



UNIVERSITY of
TASMANIA

ASSIGNMENT 1 - PROTOTYPING AND USABILITY TESTING

KIT 721 Mobile Application Development

Prepared by:

Jayani Madusha Edirisinghe

ID:707202

Submitted in partial fulfilment of the requirement for the Master of Information Technology

University of Tasmania March ,2025

Table of Contents

Table of Contents.....	i
List of Tables.....	i
Table of Figures.....	i
1.0 Introduction	1
2.0 Usability Goals and Design Principles	2
2.1 Usability Goals.....	2
2.1.1 Learnable in first use.....	2
2.1.2 Memorable on repeat uses.....	2
2.1.2 Efficient	3
2.1.3 Failure-resistant.....	3
2.1.4 Forgiving:.....	4
2.1.5 Satisfying	4
2.2 Don Norman`s Design Principles.....	5
2.2.1 Visibility	5
2.2.2 Feedback	5
2.2.3 Affordance	5
2.2.4 Mapping	5
2.2.5 Constraints	5
2.2.6 Consistency	5
3.0 Testing Methodology.....	6
3.1 Success Requirements.....	6
3.2 Usability Test Tasks	7
3.2 Usability Test Tasks	7
4.0 Testing Results and Discussion	11
4.1 Feedback from the participants	12
5.0 Conclusion.....	14
References	15
Appendices	16

List of Tables

Table 1: Usability Tasks Matrix	8
Table 2:Testing Result analysis	11

Table of Figures

Figure 1:Create Match	2
Figure 2:Adding Players	2
Figure 3:Match Recording	3
Figure 4:Match Summary	3
Figure 7:Match details confirm page	4
Figure 5:Delete confirm popup message	4
Figure 6:Player details confirm	4
Figure 8:Original score worm page	12
Figure 9:Updated Score worm page	12
Figure 10: Original action record page	12
Figure 12:Updated record action	12
Figure 11:Updated action record page.....	12
Figure 14:Match details	13
Figure 15:Player comparison.....	13
Figure 13:Player details	13

1.0 Introduction

The purpose of this application is to design a low-fidelity prototype for recording live match statistics for the Australian Football League (AFL). This application enables officials to create teams, manage players (add, edit, and delete), record live match statistics, view current match statistics by quarter, track individual player performance, compare players, and review the history of recorded matches. Additionally, I have incorporated a Team Ranking feature as a custom enhancement to further enrich the app's functionality.

When designing this app, I primarily focused on the needs of AFL match officials, ensuring that match records could be efficiently recorded in real time. Since the game is fast paced, the application's interface must be intuitive, easy to navigate, forgiving, and highly responsive, allowing officials to track player statistics seamlessly. A user-friendly design minimizes errors and ensures that essential game data can be recorded without delays. Additionally, I considered the app's appearance and incorporated AFL's official theme colors, enhancing its visual consistency and making it feel familiar to users.

When creating the app, I was influenced by the official AFL website and mobile app, which provided valuable insights into key features such as player comparison and displaying player statistics. While the AFL website does not include live match recording, its player comparison feature served as an inspiration due to its clarity and accessibility. This feature allows users to quickly identify which players have performed well accurately, making it a valuable addition to the app. By integrating these elements and ensuring an efficient, user-friendly experience, the application will effectively meet the needs of AFL officials and enhance match data recording.

2.0 Usability Goals and Design Principles

In this section, I will discuss the Usability Goals and Design Principles that I applied for the implementation of the low fidelity mobile app prototype.

2.1 Usability Goals

2.1.1 Learnable in first use

When designing the wireframe, I focused on ensuring that the app is easy to use for beginners. In the first interface, I included all the basic functions of the app so that new users can quickly understand its core features, as shown in Figure 1. I also added commonly recognized icons, such as edit, delete, add, home, and menu icons, as shown in Figure 2. These icons are widely used in many applications, making them easy to recognize and learn for user.



Figure 1:Create Match

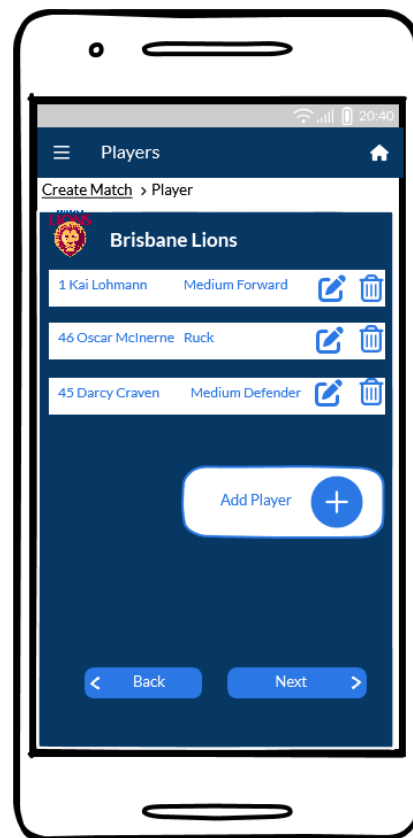


Figure 2:Adding Players

2.1.2 Memorable on repeat uses

When designing the interface, I used consistent user interface elements, such as a home button on every page, to allow users to easily navigate to any section of the app. This approach makes it simple for users to move around the app and helps them memorize the navigation flow. I also incorporated team colors and team logo to distinguish between the teams in a match, making it easier for users to differentiate the teams.

All the steps for creating a new match, recording data, and viewing statistics are straightforward. As a result, even if users haven't used the app for a while, it won't affect their ability to quickly regain proficiency in using the mobile app.

2.1.2 Efficient

When developing the app, I prioritized efficiency by designing an intuitive interface that allows officers to record actions quickly and easily. For instance, recording actions during a live match can be done efficiently with just two clicks, enabling officers to focus on the match without interruptions as shown in figure 3. Additionally, I included a "Record" button as following figure 4 to provide quick access to the match recording feature. This ensures that even if officers navigate away to view current statistics, they can seamlessly return to recording. By incorporating these features, I have significantly enhanced the efficiency and usability of the mobile app.

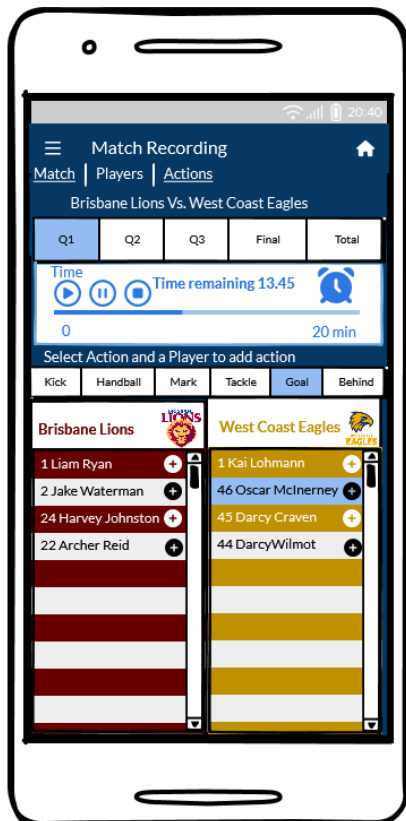


Figure 3: Match Recording

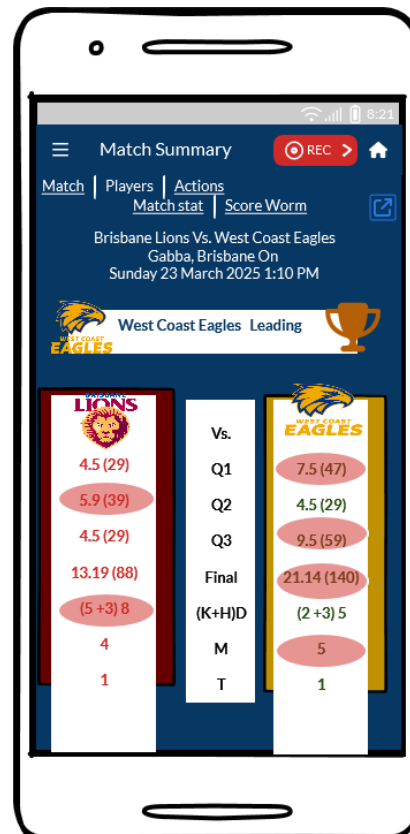


Figure 4: Match Summary

2.1.3 Failure-resistant

When users record the actions of a match, their inputs are automatically saved, ensuring that all match actions are accurately captured and stored. The app is designed to prevent starting a game without at least two players, as an AFL game cannot proceed without the required number of participants. This feature enhances the app's failure resistance. Additionally, if a user forgets to stop the recording at the end of a quarter, the app will automatically end the recording and display a pop-up message notifying the user that the match time has expired. The alarm clock will also highlight this in red for clear visibility. These features ensure a smooth and error-resistant user experience.

