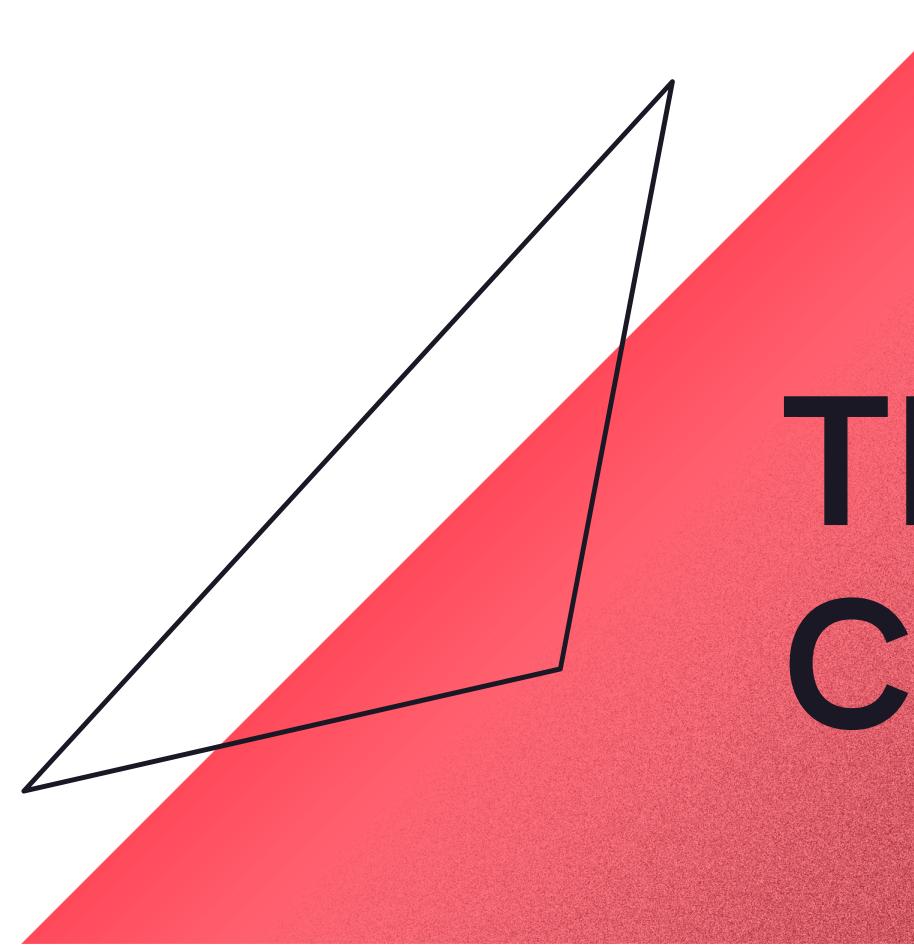


Intro To AR 302

Luke Ramsay

Luke Ramsay 180075



THE CONCEPT

I'm pretty sure almost every person alive right now has been in a situation where they are extremely hungry but they are too lazy to make themselves food either because it too much work or because it makes too much mess etcetera.

