Hardware Sales and Servicing Information System

CONTENTS

1. INTRODUCTION

This project is concerned to develop a business application for "Coastal Computers" dealers of Zenith Computers in Guntur Dist. in Andhra Pradesh. The company is mainly concerned with selling the Zenith systems and servicing of customers in both hardware ad software problems. The company will require more manpower to maintain financial transactions, sales transactions etc.

The main aim of this project is to automate the manual processing in the stock maintenance, financial transactions, and employee transactions etc. If these are don manually, it consumes large amount of time, scope for errors, and cost of maintenance is also very high. So, in order to reduce all these disadvantages we developed a business application for the concerned company. The application will generate reports for the order status and service call status in order to place purchase orders and assigns duties to the employees for attending the service call. Automation will helpful in maintaining the accounts accurate and up-to-date.

The objective of this project is to automate the Computer Systems dealer transactions as a whole. This application should eliminate the burden on accountant and should also eliminate the delays and arithmetic errors more importantly. This application should provide the following features to the users.

Planning employee responsibilities and specifying employee targets is no more difficult. A faster way to produce employee performance reports and to maintain their daily reports. Now formal communications between organization and customers is easy in the form of automated document generations and printings. Maintaining daily expenses and generating monthly reports is not a tedious job. Generating financial reports like pending bills, monthly income and turn over is faster and automatic.

The main objective of this project is to automate the information processing of hardware sales and servicing of an authorized dealer of 'Zenith computers'. As business volume increased it is difficult to process the information fast to serve the customers in good manner. We aimed in developing this package to make the information processing easy and fast.

In the perspective of the user, the package must have an easily operable graphical user interface. To satisfy the user, we aimed to give online support such as entry wise help, form wise help and also off line help. Finally we want to design this package such that anyone can use it without any manual training. The outcome of any business application is a well-defined set of reports. We aimed to extract an useful set of reports by processing the input data.

The objectives also include the following business requirements from the client.

Automated enquiry tracking sub system.

An efficient and fast quotation preparation.

A flexible order information processing.

An efficient ‘service request’ handling sub system.

An accurate financial sub system to handle income and expenses calculation and to generate financial reports.

A good planner to serve the customers.

2. DESIGN PRINCIPLES & EXPLANATION

2.1. MODULES

Well-structured designs improve the maintainability of a system. A structured system is one that is developed from the top down and modular, that is, broken down into manageable components. In this project we modularized the system so that they have minimal effect on each other.

2.2. MODULE DESCRIPTION

Sales Module: This module is intended to implement all the transactions related to the sales of computers. This involves different sub modules like enquiry tracking, quotation preparing and order booking.

Servicing Module: This module is designed such that to handle all the transactions related to service calls. This module is sub divided into 'AMC' service calls handling and temporary service calls handling sub systems.

Financial Module: This module handles all the financial related transactions like ledgers, credits and debits. It also handles employee expenses and other expenses.

Reports Module:

The reports module generates reports related to all the above modules. These reports include financial reports, sales reports and servicing reports.

Reports:

The reports generated in project depict the up to date information about the current status of various records. The various types of reports that will be generated in this project are as mentioned below.

Financial Reports: These reports give all the general information of daily financial transactions in the organization daily, weekly and monthly reports in an efficient and simple manner.

Sales Reports:

These reports give an important extract from the data, which will help to take decisions to improve the sales. These reports are enquiry reports, quotation reports and order reports.

