

**A PROJECT REPORT**

**ON**

**ROVER THERAPIST**

**SUBMITTED TO THE UNIVERSITY OF PUNE  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE AWARD OF THE DEGREE  
OF  
B.E.(INFORMATION TECHNOLOGY)**

**SUBMITTED BY**

**SHUBHAM CHANDAK 47008  
RIDHIMA JOSHI 47020  
MADHUR LAHOTI 47028**

**UNDER THE GUIDANCE OF  
PROF. C.A.GHUGE  
DEPARTMENT OF INFORMATION TECHNOLOGY  
P.E.S's  
MODERN COLLEGE OF ENGINEERING,  
SHIVAJINAGAR, PUNE-411005  
UNIVERSITY OF PUNE  
\*2014-2015\***

**A PROJECT REPORT**

**ON**

**ROVER THERAPIST**

**SUBMITTED BY**

**SHUBHAM CHANDAK 47008**

**RIDHIMA JOSHI 47020**

**MADHUR LAHOTI 47028**

**B.E.(INFORMATION TECHNOLOGY)**

**UNDER THE GUIDANCE OF**

**PROF. C.A GHUGE**



**DEPARTMENT OF INFORMATION TECHNOLOGY**

**P.E.S's**

**Modern College Of Engineering,**

**Shivajinagar,Pune-5**

**UNIVERSITY OF PUNE**

**\*2014-2015\***

**Progressive Education Society's  
Modern College of Engineering, Shivajinagar,  
Pune-411005.**



**CERTIFICATE**

This is to certify that the following students of Final Year Information Technology have successfully completed the project entitled "**ROVER THERAPIST**" in the academic year 2014-2015.

The Group Members name are: Shubham Chandak

Ridhima Joshi

Madhur Lahoti

This is partial fulfillment of Bachelor of Information Technology under the University of Pune, Pune.

Date:

(Prof. Mrs. S. D. Deshpande)

HOD of Department

(Information Technology)

(Prof. C. A. Ghuge)

External Examiner

(Internal Guide)

## ACKNOWLEDGEMENT

We take this opportunity to express our sincere thanks to our project guide Prof. C. A. Ghuge and Head of the Department Prof. Mrs. S. D. Deshpande for their valuable time and guidance and for providing all the necessary facilities, which were indispensable in the completion of this project report.

We are also thankful to all the staff members of the Department of Information Technology of Modern College of Engineering, Pune for their valuable time, support, comments, suggestions and persuasion.

We would also like to thank the institute for providing the required facilities, Internet access and important books.

We would also like to thank our colleagues and friends for their support and timely suggestions.

Shubham Chandak  
Ridhima Joshi  
Madhur Lahoti

## ABSTARCT

Customer Relationship Management (CRM) is currently one of the most used notions in articles and studies dealing with computer applications. Nowadays it is very difficult for a company to convince a customer (a potential client) with only product or price arguments because of the strong competition in almost all market areas. Aim of our project deals with finding tourist attractions, optimal path finding for tourist attraction, suggestions for way of transportation, seasonal classification and calculation of the fare using distance formula calculation. This project also helps the tourist to lodge a complaint against the Tourist Guides, Rented vehicle drivers for diverting the tourist and charging him unfair tariff finding out emergency numbers for the particular city. Based on the complaint lodged by the passenger the reports are generated and submitted to the higher authorities. Whenever user reaches near to the tourist place images of that place pops up on his phone. Tourist will get the places list as per his location and places are fetched from database as well as Google. Seasonal classification of places is also provided i.e. places to be visited in summer season, winter season and rainy season, this feature will suggest user to visit that particular place which must be visited during that season.

# Contents

<b>ACKNOWLEDGMENT</b>	<b>i</b>
<b>ABSTRACT</b>	<b>ii</b>
<b>LIST OF TABLES</b>	<b>vi</b>
<b>LIST OF FIGURES</b>	<b>vii</b>
<b>LIST OF FIGURES</b>	<b>viii</b>
<b>1 INTRODUCTION</b>	<b>1</b>
1.1 INTRODUCTION . . . . .	1
1.1.1 PURPOSE . . . . .	1
1.1.2 OVERVIEW . . . . .	1
1.1.3 BUSINESS CONTEXT . . . . .	1
1.2 PROBLEM STATEMENT . . . . .	2
1.3 PROJECT SCOPE . . . . .	2
1.4 PROJECT OBJECTIVES . . . . .	2
1.5 ASSUMPTIONS AND DEPENDENCIES . . . . .	2
1.5.1 Assumptions . . . . .	2
1.5.2 Dependencies . . . . .	3
1.6 LITERATURE SURVEY . . . . .	3
1.6.1 Customer Relationship Management Using Android Phone in Tourism . . . . .	3
1.6.2 inGuide-Interactive Guide . . . . .	3
1.6.3 On-line GPS Track Simplification Algorithm for Mobile Platforms	4
1.6.4 Overview on Android- The New Mobile Operating System . .	4
<b>2 PROJECT PLAN</b>	<b>5</b>
2.1 TASK SHEET SCHEDULE . . . . .	5
<b>3 REQUIREMENT ANALYSIS</b>	<b>6</b>
3.1 HARDWARE REQUIREMENTS . . . . .	6
3.2 SOFTWARE REQUIREMENTS . . . . .	6

<b>4</b>	<b>PROJECT DESIGN</b>	<b>8</b>
4.1	E-R DIAGRAM . . . . .	8
4.2	DATA FLOW DIAGRAMS . . . . .	9
4.2.1	DFD LEVEL0 . . . . .	9
4.2.2	DFD LEVEL1 . . . . .	10
4.3	UML DIAGRAMS . . . . .	11
4.3.1	USE CASE DIAGRAM . . . . .	11
4.3.2	CLASS DIAGRAM . . . . .	12
4.3.3	ACTIVITY DIAGRAM . . . . .	13
4.3.4	PACKAGE DIAGRAM . . . . .	14
4.3.5	SEQUENCE DIAGRAM . . . . .	15
4.3.6	COMMUNICATION DIAGRAM . . . . .	16
4.3.7	COMPOSITE STRUCTURE DIAGRAM . . . . .	17
4.3.8	STATE MACHINE DIAGRAM . . . . .	18
4.3.9	COMPONENT DIAGRAM . . . . .	19
4.3.10	DEPLOYMENT DIAGRAM . . . . .	20
<b>5</b>	<b>IMPLEMENTATION DETAILS</b>	<b>21</b>
5.1	PROJECT ARCHITECTURE . . . . .	21
5.2	ALGORITHM . . . . .	21
5.3	TECHNOLOGIES, TOOLS AND LIBRARIES USED . . . . .	22
5.3.1	TECHNOLOGIES . . . . .	22
5.3.2	TOOLS . . . . .	24
5.3.3	LIBRARIES . . . . .	24
5.4	DATABASE DETAILS . . . . .	25
5.5	INTERFACE DETAILS . . . . .	25
5.6	SCREEN SHOTS AND CODE . . . . .	26
5.6.1	Splash Screen . . . . .	26
5.6.2	Register User Screen . . . . .	26
5.6.3	Sign in as guest Screen . . . . .	26
5.6.4	Server Connection Parameters Screen . . . . .	26
5.6.5	List of Attraction Screen . . . . .	26
5.6.6	Direction Screen . . . . .	26

5.6.7	Routes Screen . . . . .	26
5.6.8	Weather Screen . . . . .	26
5.6.9	Place Information Screen . . . . .	26
5.6.10	Time Distance and Fare Screens . . . . .	26
5.6.11	Launch Complaint Screen . . . . .	26
<b>6</b>	<b>TESTING</b>	<b>28</b>
6.1	MANUAL TEST CASES . . . . .	28
6.1.1	SPLASH SCREEN . . . . .	29
6.1.2	SIGN IN AS GUEST . . . . .	30
6.1.3	SERVER PARAMETER CONNECTION SCREEN . . . . .	31
6.1.4	MAIN SCREEN . . . . .	33
6.1.5	MENU SCREEN . . . . .	34
6.2	AUTOMATED TEST CASES . . . . .	36
6.2.1	TEST LOG . . . . .	36
6.2.2	TEST REPORT . . . . .	37
<b>7</b>	<b>CONCLUSION AND FUTURE ENHANCEMENT</b>	<b>38</b>
<b>8</b>	<b>BIBLIOGRAPHY</b>	<b>39</b>



## List of Tables

1	Task Sheet Schedule . . . . .	7
2	Splash Screen Test Cases . . . . .	32
3	Sign In As Guest Screen Test Cases . . . . .	32
4	Server Parameter Connection Screen Test Cases . . . . .	32
5	Main Screen Test Cases . . . . .	35
6	Menu Test Cases . . . . .	35

# List of Figures

4.1.0.ER Diagram . . . . .	8
4.2.1.DFD Level 0 . . . . .	9
4.2.2.DFD Level 1 . . . . .	10
4.3.1.Use Case Diagram . . . . .	11
4.3.2.Class Diagram . . . . .	12
4.3.3.Activity Diagram . . . . .	13
4.3.4.Package Diagram . . . . .	14
4.3.5.Sequence Diagram . . . . .	15
4.3.6.Communication Diagram . . . . .	16
4.3.7.Composite Structure Diagram . . . . .	17
4.3.8.State Machine Diagram . . . . .	18
4.3.9.Component Diagram . . . . .	19
4.3.10.Deployment Diagram . . . . .	20
5.6.1.Splash Screen . . . . .	27
5.6.2.Register User Screen . . . . .	28
5.6.3.Sign In As Guest Screen . . . . .	29
5.6.4.Server Connection Parameters Screen . . . . .	30
5.6.5.List of Attraction Screen . . . . .	31
5.6.6.Direction Screen . . . . .	33
5.6.7.Route Screen . . . . .	34
5.6.8.Weather Screen . . . . .	36
5.6.9.Place Information Screen . . . . .	37
5.6.10.Distance to travel Screen . . . . .	40
5.6.10.2 Time to travel Screen . . . . .	40
5.6.10.3 Fare Screen . . . . .	40
5.6.11.Launch Complaint Screen . . . . .	41

## List of Figures

# 1 INTRODUCTION

## 1.1 INTRODUCTION

Our application is based on mobile CRM concept which will help the user.

