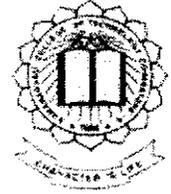


p - 273 4



RETAILER NETWORK SYSTEMATIZE

by

Santhoshkumar.C

Register Number - 71206621045

Of



**KUMARAGURU COLLEGE OF TECHNOLOGY
COIMBATORE**

A PROJECT REPORT

Submitted to the

**FACULTY OF INFORMATION AND COMMUNICATION
ENGINEERING**

*In partial fulfillment of the requirements
for the award of the degree
of*

MASTER OF COMPUTER APPLICATIONS

ANNA UNIVERSITY

CHENNAI 600 025

July, 2009



Cognizant

Cognizant Technology Solutions India Private
Mountain Mist Campus, Unit -1, STPI - IT Park,
No.363, KGISL Campus, Thudiyalur Road,
Coimbatore - 641035
Phone : (+91-0422) 3923000
Fax : (+91-0422) 3923060

www.cognizant.com

To whomsoever it may Concern

This is to certify that Mr. Santhosh Kumar a student of Kumaraguru College of Technology, had undergone a project titled Retailer Network systematize at Cognizant Technology Solutions India Pvt.Ltd under the guidance of Mr. Swaminath Venkataraman (Assistant Manager Projects).

The duration of the project was from 01/11/08 and 01/05/09.

We wish him all the success for his future endeavors

For Cognizant Technology Solutions India Pvt. Ltd.

Prabhu Chari
Asst. Manager - Human Resources

May 10, 2009

ACKNOWLEDGEMENT

I wish to express my sincere thanks to **Mr.R.Annamalai**, Vice Principal, Kumaraguru College of Technology, Coimbatore, for permitting me to undertake this project.

I express my deep sense of gratitude to **Dr. S. Thangasamy**, Professor and Dean of Computer Science department and **Dr. M. Gururajan**, Professor and Head of Department of Computer Applications for extending their help in providing all the facilities at college for the successful completion of the project.

I would like to express my sincere gratitude to **Mr. S. Ganesh Babu**, Senior Lecturer, Department of Computer Applications for his guidance, support, cooperation and valuable suggestions during the course of this project and I also thank **Mrs. V.Geetha** Assistant Professor and project coordinator of Master of Computer Applications.

I would like to thank my external guide **Mr. Swaminath Venkataram**, Assistant Project Manager, Cognizant Technology Solutions, KGISL Campus, Coimbatore who helped me a lot in framing out my project. Beyond his direction and guidance, his encouraging words brought out the best in me.

ABSTRACT

The RNS is a real time project that aims at automating all activities that are required for the RNS project. It is mainly designed for efficiency management and reduces time consumption. The RNS system helps keep track of all activities that form a part of the project thereby helping greatly in report generation and performance analysis. This project unites, streamlines and globalizes support operations of the retail organization.

Retail-Index contains all key information about national retail chains including data on new products, number of product sold, orders, invoice, discounters etc. Search on the profile provides with the name, headquarter address, phone, fax, and other relevant information. All data are updated frequently adding new sectors, countries and profiles.

The system classifies the users based on their corresponding sectors and maintains details about all the transactions carried out between the retailers and the dealers. Store technology is shifting from closed, proprietary systems to open, flexible systems that allow greater and more meaningful interaction with the customer, headquarters, and partners, as well as better control and understanding of store operations.

The system development is entirely based on Microsoft technologies mainly, Microsoft ASP.NET, Microsoft Visual Studio 2005 and SQL Server 2000. ASP.NET 2.0 AJAX Toolkit, a package with a set of Visual Studio templates for building ASP.NET AJAX applications with ASP.NET 2.0 and Visual Studio 2005. Since this system is going to be used by large number of people, web based application is very appropriate than stand alone desktop application. The advantage of web application is that application will be deployed in single server and accessed from multiple clients. This avoids the maintenance problems in all machines and the application can be access from any computer using web browsers.

