

Aye Auto - A Solution for Transportation Problems

Priya V V

Assistant Professor
Computer Science and Engineering
College of Engineering, Thalassery
Kerala, India

Anaswara K

Computer Science and Engineering
College of Engineering, Thalassery
Kerala, India

Athul S

Computer Science and Engineering
College of Engineering, Thalassery
Kerala, India

Haritha Das

Computer Science and Engineering
College of Engineering, Thalassery
Kerala, India

Aiwa Thomas

Computer Science and Engineering
College of Engineering, Thalassery
Kerala, India

Abstract—The paper explains the working of the Aye Auto app, the platform which links students to drivers who can take them to College at a fair price.

To book a ride it is necessary to own a smartphone and to register through the mobile application by entering details like name, e-mail address, mobile phone number. A global positioning system in the smartphone is used to determine the location so even if the passenger does not know where they are still they can get a ride.

The main attraction of this app is that it has a call hiding feature which provides security to users and a share auto feature which makes sharing of autorickshaw ride possible.

Index Terms—Online Autorickshaw Booking App, AyeAuto, Android Apps.

I. INTRODUCTION

AYE AUTO aims to book the autorickshaws at all the locations. The manual system that is employed is extremely laborious and quite inadequate. It only makes the process more inconvenient and difficult. Our project aims to develop a system that is meant to completely computerize the work performed in the prepaid taxi management system like generating monthly daily bookings, the record of routes available, fare charges of every route, store records of the customer.

Main attractions are features such as hiding phone numbers and shared ride. App supports communication between a customer and the taxi driver without revealing the mobile numbers. If the customers are from same location they can get a shared ride which can help them to pay half the price as each passenger is paying. A GPS is used to determine the location so the passenger can easily book the ride. Also the driver can accept or reject the ride according to his convenience.

II. PROBLEM DEFINITION

Due to unavailability of autorickshaws to our college we are proposing this application. Also One of the major issues faced by common people is that the autorickshaw fare is charged

from them according to the drivers desire. Also as cyber crimes are increasing day by day we are including the security features - mobile phone number hiding which prevents the numbers users and drivers from knowing each other's number. But still they get the calling feature available in the app during the ride.

III. OBJECTIVE OF THE PROPOSED SYSTEM

This proposal is aimed at the development of an application, through which we can solve the transportation issues in our college. Customers can check the availability of auto-taxi and book the ride by simply entering to the app. The driver has the choice to accept or reject the ride. Details of the proposed system are collected to a common database and are updated from time to time. The main functions of the proposed system would include:

- Providing various data of auto-taxi availability.
- Both website and app login authentication is available.
- Shared-ride feature is available.
- Drivers can cancel the assigned ride if they are not willing to go and it will be assigned to another driver.
- Queue for the autorickshaw based on the line of arrival.
- Customers can see the fare chart.
- We'll be able to check how far the booked autorickshaw from our current location is.
- The user data will be automatically stored for security concerns and for improving the user experience.

IV. SYSTEM ARCHITECTURE

A client-server application is a distributed system consisting of both client and server software. The client process initiates a connection to the server, while the server process always

waits for request from any client, when both client and server processes are running on the same computer.

The major components of the architecture are: Mobile App, Central Database, Admin, User, Driver (see 'Fig. 1')

V. SYSTEM WORKING

A. Working Mechanism

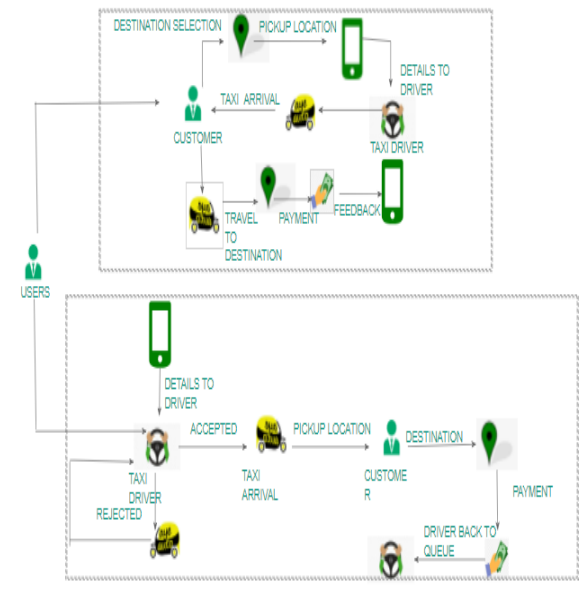


Fig 1: System Architecture

The user has to first sign up into the application which registers the user onto the central database and thereafter user can log onto the application wherein available drivers are shown in a preset radius nearby to the users current location. The user selects the suitable driver and driver gets the notification of the ride. Driver can either accept the ride or can reject it as per the convenience. Once the driver accepts the ride the driver name, vehicle number etc will be visible to the user.

