



GEOGUIDE

Test Report

Illinois Institute of Technology
CS442 – Mobile Application Development
Spring 2015

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1. COMPLETED FEATURES

All Features have been completed.

2. TEST CASES BY ACTIVITY

2.1 Activity Splash Screen:

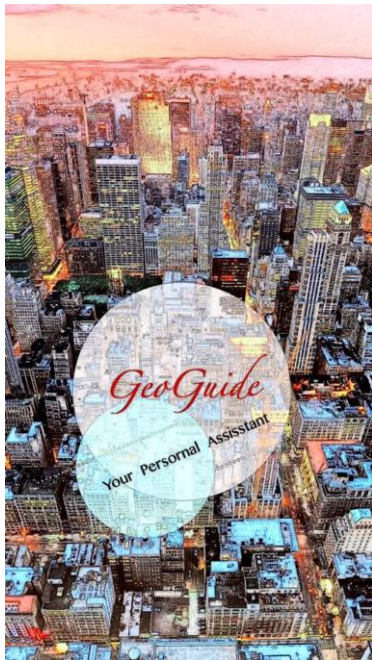


Fig1: Splash Screen

The splash screen that greets the user at the start of the application, shows an animation that utilizes basic filters on a background image and displays the name of the application

Test Cases for Activity Splash Screen:

No features are implemented on the Splash Screen. Thus it does not utilize running of any test cases.

Activity #1

MainActivity:

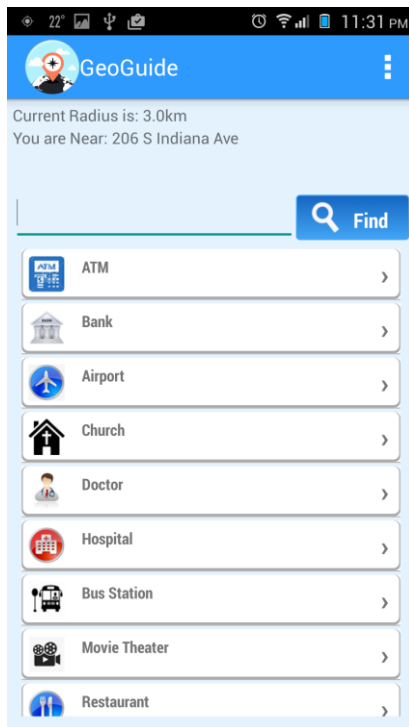


Fig 2: Main Activity Screen

The Main Activity screen displays the main purpose of the application. The different services that the user can choose, either by a Listview or using a Find button, is displayed on this screen.

Additionally, this activity also hosts information that may be useful to the user, such as;

- The user's current location.
- The current radius around which different services are to be discovered.
- A list displaying the user's favourite places and;
- Option to customize the user radius.

Test Cases for Activity #1:

Test Case 1.1: Customizing the User radius:

Activity #2: (User Radius)

By default the search radius of the app around which the user can find the Places of Interest is set at 3 km. However, the app includes a 'Change Radius' option in the ActionBar that allows the user to customize the radius and set it according to the user needs. The maximum radius that the user can set however, is limited to 10 km.

As you can see from the figures given, below, tapping the overflow menu button opens two options, *Favourites List* and *Change Radius*.

Test Case 1.1.1: On choosing Change Radius, we are taken into another activity (See Figure). As we can see in the figure, this activity consists of a TextView displaying the current user radius, a slider for set a custom radius and another TextView that tracks the users touch on the slider. The **Save button** can later be used for saving the new radius and returning from the Change Radius activity.

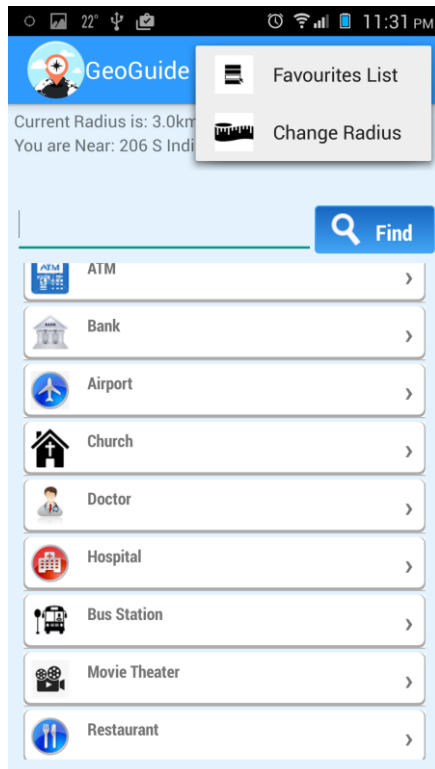


Fig3: Press the MenuOverflow Icon to show the Change Radius option.

