

Intermodal Transport System : Trucking Industry.

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Abstract -Goods Transportation is the physical movement of goods and people between two points. Generally there are five modes of the transportation of goods like Airfreight, Motor Carrier, Ocean Transportation, Railroad and Pipeline. All of the five modes of transportation exist because of certain attributes that provide one or more advantages other than any modes of transportation. The attractiveness of a particular mode depends on the following important attributes: cost, speed, reliability, capability, capacity, and flexibility. Among of the above mode the Road transportation or Motor carrier is important because it provide door-to-door service. The trucking industry provides an important service to the any nation's economy by transporting large quantities of raw materials, works in process, and finished goods over land, typically from manufacturing plants to retail distribution centers. So Road transportation by using of trucking industry is very crucial for the developing country. For efficient transportation of goods using trucks requires good communication between shippers and truck's driver. Till now the communication facility between user agent and actual broker was not implemented which results into increase in the actual cost of total transport system due to intermediate agents .So we are going to introduce new system where this collision will get avoided and agent will get fair cost for his transportation. It will provide further extension to smart intermodal transport system.

Key Words:intermodal transport system, trucking industry smart intermodal transport system, Goods transportation etc.

1.INTRODUCTION

Building intelligence into the intermodal transport system brings in the convergence of technologies

providing a empirical study of transformation in the ones experience. ITS provides benefits in terms of reduce waiting time and uncertainty, increase the accessibility of the system, reduce the fuel consumption and emissions increase the safety of users, improve environmental quality and energy efficiency , reduce the operational costs, improve traffic efficiency, reduce traffic congestion, improve economic productivity. The ITS will encourage to the public transport and reduce the use of personal vehicles whenever possible. This concept provide successor transport system makes intelligent. This is important contribution to saving the environment from heavy vehicle pollution and reducing congestion on heavy traffic roads. There are various sub-systems under ITS which covers vehicle-to-vehicle communications, collision avoidance and crash detection system, monitoring traffic and controlling signal lights, electronic and speed limit signs, reversible lanes and other road safety components. Intelligent Transport System technology framework includes wireless communication, sensing technologies, inductive loop detection, video vehicle detection and electronic toll collection. The proposed ITS project implementation will include core components such as follows: Vehicle Tracking System, Real Time Passenger Information System and Central Control Station. Core technologies that are useful in ITS are Geographical Positioning System (GPS), Electronic Display Systems, and Information & Communication Technologies. The core objectives of the smart transport management includes:a) Providing effective, safe solutionsb) Effective management by a Decision Support system by collecting, collating and storing information on real time basis of the transport system and its effectiveness using communication technology.c) Establish meaningful and effective instant two-way interaction facility between Driver – and shippers.d) Obtaining on-line real time information on truck operations and management.e) Reduce the transportation delay.f) Avoid the intermediate agent.

g) Direct communication between shippers and carriers.

2.Relevant mathematics associated with the Project

System Description:

Input:-Owner detail,Truck detail,Driver detail

Output:-Show Booking

Identify data structures, classes, divide and conquer strategies to get shippers and carriers details

Functions : Identify Objects, Morphisms, Overloading in functions, Functional relations Mathematical formulation if possible

Success Conditions:Showing available booking

Failure Conditions:Network Problem,Truck not available at that location.

3.Motivation of the Project

Because there is lot of scope in this domain. In today's world everyone is equipped with powerful smart devices. No need to handle or manage big data. Low cost effective application for smooth run.

4.Goals and objectives

Provide an interface to connect the shippers and carriers globally and vice-versa. Efficient transportation of goods by considering factors like transit time, minimizing cost ,flexibility.

5.Architectural Design

System Architecture

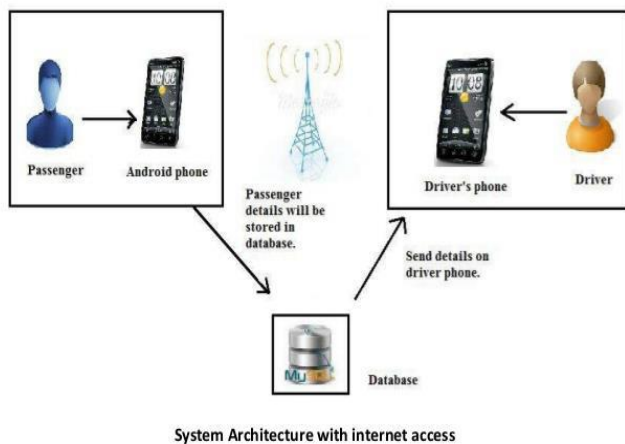
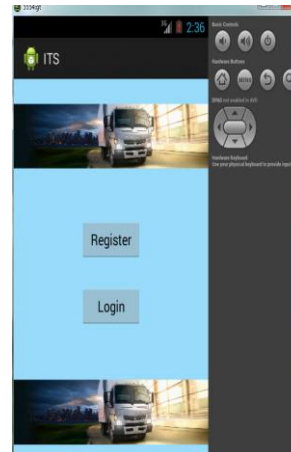