2.1.4 Forgiving:

To ensure forgiving usability, the app is designed with features that allow users to easily correct mistakes and confirm actions. When a user adds an incorrect action, the app generates a pop-up to inform them that the entered action is wrong. This helps prevent errors and ensures accurate data entry. When adding players to a team, an edit button is provided, allowing officers to correct any mistakes made during the team setup process. Additionally, when deleting players, the app prompts officers to confirm their decision, ensuring they do not accidentally remove players from the team as shown in figure 5.

Before the match starts, the app prompts the user, as shown in the following figure 7, to confirm whether the match details and team details are correct. This ensures the match begins with accurate information. To further enhance usability, I have added breadcrumbs to the interface as in figure 6. This allows officers to easily navigate back to previous steps if they need to re-edit or review any information, making the app more forgiving.



Figure 6: Delete confirm popup message

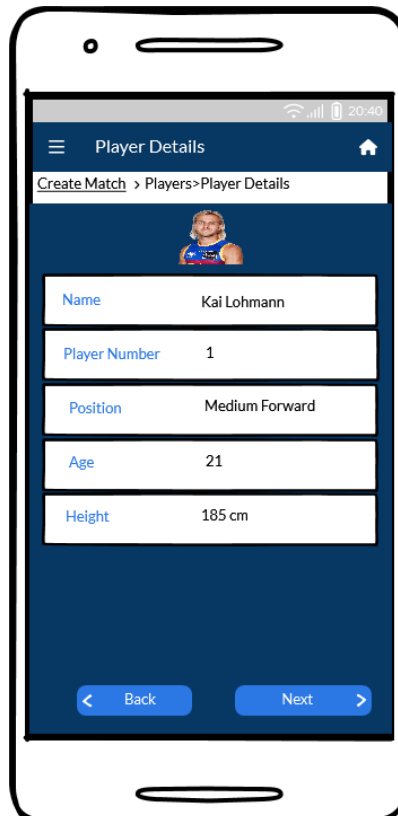


Figure 7: Player details confirm



Figure 5: Match details confirm page

2.1.5 Satisfying

Throughout the application, I designed the interface to be visually appealing and user-friendly. By using colors that are attractive and easy on the eyes, I ensured the interface is both functional and enjoyable for users. For example, I changed the background color of the interface, as shown in the above figure 7, to help users easily identify the teams. This not only enhances visual appeal but also contributes to user satisfaction by making navigation and identification effortless. Additionally, I incorporated logos and images of players to help users quickly recognize and differentiate between players. This not only improves usability but also adds a layer of visual satisfaction, making the app more engaging and enjoyable to use. By prioritizing simplicity and visual appeal, I aimed to create an interface that minimizes frustration and maximizes user satisfaction.

2.2 Don Norman`s Design Principles

Let`s discuss how I incorporated Don Norman`s design principles to achieve the usability goals mentioned above

2.2.1 Visibility

All the buttons and input fields are designed to be easily recognizable and visible to users, ensuring a seamless experience. I added a recording button to clearly indicate when a match is being recorded, making it easy for users to understand the app's current state. I also prioritized the visibility of important content. For instance, the app visibly displays the winner of the match easily. Furthermore, to highlight the best-performing player, I incorporated a progress bar. This visual element allows users to easily compare player performances and identify who is playing the best at once. These design choices ensure visibility of the app.

2.2.2 Feedback

It is essential for users to receive feedback based on their input. To achieve this, I designed the interface to display outputs after each user input. For example, the Match details page shows the inputs of the created match and asks the officer to confirm whether the details are correct. Similarly, after adding actions, the interface displays the previous actions of the match, allowing users to review their inputs and receive feedback. Additionally, I incorporated confirmation pop-up dialogs to provide immediate feedback on user actions.

2.2.3 Affordance

I used familiar and intuitive buttons such as play, pause, and stop for recording the match. These buttons clearly indicate their functionality without requiring instructions, as they are commonly used in everyday applications. Furthermore, I added a plus icon to represent the action of adding elements, and a home icon to symbolize the home page making the interface intuitive and easy to understand.

2.2.4 Mapping

In my app, I utilized mapping to establish clear relationships between controls and their results. For instance, I used icons such as edit, search, delete, add, and minus to represent their respective functions. This makes it easy for users to understand their purpose. Additionally, I implemented a progress bar to visually indicate player performance. The player with the longest progress bar represents the best-performing player, providing users with an easy way to identify top performers in player comparison page.

2.2.5 Constraints

I implemented constraints to guide user actions and prevent errors. For example, when adding players, the app requires at least two players to be added, as shown in the following figure. Another constraint ensures that a goal can only be scored if the previous action was a kick, and a behind can only be added if the previous action was a kick or handball. These constraints ensure the app follows the rules of the game and maintains data accuracy.

2.2.6 Consistency

Consistency is maintained throughout the app to enhance usability. I used consistent font styles and a uniform theme color across all pages. Additionally, I employed similar buttons for navigation, ensuring a cohesive experience. For example, the Current Stats page and Match History page are designed in a similar manner, making it easy for users to identify and navigate through the app without confusion. This consistency ensures users feel comfortable and can easily interact with the interface.

3.0 Testing Methodology

The usability testing for my app prototype was designed to evaluate the effectiveness, efficiency, and user satisfaction of the interface. Below, I describe the steps taken, including participant recruitment, testing procedure, task design, and data collection, as well as the rationale behind my choices.

To conduct the usability testing, I recruited a total of five participants. This number aligns with Jakob Nielsen's recommendation that testing with five users is sufficient to identify many usability issues in a prototype. Four participants were recruited from my university tutorials. The fifth participant was recruited from outside the university to introduce some diversity into the sample. However, this approach introduced certain biases. For instance, the four classmates were already familiar with the app's purpose and interface, requiring less explanation compared to the external participant, who needed more detailed instructions. Additionally, all participants had similar levels of computer literacy and were within a similar age range, which limits the generalizability of the findings. In future tests, I would aim to recruit a more diverse group of participants, including individuals with varying technical skills and age groups, to better represent the target user base. Despite these limitations, the convenience sampling approach allowed me to gather valuable insights within the constraints of time and resources.

The usability tests were conducted in two locations: at the university and at home. While this provided some flexibility, it also introduced variability in the testing environment. For example, the home environment may have had more distractions compared to the controlled setting at the university. To mitigate this, I ensured that the testing conditions were as consistent as possible, providing clear instructions and minimizing interruptions. In future tests, I would standardize the testing environment to reduce external influences and ensure that all participants have a similar experience.

The testing process began with an introduction to the app and the purpose of the test. I provided participants with a brief scenario to set the context for the tasks they would perform. The prototype, created using Balsamiq software, was then demonstrated to the participants. For the external participant, I provided additional explanations about the app's functionality and the testing process to ensure they understood what was expected. During the test, I presented participants with a series of concrete tasks designed to evaluate specific aspects of the app's interface. These tasks were carefully crafted to avoid leading the users or using interface-specific language, ensuring that participants relied on their own understanding of the app. As participants performed the tasks, I monitored their actions, recorded the time taken to complete each task, and noted any errors or difficulties they encountered. I also documented their verbal feedback and observations in an Excel sheet for later analysis. At the end of the test, I thanked the participants for their time and input.

The following shows successes requirements ,test tasks and usability task matrix that I used.

3.1 Success Requirements

R1: Create a match

R2: Adding Players

R3: Player Management

R4: Starting a Match

R5: Recoding match actions

R6: Viewing current match stat

R7: Viewing current match player stat

R8: Viewing Match History

R8: Sharing Match details

R9: View match marks quarterly

R10: At any moment go back to previous pages of the app

3.2 Usability Test Tasks

T1: You need to create a match with 2 teams

T2: Add only one player and start a match

T3: Add two players to each team then start match

T4: You have misspelled the player's name, can you edit it

T5: You have wrongly entered a player to the team can you remove that player

T6: You have changed your mind to add a player can you cancel the adding player

T7: Can you start the match recording

T8: Player1 hit a Goal record it

T9: You need to see ongoing match statistics

T10: You need to see ongoing matches and all the players' statistics

T11: You need to see ongoing match stats in a graph

T12: You need to compare two players

T13: Match Quarter 1 ended can you identify easily

T14: You need to see previous match history

T15: You need to see the previous match player History

T16: Can you easily identify the winner of the match

T17: Can you share the match details

T18: Go back to home page to start a match

3.2 Usability Tasks Matrix

Table 1: Usability Tasks Matrix

Task\Requirement	R1:Create a match	R2:Adding Players	R3:Player Management	R4:Statring a Match	R5:Recording match actions	R6:Viewing current match stat	R7:Viewing current match player stat	R8:Viewing Match History	R8:Sharing Match details	R9:View match marks quartely	R10:At any moment go back to previous pages of the app
T1:You need to create a match with 2 teams	X										
T2:Add only one player and start a match		X									
T3:Add two players to each teams then start match		X									
T4:You have misspell the player name can you edit it			X								
T5:You have wrongly entered a player to the team can you remove that player			X								
T6:You have change your mind to add a player can you cancel the adding player		X									
T7:Can you start the match recording				X							
T8:Player1 hit a Goal record it					X						