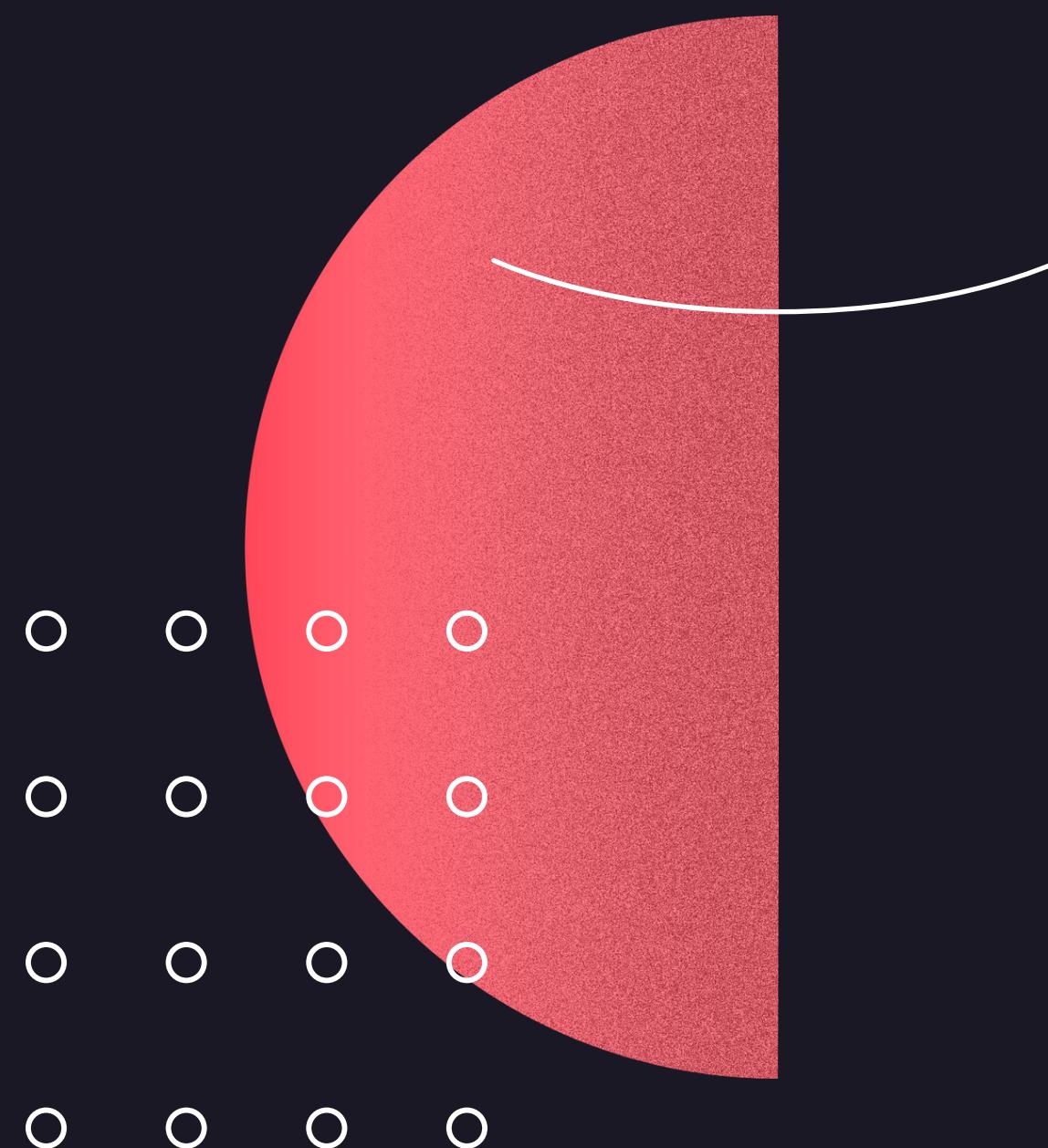
This is where my app comes in clutch. My AR app is called Mugs, It is a recipe/cookbook app that provides the user with recipes for easy to make meals with the catch being that these meals are made entirely inside a single mug.

FEATURES & FUNCTIONS

When A mug is scanned the user is provided with a menu. The user can then choose which meal they would like to have and select the option.

Once a meal is selected a new object will be displayed that shows the user what ingredients they will need to complete the recipe. The user can then click on a block below to move to the next object that displays the instructions a user will need to follow when making the food.

I also have 3 custom controllers, one to hide the menu, one to show the menu and one that displays a custom object and plays a sound.



