API Application

# Introduction

After receiving the brief, I began by creating some rough sketches of what the application could look like. As I continued with the assignment, I made some constructive changes to my designs to show this I created an additional set of wireframes. I had a choice of a broad range of API data that I could use; I decided on the PunkBrew API because the data it produced allowed me to work different with types of data I had not used before.

# Research

Before building the application, it required an extensive amount of research. I researched into building basic applications in Android Studio taking on board the knowledge I had obtained from Chris' lectures. As a class, we built many different applications to test out some of the functionality Android Studio has to offer. During the application build process, it was essential to know how to research correctly to find the right information quickly; Chris helped me at the beginning of the process, and I can now research more effectively.

# Design

As I mentioned in the introduction, I made some draft wireframes to gather an understanding of how I wanted the application to look. The application would initially show the user how to brew the beer and then using a food API, gather recipes that would pair nicely with the beer. It was only once I started building the application, I realised what was possible and unfortunately had to scrap some of the ideas. I created a new set of wireframes with a more reasonable goal of completing the assignment to an acceptable standard. The layout of the application was a factor to consider. However, I decided against doing a landscape layout because it displayed suitable in portrait, therefore, the time I saved was spent on redefining the portrait mode.

## Building Process

Once I had everything needed to start the building process, I looked at the objectives of this assignment and made considerations throughout the assignment project. As I mentioned back in my design overview, I overshot how much I wanted the application to do. Rethinking how the application could still meet the requirements of the assignment and contain an excellent user experience. I started stripping my original designs into a more basic simplistic application which allows the user to open the application and view a vast catalogue of beers; the user could then click on a particular beer for more information and the brewing specifics.

Throughout the building process, I wanted the user experience to be nice, that is why I implemented a card view. The card view is material design view. "Material Design is an Android-oriented design language created by Google, supporting onscreen touch experiences via cue-rich features and natural motions that mimic real-world objects. Designers optimize users’ experience with 3D effects, realistic lighting and animation features in immersive, platform-consistent GUIs."(The Interaction Design Foundation, 2018). I moved onto a card view after seeing an example which displayed content in an API application in a way that is familiar to users and responsive to different devices.

A screenshot of text

Description automatically generatedA picture containing sky

Description automatically generated

Figure 2 - Single Card View

Figure 1 - Card View

Added in the API data into the application had its difficulties, in my assignment, I used a Klaxon. "Klaxon is a library to parse JSON in Kotlin." (GitHub, 2018). JSON is what the API sends as data, I then use Klaxon to convert this data into a readable format for Kotlin. "Kotlin is a general purpose, open source, statically typed “pragmatic” programming language for the JVM and Android that combines object-oriented and functional programming features."(Heller, 2018). Once, this data is converted I can use a template card view that will hold the beer information. In this assignment, you will see a beer holder and a beer binder, the beer holder - holds the information of the beers and the binder uses the card view to set the positioning of the beer cards. I also have a single beer card, when a user clicks on a card it takes the user to this single beer card template which is populated by the API changing depending on the beer clicked.

# Conclusion

To conclude, I would have preferred to have put more API information into the application, improving the user experience. If I were to redo the application, I would keep the same Card View Design, but I would enable a search bar that allows the user to search through rather than scroll to find a specific beer.

I would have also enabled a tablet view for the application. However, after running multiple tests on different types of emulators, this application works on many different devices without new layouts being created.

I believe this application meets all of the user requirements set out at the when giving the assignment. However, I will aim to improve this application in my spare time.

# References

GitHub. (2018). cbeust/klaxon. [online] Available at: https://github.com/cbeust/klaxon [Accessed 16 Nov. 2018].

Heller, M. (2018). What is Kotlin? The Java alternative explained. [online] InfoWorld. Available at: https://www.infoworld.com/article/3224868/java/what-is-kotlin-the-java-alternative-explained.html [Accessed 16 Nov. 2018].

The Interaction Design Foundation. (2018). What is Material Design?. [online] Available at: https://www.interaction-design.org/literature/topics/material-design [Accessed 16 Nov. 2018].