

Development of GPS API Location Tracking Using Mobile Application in Android Studio

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Abstract - This paper describe about the Mobile application developed using Android Studio. It also includes working of GPS Tracking. This Paper also includes an example of Delhi Tourism Mobile application which will show its working and its uses. This Mobile Application is an Android Application which is builds in Android Studio 4.0.1 Android Studio is a official integrated development tool or environment for Google's Android operating system. The main motive of creating this Application is to start tourism activities once pandemic situation gets better with all precautions to boost the tourism industry. So basically we are trying to increase the tourism so that peoples can be mutually benefited. In this Application number of services available, so the tourist can easily visit the desired places.

Key Words: Android, Android Studio, GPS, XML, Java

1. INTRODUCTION

Now a day's everyone is in need of smart phones and majorly Everyone uses androids phones for day to day communication. Many applications are developed for making people lives easy and the android system has become popular in the market of smart phones. Paper includes all about the Delhi Tourism Mobile application development. Android is a operating system used for the smart phones. It is developed by Google. Delhi Tourism Mobile Application is used to attract the tourist to visit India, especially the state, Delhi. Gps-Tracking helps the tourists to search their desired location. Features like Google Maps and cab services are present for the convinience of the tourists. Information of Nearer metro Stations is also present. This app is made purely for the tourists.

1.1 Android & Android Studio

We all know with the passage of time Android have made a great place in the market. Android is a mobile operating system which is made on modified version of linux. We will be working on to make a app for android device so that most of the users can take benefit of it.

In Android app developement Android studio plays a vital role as we'll use Android studio to make our app. In Android studio consist of we can work on either of java, kotlin or c++ but for this Project well use java only. For UI design and front end work we will be using XML from which we can make UI of the App better.

1.2 JAVA and XML

The two main thing which we will use to make our project is java and xml. All the backend and working part will be operated with the help of java and all the designing part and the frontend part will be taken care by xml

2. PROPOSED SYSTEM

Also known as global positioning system, it is basically a satellite which is used for navigation purpose that are capable of providing various locations, time synchronization etc. You can find GPS everywhere, whether in your smart phones, watches, cars etc. It's main objective is to help the people out there in order to find directions. It is a satellite which uses various algorithms and a receiver to coincide locations, velocity and time data for sea, land and air travel.

GPS is formed using three segments. They are:

1) Space: It can also be referred to as a satellite which encircles the earth. It transmits the signals to users on geographical position and time.

2) Ground Control: It is made up of earth based monitor stations and ground antenna. It plays a role in tracking and operating of satellites.

3) User equipment: It includes receivers and transmitters.

API:

An Api is Application Programming Interface. It allows the communication between two applications. If you are sending messages or using weather forecasting, you are using API. In our Mobile application it is used for the communication between the users and the admin.

3. OUTCOME OF SYSTEM

Our project is basically named as ‘GPS API based tracking device’. It is primarily an android based application It has dual key features which makes it non identical in every aspect. The two in one attribute of our application includes the following features:

1) The first feature is that our application consists of brief introduction regarding all historical and cultural places of the capital of our country i.e.

New Delhi. This property is being inbuilt so that the visitors or tourists can get to know about our rich heritage of India which is unknown yet. Moreover, the respective tourist can select the place of his choice to visit.

2) The second attribute includes various modes of transportation with the help of GPS. It can be metro, airlines, railways or roadways.



Splash Screen: It is prominently the first start-up screen which appears when the application is opened. It is a kind of simple constant screen for a fixed amount of 3-4 seconds.

Registration/login page: Here, both the registration and login button will be popped up and basic details of the user will be entered. Through this, we will be able to contact them. Once the registration is done, the user will be able to login and proceed further.

Home page: Here, every basic information will be present. According to their interest, they will choose a particular field.

Navigation drawer: It shows your app's main navigation menu. One can view it when the user clicks on the drawer icon in the app bar or when he/she swipes the finger on the screen to the left hand side.

4. CONCLUSIONS

The overall conclusion of this application is that the combination of various application features less than one interface, on a single application, making it easy for users to do tasks that they would usually use multiple applications for. Tourist can enjoy multiple features in this with all kind of safety. Also, it contains all the helpline numbers such as women helpline number, ambulance helpline number, police helpline number.

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