

## **Research and development department**

### **Planning**

We had a meeting where our department showed which software, we are going to use to code our apps, at the beginning our team presented a plan to develop two different native apps for each platform to make the user experience even better, what implied having two different teams to develop each app, after a long conversations with the other departments, we agreed to reduce costs on developing by using an hybrid framework therefore increasing the budget for a marketing campaign for our launching.

To start with, Ionic is a well-known mobile app development framework that helps create hybrid and cross-platform apps, the Ionic framework is based on web technologies like HTML, CSS, Javascript and allows developers to develop hybrid apps using these languages.

All our team will work on GitHub to collaborate among developers.

### **Desing and Prototyping**

We're going for Adobe XD offers a vector-based system for putting together prototypes, including tools for creating interactions, transitions, and other types of dynamic functionality. Because it's a vector based, scaling and resizing elements is no problem and InVision has a well-established reputation, and their dedication to rolling out new functionality and adding to their design platform makes them a favourite among many designers. for the User Interface and User Experience, we found accurate Google Cloud Platform for cloud services.

### **AI and Machine Learning**

For building and training AI models our team decided to work on TensorFlow regarded as one of the best open-source frameworks for AI development, TensorFlow belongs to the Google Family. This framework has several in-built systems to help you add features connected to machine learning and other advanced technologies. TensorFlow is based on JavaScript and is one of the leading frameworks of this language.

### **Data Collection and Analytics**

Google Analytics for an immersive experience in customer data, wishing to understand, predict and act upon user engagement and behaviour that's what we aim as a company.

### **Testing tools**

Appium is an open-source automation testing tool that can be used for both Android and iOS apps. It is an effective tool for web and mobile application testing and works even for hybrid apps. Appium is also used for automated functional testing that improves the overall functionality of the applications.

### **Deployment and Monitoring**

Apple Store for launching on iOS devices.

Google Play Console for launching on Android.

## **PROCESS**

### **Study market**

We launched our form online through google docs on platforms as Facebook, Instagram and WhatsApp on November 20<sup>th</sup> and it finished on December 20<sup>th</sup> analysing the results we found that locals and tourists were interested in visiting local coffee shops instead of big branches of them.

### **Software design**

We gathered all our developers to give them a briefing of all our goals and to start with developing our hybrid app on December 1<sup>st</sup> and on December 20<sup>th</sup> our prototype was ready before what was expected.

### **Prototype Launching**

On January 5<sup>th</sup> we launch our prototype with an invitation system to 30000 people among students, tourists, locals, others which filled up our form before.

We had troubles the first day because there were too many users at the same time opening accounts then our system collapsed, until January 8<sup>th</sup> that our team sorted it out. We had really good feedback from our users.

### **Conclusion**

Our project was done successfully so far, we faced different challenges to find a balance in the budget for each department, but we could agree in key points to give life to this amazing app which will help many local coffee shops to gather more clients and increase their visibility online and manage their businesses more efficiently.

The management has done a magnificent work dividing tasks and providing freedom to work, but has failed on the budget of each department could have done it better.

The marketing has moved slow to promote our launch on iOS and Android, and was a little bit absent on the conducting of the study marketing, our launching was several damaged because of the poor marketing campaign.

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