The other module in this software package is the Drivers app which can be used by drivers to get the customers. The driver first register onto the application and waits for the admin's approval. Once the admin approves, he will be entered to the drivers list. The users can choose the drivers near their location according to their desire. When a customer chooses the driver, he can either accept or decline the ride according to their convenience. Once the ride is accepted the driver will get the facility to call his customer to know the exact location or to find the exact customer from a crowded place. Once the ride is completed then the calling between that driver and customer won't be possible until the customer goes for another ride in the same autorickshaw.

Customers can write feedback and can give ratings about the driver and the service.

B. Functionality of the modules

1) Mobile App for Users:

a) Sign In and Sign Up: The user can Sign In and Sign up into the application for the booking of autorickshaw and the authorisation is managed by the admin.

b) Nearby Autorickshaw: The user can select the pickup location and destination in the app.

c) Shared Autorickshaw: Users can opt for shared mode of ride in order to reduce the riding cost. There will be a time constraint for the same because waiting for a long time for others to opt shared auto will make the customers tired.

d) Privacy for mobile number: The calling option will be enabled once the user gets the confirmation of ride from driver. The driver and user can call each other if required. The mobile number will be hidden during the call.

2) Mobile app for drivers:

a) Sign Up: The driver can register their autorickshaw onto the application along with mentioning the essential details like their name, place, email for otp verification, vehicle number and mobile number.

b) Managing the customers: The drivers can sign into the app and wait for the customers. They can choose whether to accept or reject the ride. It is according to their convenience.

c) Autorickshaw details: Once the user has selected an autorickshaw and once the driver accepts the ride then the autorickshaw details and the driver details are sent to the user.

3) Admin Module: The admin can log into website and can manage the acceptance or rejection of drivers entered into the system.

C. Setup Representation

A typical representation or the block diagram of the application package can be seen in Fig 2.

VI. SIGNIFICANCE

One of the main significance of this app is by providing an online booking app, we create a convenient and easy booking option for users.

Users can make their bookings anytime via smartphones from anywhere. And with the help of call hiding feature the customer's mobile phone number is more secured and protected. And the shared auto feature helps to reduce the riding cost.

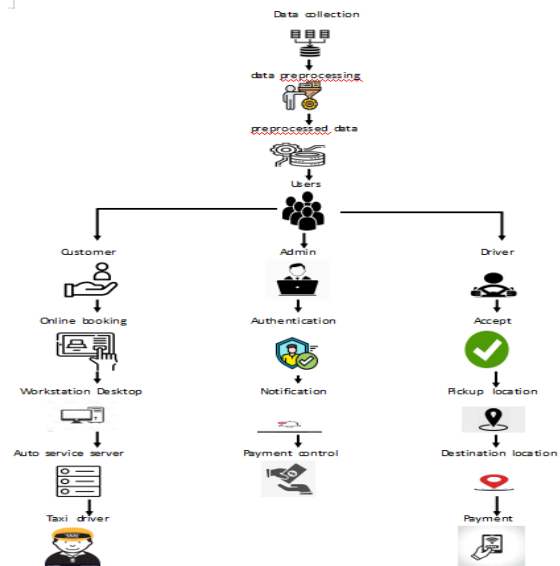


Fig 2: Block Diagram

VII. CONCLUSION

Through this application, we can solve the current transportation issues in our college to a great extent. A shared ride is also made possible for the customers who are willing to do so. The main relevance of this topic is that you can book an auto at any time. When you book an autorikshaw online, there is nothing to worry about the price and other details. Also, this app has an easy to use interface.

Call hiding feature also increases more security and protection to the customers. The most important point is that for a safe and comfortable ride to the desired destination you should never forget to do a background check on the work history, the ratings and feedback, got by driver.

VIII. FUTURE WORK

Furthermore, we could extend the system to more regions by using google maps. Also we could include our own calling system in this app. It will enhance the protection and security of the users and drivers. We can ask the drivers to take real time photos to get more trustworthy users.

REFERENCES

- [1] The Evolution of Urban Transport – Uber by Marko Slavuji presented at 4th International Conference on Road and Rail Infrastructure 2016
- [2] Success Story of a startup – A case study of OLA Cabs by Ashok Panigrahi in 2018
- [3] A case study on Rapido: India's Largest bike service Provider by Panigrahi, Darda and Ahmed
- [4] Meru cabs: Past, perfect and future tense by Sridhar Vaithianathan and Kartikeya Bolar