KONKAN GYANPEETH COLLEGE OF ENGINEERING, KARJAT

Affiliated to University of Mumbai, Approved by AICTE, New Delhi.

# GPS based Location Tracking using Android

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# CONTENTS:

# Introduction

- Our project is having a Proximity alert system helps us to manage your tasks on a location based alarm system.
- If you have assigned a task in the application to a location, then whenever you are near to your place of interest the application will issue you an alarm.
- The application is very useful when you are at unknown place one can easily be lost and become unable to find a way back to base.

- You are leaving your footprints on a device which is monitored by someone who would be on the way when you really need someone to get you back to the base.
- We will be using GPS device which will find out the current location from the satellite. Depending on certain condition we will find the location again.
- Might after certain distance of location change we will count the location again. We will plot this location to map.
- At the same time we will connect with an external web server to send this information there.
- The web server will store the visiting path as a summation of some co-ordinates points.

# Literature Survey

| PARAMETERS | PAPER 1 | PAPER 2 | PAPER 3 |
|---|---|---|---|
| TITLE | GPS-based Location Tracking System via Android Device | (GPS) Based Location Finder on Android | GPS Based Object Location and Route Tracking on Android Device |
| AUTHOR | Md. Palash Uddin AND Md. Nadim. | Muhammad Faisal Tahir | MR JOSHUA SAMUAL |
| PUBLICATION YEAR | 2013 | 2015 | 2015 |
| Description | technological advancement of modern science people are now expecting the information about the location of any object for tracking purposes. | **GPS Based Location Finder on Android** "is a smart phone application that uses **location based** information and concepts of augmented reality to enhance user's experience. | Location based services has enable people to locate and track the location of other people, objects, machine, vehicles and resources, from the comfort of their home as long as they have the required gadget |

# Objectives

- To develop a system that will be able to locate the GPS position of device and track its current route.
- The objective of project is to create a technical solution that serves both the user and the admin.
- To develop an algorithms that will enable end user bookmark their previous location and trace back to that location using descriptive navigation mapping.
- To create an interface to Google Map and obtain data

# Scope

- The scope of this project to develop a tracking / monitoring Android application (mobile) using object GPS devices to ascertain its current location, and previous location at specified intervals.

- The preparation of the environment need to build the system the testing of the system and the migration and the preparation of the data that will ultimately be used by system are equally important.

- The location based tracking system is a real life problem solving application both the admin section and user section are designed in such a way that both are easily usable.

# Implementation

The GPS-based Location Tracking System via Android Device consists of the following two sections

1. User
2. Admin

**User Side Implementation**

- The facilities for the users are in below:
- Set his/her own password and user name
- Record his/her location data on a website
- Start and stop services any time he/she wants
- Set up proximity alerts based on location

**Admin Side Implementation**

The facilities for the admin are in below:

Can add or delete a user whenever necessary.

Can have the access to the location and traveling path of each user.

User An admin can enjoy the peace of mind that he/she is able to track each one in his/her network.

