A Strange Filling

EXD

PROPOSAL REPORT

By Team SaBaiBaru

CONTENT

INTRODUCTION

As a group of aspiring Game Designers, it is our responsibility to ensure that applications produced can provide users with a positive and purposeful experience.

This proposal will cover an AR experience and game based on the fond memories that one of our members had about Dim sum for phone users. In addition, this report will cover sufficient information on the processes and methodologies used to make the AR experience, for the purpose of improving user's experience.

TEAM SABAIBARU

サバイバル (SaBaiBaru) translates to the word "Survival".

Guo Ji Xuan

Project Manager
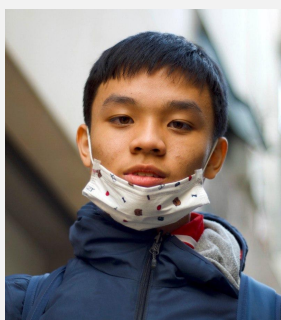
Radelle Oh Xin Rui

Art Director

Ng Shijun Jess

Lead Programmer

BACKGROUND, PURPOSE AND GOAL

What is this AR experience about?

Background

A Strange Filling is an AR experience crafted based on an unforgettable memory that one of us had.

Goal

We aim to share our unique memory of local food through an interactive and visually engaging experience.
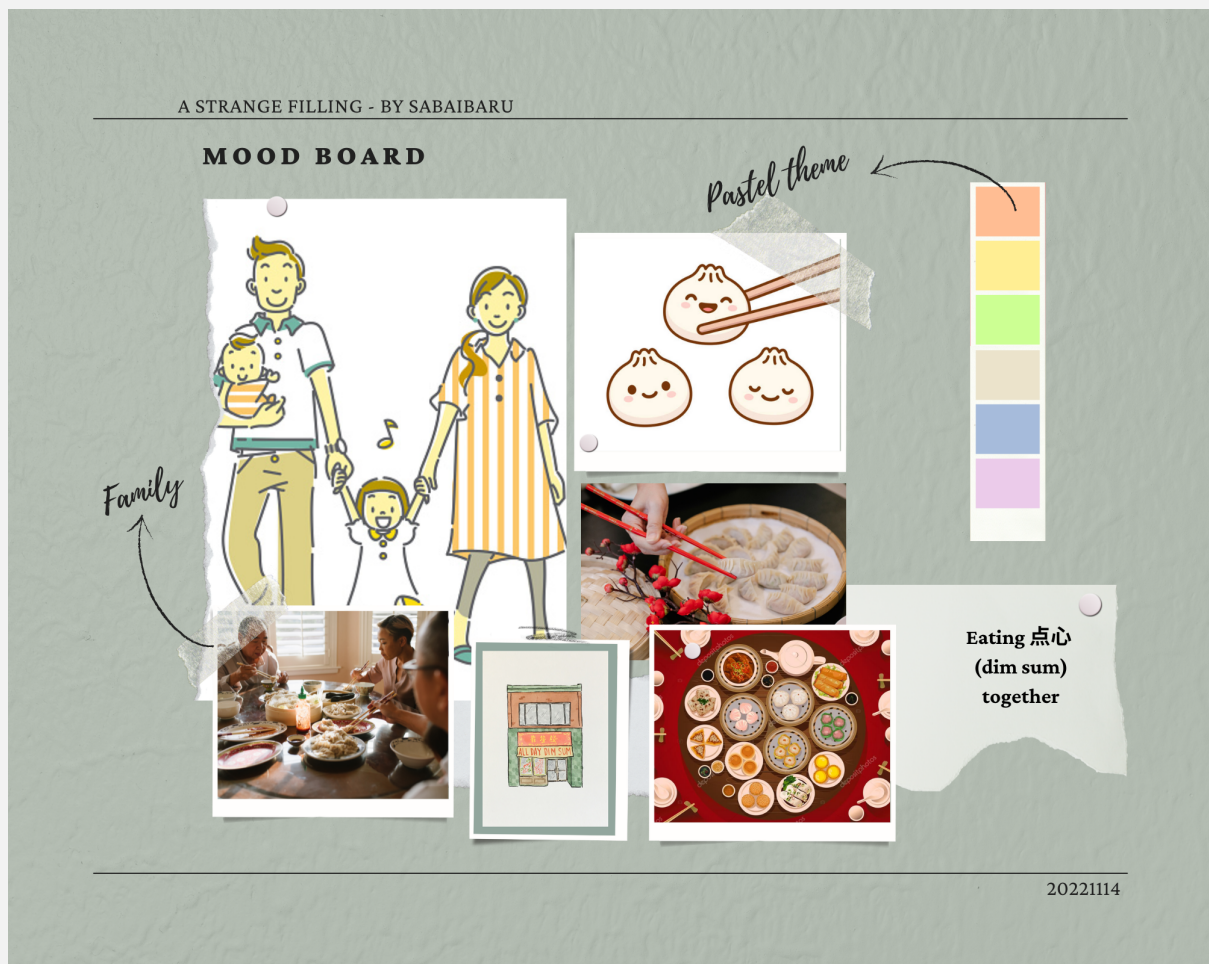
Objective

