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ONLINE GOODS/COURIER TRANSPORT SERVICE USING JAVA PROGRAMMING LANGUAGE

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Abstract **-** Online transportation service has become a means of transportation development which able to attract people's interest. This research explores the development and implementation of an intelligent transportation services website aimed at optimizing transportation services. Leveraging advanced algorithms, real-time data integration, and user-centric design, our platform facilitates seamless connections between various transportation modes, providing users with personalized, efficient, and sustainable goods transport options. Our findings highlight the positive impact of inclusive design on user satisfaction, accessibility, and overall usability, contributing to the broader discourse on creating equitable transportation solutions. This research explores the integration of augmented reality (AR) to improve user experience on transportation services websites. By overlaying real-time information onto the physical environment, our AR-enhanced platform provides users with intuitive navigation and enhanced situational awareness. We will ensure interactions and experience is top notch for the users. We explore the aspect of transportation and pursue the question of if, how, and why secure communication impacts the process of online requests of vehicles.

Keywords- Courier Transport Services, Goods Transport, Intelligent Transportation Service, User-friendly transportation.

I. Introduction

Transportation is a major necessity in today's era for travelling as well as transporting stuffs. In today's contemporary era, the presence and ubiquity of internet has become seamless and prompt. In the present-day scenario, the emergence of online transportation has become a noteworthy trend, aiming to provide people with a convenient means of accessing transportation services. In the realm of mobile commerce, online transportation services stand out as one of the cutting-edge innovations in service provision. There are several online transportation applications found in India such as Porter, Lynk, Dunzo, Vahak, Rivigo, Delhivery and others.

II. Literature Review

1. Existing Systems

The present system won't allow the complete access of the system. As it will only show some limited amount of information.

In the existing system even though the data is stored on the computerized machine but it is not fully working on the online basis, the user can't even view their own product details.

The proposed system will maintain one database for one user so to know the details of any user will take some time as he/she need to search for details.

2. Proposed System

The proposed system will be fully based online so it will provide a centralized basis of accessing the data. It will automate the complete operation on the courier site and will provide detailed information on shipments.

2.1.Scope of the System

The project has a wide scope. Our project mainly helps in improving productivity and makes use of utilization of resources. This is a web-based application so it is having much scope over the internet. It helps to provide best and reliable services to clients. All the small scale and big scale can access it and may spread their organization to India. It helps gain employment.

2.2.Proposed System Modules

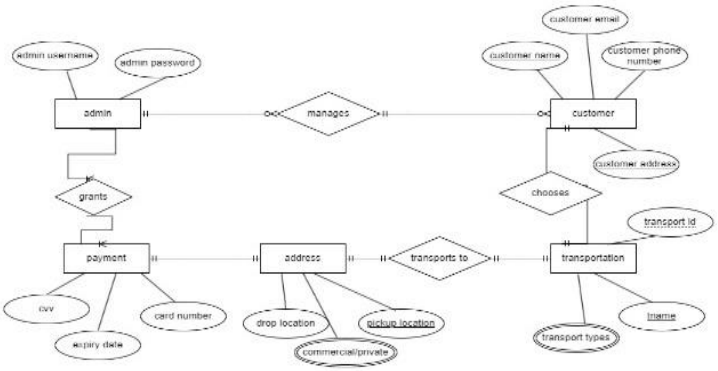
The Goods/Courier Transport System is divided into two module admin and user, the admin module will have a control to create and delete a user from the system. It will assign the timing of courier on the basis of priority and can cancel the courier if there are some problems.

The admin will provide user Id to each user and can ban from the system anytime. It will decide the price of the courier, view the details of each courier and will maintain the staff.

While from the user module a client can send or accept the goods and can track all the details regarding the product.

