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# BUSINESS INFORMATION SYSTEMS PROJECT PROPOSAL

on

# SUPPLIER LOGISTICS FOR A COFFEE SHOP

(MADRAS COFFEE HOUSE)

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#### **BUSINESS INFORMATION SYSTEMS**

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1.0 INTRODUCTION

The project objective is to help out our client with an information system that would

reduce their Logistics management problems and support them in moving towards their

objectives.

1.1 BACKGROUND OF THE STUDY

Coffee shop suppliers a require to perform activities like Stock inventory checking, Decide

on Locations to serve, Decide on the optimal route to transport, compute payments for

distribution of stocks to different outlets etc.. The supplier needs to manage the logistics of

distribution of goods to different outlets ranging from vegetables (for snacks), coffee powder, tea

leaves, sugar, salt, ice creams, biscuits etc...

1.1.1 CLIENT DETAILS

Name: Supplier of Madras coffee house

Location: Chennai

1.1.2 PROBLEM DESCRIPTION

The purchase manager of madras coffee house outlets place order with the supplier for

raw materials required through phone. So, whenever an order call is received, the people from the

suppliers end will start to pack the required raw materials and transport it to the outlet. This was

going smooth in their early stage. But nowadays because of their increasing orders from different

outlets around the city and limited resources, they are unable to prioritize and handle their

requests. Especially when purchase managers of each outlet place their orders at the last minute,

these people find it difficult to approach and they are stuck in an inevitable situation like

incurring high logistics cost or cancelling the orders which suppress their performance.

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#### 1.1.3 ANTICIPATED BUSINESS BENEFITS

- Ease of information
- Reducing Logistics cost
- History tracking
- Better inventory management and customer retention
- Get feedback from customers.

#### 1.2 STATEMENT OF OBJECTIVE

The main objective of the project is to help this supplier with a logistics application and analytics system which will contain all the details regarding outlets requirements.

#### 1.2.1 SCOPE OF THE PROJECT

Without this information system, our client finds it tedious to maintain the records manually and their logistics management is poor. This major problem is being addressed in our project.



#### 2.0 SYSTEM ANALYSIS

The client should be able to know the orders yet to be delivered and their deadlines with priority if necessary. They must be able to anticipate the stock needs of the regular outlet's orders based on their history of orders placed and this would help them to do a better inventory management. They must be able to arrive at an optimal route to transport raw materials to different outlets in a single run at different parts of the city

#### 2.1 FUNCTIONAL REQUIREMENTS

The following functional requirements could be satisfied in our system

- Add outlet
- Print invoice
- Order adjustments
- Order Cancellations
- Historical data
- Optimal routes

#### 2.2 EXISTING PROCESS

In our client's unit, they perform activities like Stock inventory checking, Decide on Locations to serve, Decide on the optimal route to transport, compute payments for distribution of stocks to different outlets etc... There are situations where order is more than the inventory available or the transportation routes are not properly decided. So, they suffer a lot because of poor inventory management and higher logistics cost.



#### 3.0 THE PROPOSED SYSTEM

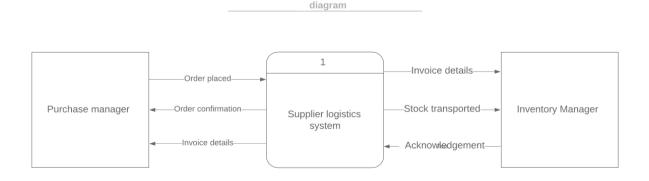
Our team is focusing on helping this supplier people with a logistics application and analytics system which will contain all the details regarding outlets requirements as per the information we get from the supplier. This system would support them to have better inventory management, customer retention and decide an optimal transportation route

#### 3.1 SYSTEM OVERVIEW

Development of a computerized analytics system which needs a depth analysis on supplier and outlets requirements.

