Software Requirements Specification

For

Cab Rental and Sharing System with GPS Tracking

Version 1.0 approved

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1. Introduction

1.1 Purpose

A considerable measure of understudies and staff use taxis in our college. Numerous understudies are frequently ready to share taxicabs. Personnel likewise needs taxicabs to go home. So motivation behind our application is to streamline the way toward booking and sharing taxicabs inside our college, making taxi accessible and effortlessly assessable and giving client a chance to pick the kind of taxicab in view of their prerequisites. By utilizing GPS following we are giving client the precise area of the taxi they have booked. Cancelation of booking is additionally accessible, giving client a medium of correspondence.

1.2 Product Scope

This android base application is useful not just to those understudies who go out with their companion on weekends and visit Railway/Bus station on get-aways additionally to those resources and staff who need taxi to go home on customary premise. NIIT University can know the separation went by every staff and therefore they can pay taxis in light of this data. Understudies can share taxis when heaps of understudies are going to same Station amid get-away.

1.3 Intended Audience And Reading Suggestions

This is a modified programming, so that the client can see effortlessly the site and as the capacity are not unpredictable and easy to understand for the client.

1.4 Document Conventions

The arrangement of this SRS is exceptionally basic and fundamental center will on general points of our product or a particular sort of interest and issue were client confronts the issue.

1.5 References

- http://www.cse.chalmers.se/~feldt/courses/reqeng/examples/srs_example_2010_group2.pdf
- IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.
- https://www.scribd.com/doc/113753725/Cab-Booking-System
- https://www.scribd.com/doc/146558587/GPS-TRACKING-SYSTEM

2. Overall Description

2.1 Product Perspective

This Software item depends on the structure of set up taxicab booking applications. This is being produced in order to supplant the conventional taxicab booking strategies, making the procedure of booking\sharing taxis done through this application in a more robotized way. This product requires a taxicab with GPS office so that once reserved, the taxicab driver and client both can know where each of their separate flow area is. After booking programming lets taxi driver realize that their taxicab has been reserved through SMS robotization highlight and GPS following. Thus User additionally gets the required data through same components.

2.2 Product Functions

- This app lets the general user to do things in a more automated way.
- It enables user to book\share cabs and track the location of the cab.
- Cab Sharing- This feature searches for two or more users who are going to the same destination. It sends a pop-up notification asking a particular user whether they want to share the cab or not.
- SMS Automation – This feature lets the driver, know that his cab is booked, plus it is also send to the guard to make him aware that this particular driver's cab has been booked.
- GPS Tracking – Through this feature the user keeps track of where the cab is, soon after placing the booking.

- Notification if someone wants to share cab.

2.3 User Class and Characteristics

Faculty – The staff are incessant clients take taxis to travel regular amongst home and the college, so firstly they need to call the taxicab driver then need to sit tight for the taxicab to arrive, and on leaving the college they need to sign at the fundamental door passage, so for their benefit this application makes the this procedure not so much intricate but rather more robotized.
They simply need to book the taxicab before 30mins and it will reach at their goal at the correct time. Additionally they simply need to enter the kms of the auto before beginning and subsequent to consummation on the application physically. Along these lines, they'll be marked out of the college consequently and will get abridged points of interest of the ride they had quite recently ridden. The admissions of the ride notwithstanding, will be predefined as indicated by different areas.

Students – This application most helpful for the understudies when they are going to or returning from home or notwithstanding when they need to go the business sector or some other spot. Understudies likewise can book the taxi 30 mins before for the taxicab to land in time.

2.4 Operating Environment

Minimum System requirements for Cab booking app –

- Hardware Requirement- GPS Enabled Smartphone.
- Operating System – Android (4.0 or higher)
- GPRS Data plan

2.5 Design and Implementation Constraints

Synchronization – Works with USB (2.0) charging port only, and connects to only Android (4.0 or above).

Internal Memory – The device should have at least 2GB of internal memory with 200mb of free space available

2.6 Assumption and Dependencies

It is accepted that the application will work with different maps choices, for example, HERE Maps from Microsoft, Apple Maps or whatever other outsider maps. Despite the fact that Google Maps is suggested.

It might likewise work with gadgets with 512mb of RAM on Android Kitkat (4.4) or underneath upto Android 4.0.

2.7 User Documentation

TBD

3. External Interface Requirements

3.1 User Interfaces

- Notification is sent to every user if someone want to share a cab.
- Voice messages can be sent easily to guard and the driver.
- In the GPS tracking feature users can simply click on GPS to see the position of the cab they have booked.

3.2 Software Interfaces

The voice message sent by client will go to the server and server will sent that message to driver and watchman. For GPS highlight we will take help of Google maps. In the event that somebody needs to share a taxicab a warning will go to server and server will forward the notice to each other client. The area log will be put away on server until administrator erases it.