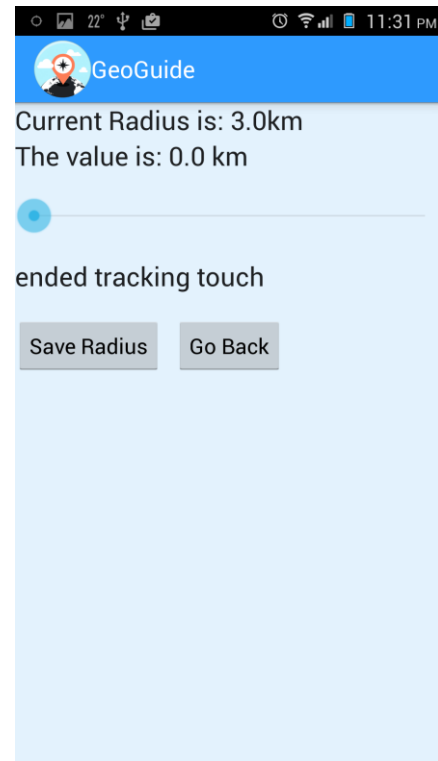


Fig4: Change Radius activity consists of TextView, Slider and Buttons

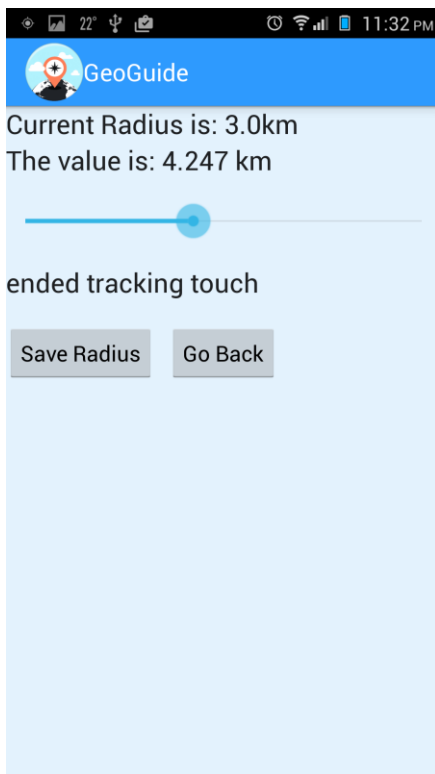


Fig5: Tap the slider and drag it to change the radius of the search

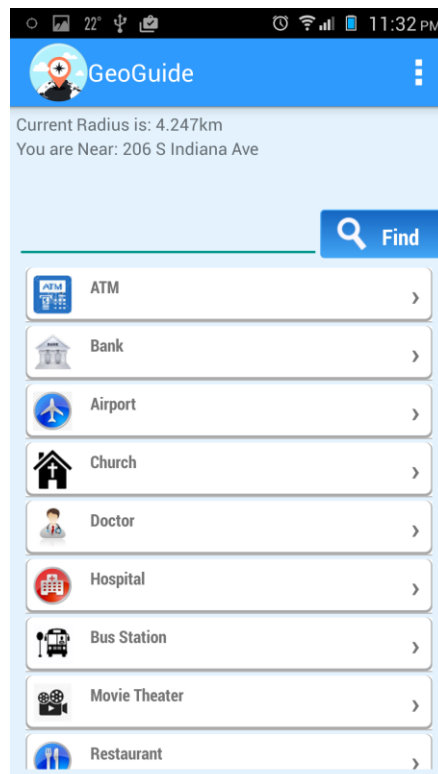


Fig6: Once saved, the new radius will be displayed on the screen.

Test Case 1.2: Using ListView for searching the Places of Interest:

We use ListView to filter the list data with a matching string, hence providing user an easy way to find the needed information. As such the user can select a service from the services offered in the ListView and it will display the list of services on Google Map's MapView object.

Test Case 1.2.1: When the radius is small and there are not any services available within the radius, then it displays "No such places nearby" message.