### 1.1.1 PURPOSE

Aim of this project deal with finding tourist attractions, optimal path finding for tourist attraction, suggestions for way of transportation, and if the tourist is opting for Rented Vehicle then calculation of the fare using optimal path distance calculation provided by Google Maps API. This project also helps the tourist to lodge a complaint against the Tourist Guides, Vehicle Drivers for Diverting the tourist and charging him unfair tariff finding out emergency numbers for the particular city.

### 1.1.2 OVERVIEW

Using this application user can detect source of user and from there he can get nearest tourist places in his area. User also can find the multiple routes, available transport facility and fair calculation. The data found on this app is more than Google. In current scenario some application shows the data which only available on Google, in these app there is no local places on Google, so we are trying to give the data of local places also which are not much popular on Internet with detail information.

### 1.1.3 BUSINESS CONTEXT

1. Future Mobile Customer Relationship Management in the automotive industry and the tourism. The key profiles of future mobile communication are Interactive Broadband Protocols, Location Based Services and Individualized/Personalized Services mainly based on Multimedia information. These profiles are embedded in a three layer communicate model.
2. The grade of customers satisfaction is most relevant factor for the breakdown or the success of a company.
3. Aim of this project deal with finding tourist attractions, optimal path finding for tourist attraction, suggestions for way of transportation, and if the tourist is opting for Rented Vehicle then calculation of the fare using optimal path distance calculation provided by Google Maps API.
4. This project also helps the tourist to lodge a complaint against the Tourist Guides, Rented Vehicle Drivers for diverting the tourist and charging him unfair tariff finding out emergency numbers for the particular city.

## **1.2 PROBLEM STATEMENT**

To develop an android application for tourists who are exploring the city. To help the tourists search for places and provide security like lodging complaint against the drivers. To detect the distance of the destination from the source using distance algorithm.

## **1.3 PROJECT SCOPE**

This project will aim at developing an android application which will help the user to locate the nearby places. The application will use the Google API to display the places and distance algorithm to calculate the distance from source to destination. When the user opens the application source of the user will be detected. The user can select the categories which he wants to visit. This will show the places according to the categories selected. The places will also be shown as per the current weather. The algorithm will calculate the fare as per the distance. According to weather places will be suggested to the user also.

## **1.4 PROJECT OBJECTIVES**

Our project aims at delivering an application to the customer where he can use it whenever he visits the city. Project objectives are:

1. Detecting the source of the user.
2. Listing of tourist places.
3. Calculating fare according to the distance.
4. Lodge a complaint.
5. Show places according to the weather.
6. Places are fetched from database as well as Google.
7. Places can be sorted as per the categories.

## **1.5 ASSUMPTIONS AND DEPENDENCIES**

For the application to run following constraints should be present:-

### **1.5.1 Assumptions**

1. The device on which the application is running should be an android device.
2. User must have basic knowledge to operate android phone.

### 1.5.2 Dependencies

1. The device should have the facility of GPS.
2. The device should be connected to the internet.

## 1.6 LITERATURE SURVEY

Literature survey is the most important step in software development process. Before developing the tool it is necessary to determine the time factor, economy n company strength. Once these things are satisfied, ten next steps are to determine which operating system and language can be used for developing the tool. Once the programmers start building the tool the programmers need lot of external support. This support can be obtained from senior programmers, from book or from websites. Before building the system the above consideration are taken into account for developing the proposed system.

### 1.6.1 Customer Relationship Management Using Android Phone in Tourism

**Authors:** Nitin Khondre, Ravi Saini, Ronak Jain, Sarang Suryawanshi, Bushra Quazi

**Year:** March 2014

**Journal:** International Journal of Emerging Technology and Advanced Engineering

**Website:** [www.ijetae.com](http://www.ijetae.com) (ISSN 2250-2459, ISO 9001:2008 Certified Journal, Volume 4, Issue 3, March 2014)

Customers are the vital key for each business and company to help them to grow. So, implementing CRM important tools that will help managers and companies to increase the satisfaction and loyalty of customers more than before. Nowadays it is very difficult for a company to convince a customer with only product or price arguments because of the strong competition in almost all market areas. Mobile technology offers a high potential to significantly transform the ways how a company can interact with their customers and even with own employees. Therefore, this paper deals with the possibilities and aspects to support CRM via future mobile services.<sup>[1]</sup>

### 1.6.2 inGuide-Interactive Guide

**Authors:** Filipe Andre Gomes Batista, Nuno Rodrigues, and Alexandrino Goncalves

**Year:** 2009

**Journal:** 3rd IEEE International Conference on Digital Ecosystems and Technologies Future Mobile CRM in Automotive and Tourist Area

This paper describes the inGuide modular application which provides a package management system avoiding the need for a different version of the application for each city. It also describes the geolocation technology in order to provide contextual information in a simple and interactive way. This paper describes two modes those are online mode and offline mode. We preferred online mode of GPS tracking as it gives more accurate location.<sup>[2]</sup>

### **1.6.3 On-line GPS Track Simplification Algorithm for Mobile Platforms**

**Author:** R. Ivanov

**Year:** 2010

**Journal:** Information Technology and Control

This paper describes an algorithm for on-line simplification of the number of points, describing a GPS track. It is offered on the base of analysis of the location of three last points and calculation by basic trigonometric ratios and distance formula.<sup>[3]</sup>

### **1.6.4 Overview on Android- The New Mobile Operating System**

**Author:** Monika Bazard, Sonia Bhardwaj

**Year:** April, 2011

**Journal:** SGI Reflections- International Journal of Science, Technology and Management. ISSN No. 0976-2140. Volume 2, Issue 1, April, 2011

This paper describes the Androids history, architecture, libraries and its advantages and disadvantages in the smart phones.<sup>[4]</sup>

## **2 PROJECT PLAN**

### **2.1 TASK SHEET SCHEDULE**

We performed the following tasks:



## **3 REQUIREMENT ANALYSIS**

### **3.1 HARDWARE REQUIREMENTS**

The system requires following hardware requirements:

1. System: Intel P4, 2.4 GHZ, 40 GB HDD for installation.
2. Memory: 512 MB memory, 256 MB ram
3. Projects server side system is windows based supporting versions windows XP onwards.

### **3.2 SOFTWARE REQUIREMENTS**

1. Eclipse 3.7 Indigo
2. Android SDK
3. Android 2.3
4. Android GPS API
5. Apache Tomcat Server
6. MySQL

<b>TASK NAME</b>	<b>TASK DURATION</b>	<b>START DATE</b>	<b>END DATE</b>
Search for BE project topics and related papers			
Short listing of topics			
Presentation of topic to the project coordinator and final selection of topic			
Submission of base paper and synopsis	2 days	30/08/2014	1/09/2014
Discussion on SRS and implementation of SRS	2 days	9/09/2014	11/09/2014
Corrections in SRS and implementation of UML diagram	2 days	18/09/2014	20/09/2014
Discussion on literature survey and SRS format	2 days		25/09/2014
Preparation of Partial report in latex	8 days		9/10/2014
Partial report submission and signing	1 day	17/10/2014	17/10/2014
Semester VII project viva	1 day	/10/2014	/10/2014
Discussion on what to do in semester VIII	1 day	22/12/2014	22/12/2014
Changes in Admin Module and rough ER	2 days	09/01/2015	11/01/2015
Part of Android application discussed with project guide	5 days	14/01/2015	19/01/2015
Working on database	15 days	08/01/2015	23/01/2015
Completion of Admin module	15 days	08/01/2015	23/01/2015
Review I of project	1 day	28/01/2015	28/01/2015
Discussion on class diagram	1 day	23/02/2015	23/02/2015
Preparation of Final report in latex	11 days	1/03/2015	11/03/2015
Shown Android module to the project guide	1 day	16/03/2015	16/03/2015
Showed the changes in the project to the project guide	8 days	20/03/2015	27/03/2015
Review II of project	1 day	28/03/2015	28/03/2015
Discussion on some points of report and changes in the report	2 days	28/03/2015	30/03/2015

