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A SERVICE BASED FRAMEWORK FOR ADVANCED LOGISTICS PROCESSING SYSTEM

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ABSTRACT
Logistics activities as the operational component of supply chain management, including quantification, procurement, inventory management, transportation and fleet management, and data collection and reporting. Supply chain management includes the logistics activities plus the coordination and collaboration of staff, levels, and functions. The supply chain includes global manufacturers and supply and demand dynamics, but logistics tends to focus more on specific tasks within a particular program. Since the Logistic office business are done for serving the people of the nation which are used by all the citizens irrespective of social status, so it has to managed with a good system has to be designed in such a way it should not cause any hindrance. This framework deals with the development of the computerized system for maintaining and controlling the activities that takes place in the Logistic office and cargo management. Even though there is a post office in nook and corner of the country, but has a business time and leave on every week ends. This system has been aiming to design to satisfy all the needs of the people using the Logistic office and its most difficult cargo management.

Keywords: inventory, management, supply chain, logistic and dynamics.

INTRODUCTION

Logistic office business are done for serving the people of the nation which are used by all the citizens irrespective of social status, so it has to managed with a good system has to be designed in such a way it should not cause any hindrance. Even though there is a post office in nook and corner of the country, but has a business time and leave on every week ends. There comes the need for Logistics' offices. Since the Logistic office business are done for serving the people of the nation which are used by all the citizens irrespective of social status, so it has to managed with a good system has to be designed in such a way it should not cause any hindrance. But in the existing system all the activities and record maintenance of are done manually by the Staffs, office assistant which may not be proper and correct one.

Drawbacks of Existing System

The existing system is not totally automated. Though the system is computerized to a particular extent, it has to do a lot of manual work.
The different processes involved are:

- All the details are maintained excel format only.
- Calculate salaries of the employees.
- May give Unpleasant Environment to customers.
- To maintain Stock details.
- To maintain quality of operation details.
- The entire database is maintained manually which is rather tedious and error prone.
- Time delay is more because of verification of many records for generating reports.
- Damage may be caused to goods due to improper handling.
- Needed information's cannot be accessed easily.

In the Proposed System, since the Logistic office business are done for serving the people of the nation which are used by all the citizens irrespective of social status, so it has to managed with a good system has to be designed in such a way it should not cause any hindrance. The Project deals with the development of the

computerized system for maintaining and controlling the activities that takes place in the logistic office and cargo management. Even though there is a post office in nook and corner of the country, but has a business time and leave on every week ends. This framework "Advanced Logistics Processing System" deals with the development of the computerized system for maintaining the records of activities who and which are involved in the process of Logistic operation sector.

Advantages of Proposed System

- The required information can be shared easily.
- Time will not be wasted in the process.
- Perfect Report Generation in the coffee bean unit
- Mal Practices are prevented.
- Efficient Monitoring Mechanism.
- Response can be easily accessed.
- Leads to fast completion of work.
- Easy to handle the goods.
- Give pleasant business environment to customers.

METHODOLOGY

The proposed framework uses Visual Basic .NET (VB.NET) for user interface designs and Microsoft SQL server as a backend tool. VB.NET is a multi-paradigm, object-oriented programming language, implemented on the .NET Framework. VB.NET uses statements to specify actions. The most common statement is an expression statement, consisting of an expression to be evaluated, on a single line. As part of that evaluation, functions or subroutines may be called and variables may be assigned new values. To modify the normal sequential execution of statements, VB.NET provides several control-flow statements identified by reserved keywords. Structured programming is supported by several constructs including two conditional execution constructs (If … Then … Else … End If and Select Case ... Case ... End Select) and three iterative execution (loop) constructs (Do … Loop, For …To, and For Each). The For … To statement has separate initialization and testing sections, both of which must be present. (See examples below.) The For Each statement steps through each value in a listen addition, in Visual Basic .NET. There is no unified way of defining blocks of statements. Instead, certain keywords, such as "If … Then" or "Sub" are interpreted as starters of sub-blocks of code and have matching termination keywords such as "End If" or "End Sub". Statements are terminated either with a colon (":") or with the end of line. Multiple line statements in Visual Basic .NET are enabled with " _" at the end of each such line. The need for the underscore continuation character was largely removed in version 10 and later versions.

Microsoft SQL Server is a relational database management system developed by Microsoft. As a database server, it is a software product with the primary function of storing and retrieving data as requested by other software applications which may run either on the same computer or on another computer across a network (including the Internet). Microsoft markets at least a dozen different editions of Microsoft SQL Server, aimed at different audiences and for workloads ranging from small single-machine applications to large Internet-facing applications with many concurrent users. The flow diagram of the framework is depicted in figure 1.

The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in a work product. It provides a way to check the functionality of components, sub-assemblies, assemblies and/or a finished product. It is the process of exercising software with the intent of ensuring that the software system meets its requirements and user expectations and does not fail in an unacceptable manner.

