Navigation Application Using Android

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Abstract- GPS Is increasingly being used for a wide range of applications. So we make an attempt to develop a Project that has the capability to store and review where a user and his Android device has been to. The application NAVIGATOR tracks the person's co-ordinate location and traces the path where his android device has been to. Basically the press record at the start of his trip and the phone stores the route he takes. This route is drawn real-time on the Maps functionality of Android or in the background with an idle device. The route is stored on the phone for review and further use. The applications tracks location by GPS, hence the name is NAVIGATOR.

Index Terms- Android, Database, GPS, Navigator, Position, Statistical data.

I. INTRODUCTION

Navigation is the field of study that focuses on the process of monitoring and controlling the moment of craft or vehicle from one place to another. Navigation in broader sense, can refer to any a skill or study that involves the determination of position and direction. The field of navigation includes four general categories Land Navigation, Marine Navigation and Space Navigation. It is also term of art used for the specialized knowledge used by navigator's position compared to known location or pattern. In addition to bearing, navigators also often measure distance to object. On chart, a distance produces a circle or arc of position. Method of navigation has changed through history. A GPS tracking unit is a device that uses the Global Positioning System to determine the precise location of a vehicle, person, or other asset to which it is attached and to record the position of the asset at regular intervals.

II. PROBLEM STATEMENT

An application shows where I have been. The operation of tracking a phone through GPS.Marking the route travelled on the map by the person possessing the phone. Maintaining statistical data about his where about.Voice recognition is provided for efficient handling. Providing you Current temperature, weather forecasting etc.

III. FUTURE SCOPE

Adding the ability to share the track and other related information obtained via SMS, Bluetooth or mail. Adding the ability to share the track via Chat Messenger ("WhatsApp") and social networking site ("Facebook, Twitter")

IV. DESIGN AND METHODOLOGY

Android applications are written in the Java programming language. The Android SDK tools compile the code—along with any data and resource files—into an Android package, an archive file with an .apk suffix. All the code in a single .apk file is considered to be one application and is the file that Android-powered devices use to install the application. Once installed on a device, each Android application lives in its own security sandbox: The Android operating system is a multi-user Linux system in which each application is a different user.

By default, the system assigns each application a unique Linux user ID (the ID is used only by the system and is unknown to the application). The system sets permissions for all the files in an application so that only the user ID assigned to that application can access them.

Each process has its own virtual machine (VM), so an application's code runs in isolation from other applications. By default, every application runs in its own Linux process. Android starts the process when any of the application's components need to be executed, then shuts down the process when it's no longer needed or when the system must recover memory for other applications.

Very first essential aspect of this project is UI (user interface)is to developed using XML (Extensible Markup Language) taking the user input.

Further part of this project is been implemented using JAVA language.

We used the (SQLite) database to keep the user record, maintain the log etc.

We used the (ECLIPSE JUNO) ide to develop the entire source code of the program.

V. RESULT AND IMPLEMENTATION

Fig: a

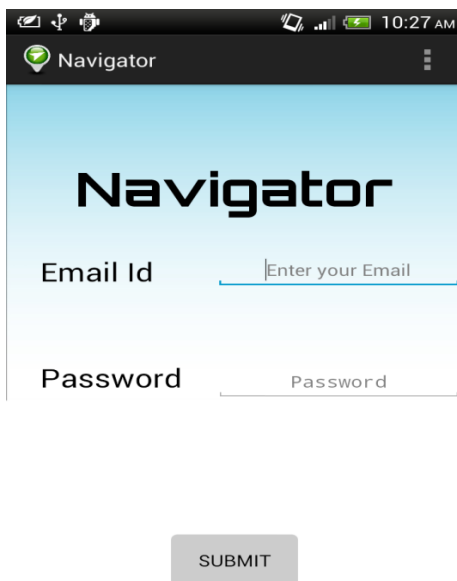When the application is started first screen appeared is loading screen.
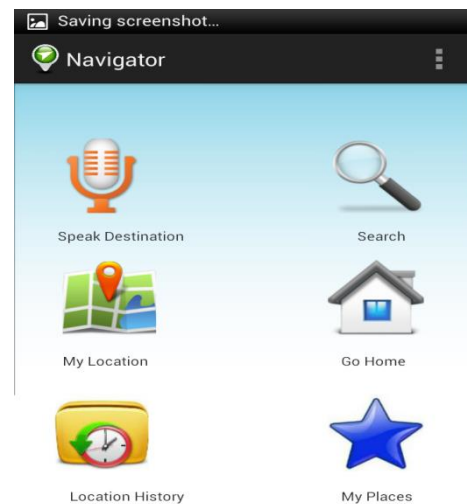

Fig.b

Login for user authentication.

Fig: c

Option are provided for searching, speak destination, my location, location history and Bookmark the places we search.

VI. CONCLUSION

Here we have proposed a Navigator for android phone. It can help a user to be aware of his position and also helps him with statistical data of his movement.

We successfully implemented the following:
The operation of tracking a phone through GPS.
User can get his/her current location using this application.
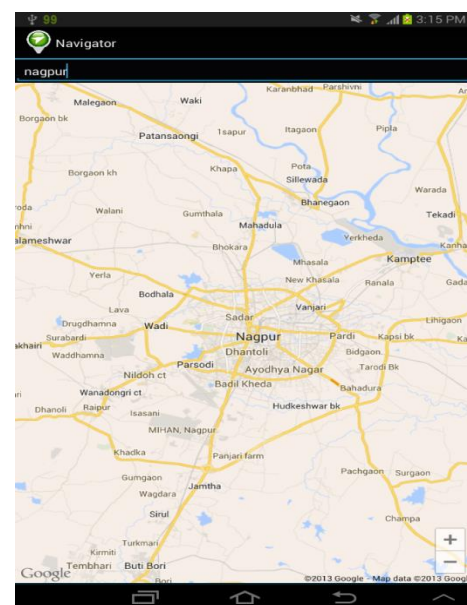User can search places.

Fig: d
Map shows search location Nagpur.

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