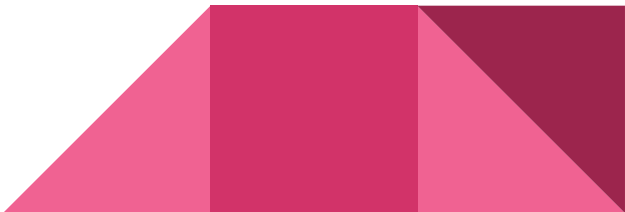# "Treasure Hunt AR"

SI 659 Winter 2021 Final Project
Ruby Kim

Problem Statement & Project Goals

Since people cannot go outside due to COVID-19 situation, there are very limited things to do at home. People want to do something that they have not done before. Many people think that AR experience needs expensive gears and is difficult to try at home. This project aims to provide exciting AR experience using familiar space and smartphone which does not cost any money.

Goal: The project goal is to make people play AR based game at home, get experience with AR, and have fun!
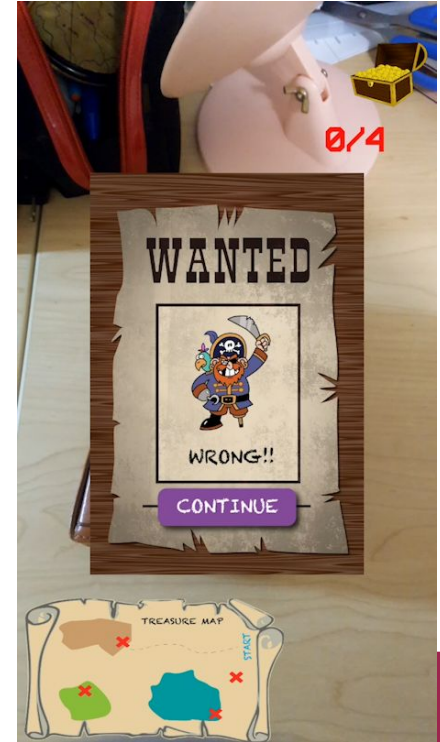
Interaction #1

Clicking the treasure.

When user finds the real or fake treasure, they click and see whether they found the right treasure or not. I used click event to make this work.

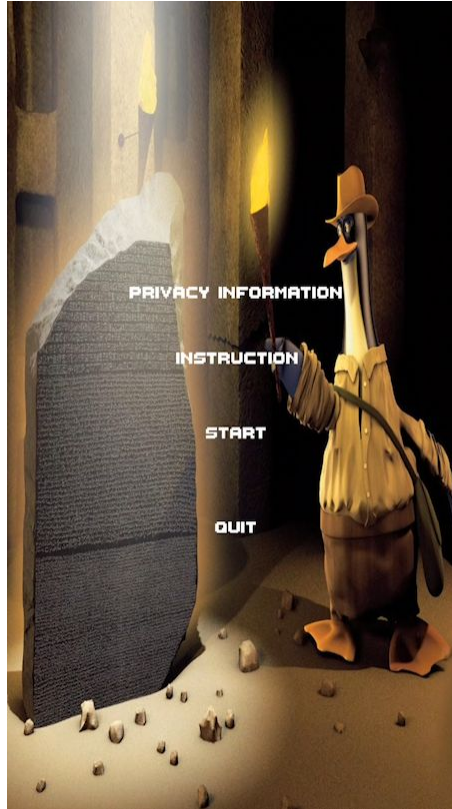Also added sound effect like pirate laughing and coin sound to make it more interesting.
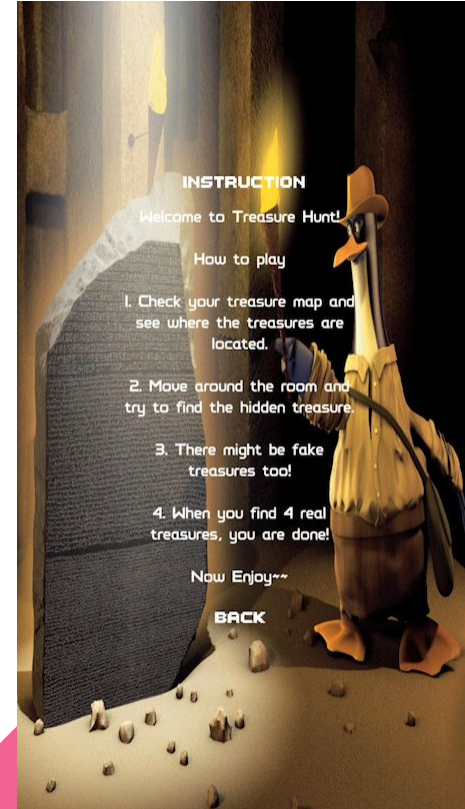
Interaction #2