We want to invoke the emotions of our memory and share the love for a Chinese favourite, 点心 (dim sum).
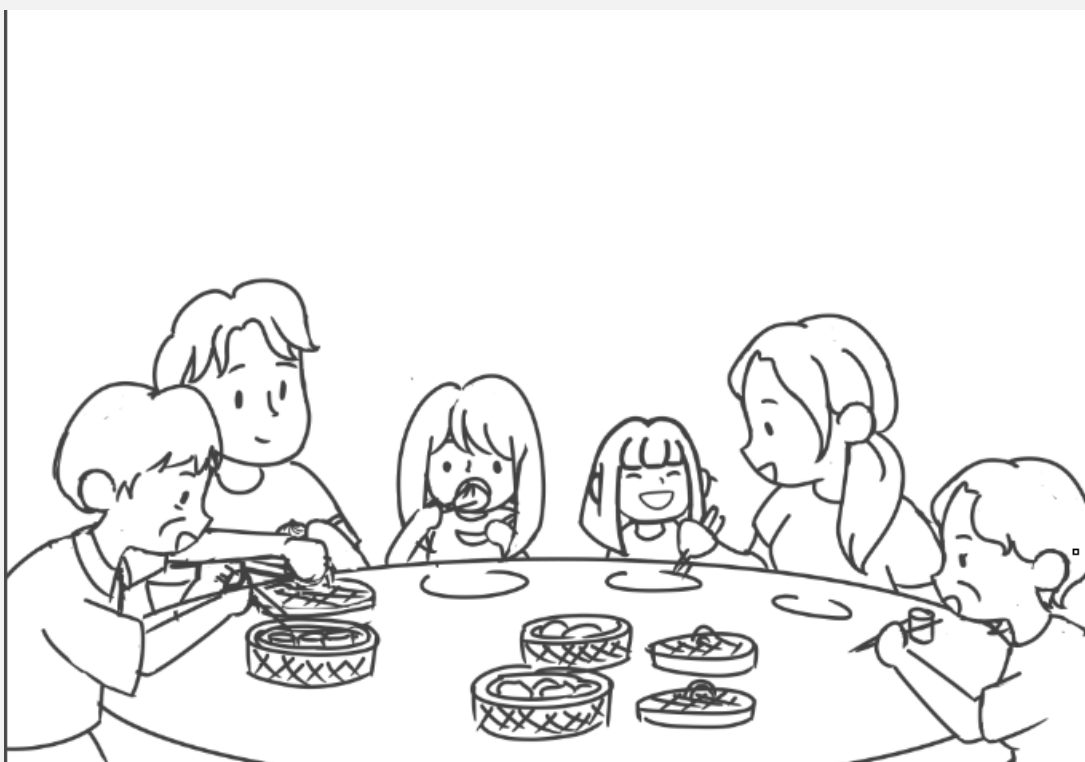
20

