

# SMART CITY GUIDE APPLICATION

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## Abstract:

Today in this scenario there are users who had almost mobile phones and they use separate applications of like ATM'S, hospitals, restaurants, hotels and so many and that's why it is time consuming. So that's why this application presents all the services in a one app and with the help of GPS in a smart phone it help the user to find the nearby place in a minute. It provides the services and has the advantage of to reduce the cost, time, money etc. It provides the facilities the new visitor to search for the hotels, ATM'S, shopping, train, bus, and cab. It is done with the help of Android, Java, XML and the main part is played by the "Google" databases with the help of map view in a map. Android Studio is the software which is used in this application.

*Keywords* — **Android, Java, Google Databases, Map, GPS**

## 1. INTRODUCTION:

Nowadays, people are very much fond of mobile phones and they all want the facilities in that smart phone. So this introduction is all about the facilities which are provided for users and this application provides many facilities like ATM, hospitals, bank and transport facilities which are used so that the users can access the nearby hotels, restaurants, hospitals etc with the help of GPS. So with the help of android operating system the application has been made. Android is open source and anyone can use it. Many users in a daily life download applications from Google play store like for hotels there is a application and for hospitals there is a different application. So in this proposed system these all services are provided in the single application so that the user can access easily and it will not be time consuming and can find or search for a place through this smart application. It is all done with help of GPS, which can find the location of ours and it is the online process which is proceeded. And android is the most widely used operating system comparing with IOS and windows. Most of the users enjoy the facility of this. Top priority technology used for locating the device position accurate is the GPS technology and with the help of map the user can search for the places. The use of latitude and longitude point is there. There is a use of Google database. This application provides public safety and customer support and anyone can easily access the application in their smart phones.

## **2. LITERATURE SURVEY:**

GIS and LBS are two important factor in the android GPS location system where GIS is for geographic information system and LBS is for location based services. So in the early times people know about their source and destination. The people used to make signs so that they can't be lost and can reach their home safely. Then later there is a use of maps which are made by the people and had two points latitude and longitude[1][4].

Later the use of sextant was there in the 14<sup>th</sup> century.

Now GPS, which stands for global positioning system, came into the field in 19<sup>th</sup> century. But there were some issues regarding this like if there is weather problems then the person will not be able to track itself. Then the conference occur.

In GPS there are many important factors by which this all process occur[2].

So now in the previous history it can be seen that the applications are used which provide different information and separate are used for like hotels, bank, restaurants, ATM and can be used with the help of Google databases with the help of maps.

Now this is the time consuming tasks for every user.

There is a use Google Map APIs in the android operating system.

Use of graphic user interface and testing all the functions in the application was initiated.

Time saving because of the different modules which are used in the system. Also helpful in finding the nearby places like hotels, restaurant, bank and many more facilities.

So by this there may be limitations which can be like[3]:

1. Occurrence of error may disguise the new users.
2. There may be timing issues when finding the nearby locations.
3. As in this changes cannot be made easily. So it means there may be flexibility issues.
4. It is not necessary that the given task will be performed accurately.

In this model, the application is provided with different specifications like bank, hotel, restaurants, hospitals and with the help of android operating system and the development kit which plays a very important role in the system and with the help of Google database and map view in the maps.

So it has the advantages like:

1. Time, which is the important factor and it reduces that.
2. Can be easily handled
3. Productivity range increases.
4. Search the places easily in a single application with less time issues.

### 3. WORKING:

#### A: Methodology

So in this there are some steps which are used in for the working of this application. So there is a general process which is used in the following steps;

#### B: General user application

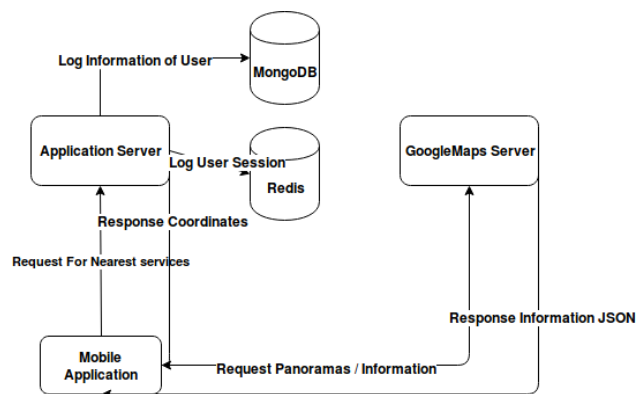
1. Firstly, all new users need to do one-time registration before using this smart app. After successful registration, users can take the benefits of our smart app.