Table of Contents

ABSTRACT	iv
LIST OF TABLES	vii
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	viii
CHAPTER 1	1
ORGANIZATION PROFILE	1
1.1. INTRODUCTION	1
1.2. CTS GOAL	2
1.3. OPERATIONS	2
CHAPTER 2	3
SYSTEM ANALYSIS	3
2.1 EXISTING SYSTEM	3
2.1.1 Problems in Existing System	3
2.2 PROPOSED SYSTEM	3
2.2.1 Advantages	3
CHAPTER 3	4
SYSTEM CONFIGURATION	4
3.1 HARDWARE REQUIREMENTS	4
3.2 SOFTWARE REQUIREMENTS	4
CHAPTER 4	5
SOFTWARE TECHNOLOGIES	5
4.1 WEB APPLICATION	5
4.1.1 Advantages	5
4.1.2 Disadvantages	5
4.2 MICROSOFT ASP.NET FRAMEWORK	6
4.2.1 Common Language Runtime (CLR)	7
4.2.2 Class Libraries	7
4.2.3 ASP .NET AJAX Suite	7
4.3 SQL SERVER 2000	8
4.3.1 User-Defined Functions	9
4.3.2 Indexed Views	10
CHAPTER 5	11
SYSTEM DESIGN	11
5.1 USE CASE DIAGRAM	11
5.1.1 Admin Use Case Diagram	12
5.1.2 Dealer Use Case Diagram	13
5.1.3 Sub Dealer Use Case Diagram	14

5.1.4	Retailer Use Case Diagram	15
5.1.5	Customer Use Case Diagram	16
5.2	SYSTEM FLOW DIAGRAM	17
5.3	DATA FLOW DIAGRAM	18
5.4	ENTITY RELATIONSHIP DIAGRAM	19
CHAPTER 6		20
TABLE DESIGN		20
6.1	TABLES	20
6.1.1	User Table	20
6.1.2	Mail Table	21
6.1.3	Product Table	22
6.1.4	Order Table	22
6.1.5	Invoice Table	23
6.2	TABLE RELATIONSHIP	24
CHAPTER 7		25
SYSTEM DEVELOPMENT		25
7.1	INTRODUCTION	25
7.2	MODULE DESCRIPTION	25
7.2.1	Admin Module	25
7.2.2	Dealer Module	26
7.2.3	Sub Dealer Module	26
7.2.4	Retailer Module	26
7.2.5	Customer Module	26
7.3	FEATURES	26
CHAPTER 8		28
SYSTEM TESTING		28
8.1	UNIT TESTING	28
8.2	INTEGRATION TESTING	28
8.3	VALIDATION TESTING	28
8.4	SYSTEM TESTING	29
8.5	TEST CASE	29
CHAPTER 9		32
CONCLUSION		32
CHAPTER 10		33
APPENDICES		33
CHAPTER 10		50
REFERENCES		50

LIST OF TABLES

TableNo	Name	Page no.
6.1	User Table	20
6.2	Mail Table	21
6.3	Products Table	22
6.4	Order Table	22
6.5	Invoice Table	23

LIST OF FIGURES

Fig No	Name	Page No.
5.1	Use Case Diagram – Admin Module	12
5.2	Use Case Diagram – Dealer Module	13
5.3	Use Case Diagram – Sub Dealer Module	14
5.4	Use Case Diagram – Retailer Module	15
5.5	Use Case Diagram – Customer Module	16
5.6	System Flow Diagram - RNS	17
5.7	Data Flow Diagram - RNS	18
5.8	Entity Relationship Diagram - RNS	19
6.1	Table Relationship Diagram - RNS	24

LIST OF ABBREVIATIONS

Acronym	Full Form
CTS	Cognizant Technology Solutions
RNS	Retailer Network Systematize
CPU	Central Processing Unit
GB	Giga Byte
MB	Mega Byte
UML	Unified Modeling Language
ASP	Active Server Pages
XML	Extensible Markup Language
MHz	Mega Hertz
GHz	Giga Hertz
SQL	Structured Query Language
HTML	HyperText Markup Language
CLR	Common Language Runtime
SGML	Standard Generalize Markup Language

CHAPTER 1

ORGANIZATION PROFILE

1.1. INTRODUCTION

Cognizant is a leading provider of information technology, consulting, infrastructure and business process outsourcing services. Confidant's single-minded mission is to dedicate our business process and technology innovation know-how, our deep industry expertise and worldwide resources to working together with clients to make their businesses stronger. Value Proposition As a customer-centric, relationship-driven partner, we are redefining the way companies experience and benefit from global services via a unique delivery model infused by a distinct culture of high customer satisfaction. Cognizant delivers a trusted partnership, cost reductions and business results. Cultural Value Drivers Open, Transparent, Driven, Empowered, Opportunity filled, Flexible, Collaborative.