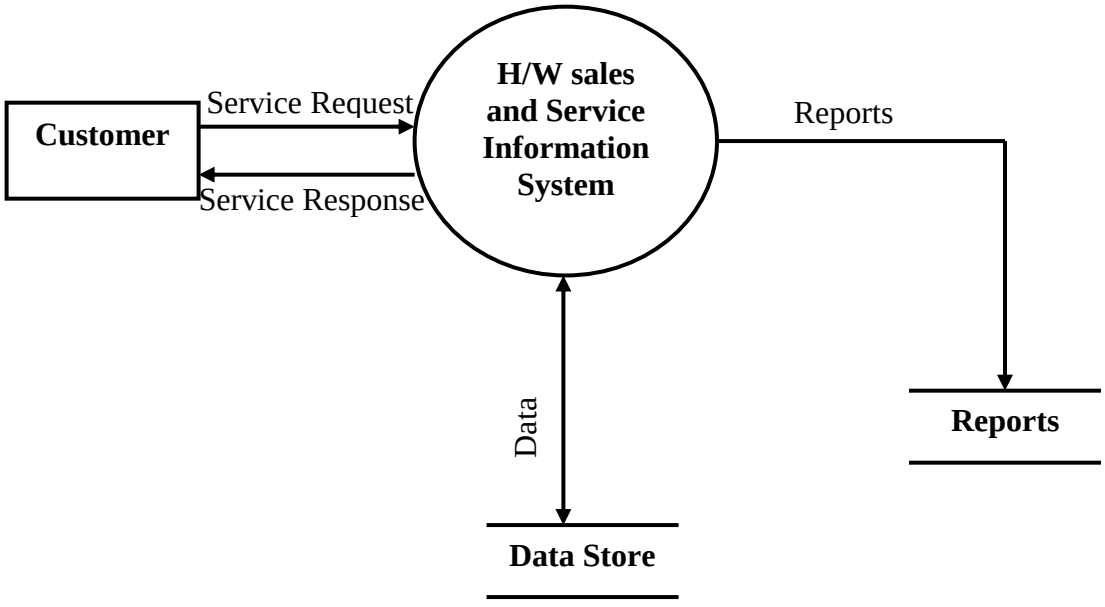
Servicing Reports:

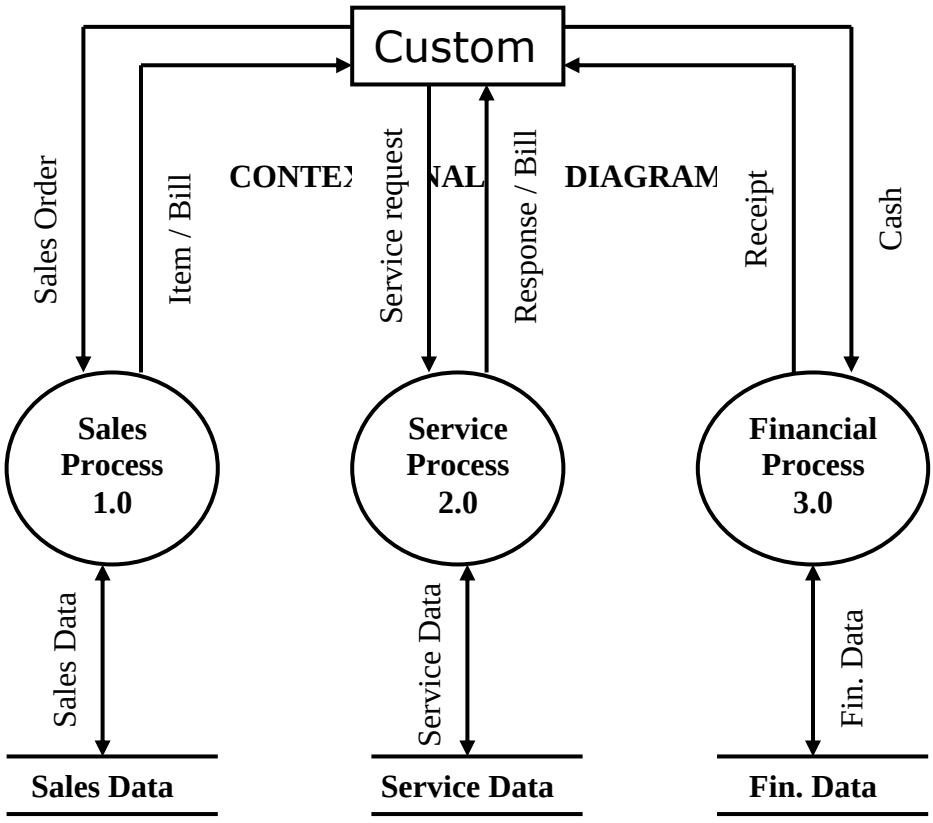
These reports give the details of calls served according to given time period. Using these reports one can plan their calls to attend in an easy manner.