## 4 PROJECT DESIGN

### 4.1 E-R DIAGRAM

Figure 4.1.0.1 : ER Diagram

## 4.2 DATA FLOW DIAGRAMS

### 4.2.1 DFD LEVEL0

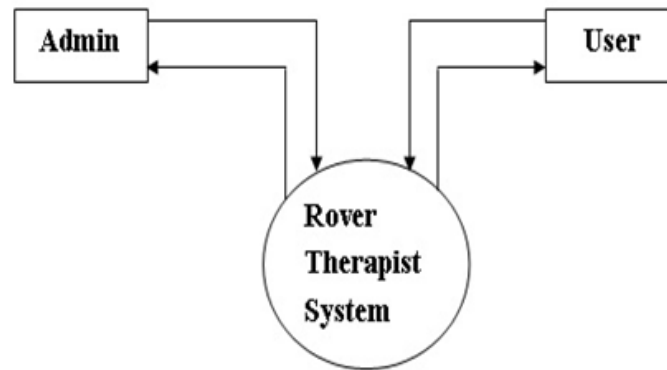


Figure 4.2.1.1 : DFD Level 0

#### 4.2.2 DFD LEVEL1

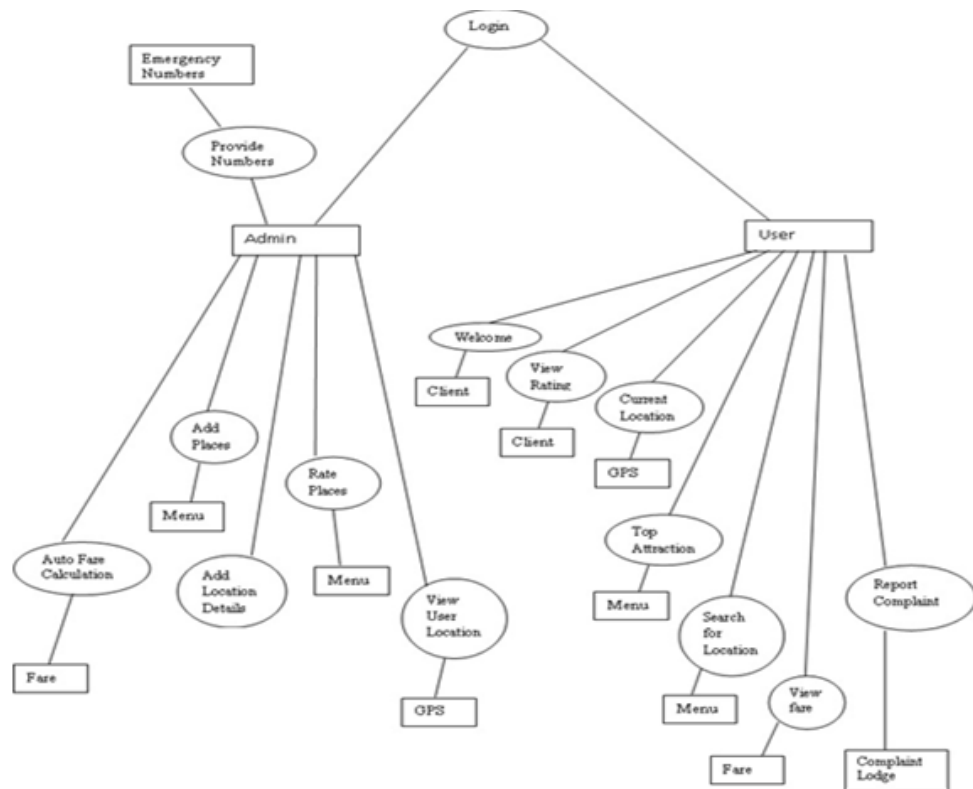


Figure 4.2.2.1 : DFD Level 1

## 4.3 UML DIAGRAMS

### 4.3.1 USE CASE DIAGRAM

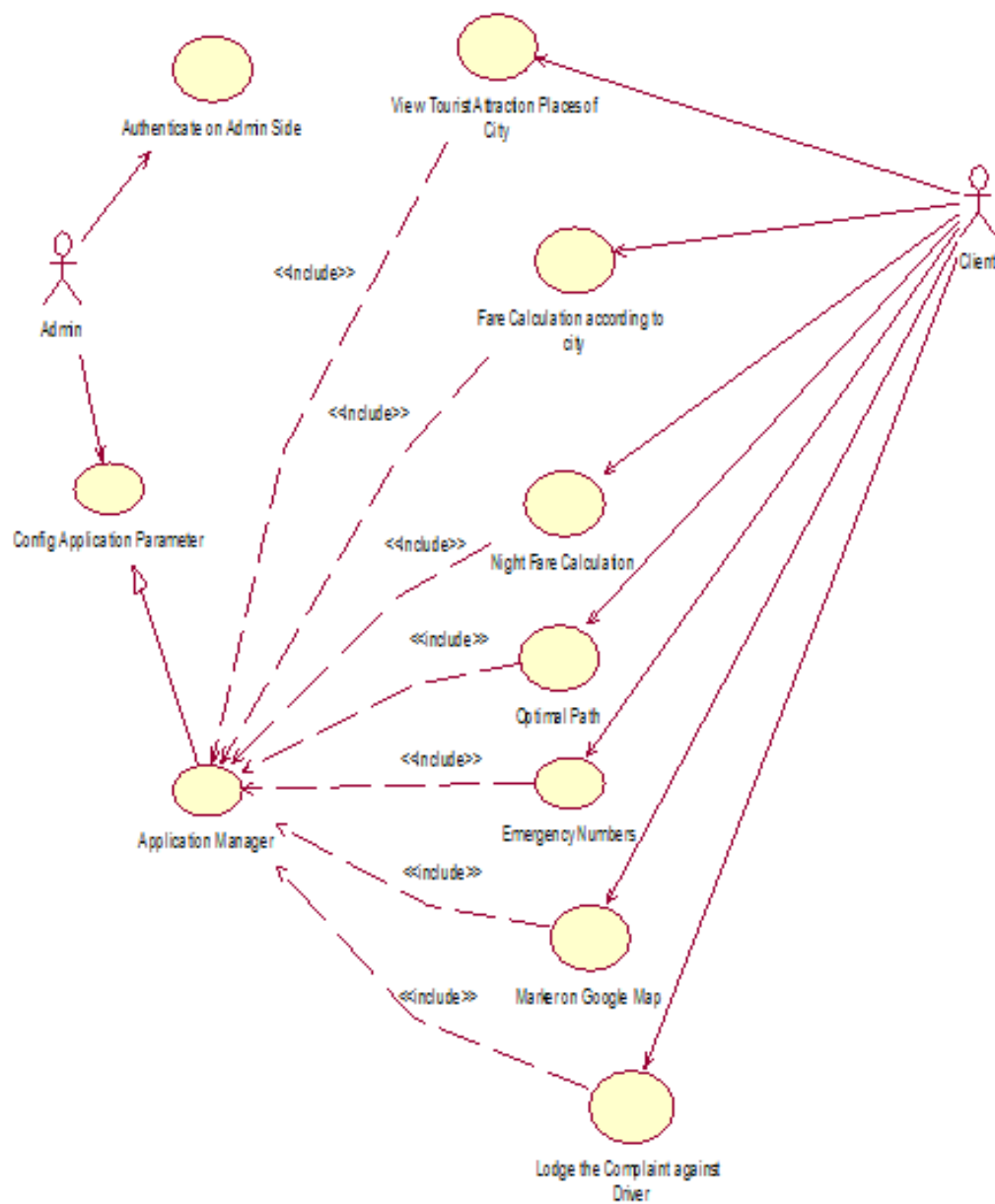


Figure 4.3.1.1 : Use Case Diagram

### 4.3.2 CLASS DIAGRAM

**Figure 4.3.2.1 :** Class Diagram

### 4.3.3 ACTIVITY DIAGRAM

Figure 4.3.3.1 : Activity Diagram



#### 4.3.4 PACKAGE DIAGRAM

Figure 4.3.4.1 : Package Diagram

### 4.3.5 SEQUENCE DIAGRAM

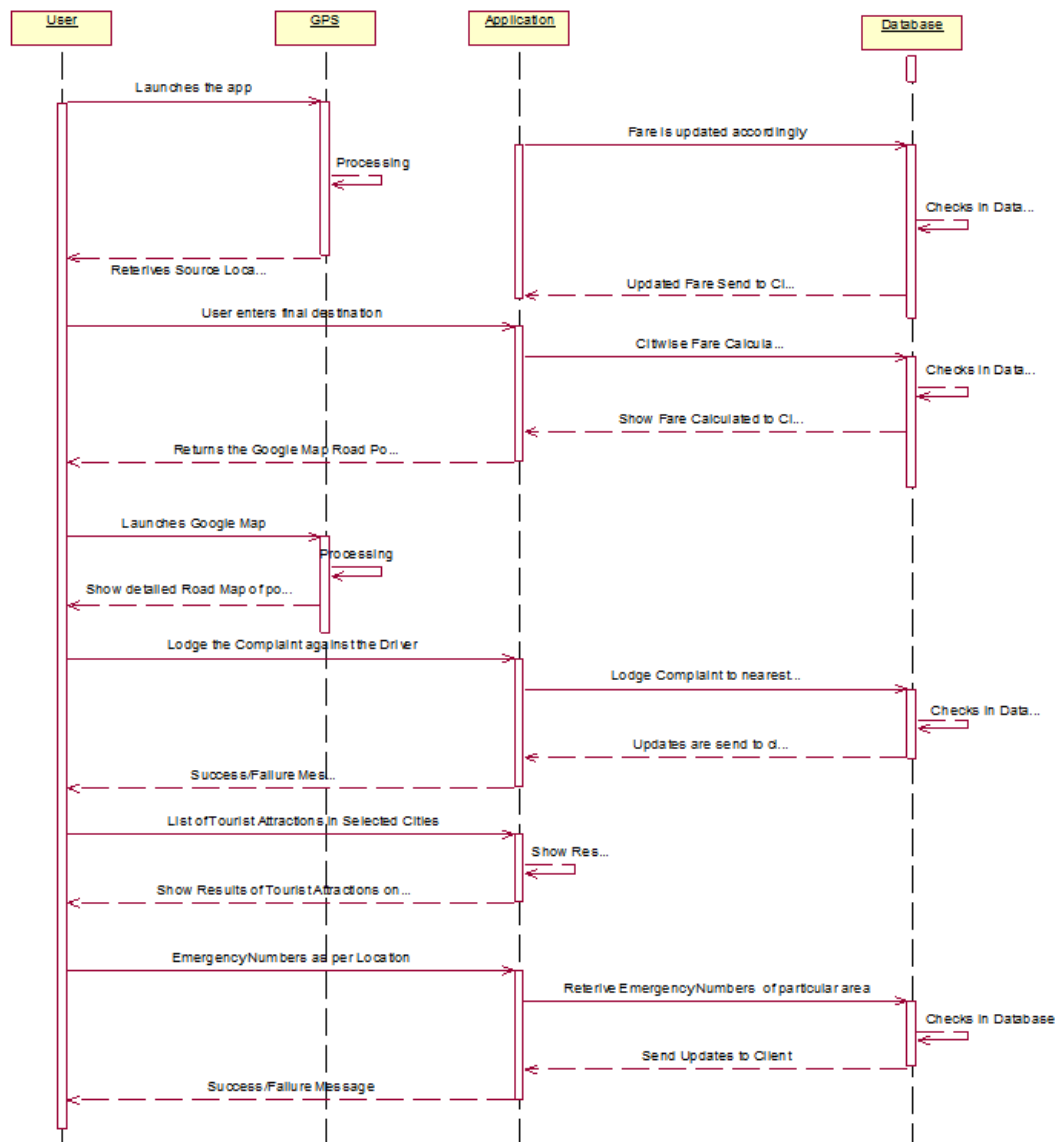


Figure 4.3.5.1 : Sequence Diagram

### 4.3.6 COMMUNICATION DIAGRAM

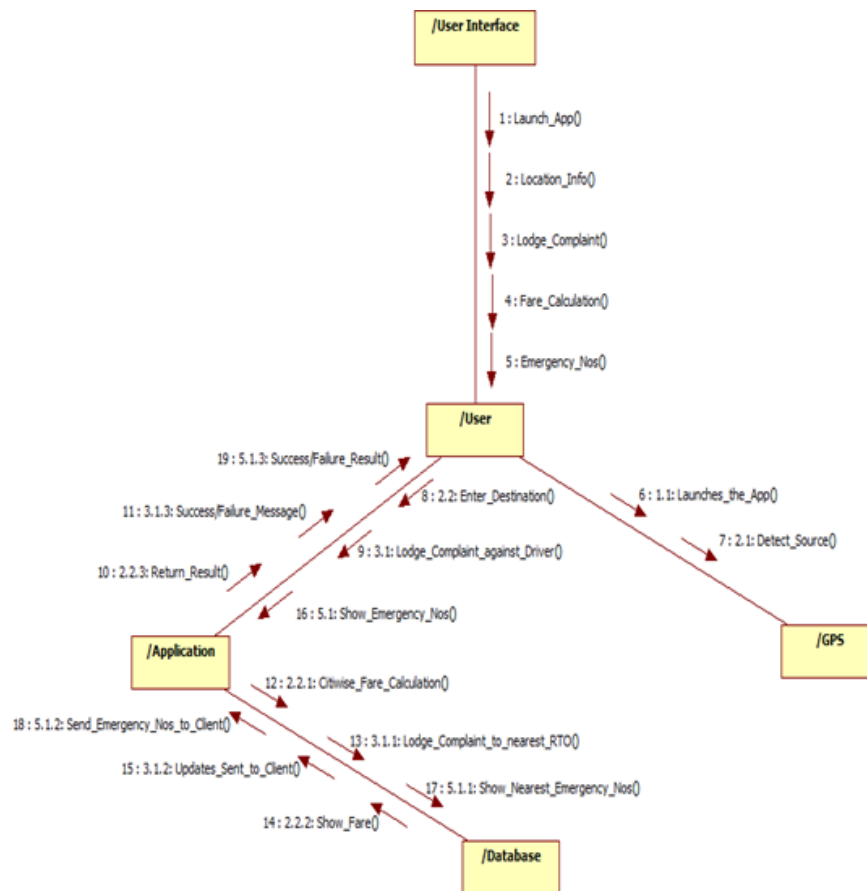


Figure 4.3.6.1 : Communication Diagram

#### 4.3.7 COMPOSITE STRUCTURE DIAGRAM

**Figure 4.3.7.1 :** Composite Structure Diagram

#### 4.3.8 STATE MACHINE DIAGRAM

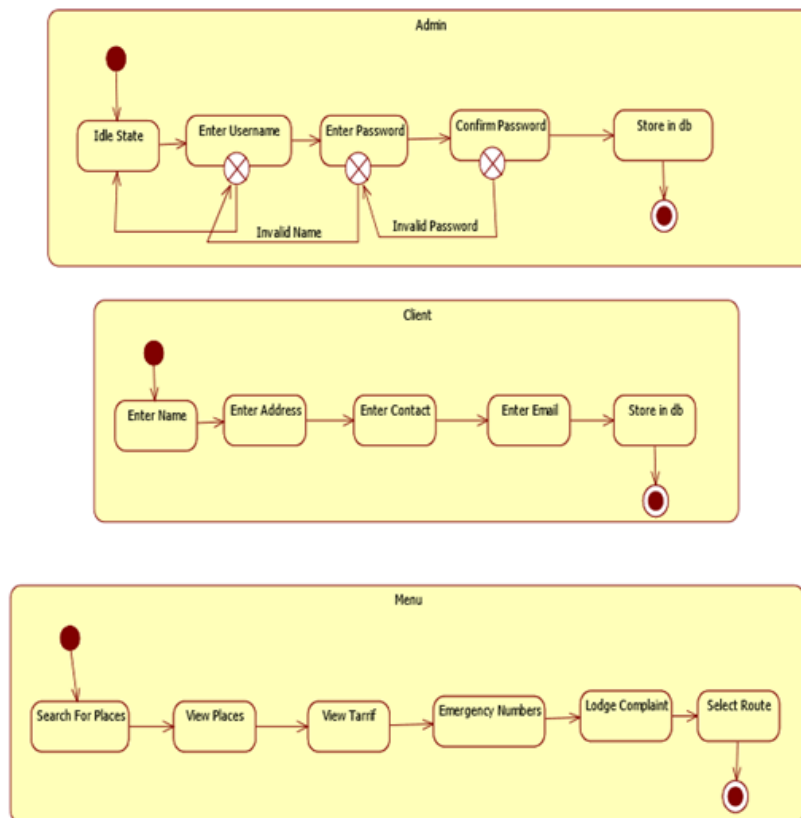


Figure 4.3.8.1 : State Machine Diagram

#### 4.3.9 COMPONENT DIAGRAM

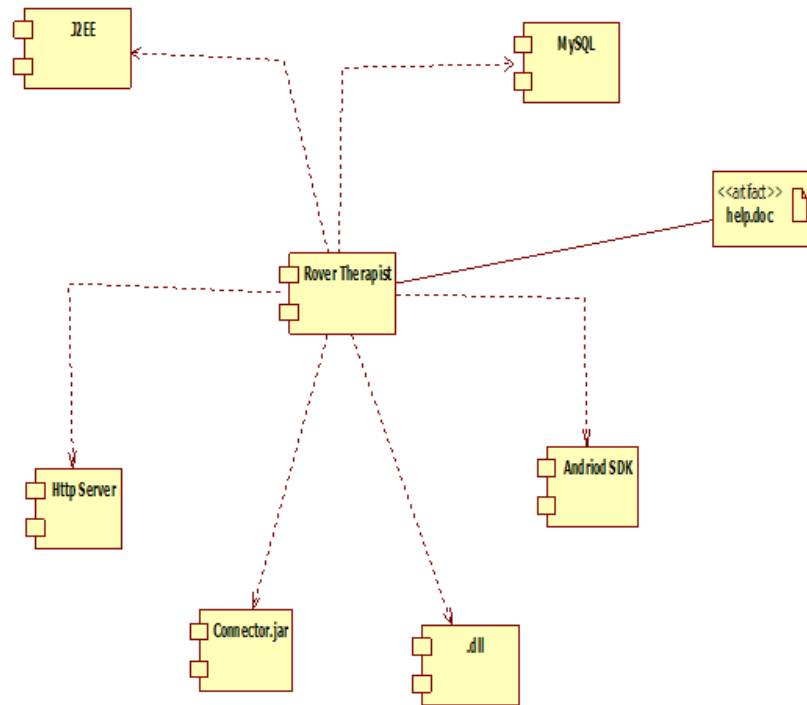
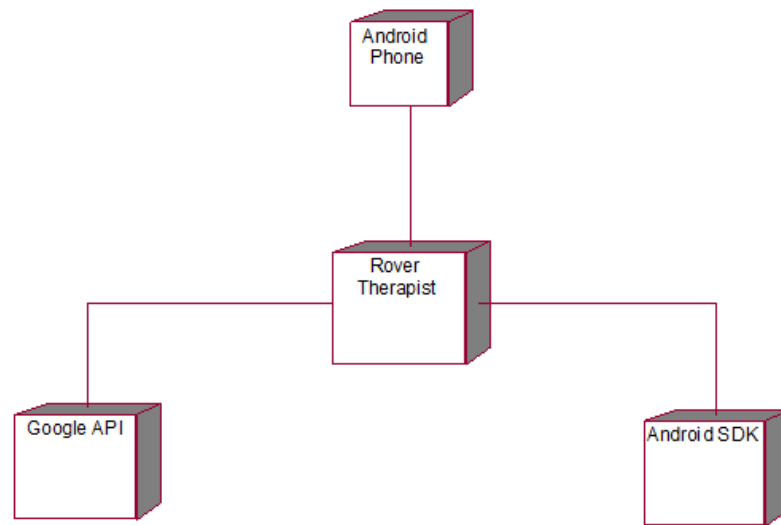


Figure 4.3.9.1 : Component Diagram

#### 4.3.10 DEPLOYMENT DIAGRAM



**Figure 4.3.10.1 :** Deployment Diagram

## 5 IMPLEMENTATION DETAILS

### 5.1 PROJECT ARCHITECTURE

Our application has a three-tier architecture. It has three layers:

1. Presentation Layer It provides user interface. It handles the interaction with the user.
2. Logic Layer Contains the business logic.