Differentiation Factors 15 years of experience fusing the Two-in-a-BoxTM Client Relationship Model with a seamless Global Delivery experience Multifaceted client partnership architecture yielding high customer value and continuous alignment with client teams Commitment to measuring full value of outsourcing with "Confidant's Return on OutsourcingTM" proprietary methodology (ROO)¹ based on proven record of delivering results Financial success and sound management record resulting in continuous innovation, new services and higher value creation Key Attributes "Client-first" culture of customer satisfaction, resulting in unique "Cognizant customer experience" Distinct identity: Born-global corporation, multicultural work-force and management, entrepreneurial leadership & culture Dedicated to building deep, sustainable and long-term client relationships based on collaboration, customization and quality.

1.2. CTS GOAL

Every application we develop, every challenge we embrace, every investment in new resources, every recommendation we make - is dedicated to one goal:

“Making our customers' businesses stronger by empowering them to be more responsive to their customers and to the competitive environment.”

We'll achieve this by focusing on the intersection of our clients' emerging needs and the acceleration of business and technological change. Our commitment to innovation keeps us focused on the future and being ready at every level to service change.

1.3. OPERATIONS

Even though it is headquartered in New Jersey, USA, most of Cognizant Technology Solutions' employees are based in India. It has offices in Chennai, Bangalore, Coimbatore, Hyderabad, Kolkata, Mumbai, Pune, Gurgaon, Kochi and Budapest since 2008, development centres in Shanghai, Buenos Aires and Amsterdam. Cognizant has over 60,000 employees. Cognizant Coimbatore centre became the first company in the world to be certified for CMMI-Level5 per the latest model.

Cognizant has aligned its businesses vertically and has clients in

- Banking & Financial Services
- Healthcare
- Manufacturing & Logistics
- Information, Media & Entertainment
- Telecommunications
- Insurance
- Life Sciences
- Retail
- Hospitality
- Technology

CHAPTER 2

SYSTEM ANALYSIS

2.1 EXISTING SYSTEM

In the existing system all the process involved in the retail business was handled manually. They are maintained in records in handwritten format. A separate employee has to administer all these process. It's very difficult to collect and organize the data. Also there is a problem of retrieving a specific data immediately. The existing system is not that much secured.

2.1.1 Problems in Existing System

- ✓ Low security.
- ✓ Late information about the stock.
- ✓ High maintains cost.
- ✓ Resource sharing.
- ✓ Performance problem.

2.2 PROPOSED SYSTEM

The main process of the proposed system is to give up to date information about the dealers and about stock. It is very easy to handle than the existing system. In the proposed system there is a separate user ID for all customer and the dealer. It is a highly secured system. No one can open another once ID without the knowledge of that person. Maintains cost is also lower than the existing system. It gives a better & fast performance.

2.2.1 Advantages

- ✓ High security.
- ✓ Up to date information.
- ✓ Low maintenance cost.
- ✓ Resource sharing.
- ✓ Better performance.

CHAPTER 3

SYSTEM CONFIGURATION

3.1 HARDWARE REQUIREMENTS

Processor	: Pentium IV processor with clock speed of 2 GHz
Main Memory	: 1GB
Secondary Memory	: 10 GB
Display Unit	: 15" Monitor set to 1024 by 768 pixel resolution
Input Unit	: Standard Mouse and Keyboard

3.2 SOFTWARE REQUIREMENTS

Operating system	: Microsoft Windows Operating System
Front End	: ASP.NET with C#
Back End	: SQL server 2000
Web Browser	: Microsoft Internet Explorer or Mozilla Firefox or Netscape navigator or Apple safari or Opera or any other browser

When the .NET Framework is installed on a computer, all ASP.NET applications are automatically updated to use that version of the .NET Framework. The only exceptions are applications that are bound to an incompatible version of the runtime or to a later version of the runtime. Compatibility is typically determined by the .NET Framework version number. Major version differences are usually incompatible, whereas minor updates and build number version differences are compatible. You might want to configure an ASP.NET application to use a specific version of the runtime.

When managing a computer with multiple versions of the .NET Framework installed, it is often useful to view an ASP.NET application's script map (sometimes referred to as an application map) to determine which version the application is using. You can view the script map for an ASP.NET application using the Internet Information Services (IIS) management console.