3.3 Communication Interfaces

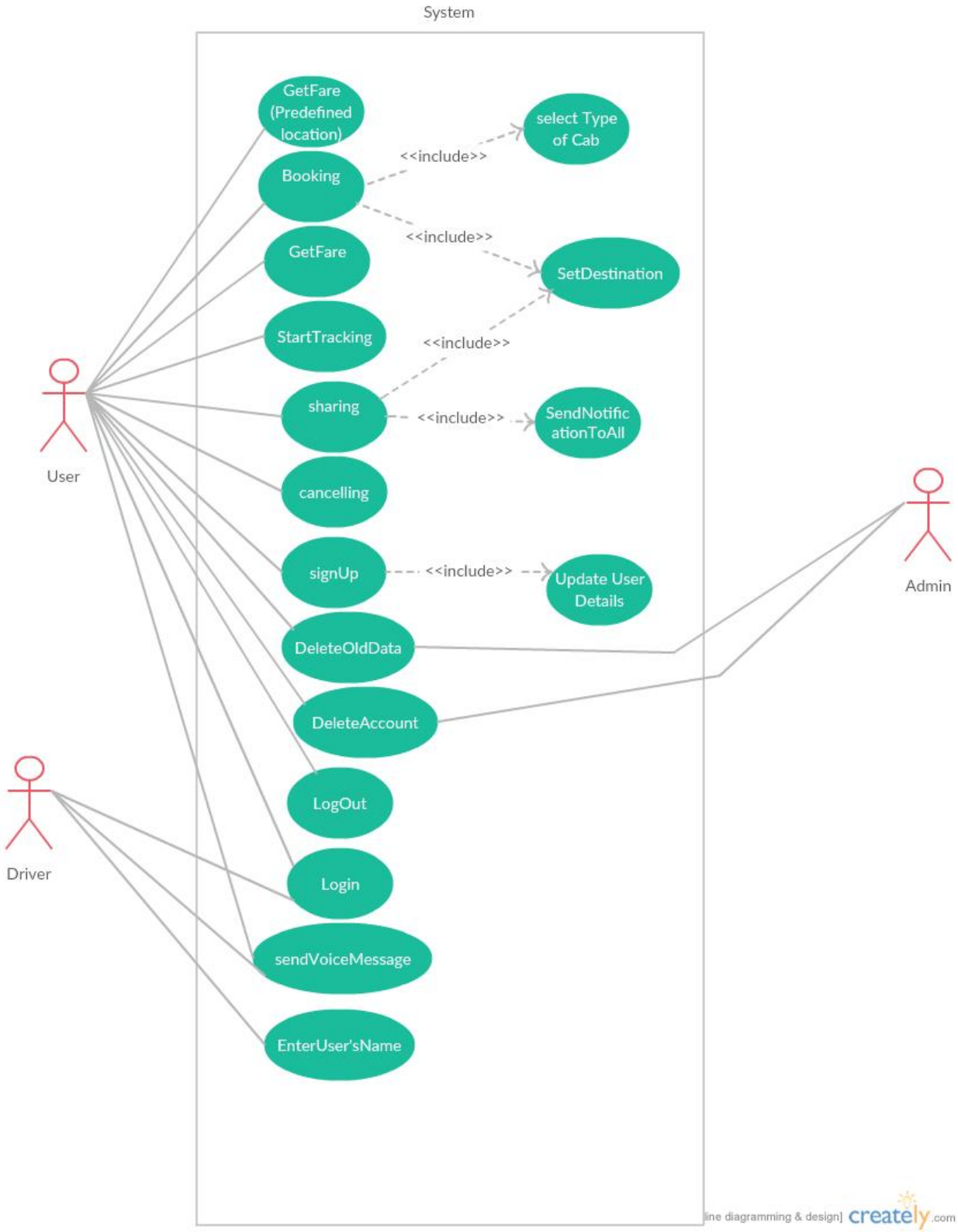
Client need an email account while making account on this application. Clients will be educated about any uncommon offers (assuming any) or vital data through email. Voice message sent by clients can be evaluated just by watchmen and drivers. Clients and driver must turn on GPS and permit notice for this application.

3.4 Hardware Interfaces

This application is implied for SmartPhone clients with working GPRS. For utilizing GPS following element client need working GPS in their telephone. Voice message highlight makes utilization of voice recording highlight of telephone. For getting Notification for sharing each client needs to permit this application to push notice on their individual telephones.

4. System Features

- This framework ought to permit client to book or share a taxicab.
- This framework ought to permit client to enter the quantity of kilometer he has voyage.
- The framework ought to give current area of the taxicab being followed at solicitation.
- The framework ought to log position of the taxi being followed at an altered interim of time.
- The framework ought to let administrator to erase or alter area log.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4.1 Functions:

4.1.1 Type of Cab (UC-1):

Clients may see the taxi timing at a date their name and their kind of booking.

4.1.2 Booking (UC-2):

In the wake of checking the quantity of taxicab accessible, the clients books a taxicab or number of taxis as indicated by their necessities.

4.1.3 Sharing (UC-3):

In the event that a client need to impart a taxi to different understudies/personnel they can give their points of interest (time of take-off, area, and sort of taxicab) and a notice will be sent to other application clients. In the event that other need to share they will contact client.