3. Data Layer It is the physical storage layer for data persistence. It manages access to the database.

### 5.2 ALGORITHM

#### DISTANCE BASED ALGORITHM

The distance based algorithm used is the Haversine algorithm. Haversine algorithm uses the latitude and longitude for calculation of distance from the GPS. It calculates the shortest distance between the two points.

##### Haversine Formula:

$$a = \sin^2(\phi/2) + \cos \phi_1 \cdot \cos \phi_2 \cdot \sin^2(\lambda/2)$$

$$c = 2 \cdot \text{atan2}(\sqrt{a}, \sqrt{1-a})$$

$$d = R \cdot c$$

where  $\phi$  is latitude,

$\lambda$  is longitude,

$R$  is earth's radius (mean radius = 6,371 km)

##### Implementation of Algorithm:

```
public static double calcDistance(double lata, double lnga, double latb, double lngb) { float pk = (float)(180
```



## 5.3 TECHNOLOGIES, TOOLS AND LIBRARIES USED

### 5.3.1 TECHNOLOGIES

#### 1. JAVA

Java is a general-purpose computer language that is concurrent, class-based, object-oriented. It contains features like classes, objects, encapsulation, abstraction, inheritance and polymorphism. Java is designed by James Gosling and Sun Microsystems. Java is simple, robust, secure, system independent language, portability, interpreted, multithreaded. Sun Microsystems Inc. has divided Java into three parts - Java SE, Java EE and Java ME.<sup>[5]</sup>

#### 2. Java SE:

It is the Java Standard Edition that contains basic core java classes. This edition is used to develop standard applets and applications.

