

A System Design for Customizing Map Android application (TAG & SHARE)

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Abstract:-

In today's world, Social Network Services using the Internet has got popularity than ever. Many application use services such as photos and location sharing.

"Facebook", "Instagram" and "Twitter" are one of the popular apps in the current app market who uses above-mentioned services.

However, there are no services that allow the user to browse and post their location information easily. There are no applications available which solely focuses on map browsing, tagging, and sharing.

Hence, we propose a novel idea in a way of an Android application for geo-location information-sharing system.

Introduction

We have proposed the idea of making an app which will allow a user to select his/her area of interest and then modified it as he/she desire. Allowing a user to explore and letting him/her add information, gives the unique quality to each map. Therefore, the collection of such maps results in the rich content of user locations with more detailed information than the one available on the Internet. For allowing a user to include maps and customized mapping information in it, we have proposed an idea of using "Google Maps Android API". This in term allows a user to explore the maps.

The Google Maps Android API allows a user to do following tasks:

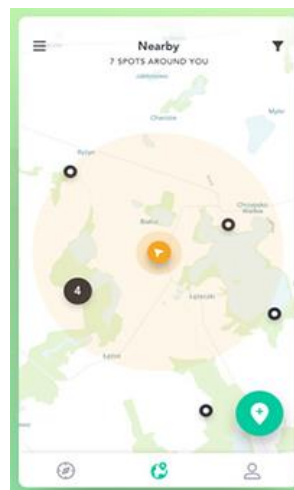
Add maps to an app:

With Google Maps Android API v2, one can embed maps into an activity as a fragment with a simple XML snippet. The new Maps offer exciting features such as 3D maps; indoor, satellite, terrain, and hybrid maps; vector-based tiles for efficient caching and drawing; animated transitions; and much more.

We can include more features like Map views, Chat application for sharing maps, customizing the color palette of tags etc in Android app so, as to make our app more attractive and enjoyable to the user. By adding these features, we can achieve the purpose of collecting more detailed view of a particular location or discovering different areas.

Proposed System:

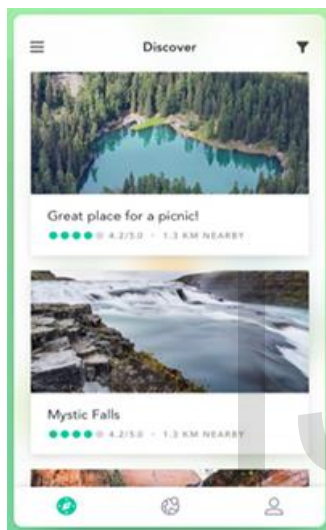
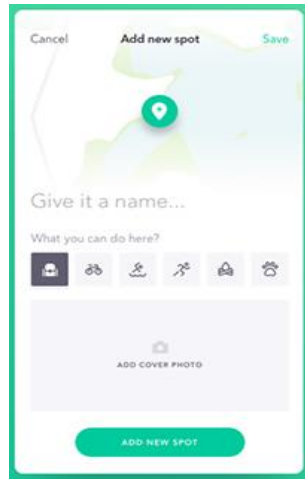
The working of our app is given as follows:



Step1:

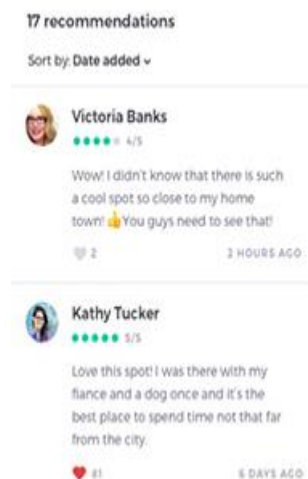
Select a location of your preference on the map.

Step2:
Add details to location. E.g. Image, name, Rating, comment etc.



Step3:
Save the location to the other list of pinned locations.

Step4:
Share the location with your friends.

