Implementation of E-Logistic System

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Abstract— In most of the cities, the transportation industry is highly regulated and utilizes the traditional techniques. However, people faces many problems such as searching for the vehicle as per their requirement which results wastage of time as well as it is hectic. The purpose of our project is to build E-Logistics, an online system for the customers where they can search for the appropriate vehicle and book them for their goods transportation with live updates. The system will estimate the cost via algorithm, the required amount of time between the source and destination is calculated using Algorithm, optimal route is selected and tracking of goods carrying vehicle is done through Google Map's API. So through our system customer can easily search for the vehicle within his/her nearby source location as per the requirement and can get live updates that assures the delivery of goods.

Key words: Booking, Driver, E-Logistics, Google API, Live Tracking

I. INTRODUCTION

Due to the rapid increase in the latest internet/web technologies, people like to work or use the facilities remotely onto one click. In today's busy world, time and money are the two important factors. Taking into consideration the traditional transportation approach doesn't uses any kind of hassle free or internet/web based technologies. If a person wants to transport the goods, he/she has to search for the transportation hub/office in his nearby location which not quite possible. At times it becomes too hectic n hesitates the person who is in urgency as well as it's a tedious task and time consuming. After struggling for the search of the office by reaching there then only user can enquire about the transportation vehicle, the estimated amount of trip, time required for the transportation and cost of it. If the user is satisfied with their terms and conditions, he has to go through the pen paper based application procedure and payment is done. Driver picks up the goods from the source location and dispatches it to the destination. Here the user can't track the goods location and is unable to get live update of his goods.

There is no proper management of transportation system like there is no drivers and user's information stored neither the records of vehicles, goods, transactions nor database is being maintained. The transaction has also to be done at the time of confirmation of trip only. There is no COD available nor any online transactions. User has to go through many phases for completion of its transportation of goods and undergo predicament. So taking into consideration all these that the user suffers from and the traditional typical transportation system, it became mandatory that there should be an online transportation system through which the user can easily searches for the vehicle in their nearby source location, gets the information about the vehicle, payment, driver and the amount needed for the trip onto one click and can book the trip and online payment or cod can also be done. User can maintain their history of trips done weekly, monthly or yearly. Transportation system can maintain system having all the records of users, drivers, trips held in a day for their business analysis. By this the user as well as the transportation system is benefitted and both can use effortlessly without facing any hassle.

II. WHAT IS E-LOGISTIC SYSTEM

In this paper, an online E-Logistic System is being proposed through which the transportation became effortless, hassle free and very efficient for both the user and the transportation management system.

By this the user can searches for the vehicle as per their need in their nearby location just by entering the source location. User is proceeded by entering their source and destination address. By this the estimated amount of time, cost and distance is being shown to the user. If they are satisfied with the given shown details, they can book the trip. For booking they first need to sign up to the e-logistic system. After getting logged into the system then only booking is being confirmed. An invoice is being generated containing the details of the trip along with the user-ID and consignment no. At the same time a particular driver is being assigned to that user. Driver then takes the goods from source location and dispatches it to the destination address within appropriate time. Here the crucial thing is that the user can view or track their goods carrying vehicle.

A. *Need of E-Logistic System*

Due to time consuming and hectic in the traditional transportation system and which is offline too, an online transportation web based portal is generated by which user can easily searches for the vehicle as per their need, books them, can do payment online and can access it remotely. This made effortless and hassle free for the user and for the transportation management too by making a single complete online system in which they can keep the records and can analyze their business as well as for the assigning of drivers and tracking of the goods.

B. *Working of Project*

Firstly, the user needs to sign up into the system for the purpose of booking of the trip or vehicle. By entering the source and destination location, user will get the estimated cost, total amount of time and distance of the route. After booking of the vehicle, confirmation of the trip is done instantly and details of the trip along with the user id and consignment no and driver's details is notified to the user's contact no. Particular driver is being assigned to the trip, that driver picks up the goods from source location and dispatches it to destination address within specified amount of time. User can view the live tracking of their goods carrying vehicle through Google API map. After the delivery of goods, payment is done by COD (cash on delivery) or at the time of

confirmation it is being done by net banking or through debit/credit card banking.

