

Android and GPS Applications using Salesperson Tracking

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Abstract— Enterprise Resource Planning is a framework utilized for dealing with the majority of the assets possessed by the organization, business exercises, and data used to make a decent business process. One of the modules in the ERP is deals and dissemination. Deals and dissemination is a module that handles the deal and conveyance products to clients to accomplish their business objective. And GPS Proposed application, the area of the client is followed utilizing Global Positioning System (GPS). The primary usefulness of this innovation is to give area data using a portable application we are broadcasting the client's areas to favored contacts chosen by the client, at normal time interims by this process we can guarantee that the client is going on track in his movement.

Keywords: Enterprise Resource Planning (ERP), Selling Of Products, Customers, Small and Medium Enterprise, Salesperson, Tracking, Localization, Smart Phones, Android, Coordinates, Latitude, Longitude, Geocoding, Reverse-Geocoding

I. INTRODUCTION

Enterprise resource planning (ERP) is most popular resource planning module for businesses now a days and also ERP is a system used for managing all of the resources owned by the company and business activities, and information used to make a good business process. One of the modules in the Enterprise resource planning (ERP) is sales and distribution. A Sales and distribution is a module that handles the sale and delivery goods to customers to achieve their business objective. Sales & marketing is heart of any organization that is involved in business of selling. Sales department focuses on selling of various products whereas marketing department.

The use of sales and distribution module is the process of selling to customers for goods and services, makes it easy to check the sale of goods and delivery of product, and facilitate the collection of customers who make a purchase of goods or services provided by the company, determines the appropriate services to customers, and forecast the amount of requirements for goods desired by the customer. Sales forecasting is calculating the expected sales of a specific product and predicting future sales of the product.

Mobile ERP system we proposed Smart phone (Android) System for Admin are can be Continuously Track the employee Using to the GPS tracing system or Google map. And salespersons car can accept the customer requirement android application through the current location of customers. And Admin are can Suggest shortage path for salesperson current location to next locations.

The purpose of the system are can be reduces the manual presses and reduces the longest tangling distance of salesperson between the current location to the next location of customer. To save the time between travelling distance of salesperson.

II. PROBLEM STATEMENT

Enterprise Resource Planning (ERP) is able to include all of the functionality of company, ERP is also able to record all business transactions in the enterprise, monitor the performance of the company, but the results of the reports that are generated are not effective up to mark. So we design a system that automates ERP system.

A. Goals and Objectives

- 1) ERP system can generate automatic record of salesperson.
- 2) This system can be Reduce or eliminate manual processes.
- 3) Sales and distribution is a module that handles the sale and delivery goods to customers.
- 4) ERP and android application are use for security.

B. Existing System

Enterprise Resource Planning is a system are supported only the desktop base for managing all of the resources owned by the company, business activities, and information used to make a good business process. One of the modules in the ERP is sales and distribution system and this system are not monitoring the salesperson information like a current location, travelling distance between the current locations to next location. To overcome the problem this problem is mobile ERP system we proposed Smart phone (Android) System Using to tracing the salesperson are current location and Admin are can be Continuously Track the employee or sale person using GPS and Google map. Suggest shortage path for salesperson current location to next locations.

C. Area of Project

1) Android:

Android underpins a wide assortment of AI instruments and strategies. Regardless of whether you're an accomplished Android designer, or simply beginning, here are some ML assets to enable you to get the best outcomes.

2) Machine Learning:

Machine learning (ML) is a programming strategy that gives your applications the capacity to consequently take in and improve as a matter of fact without being expressly modified to do as such. This is particularly appropriate for applications that use unstructured information, for example, pictures and content, or issues with enormous number of parameters, for example, anticipating the triumphant games group.

III. SYSTEM ARCHITECTURE

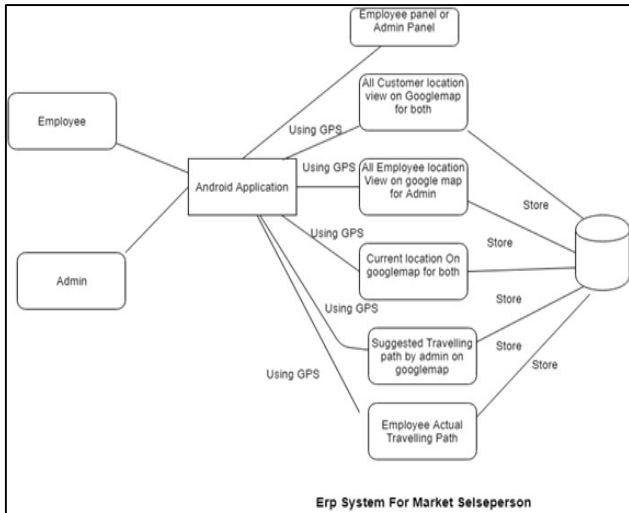


Fig. 1: Architecture

In the recent times, smart phone have become essential for humans. Mobile tracking is done by network signal. Most widely used signal system for mobile tracking is LTE. The LTE system is poor in location tracking as it is not the basic functionality of the system. Global Positioning system is the technology that is used to location purposes. We have proposed a mobile application to address the safety threat to people during travel.

