

General Tasks

- Explore BLE, Beacons, and GPS
 - What language will work best for my project?
 - What environment will allow me to use BLE and GPS?
 - Where am I storing the beacon info and clue info, so that the helper and actual app can read the data.
- Data Structure of a clue
 - Clue: {UUID or MAC of Beacon, GPS Coordinates, Text of the clue}
- Storing Clue data, where? – CompSci04
- Make sure helper app and main application are connected by the JSON clue file on CompSci04

Main Application - Game

- Create Initial Application
- Connect Phone to one Beacon and get RSSI signal (distance) from Beacon
 - Scan for BLE devices
 - Calculate distance from one beacon
 - Turn on one beacon in the area and read RSSI
- Turn on multiple beacons, parse out the one needed for the certain clue.
- Read Clues and Store into an Array from CompSci04 server using JSON files
- GPS
 - Get current location of the user
 - Figure out how to guide a user to the clue
- Create linear path for the user to follow
 - Beacon 1 → Beacon 2 → etc. → End
 - What determines the end of the game?
- Create 2 games each with 3-5 clues for a user to follow; users can pick which game they would like to play.
- Create a timer for a game that times the player
- Debug and Test Application
- Finalize Application Functionality
- Comment and Explain Code

Helper Application - Input Clues

- Create Initial Application
- Get location permissions – Gain current location of user
- Reads and Stores the Clues to a JSON file that sits in CompSci04
- Needs a list of clues and all the underlying information for the clue, allowing for editing.
- Users should be able to click a button to gain their current location and store it within the clue's data.

- Users can edit the text of a clue, the gps coordinates, and the beacon name.
 - The beacon must be turned on and then the user will click a button to connect to the beacon they want the clue to be tied to. The underlying code will grab either the MAC address or UUID and store it to the clue's data.
- UI Map with pins of each clue to show the user where the clues are mapped to.
 - Too large for the scope of the project at this point
 - Would need Google API key to implement
 - Still may implement if I have extra time

Website

- Create and Upload Website
- Update the weekly blog
- Upload project documentation, files, and other needed documents to site
- Finalize website

Presentation/Demo

- Create presentation for demo day
- Create and practice a demonstration of the application
- Practice the presentation