Hand On Hand

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Abstract - *The primary motive of this project is to engage local people with government by the sub module of the application which will let people to click picture of accumulated garbage and potholes/pit around their local places (i.e. near to their house/office or anywhere), furthermore the pictures will be sent to Firebase attached with the coordinates of the exact place with the unique number of user and to implement the garbage management techniques and road management techniques with the help of an Application*

Key Words: GPS (Global Positioning System), Google Map API, Firebase, Location Manager, Android.

1. INTRODUCTION

The project revolves around the idea of better waste management and improving the quality of roads by eliminating potholes/pit from the roads with the help of an application which would be accessible to the local people. This application would let people to click pictures of the garbage collected around their home, office or any street as well as pothole/pit present anywhere on the Roads. The respective person would just have to click the picture of the heap of local garbage or pothole and upload it in on the Server with the user number and its location both in coordinates and address. The key here is to engage both the local people and working government bodies. The image which user will click and upload to the respected firebase will also contain the exact co-ordinates of user at the time he/she uploaded the picture

1.1 MAIN TITLE

With the location based alarm system depending on latitude and longitude, a user gets reminder of what to do, when to do and thus work depending upon the location.

-    Application side has the Google Map which contains list of locations of any particular city.
-    Stores the database in the form of table which contains message of place and work for location based on alarm system.
-    While moving every time the location changes will be observed by the mobile through the GSM connection.
-    Application checks the database if it matches through the mobile connected via serial port the alarm is raised in the form of message.

1.2 RELATED WORK

There exists some similar Projects of government like Swachh Bharat Clean India which are doing the same job but the main problem with them is that they are not user friendly or in order words very complex to use. One of major drawback of this project is that isn't providing the correct location and we need to enable the location manually. Another problem with that project is the authentication of the user which is complex and fails mostly.

The main focus of our application is simplicity and compatibility to use as it is user friendly any person from village or city can access it with ease just by providing his/her mobile number which we ne user for registration purpose. Also user doesn't need to very about the location as it would be automatically detected at the time when user will upload the picture to the Database.

2. PROPOSED WORK

Building an application which can be used by local people. An application capable enough to let people click pictures of the garbage around their local places and potholes present on the roads. The local application for Municipal Corporation which would notify them whenever a person uploads a new picture of accumulated garbage on the application. Engagement of local people with local waste management working people. The main feature of this application is its simplicity in use i.e. any person from city or village can easily work with it due to simple design and working nature of the application. This application would let people to click pictures of the garbage collected around their home, office or any street as well as pothole/pit present anywhere on the Roads. The respective person would just have to click the picture of the heap of local garbage or pothole and upload it in on the Server with the user number and its location both in coordinates and address. The image which user will click and upload to the respected firebase will also contain the exact co-ordinates of user at the time he/she uploaded the picture to the Firebase.

Chart -1: Name of the chart

3. IMPLEMENTATION

1. The implementation would require certain steps.
Building an application which can be used by local people.
2. An application capable enough to let people click pictures of the garbage and potholes on road or around their local places
3. The local application for Municipal Corporation which would notify them whenever a person uploads a new picture of accumulated garbage or potholes on the application.
4. Engagement of local people with local waste management working people and road management techniques.

 Login: User needs to Login the application by just using his/her mobile number which will be further use as its unique Id, user will be getting an OTP(one time password) after entering his/her number and after entering the Correct OTP user will be redirected to the main Screen.

Clicking Pictures: User needs to provide permission to allow access to the camera from where he/she will be clicking the picture of accumulated garbage and potholes on the road or nearby.

Finding a Location: In this project we will be asking user as soon as he/she log in to allow permission to access his/her Location. Then we will be using Google Map API and Location Manager to get the coordinates of user i.e. latitude and longitude furthermore this coordinates are used to find the exact location of the User or the place where garbage or potholes are present. The location services are provided in the android. Location package. In order to use location services, our activity needs to implement the Location Manager Interface. It is through this interface that an application can access the system's location services. These services basically allow the application to obtain periodic updates of the device's geographical location. It also helps in firing an application specific intent when the device comes within the proximity of a specified location. To use the Maps JavaScript API, you must get an API key which you can then add to your mobile app, website, or web server. The API key is used to track API requests associated with your project for usage and billing.

2.1 METHODOLOGY:

Locate "Keytool.exe" in your java\jdk\bin folder. With the help of this keytool.exe SHA1 certificate is generated.

For Example:

 "C:\Program Files\Java\jdk1.6.0_18\bin\keytool.exe" -list - v - alias androiddebugkey –keystore

 "C:\Users\LINDI\.android\debug.keystore"   -storepass android -keypass android

    This command will generate a SHA1 certificate signature like this

    HA1:E4:DE: 65:56:5F:1F:39:D0:58:D2: BF:71:AB:2A:48:8

    9:EC:AF:32:2B.Now we need to paste this signature in android developer's website, we will get a Google map API key.

    Google-play-service API: Google play service is a proprietary software development kit and application programming interface set for Android devices. The layer provides APIs that allow apps for Android to provide functionality that directly integrates with Google services, such as account syncing, Google+, Google Maps and many more services.
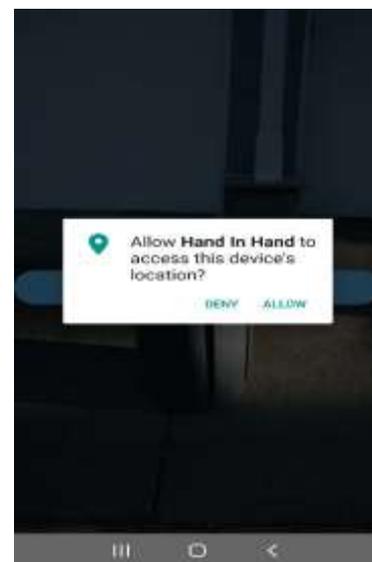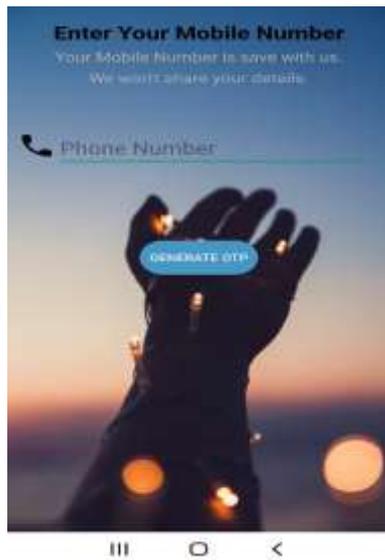
3. CONCLUSION

Not only this application would help people to contribute towards their society but also it would help in waste management in India which one of the biggest problem in India right now. Swachh Bharat is heavily promoted in India by our honorable Prime Minister and this project is our share of work towards the society.

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