T9:You need to see ongoing match stat						X					
T10:You need to see ongoing match all the players stat							X				
T11:You need to see ongoing match stats in a graph						X					
T12:You need to compare two players							X				
T13:Match Quarter 1 ended can you identify easily					X						
T14:You need to see previous match history								X			
T15:You need to see previous match player History								X			
T16:Can you easily identify the winner of the match										X	
T17:Can you share the match details									X		
T18:Go back to home page to start a match											X

I chose concrete tasks over abstract ones because they are more measurable and provide clearer insights into user behavior. Additionally, I avoided leading tasks to ensure that participants relied on their own understanding of the app, reducing bias in their interactions. The tasks were designed to cover a wide range of app functionalities, from basic operations like creating a match to more advanced features like viewing match statistics in a graph. This comprehensive approach ensured that the test results were relevant to the app's usability and provided actionable insights for improvement. The use of Balsamiq software for the prototype allowed me to create a realistic yet flexible interface that could be easily modified based on user feedback.

During the tests, I collected both quantitative and qualitative data to evaluate the app's usability. Quantitative metrics included task completion times and the number of errors made by participants, while qualitative data included user feedback and observations. I recorded this data in an Excel sheet. The combination of metrics allowed me to assess not only how efficiently users could complete tasks but also how satisfied they were with the app's interface. For example, if a participant took a long time to complete a task or made multiple errors, this indicated a potential usability issue that needed to be addressed. Similarly, user feedback provided valuable insights into their thought processes and preferences, helping me understand why certain issues occurred and how they could be resolved.

By documenting the testing process in detail, I ensured that others could repeat the experiment and validate the results. The use of concrete tasks and clear success criteria also made the findings more objective and actionable. However, there were some limitations to the approach. The homogeneity of the participant pool and the convenience sampling method introduced biases that may have affected the generalizability of the results. Additionally, the variability in the testing environment could have influenced user behavior. To address these limitations, I would recommend recruiting a more diverse group of participants and standardizing the testing environment in future studies.

Overall, the usability testing methodology I employed was well-organized and aligned with best practices in the field. By following a structured approach and documenting each step in detail, I was able to gather valuable insights into the app's usability and identify areas for improvement. While there were some limitations, such as participant bias and environmental variability, these can be addressed in future tests to further enhance the validity and reliability of the results. The findings from this study will inform the next iteration of the app's design, ensuring that it meets the needs and expectations of its users.

4.0 Testing Results and Discussion

This section summarizes the testing results and discusses the feedback received from participants. Below is a summary of the results.

Table 2: Testing Result analysis

Participant	P1	P2	P3	P4	P5	Mean	Min	Max
T1: You need to create a match with 2 teams	300	6	5	60	120	98.2	5	300
T2 Add only one player and start a match	60	90	60	60	60	66	60	90
T3: Add two players to each team then start match	60	60	60	60	60	60	60	60
T4: You have misspelled the player's name can you edit it	60	60	60	60	20	52	20	60
T5: You have wrongly entered a player to the team can you remove that player	10	8	10	5	5	7.6	5	10
T6: You have changed your mind to add a player can you cancel the adding player	10	8	12	6	14	10	6	14
T7: Can you start the match recording	5	5	8	5	10	6.6	5	10
T8: Player1 hit a Goal record it	4	6	9	5	9	6.6	4	9
T9: You need to see ongoing match stat	5	5	8	8	10	7.2	5	10
T10: You need to see ongoing matches, all the players stat	5	5	5	5	8	5.6	5	8
T11: You need to see ongoing match stats in a graph	5	5	8	6	4	5.6	4	8
T12: You need to compare two players	4	5	8	10	9	7.2	4	10
T13: Match Quarter 1 ended can you identify easily	4	4	5	4	5	4.4	4	5
T14: You need to see previous match history	5	5	4	5	4	4.6	4	5
T15: You need to see previous match player History	4	5	4	5	5	4.6	4	5
T16: Can you easily identify the winner of the match	4	5	6	4	7	5.2	4	7
T17: Can you share the match details	4	5	5	5	6	5	4	6
T18: Go back to home page to start a match	4	4	5	4	4	4.2	4	5

From the above summarized table, we can clearly see that the task of creating a match (T1) had the highest variability in completion times, ranging from 5 seconds to 300 seconds. This is likely because the interface was new to users, and some participants required additional explanations. Tasks involving navigation, such as going back to the home page (T18), had the lowest completion times, indicating that the navigation design was intuitive and easy to use. Most tasks had average completion times between 4 and 10 seconds, suggesting that the interface was generally user-friendly.

4.1 Feedback from the participants

One participant identified an error in the score worm interface, where the repetitive use of quarters was unnecessary as shown in figure 8 since quarters were already indicated on the map. This feedback led to the removal of the redundant quarters bar in the updated prototype as shown in figure 9.



Figure 8:Original score worm page

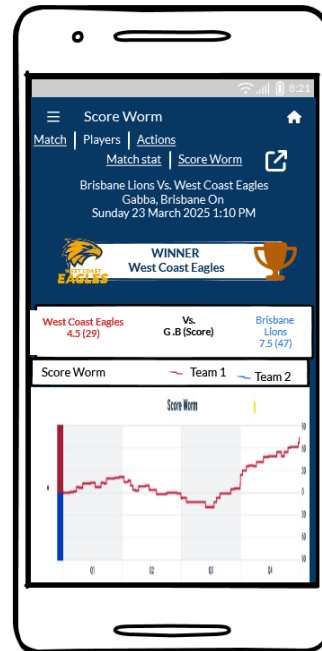


Figure 9:Updated Score worm page

Participants noted that the initial designs shown in figure 8 had a cluttered interface with too many buttons. This confused the participants, so I changed the navigation as figure 9 reducing the number of buttons and enhancing usability.

Based on feedback, team colors and logos were integrated into the interface, making it easier to distinguish teams and highlight the match winner. The recording page initially required too many actions (figure 10), making it inefficient during live matches. The process was optimized to require only two clicks (figure 11) for recording actions, and a separate interface was created to showcase recorded actions as in below figure 12.



Figure 10: Original action record page

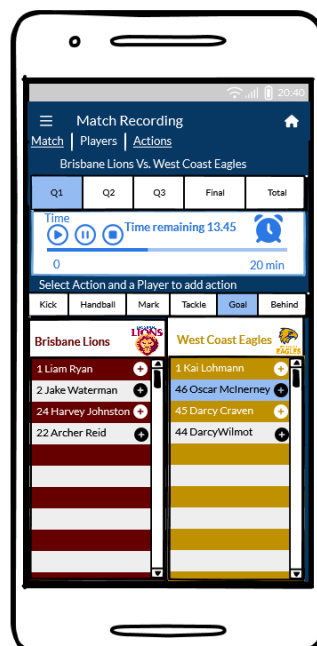


Figure 12:Updated action record page

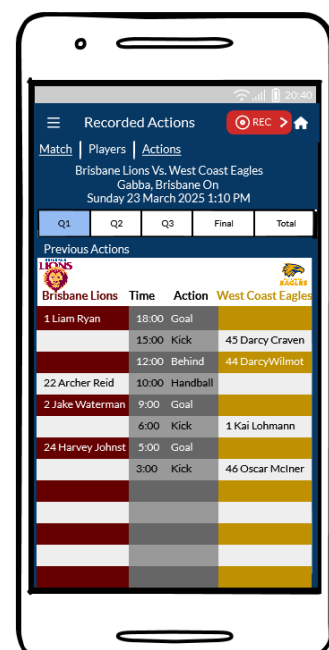
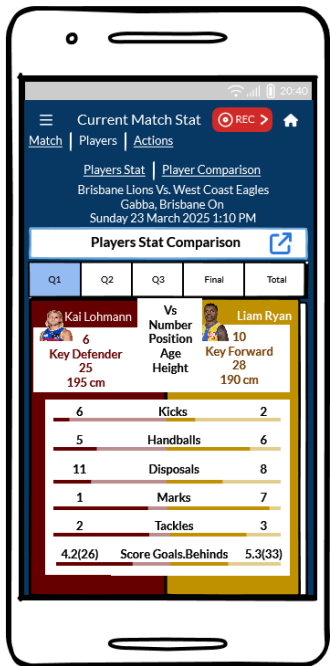
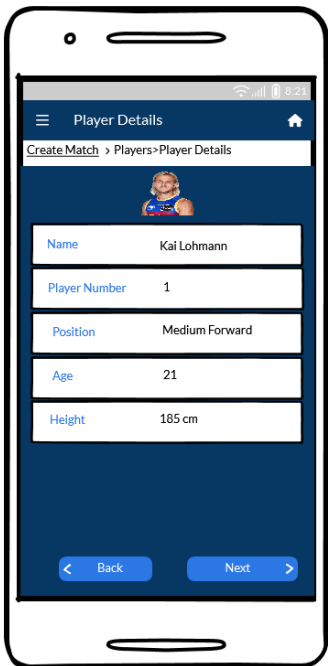


Figure 11:Updated record action page

According to the feedback I received a confirmation screen and added player details display was added to allow users to review and confirm the entered details before starting the match as shown in figure 14. Breadcrumbs were implemented to facilitate easier navigation between pages, allowing users to make changes without repeatedly pressing the back button as suggested by test participants ash shown in figure 13.



