



LUNAR LANGUAGES

An Augmented Reality Mandarin Language Learning Application
Advised by Professor Heather Marriott



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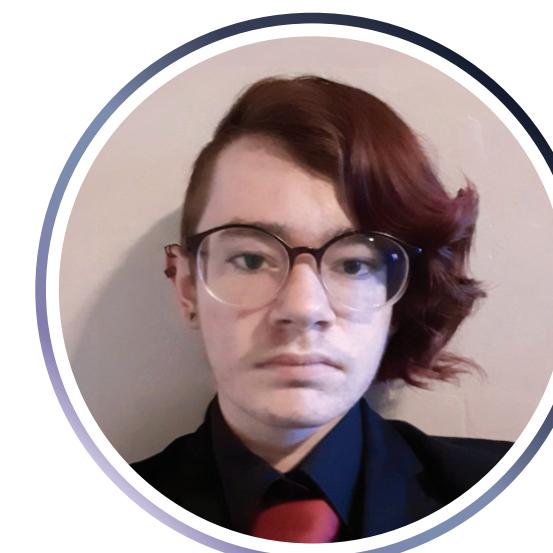
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Overview

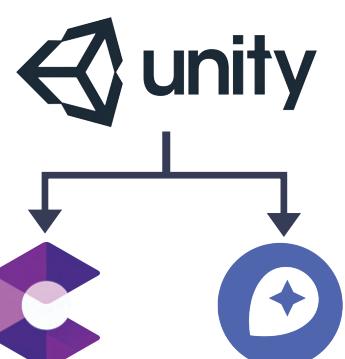
Lunar Languages offers an immersive language-learning experience through Augmented Reality (AR) technology. The application allows users to learn Mandarin Chinese by walking to hotspots located around campus.



Lunar Languages began as a 2019-2020 capstone under the name EagleAR, with the initial idea of helping students in the Global Security & Intelligence Studies: Asian Track practice their skills outside of the classroom.

Development

This app was developed using the Unity game engine combined with the software development kits Mapbox, which provides accurate satellite images of the player's environment and real-time tracking of their position, and ARCore, a Google developed plug-in allowing for access to player camera and superimposing images onto the player's view.



All coding scripts for the app were created in C# and all models were created in Blender.

