April 9, 2018

LOCATION APP – Assignment 3

CS 541

The app was tested on android device: Motorola E4 plus, ASUS zenpad and Nexus 5x

|  |  |  |
| --- | --- | --- |
| **TASK** | **DONE** | **REMARKS** |
| 1. Latitude and Longitude | Y |  |
| 2. Timestamp for each location | Y |  |
| 3. Coordinates into Address | Y |  |
| 4. Map centers in on current location | Y |  |
| 5. Map shows different locations both indoor and outdoors | Y |  |
| 6. Locations are listed one below the other under stored addresses and are arranged according to the proximity | Y |  |
| 7. Application is tested both indoor and outdoors | N |  |

This application was tested both indoor and outdoors, while walking and in car. It was observed that location accuracy greatly improved when the device was in Wifi range and the accuracy deteriorated while in car or while moving.

The application after additions did not run on the Motorola device which was running Android 7.1.1, I do not know whether this has something to do with the version/phone/code. The application ran into problems several times. The application was then tested on the Android device : Asus Zenpad. Which did not suffer any problems with the application or its functionalities. I still need to figure out why the devices created an issue. The application would work seamlessly on Asus and Nexus devices while it did not run on Motorola with the latest version. A lot of time was wasted because of this.

A screenshot of the list of locations, timestamp along with the map coordinates are attached with the folder.

Mentioned below is the Location accuracy details, I’ve highlighted the outliers of the several entries.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Latitude | Longitude | Latitude | Longitude | Difference |  |
| **Larchmont School** | 36.891254 | -76.300574 | 36.8847659 | -76.3003888 | 720 meters |
| **St. Patrick Catholic School** | 36.892016 | -76.297816 | 36.8847659 | -76.3003888 | 830 meters |
| **Home** | 36.892206 | -76.301020 | 36.892206 | -76.301020 | Accurate |
| **Constant Hall Entrance** | 36.887489 | -76.305024 | 36.8875652 | -76.3050086 | 10 meters |
| **Bike rack parking** | 36.886935 | -76.303785 | 36.8869279 | -76.3048138 | 90 meter |