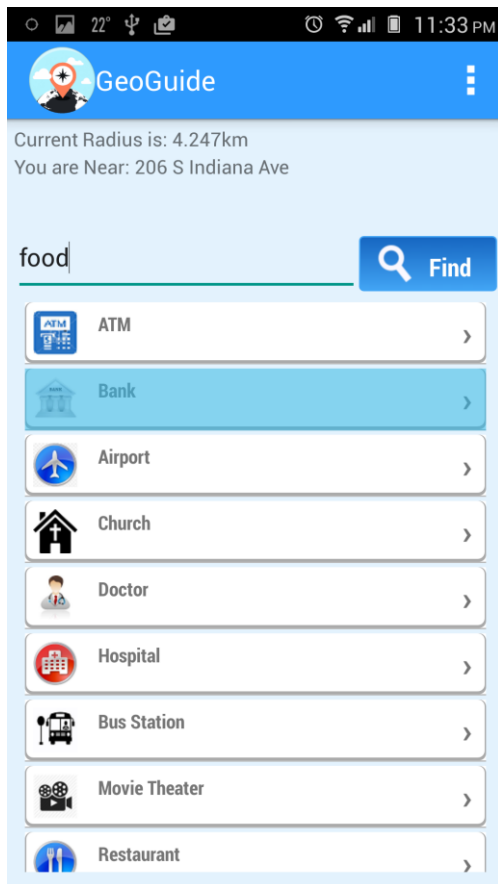


Fig7: Selecting a specific service from the ListView

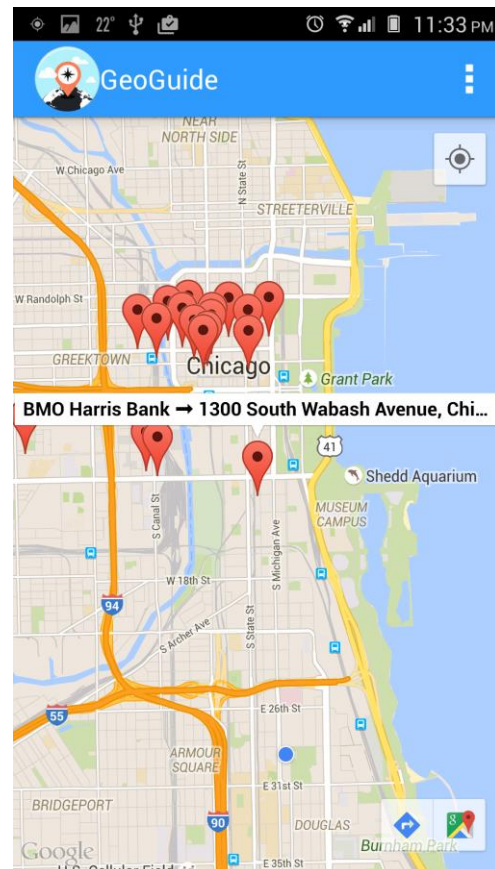


Fig8: Different places that belong to the category of the selected service are shown in Google Maps.

Test Case 1.3: Using EditText for searching the Places of Interest:

Functionality is also provided for user to allow user to use EditText to allow for a more refined search pertaining to user needs. As such the user can write down in the form of text, the desired service and it will be displayed the list of services on Google Map's MapView object.

Test Case 1.3.1: When the radius is small and there are not any services available within the radius, then it displays "No such places nearby" message.

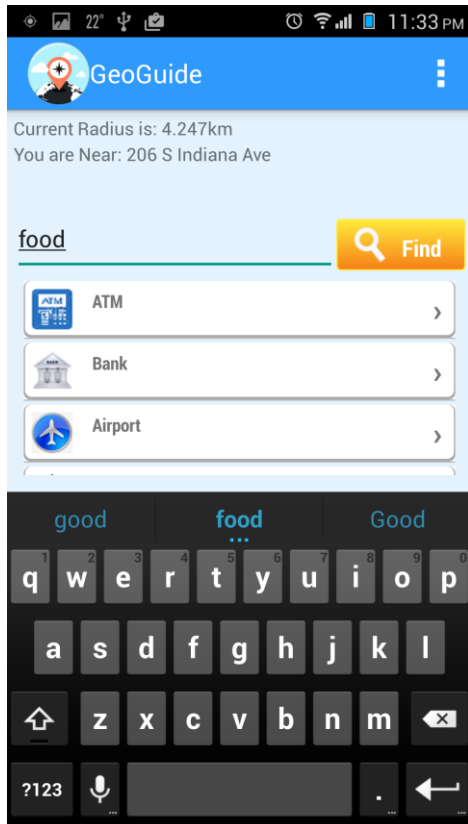


Fig9: Writing the specific service on the EditText. On clicking the Find button, its color changes from blue to yellow.

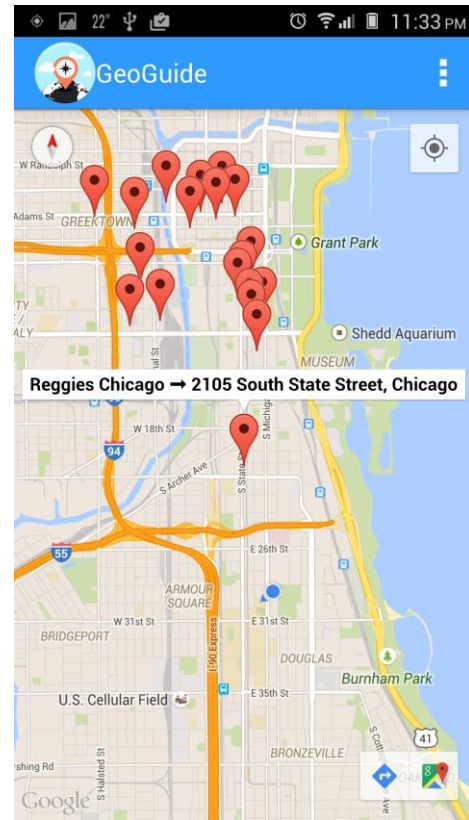


Fig10: Different places that belong to the category of the selected service are shown in Google Maps.