Another suggestion I got is to highlight the best performing players and teams I used progress bar and highlighting colors to show it as in above figure 15. Test participants suggested adding a tutorial or step-by-step guide to help new users understand the app's functionality. This feature is planned for future improvements.

5.0 Conclusion

Throughout this project, I learned how to create a low-fidelity prototype in alignment with usability goals and design principles. I realized that conducting user testing is not an easy task, as it is time-consuming and requires practice to execute effectively. I gained experience in creating Usability task matrices and analyzing data, which helped me understand the importance of structured evaluation. Additionally, I discovered that creating a prototype, even a low-fidelity one, is a time-intensive process. However, it is an essential step, as it allowed me to observe the evolution from my first prototype to the final version. I am entirely satisfied with my last prototype, especially when comparing it to the initial version. Furthermore, the design principles and theories provided me with a solid understanding of how to develop low-fidelity prototypes by incorporating interactive feedback.

References

ApolloDesigns (2022) *Usability testing tips and examples - common mistakes and how to avoid them | UX design*. Available at: <https://www.youtube.com/watch?v=Zz7xLVOUHOY> (Accessed: 20 March 2025).

AFL (n.d.) *Compare players: Key stats*. Available at: https://www.afl.com.au/stats/compare?category=Key+Stats&seasonId=62&roundId=-1&roundNumber=0&sortColumn=dreamTeamPoints&sortDirection=descending&positions=All&teams=All&benchmarking=false&dataType=totals&playerOneId=CD_I1019038&playerTwoId=CD_I990816 (Accessed: 18 March 2025)).

AFL (n.d.) *Lachie Neale player profile*. Available at: <https://www.afl.com.au/players/355/lachie-neale> (Accessed: 18 March 2025)).

Carlton Football Club (n.d.) *AFL team list*. Available at: <https://www.carltonfc.com.au/teams/afl> (Accessed: 18 March 2025).

Carlton Football Club (n.d.) *Fixture: AFL matches*. Available at: <https://www.carltonfc.com.au/matches/fixture?Competition=1&Season=73&Round=1146> (Accessed: 18 March 2025).

dscout (n.d.) *How to write usability testing tasks*. Available at: <https://dscout.com/people-nerds/usability-task-writing> (Accessed: 18 March 2025)

Nielsen, J. (2000) *Why you only need to test with 5 users*. Nielsen Norman Group. Available at: <https://www.nngroup.com/articles/why-you-only-need-to-test-with-5-users/> (Accessed: 18 March 2025)

Nielsen, J. (2012) *Usability 101: Introduction to usability*. Nielsen Norman Group. Available at: <https://www.nngroup.com/articles/usability-101-introduction-to-usability/> (Accessed: 16 March 2025)

Nielsen Norman Group (n.d.) *Task scenarios for usability testing*. Available at: <https://www.nngroup.com/articles/task-scenarios-usability-testing/> (Accessed: 18 March 2025)

Rekhi, S. (2017) *Don Norman's principles of interaction design*. Medium. Available at: <https://medium.com/@sachinrekhi/don-normans-principles-of-interaction-design-51025a2c0f33> (Accessed: 15 March 2025)

Wikipedia (n.d.) *List of current AFL team squads*. Available at: https://en.wikipedia.org/wiki/List_of_current_AFL_team_squads (Accessed: 14 March 2025)

YouTube (n.d.) *Video 1*. Available at: <https://www.youtube.com/watch?v=Zz7xLVOUHOY> (Accessed: 12 March 2025)

YouTube (n.d.) *Video 2*. Available at: <https://www.youtube.com/watch?v=EYUL0N1Fjhg> (Accessed: 8 March 2025)

YouTube (n.d.) *Video 3*. Available at: <https://www.youtube.com/watch?v=yafaGNFu8Eg> (Accessed: 5 March 2025)

Appendices

Prototype submitted as separate pdf.

Test case outputs of the five participants

Participant	P1					P2					P3					P4					P5				
Task	Success	Time Taken	Observations	Errors	User Comments	Success	Time Taken	Observations	Errors	User Comments	Success	Time Taken	Observations	Errors	User Comments	Success	Time Taken	Observations	Errors	User Comments	Success	Time Taken	Observations	Errors	User Comments
T1:You need to create a match with 2 teams	Only with help	5min	Some what confused cause d didn` t knew how to use the app	No	Need a help video to do the app,features need to be demo before starting tha app	Yes	6s	Easily done	No	Its better if can give team 1 name and team 2 name	Yes	5s	Easily done	No	No	Yes	1min	Easily done	No	Its good if we can have Date and time format	Yes	2min	Easily done	No	No
T2:Add only one player and start a match	Yes	1min	Easily done	No	After adding player it is better to see the player number	Yes	1.5 min	Easily Done	No	No	Yes only with help	1 min	Need to explain the situation	No	No	Yes	1min	Easily done	No	No	Yes	1 min	Easily done	No	No
T3:Add two players to each teams then start match	Yes	1 min	Easily done	No	It is easy to add the player details	Yes	1 min	Easily Done	No	Same as the previous process	Yes	1 min	Easily done	No	Player details adding is easily done	Yes	1 min	Easily done	No	No	Yes	1 min	Easily done	No	Same as previous process
T4:You have misspell the player name can you edit it	Yes	1min	Easily done	No	When save go tho next interface without having double clicking its seems to be redundant	Yes	1 min	Easily Done	No	Easy to do	Yes	1 min	Easily done	No	Easy to do	Yes	1 min	Easily done	No	No	Yes	20 s	Easily done	No	Edit icon can easily identify
T5:You have wrongly entered a player to the team can you remove that player	Yes	10s	Easily done	No	Easy since it is unversal icon	Yes	8s	Easily Done	No	Easy to do	Yes	10s	Easily done	No	Easy to do	Yes	5s	Easily done	No	No	Yes	5s	Easily done	No	No
T6:You have change your mind to add a player can you cancel the adding player	Yes	10s	Easily done	No	Easy to use	Yes	8s	Easily Done	No	Easy to do	Yes	12s	Easily done	No	Easy to do	Yes	6s	Easily done	No	No	Yes	14 s	Easily done	No	No

T7:Can you start the match recording	Yes only with help	5s	Conf using to user since ther is multi ple matc hes	No	Its confusing need to add separate page for it	Yes only with help	5s	User is bit of confu sed becau se theres is multi ple matc hes	No	Little bit of confus ed since startin g of new match when there is multipl e matche s	Yes only with help	8s	Bit of confused need to explain the interface	No	when there is multipl e matche s with same name its confus ing to choose .	Yes with help	5s	Need to explain since there is multiple matches	No	Its good to have one match to select	Yes with help	10s	Need to expla in the start of the matc h	No	Need to have one page to start
T8:Player1 hit a Goal record it	Yes	4s	Easil y done	No	Easy to use	Yes with help	6s	User is confu sed of the interf aces neede d to give expla nanti on	No	There is too much inform ation and choice s in one interfa ce	Yes	9s	Need to explain the situation	No	Its better if can do it quickl y and interfa ce have too much inform ation	Yes with helo	5s	Easily done	No	No	Yes	9s	Easil y done	No	Page is clutter.
T9:You need to see ongoing match stat	Yes	5s	Easil y done	No	Easy to use	Yes	5s	can see easily	No	Its better if we can team logos or colors to differti ate teams	Yes	8s	Easily seen the stat	No	Its better if have separat e colors for two teams like in live games then can easily identif y the teams	Yes	8s	Easily done	No	Add the headin g of the page in top	Yes	10s	Easil y done	No	Match stat can be easily see
T10:You need to see ongoing match all the players stat	Yes	5s	Easil y done	No	Easy to use	Yes	5s	Easy to see	No	Easy to use	Yes	5s	No explanation needed	No	Can see all the players at once its good	Yes	5s	Easily done	No	No	Yes	8s	Easil y done	No	Its easy to see all player stat at once

