Location Tracer of Maintenance Worker Using GPS

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Abstract: *The Location Tracer Android application provides workers as per the user need with respect to location. This app is automated program that runs over the Internet by using GPS (global positioning system). Now a day's most of the people using android phones worldwide. Also everyone is aware about smart phone, by getting this idea it is decided to develop the application which provides some common services to user. Using this application user can easily get information about workers as per user's need.*

Keywords: *GPS, Android app, location, map*

1. INTRODUCTION

The aim of this project is to build a mobile app named, Location Tracer of Maintenance Worker using GPS System, to provide better service for citizen by using positioning technology. The main purpose behind this initiative is to resolve user's domestic and commercial problem through the technologies like Android application, GPS, Google map technology along with innovative mobile and web based application to manage workers with respect to user's need.

This system provides the information of workers. Using android application, it will handle the GPS by using Google API's.

Mobile device requires an internet connection to connect to each other and to operate further. GPS allows system object to scan or set location. One of the modules in application is "Location Selector". This is used to set the location; with respect to location, further activities will carry out. Using this system location of nearest workers and his contact information detail will displayed to the user and worker will get a call/message from user .This will useful in manner to solve users problem and workers employability problem.

2. EXISTING SYSTEMS

In existing system like just-dial, urban clap applications are providing information about various shops where contact numbers and information of maintenance workers are available, like electricians, plumber etc. Also user can get address with respect to static location of user.

3. PROBLEM OF EXISTING SYSTEM

In the existing system simply applications are providing the information about shops and not about the workers, here every time user has to contact shop owner. Second problem is that applications are not providing services on user's dynamic location, by getting these issues in existing systems, the new system is designed. By using this application user can get service from its nearest location for his need.

4. OBJECTIVE

1.Simplify the solving of domestic & commercial problem:

This system is aimed to simplify domestic and commercial problem. It saves the time of user by providing proper information of workers as per need.

2. Recommending nearest worker to user:

By using GPS every time worker's location can get easily updated to the database and user can get nearest worker information depending upon location of user.
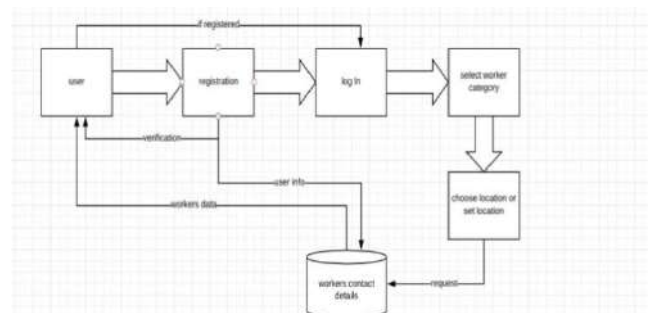
3. Availability for users 24 X 7:

Application is aimed at being available for users, with all moment.

4. User-friendly:

By having a good user interface, the system will become friendly, which will also make the users comfortable for using system.

5. WORKING

The proposed user module is shown in Figure below.

6. REQUIREMENTS ANALYSIS AND SRS PREPARATION

Software Requirements Specification:
The system to have the following Roles:

1. Users
   - Register for system access
   - Choose work type
   - Choose work Locations
   - Get contact number of worker with respect to location

2. Worker
   - Register for system
   - Login in system
   - Share his location to system

3. Constraint
   - Only registered user (worker & user) can access system
   - Products must satisfy minimum quality parameters.

4. Functional Requirement :Area wise display workers information

7. INTERFACES

Hardware Interface

Server Side:
   - Mongodb server (mlab).

Client Side:
   - Android enabled handset with minimum version 4.2 Jelly Bean

Software Interface Front End:

The front-end is responsible for collecting input in various forms from the user. The front-end is a kind of interface between the user and the back-end. Android is used fordevelopment of front end. For client side GUI, android is used to develop forms and device enabled with GPS.

Back End: MongoDB

Server is an application running on a computer that delivers a service. MLab(mongo lab) server is data base server application.

It performs following tasks

1. Validates user

2. Validates input

3. Taking request from mobile client in the form of users details, worker details and generates appropriate response page for mobile client.

8. WORKING METHODOLOGY

This mobile application provides an easy mean for the users and worker . Firstly the software needs to be installed on the smart phone or tablet.The registration is on the server side which is to be done by the user and worker. Then the User id and password will be provided to the registered user.