4.1.4 Destination (UC-4):

User can input their destination and they can see their distance from current location.

4.1.5 Cancelation (UC-5):

In the event that the client need to cross out the taxicab then 10% of the sum for every individual is deducted if the booking is wiped out before 30 mins of the administration time.

4.1.6 Get Fare (Predefined) (UC-6):

After reserving the required cab, the user can see the fares of some preset destinations.

4.1.7 Get Fare (UC-7):

All out expense for an area can be ascertained by giving current area and goal.

4.1.8 Send Notification (UC-8):
Whenever a user request to share a cab, a notification is send to all passengers travelling in that cab.

4.1.9 Enter User (UC-9):
App user will have to provide their details while making their id.

4.1.10 Update User (UC-10):
User/driver can edit their profile and update information any time they want.

4.1.11 Login (UC-11):
Each client need to login into their record to begin booking/sharing taxicab. Drivers likewise need to login.

4.1.12 Sign UP (UC-12):
Administrator has power to acknowledge the enrolment of client. Driver will likewise need to info client name before giving taxi administration.

4.1.13 Start Tracking (UC-13):
This function will run on the device at every fixed interval of time to read the input from GPS receiver and get the location data.

4.1.14 Log out (UC-14):
Client will have alternative to log out after culmination of his assignment.

4.1.15 Delete Account (UC-15):
Driver can choose to delete old document of user from their app. Admin has authority to delete user account, from the server.

4.1.16 Delete Old Data (UC-16):
Allow admin to delete logged entry.

4.1.17 Send Voice Message (UC-17):

A voice message will be send to driver and guard as soon as a cab is booked

Requirement Id	Short Name	Description
RQ1	User Profile	**RQ1.1 Enter User:** App user will have to provide their details while making their id. **RQ1.2 Update User:** User/driver can edit their profile and update information any time they want.
RQ2	SignUp Phase	**RQ2.1 Sign UP:** Administrator has power to acknowledge the enrolment of client. Driver will likewise need to info client name before giving taxi administration. **RQ2.2Delete Account:** Admin has authority to delete user account, from the server.
RQ3	Login Phase	**RQ3.1 Login** Each client need to login into their record to begin booking/sharing taxicab. Drivers likewise need to login. **RQ3.2 Log out:** Client will have alternative to log out after culmination of his assignment.
RQ4	Cab Booking	**RQ4.1 Booking:** In the wake of checking the quantity of taxicab accessible, the clients books a taxicab or number of taxis as indicated by their necessities. **RQ4.2 Cancelation:** In the event that the client need to cross out the taxicab then 10% of the sum for every individual is deducted if the booking is wiped out before 30 mins of the administration time. **RQ4.3 Send Voice Message:** A voice message will be send to driver and guard as soon as a cab is booked. **RQ4.4 Type Of Cab:** Clients may see the taxi timing at a date their name and their kind of booking. **RQ4.5 Destination:** User can input their destination and they can see their distance from current location.
RQ5	Cab Sharing	**RQ5.1 Sharing:** If a user want to share a cab with other students/faculty they can provide their details. If other want to share they will contact user. **RQ5.2 Send Notification:** Whenever a user request to share a cab, a notification is send to all passengers travelling in that cab.

		RQ5.3 Cancelation: In the event that the client need to cross out the taxicab then 10% of the sum for every individual is deducted if the booking is wiped out before 30 mins of the administration time. **RQ5.4 Destination:** User can input their destination and they can see their distance from current location.
RQ6	Payment Option	**RQ6.1 Get Fare (Pre-Defined):** After reserving the required cab, the user can see the fares of some preset destinations. **RQ6.2 Get Fare:** Total cost for a location can be calculated by providing current location and destination.
RQ7	Tracking Phase	**RQ7.1 Start Tracking:** This function will run on the device at every fixed interval of time to read the input from GPS receiver and get the location data. **RQ7.2 Delete Old Data:** Allow admin to delete logged entry.

5. Other Non-Functional Requirements

5.1 Performance Requirements

It is accessible amid each of the 24 hours.

Offered through Air adapted or non-Air molded Cabs.

Around 20 taxis run day by day.

Sorts of concerns and complexities:

Unique 10 % rebate is given to corporate clients for their development month to month appointments.

5.2 Safety Requirements

Security issue may happen. Just client who has booked the auto will have the capacity to track it. The client will sent the solicitation to driver for following his area.

5.3 Security Requirements

Security endeavours to confirm insurance instrument incorporated with a framework will in actuality shield it from dishonourable infiltration. Security is accommodated every client by giving them login name and watchword. Security was done, as whatever other mysterious client can't sign in with a client secret key if the client is now signed in.

5.4 Software Quality Attributes

This application has an extra component that permit client to enter the no. of kilometers voyaged physically, which will help the association to get careful number and there will be no instance of disparity.

6. Other Requirements

- We have to keep up a database to store every one of our records.
- We have to look for the consent of the individual organization to utilize their GPS administrations.