In Figure1 we propose system for get all employee location and Create Marker of all Employee location on googlemap. Admin will able view exact location of employee on Google map. Al so we are gets all Customer location and set All Customer location on googlemap. So it helpful to employee to get customer information on one platform.

Application will able to Capture all latitude, Longitude on click on map and send to server. It able plots the alternative route on the googlemap. User will able to select the one route. Used google direction API for to detect the minimal traveling distance. Employee login into application. Their latitude longitude sends to server. Server gives response to their exact location in address format. Employee will able to view all customer detail on Google map and traveling path to go to that location. Admin will able view all employee current location.

A. Mathematical Model

- Input= Enter login ID and Password of salesperson.
- Let's S is the system
- $S = \{I, F, O\}$

Where,

- I: Set of Input.
- F: Set of Function.
- O: Set of Output
- $I = \{Lat, Lng\}$
- $Lat = \{L1, L2, L3....Ln\}$

where,

- Lat:Set of Lattitude
- $Lng = \{Ln1, Ln2, Ln3....Ln\}$

where,

- Lng:Set of Longitude
- F: Set of Function.

- $F = \{G, RG\}$

where,

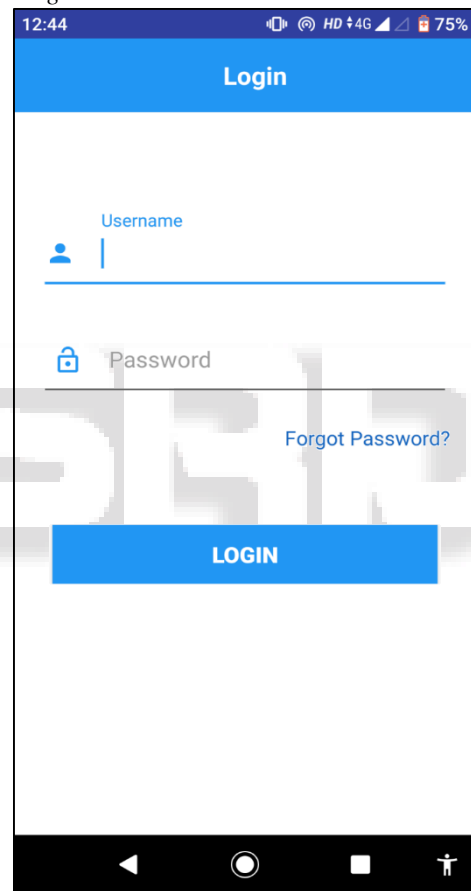
- G: Geocoding.
- RG: Reverse Geocoding.
- $O = \{Dist, F, Lat, Lng\}$

where,

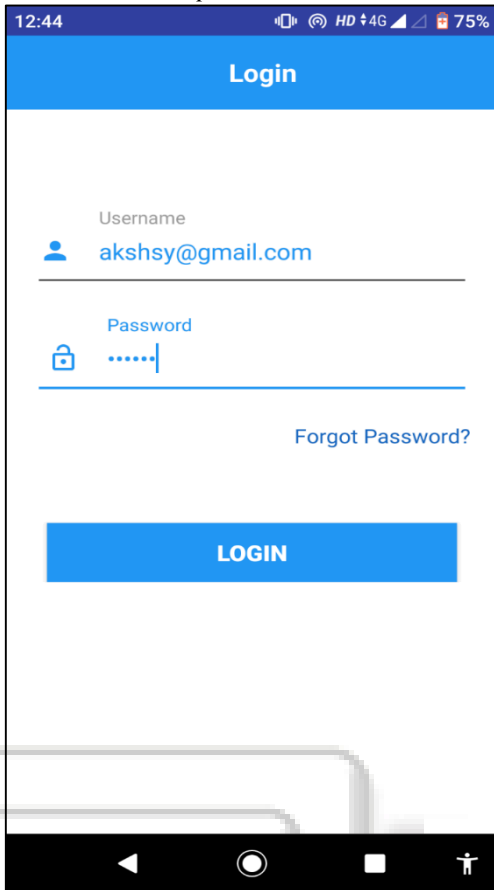
- D= distance
- Lat = latitude
- Lng = longitude
- F = formatted address
- output= Successfully login salesperson.
- Success condition-salesperson are track.
- Failure condition-salesperson are Not track.