<u>Exploring the main menu features.</u>

Apart from the main game scene, there is a main menu. The user can click each tabs such as privacy information, instruction, start and quit. When the user clicks the start button, it loads the main game screen.
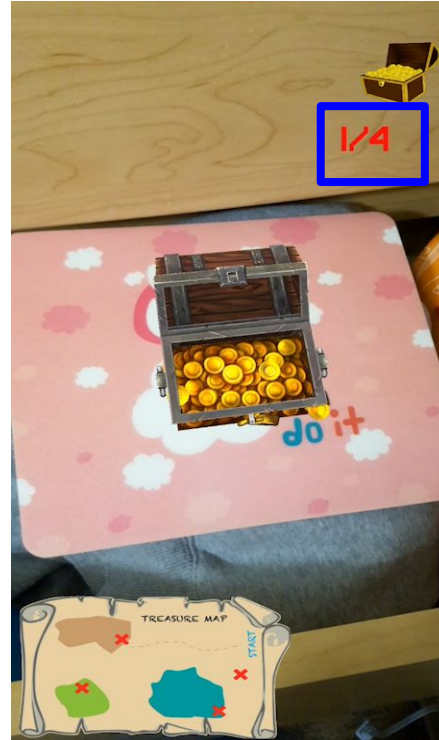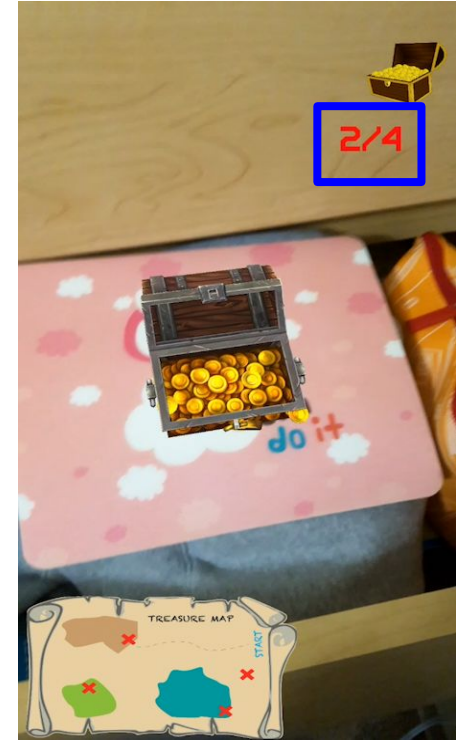
Main menu