3. PROJECT DICTIONARY

3.1. DATAFLOW DIAGRAMS

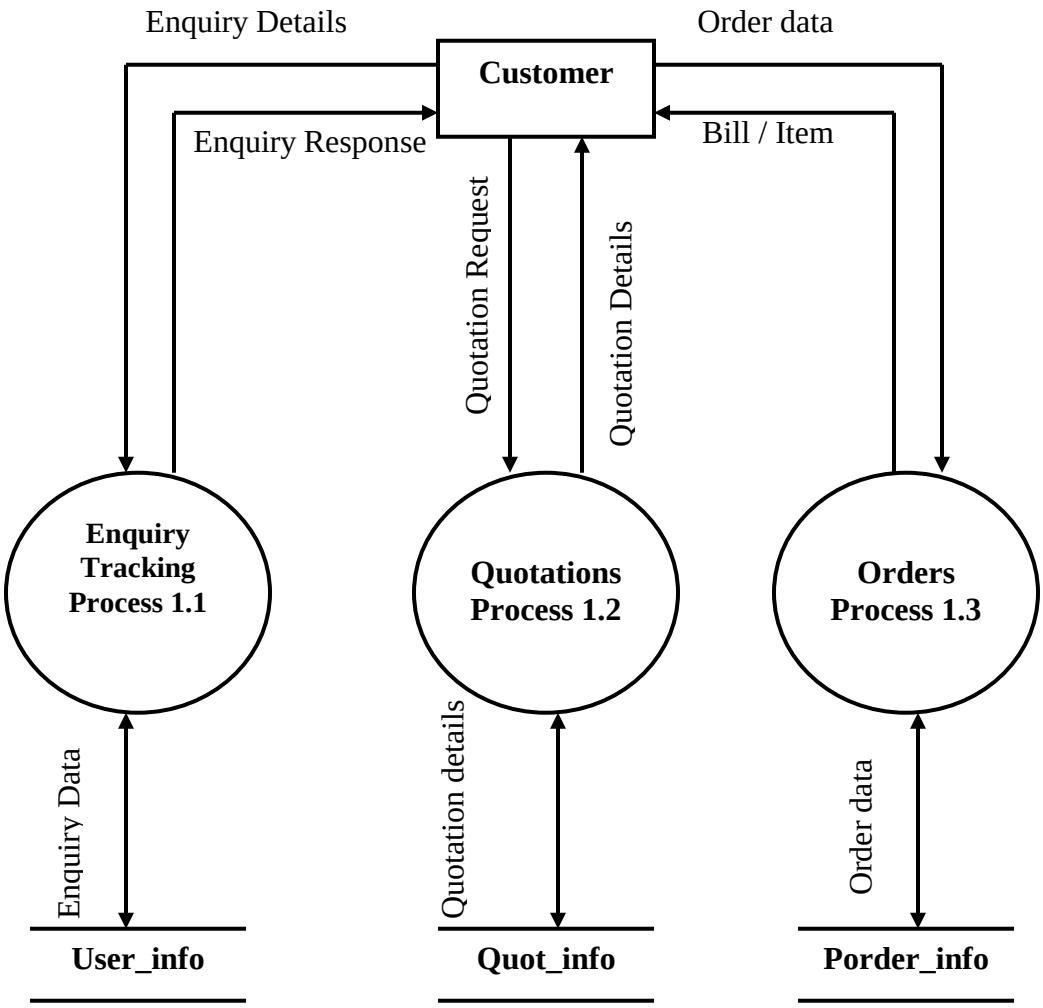
A graphic tool used to describe and analyze the moment of data through a system – manual or automated – including the processes, stores of data, and delays in the system. Data flow diagrams are the central tools and the basis from which other components are developed. The transformation of data from input to output, through processes, may be described logically and independently of the physical components associated with the system.