B. Screenshot

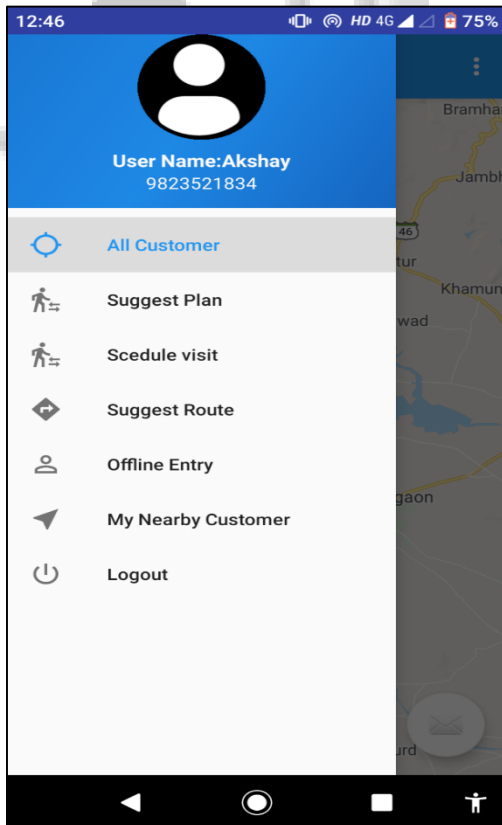
1) User Login



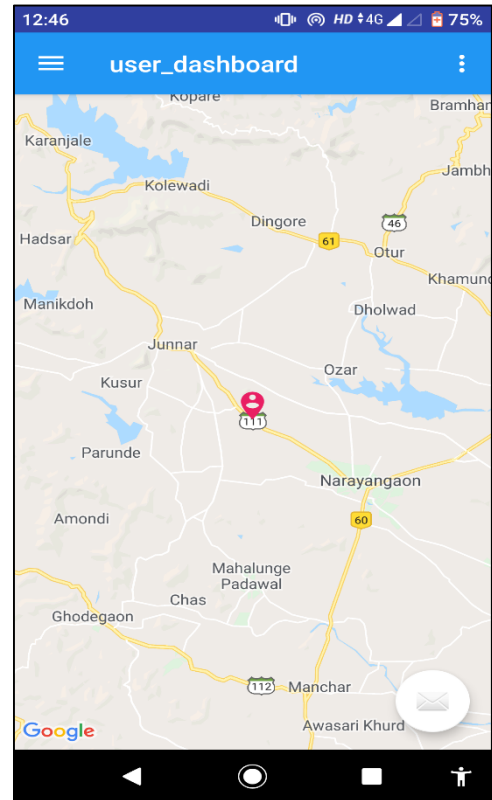
2) Enter Username and password



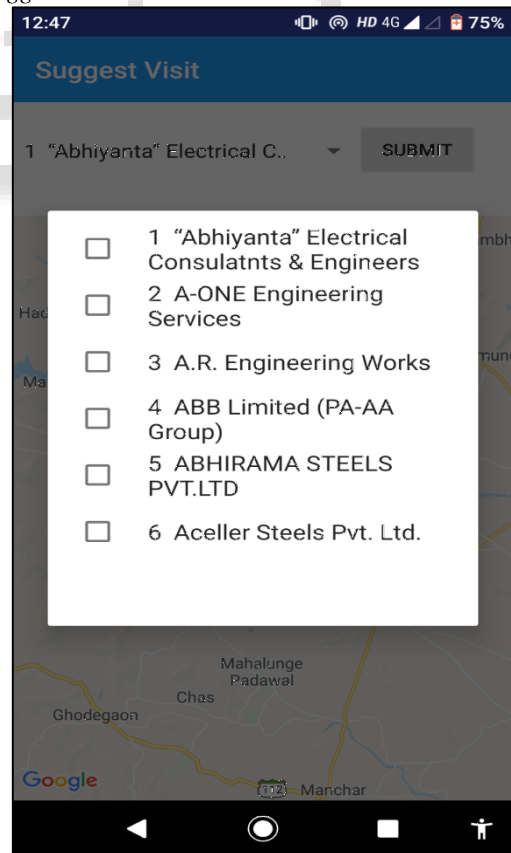
3) Main Menu



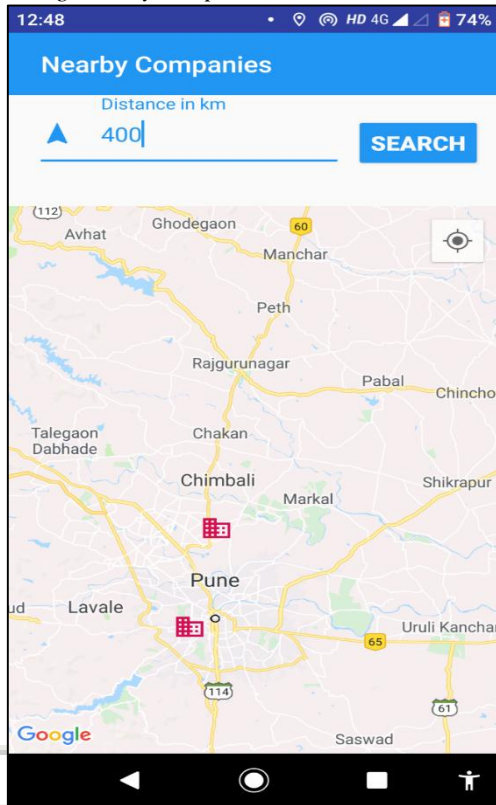
4) User Dashboard



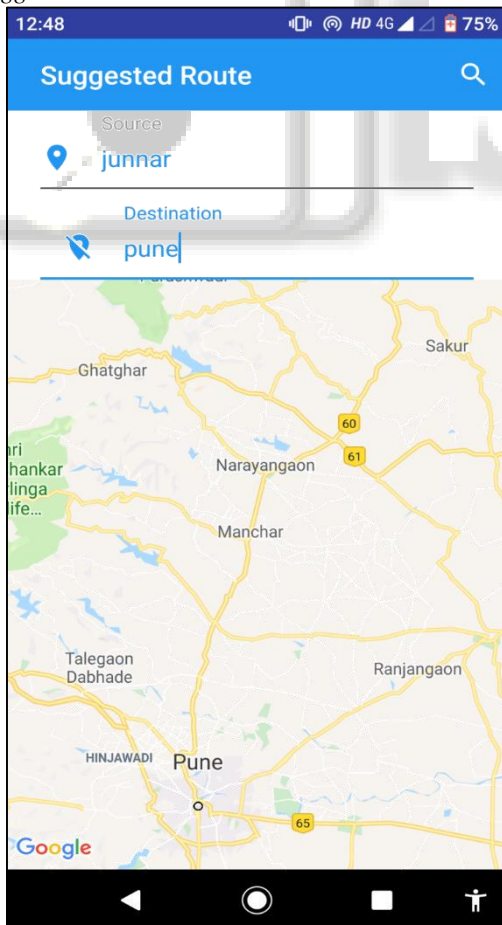
5) Suggest Visit



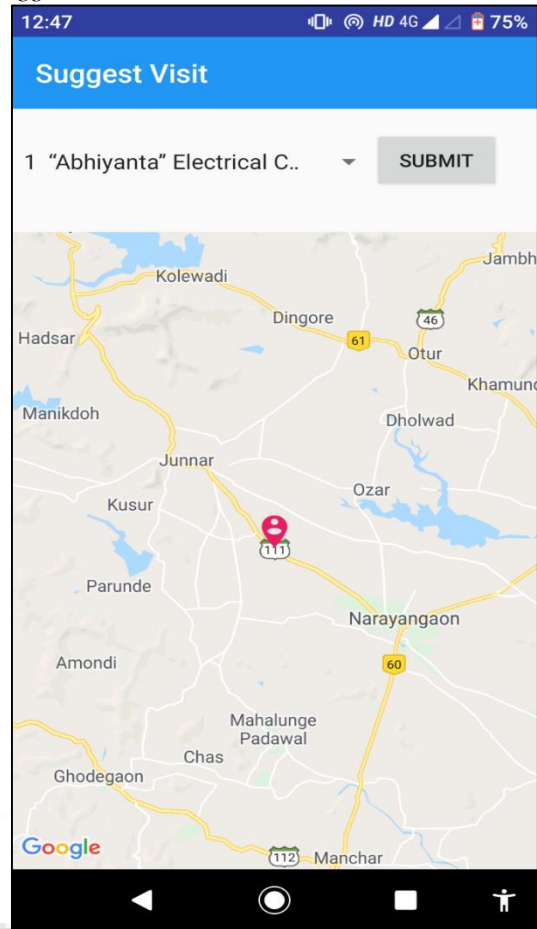
6) Scanning Nearby companies



7) Suggest Route



8) Suggest Visit



ACKNOWLEDGMENTS

Android application are use for salesperson login and logout, accept the customer requirement to application through and generating the automated report to the customer like current location of salesperson or customer and admin are can suggest the shortest path between to the current location to the next location to salesperson and admin are Continuously Track the employee or sale person Admin using GPS and Google map.

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