Worker side Module:

1. After the successful installation of application on the smart phone/tablet, following login screen will appear
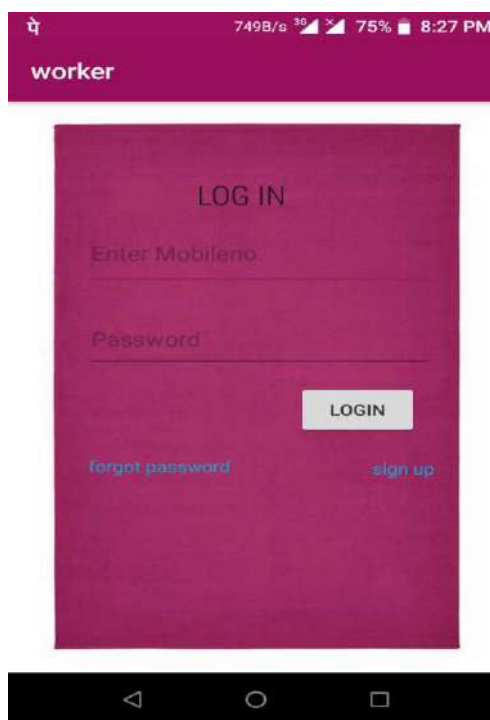

Figure 1: Login Screen
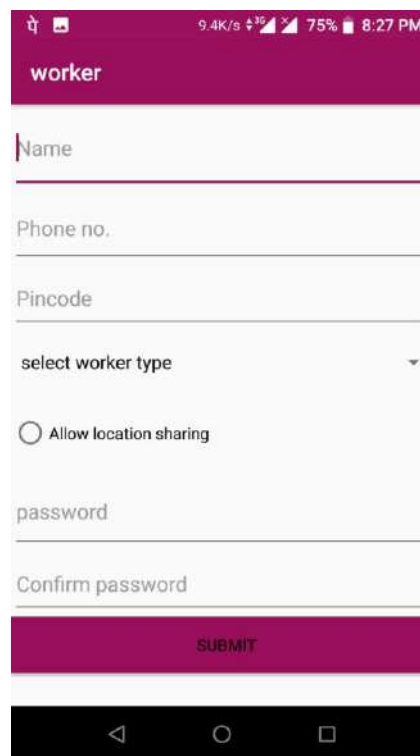
2. Worker has to register on server,

Figure 2: Registration form

3. After successful registration, server will provide user id and password to worker. Location sharing is done by clicking on switch. (ON/OFF)
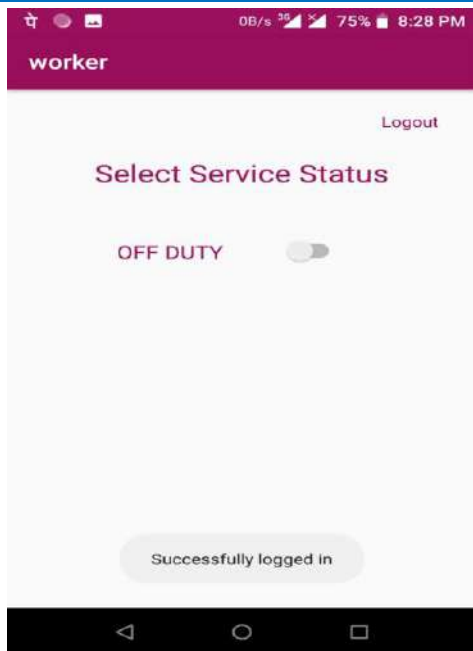
Figure 3: Worker login Status

User side module:

4. When user opens his application login screen will appear

Figure 4.User login Screen

5. After successfully logged in then user can select services from dashboard like electrician, plumber etc.

Figure 6.1 Provision for call.

6.2 If user selects current location then user will get map view and by clicking on blue mark in map,user can directly make a call to worker

Figure 6.2: Map View, Red mark-user location, blue mark-worker location

9. CONCLUSION

The application is developed for domestic and commercial users. Application requires GPS, which enables sharing and accessing location. Application will

provide services to the user such as worker information and location. All these features will serve the user by assisting that will make day to day life easy by connecting devices through internet. "Smart City Mission" is the objective is to promote cities that provide core infrastructure and give decent quality of life and service to the citizens.

REFERENCES

[1] https://developer.android.com

[2] https://tutorialpoints.com

[3] https://udemy.com

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