



# Pleeb Recycling

By Szechuan Sauce

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# Overview

- Empathize
  - Client meeting and needs
- Define
  - Problem statement
  - Benchmarking
  - Design criteria and target specifications
- Ideate
  - Conceptual design
- Prototype
  - Prototypes 1,2,3
  - Final product demo

# Empathize

- Client Meeting and Needs
  - Mitch Bouchard
  - App that "makes recycling happen better"
  - User friendly that can appeal to a large demographic
  - Can distinguish different items
  - High accuracy

# Define

- Problem Statement
  - The client desires a recycling-assistant application that will incite the general population of Ottawa to recycle, and in the most efficient way.

# Define

Benchmarking of existing recycling apps Recycle Coach, iRecycle and RecyclingWizard

## Pros

Recycle Coach and iRecycle

- Accessing nearby recycling locations
- Tells us how to recycle different materials

RecyclingWizard

- Image recognition

## Cons

- Not user-friendly
- Users don't want to have to look for information
- Image recognition is not very functional and no alternative if it doesn't work

# Define

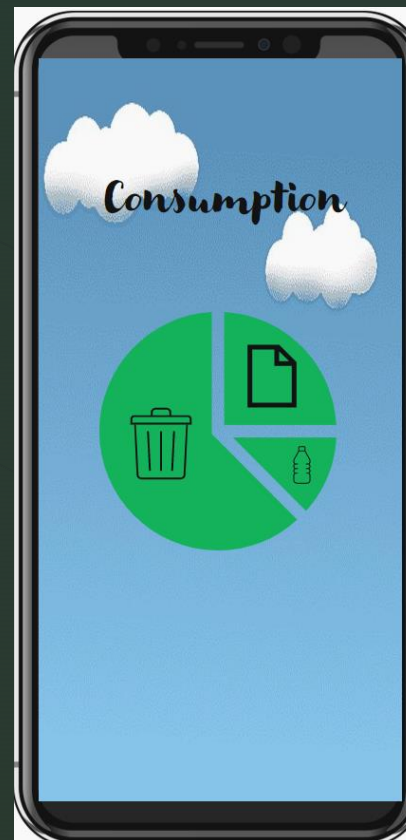
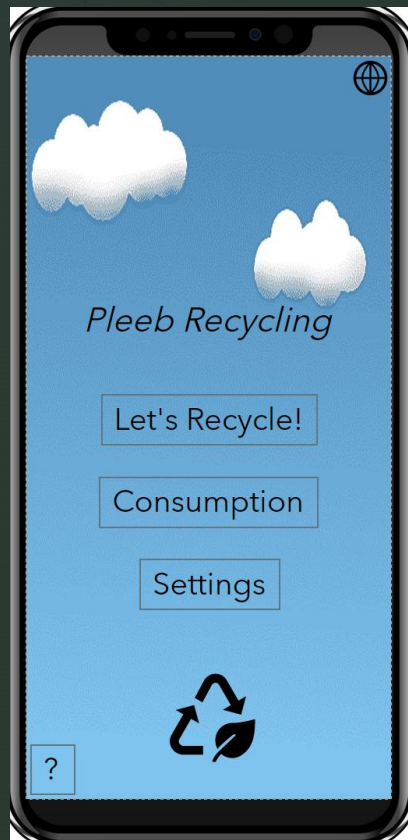
- Design criteria and target specifications

Number #	Priority Level	Need
1	5	95% efficiency rate
2	5	Can say if item can be recycled.
3	5	Can differentiate between plastic and cardboard.
4	2	Can identify special recycling circumstances.

Number #	Priority Level	Need
5	3	List of common recyclable/non-recyclable items in separate tab and how to dispose.
6	5	User friendliness
7	2	Looks like <i>Pokémon Go</i> where they swipe item into bin, and it says if it is the correct bin.