T11:You need to see ongoing match stats in a graph	Yes	5s	Easily done	No	Easy to use	Yes	5s	Easy to see	No	Easy to use	Yes	8s	explain the interface	Yes	there is Q1 ,Q2,Q2 selection in top that is no use in score worm since all the quarters are shown in score worm graph	Yes	6s	Easily done	No	Interface is bit of clutter	Yes with help	4s	Need to explain in the graph	Yes	Redundant use of quarter bar need to remove
T12:You need to compare two players	Yes	4s	Easily done	No	Easy to use	Yes	5s	Easy to see	No	Easy to use	Yes with help	8s	Need to explain how player added	No	Need to add how the player adding	Yes with help	10s	Need to explain how to add the player	No	Also add player adding phrase	Yes	9s	Easily done	No	No
T13:Match Quarter 1 ended can you identify easily	Yes	4s	Easily done	No	Its better to have pop up text stating match is end	Yes with help	4s	Easily done	No	It's easy to see match is end after getting know it	Yes with help	5s	Need to explain about the alarm	No	Its better if indicate with pop up message	Yes	4s	Explained the alarm getting red when time is up	No	Easy to identify after knowing it.	Yes	5s	Easily done	No	No
T14:You need to see previous match history	Yes	5s	Easy to see	No	Easy to use	Yes only with help	5s	Need to tell to go to menu and see the previous match	No	Its better if have separate page for history of matches	Yes only with help	4s	Need little bit explanation	No	No comment	Yes only with help	5s	Explained needed	No	Make separate page for history	Yes with help	4s	Need to explain that interface is same as current stat	No	Add separate page for history
T15:You need to see previous match player History	Yes	4s	Easily done	No	Easy to use	Yes only with help	5s	Need to tell to go to menu and see the previous	No	Its better if have separate page for history of	Yes only with help	4s	Need little bit explanation	No	No comment	Yes only with help	5s	Explained needed	No	No comment	Yes only with help	5s	No	No	No

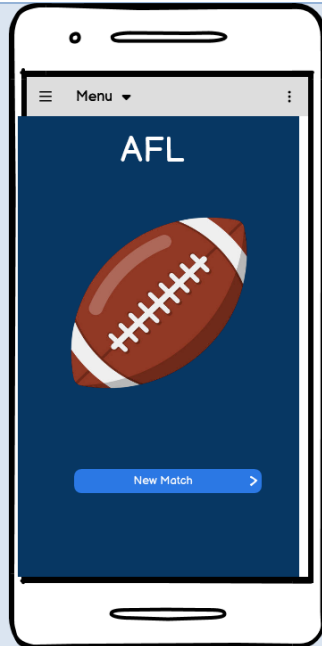
								ous matc h		matche s															
T16:Can you easily identify the winner of the match	Yes	4s	Easil y done	No	Easy to use	No	5s	Took little bit time	No	It`s better if winner is easily show in match hystor y	No	6s	Need to see the score	No	In match history includ e directl y who is winner then it is easy to see	No	4s	Easily done	No	Need to see the marks and identifi ed it	Yes	7s	Need to think little bit	No	Add which team is winner
T17:Can you share the match details	Yes	4s	Easil y done	No	Easy to use	Yes	5s	Easy to share	No	Easy to use	Yes	5s	Easy to share	No	Easy to identif y the share icon	Yes	5s	Easily done	No	No comm ent	Yes	6s	Easil y done	No	No
T18:Go back to home page to start a match	Yes	4s	Easil y done	No	Easy to use	Yes	4s	Easil y Done	No	Easy to use	Yes	5s	Easy	No	Some what confus ed what to click	Yes	4s	Easily done	No	there is several button s bit of confus ing	Yes	4s	Easil y done	No	No

Comparison Between Original Prototype and updated one

Original Prototype

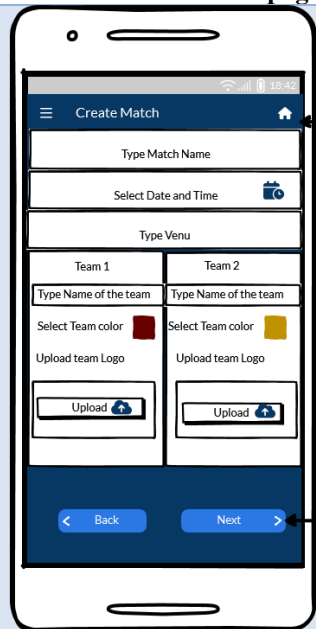
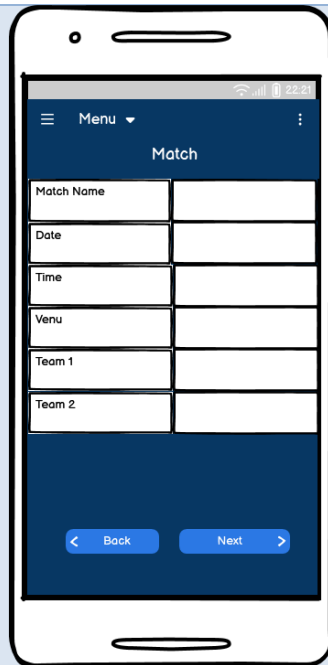
Updated Prototype

Menu Page



Click to see the menu of the AFL app
Matches
Record Match
Current Match
Match History
Compare players
Team Ranks

