

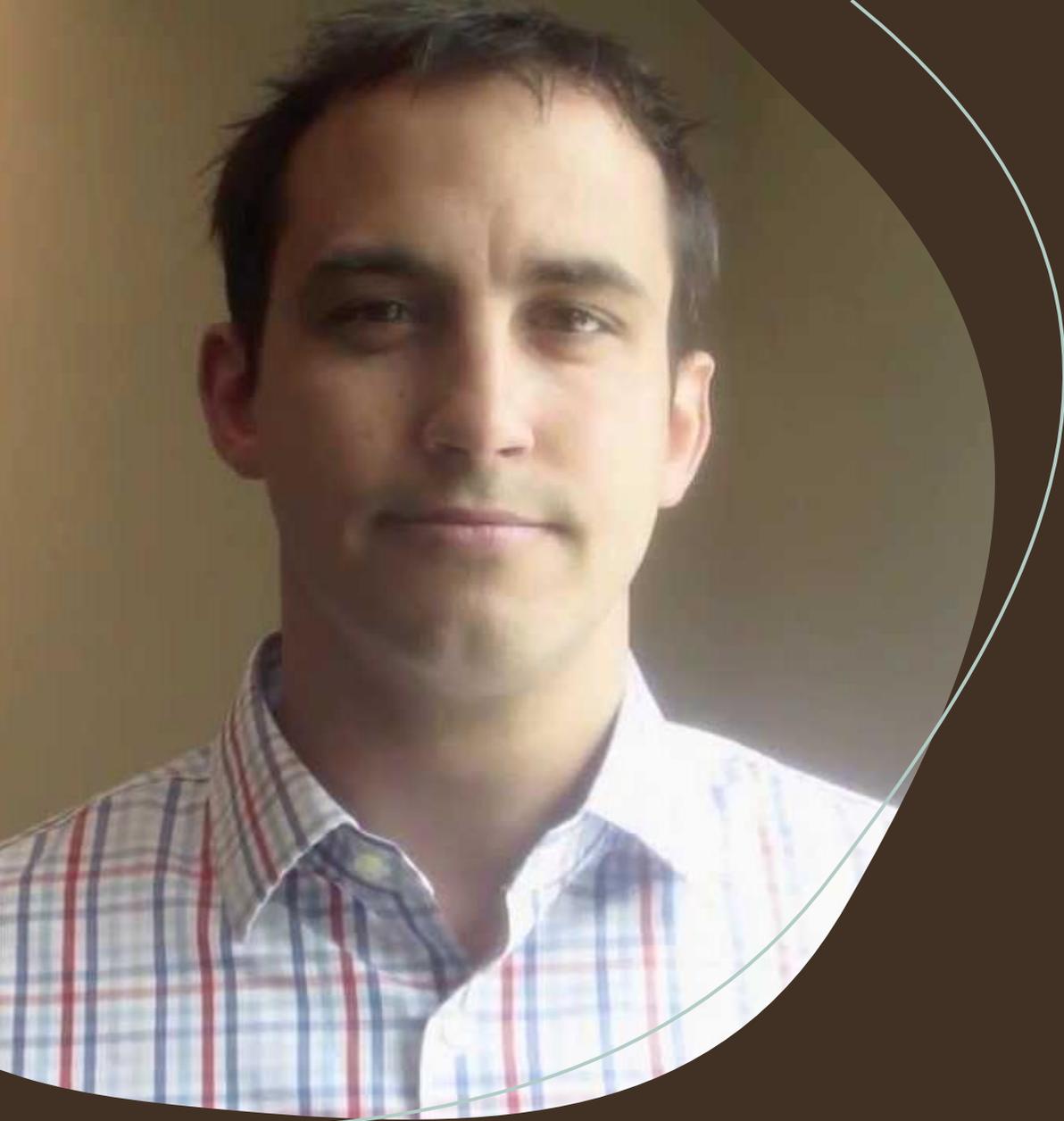
Eh, Are You Recycling

By: /slash\
S - Seonaid
L - Laura
A - Adam
S - Sam
H - Hongdi

Problem Statement

The client needs an easy, reliable, and cost-effective method to encourage people to recycle and to assist people in recycling properly.