2.2 Activity #3

MapView Activity:

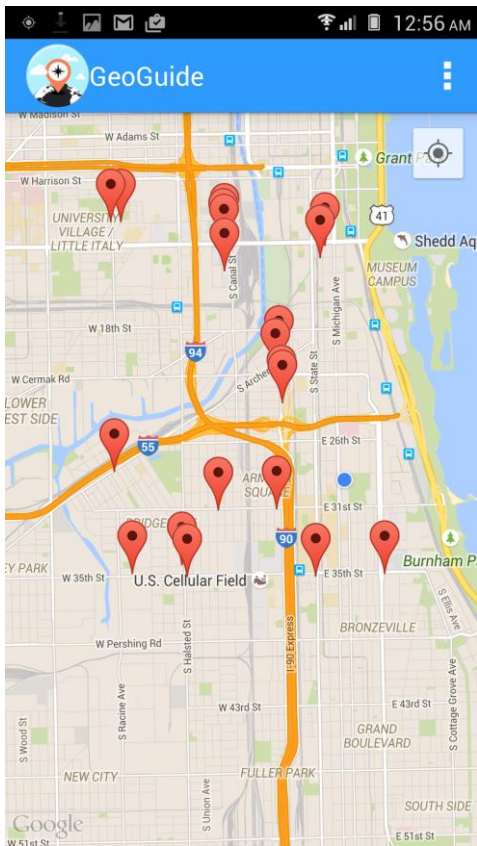


Fig11: MapView Activity

MapView allows the user to explore the world with rich maps provided by **Google**. Identify locations with markers, augment the map data with image overlays, embed one or more maps as fragments, and much more. In our application we use Google Maps API V2 to show the result of the data parsed from the Google servers on the map. As such depending on the type of service chosen by the user, the related data is parsed, retrieved and graphically represented on the map.

Test Cases for Activity #3

Test Case 3.1: Checking the different Map Types

Test Case 3.1.1: On clicking the **Overflow icon in the ActionBar** a dropdown list appears showing the different types of Map Types available for Completed User's discretion. As such the different Map Types available for user are None, Normal, Satellite, Terrain and Hybrid.

Test Case 3.1.2: When the user selects a particular map Type, the MapView gets converted into the MapType selected by the user.