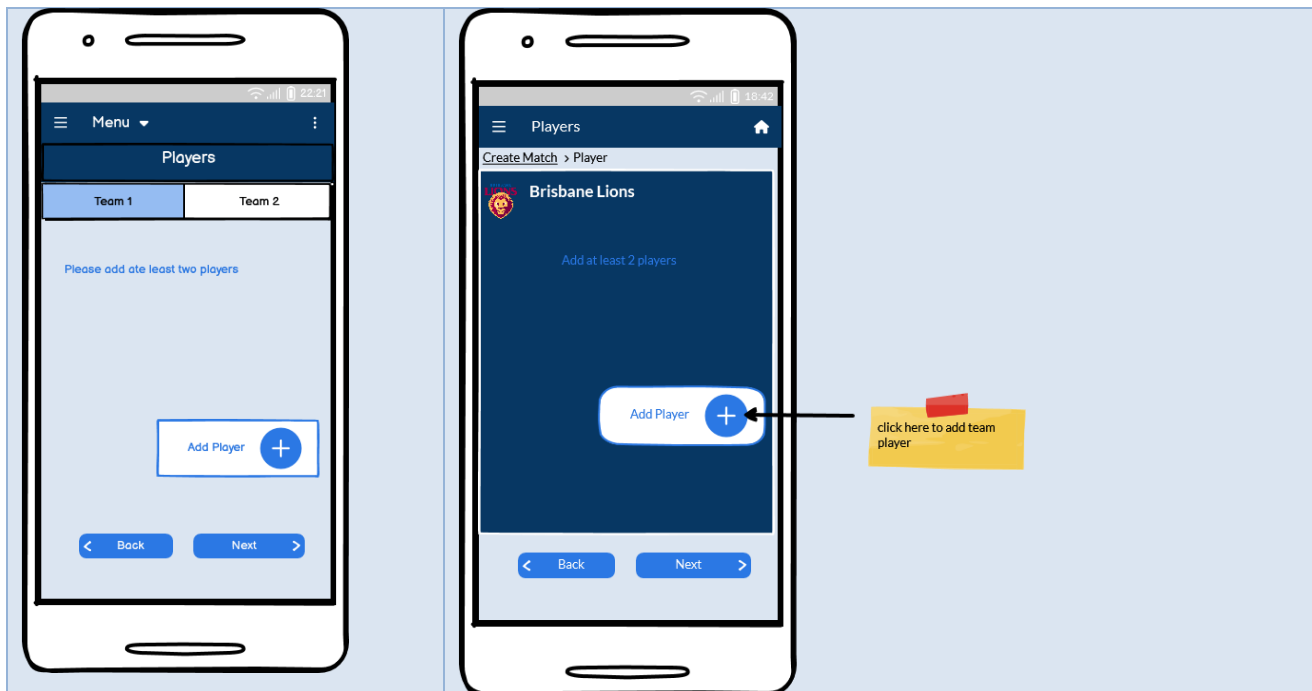
Create Match page



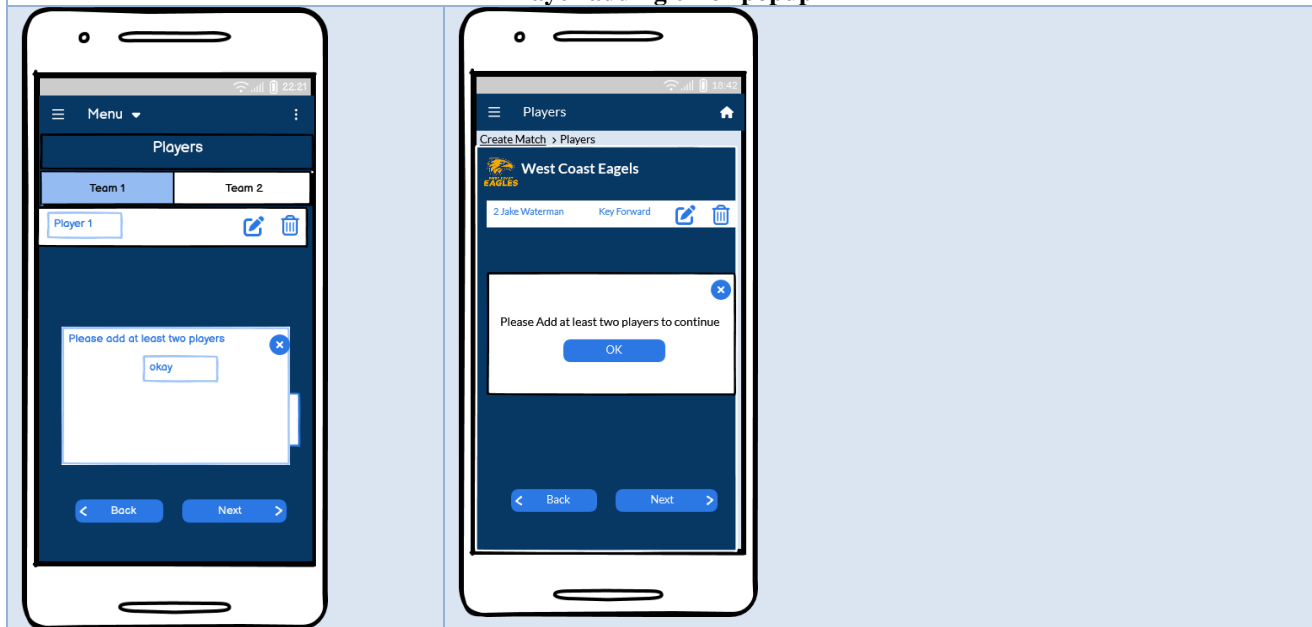
click here to go back to home page

click here to enter team player details

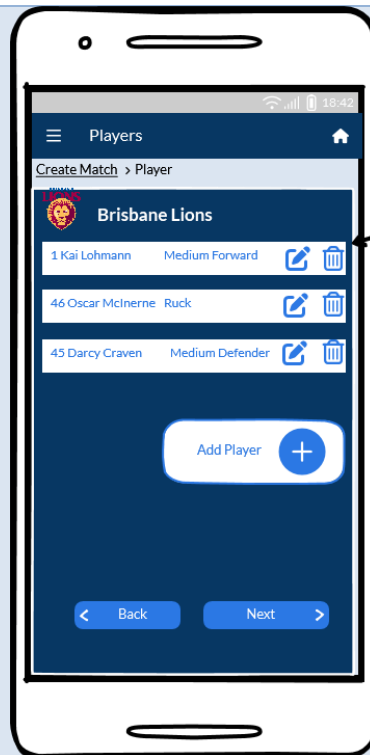
Adding Players to match



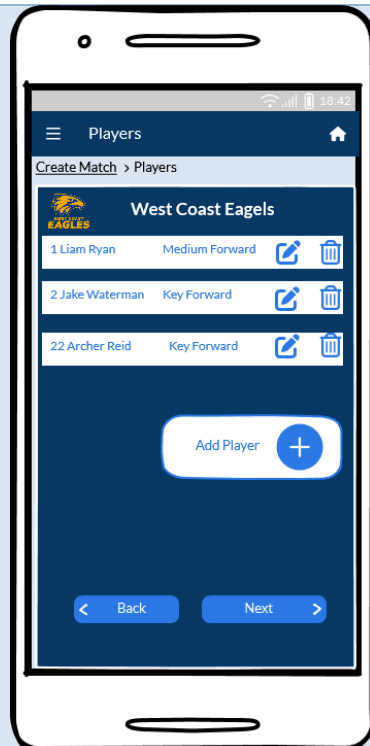
Player adding error popup



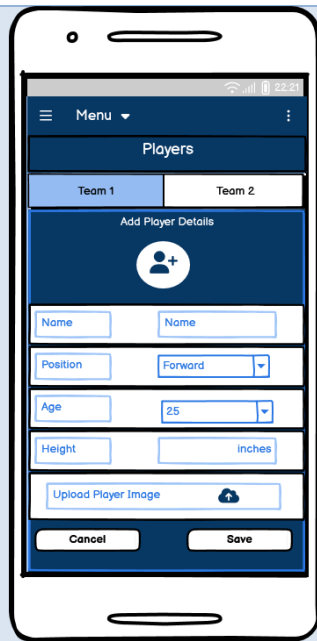
Team 1 Player adding page



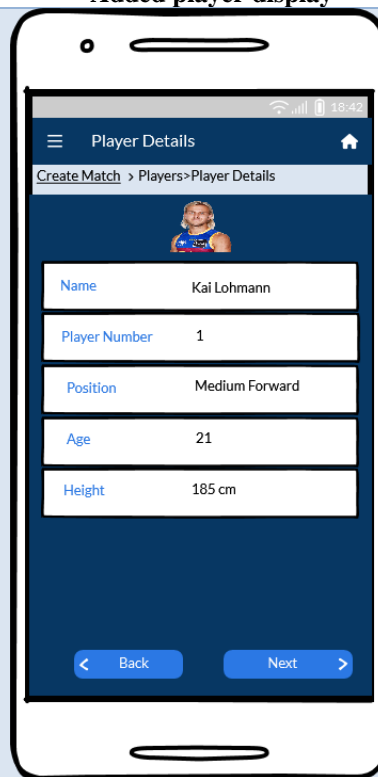
Team 2 Player adding page



Player details adding page



Added player display



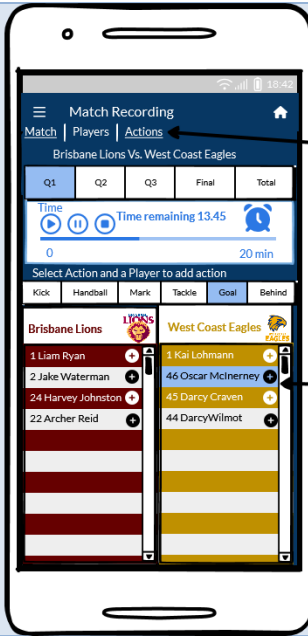
Player delete popup message



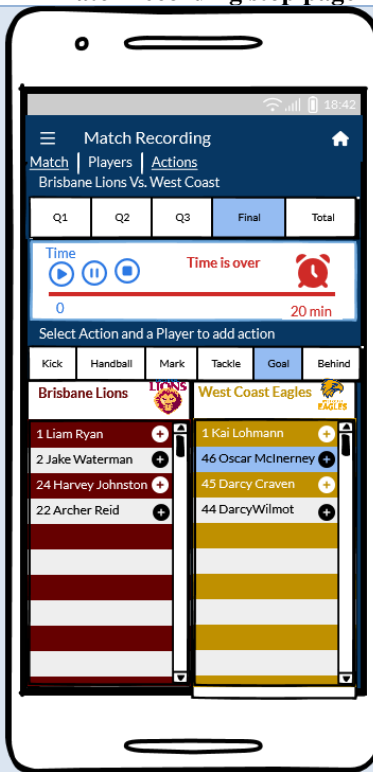
Match Start Page



Match Recording Page



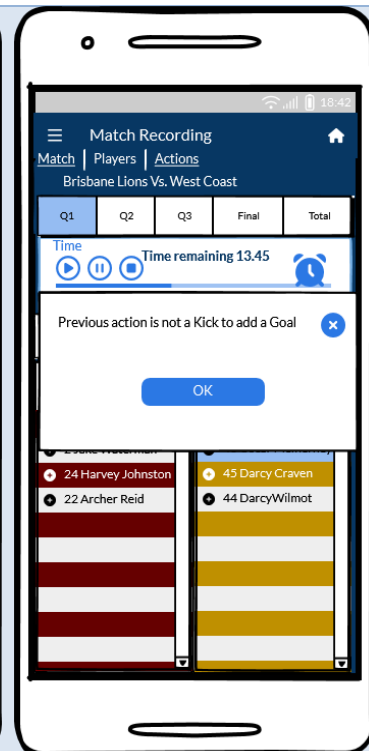
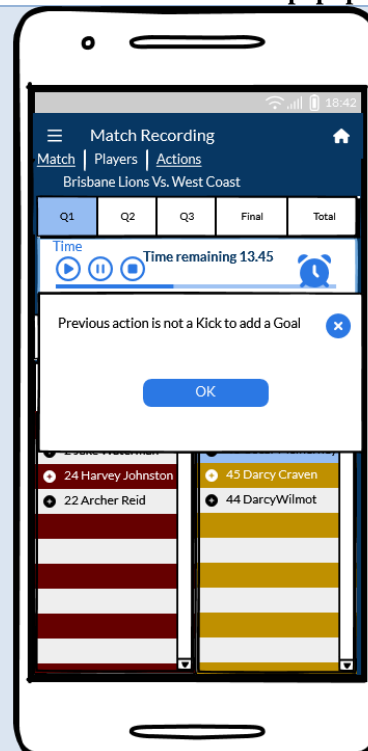
Match recording stop page