Lets Get Into a
Live Demo of
Mugs In Action

TECHNOLOGIES USED, CHALLENGES, DECISION MAKING AND LESSONS LEARNT

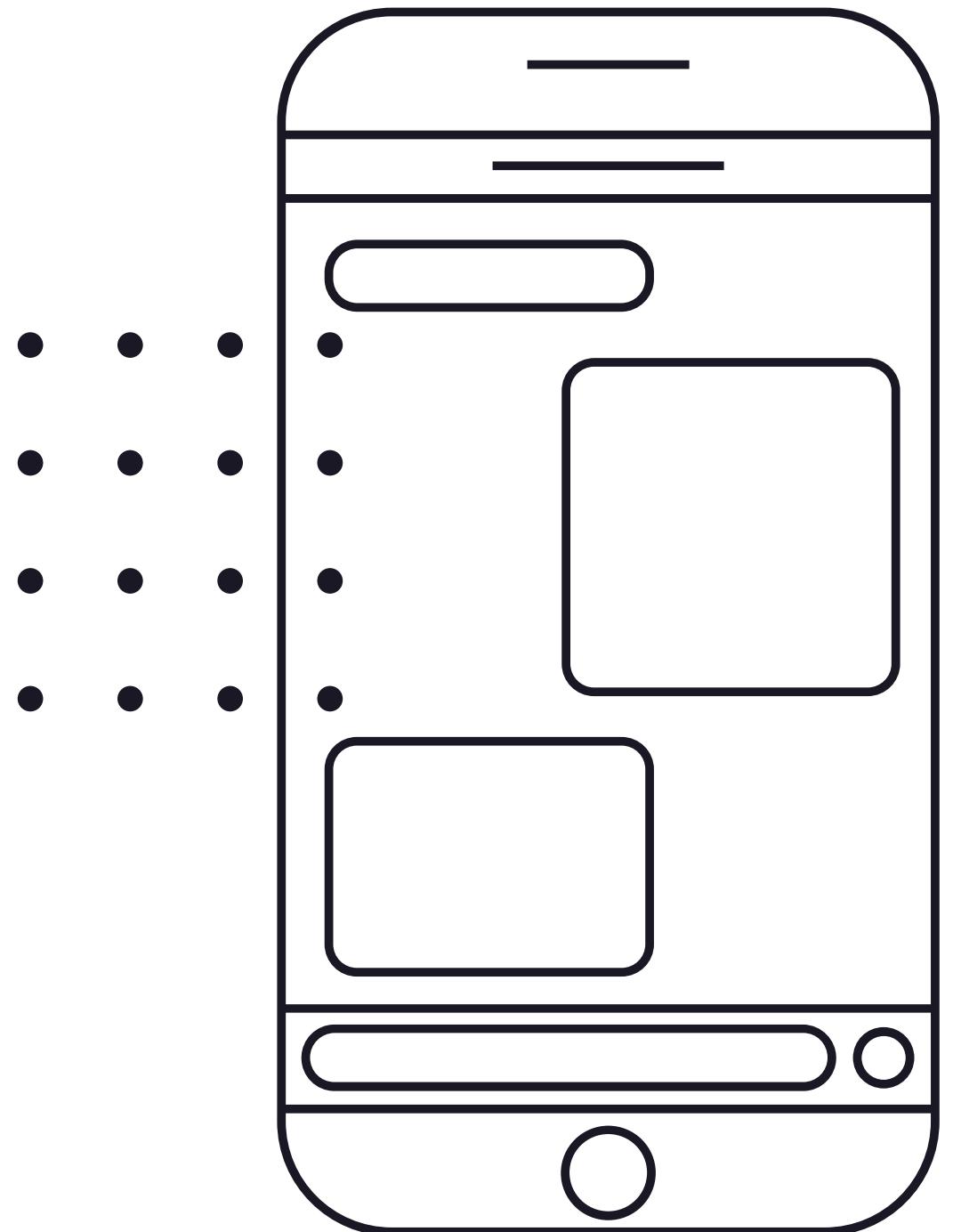


TECHNOLOGIES USED

So my app uses a mug as its scanned object, I created this scan by using the ARKit scanner app. The entire project was made in Xcode and Reality composer using swift.

I got my custom object from a website called usdzshare.com which was the only place I could reliably find usdz files.