#### 3. Java EE:

It is the Java Enterprise Edition and it contains classes that are beyond Java SE. To use many of the classes in Java EE, Java SE is used. It mainly concentrates on providing business solutions on a network.

#### 4. Java ME:

It stands for Java Micro Edition. It is for developers who develop code for portable devices, such as a PDA or a cellular phone.

## HTML

HTML is a markup language commonly used to create Web pages. A markup language provides a way to describe the structure of text and graphics on a Web page. It is developed and maintained by World Wide Web consortium (W3C). The term hyper signifies the navigation from one location to another in a non-linear fashion. HTML defines the content, i.e. the structure and the layout of a Web page with the help of elements and attributes. An element includes the start and the end tags, with some content within them, and attributes provide additional information about the elements.<sup>[6]</sup>

## CSS

*CSS is a stylesheet language that is used to describe the appearance and formatting of a Web document, where a CSS stylesheet consists of a list of rules, which in turn consist of one or more selectors and a declaration.*

## Servlet

A servlet is a simple Java class, which is dynamically loaded on a Web server and thereby enhances the functionality of the Web server. Servlets are secure and portable as they run on JVM embedded with the Web server and cannot operate outside the domain of the Web server. That is servlets are objects that generate dynamic content after processing requests that originate from a Web browser. They are Java components that are used to create dynamic Web applications. Servlets can run on any

Java-enabled platform and are usually designed to process HTTP requests, such as GET and POST.<sup>[8]</sup>

### **Javascript**

*JavaScript is an object-oriented scripting language that is used to design interactive websites. It is developed by Netscape.*

### **Android**

Android is an operating system based on Linux with Java programming interface. It provides tools such as a compiler, debugger and a device emulator as well as JVM. It is created by the Open Handset Alliance which is lead by Google.<sup>[10]</sup>

*Android uses a special virtual machine, e.g. the Dalvik Virtual Machine. Dalvik uses special bytecode. The Every Android application runs in its own process and under its own user id which is generated automatically.*

### **ANDROID DEVELOPMENT TOOLS**

*Google provides the ADT to develop Android applications with Eclipse. ADT is a set of components (plugins) which extend the Eclipse IDE with Android development capabilities.*

*ADT contains all required functionalities to create, compile, debug and deploy Android applications from Eclipse.*

### **ANDROID SDK**

*The Android Software Development Kit (SDK) contains the necessary tools to create, compile and package Android applications. It also provides an Android device emulator, so that an Android application can be tested without a real Android device. It contains the Android debug bridge (adb) tool which allows to connect to an virtual or real Android device.*

### **JSON (JavaScript Object Notation)**

*JSON is a lightweight data-interchange format. It is easy for humans to read and write. It is easy for machines to generate and parse. It is a text format that is easy for humans to read and write. It is a text format that is easy for machines to generate and parse. It is a text format that is easy for humans to read and write. It is a text format that is easy for machines to generate and parse.*<sup>[11]</sup>

*JSON is built on two structures :*

A collection of name/value pairs. In various languages, this is realized as an object, record, struct, dictionary, hash table, keyed list, or associative array.

An ordered list of values. In most languages, this is realized as an array, vector, list, or sequence.

#### **Example of JSON describing a person:**

firstName : John ,

lastName : Smith ,

isAlive : true ,

age : 25 ,

height<sub>m</sub> : 167.6,

address :      streetAddress : 212nd Street,      city : New York,      state : NY,      postalCode : 10021,

phoneNumbers : [

    type : home,      number : 212555 – 4567

```

],

children : [],

spouse : null

```

### 5.3.2 TOOLS

#### 1. ECLIPSE

Eclipse is an IDE. It contains a base workspace and an extensible plug-in system for customizing the environment. Written mostly in Java, it can be used to develop applications.<sup>[12]</sup>

#### MySQL

*MySQL is the world's second most widely used relational database management system (RDBMS). MySQL is a key part of LAMP (Linux, Apache, MySQL, PHP/Perl/Python) growing open source enterprise software stack. It uses SQL which is the most popular language*

#### 2. Apache TomCat Server

Apache Tomcat is an open-source web server and servlet. Tomcat implements several Java Servlet, JavaServer Pages (JSP), Java EL, and WebSocket, and provides a "pure Java" HTTP web server environment for Java code to run in.<sup>[14]</sup>

### 5.3.3 LIBRARIES

1. mysql-connector-java-3.1.14-bin.jar
2. google-play-services.jar
3. json-jena-1.0.jar
4. android-support-v4.jar
5. gcm.jar
6. gson.jar
7. common-dbcp-1.4.jar

## 5.4 DATABASE DETAILS

1. **Domain Table**      `CREATE TABLE 'domain' ('domainId' int(10) unsigned NOT NULL auto_increment, 'domainDesc' varchar(45) NOT NULL, PRIMARY KEY ('domainId'))`  
**Domaininfo Table**      `CREATE TABLE 'domaininfo' ('id' int(10) unsigned NOT NULL auto_increment, 'domainId' int(10) NOT NULL, 'domainDesc' varchar(45) NOT NULL, PRIMARY KEY ('id'))`
2. **Smsmanger Table**      `CREATE TABLE 'smsmanger' ('id' int(10) unsigned NOT NULL auto_increment, 'phoneno' varchar(45) NOT NULL, 'msg' varchar(45) NOT NULL, PRIMARY KEY ('id'))`  
**Trackeruser Table**      `CREATE TABLE 'trackuser' ('userid' int(10) unsigned NOT NULL auto_increment, 'lat' varchar(45) NOT NULL, 'lon' varchar(45) NOT NULL, PRIMARY KEY ('userid'))`
3. **Useraccount Table**      `CREATE TABLE 'useraccount' ('userid' int(10) unsigned NOT NULL auto_increment, 'password' varchar(45) default NULL, 'imei' varchar(45) NOT NULL, PRIMARY KEY ('userid'))`  
**Usergeotags Table**      `CREATE TABLE 'usergeotags' ('geotagid' int(10) unsigned NOT NULL auto_increment, 'userid' int(10) NOT NULL, 'lat' varchar(45) NOT NULL, 'lon' varchar(45) NOT NULL, PRIMARY KEY ('geotagid'))`

## 5.5 INTERFACE DETAILS

Application will have the following interfaces:

1. User interface screen will be choosing the attractions.
2. User interface screen for choosing the distance.
3. User interface screen for giving the input of the taxi fare.
4. User interface screen for viewing place details.
5. User interface screen for complaint launch.
6. User interface screen for registering first time.
7. User interface screen for showing location on the map.
8. User interface screen for showing direction on the map with source and destination.

9. User interface screen for showing different routes.
10. User interface will provide good look and feel effect so that it will user friendly.
11. And he or she can operate system very efficiently.

