ARbnb

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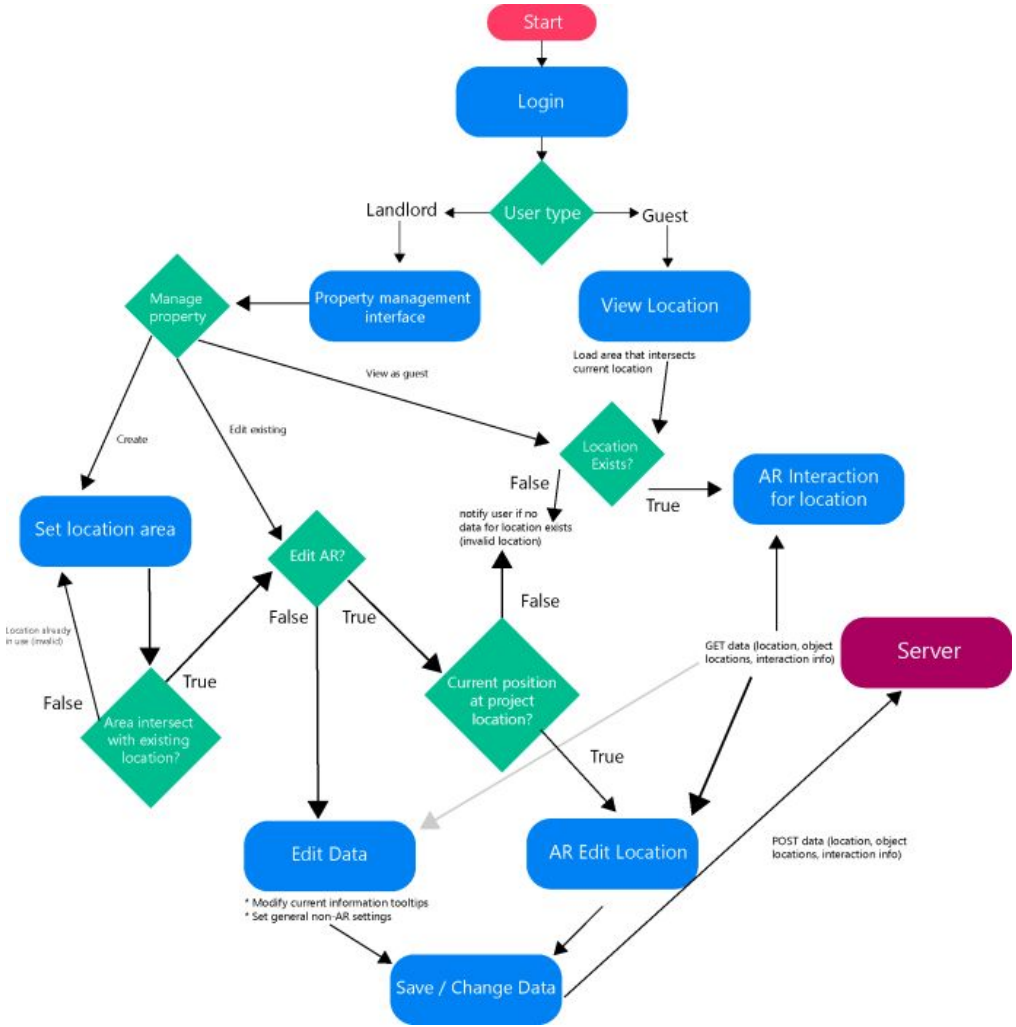
WHAT - Problem addressed

- Guests do not know what is available in the house.
  - Airbnb is mostly self-check-in.
- Guests do not know where to explore
  - Missing “local” travelling experience

HOW - design

- Defining scope of project
- Core aspect of the user experience
- Users can create / delete / view objects in the AR world



HOW - challenges addressed

- Saving / Loading objects created by landlord
- Storing scene / objects information on server
- Defining precise real-world coordinates for AR objects (lat, lon)
- The plane tracking of Unity's AR Foundation can be a bit slow to respond at times
    - To address this, we can give the landlord transform (position, rotate, scale) options to modify during runtime in the AR world

HOW- Software and tools

Platform : Android

Front-end: Unity

Back-end: ISU server + Spring boot + My sql

AR: ARCore & ARFoundation

Tools will expand and adapt as the project develops

About the server

2 API collections <-> 2 models: User and House

Request handler: Spring boot

API doc: swagger

DB: MySql

CI/CD: gitlab

User

User: login service, store and update the user information

> Front end: 1.Hash the password as md5 2. Add salt

3.Encrypt the result with public key 4.Post to server

> Back end: 1.Decrypt the password by private key 2. Remove the salt

2.Generate a random salt 4.Add salt again

5.Hash the password with salt 6.Store hashed password and salt in DB

House

House: store and update the house information including the tutorial data and geographic information.

> house information: landlord, price, serialized ar data

> address + latitude and longitude = basic geographic information verification

Current Status

Backend - Server running, GET/POST requests working

Frontend - Main Menu and Login Page UI are working correctly

AR - Able to stick text to an object

Demo