3. Requirement Analysis

The records of each and all fundamental things were stored in excel sheets hence sorting the data is always a problem. The excel sheets are also less advanced. Hence sorting and searching problems arises. Updating Records is another tedious task. Due to the above problems the updating was very difficult and ambiguous. Data redundancy also occurs due to the duplication of files and records. The files were not stored in a hierarchical format, hence searching the customer's history for the products was the greatest problem. The staff admin must find out the data by looking at the excel sheet. The earlier system was not advanced computerized. All transactions in the system are done manually maintaining records. To make this laborious job simple the clients must computerize the system. Data redundancy also occurs due to the duplication of files and records. The files were not stored in a hierarchical format, hence searching the customer's history for the products was the greatest problem. The staff admin must find out the data by looking at the excel sheet.



ER diagram

3.1.Functional Requirement

1. Admin

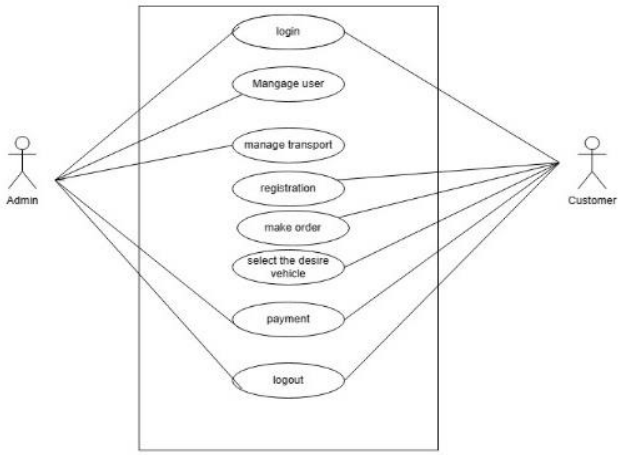
Can create the manager for various branches and can also maintain the information of each manager such as date of joining, salary, personal detail, etc. after getting logged in.
Can install new truck with required information.
Can search the truck whenever required and can view the recently installed truck.
Can change the status of a truck in some kind of emergency condition
Can view the detail of persons who has tried to contact him.

2. Manager

Can view the recently installed trucks and can change the status of a truck in some kind of emergency condition
Can determine how many trucks are related to his or her branch.
Can compare his output to others branches output in services link.
Can contact to the admin of a company when needed.

3. Normal Visitor

Can view the recently installed trucks
Can check out our services.
Can contact the admin in case of any query.



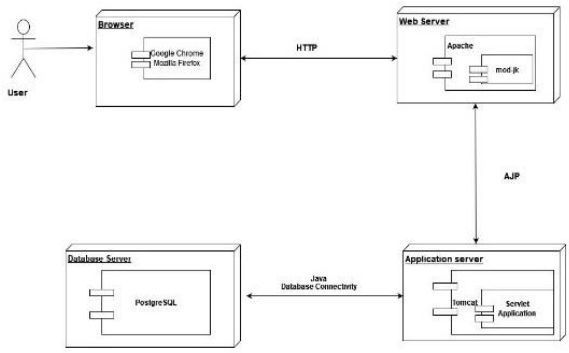
Use case diagram

The program was written in Java language with the help of Java IDE (Eclipse) and Apache Tomcat 9 as open-source web server for Dynamic Web Development.

3.2.Why Java?

Developed by James Gosling and his team at Sun Microsystems (now owned by Oracle Corporation), Java was officially released in 1995. One of Java's defining features is its "Write Once, Run Anywhere" (WORA) philosophy, facilitated by compiling Java source code to an intermediate bytecode that can be executed on any device with a Java Virtual Machine (JVM). One of its distinctive features is platform independence, achieved through the compilation of source code into bytecode that can be executed on any device with a Java Virtual Machine (JVM). Garbage collection in Java takes care of memory automatically, making it easier to handle and lowering the chances of memory leaks. Java is an optimal alternative for large and complex applications with features such as platform independence, scalability and static typing. It also is portable, secure, and readable, making it a eminent selection for developing a wide range of applications across different platforms.

In the PostGo project, JavaServerPages (JSP) acted as frontend for client-side representation and PostgreSQL database was used for backend data storing. The java classes were used for handling and communicating the databases data and the JSP logic. HTML and CSS were used for dynamic styling and interactive user experience. The Linux OS environment was used to carry out all operations as it is open-source and gives the user freedom and transparency to execute the software program.