I also used USDZPython which is Apple's tool that can be used to convert 3D files in different formats to usdz but I ended up not using any of the files that I converted.



CHALLENGES

When choosing a mug to scan I initially chose one that had very little detail and this was a problem because it did not have enough features to create a reliable scan so I needed to use a more easily recognisable mug with more distinct features.

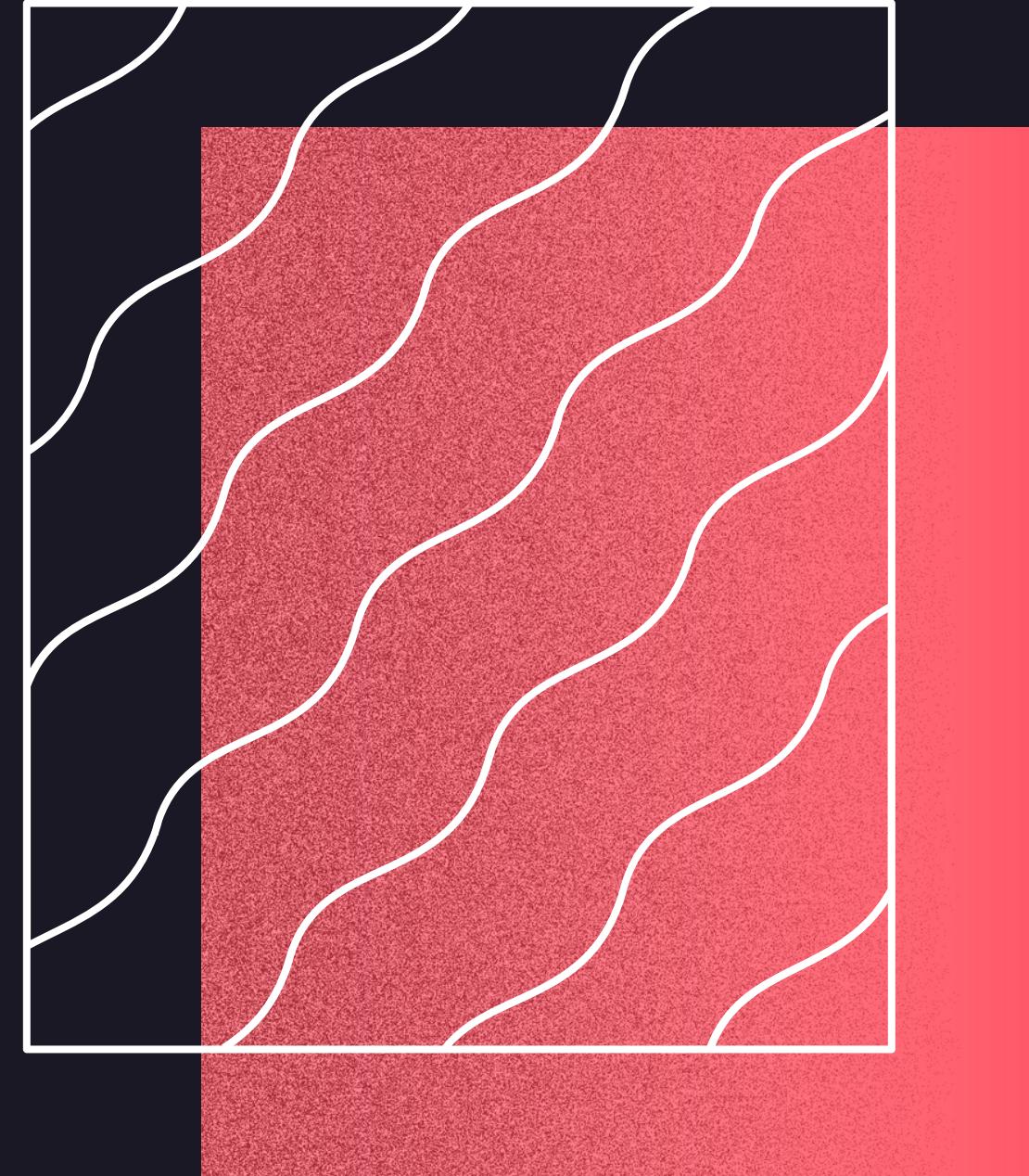
I initially tried to use switching scenes for when a user is changing blocks or choosing a recipe but for some reason this stopped working when in the app although it did work in Reality Composer. I ended up going back to just using one scene with many behaviours.

