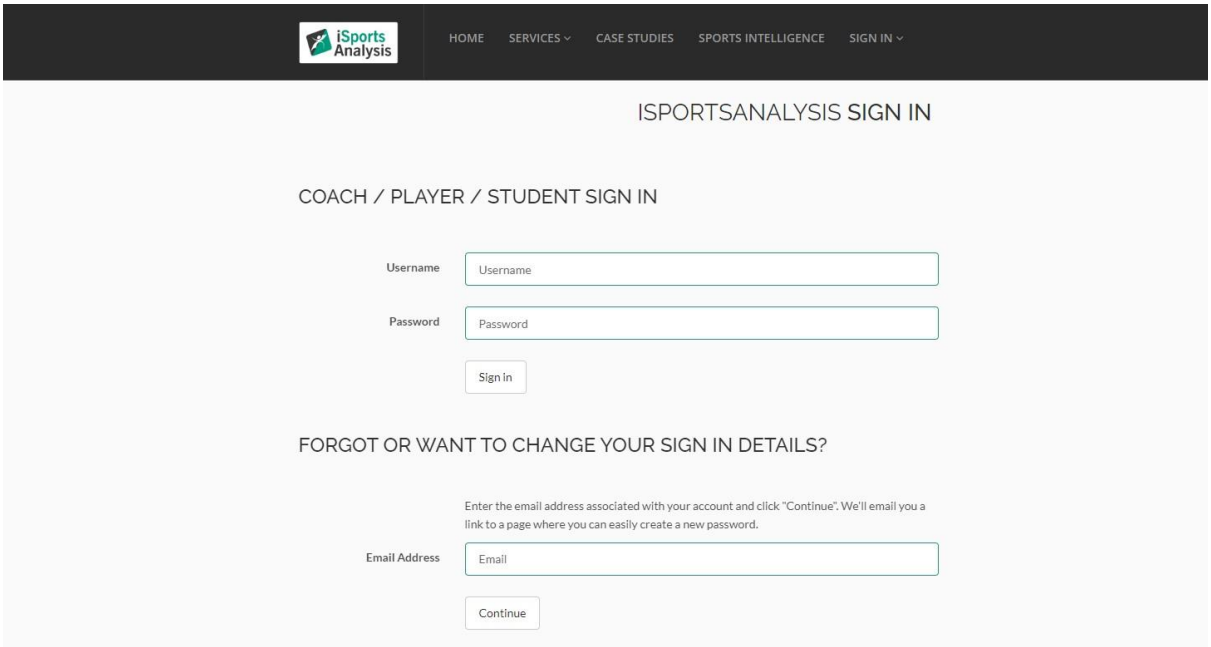


Figure 4 Log in https://tracking-dashboard-app.herokuapp.com/dashboard

This shows how different users will be able to log in.