Deployment diagram

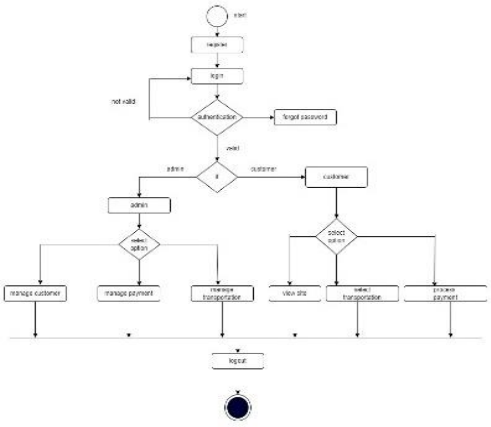
4. Advantages of the PostGo

The main purpose of this Goods/Courier Transport System project is to build a system which will help the enterprise in image-based data entry system for transport goods by suitable means of a transportation system.

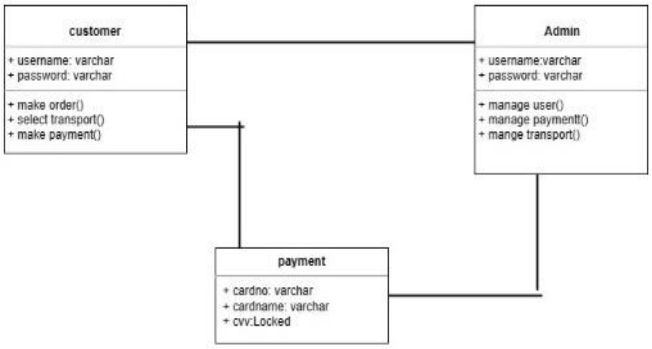
This system will help to keep the records of various things such as worker details, products bills, client's information, items list, details of shipments and consignments.

This system will provide a secure way to keep the records and if a person wants to know the details of any delivery, then he/she can check from anywhere.

The person only needs a user Id and password provided by the admin of the system. This system will simplify the transportation system and will help in tracking the shipments. This will be an internet-based system which will be used by the various enterprise to manage and keep the records of work carried out at the courier facility. It will show the image of the product on the screen when Id and password are entered. It will be more reliable.



Activity diagram



Class diagram

III. Future Enhancement

Looking to the future, there are several enhancements and improvements that PostGo's website could potentially make to improve the user experience and further differentiate itself in the market.

One potential enhancement is to incorporate more advanced tracking and real-time updates for shipments. This could include integrating GPS tracking to provide users with up-to-the-minute information on the location of their packages. Additionally, implementing a chatbot or virtual assistant to provide instant support and answer commonly asked questions could improve the website's customer service offerings.

Another area of improvement would be to expand the website's sustainability features. PostGo could introduce a carbon footprint calculator to help users understand the environmental impact of their shipments and offer more eco-friendly shipping options. Providing users with comprehensive information on the company's sustainable practices and progress towards sustainability goals could also help build trust with environmentally-conscious customers.

IV. Conclusion and Recommendations

In conclusion, PostGo's website is a great tool for businesses and individuals looking for reliable and efficient logistics and transportation services. With a user-friendly interface and a range of services tailored to meet different needs, PostGo's website offers a convenient and seamless experience for users. The website's tracking and booking features, along with its customer support, make it easy for users to access and manage their shipments at any time. Overall, Porter's website is a valuable resource for anyone who needs to move goods and packages quickly and safely. Moreover, PostGo's website is designed with the latest technology to ensure that users can access their accounts and services from any device. With the rating review and reward features for porters added, this application can increase the performance of the porter to work more optimally and better in handling orders. The website is optimized for mobile devices, making it easy for users to monitor their shipments on the go. Additionally, the website's security features protect user data and personal information, giving users peace of mind when using the service.

V. Acknowledgement

The success and outcome of this project require a lot of guidance and assistance from many people and we are extremely privileged to have gotten this all through the completion of our project. In conclusion, this research paper stands as a collaborative effort, and we are sincerely thankful to everyone who played a part, no matter how big or small, in bringing this work to fruition.

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