My first idea for the custom controller was to have fill lines for the different ingredients I managed to implement these but they were not accurate, they didn't look good, they would cover the mug and they just did not fit in with the project as a whole. So I removed them and went with custom controllers for hiding or showing the menu.

CHALLENGES

Providing the user with multiple choices also proved to be a problem because you need to make sure that when the user makes a selection that all other blocks are hidden. Another similar issue appears when switching blocks from ingredients to instructions. To get around this I made sure that when a navigation element was tapped that I hid all the irrelevant elements and displayed only the necessary ones. I made this look smooth by placing all the blocks on top of one another in reality composer.

For my fonts I also faced a challenge because I didn't know I needed to include them in the files to make them actually work on my device. So what I had to do was I had to add the .tff files into my directory, include these files in the info.plist file and I had to add them to the copy bundle resources drop down in the build phases. I also did something very similar for the sounds.



DECISION MAKING

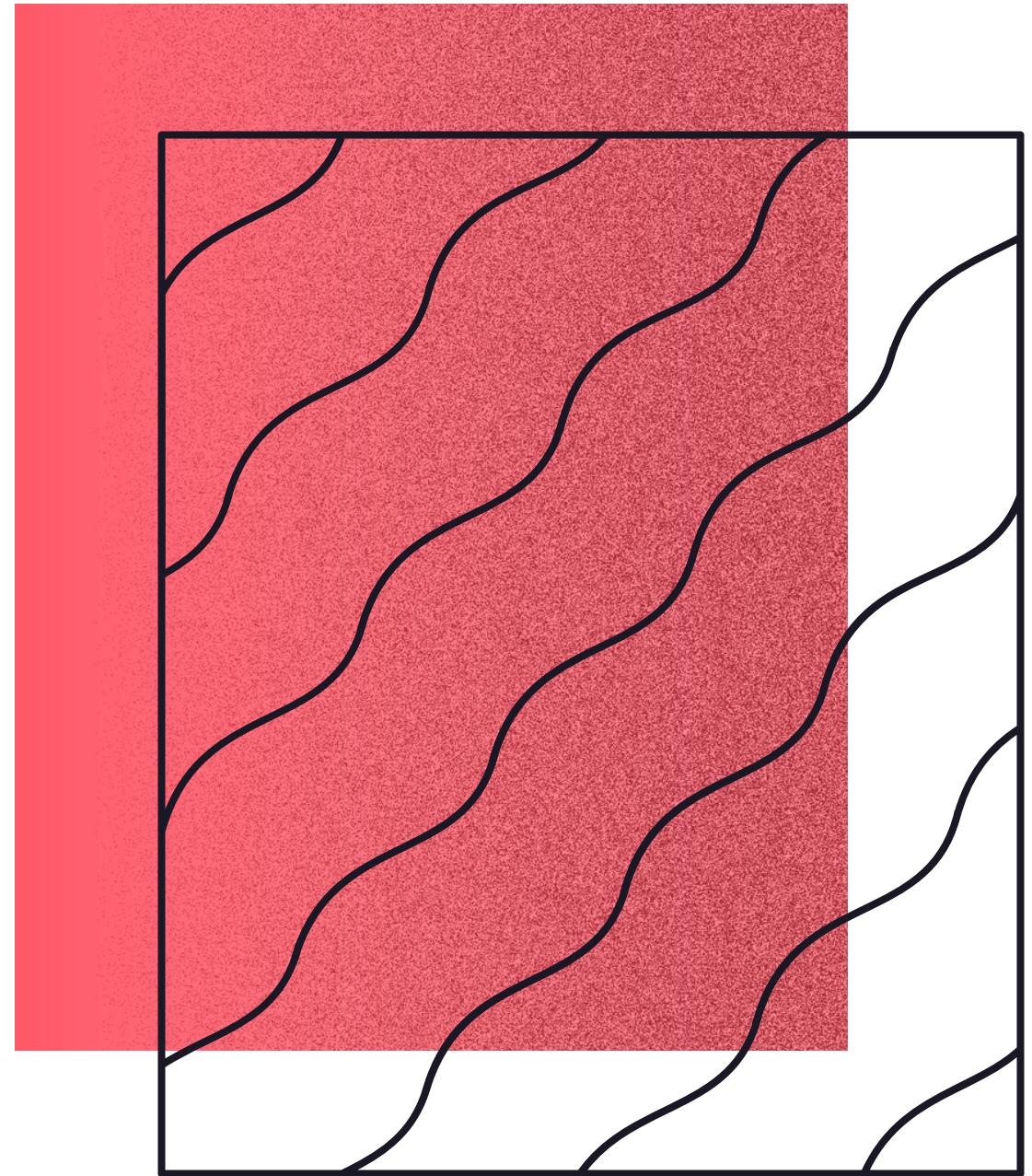
For the most part I pretty much stayed true to my initial concept apart from a few small things.