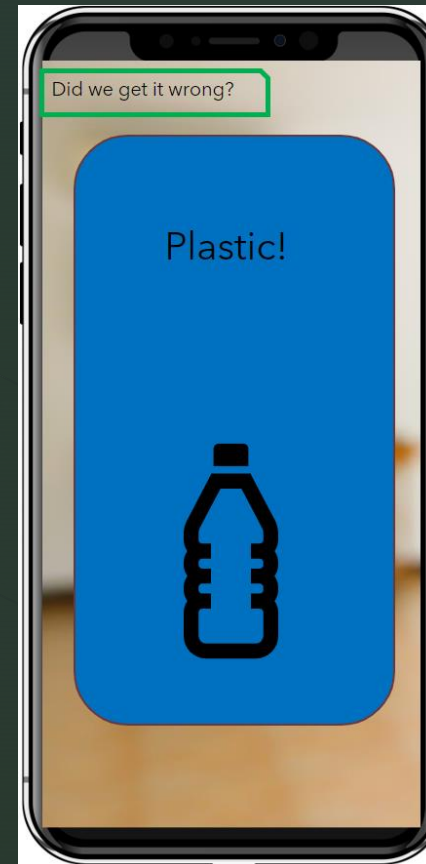
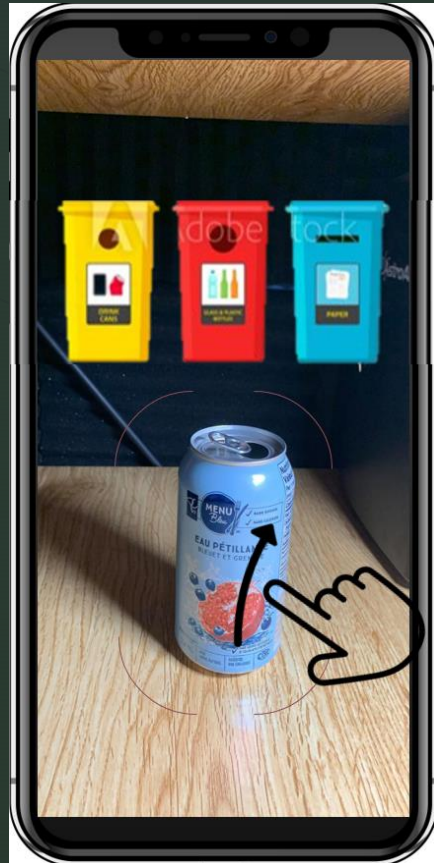
# Ideate

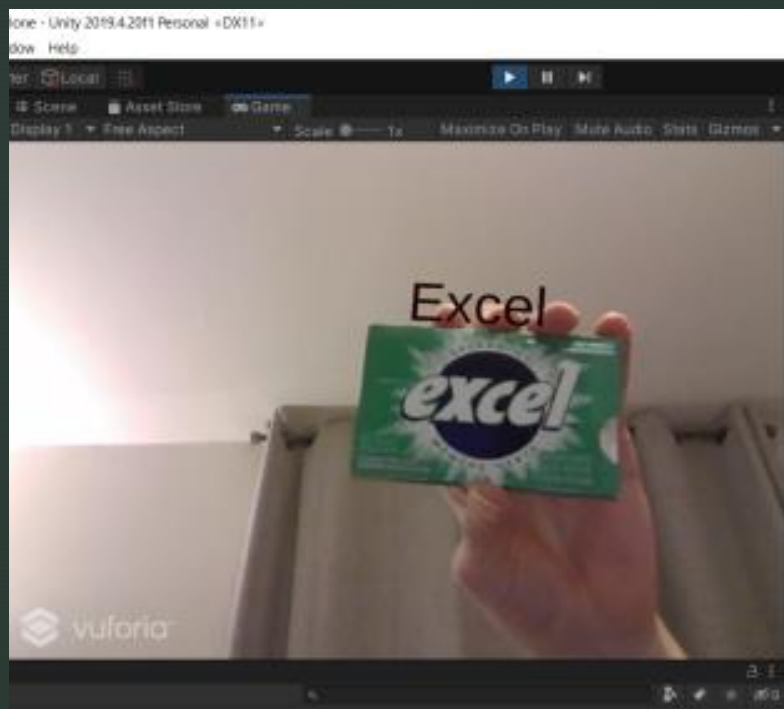
- Conceptual Design



# Ideate

- Conceptual Design





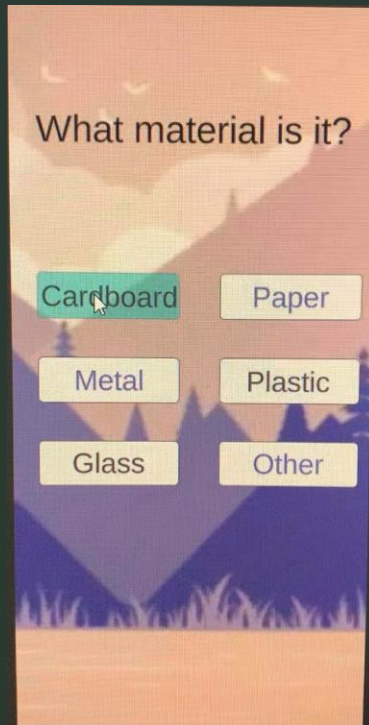
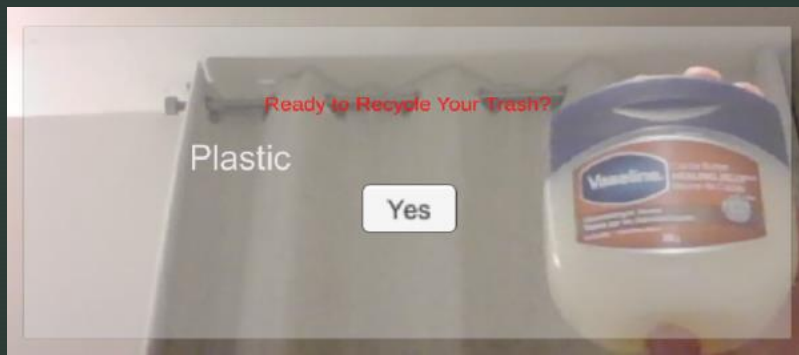
# Prototype 1

