Application development - Footy quiz

Display Question

Check answer

False

Check answer

Get answer

Get question

True

Start Game

Footy quiz

Else answer = False

Else answer = False

End game, result: loser

If answer = True

Repeat processes: Get answer, get question.

Display question choose true or false.

When 10 questions answered right, end game result: winner

If answer = True



Activity\_main2

On click button,

Direct to Activity\_how

On click button, direct to

Activity\_main

Text view, welcoming the user

Banner, this displays the name of the application



Text view,

Explains what the game is about and how to play the game

Activity\_how

On click button,

Direct back to Activity\_main2



Activity\_main

False button, if Boolean = true, next question and record result, after 10 correct questions, result end game : winner. if Boolean = false, result End game: Loser

True button, if Boolean = true, next question and record result, after 10 correct questions, result end game : winner. if Boolean = false, result End game: Loser

Text view display questions. get question and get answer. If answer is correct it will fetch and display next question, else, end game



Text view

player score out of 10 questions, scores are recorded after each question that has been answered, it will be displayed here

On click button, direct user back to activity\_main2

Activity\_result

Critical evaluation

# What went well?

Overall this project has gone well, I have managed to produce a fully functional app within the time frame given. I have remained with my original plans which was to create a simple question-based game about football, I feel like the application represents that well. I have managed to get every aspect of the app functioning in the way I wanted it to, it is able to ask the questions, record the results and end the game correctly when the player answers a question incorrectly or answers all the questions correctly. For guidance, I used the lecture notes that the tutor had provided as a guideline, it helped me to start my design and the development of the codes. As not all aspects were covered by the lecture notes, I had to do further independent research on further coding to suit my project needs [3] [4]. In the end, I have managed to develop a fully functioning application, as I am not very confident with my programming abilities, I limited myself to create something functional which is why I kept to a simple concept and it worked out well for me because I have an application that functions in the way I initially planned it to operate.

# Research

During the planning of this project, I conducted research on the internet to find applications with the similar concept as mine in order to gain inspiration and to find out how they operate. Most of the applications that I have seen on the market have a trend of having a similar and simplistic design, the screen is not cluttered with information and there are just a few buttons to operate the game [2]. This allows for a greater user experience as the game will be easy to navigate through and the rules are simple, there is not much actions needed to operate the game as the user just needs to click on a button in order to answer the questions, making it a lot more convenient to play on a handheld device. From my research, I used a lot of what I found as inspiration into building my quiz application, I decided to keep a simplistic and minimal design and mechanics due to the fact this is a simple true or false game [5]. One of the designs I took inspiration from is a true or false game that is on the android store, this game has a simple and effective design with just 2 large buttons on the screen that user can use to answer the question, this is a very effective design as everything on the screen is very visible and convenient to navigate through [1].

# What could I improve on?

There are many areas which I could have improved on, given if I had more time. I could have made the game more interactive by adding in a timer, sound effects and background music, all of these features would enhance the user experience. I believe if I had done further research and planned more accordingly, I could have developed an app with greater capabilities, due to sticking to the original plan and not expanding my horizons I believe I was slightly limited to the one design that I had planned throughout this project and I did not look for other methods of which the design could have been developed into. If I was to do further research and expand my plan, I could have added more features such as new levels, pictures, videos etc. so that the game is more interactive and entertaining. Due to the fact this was the first time I had developed an app, I was not confident on my programming skills thus limiting my ability to plan further and add more features as I was looking to achieve the goal of creating a fully functional application without major flaws. I have managed to solve all the issues that I had with this application by doing research and reading over lecture notes to find the answers, if I had the confidence I believe I could of produced a better application as it is evidential that I managed to solve all the issues due to the app running successfully without any glitches, if I had this confidence at the start of the project I believe I could of performed better.

# Future developments

If I was allowed more time to develop this application, I could have further enhanced the user experience, there are many aspects that can be further developed and sharpened. A future plan that I had was to add various levels and different game modes but due to the lack of time and my limited programming ability I could not develop any of it. The new levels and game modes would have contained different methods of answering the questions such as multiple choices and user inputs, also with the different levels I could have increased the difficulty settings such as adding a countdown timer, setting a set amount of lives rather than ending the game after failing one question, changing the difficulty of the questions after each round and adding mini games in between questions etc. There are many directions which this application could of went as it has the potential to be more interactive, I could have added greater features such as picture puzzles where the user has to guess who the player is behind the pixilation and videos that the user could have watched in order to guess what happened in the next passage of play etc. there are many extra interacting methods that could be added in order to enhance user experience and make the game more enjoyable and immersive.

# Conclusion

Overall, I believe the project has gone well for me and this has been a good learning experience for me as this is the first occasion that I have developed a mobile application. At the start of the project there was issues due to the reason the work I initially produced was on a windows computer and due to the fact that I have a MacBook laptop and I had not installed android studio prior to this project, there was some issue when I tried to convert the work that was done on the windows computer over to my MacBook laptop. I managed to overcome this issue by starting the project again from scratch and completing it all on the MacBook laptop. There has not been many issues that I could not overcome as I was able to find the answers through the research I conducted and with the help of the lecture notes, in some instances there was situations which meant I had to change the code and design in order to get the application functioning successfully but it did not take anything away with how I wanted the application to operate, instead it helped to improve the application. There were many hurdles that I overcame to develop this project as I had never previously done anything like this so I am proud of what I have managed to achieve so far, with more time I believe I could have expanded on this project and added more functions and enhanced the design onto a greater scale in order to make the application more advanced.

## **References**

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[5]"15 Key Ingredients for a Successful Mobile App", *Liquid State*, 2019. [Online]. Available: https://liquid-state.com/ingredients-successful-mobile-app/. [Accessed: 20- Jan- 2019].