Instruction page

Interaction #3

Score counter

When the user finds the right treasure, the score gets counted. Before clicking the treasure, it was 1 out of 4 but after the user clicks the treasure, the score increased to 2 out of 4.
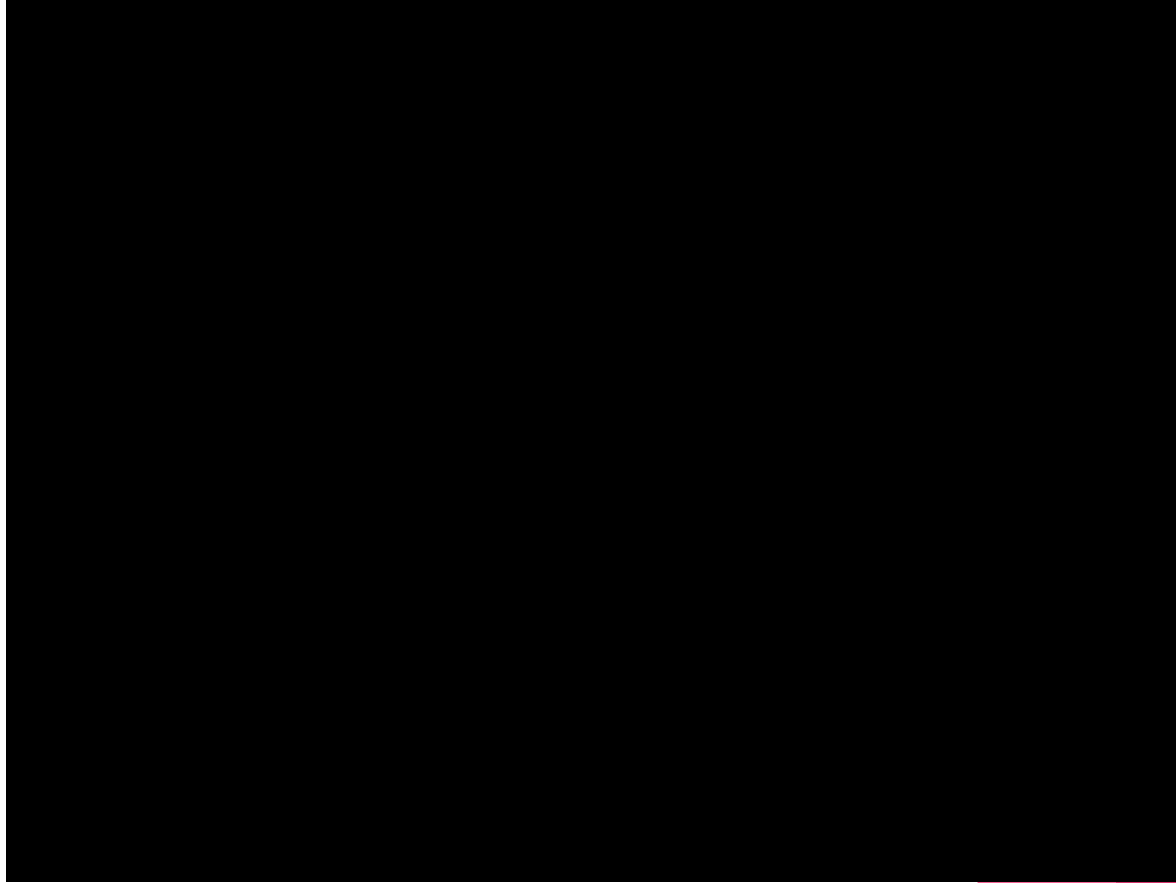
Before

After click

Video

Major Challenges & Limitations

- I wanted to make the map more reactive such as making the map rotate just like the compass when the user turns around and moves around so that the user can actually use the map to locate where the treasure is. Moreover, if possible I wanted to use GPS system so that the it is shown in the map where I am located and where I am going. I thought it is out of scope from this course.

- At first, I wanted to make this game with marker-less AR like Pokemon-go. However, there were limited time to build the project and I thought that I could not finish the project on time. Therefore, I had to use marker-based AR. Since it is not marker-less AR, the 3D treasure models were not able to be randomly located. It was limited to only the ones that were in my image triggers. I am not used to creating the marker-less AR so it would be my future challenge to create one.

Links & Resources (Selected)

https://www.youtube.com/watch?v=dkQF30SobaA

https://www.youtube.com/watch?v=y929uS572dc

https://www.youtube.com/watch?v=d0NVZynpEqs&t=316s&ab_channel=3DLunaticProductions

https://www.youtube.com/watch?v=79NRM5fny3U

https://www.youtube.com/watch?v=hi_KDpC1nzk&t=272s&ab_channel=CubicBrain

https://www.youtube.com/watch?v=LzilILB2Kt4&ab_channel=Jayanam

https://wallpapercave.com/w/wp4363430

https://www.clipartmax.com/download/m2H7d3d3b1Z5K9A0_darts-in-dartboard-royalty-free-vector-clip-art-illustration-dart-vector-png/

https://www.subpng.com/png-yyhakp/download.html