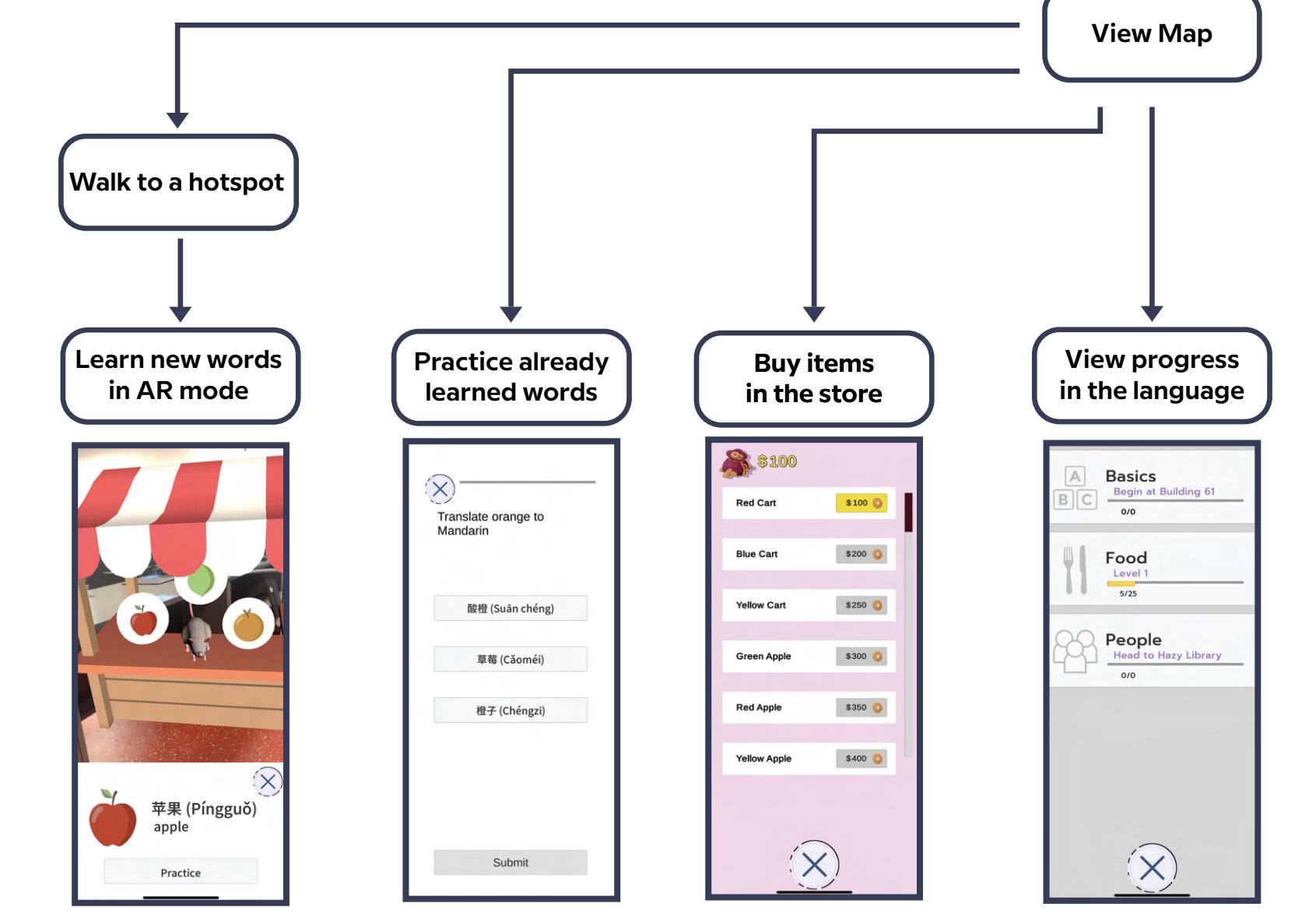
Gameplay Flowchart

Within the app, users will be able to view a map of campus, which will show their location and the Hotspots near them.



When near a Hotspot, the user can click on the Hotspot to learn new words by answering questions. Once they've answered these questions correctly, the user can practice their newly learned words in Practice Mode.

The user will earn money and experience by answering questions correctly. They can spend their money by buying items at the Store and view their progression in the language in the User Info screen.



Complete Feature Status

This year, the team has finished the Minimum Viable Product (MVP) for the application. Our complete product would include 12 hotspots, each containing a zodiac animal character from the Lunar New Year. Our goals for MVP versus complete product can be seen in the table below.

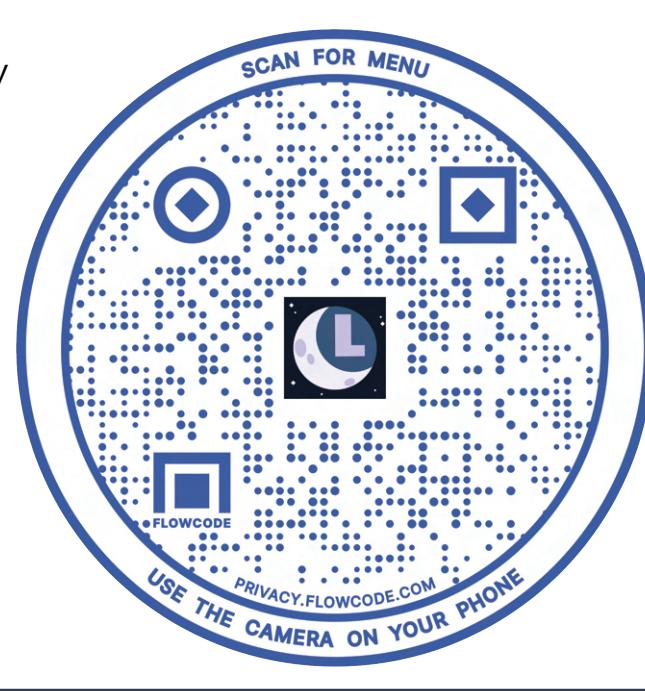
Feature	Minimum Viable Product	Complete Product
Number of hotspots	3	12
Number of 3D Animals	1	12
Number of Subjects	3	12
Map Module	✓	✓
Practice Module	✓	✓
Settings Module	✗	✓
Store Module	Semi-Functional	✓
Scenarios	✗	✓
Sound	✗	✓
User Info Module	✓	✓

Application Release

Lunar Languages is released on the Google Play Store and is awaiting a release on the Apple App Store.

Download for your Android phone today using the QR code!

Disclaimer: This app will use your location and camera.



Liked by edpost and jsevic