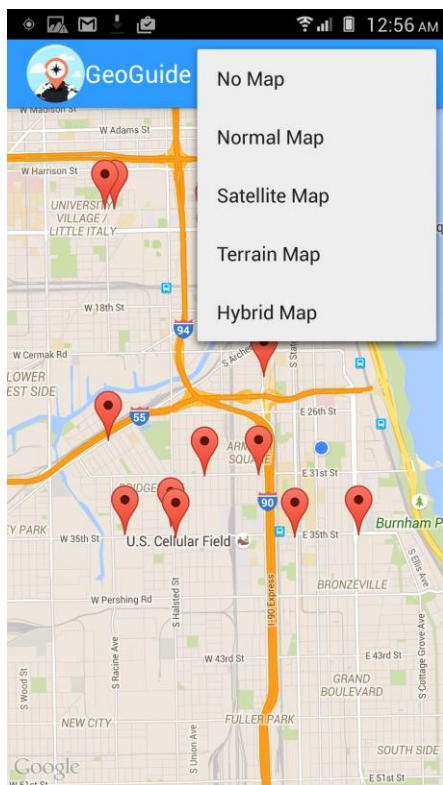


Fig12: The Normal MapType and options for different MapTypes

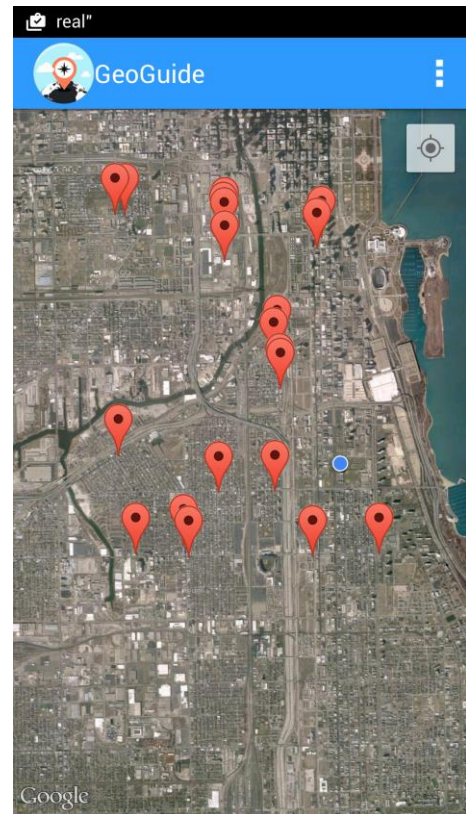


Fig13: The Satellite MapType

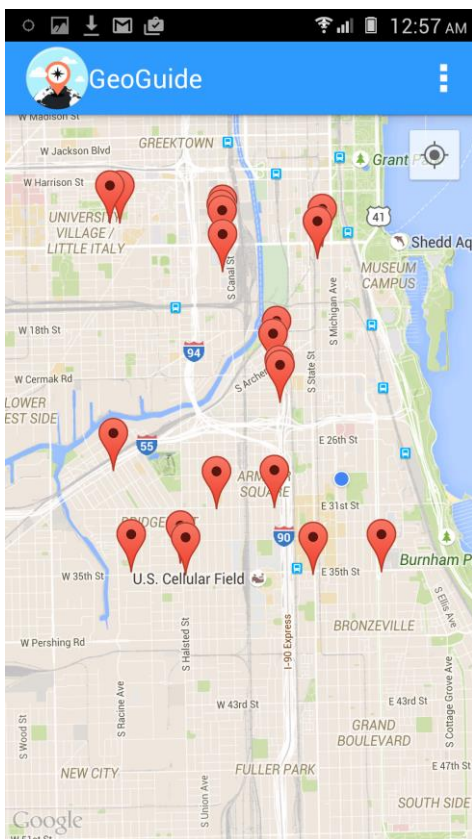


Fig14: The Terrain MapType

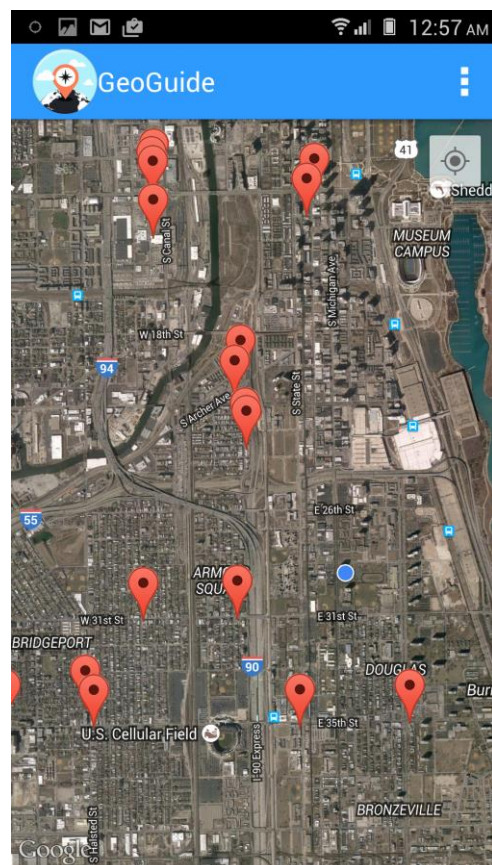
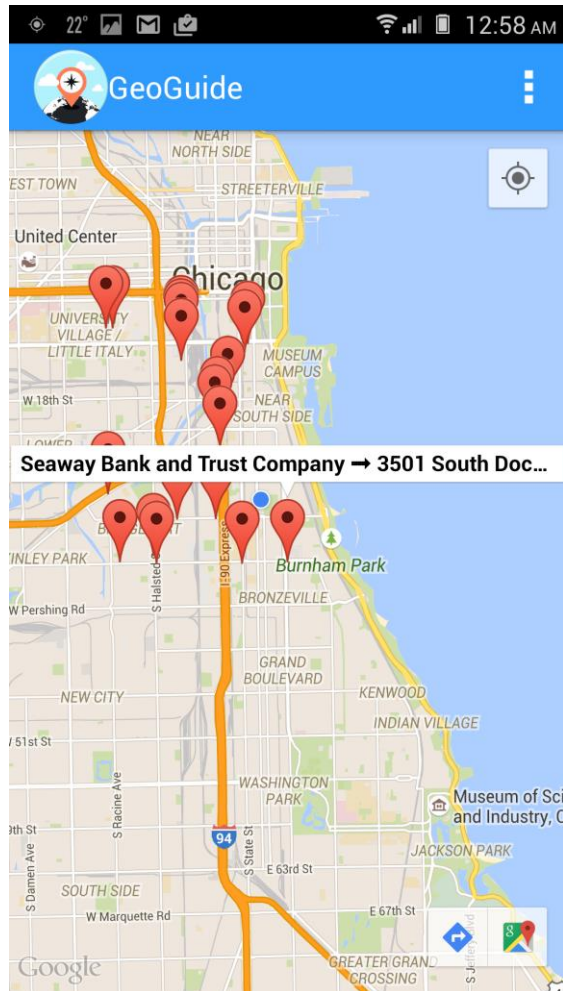


Fig15: The Hybrid MapType combining Normal and Satellite MapTypes.

