Enrollment- Operational Environment Details

This document lists the different setups required to make the project working.

IDE Installation- The IDE used for the project is webstorm by JetBrains. The link for webstorm download: https://www.jetbrains.com/webstorm/download/ .

Version:

WebStorm 2016.3
Build #WS-163.7743.25, built on November 10, 2016
Licensed to WebStorm Evaluator
Expiration date: December 14, 2016
JRE: 1.8.0_112-release-408-b2 x86_64
JVM: OpenJDK 64-Bit Server VM by JetBrains s.r.o

Node.js installation -This is the best way to install the npm package required for the Project. The link for node.js download is : https://nodejs.org/en/download/ .

Version : v6.9.1

Cordova installation - Since we are working on a cross-platform application, we have chosen cordova for the application development. The link for cordova installation is : https://cordova.apache.org/ . it can be installed via terminal by the command : $ npm install -g cordova .

Version : 6.4.0

Ionic Installation- Apache Cordova takes care of packaging your HTML5 app as a native app that can run in Android, iOS, and other platforms. That's the "missing piece" that Ionic provides: a set of front-end components (HTML/CSS/JavaScript and AngularJS) that let you write an HTML5 app that looks like a native app. The link for ionic installation is: http://ionicframework.com/getting-started/ . ionic can be installed by following commands on terminal :

$ sudo npm install -g ionic

A basic ionic application can be installed by following terminal command:

ionic start myApp sidemenu

Version : 2.1.8

Karma installation - A tool called Karma is a JavaScript test runner created by the AngularJS team. Karma provides helpful tools that make it easier to us to call our Jasmine tests whilst we are writing code. Karma can be installed from terminal with following command: npm install karma --save-dev

Version : 1.3.0

Jasmine installation - Jasmine is a behavior-driven development framework for testing JavaScript code. It does not depend on any other JavaScript frameworks. It does not require a DOM. And it has a clean, obvious syntax so that you can easily write tests. Jasmine can be installed from terminal via following command: npm install --save-dev jasmine.

Version : 2.5.2

Beacon Emulation:

We set up an emulator to broadcast messages like a normal beacon would do except that this uses the bluetooth available on a MacBook pro which has Bluetooth 4.0 and

up.The beacons should ideally send out packets using the Eddystone protocol and to emulate that we use Jimmy Moon's open source code to emulate a beacon configured to send Eddystone packets. The link for the repository is : https://github.com/ragingwind/eddystone-beacon-emulator

Then install the npm module

$ npm install --global eddystone-beacon-emulator

The options to broadcast are:

```
eddystone-beacon-emulator --config --uri=http://goo.gl/eddystone
eddystone-beacon-emulator --uri=http://goo.gl/eddystone
eddystone-beacon-emulator --nid=http://google.com --bid=123456
eddystone-beacon-emulator --voltage=0 --temperature=-128
eddystone-beacon-emulator --voltage=5000~10000 --temperature=-128~128
```

To start beacon emulation use this command:

DEBUG=eddystone node cli.js --uri=http://goo.gl/eddystone

Proximi.io

Proximi.io's platform allows a developer to get access to iBeacons and Eddystone beacons. This platform makes it possible to add location awareness to any app. This allows us to add geo fences and tag our beacons.

To install their plugin use this command:

> ionic plugin add https://github.com/proximiio/proximiio-cordova.git

AWS and MongoDB

AWS EC2 service is used to serve the application as a webpage. The EC2 instance is ec2-52-207-253-108.compute-1.amazonaws.com. The machine is a T2.micro running Ubuntu 16.04. The instance is integrated with the CCS Jenkins master to ensure that the app is re-built every time a change is pushed to GitHub.

MongoDB is setup on the AWS instance to serve as the database to save all app related data. The below installation guide was used to install MongoDB.

https://docs.mongodb.com/v3.0/tutorial/install-mongodb-on-amazon/