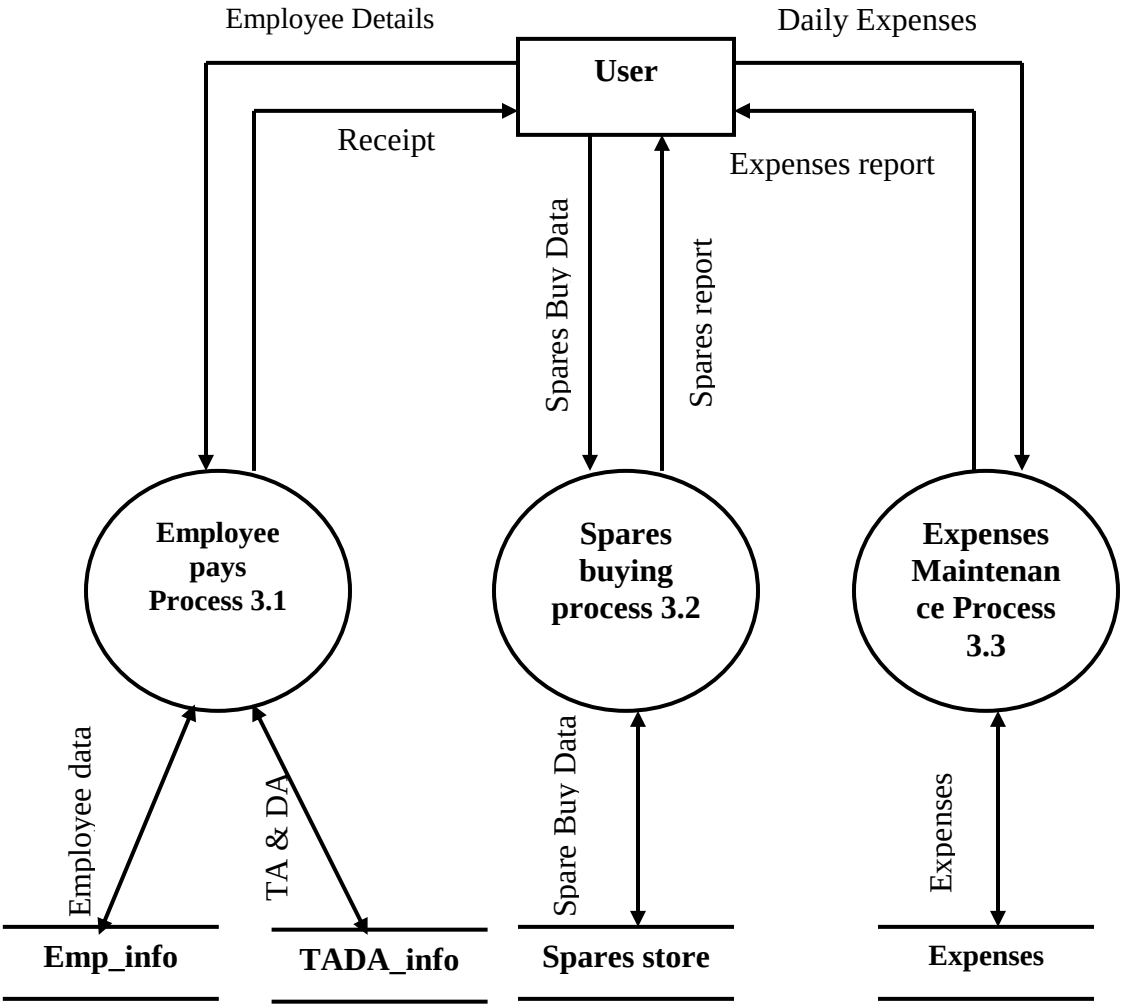


CONTEXT DIAGRAM

LEVEL 1 DFD


Enquiry Details
Order data
Customer
Enquiry Response
Bill / Item
Quotation Request
Quotation Details
Enquiry Tracking Process 1.1
Quotations Process 1.2
Orders Process 1.3
Enquiry Data
Quotation details
Order data
User_info
Quot_info
Porder_info

LEVEL 2 DFD


Employee Details
Daily Expenses
User
Receipt
Expenses report
Spares Buy Data
Spares report
Employee pays Process 3.1
Spares buying process 3.2
Expenses Maintenance Process 3.3
Employee data
TA & DA
Spare Buy Data
Expenses
Emp_info
TADA_info
Spares store
Expenses

3.2. DATA DICTIONARY

A data dictionary is a catalogue – a repository – of the elements in a system. As the name suggests, these elements center on data the way they are structured to meet user requirements and organization needs. In a data dictionary you will find a list of all the elements composing the data flow through a system.

ENQ_INFO:

Name	**Type**	**Constraints**	**Description**
ENQ_NO	Number	Primary key	Serial number
ENQ_NAME	Varchar2 (25)		Person name
DESIG	Varchar2 (25)		Occupation
DATE	Date		Date of enquiry
TIME	Time		Time of enquiry
STREET	Varchar2 (25)		Street name
COLONY	Varchar2 (25)		Colony name
CITY	Varchar2 (25)		City name
PHONE	Varchar2 (25)		Phone number
HOW_KNOW	Varchar2 (25)		Media through

QUOTE_INFO:

Name	**Type**	**Constraints**	**Description**

QUOTE_NAME	Varchar2 (25)		Requester name
QUOTE_NO	Number	Primary key	Quotation number
ENQ_NO	Number	Foreign key	Enquiry number
DATE	Date		Date of taking q
MODAL	Varchar2 (25)		System modal name
PROCESSOR	Varchar2 (25)		Processor type
RAM	Varchar2 (25)		Ram size
HARDDISK	Varchar2 (25)		Hard disk capacity
FDD	Varchar2 (25)		Floppy drive
CDD	Varchar2 (25)		CD drive
MONITOR	Varchar2 (25)		Monitor type
PRINTER	Varchar2 (25)		Printer
MMKIT	Varchar2 (25)		Multimedia kit
OTHERS	Varchar2 (25)		Other peripherals