## **5.6 SCREEN SHOTS AND CODE**

### **5.6.1 Splash Screen**

### **5.6.2 Register User Screen**

### **5.6.3 Sign in as guest Screen**

### **5.6.4 Server Connection Parameters Screen**

### **5.6.5 List of Attraction Screen**

### **5.6.6 Direction Screen**

### **5.6.7 Routes Screen**

### **5.6.8 Weather Screen**

### **5.6.9 Place Information Screen**

### **5.6.10 Time Distance and Fare Screens**

### **5.6.11 Launch Complaint Screen**



Figure 5.6.1.1 : Splash Screen

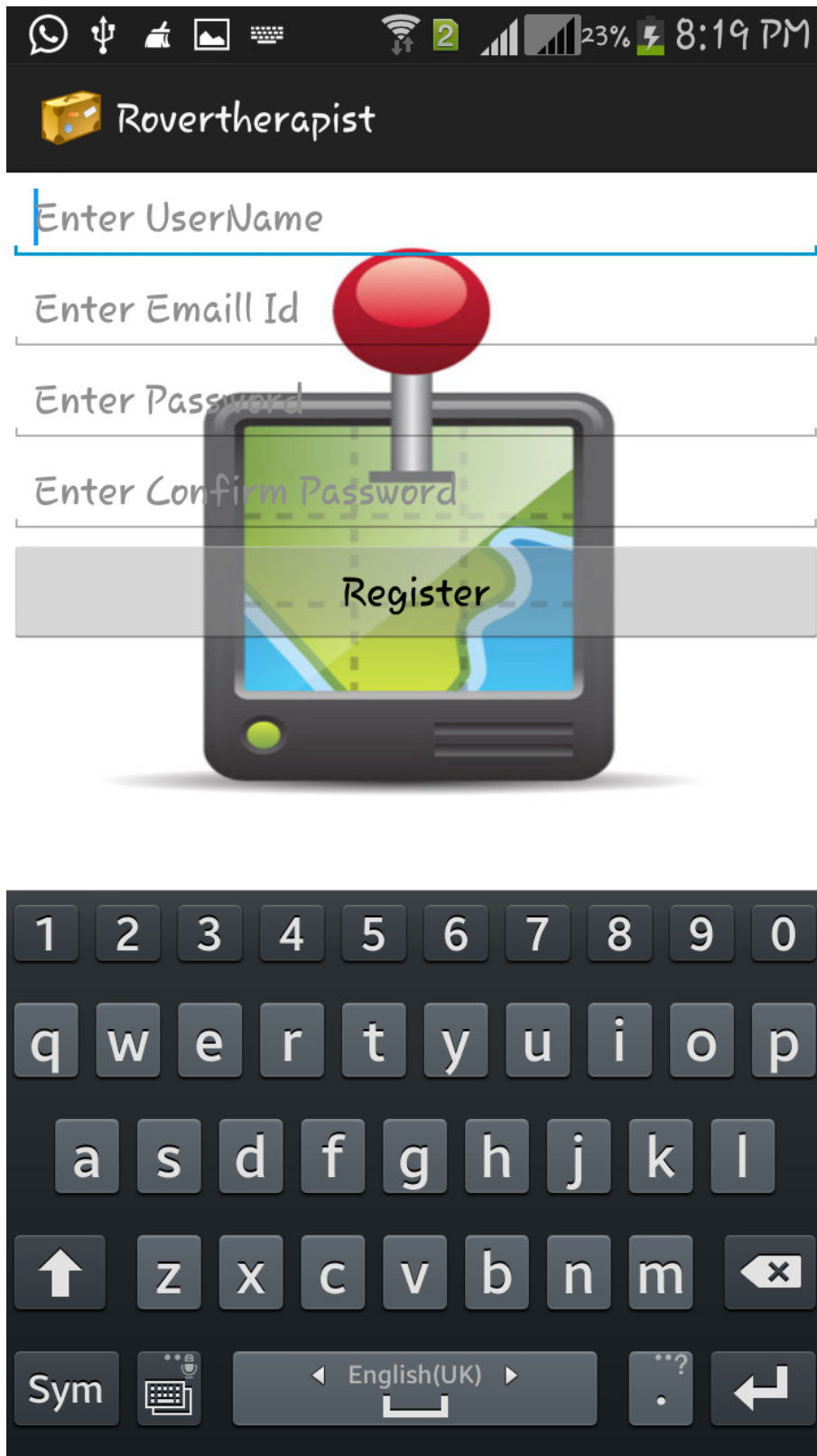


Figure 5.6.2.1 : Register User Screen

## 6 TESTING

### 6.1 MANUAL TEST CASES

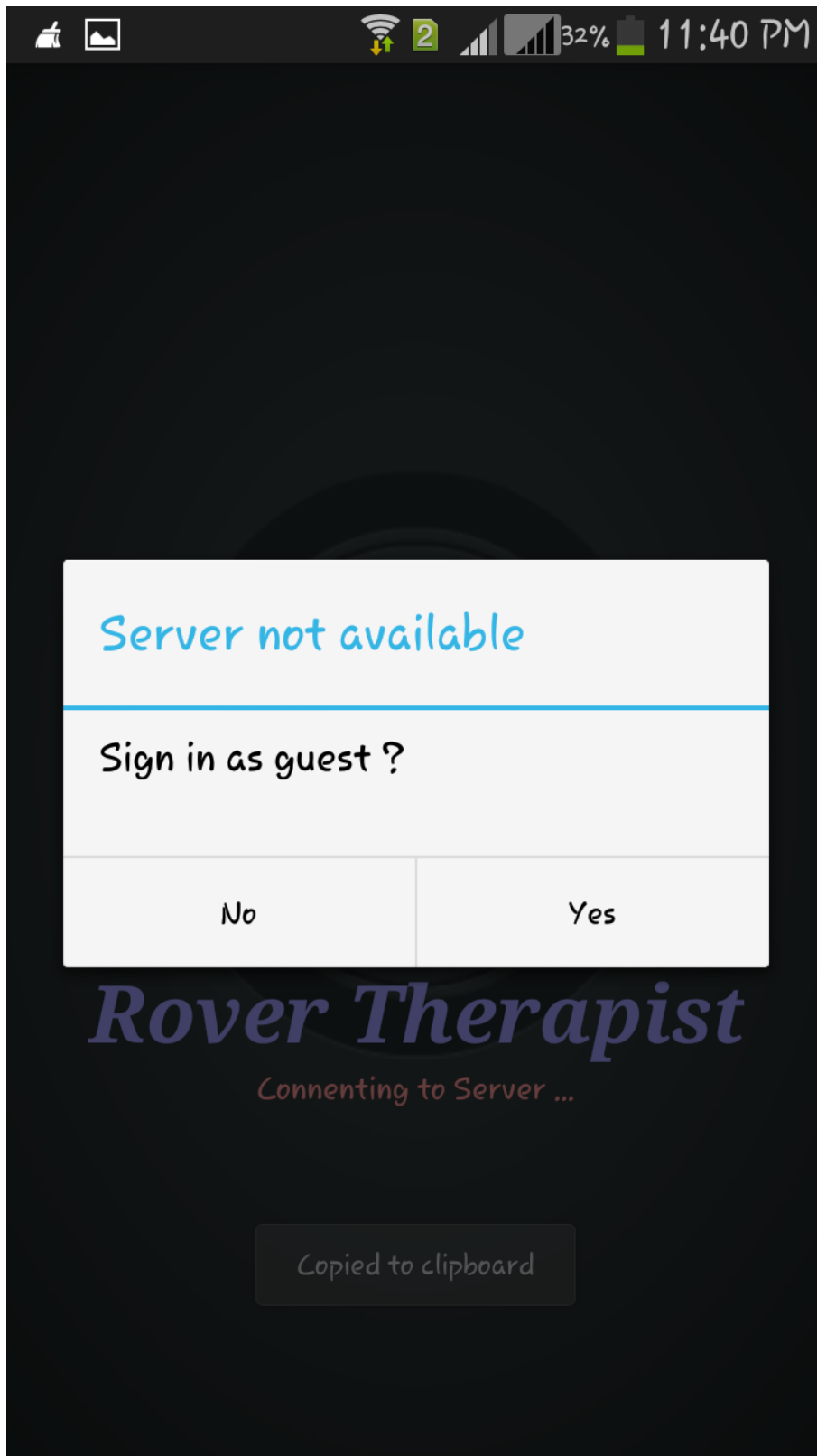


Figure 5.6.3.1 : Sign In As Guest Screen

#### 6.1.1 SPLASH SCREEN



Android status bar: 32% 11:41 PM

Navigation bar: Rovertherapist

Settings icon

Server IP and Port

172.20.10.3

8080

Local Taxi Rates after 1 Km

17

Taxi Rates for 1st Km

10

Check Connectivity

Sign in as Guest !

Figure 5.6.4.1 : Server Connection Parameters Screen

### 6.1.2 SIGN IN AS GUEST

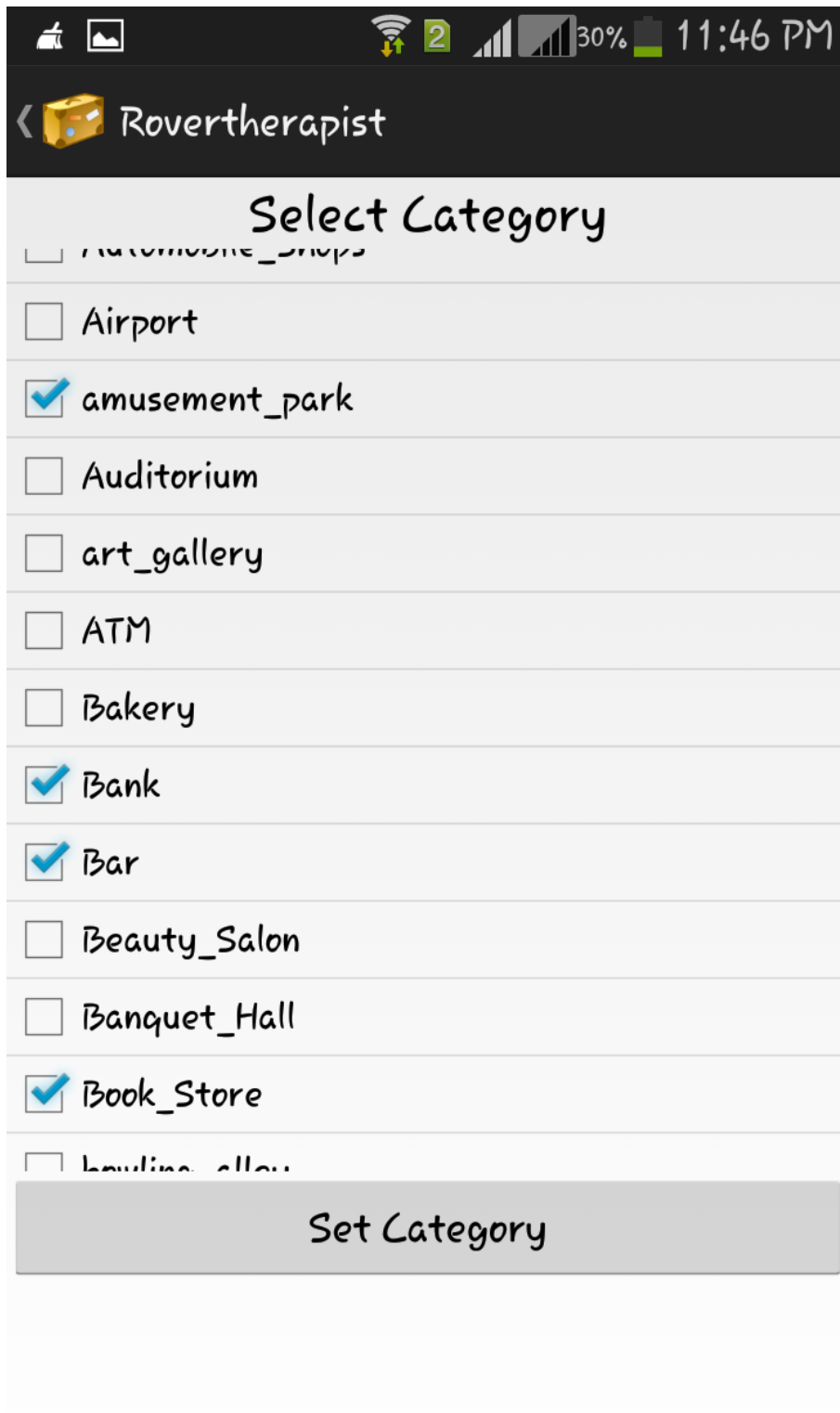


Figure 5.6.5.1 : List of Attraction Screen

### 6.1.3 SERVER PARAMETER CONNECTION SCREEN

cm!TEST NO.	TEST STEP	C
cm!1	Start the a cation	

**Table 2:** Splash Screen Test Cases

cm!TEST NO.	TEST STEP	C
cm!1	Sign in as g message-;Y	
cm!2	Sign in as g message-;N	