VISUAL RESEARCH

Mood Board

Sketches/Visuals

ANALYSIS OF COMPETING AR EXPERIENCES

1. Food as a Love Language

(Reference: https://www.behance.net/gallery/120710917/Food-as-a-Love-Language-AR-Product-Des)

Food as a Love Language was a proposed project by Matthew Yap in The One Academy's school of Digital Media Design to create dedicated gifts for KLoe Hotel's loyal customers who stayed during the Chinese New Year, with KLoe Hotel as the collaborator.

The aim is to highlight five unique love languages displaying the Malaysian culture's way of showing love. The final product of the project includes a Tiffin carrier and an AR application accompanying it.

The five different dishes in the tiffin carrier are inspired by stories Matthew's friends had shared with him.

The five dishes are Yu Sheng, Steamboat, Tang Yuan, Pineapple and Mandarin Orange.

Every compartment of the tiffin has a keychain with a QR code attached to it, using an image-marker for the AR.

The user will scan the QR code attached on the tiffin carrier that will lead them to the AR application. Users can scan on any of the 5 compartments and see the animated characters on the food sculpture. They can also tap on objects for additional interactions.

https://www.behance.net/gallery/120710917/Food-as-a-Love-Language-AR-Product-Design/modules/68693074

ANALYSIS OF COMPETING AR EXPERIENCES

2. Le Petit Chef

(Reference: https://youtu.be/LXyX-OvZlUg)

The creators behind the journey of Le Petit Chef set out to create an "unforgettable experience" through the mix of AR and exquisite dining.

Le Petit Chef is centred around the little virtual chef preparing a dish for the diners despite its size. The storyline of how the tiny chef prepares the dish is compelling to watch and diners would find themselves entertained with each twist and element in the AR experience.

https://youtu.be/LXyX-OvZlUg

Le Petit Chef seems to use a projection to put an overlay over the dining table, especially over the empty plate that was given before the experience had started.

ANALYSIS OF COMPETING AR EXPERIENCES

https://youtu.be/LXyX-OvZlUg

After the AR experience, the waiter/waitress will serve the replica of the shown dish. This means that the AR experience is an introduction to the dish that is about to serve. The building of the dish can also mean building the diner's expectation of the real dish.

ANALYSIS SUMMARY

Food as a Love Language

Food as a Love Language uses AR to portray love languages in Malaysian families through food, animating scenes that can be experienced during the Chinese New year celebration with family.

It uses a QR code (image-marker) that is attached to the tiffin container's compartments.

Le Petit Chef

Le Petit Chef on the other hand uses AR to bring entertainment for the diners while building the diner's expectation.

It uses AR projection for the experience on the diner's table, with most of the action circling around the empty plate that was provided before the experience.

MAIN FEATURES

1. Marker-Based Augmented Reality

   When the user first opens the application, the application will switch on the camera and prompt the user to scan the postcard. This will make a miniature table preview to show up on the postcard image.

   - Camera toggle
   - Restart
   - Quit
   - Image-based Augmented AR

2. Markerless- Based Augmented Reality

   After the first feature, the player should find a flat surface and place a new table. The player is promoted to interact with the dimsums on the new table.