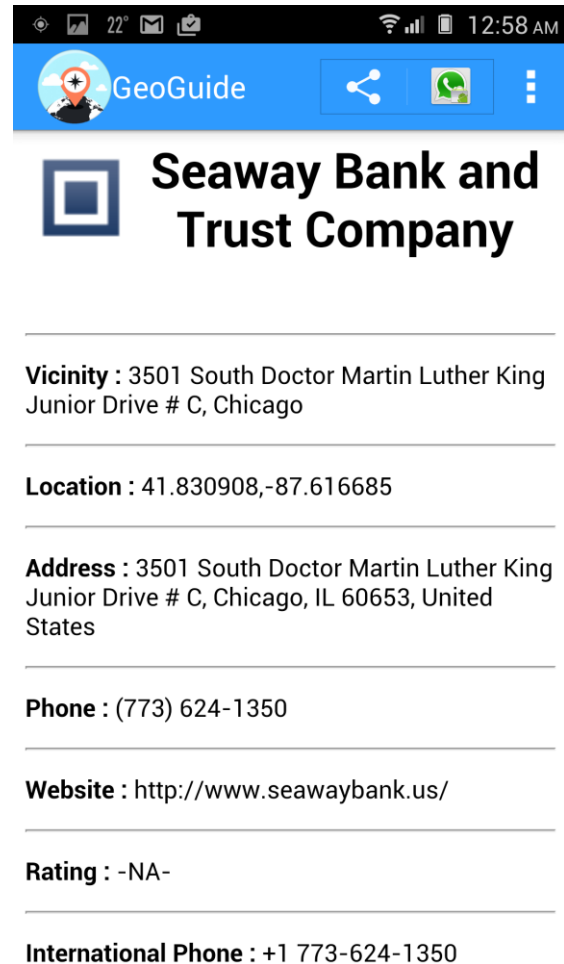
Test Case 3.2: Google Places Map Markers:

The places that are retrieved by the Google Places API are displayed on the map and are visible using the Google Map's default Map marker. These Map Markers are interactive, on tapping the marker, an InfoWindow displayed, showing the name of the place and the address of its location.

Test Case 3.2.1: When the user clicks on a marker it thus opens up the aforementioned InfoWindow, and when the user clicks on the InfoWindow, a WebView page is opened that shows all the details pertaining to the Service desired by the user.



*Fig16: Tapping on a particular Map Marker
Displays the respective InfoWindow*



*Fig17: Tapping on the InfoWindow opens the
corresponding WebView for individual places.*

2.3 Activity #4

WebView Activity

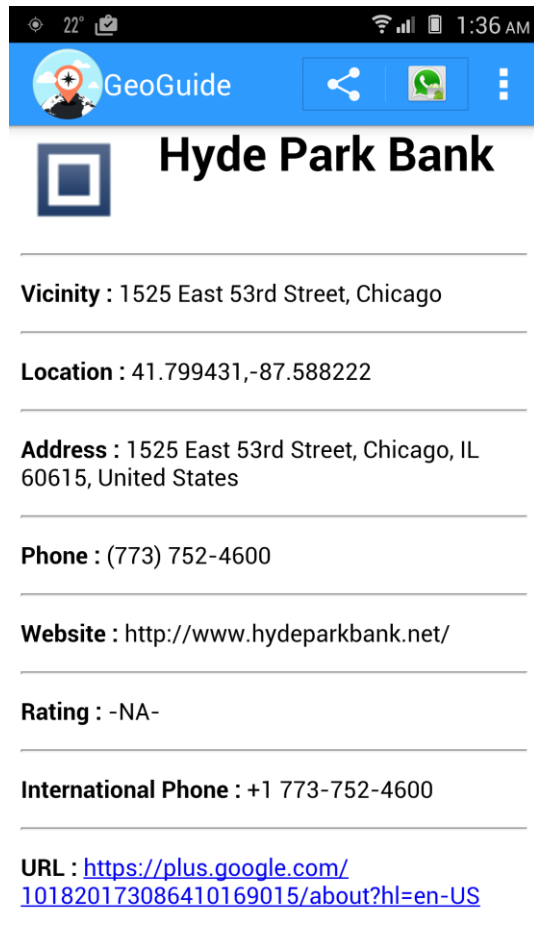


Fig18: The WebView Activity

The data pertaining to Google Places, parsed through the Google servers and displayed on MapView using Google Maps is displayed in the form of a list in the WebView Activity. This activity states the details of the Place of Interest that the user tapped on using the InfoWindow in the previous Activity and includes details such as Name, Location, Longitude, Latitude, Phone Number of the Place of Interest.

Test Cases for Activity #4

Test Case 4.1: Sharing Information with Others:

The WebView ActionBar consists of a `SharedActionProvider` class that allows the user to share the WebView information to other users using different applications such as messaging applications.

