



# Td Captain: Travel Desk™ App for Corporate Companies

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## Abstract:

Android operating system is one of the widely used mobile operating system in the world. The android phones reached the every corner of the country. Android phones are available easily to every common man with the massive availability of the mobile network and also android is open source. These things emerge in the development of value added services to mobile phones. The transportation by means of corporate cabs is an easy and common commuting means in India. Thus the proposed system is built with an android application to help the corporate people to book a trip with an android App. In the proposed system we can enable clients and cab drivers interaction through an android app that identifies the client's current location with the help of a GPS enabled phones to hire a cab to the client's. This system will enable the client's to track the correct path by using Google API's for their particular destination and also to find out distance automatically instead of manual feeding. We bring in 3 different logins as per the user like drivers, fuelling station and staff. Automatic update of trips sheets upon Completion of trip by driver through app and Automatic billing system. Security like OTP based fueling system. Provide Staff boarding and de-boarding events in the Travel Desk™ App Travel Desk™ App is completely integrated with Travel Desk™ ERP system. This App specifically caters for Drivers activities right from booking to generating single trip sheet bill on-the-spot. Also refueling request management feature is available which connects and coordinates between driver, company and refueling station.

**Keywords:** GoogleAPI's, GPS (Global Positioning System) Tracking, ERP (Enterprise Resource Planning System), OTP (One Time Password), JSON.

## I. INTRODUCTION:

In today's world the most of the person's objective is to spend time with their smartphone isn't it? An android phone is a very special tool we use on a day-to-day as per necessity of the user. So with this application deals with huge number of advantages to the travel facility providers and corporate's persons. Generally *people* download built-in *mobile* apps from the *app* stores for their requirements. So the Travel desk™ app (Td CAPTAIN) will satisfy the travel agency provider, corporate desires and economical. The main job is to boarding and de-boarding of the staffs to reach their destination location with safe and secure. This application's goal is to help the cab drivers such as booking warnings through statement over the app. This app permits driver to accept or decline the booking of the client. The main aim is to bring in transparency and close connectivity among transport service workers, cab drivers, corporates and staff. Meanwhile from the mobile application, we can definitely accomplish the cab trips and also supportive for cab drivers.

## II. SYSTEM ANALYSIS:

### Software Requirement Specification

This module explains all the necessities of the project. It gives the requirements (hardware and software) which are desirable to run the recommended software properly. The Software Requirement Specification (SRS) is described in detail, which contains summary of this critique as well as the functional and non-functional requirement of this dissertation.

## 1. Functional Requirements

It can describe about a purpose of the proposed system and how the system requirement accomplish for the definite inputs or situations. These may contain data access, manipulations, controls and processes and other specific functionality. In this project the functional requirements are as follows.

- Travel agency must be registered first on Travel Desk Server side application. Once the registration finished, then it can be achieved to get client ID which can be used as login for an android app (TdCaptain).
- Driver must download the android app (TdCaptain) from play store to access it.
- Through the Login section, we have to mention the Client ID which will be provided by Travel Agency Service Company.
- From the Server Side, with the help of Travel Desk application the trip sheet get created by the admin based on call/Request from the web by the corporate's people.
- Driver can have the permission to accept the booking and decline the trip.
- Based on the driver response the trip sheet gets created from the server side end.
- Once the trip sheet gets created driver will get client pickup location and also the time.
- Admin has to login to web page by using valid user name and password.
- Driver has to start the trip once the trip is completed then he has to click on close trip button.

## 2. Non – Functional Requirements

It can describe about it is well-intentioned of attention in our application and are follows.

- **Reliability:** The application must be trustworthy and it should not reduce the act of the mobile and it should not lead to the hanging of the mobile. The app we have built is very lightweight.
- **Security:** This system should allow authenticated users to communicate server, driver and users. We achieved this by maintaining the driver detail and single user for each mobile.
- **Efficiency:** The Energy spent by the consumers to receive the info from the server. In our system user only to provide destination detail to server and driver is just confirm his willingness.
- **User Interface:** We provide consistence user interface, enabling the users to have a better understanding of how things will work, increasing their efficiency.

### Definitions, Abbreviations and Acronyms:

The terms used in the project document are explained below.