Background Information

- Mitch Bouchard
- University of Ottawa Engineering graduate
- Bearings Manufacturer
- Improve the recycling process

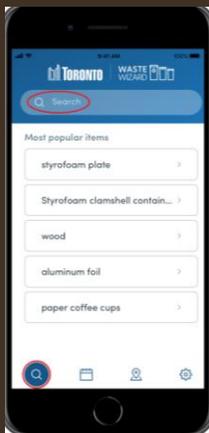
Benchmarking

Similar Apps

- TOWaste
- Recycle Nation
- Bin the Trash
- Have you Herd

Unmet Requirements

- Not Ottawa Based
- No AR features
- Not User friendly
- Not Practical/Educational



TOWaste



Recycle Nation



Bin the
Trash



Have You Herd

Our Solution

App

- AR Camera
- Recognizes bar codes
- Manual Sorting Feature

Website

- Maps identifying recycling locations
- Sorting Information
- Recycling Education
- Chat Forum



The Design Process



Prototype I – App



Decisions Made

- Focused on AR scanning and Manual search bar functionality
- Deprioritized Games and Social features

Prototype I – Website

Home

Manual Sorting

Map

Games

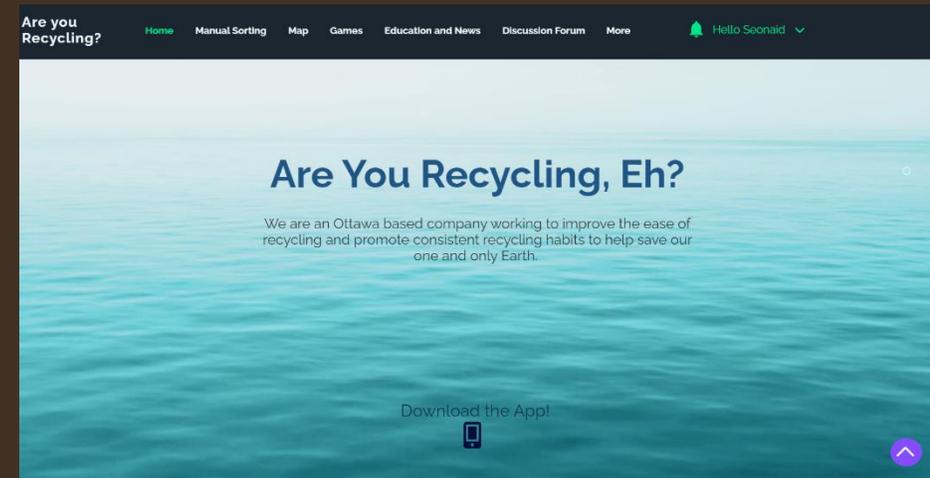
Education and News

Discussion Forum

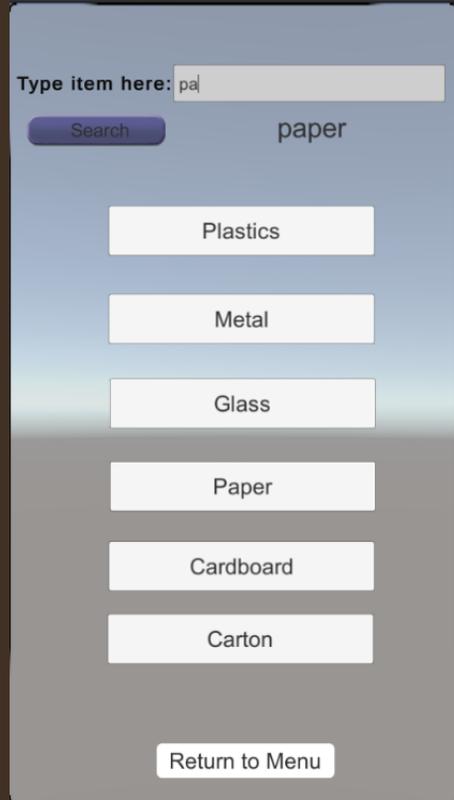
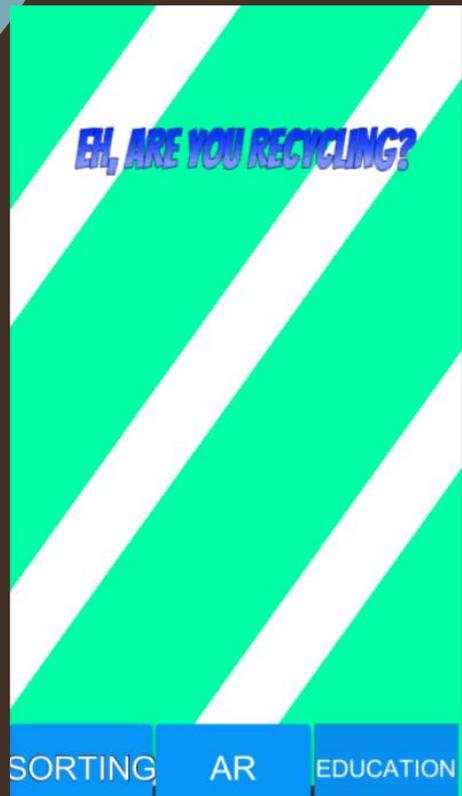
More

Decisions Made

- 7 pages
- Research
 - Manual sorting database
 - Education resources
- Game and Map creation
- Discussion Forum and Members