**Table 3:** Sign In As Guest Screen Test Cases

cm!TEST NO.	TEST STEP	C
cm!1	Touch textfields	
cm!2	Touch the nectivity bu	

**Table 4:** Server Parameter Connection Screen Test Cases



Figure 5.6.6.1 : Direction Screen

#### 6.1.4 MAIN SCREEN

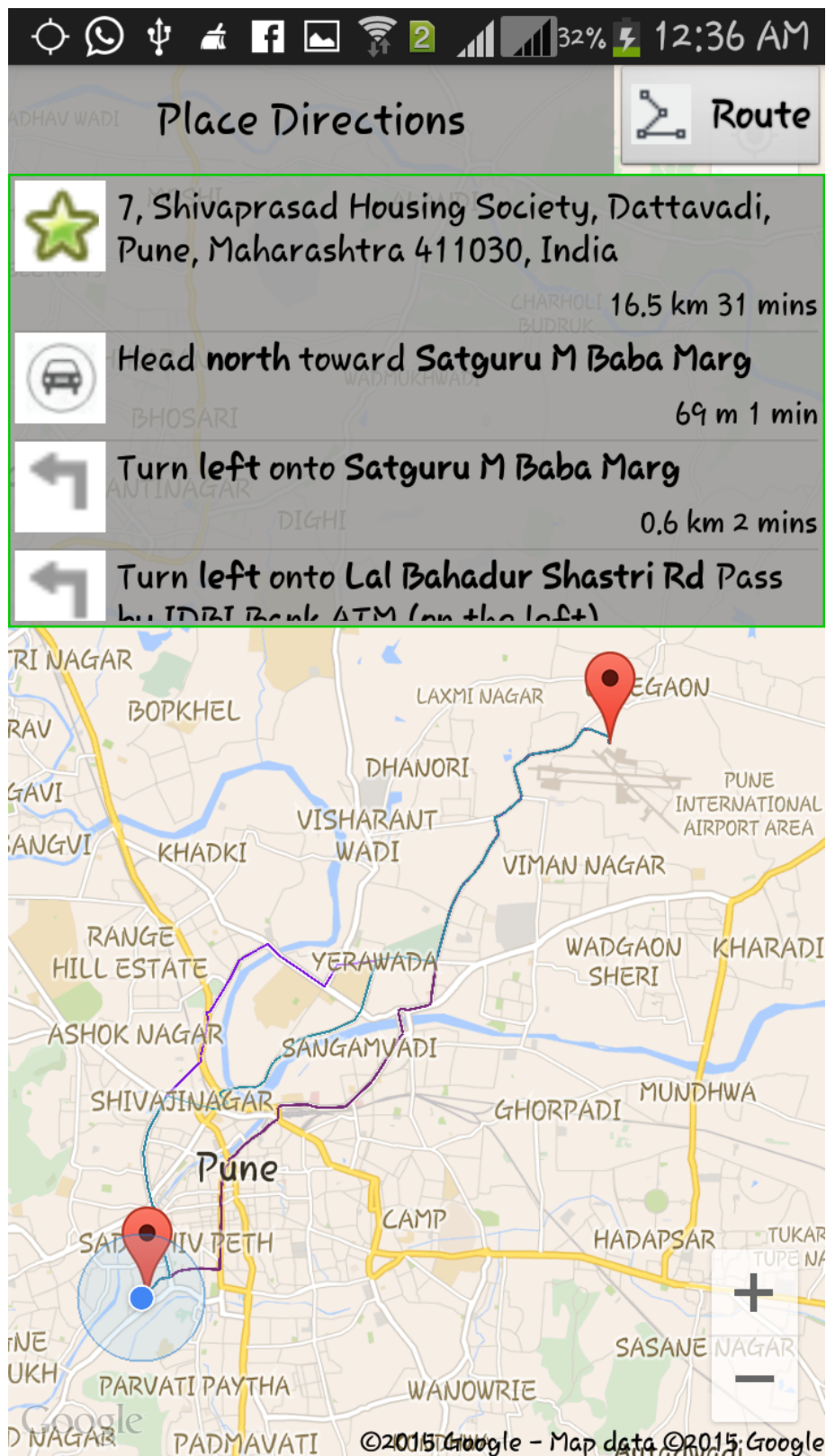


Figure 5.6.7.1 : Route Screen

#### 6.1.5 MENU SCREEN

cm!TEST NO.	TEST STEP	C
cm!1	Touch the m	
cm!2		
cm!3	Touch the c tion symbol	
cm!4	Touch the i mation sym	
cm!5	Touch the tion symbol	

**Table 5:** Main Screen Test Cases

cm!TEST NO.	TEST STEP	C
cm!1	Touch change dist option	
cm!2	Touch change cate option	
cm!3	Touch launch cor ant option	
cm!4	Touch the i mation sym	

**Table 6:** Menu Test Cases

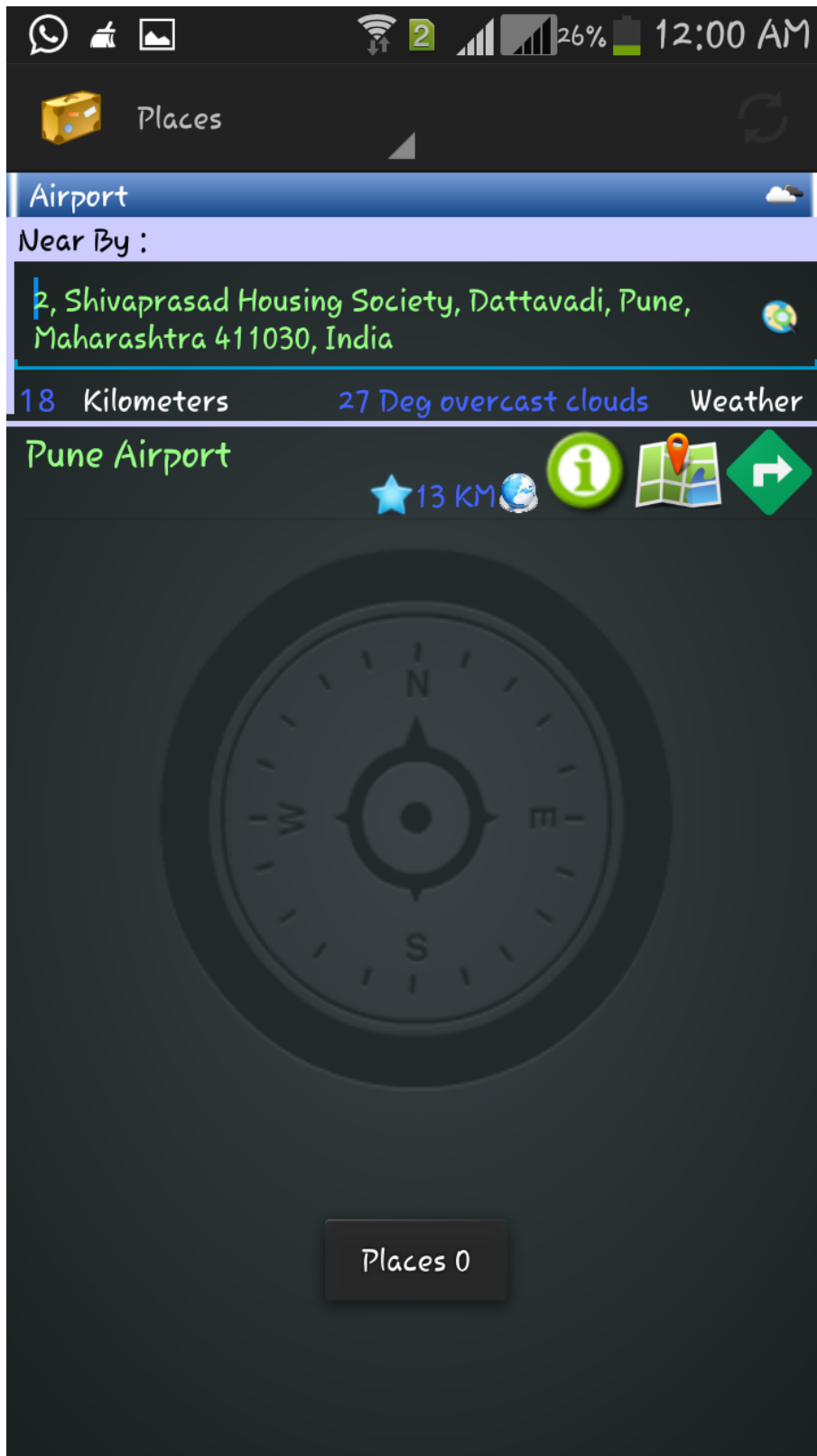


Figure 5.6.8.1 : Weather Screen

## 6.2 AUTOMATED TEST CASES

### 6.2.1 TEST LOG



Figure 5.6.9.1 : Place Information Screen

## 6.2.2 TEST REPORT



## **7 CONCLUSION AND FUTURE ENHANCEMENT**

In this project, we have added new features like fare calculations, shortest route, places according to the weather to visit, choice of distance to the available application. We have also created our own database so the user can be guided even if his GPS is off.

Our project is limited to the city. But it can be extended to other cities, states.