ORDER_INFO:

Name	**Type**	**Constraints**	**Description**
ORD_NO	Number	Primary key	Order serial
CUST_ID	Varchar2 (25)	Foreign key	Customer id
ENQ_NO	Number	Foreign key	Enquiry number
QUOTE_NO	Number	Foreign key	Quotation number
ORD_DATE	Date		Ordered date
ORD_AMOUNT	Number		Order amount
AMT_PAYED	Number		Amount payed
ORD_STATUS	Varchar2 (25)		Status of order

CUST_INFO:

Name	**Type**	**Constraints**	**Description**
CUS_ID	Varchar2 (25)	Primary key	Customer id
CUST_NAME	Varchar2 (25)		Name
DESIG	Varchar2 (25)		Occupation
STREET	Varchar2 (25)		Street name
COLONY	Varchar2 (25)		Colony name
CITY	Varchar2 (25)		City name

PHONE	Varchar2 (25)		Phone number
EMAIL	Varchar2 (25)		Email add

AMC_INFO:

Name	**Type**	**Constraints**	**Description**
CUST_ID	Varchar2 (25)	Foreign key	Customer id
AMC_AMT	Number		Amc charge
AMT_PAYED	Number		Amount payed
AMC_START	Date		Amc begin date
AMC_EXPR	Date		Amc closing date

SERVICE_REQ:

Name	**Type**	**Constraints**	**Description**
NAME_OR_ID	Varchar2 (25)		Name or id of customer
ADDRESS	Varchar2 (250)		Address of customer
PHONE	Varchar2 (25)		Phone number
REQ_DATE	Date		Requested date

PROBLEM	Varchar2 (25)		Problem
RES_DATE	Date		Responded date
STATUS	Varchar2 (25)		Status
AMT_CHARGED	Number		Charge
ASSIGNEDTO	Varchar2 (25)	Foreign key	Assign engineer

SPARES_INFO:

Name	**Type**	**Constraints**	**Description**
SPARE_NAME	Varchar2 (25)		Name of spare
BUY_DATE	Date		Bought date
AMT	Number		Amount
AMT_PAYED	Number		Payed amount
FROM	Varchar2 (25)		Bought from
DESCRIP	Varchar2 (50)		Description

EMP_INFO:

Name	**Type**	**Constraints**	**Description**
NAME	Varchar2 (25)	Primary key	Name of service Eng.

ADDR	Varchar2 (200)		Address
PHONE	Varchar2 (15)		Phone number
SALARY	Number		Salary
QUALI	Varchar2 (25)		Qualification
EXPR	Number		Experience

TADA_INFO:

Name	**Type**	**Constraints**	**Description**
NAME	Varchar2 (25)	Foreign key	Name of employee
DATE	Date		Date
AMOUNT	Number		Amount taken
PURPOSE	Varchar2 (250)		Purpose