Prototype II – App



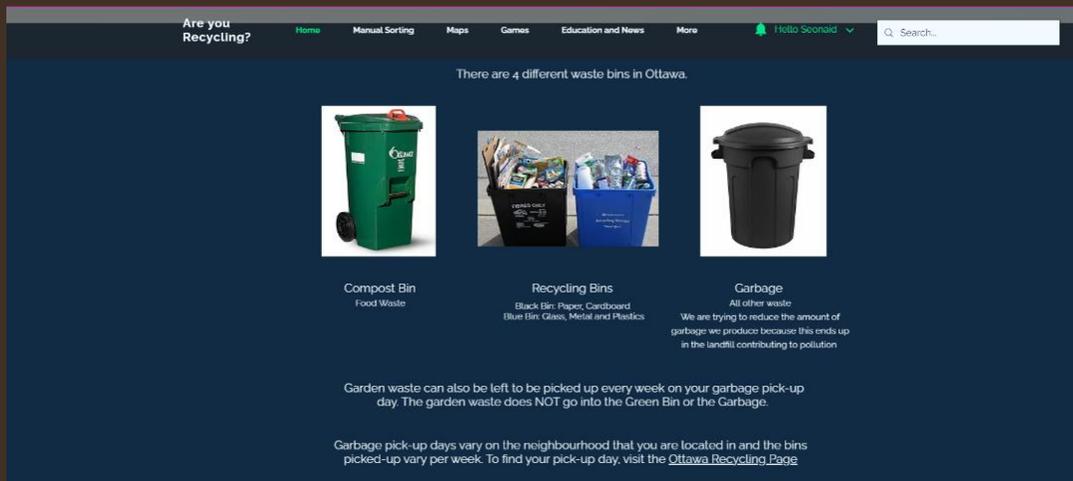
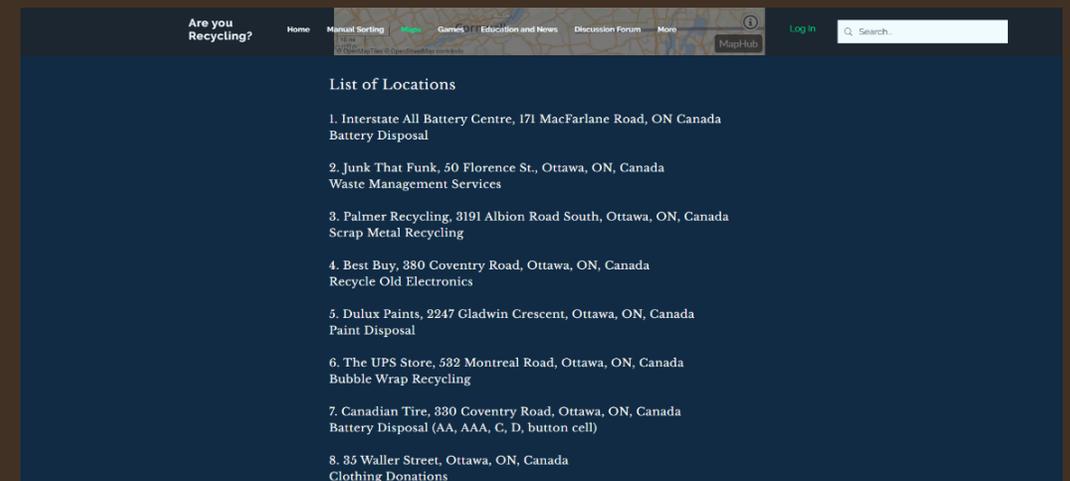
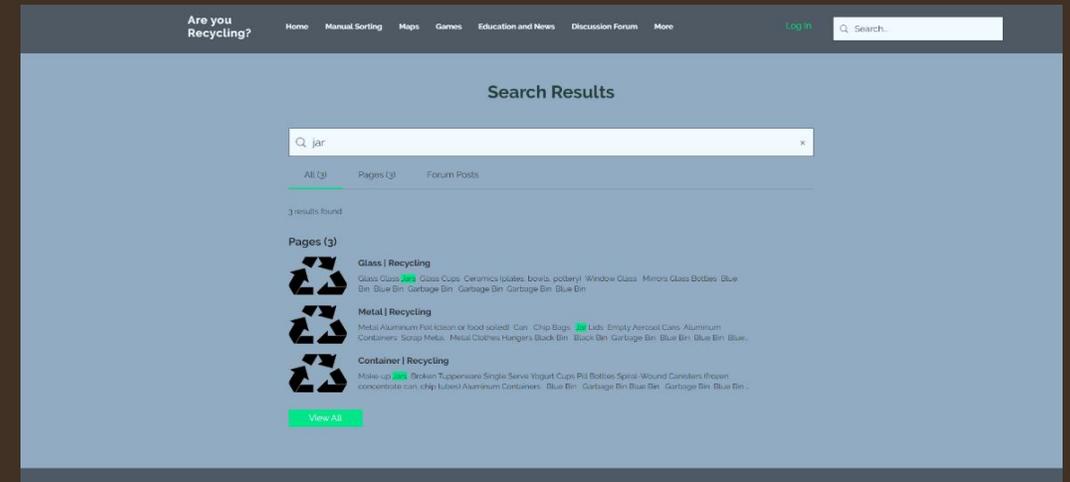
Decisions Made

- Increases aesthetics for title screen
- Improved spacing for manual search page
- AR image displayed on screen canvas