The things that I didn't end up doing from my concept were the fill lines which I already went over and In my concept I also wanted to use 3D renders for all of the ingredients, I did attempt to do this but I couldn't find a usdz file for all the ingredients and I attempted to use UsdzPython but that also didn't work for a lot of 3D files that I did find, so I scrapped the ingredients idea.

DECISION MAKING

One of the biggest decisions I made was to switch from using scene swaps to hiding and showing blocks for navigation

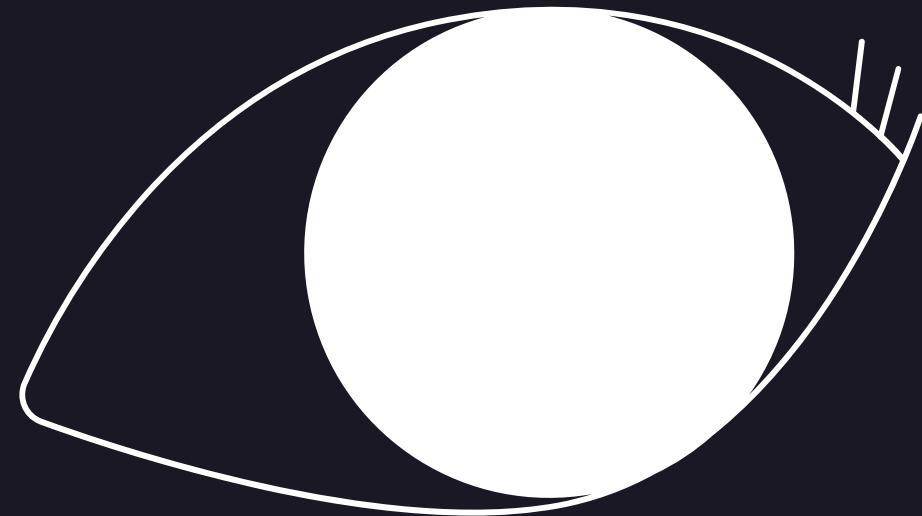
I have been over this a little bit already but I ended up switching because the scene swaps were not working for me when I built the app to my phone. Another reason why I was okay with basically restarting was that I also wanted to redo the designs I had for my menu and the related blocks. The idea for using a chef as my custom object came around because I had been watching too many Kitchen Nightmares clips on youtube.





LESSONS LEARNT

The biggest lesson that I learnt is to test more often, I found out later on that the reason the scene switching wasn't working was because I was having an issue with using text as my target object for the tapped behaviour. So in the end I didn't actually need to switch over and restart but in a way i'm glad that I did. I also learnt that being sick sucks and I just wanted to apologize again for missing the presentations.



THANK YOU
ANY FEEDBACK?