   - Ground Plane, Markerless Augmented Reality

3. Animation for Storyline

   After the first feature, the player should find a flat surface and place a new table. The player is promoted to interact with the dimsums on the new table which will trigger an animation to show the memory. After this, the user will have to scan the postcard again for the mini game
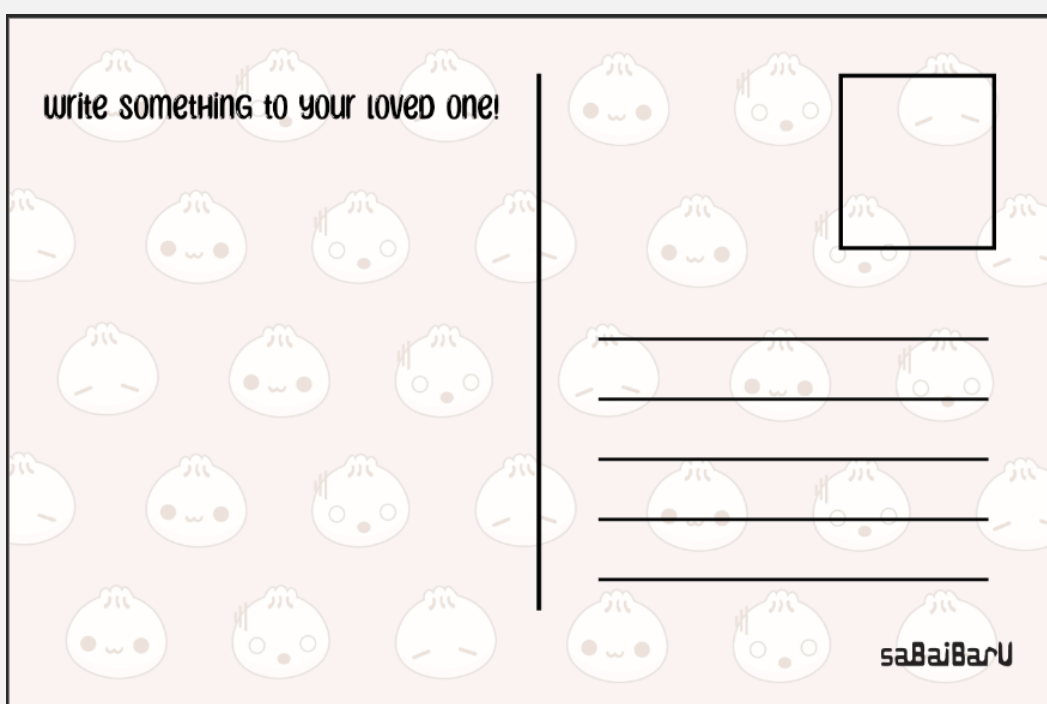
   -Animation

4. Dim Sum game

The Dim Sum mini game is a 2D catching game where the player has to catch the falling Dim Sum by moving the bamboo basket left and right. To move left or right, players have to press the blue left or right button at the bottom of the screen. After the player successfully catches 20 of them, the game ends and will direct the player to the end screen.

- Move left or right in the game
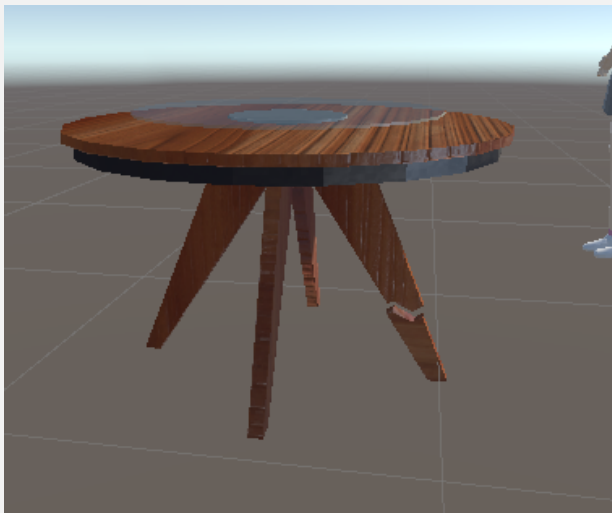- Restart the experience
- Quit

Back

AR IMAGE MARKER DESIGNS

Front

Back

Original Assets

A STRANGE FILLING

PERSONA

Yap Yixuan Clarisse
Student

- 18 years old
- Singapore, SG

Goals
- To pass all subjects and modules in school
- To build a massive following on social media
- Enjoy good food

Bio
- Loves Dim Sum
- Likes to play a variety of games
- Currently studying Game design

Frustrations
- Not enough time to do things
- Lack of originality in games
- Unable to find good food