Test Case 4.1.1: When the user clicks on the Share widget, it displays different applications using which the user can share information to other users. The information shared in this case includes the Name, URL and the Phone Number of the location whose data is shared.

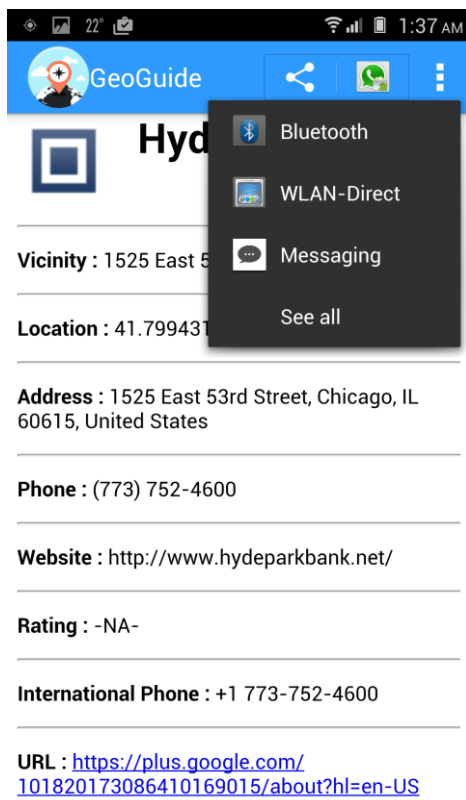


Fig19: Showing different Share options

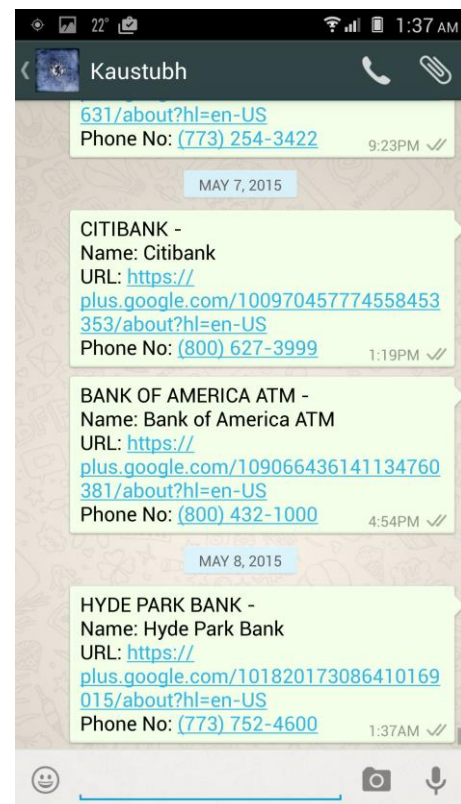


Fig20: Data shared with another user using the Share icon.

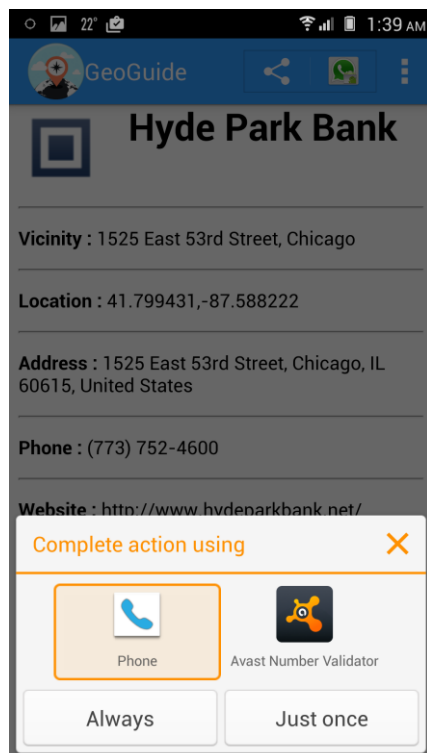


Fig21: WebView allows user to call the Phone number displayed for the service.

In the WebView;

Test Case 4.1.2:

On Clicking the Location Icon, it opens an instance of Google Maps and shows the location on the maps

Test Case 4.1.3:

On Clicking the Phone Number, it allows the user to dial the number displayed on the WebView

Test Case 4.1.4:

On Clicking the URL, it allows the user to go to the Google Plus page of the service.

Test Case 4.2: Saving Favorite Locations

The WebView includes two additional items in the ActionBar, namely 'Add to Favorites' and 'Favorites List'

Test Case 4.2.1: On Clicking Add to Favorites, the information about the current location, whose details are open in the WebView are added to Test Case 4.1.2: the Favorites List. A toast message displaying "Added to Favorites!!!" is displayed to the user.

Test Case 4.2.2: On clicking Favorites List, a new activity (*Activity #5*) opens up and it displays different places and services that are selected and added to favorites. The Favorites List icon is also displayed in Activity #1 and it displays the same list of saved data.