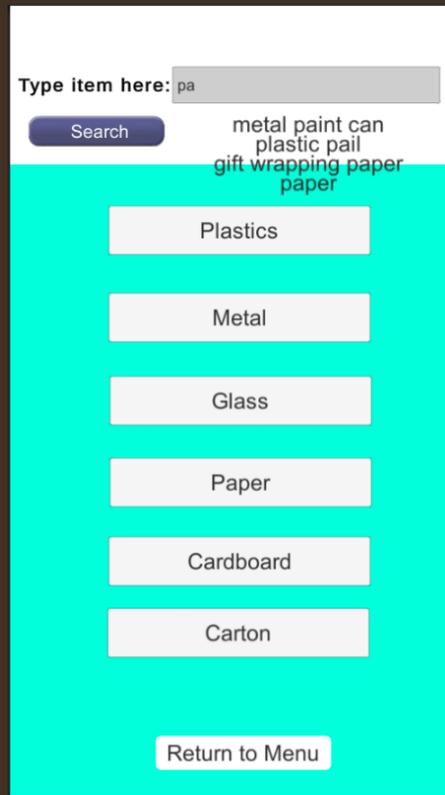
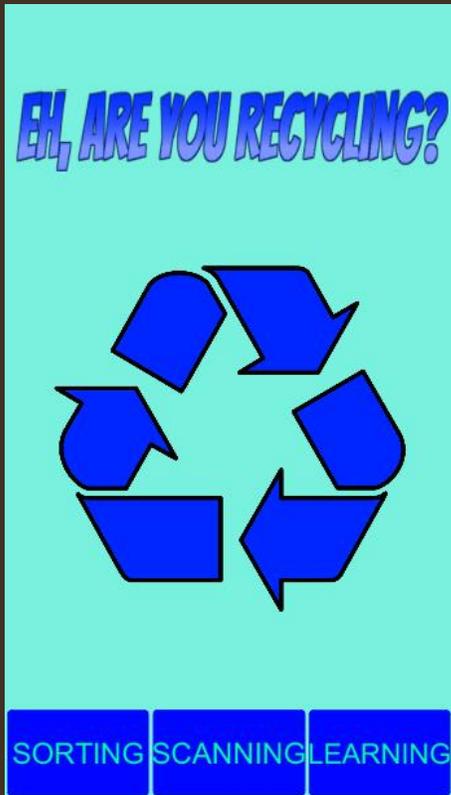
Prototype II – Website

Decisions Made

- Implemented search bar
- List of locations along with map
- More general information



Prototype III – App



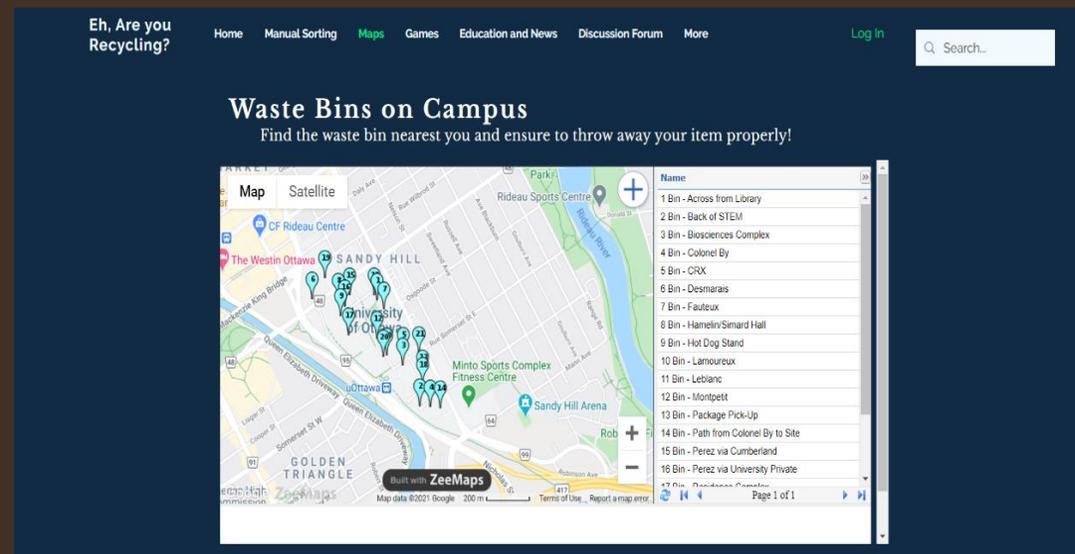
Decisions Made

- Iterated on colour of the title screen
- Changed the button names on title screen
- Implemented an item search below text box