Motivations
- Friends
- Interest
- Influence

Channels

> " The belly rules the mind
> -Spanish Proverb "

- Extrovert **25%**
- Introvert **75%**
- Thinking **70%**
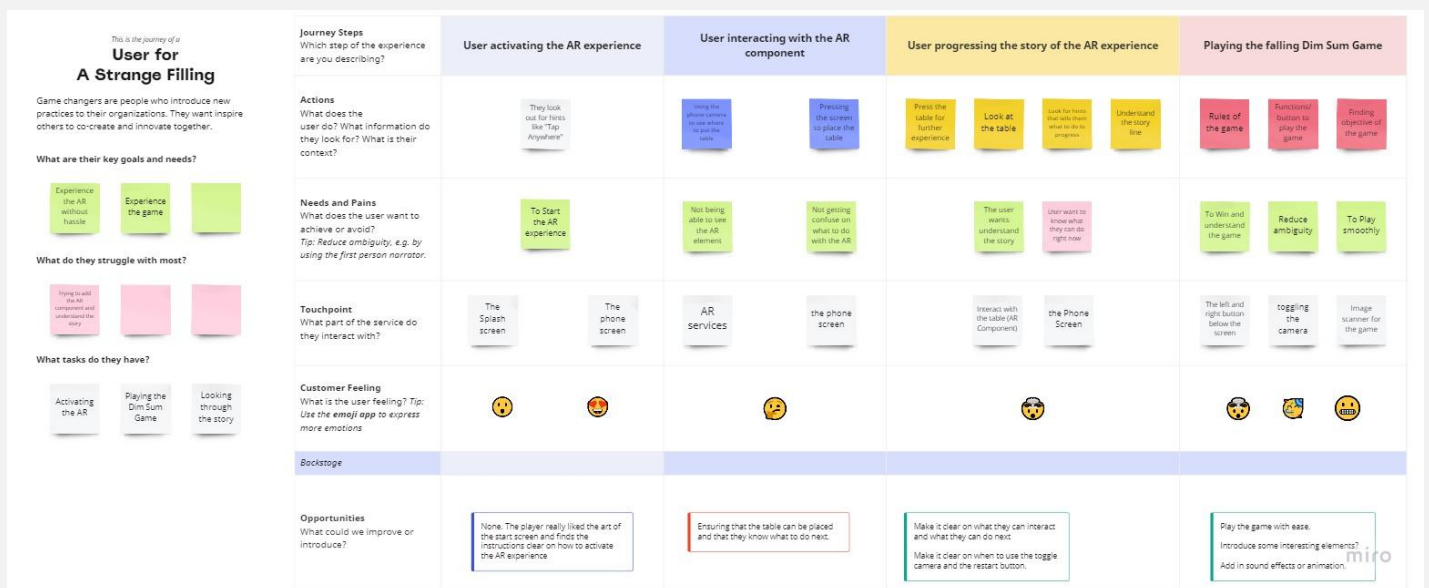- Feeling **85%**
- Judging **80%**
- Perceiving **60%**
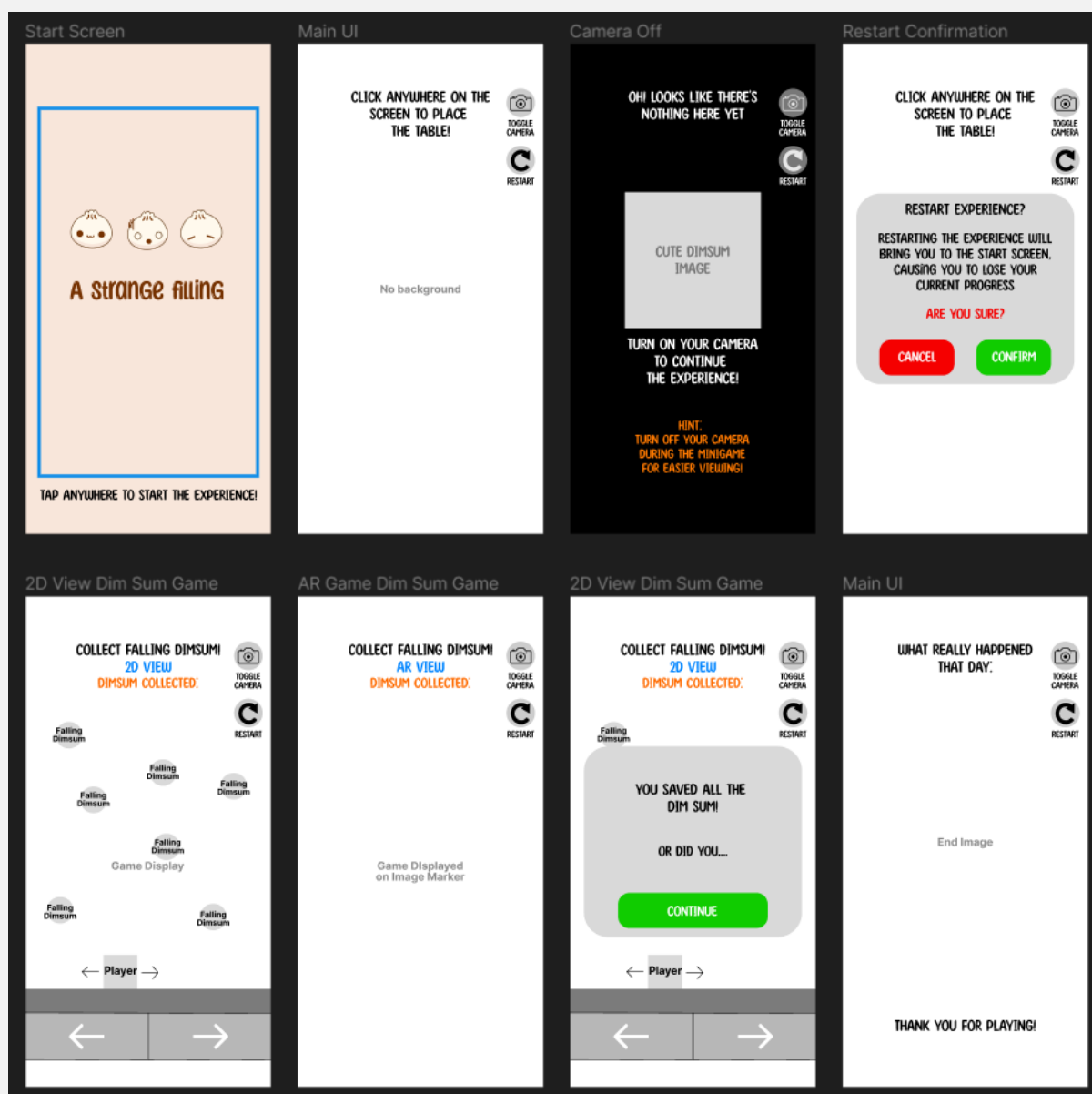
USER JOURNEY MAP