III. PROPOSED SYSTEM AND MODULES

A. System Architecture

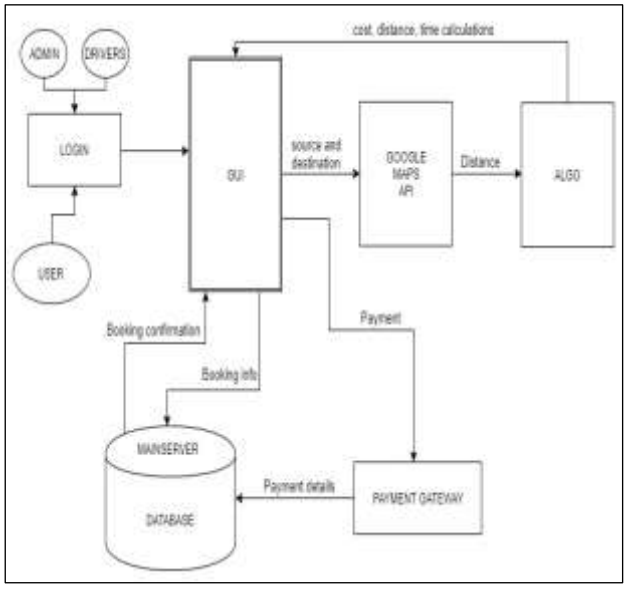


Fig. 1: System Architecture

IV. MODULES

There are various modules for the e-logistic system viz; login module, booking, location tracker and the driver module.

A. Login

Login modules contains three sub modules of login that is user's login, driver's login and admin's login.

1) User Login:

User registers or sign-up into the system if they are new to the system and the user signs in by entering their credentials. Without signing in, no user can book their trip. So logging into the system is mandatory for the purpose of booking and delivery of goods.

2) Driver Login:

Driver signs into the system by using his driver-id to get connected with the system. If the driver is on duty, he has to get logged into the system. Drivers who are on duty are assigned to the users at the time of booking.

3) Admin Login:

Admin is the main module of the project. Admin assigns the driver to particular user, checks various activities and performs daily schedule of the system. He/she analyses the system, can also modifies the system. All the responsibilities is on the shoulder of the admin.

B. Booking

After searching for the particular vehicle, if user is satisfied with the terms and conditions, he books up the vehicle through booking module. Firstly, he has to get log into the system and then only he can book it. After booking a booking id is being assigned to all the user, invoice is being generated and a particular driver is assigned to the user. All these details get stored into the database of the system and can be accessed remotely by the admin.

C. Live Tracking of Goods

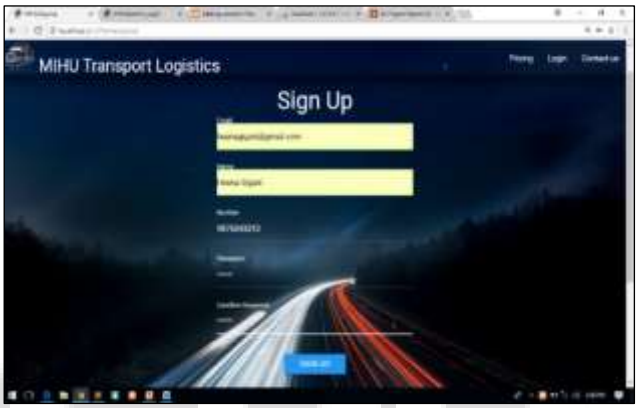
User can view the live update of the vehicle means he/she can track the vehicle lively through Google Map API. By using Google Map's API, the estimated amount of time, cost and distance is also calculated.

D. Driver

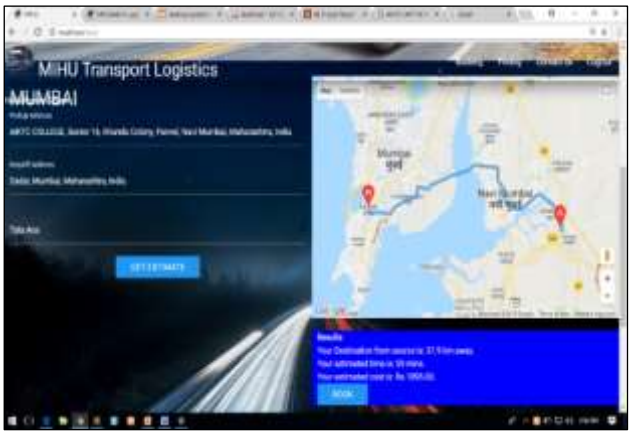
Driver has to get sign in to the system on duty time. Whoever the driver is online, gets connected to the system and a user is assigned to them. Driver picks up the good from the source location and dispatches them to the destination location of the user. As the driver is off duty, he gets sign out of the system.