There are various types of test. Each test type addresses a specific testing requirement.

- Unit Testing

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- Integration Testing
- Functional Testing
- System Testing
- White Box Testing
- Black Box Testing

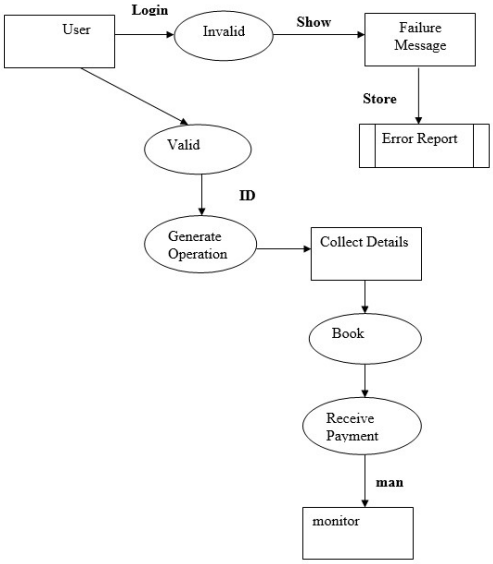

Figure 1: *Framework Flow Diagram*

RESULTS AND DISCUSSION

There are five Modules in this framework and its description are listed below. This system has been aiming to design to satisfy all the needs of the people using the Logistic office and its most difficult cargo management. This framework consists of the following modules which enables the user of the system to effectively manage the logistic office. The results (screenshots) of the modules are given below.

Figure 2: *Home Screen of the framework*

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Employee Module:

This is the most important module in this system which allows the employee to have all the data operations and all the employee information's are provided in this module. For the computation of overall income and expenditure in the cargo company, it is necessary to make bills of each transaction. The bills are prepared and overall financial calculations are performed through this module.

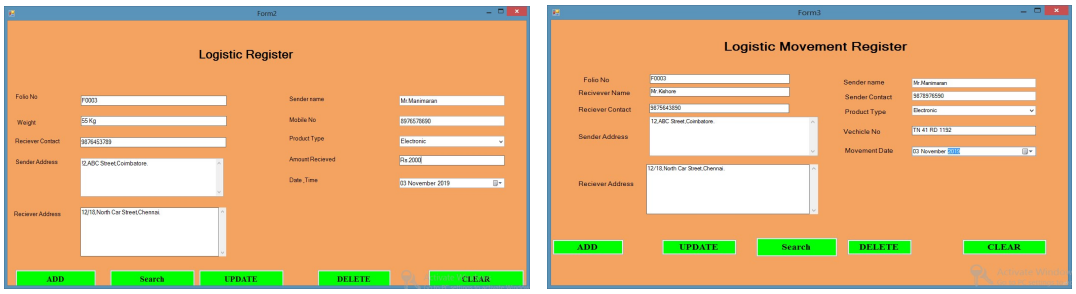

Figure 3: *Logistic Register and Logistic Movement Register*

Vehicle Module:

This Module allows the drivers, staffs to have all the vehicle movement Details. The additional information stored in this module are Vehicle number, capacity of the vehicle, name and other personal information of the drivers and staffs.

Staff Module:

This module allows the administrative staff to perform all the day to day business and other operations of the transport industry. The roles and responsibilities of the staff is vividly explained in this module. This module helps familiarize staff and new hires with all onboarding

Figure 4: *Employer and Customer Details*

Customer Module:

This Module allows public and other needed people to access the transportation. The major function of this module is to record the necessary details of customer in the database so that it can be accessed whenever it is required.

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Report Module:

This module of the application enables the users to have all the reports. These reports help you optimize inventory levels and ensure that you are tracking it properly. The data and information is pulled from the system's database to create a report with all of the pertinent information necessary.