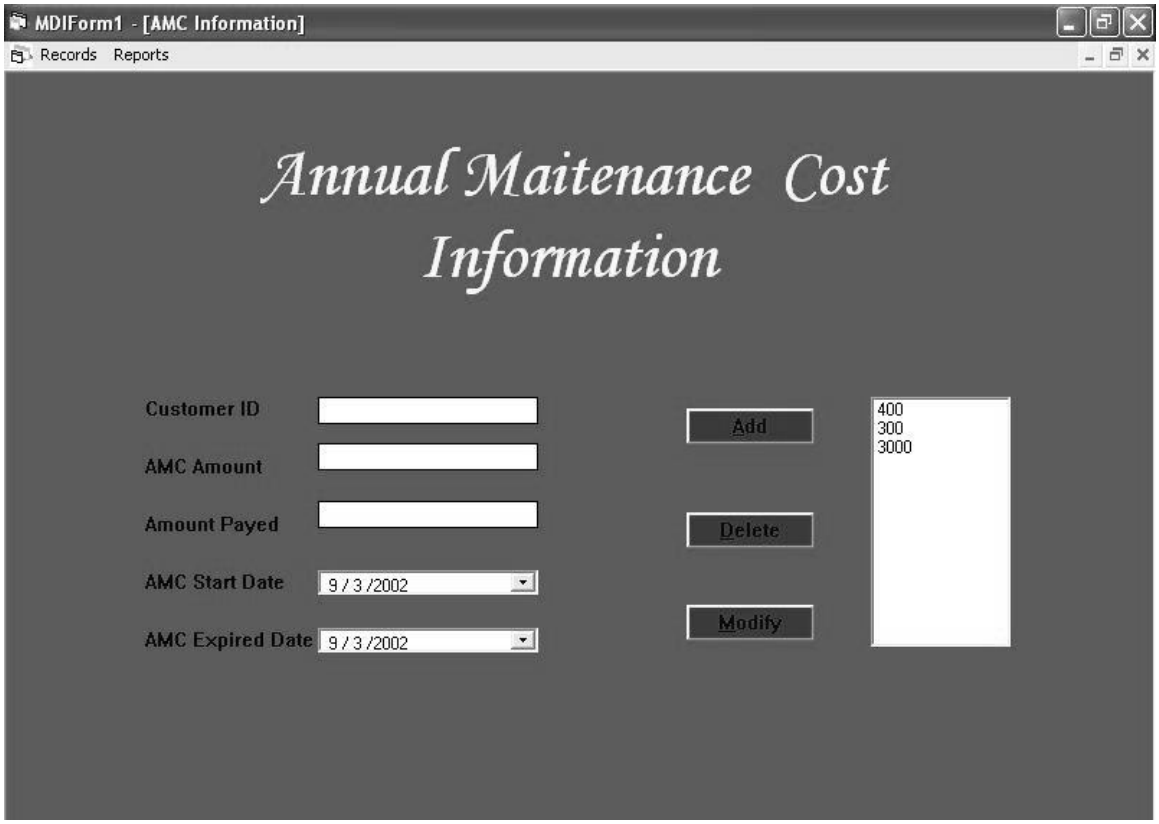
CASH_BOOK:

Name	**Type**	**Constraints**	**Description**
NAME	Varchar2 (25)		Name of person
DATE	Date		Date
REC_ISS	Varchar2 (5)		Cash receiving or issuing
AMT	Number		Amount
DESC	Varchar2 (250)		Description

