Juni KhyatISSN: 2278-4632(UGC Care Group I Listed Journal)Vol-13, Issue-04, No.01, April : 2023EXPLORING THE POTENTIALS OF AUTOMATION IN LOGISTICSINDUSTRY

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Abstract:

The project entitled as "LOGISTICS AND CARGO AUTOMATION SYSTEM" is done in **PHP** as front-end and **MYSQL** as Back-end. This web application has offered an effective and easy way for managing logistics business. It provides Comprehensive details about the booking details, transport details to employees. In this project, we will maintain the details of our employee like their id, name, mobile, place of contact, contact address and their email id are stored. The customer can book the products by providing the details of the customer which is saved as records into our system for future reference. The customers provided details along with the product, qty, weight, total amount, contact number, their address is stored. Based on these details, the trip is assigned for the customer goods who booked to deliver the products. The transport details can assign to the employees.

The employee can view the allocated goods transports and to deliver the correct product to the customers. If any other amount is pending the bill is generated by the employee. In case, if the employee can't deliver the products to the customer means the status to be updated if it is delivered or not. The admin can check the outgoing products list. And also, the admin can check the ongoing trip and dropping outgoing products list. The admin can view the reports by the use of report link.

Keywords: Introduction, Goods, Existing and Proposed System, Designing, Testing, Advantages, Disadvantages, Application.

INTRODUCTION

The project entitled as "LOGISTICS AND CARGO AUTOMATION SYSTEM" is done in **PHP** as front-end and **MYSQL** as Back-end. This web application has offered an effective and easy way for managing logistics business.

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EXISTING SYSTEM

Existing system is manual system which contains many ledgers for storing all the information regarding transport, agent etc. Since human manages all the activities belonging to the employee working in the company there are large chances for human error.

As there is lot of data work involved, skilled staffs are used. So, it becomes dependable for the management on these people. The reports are not verified to the highest extend to avoid any miscommunication and misfortune of the company. Existing system is a manual one is which all the transaction is maintained and producing report manually. It is a slow process.

ISSN: 2278-4632 Vol-13, Issue-04, No.01, April : 2023

Juni Khyat (UGC Care Group I Listed Journal) DISADVANTAGES OF EXISTING SYSTEM

 \Box Processing takes a long time

- \Box It needs more employees
- ☐ Maintaining various records is difficult
- \Box It requires more paper work
- \Box It is a slow process

PROPOSED SYSTEM

The proposed system overcomes all the drawbacks in the existing system. This project gets the details of the cargo which is to be shipped from place to place and the details of the sender who sends the goods and details of the party.

The proposed system has its own advantage such as quick in processing. The proposed system would avoid all the errors in the manual system. It also reduces human Labor's and time. The existing system is found necessary to reduce the lot of manual work in the system. Proposed system is the computerization of the system with web-based application, which takes care of the process involved. The tracking of goods and legible records are done in efficient manner.

ADVANTAGES OF PROPOSED SYSTEM

- Efficient recording of details at various stages
- □ More efficient insertion, deletion and modification capabilities of the recordeddetails
- □ New system with user friendly menus
- Data redundancy avoided

MODULE DESCRIPTION

- Transport Details
- Accounting details
- Forwarding agent details
- Employee details
- Reports

Transport details:

In this module the mode of Transport is identified. The details of the forwarding agencies are also maintained in this module. It also maintains the port details and any other transport through which the goods are going to be shipped and the status of the cargo whether it is been delivered or is on the way.

Accounting details:



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This module calculates the charges payable by the customer like the services charges, andother charges suffered. Preparation of a bill slip to the customer is also done in this module. **Forwarding agent details:**

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The details of forwarding agents who help in delivering the cargo are maintained like thename and the other contact information.

Employee details:

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This module covers the details of the employees working in company like the details of their job and the personal profile of them. It's also managing the employee work allocation. **Reports:**

Necessary reports are generated when required. The reports that can be generated in thismodule are cargo details report, employee details report, and the cargo status report.