## Objectives

- Understanding the Unity software
- Image recognition



# Prototype 2



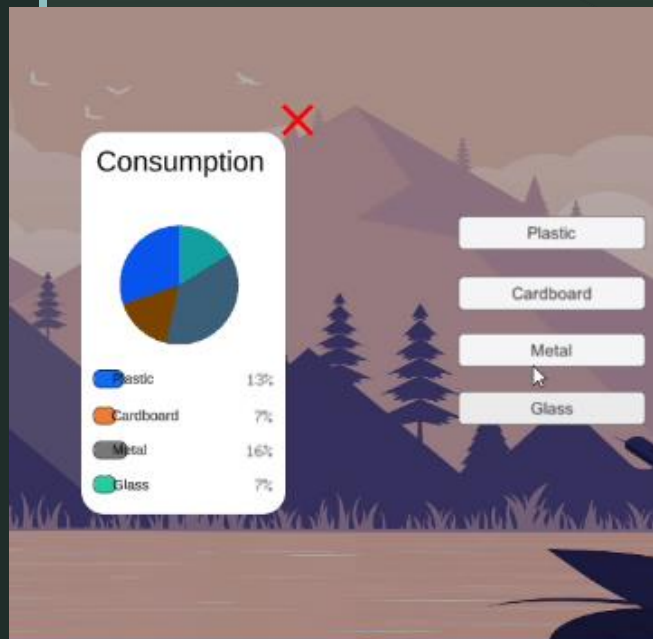
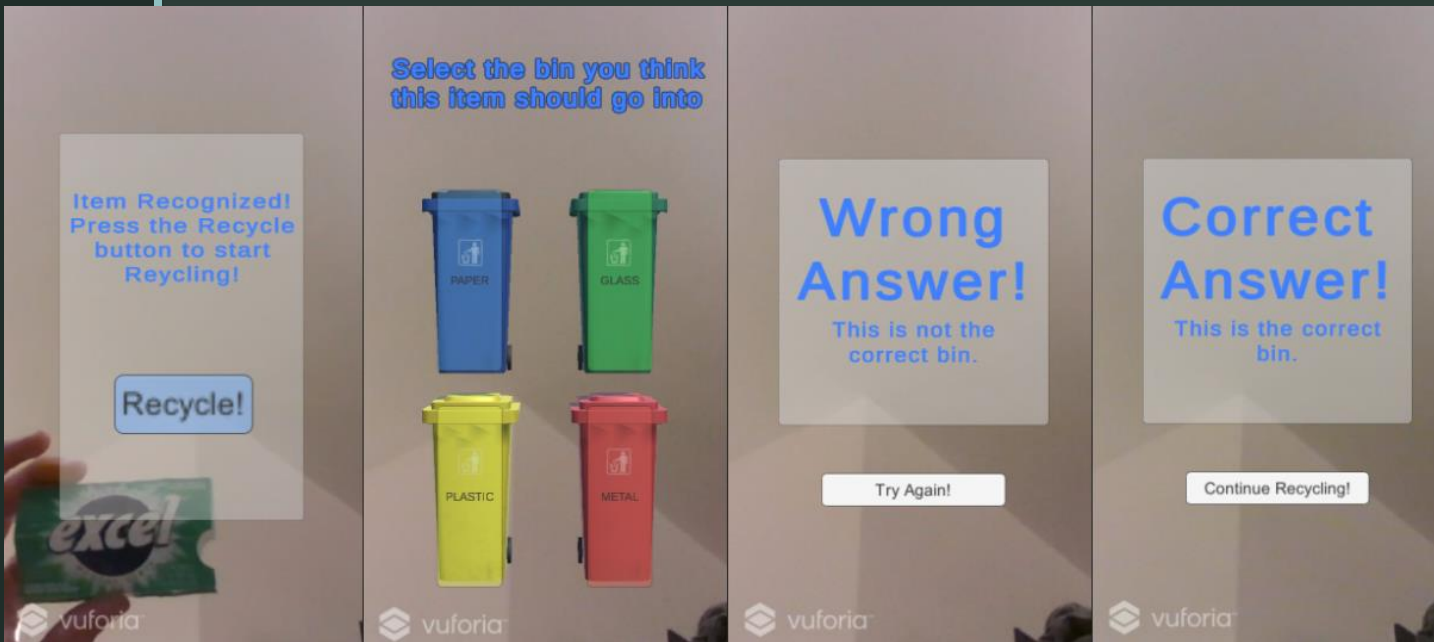
## Objectives

- Identify objects and correct bin to dispose
- Add a "did we get it wrong" section in case the object is not recognized

# Prototype 3

## Objectives

- Finishing the recycle screen
- Finishing the consumption screen



# Lessons Learned

- Time management
- Internal conflict
- Keeping our heads up with slow progress at the beginning