Software Engineering
Group # 08

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Project: Tick & Ride

Requirements Document:

We are going to make a Tick & Ride application in android. It is an automated Pick & Drop service.

Our application has two views; one is for the driver and second is for the user who wants to use our application for getting the service of pick and drop. When someone opens the application for the first time after installing, the person will have two options for registration one is as driver and second is as user. In both conditions you have to register in our system by giving your information e.g. name, CNIC and some information for authentication. If you register as a user than after registration in our system you have to choose your pick and drop destination and then you will get your monthly payment package accordingly. You can do payment by cash, using credit card and by bank transfer. Now this service is available to you. If you successfully register in our system you will get a username and password which you can use for sign in to our system to see the current location and for getting information about our service.

If you login as driver than you to give some extra information like your vehicle number, its authentication papers and CNIC copy so that our team members can check for its validity. After that we will decide your pay depending upon your rides.

Our application will have an admin panel which will monitor both sides' drivers and user's side as well. Admin management team will be able to see the location of each vehicle and verify it accordingly. Admin will also have the count of passengers in each vehicle. All payments will be monitored by admin.

If the user wants to cancel his/her ride for a day it will be trivial. User has to only press a button and driver will automatically get a notification. This will save the driver from extra visit.

If user want to change its pickup and drop off location due to some reasons e.g. if someone has changed residential address he/she can do it by connecting to our admin.

Further options and specifications will be expected in application at next stages of development.

Q#01

Yes, we definitely need verification of correctness of our system. To check whether the driver picks the user on time or not. Is the driver and user sync with each other properly? Is the driver or user gets the notifications timely.

Q#02

Yes, to minimize the complexity of our system we divide it into three different concerns. And solve each part separately by keeping different views of software to be analyzed.

Discretely building application for user, developing application for driver and finally administration panel will reduce the complication of system.

In user concern we have further 3 concerns one is registration, second is payment and third is daily track and drop. After the completion of these tasks separately we can combine them to make user side complete.

Other two parts can be implemented separately and then joined after the completion of the system.

Q#03

There are three functional modules of our system.

1.   User module
2.   Driver module
3.   Admin module

These three modules will be understandable as meaningful separate units. Modules will be highly cohesive because of their independency. Admin panel is not accessible by driver or users but admin can monitor both modules. Driver and user modules are entirely different modules but they will interact with each other to make the application perform well. Therefore coupling will not be very low because modules have to interact with each other.

Q#04

We can add more things in admin panel if some vehicle is out of track you can connect that driver using our application and this change can be done by just changing the admin panel and some minor changes in data base.

Another change we can do in our application is that increasing the payment methods in which we just have the payment screen and just adding the relevant information about these payment methods in database.

Q#05

If we have to built our system incrementally we can made it in different steps first think is that keep the user, admin and driver side separate Now pick one of these and just make it's prototype

and then add functionality in it and after that pick each module separately and build it. When all the modules are in working condition change the graphics and do testing task and so on.