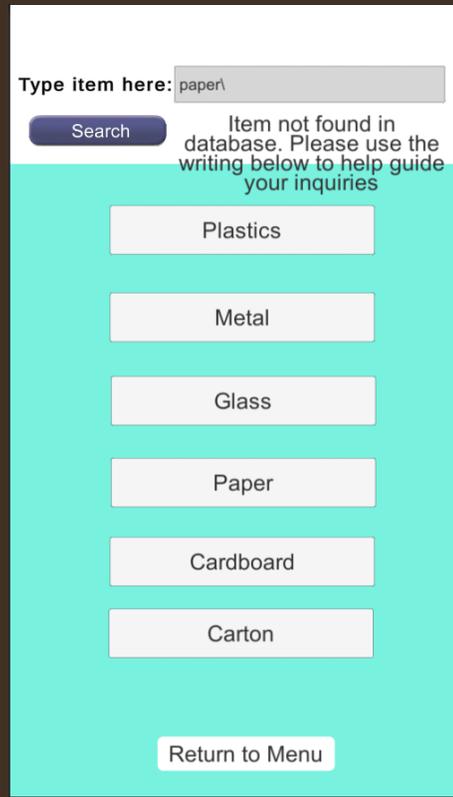
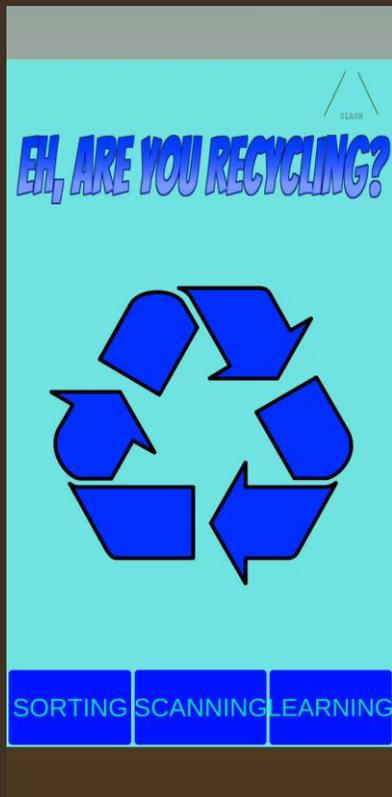
Prototype III – Website

Decisions Made

- Addition of new map
- Map format change
- Improved manual sorting



Final Design – App



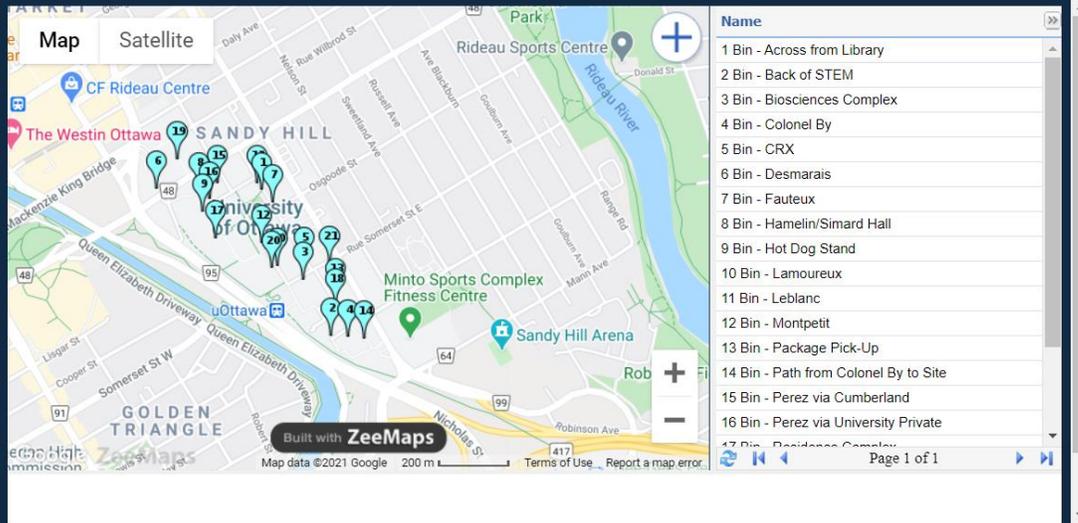
Decisions made

- Added group logo to title screen
- Implemented continuity to colour scheme in app
- Added error identification to manual search bar