#### 3.2 PROCESS SPECIFICATION

#### 3.2.1 DATA FLOW DIAGRAM



Supplier logistics system context

FIGURE 1: CONTEXT DIAGRAM



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#### D5 Order Invoices File 1 Update Order Invoice Ordered quantity Generating Check stock order availability Stock availability Supplier stock Invoices D1 inventory file Grouped Order Details Yes Purchase 2 Inventory Manager (MCH Outlet) Location details manager (MCH outlet) Check Order grouping Route Details Location in optimal D2 Location File details route Yes Confirmed Optimal Route Confirmation note send 3 5 Optimal Route Stored Decide Order D3 Routes File optimal route Confirmation Rental confirmation Rates of goods and logistics file D4 Order billing Billing Amount and Order details

#### Supplier Logistics System Level 0 Diagram

FIGURE 2: LEVEL 0 DIAGRAM



#### 3.3 DATA SPECIFICATION

#### 3.3.1 ENTITY RELATIONSHIP DIAGRAM

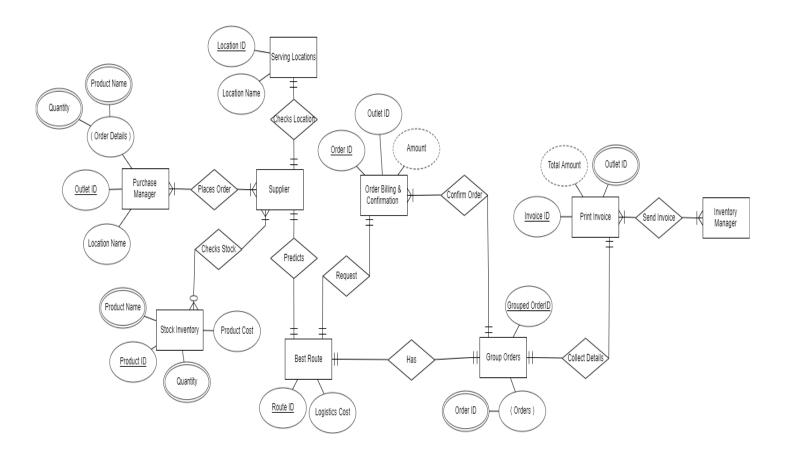


FIGURE 3: ER DIAGRAM



#### 4.0 SYSTEM IMPLEMENTATION

#### 4.1 REQUIREMENTS

#### HARDWARE REQUIRMENTS

• Processor: Intel dual core I3

• Display: 15.6 inch anti glare display

• Processor Speed: 1.7GHZ or above

• RAM: 4 GB RAM or above

Hard Disk : 1TB hard disk

• Resolution: 1366 x 768 pixels

#### **SOFTWARE REQUIREMENTS**

• Operating system: Windows 7 and above with antivirus protection

• Database: MySQL 8.0

• Backup & Data Recovery software in PC and/or laptop

#### **4.2 HUMAN RESOURCE REQUIREMENTS**

The human ability of handling the laptop and the application is desired. So, somehow a person with some technical, explicit knowledge is more advisable rather than having an operational worker to work on the system. The effective usage by the best suited person will further reduce the maintenance cost and clerical cost.



#### **4.3 RECOMMENDED ACTION**

We have recommended developing an application to manage their orders and also to have a prediction systemized program in the laptop to predict their optimal route for serving maximum outlets in a single run to an extent.

#### 4.4 APPROXIMATE COSTING FOR THE SYSTEM

S.NO	ITEM	AMOUNT(Rs)
1	Lenovo Laptop	59,900
2	Maintenance cost	5,000
3	Operator cost	12,000
4	Overheads/Indirect cost	3,100
	TOTAL	80,000

TABLE 1: COST TABLE



# **5.0 CONCLUSION**

We have designed a system to manage the orders through the logistics application at the affordable cost at our best to reduce the logistics cost and increase the return for our client.



#### **BUSINESS INFORMATION SYSTEMS**