**Table.1. Definitions, Acronyms and Abbreviations.**

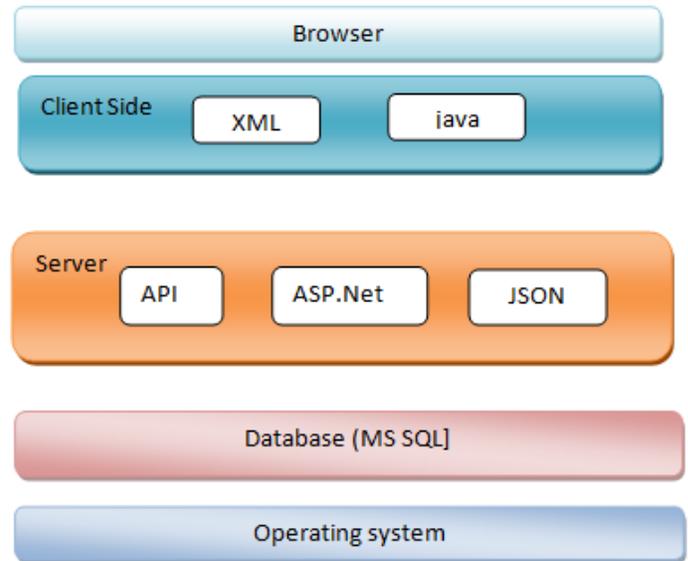
Client	He is the end user, using this application.
Admin	He is responsible for registering driver and authorising that and maintaining the driver's database.
Driver	He is the cab driver, who is responsible to provide travelling service to corporate by using the app.
GPRS	It is a packet concerned with mobile data facility on the 2G and 3G cellular communication.
API	Application Programming Interface.
OTP(One Time Password)	It is random four digit number will be used for authenticating the customer while registration.

## III. SYSTEM DESIGN:

### 1. Architectural Design

In order to come across the travel agency management requirements, we propose a different mobile and web based solution. The software will be constructed on Windows platform. The storage will be achieved by MS SQL server. MS SQL server is highly scalable and reliable open source relational database system. As the application will be a mobile web application, the

JSON format Application Server will be used to deploy the application. The high level architecture is shown in figure. In the uppermost the browser is designed which is for the Admin usage. The client side and Driver side implementation are done using XML and Java. On the server side, it is built using ASP.Net and Xml for Admin uses. JSON is used to communicate with mobile devices.



**Figure.1. Architecture of the system.**

## IV. LITERATURE SURVEY:

### Existing system;

1. Current App is based on manual feeding of distance traveled.
2. There is no option to account for trip fuel used.
3. Customer has not access to locate the allotted vehicle.
4. Corporate's don't have any option to monitor their staff travel.

### Proposed System:

To address most of the issues listed in the problem domain, we propose the following system;

1. Bring in 3 different logins as per the user like driver, fueling station and staff.
2. Use of Google API's to find out distance automatically instead of manual feeding.
3. Automatic update of trips sheets upon completion of trip by driver through app.
4. Automatic billing system.
5. Security like OTP based fueling system.
6. Provide Staff boarding and de-boarding events in the App

### 2. Use case Model

In software and the systems engineering, A use case is a list of movements or event steps, typically describing the interactions between a role (known in the Unified Modelling Language as an actor) and a system, to reach a goal. The actor can be a human or other external system.

## 2.1. Driver Use case Specification

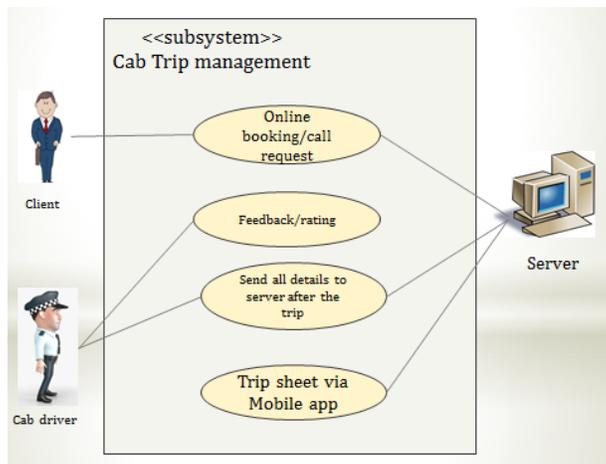


Figure.2. Use case diagram of the Driver system.