https://miro.com/app/board/uXjVPFHFP9o=/?share_link_id=497726130477

WIREFRAMES

Low Fidelity:
https://www.figma.com/file/kpTp4eTZc1u2wtJC18YCO8/AStrangeFilling_LowFid?node-id=0%3A1&t=NoZneRdcnNWVWFVH-0
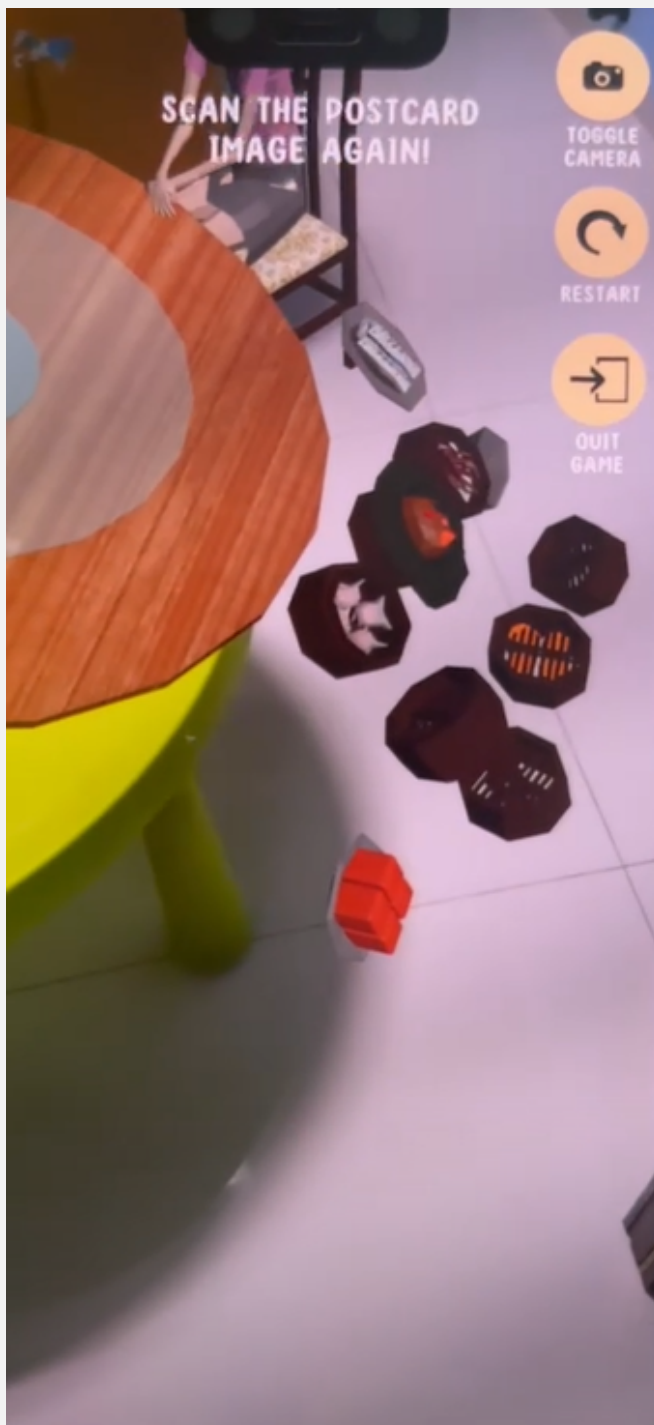
A STRANGE FILLING

TAP ANYWHERE TO START THE EXPERIENCE!

A saBaiBarU
PRODUCTION

LOADING....

TECHNICAL REQUIREMENTS

Operating system:
Android

Version:
4.4 (API 19)+

CPU:
ARMv7 with Neon Support (32-bit) or ARM64

Graphics API:
OpenGL ES 2.0+, OpenGL ES 3.0+, Vulkan

Additional Requirements:
- 1GB+ RAM
- Supported hardware devices must meet or exceed Google's Android Compatibility Definition (Version 9.0) limited to the following Device Types:
    1. Handheld (Section 2.2)
    2. Television (Section 2.3)
    3. Tablets (Section 2.6)
- Hardware must be running Android OS natively. Android within a container or emulator isn't supported.
- For development: Android SDK (10/API 29), Android NDK (r21d) and OpenJDK, which are installed by default with Unity Hub.

ADDITIONAL FEATURES

Additional features are features that could be added in the experience but were unable to be in the final product due to time constraints or other difficulties. It can be added in future updates.

- Sharing to various social platforms

    Why limit the experience to yourself when you can share a humorous and fond memory to your friends and family? Social platforms for sharing can be:

    - Twitter
    - Facebook
    - Whatsapp
    - Instagram

- Volume Changer

    Some users might not like the default volume in the experience and would like to adjust it for a better experience.