Fig -1: System architecture of ITS

6. Result

6.1 screenshots

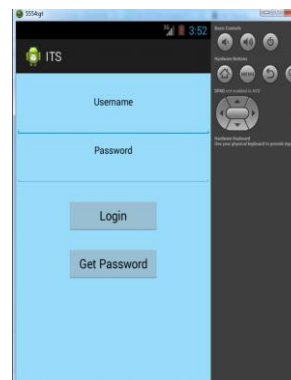
Run ITS



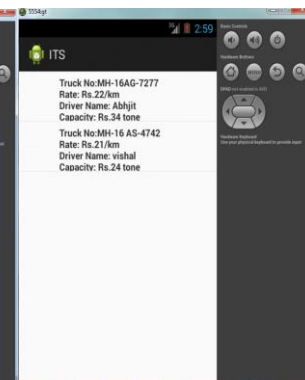
Register



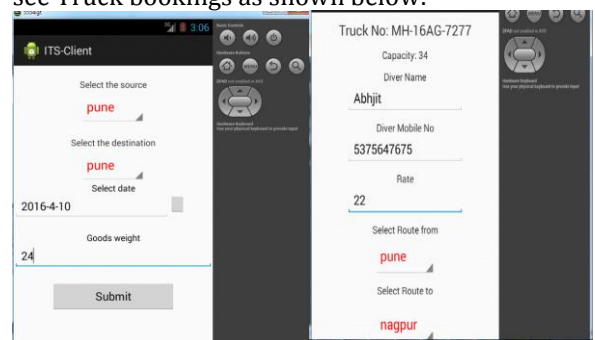
Login



View truck info

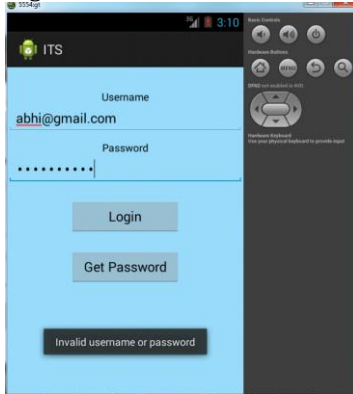


Now,Logout from this andOpen ITS-Client and do same things with addition of BookTruck in which later we can see Truck bookings as shown below:

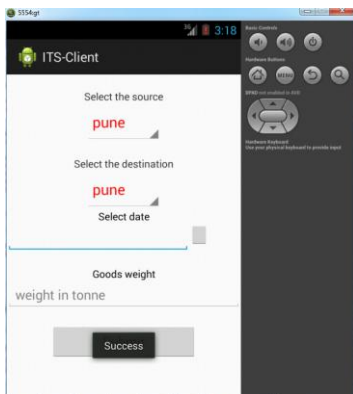


6.2 Test cases

6.2.1 Test case for invalid Username and password in registration



6.2.2 Test case for valid login



7. Deployment and Maintainance

7.1 Installation and un-installation

1. Install Eclipse or Android Studio.
2. Install ADT bundles.
3. Create new Android project in Eclipse or import already existed projects.
4. Run projects on AVD.
5. Open Menu in Emulator.
6. Run the Application.

8. CONCLUSIONS

This paper deals with easy communication between the two ends. By using this application it could improve the time efficiency of rental history data transmission compared to web based transport management information system. The time gap in delivery becomes shorter to seconds compared to not using a web application. Data storage which is already computerized will make easy the process for company in storing the data, retrieval and report, where the whole data stored in a database that provides data security and data processing process so that rental data which is stored neat, clear and not lost or spilled. Intermodal transport research is one of the emerging research fields. It is still in a plagiarism phase, but is evolving nowadays and will soon be regarded as a lawful branch of scientific research.

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