Test Case 4.2.3: On long pressing any item from the Favorites List, the item is deleted from the list.

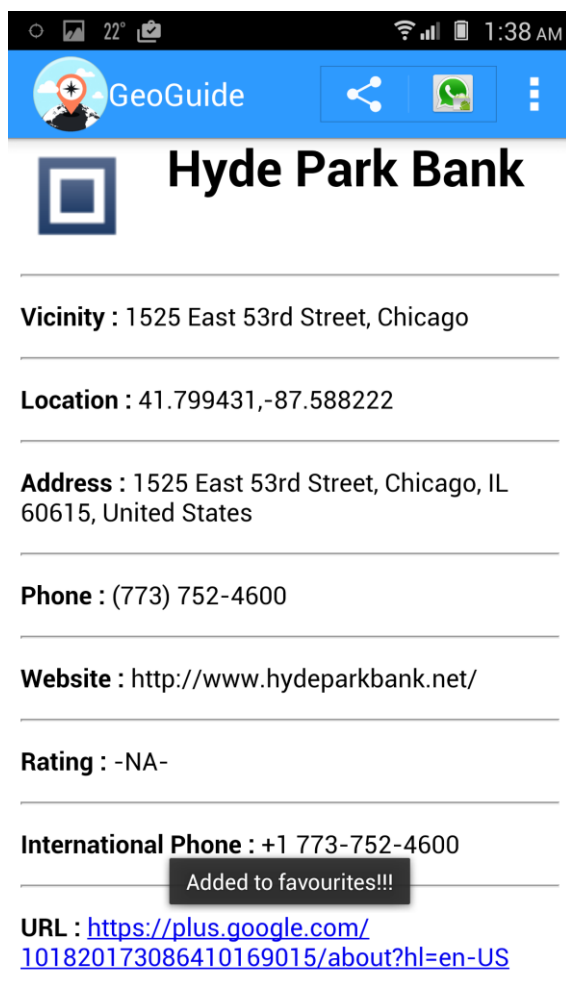


Fig22: "Add to favourites" icon add data to the database

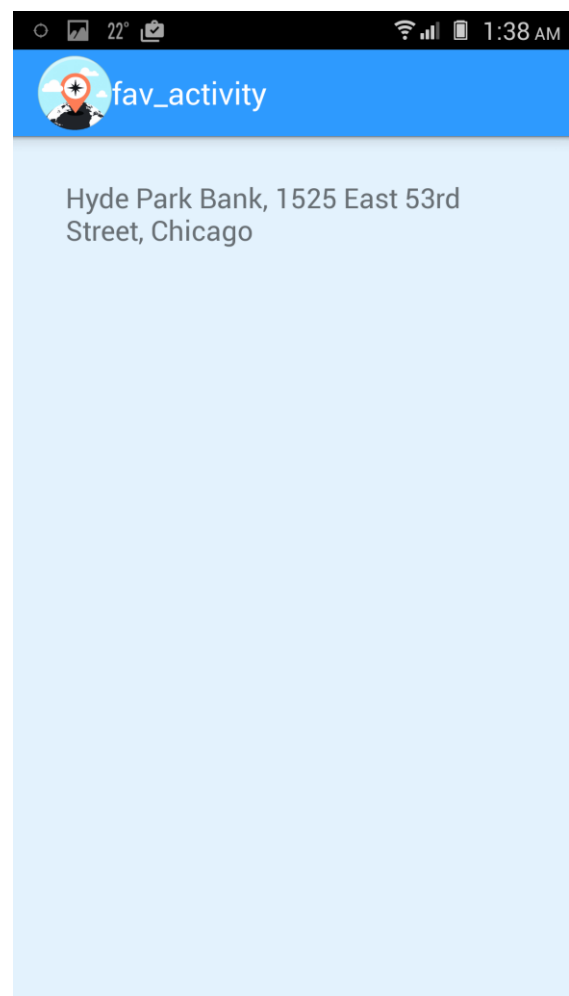


Fig23: "Favourites List" database created using SharedPreferences.

3. GEOGUIDE FEATURE CHECKLIST

Proposed Features	Implemented Outcome	Progress Description
The GeoGuide App would provide the quick search categories, for example, restaurants, gas station and specific buildings.	The GeoGuide App provides the aforementioned services using Search functionality and the ability to select a set of pre-defined services using ListView.	Completed
The application will provide favorites places that have been picked up by users and store them into local phone database for future use.	The application provides an “Add to Favourites” icon allowing user to store the desired places and these places are stored in a “Favourites List” database that is created using SharedPreferences.	Completed
User can filter all the results by limiting the search radius	Option to customize the radius provided in the application.	Completed
User can share place detail, like location or reviews, via text message to their friends or family.	Share widget provided allowing user to share location details with friends and family	Completed

4. ISSUES AND CONCERNS

Withdrawal of third team member caused additional workload on the remaining two member.