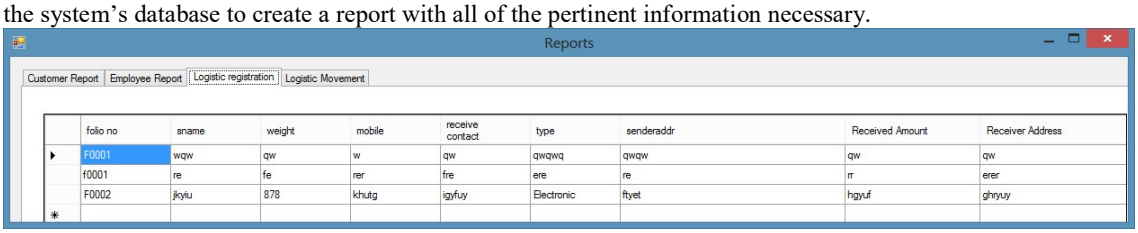

Figure 5: *Logistic Registration Report*

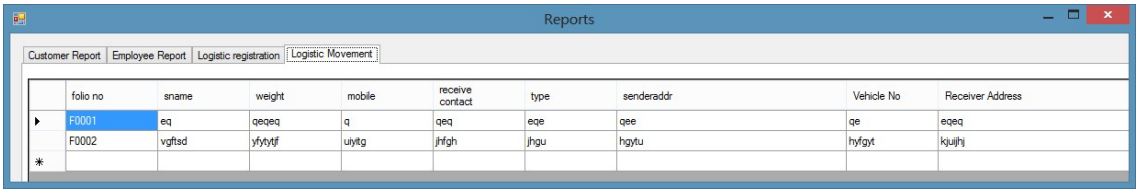

Figure 6: *Logistic Movement Report*

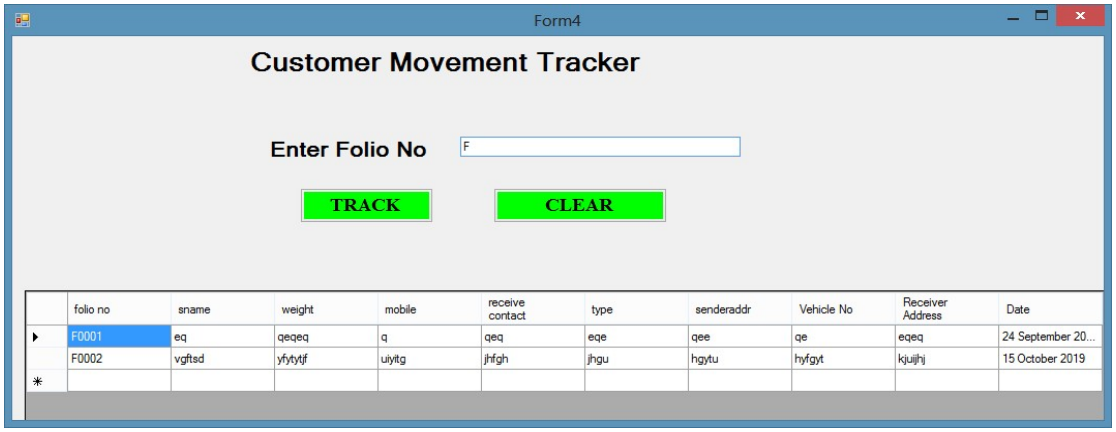

Figure 7: *Customer Movement Tracker*

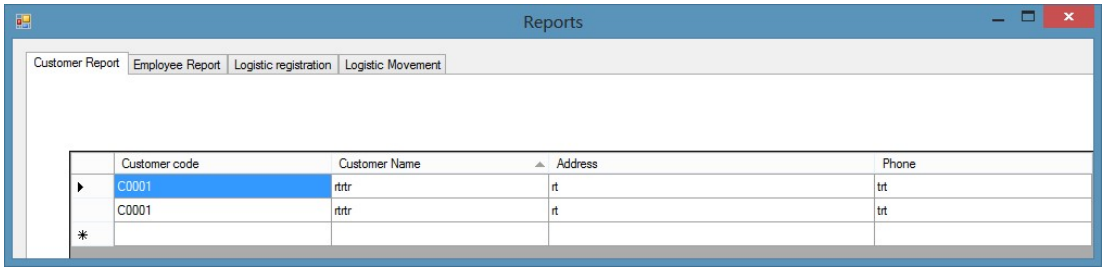

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Figure 8: *Customer Report*

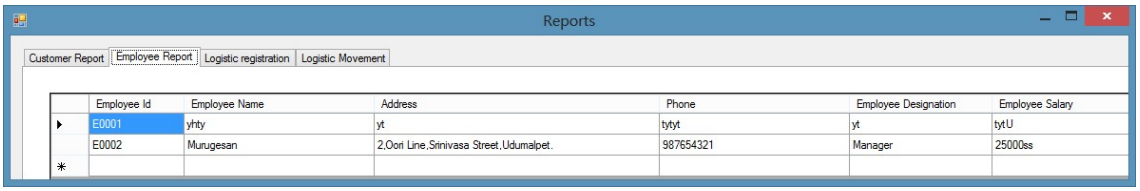

Figure 9: *Employee Report*

CONCLUSION

At this recent business era, the entire production hub is located in one end and the sales and customer points are located on the other end. The logistic is a difficult process. In the fast-growing business environment and competition, the transportation of goods become a cumbersome task. Each and every premise is to be reached in any means of transportation. This framework "Advanced Logistics Tracking System" deals with the development of the computerized system for maintaining the records of activities who and which are involved in the process of Logistic operation sector.

In future enhancement this system can be converted into a mobile based application which make the user to have more simple and efficient use of data that make the working of this system into a fast and secure one. If the end user decides to increase the performance of system means they can implement the same system in some other platforms like python and also some other newly released software so they can get benefit like highly performance than this current system. In a future development of this system this system can be done in web platform which enables the user to access the services of coffee estate from anywhere.

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