# Use case Diagram

1. User Side Use Case Diagram

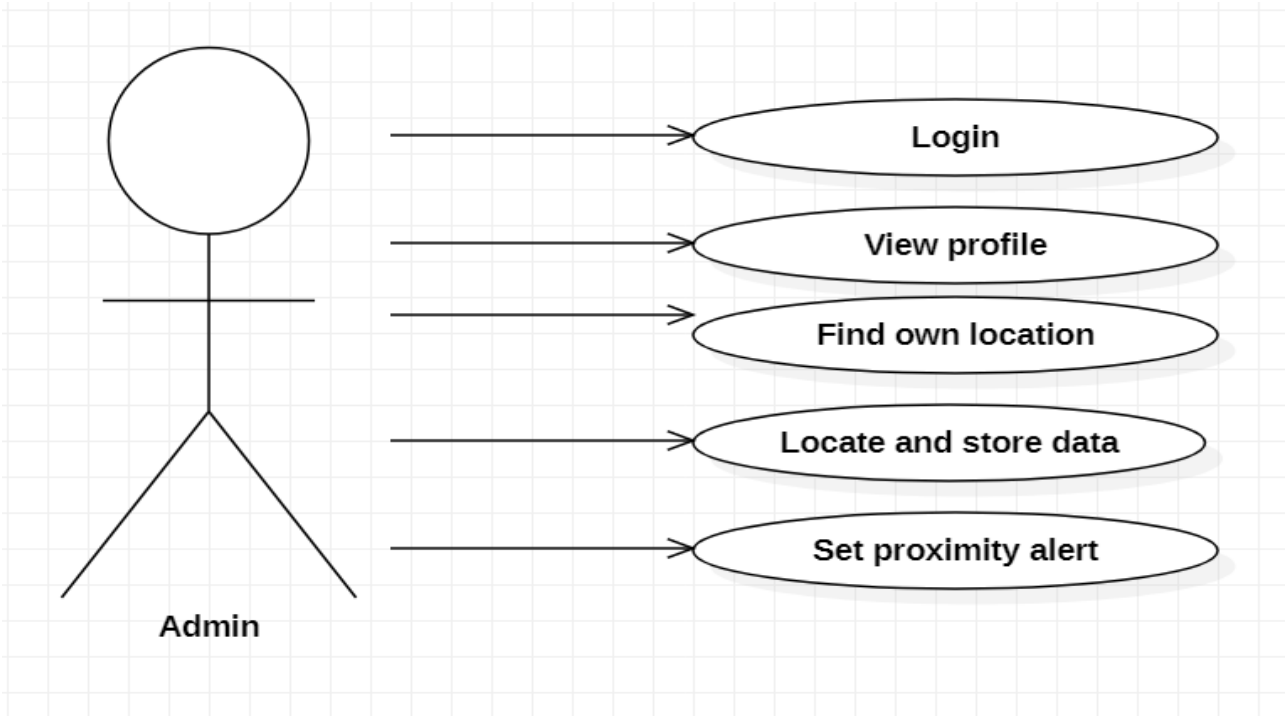


Fig :- User Side Use Case Diagram

## 2. Admin Side Use Case Diagram

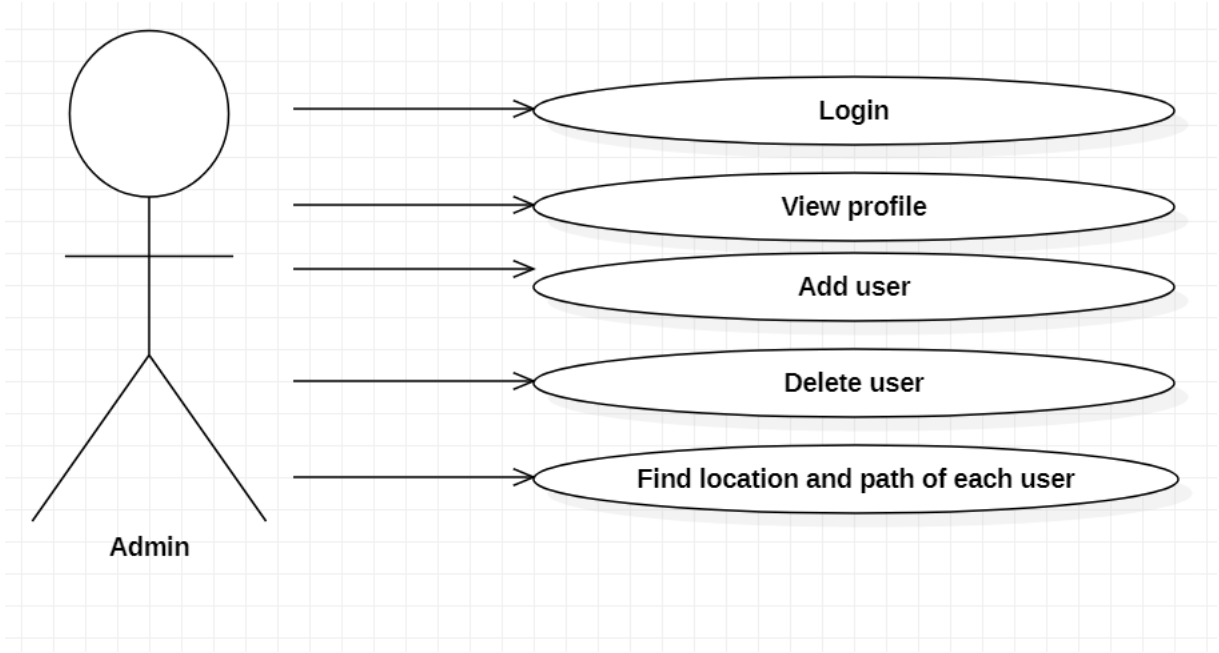


Fig:- Admin Side Use Case Diagram

# Conclusion

GPS is a system which is already implemented and everyone can access it without any restriction. Having the facility of GPS to develop this system we need a GPS device to calculate the location from the information taken from GPS. Hence, we have chosen Android device to perform this calculations because Android mobile phone is cost effective and offers multidimensional purposes having some special built-in features like GPS service. Thus, this system is developed for location tracking of a group of people with a proximity alert system using various latest demanding tools and technology like Jason, Java, AVD, LAMP etc.

# THANK YOU!