- Extra interaction with AR elements

    Instead of only being able to press the dimsum, let the lazy susan spin when being interacted by the user. While it might not be plot relevant, interactions with AR components can be entertaining.

ANNEX

Images used
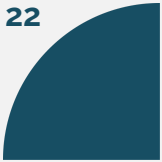
- Background Image used for Image Marker:

https://www.klook.com/zh-TW/activity/5131-lin-heung-kui-dim-sum-hong-kong/

Image by upklyak on Freepik

Left Right Control buttons from Pngtree.com

Cartoon wooden floor from pngwing.com

Audio used

- Crowd Gasp/Shock - Sound Effect (HD)
  https://youtu.be/GrEJ0ccLDII

- WOOD BREAKING SOUND EFFECT
  https://youtu.be/oTiA8ZCL38E

- Chinese Restaurant Ambience | Plates, Cutlery, Dishes, Waiters
  & Customers Talking Loudly Noises
  https://youtu.be/yTt1-114zTw

- UI audio: DM-CGS-21.wav
- table placed: DM-CGS-32.wav
  https://assetstore.unity.com/packages/audio/sound-fx/free-casual-game-sfx-pack-54116

- Page forward single chime
  https://mixkit.co/free-sound-effects/chimes/

- SAD VIOLIN
  https://www.soundboard.com/sb/sound/930774

- Street Food
  https://pixabay.com/music/id-112193/

- Game ball tap
  https://mixkit.co/free-sound-effects/game/?page=2

- Chinese Restaurant Ambience | Plates, Cutlery, Dishes,
  Waiters & Customers Talking Loudly Noises
  https://youtu.be/yTt1-114zTw

Mind Map
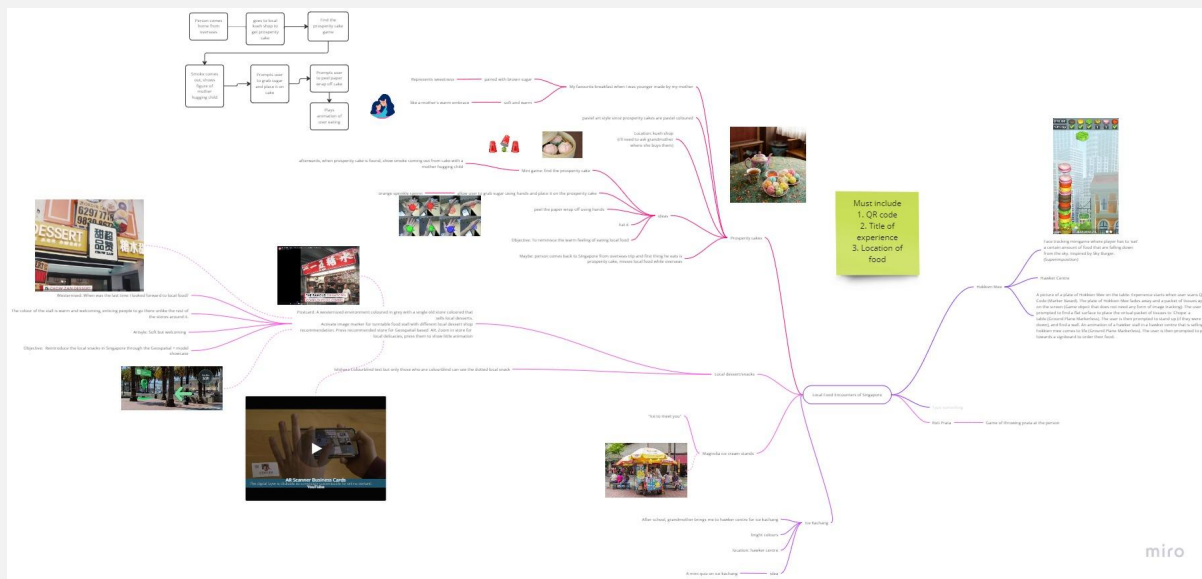
https://miro.com/app/board/uXjVPJeiRLw=/