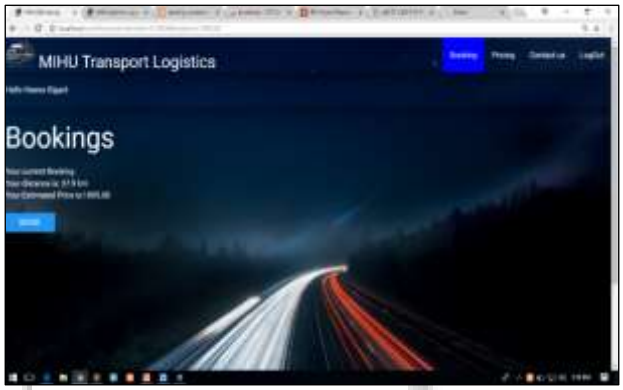
V. IMPLEMENTATION SNAPSHOTS

A. Login



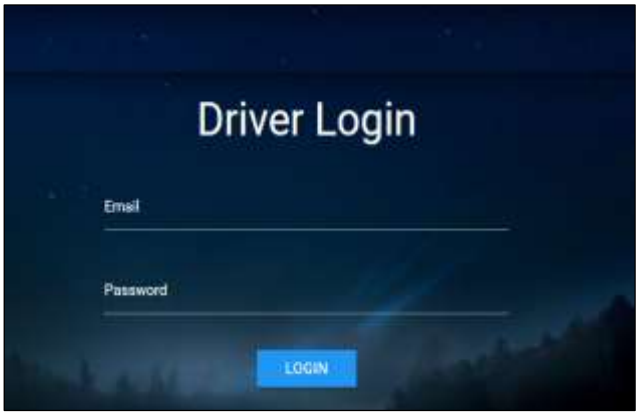
B. GUI, Estimation, Booking and tracking

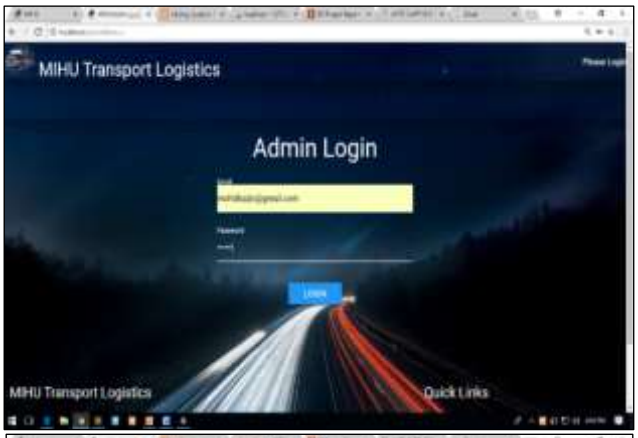


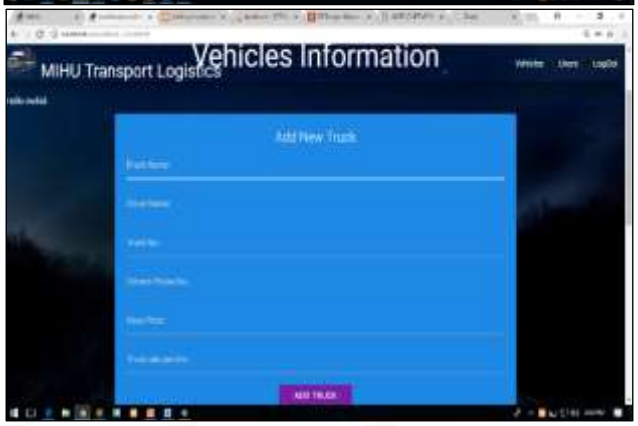


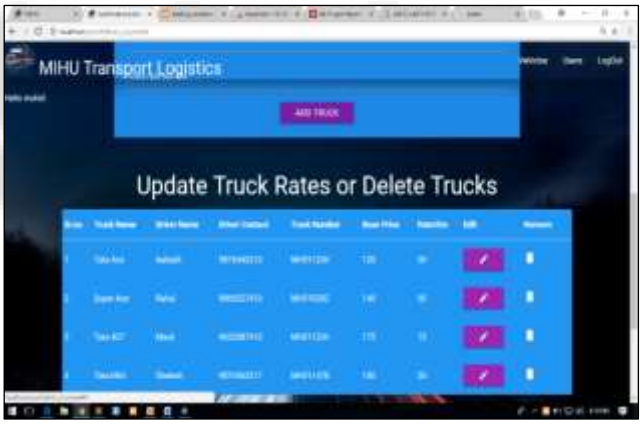
C. Pricing/Costing of Trucks

D. Driver and Admin









VI. CONCLUSION

So through our system, user can easily search for the vehicle, can get estimated amount of cost, time and distance and can easily book them remotely just on a click and can have lively update of it.

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