2. Once the user logs in to the smart application and sends his credentials to the application server. The application server replies with a token if the credentials were verified. Upon receiving the token, the user is forwarded to the dashboard where the application server returns all the nearest services to the user's current location.

3. The application server only returns the nearest services coordinates. The mobile application in turn makes a request to the Google Maps servers to fetch corresponding panoramas/ images if available along with the information associated with a service's coordinates when the user clicks on a service.

4. The application server saves the verification token in Redis and the user's profile information and log data in MongoDB.

#### C: Flow chart



Technology involved in this are:

JSON, LBS, Android studio, GIS, Mongo DB.

#### D: Android studio:

So android is the open source and anyone can access in it.

The software which is used in this android studio.

So basically the the google maps are integated with applications with the help of android.

In android the screen is said to be activity and for the graphics we need to know about the XML and java .For GUI we have on create, on start and on resume function.

So now the process of this application is done in two ways first of all gather all the information about the banks,ATM,hospitals,shopping and the transport facilities which are provided by the databases.And now the application is to be built in the smart phone so that the users can access the application easily and enjoy the services[5] .

Now several steps which are involved are as follows:

1. Collect the data of all the services provided.
2. Now list the specifications according to the services.
3. Now the data should be saved in the database application.
4. Now develop the android app with the help of developer.
5. Main page of the application should be opened.
6. Select any specific service which the user needs.
7. Now if the selected category is of hospital than all the nearby hospitals are visualised or can be seen by the user.
8. Now select the preferred choice which is suitable for the user.
9. Now with the help of map the user can check the distance .
10. Now check the route and proceed further.[5]

So basically for the development of an application we need the development kit.

So we need android studio,Android development kit,android SDK.

Now it is a online process and can be done with the help of login page and the user can easily access into the application and can enjoy all the facilities.

This application is based on the GPS system and can easily access the application.this is not time consuming and it can be freely accessible at home.

MongoDB is same like android because android is the open source and it is also same.And is the database program which is used in the product and applications. Primary and secondary are the two indices of the mongodb.[6]

#### 4. ADDING SNAPSHOTS:

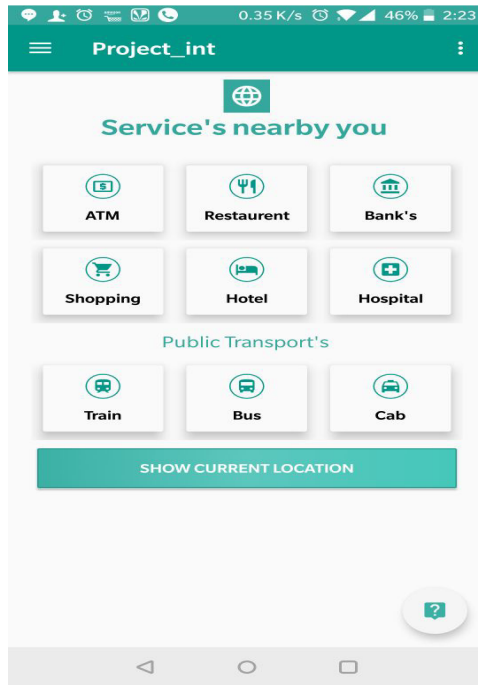


Fig.1

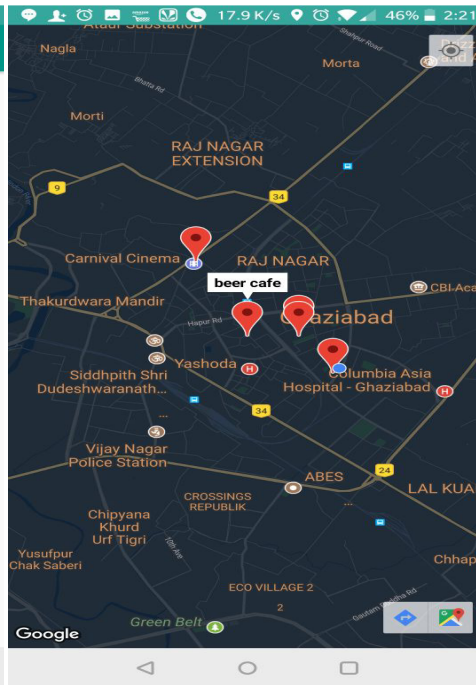


Fig.2

#### 5. CONCLUSION

Smart City Guide Application is used widely in the smart phones and it is proposed to provide ease to the users so that they can easily access the application and there is no issues of time and that's why this application is implemented. So that all the facilities are provided in one app of different modules and specifications. With the help of online activity the GPS can help to find the source to destination in the map view in maps.

#### 6. ACKNOWLEDGEMENTS

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