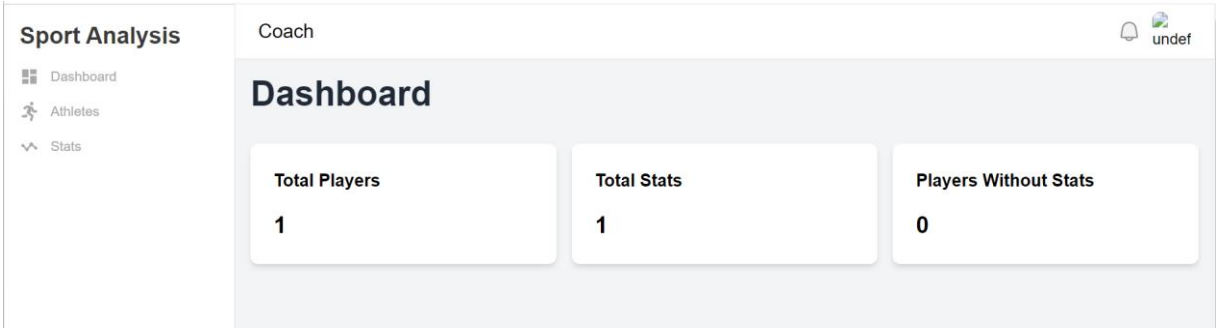


Figure 5: Coach Dashboard

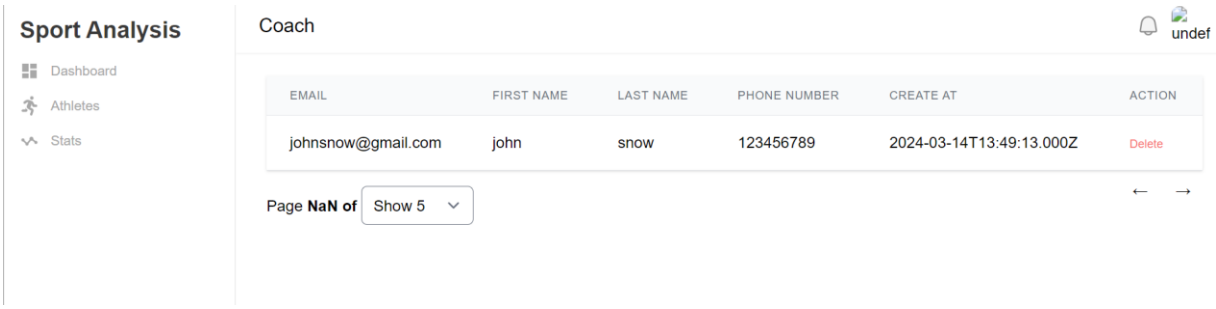


Figure 6 Athlete details for analysis by coach or analyst

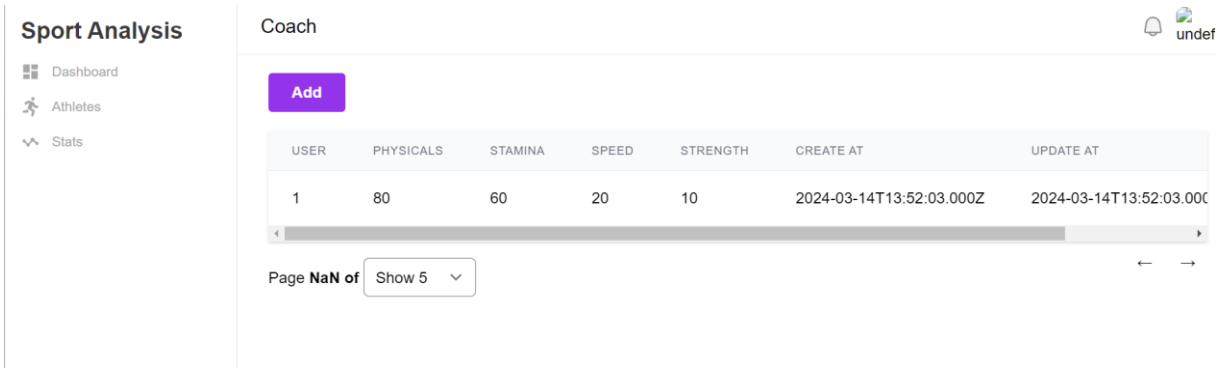


Figure 7 Athlete stats for analysis by coach or analyst

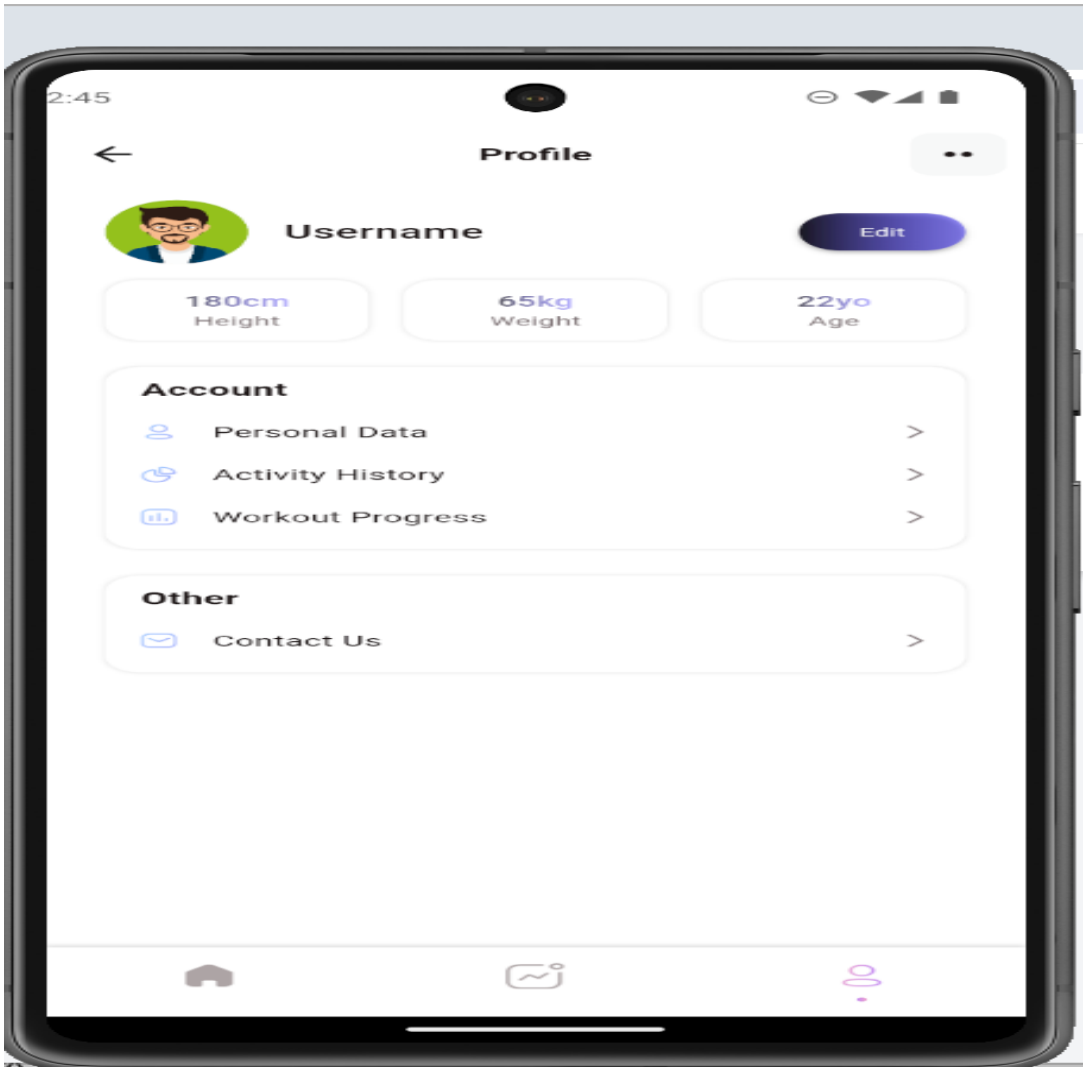


Figure 8 Athlete profile on app

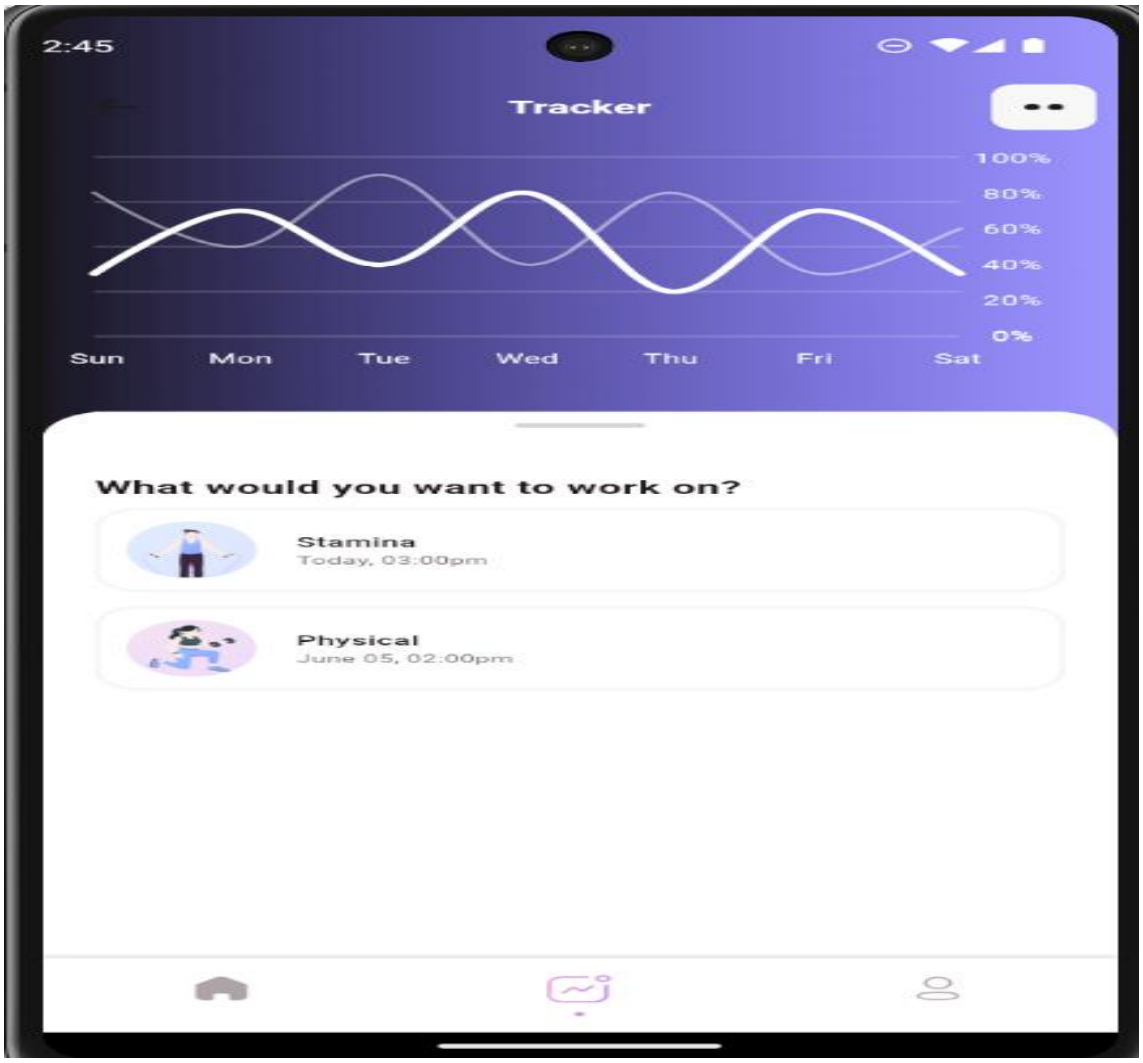


Figure 9 Athlete tracker

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Major Functionality

Key elements of the application include data analysis, data visualization, video analysis, user profile management, feedback collection, secure data storage and retrieval, and data sharing and collaboration.

Conclusion

An overview of the project's structure, expected user interactions, and key architectural elements can be found in this design document. It ensures a clear knowledge of the functionality and design of the application and sets the stage for its development and deployment.

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