### Use case names:

- Online booking/call request.
- Send all details to server after the trip..
- Feedback/rating.
- Trip sheet via Mobile app.

### Actors:

- Clients/staff.
- Cab Driver.
- Server

## 2. Fuel Station Use case Specification

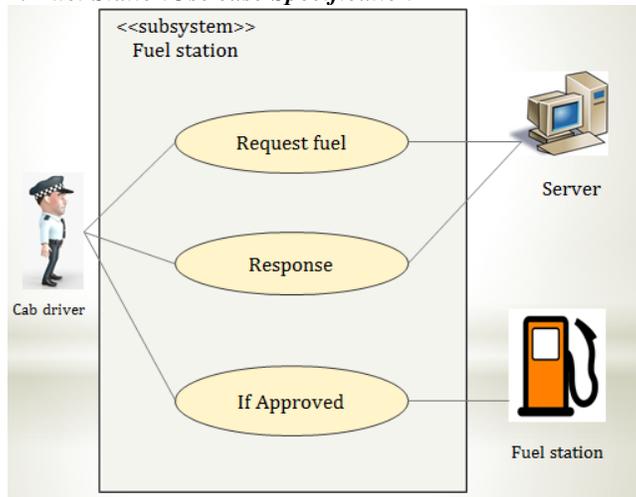


Figure.3. Use case diagram of the Fuel Station system.

### Use case names:

- Requesting fuel
- Response
- If approved

### Actors:

- Clients/staff.
- Cab Driver.
- Server

### About TdCaptain App Difference from other app:

For the first time, We've Made It So Simple and Convenient for travel agency companies and the corporate people/company and

it is a B2B (Business to Business) services were provided through this app. TdCaptain is the best for cooperates company which they made contract with the many travel agency services which offer transport facilities for corporate clients when they need. So, we designed 3 apps: 1.Driver 2.Clients/staff 3.Fueling station as per the function goes on. TdCaptain app is entirely diverse from OLA cabs, UBER cabs and HopOn app because-

- **HopOn app:** It is a smart mobile ticketing app for public transportation.
- **OLA app:** It is an online marketplace for valid permit holder drivers. These drivers are independent and they are either self-employed (own their commercial vehicles), or work for an Operator who owns multiple cars. It includes two app one is for customer and one more is for driver in their smart phone. This app is purely connectivity between the driver and clients.it doesn't include any travel service providing agency.
- **Uber app:** In Uber, through the android app it connects with the driver-partners and riders app. In cities the Uber operates, using the rider app to request a ride. When a nearby driver-partner accepts your request, your app displays an estimated time of arrival for the driver-partner heading to your pickup location.

## V. CONCLUSION:

This proposed system brought out the development of Travel Desk™ App. The main aim of the project is to bring in transparency and close connectivity between transport service providers, drivers, corporates and staff by using android app. We learnt how to manage cab drivers in corporate's using mobile application. Android was the most popular smartphone OS used in India. And it is very easy to use and user friendly mobile app to every person in the world. Since all the transactions are stored in our server we can achieve security for transportations. Finally proposed system prevents the illegal activities in the transportation services by providing the secured transportation to clients and also avoids the haggling for fares with the drivers and the client.

### Web Links:

1. "Android programs" available at [http:// www. Android hive. info/](http://www.Androidhive.info/)
2. "MS SQL server" <https://blogs.msdn.microsoft.com/ssdt/2012/12/07/getting-started-with-sql-server-database-unit-testing-in-ssdt/>
3. "Android maps" available at <http://developer.android.com/google/play-services/maps.html>
4. "Android Tutorials" , Javatpoint available at, [http:// www. javatpoint. com/android-tutorial](http://www.javatpoint.com/android-tutorial)

## VI. REFERENCES:

- [1]. WEI-MENG LEE, Wei-Meng, Beginning Android™ 4 Application Development, John Wiley & Sons, Inc. Canada (2012).
- [2]. AmitKushwaha and VineetKushwaha, Location Based Services using Android Mobile Operating System, International Journal of Advances in Engineering & Technology, Mar 2011, ISSN: 2231-1963.

**Books:**

[1]. Android Application Development for Dummies 3<sup>rd</sup> Edition Book written by Donn Felke (Author).

[2]. Learn Java for Android Development Book written by Geoff Friesen (Author).

[3]. Introducing MS SQL Server **by** Mike McQuillan (Author).