Software Development for Mobile Devices

Submission for Assignment A6.2D

Rationale

Due to the development of the infrastructure in Melbourne, the number of buildings, bridges, and other large structures are rapidly increase. Therefore, it is necessary to have an application, which can support to a wheel chair people so that they are able to access to locations in Melbourne effectively. The purpose of this application is to improve the accessibility of wheel chair people as well as raise the concern to contractors.

Idea

This application will have 6 main functions:

1. Display accessibility locations as cluster markers in the map and display them in detail when the user click on them.
2. Search functions: The user can search accessibility location.
3. Filter mode: The user can filter to see the high rating, medium, low locations.
4. Bookmark: The user can bookmark locations to see them offline.
5. Share locations
6. Show direction from current location to this building.

Implement Plan

Data API

The app will use the API of Melbourne Open Data to retrieve accessibility locations.

https://data.melbourne.vic.gov.au/Property-Planning/Buildings-with-name-age-size-accessibility-and-bic/pmhb-s6pn

Development

The application will integrate with these APIs:

1. Google Map API: To display a map and routing

2. Google Place API: To show location images

3. SQLite: To store data locally

4. GSON: To parse JSON

5. Retrofit: To request REST API effectively