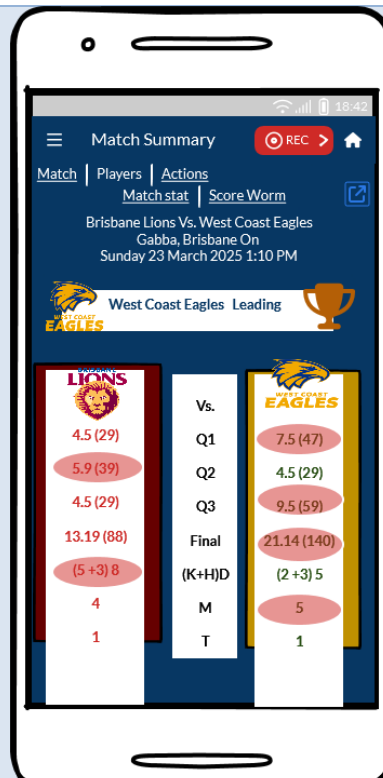
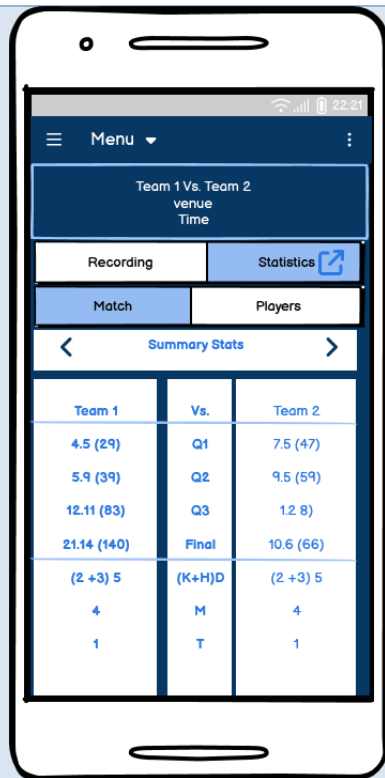
Match Action Page



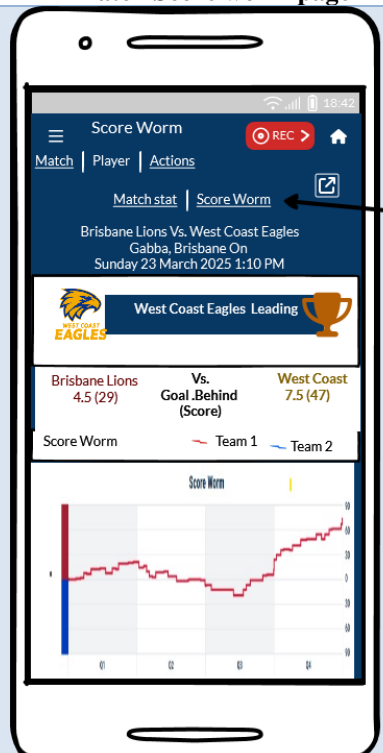
Match action error popup



Match Stat Page



Match Score worm page

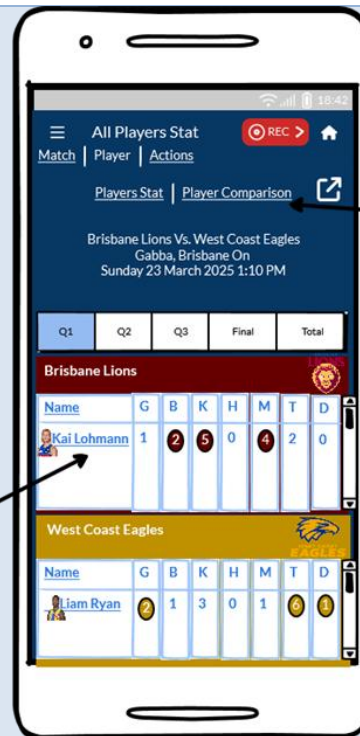


Click here to see match
stat and Score worm
graph

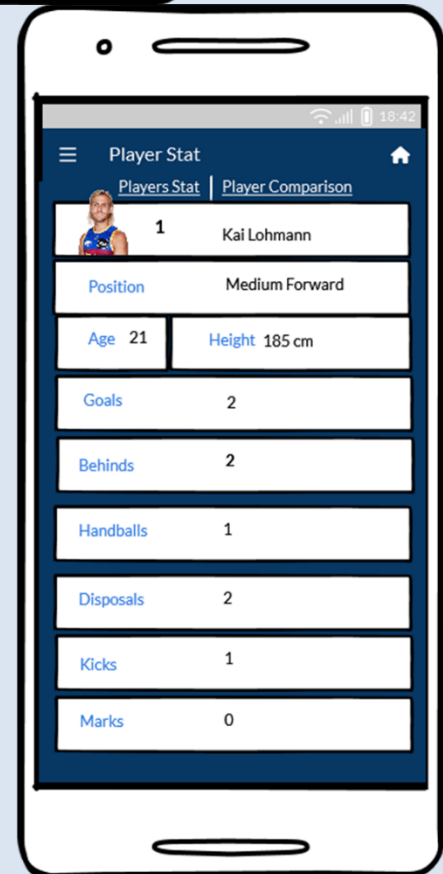
All players summary



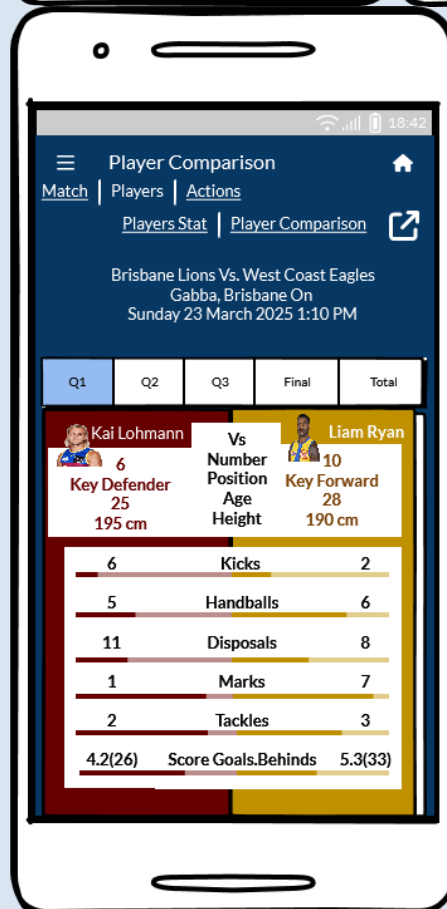
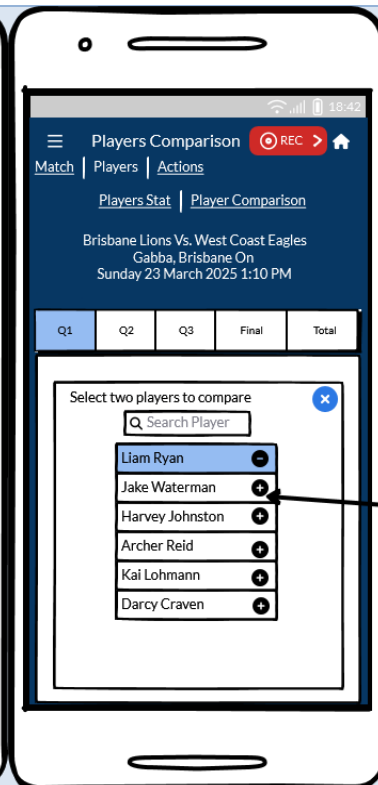
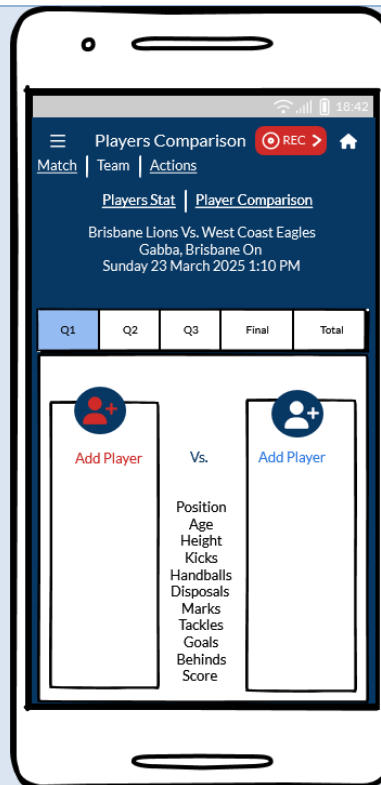
Click here to see individual player stat