ABOUT THE SOFTWAREFRONT END - PHP

PHP started out as a small open-source project that evolved as more and more people found out how useful it was. **Rasmus Lerdorf** unleashed the first version of PHP way back in **1994.**

- > PHP is a recursive acronym for "PHP: Hypertext Preprocessor".
- > PHP is a **server-side scripting language** that is embedded in HTML. It is used to managedynamic content, databases, session tracking, and even build entire e-commerce sites.
- It is integrated with a number of popular databases, including MySQL, PostgreSQL,Oracle, Sybase, Informix, and Microsoft SQL Server.

Juni Khyat (UGC Care Group I Listed Journal) Common uses of PHP

- PHP performs system functions, i.e. from files on a system it can create, open, read, write, and close them.
- > PHP can handle forms, i.e. gather data from files, save data to a file, through email youcan send data, and return data to the user.
- > You add, delete, and modify elements within your database through PHP.
- ▶ Using PHP, you can restrict users to access some pages of your website.

BACK ENDMySQL

MySQL is currently the most popular database management system software used for managing the relational database. It is open-source database software, which is supported by Oracle Company. It is fast, scalable, and easy to use database management system in comparisonwith Microsoft SQL Server and Oracle Database. It is commonly used in conjunction with PHP scripts for creating powerful and dynamic server-side or web-based enterprise applications.

It is developed, marketed, and supported by MySQL AB, a Swedish company, andwritten in C programming language and C++ programming language.

MySQL is a Relational Database Management System (RDBMS) software that provides manythings, which are as follows:

- It allows us to implement database operations on tables, rows, columns, and indexes.
- It defines the database relationship in the form of tables (collection of rows and columns), also known as relations.
- It provides the Referential Integrity between rows or columns of various tables.
- It allows us to updates the table indexes automatically.
- ◆ It uses many SQL queries and combines useful information from multiple tables for theend-users.

SYSTEM DESIGN

Software design is the process of envisioning and defining software solutions to one ormore sets of problems. One of the main components of software design is the software requirements analysis (SRA). SRA is a part of the software development process that lists specifications used in software engineering. They are,

- Input Design Input design is the process of converting user-originated inputs to acomputer-based format.
- Output Design Output is the main reason for developing the system and the basis on which they evaluate the usefulness of the application.
- Database Design The database design is a must for any application developedespecially more for the data store projects.

SYSTEM TESTING AND IMPLEMENTATION TESTING

The most important phase in system development life cycle is system testing. The number and nature of errors in a newly designed system depends on the system specifications and the time frame given for the design.

A newly designed system should have all the subsystems working together, but in reality, each subsystems work independently.

TYPES OF TESTING

- > Unit Testing
- Integration Testing
- Validation Testing
- System Testing

Page | 151

Juni Khyat (UGC Care Group I Listed Journal) SYSTEM IMPLEMENTATION

Implementation is the process that actually yields the lowest-level system elements in the system hierarchy (system breakdown structure). The system elements are made, bought, or reused. System Implementation is the stage in the project where the theoretical design is turned into a working system. The most critical stage is achieving a successful system and in giving confidence on the new system for the user that it will work efficiently and effectively.

CONCLUSION

It is concluded that the application works well and satisfy the end users. The application is tested very well and errors are properly debugged. The application is simultaneously accessed from more than one system. Simultaneous login from more than one place is tested.

This system is user friendly so everyone can use easily. Proper documentation is provided. The end user can easily understand how the whole system is implemented by going through the documentation. All necessary output is generated. Thus, the project is completed successfully.

Further enhancements can be made to the application, so that the application functions very attractive and useful manner than the present one. The speed of the transactions become more enough now.

FUTURE ENHANCEMENT

Every application has its own merits and demerits. The project has covered almost all the requirements. Further requirements and improvements can easily be done since the coding is mainly structured or modular in nature. Changing the existing modules or adding new modules can append improvements. Further enhancements can be made to the application, so that the future enhancement is we develop the application through website and useful manner than the present one.

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