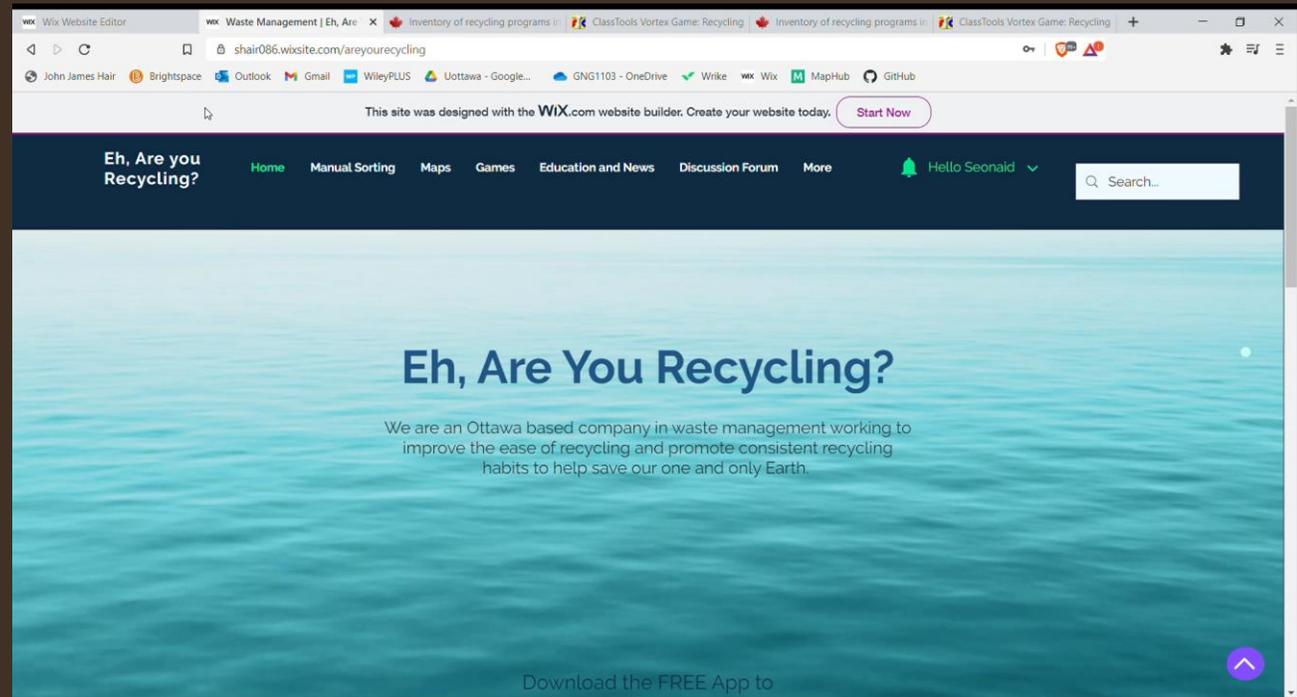
Final Design – Website

Decisions Made

- Information about maps



The '+' in the top right corner of the map can be clicked to manually add more waste bin locations onto the website by any user.



Trials and Tribulations + Lessons Learned

Trials

- Working in Unity
- Sharing work with Unity
- Searchable and Search Bar on Website

Lessons Learned

- How to use Unity
- Depend on teammates and be a dependable teammate

Future Work

The App

- Bilingual options (French)
- Implement clickable drop down menu
- Expanded databases (manual + AR)
 - User input
- Games
- Social System
- Add App to the App Store
- Add image recognition to AR scanner
- Altering aspect ratio to fit all screens
- Add a location-based recycling pickup schedule

The Website

- Bilingual options (French)
- Expanded Map Region
- Additional Games
- Connectivity with app
- More educational resources



Questions