## 8 BIBLIOGRAPHY

1. Nitin Khondre, Ravi Saini, Ronak Jain, Sarang Suryawanshi, Bushra Quazi, Customer Relationship Management Using Android Phone in Tourism, International Journal of Emerging Technology and Advanced Engineering.
2. Filipe Andre Gomes Batista, Nuno Rodrigues, and Alexandrino Goncalves, inGuide-Interactive Guide, 2009 3rd IEEE International Conference on Digital Ecosystems and Technologies Future Mobile CRM in Automotive and Tourist Area
3. R. Ivanov On-line GPS Track Simplification Algorithm for Mobile Platforms, Information Technology and control, 2010
4. Monika Bazard, Sonia Bhardwaj, Overview on Android- The New Mobile Operating System, International Journal of Science, Technology and Management Volume 2, Issue 1, April, 2011
- 5.
- 6.
- 7.
- 8.
- 9.
10. [www.develpoer.android.com](http://www.develpoer.android.com)
11. [www.json.org](http://www.json.org)
12. [www.wikipedia.org/wiki/Eclipse\(\*software\*\)](http://www.wikipedia.org/wiki/Eclipse_software)
13. <http://en.wikipedia.org/wiki/MYSQL>
14. [http://en.wikipedia.org/wiki/Apache<sub>Tomcat</sub>](http://en.wikipedia.org/wiki/Apache_Tomcat)

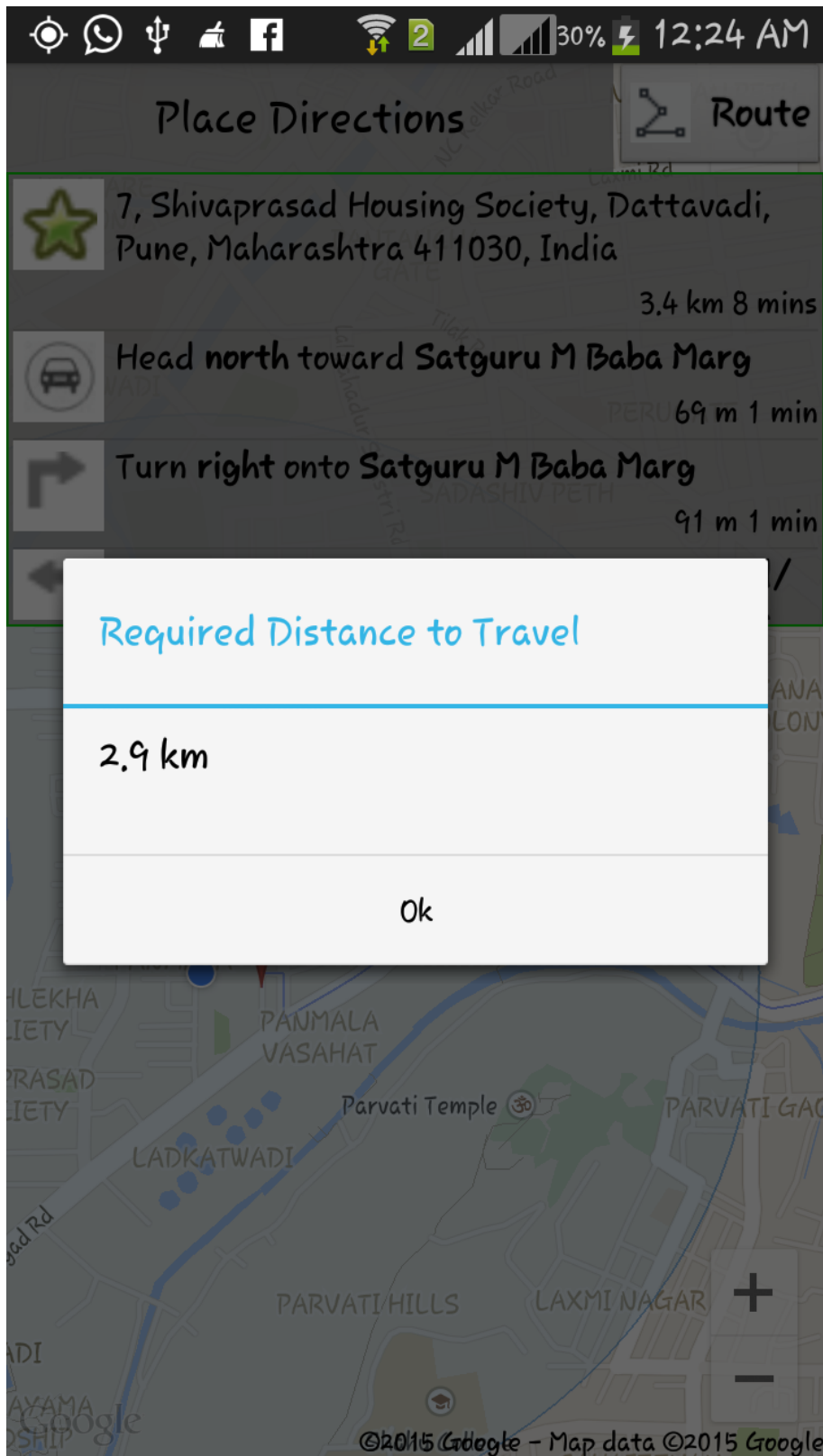
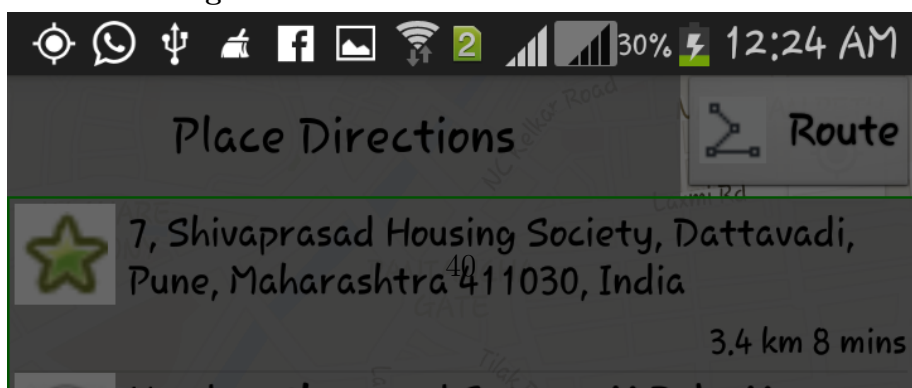
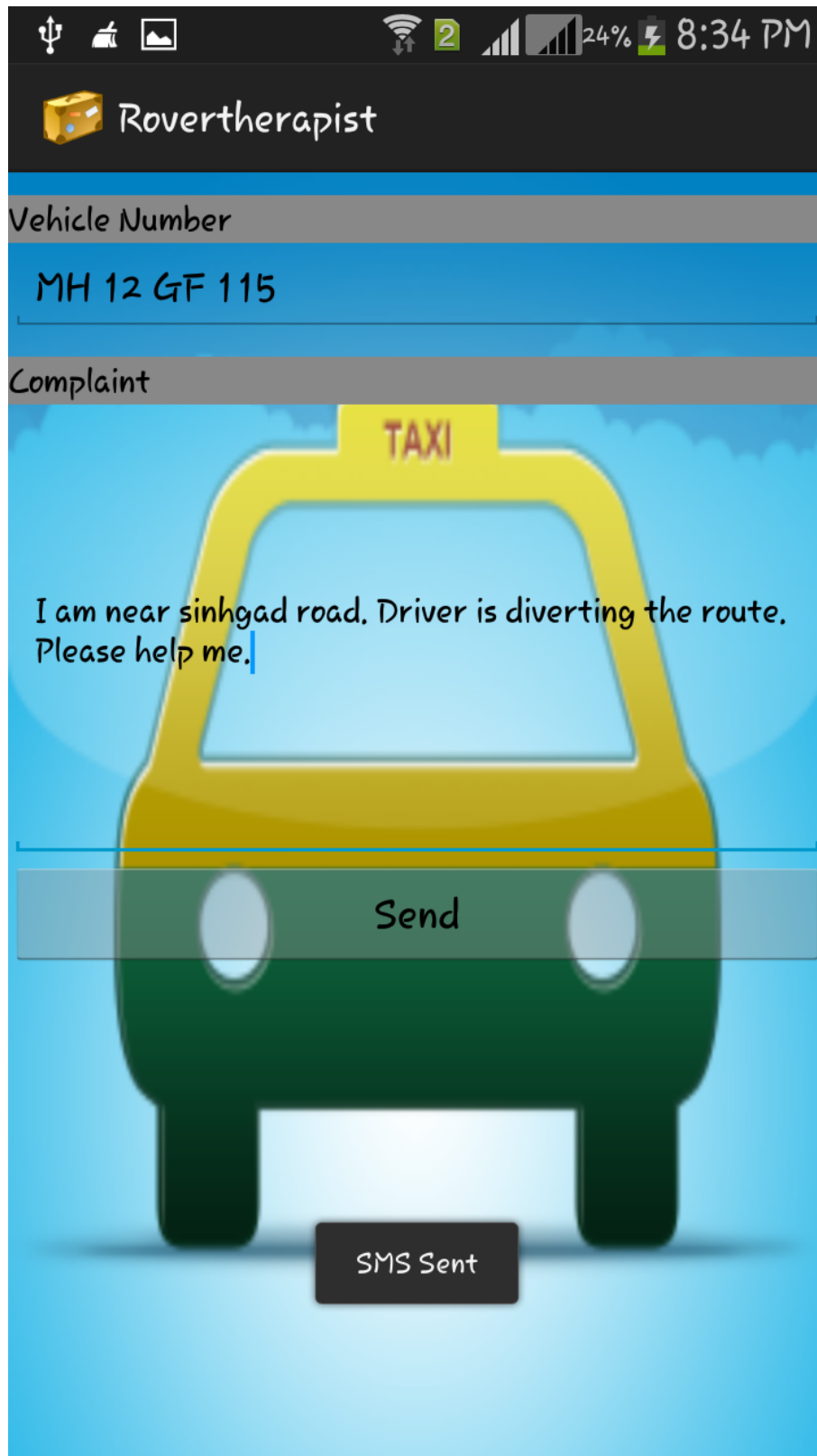


Figure 5.6.10.1 : Distance to travel Screen





**Figure 5.6.11.1 :** Launch Complaint Screen