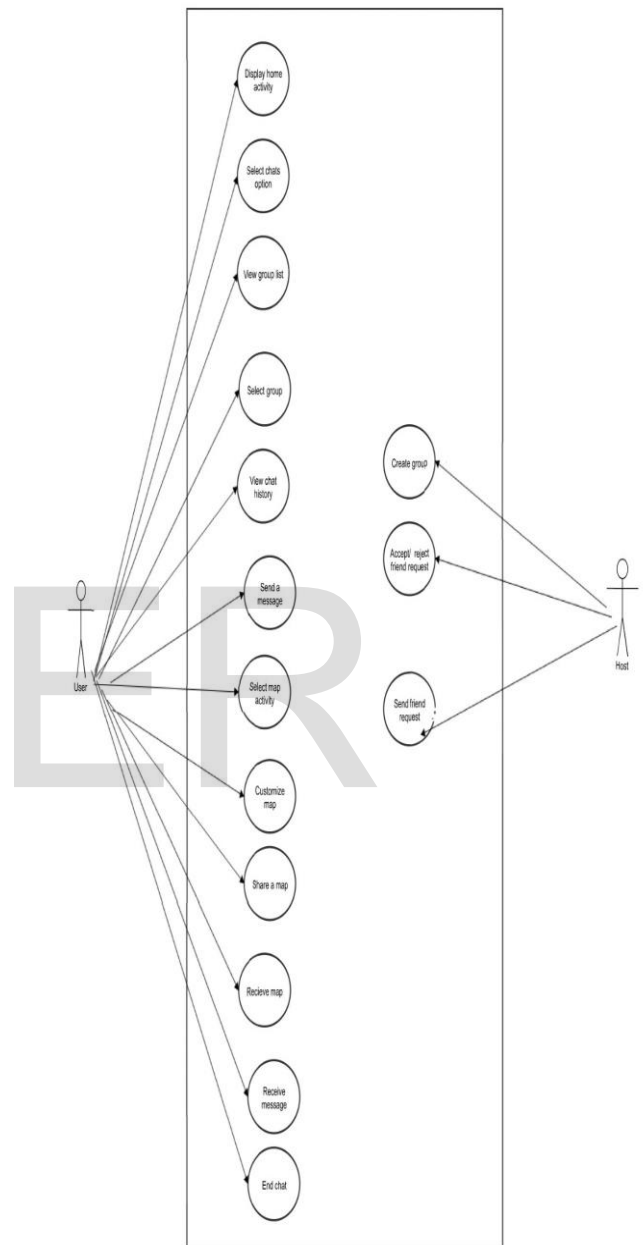


UML Diagrams:

For our system the two important entities are user of app and host. The app is only a

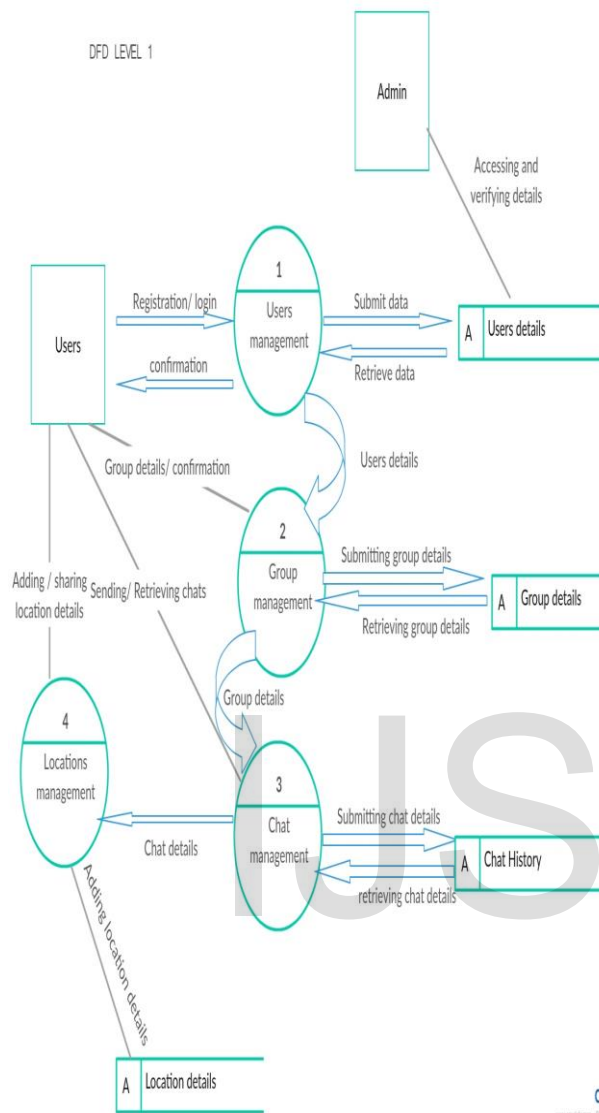
medium of communication between these two entities

The EER diagram for our system is as follows:



The dataflow of these entities for each other passes through different database tables. As for creating database we are using Google Firebase. Firebase is real time database.

The DFD diagrams of our app are shown below:
Level 1:



Methodology:

This project is an Android application, so majorly needed software tool is Android Studio. Since we need a database to store map coordinates we will be using Google Firebase Database. Android Studio Emulator to build our App layout to perfection.

After developing the App, we will test the app through the Selendroid testing tool with many test cases.

1. Pinning the location on the map.
2. Adding descriptions to it.
3. If user’s choice to make map public then store the map coordinates in public database.
4. If users’s choice to share map with group then store map coordinates in group’s database.
5. If user’s choice to keep map with itself then map coordinates will be stored in user’s database.

If a group member decide to update the map changes will be reflected in its database.

Conclusion:

We have proposed a novel idea of an android app which uses Google Map API. The features and the algorithm mentioned above are not the only techniques which could be used to develop an app. There are alternatively available.

The features discussed in the paper are just a trailer to the objectives which could be achieved by using digital map. Even though using Google map has limitations in an android app but different techniques and tools are available to overcome them.

By using these alternative techniques available in industries, we can develop a user-friendly app. We want our app to have simplicity same as that of name of our app TAG & SHARE.

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