4. FORMS & REPORTS

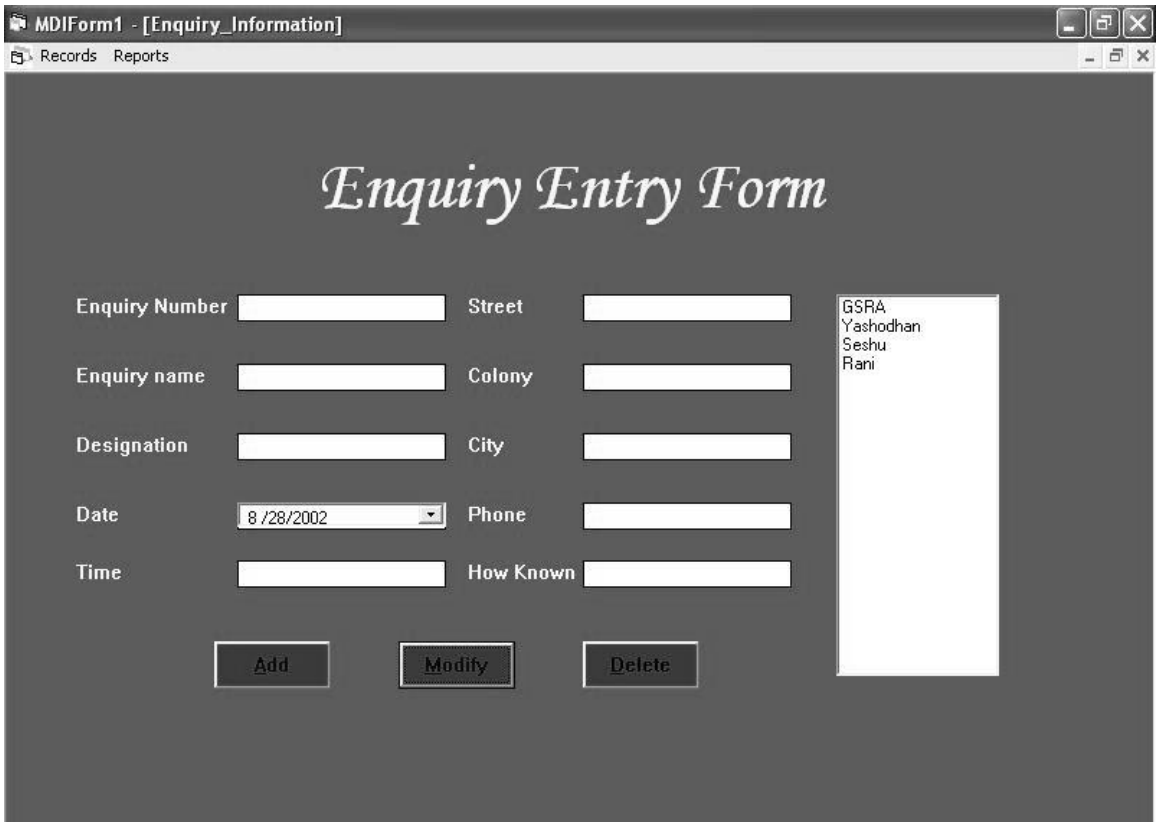
4.1. I/O SAMPLES

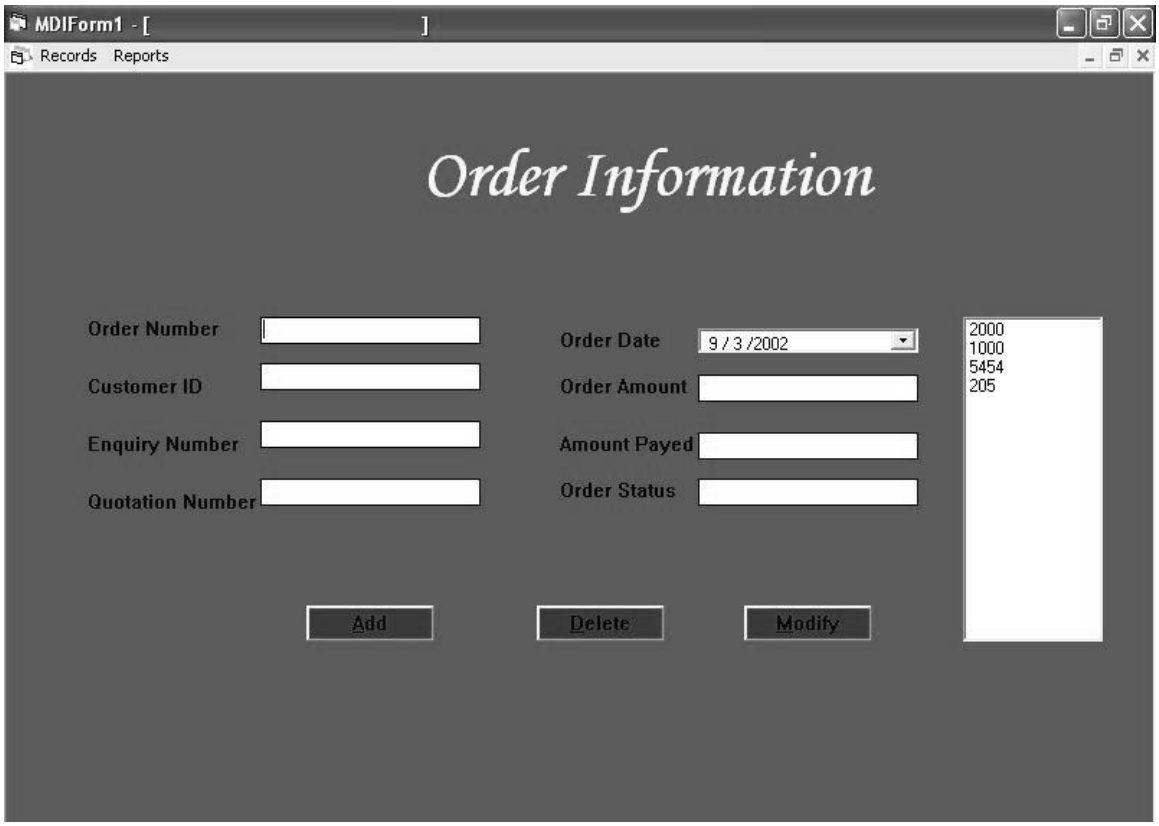
External material issue:

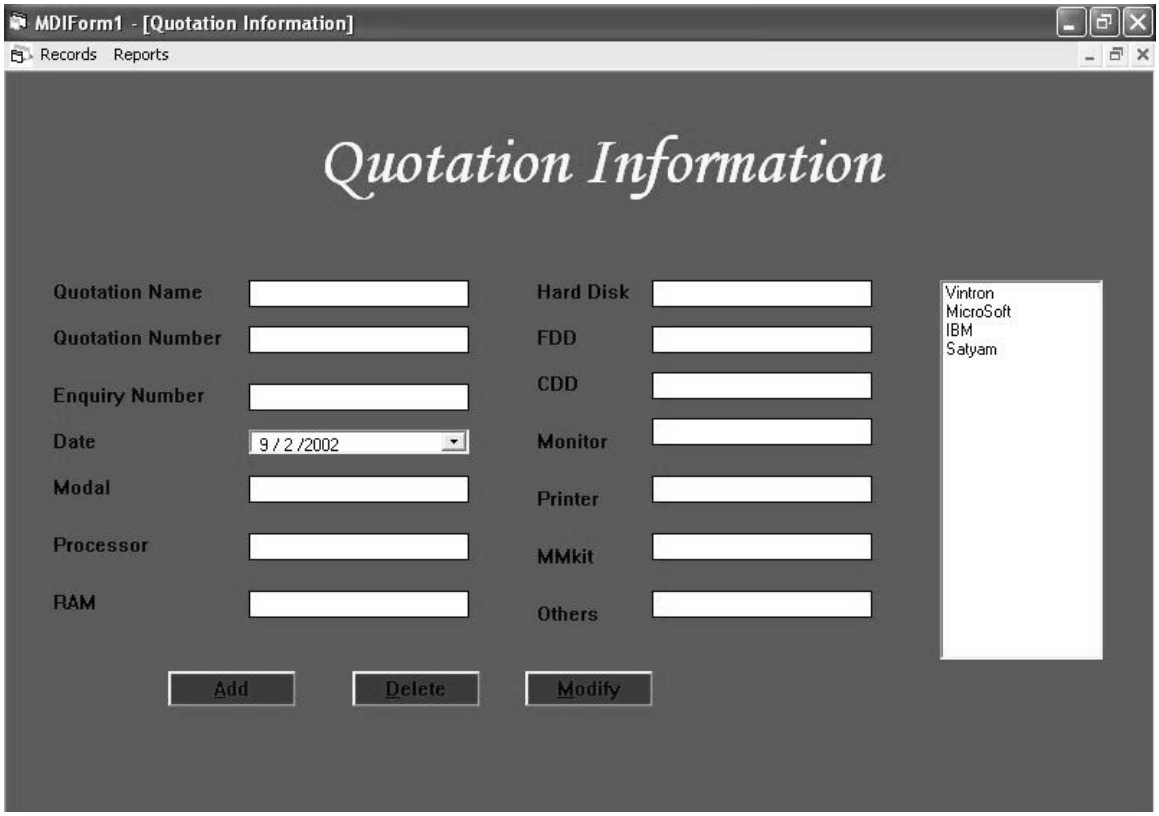



MDIForm1 - [Customer Information]
Records
Reports
Customer Information
Customer ID
Customer Name
Designation
Street
Colony
City
Phone
Email
Siri
Sudha
Salomi
Add
Delete
Modify


MDIForm1 - [Employee Information]
Records
Reports
Employee Information
Employee Code
Nameof Service
Address
Phone Number
Salary
Qualification
Experience
Add
Delete
Modify
oiling
Servicing of all Part
Srilakshmi H/W Se
Srilatha S/W Servic


MDIForm1 - [Enquiry_Information]
Records
Reports
Enquiry Entry Form
Enquiry Number
Enquiry name
Designation
Date
8/28/2002
Time
Street
Colony
City
Phone
How Known
GSRA
Yashodhan
Seshu
Rani
Add
Modify
Delete


MDIForm1 - [ ]
Records Reports
Order Information
Order Number
Customer ID
Enquiry Number
Quotation Number
Order Date
9 / 3 /2002
Order Amount
Amount Payed
Order Status
2000
1000
5454
205
Add
Delete
Modify


MDIForm1 - [Quotation Information]
Records
Reports
Quotation Information
Quotation Name
Quotation Number
Enquiry Number
Date
9 / 2 /2002
Modal
Processor
RAM
Hard Disk
FDD
CDD
Monitor
Printer
MMkit
Others
Vintron
MicroSoft
IBM
Satyam
Add
Delete
Modify


MDIForm1 - [Service Request]
Records
Reports
Service Request
Name Order ID
Address
Phone
Request Date
9 / 4 /2002
Problem
Resister Date
9 / 4 /2002
Status
Amount Charged
Assigned To
40HW
rapair
Add
Delete
Modify

5. BIBILIOGRAPHY

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Database programming with Visual Basic Michael and Smith

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PLSQL Complete Reference	Oracle Press
Principles of database systems	Jeffery D Ullman
Database Management Systems	C J Date

System Development:

Fundamentals Of System Concepts	Jerry Fitz Gerald
System Analysis And Design	Elias M Awad
Software Engineering:	Roger P Pressman