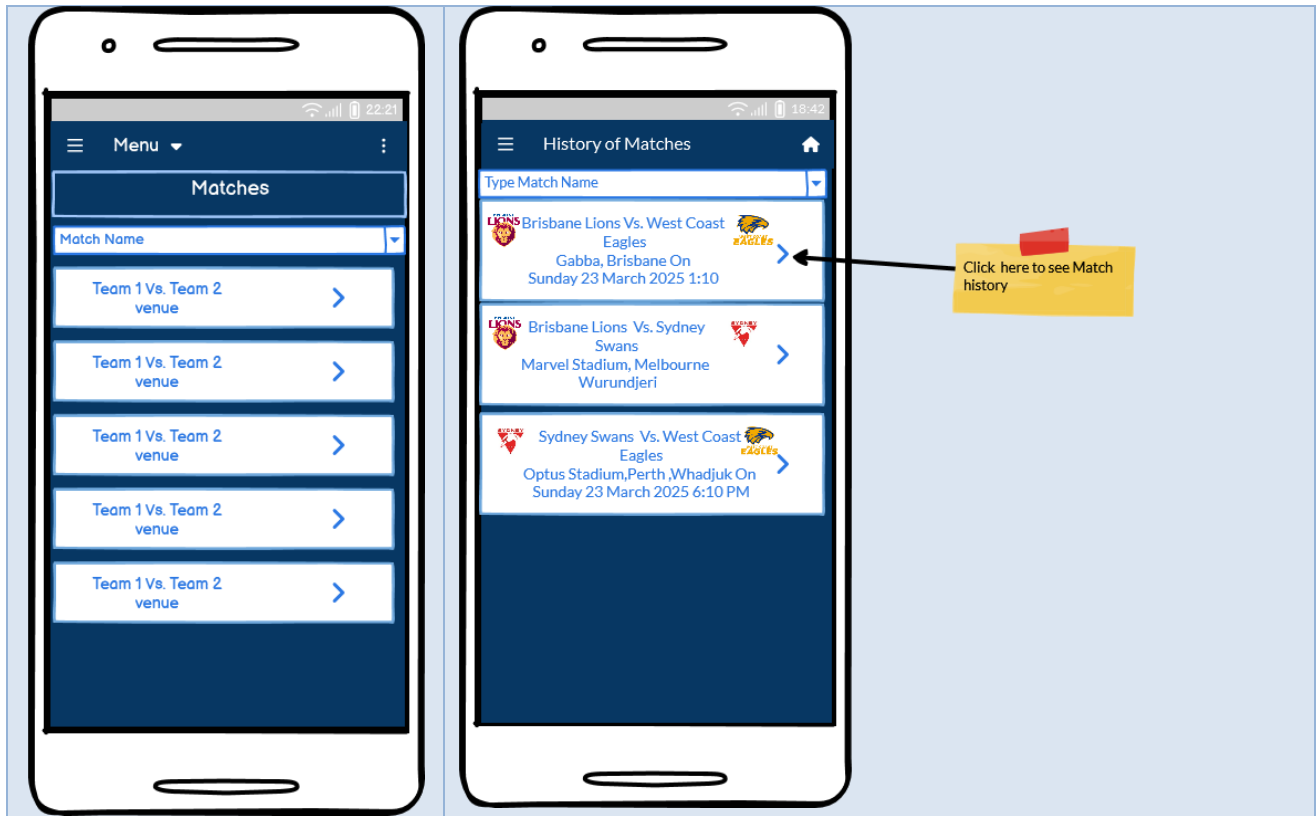
Click here to see player stat and player comparison



Players comparison page

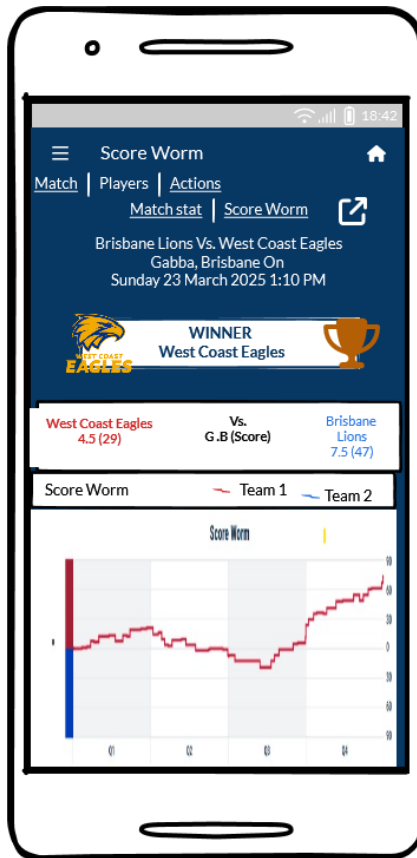


History of match display page



Prototypes that only have in updated prototype

History of match display this is similar to the recording stat prototype only difference is history of prototypes do not have red live recording buttons. This prototype clearly shows the winner of the match.

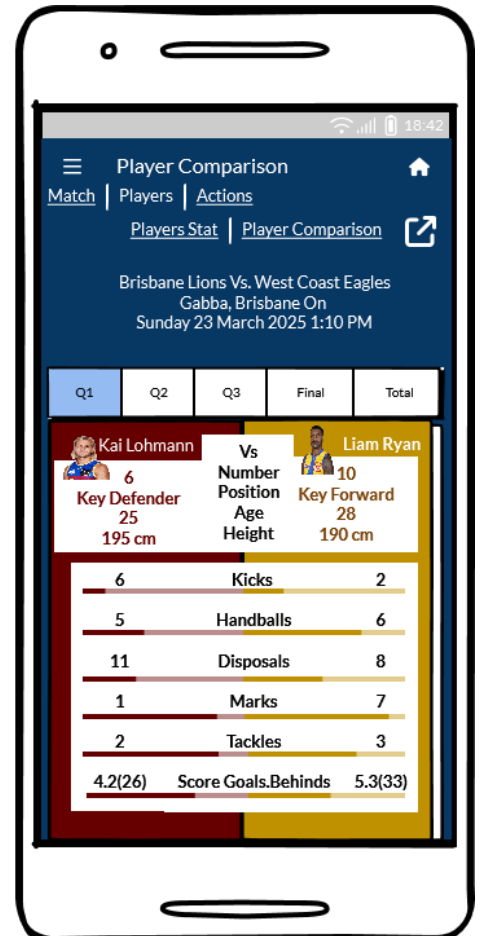
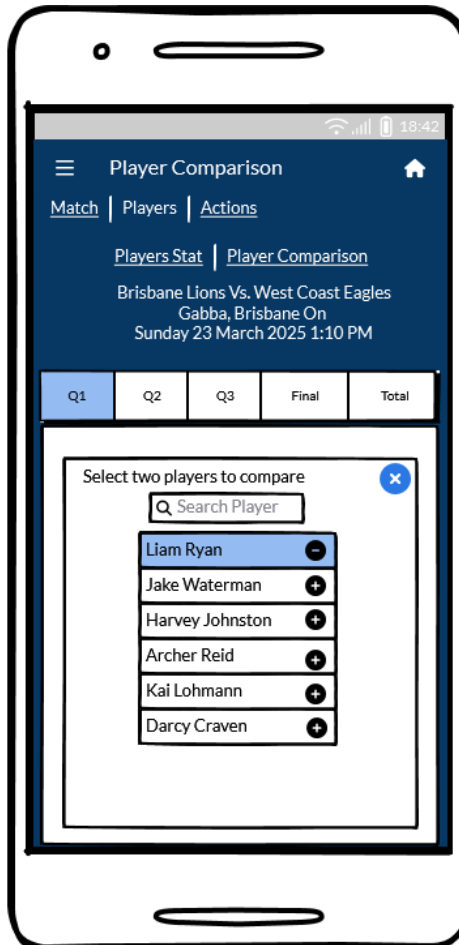


Match Actions History

Match | Players | Actions

Brisbane Lions Vs. West Coast Eagles
Gabba, Brisbane On
Sunday 23 March 2025 1:10 PM

Q1	Q2	Q3	Final	Total
Brisbane Lions				
1 Liam Ryan	18:00 Goal			
	15:00 Kick	45 Darcy Craven		
	12:00 Behind	44 Darcy Wilmot		
22 Archer Reid	10:00 Handball			
2 Jake Waterman	9:00 Goal			
	6:00 Kick	1 Kai Lohmann		
24 Harvey Johnst	5:00 Goal			
	3:00 Kick	46 Oscar McInern		



Team ranks as custom feature