CHAPTER 4

SOFTWARE TECHNOLOGIES

4.1 WEB APPLICATION

A Web application is an application that is accessed via Web browser over a network such as the Internet or an intranet. It is also a computer software application that is coded in a browser-supported language (such as HTML, JavaScript, Java, etc.) and reliant on a common web browser to render the application executable.

Web applications are popular due to the ubiquity of a client. The ability to update and maintain Web applications without distributing and installing software on potentially thousands of client computers is a key reason for their popularity.

4.1.1 Advantages

Browser Applications typically require little or no disk space, upgrade automatically with new features, and integrate easily into other web procedures, such as email and searching. They also provide cross-platform compatibility (i.e. Mac or Windows or Linux or UNIX) because they operate within a web browser window.

4.1.2 Disadvantages

Standards compliance is an issue with any non-typical office document creator, which causes problems when file sharing and collaboration becomes critical. Also, Browser Applications rely on application files accessed on remote servers through the internet. Therefore, when connection is interrupted, the application is no longer usable.

4.2 MICROSOFT ASP.NET FRAMEWORK

The .NET Framework is an environment for building, deploying, and running Web applications and Web Services. Microsoft's first server technology ASP (Active Server Pages), was a powerful and flexible "programming language". But it was too code oriented. It was not an application framework and not an enterprise development tool. The Microsoft .NET Framework was developed to solve this problem.

.NET Frameworks keywords:

- Easier and quicker programming
- Reduced amount of code
- Declarative programming model
- Richer server control hierarchy with events
- Larger class library
- Better support for development tools

The .NET Framework consists of 3 main parts:

Programming languages:

- C# (Pronounced C sharp)
- Visual Basic (VB .NET)
- J# (Pronounced J sharp)

Server technologies and client technologies:

- ASP .NET (Active Server Pages)
- Windows Forms (Windows desktop solutions)
- Compact Framework (PDA / Mobile solutions)

The Dot NET Framework includes the common language runtime and class libraries.

4.2.1 Common Language Runtime (CLR)

The common language runtime is responsible for run time services such as language integration, security enforcement, memory, process, and thread management. In addition, it has a role at development time when features such as life-cycle management, strong type naming, cross-language exception handling, dynamic binding, and so on, reduce the amount of code that a developer must write to turn business logic into a reusable component.

4.2.2 Class Libraries

Base classes provide standard functionality such as input/output, string manipulation, security management, network communications, thread management, text management, user interface design features, and other functions. The Microsoft ASP.NET classes support the development of Web-based applications and XML Web services. The Windows Forms classes support the development of Windows-based smart client applications. Together, the class libraries provide a common, consistent development interface across all languages supported by the .NET Framework

4.2.3 ASP .NET AJAX Suite

The Microsoft Ajax Library is a JavaScript library that provides the features for the client portion of the ASP.NET AJAX framework.

- **Components.** The library provides an infrastructure to build either visual or non-visual JavaScript components. A global JavaScript object – `Sys.Application` – is responsible for managing the lifecycle of client components.
- **JavaScript extensions** – An enhanced type system is introduced to emulate object-oriented constructs such as namespaces, classes and interfaces; and to perform reflection on client types.

- Abstraction API – Common operations on the DOM (retrieving elements, setting styles and other manipulations) are automatically translated by the library into browser-specific calls.
- Ajax – A set of client components is provided to handle Ajax requests.
- Application Services – The library allows accessing the ASP.NET Membership, Authentication, Roles and Profile services from the client side.

Features of ASP.NET

- Better language support
- Programmable controls
- Event-driven programming
- XML-based components
- User authentication, with accounts and roles
- Higher scalability
- Increased performance - Compiled code
- Easier configuration and deployment
- Not fully ASP compatible

4.3 SQL SERVER 2000

Database

A database management, or DBMS, gives the user access to their data and helps them transform the data into information. Such database management systems include dBase, paradox, SQL Server and SQL Server. These systems allow users to create, update and extract information from their database.

A database is a structured collection of data. Data refers to the characteristics of people, things and events. SQL Server stores each data item in its own fields. In SQL Server, the fields relating to a particular person, thing or event are bundled together to form a single complete unit of data, called a record

(it can also be referred to as row or an occurrence). Each record is made up of a number of fields. No two fields in a record can have the same field name.

During an SQL Server Database design project, the analysis of your business needs identifies all the fields or attributes of interest. If your business needs change over time, you define any additional fields or change the definition of existing fields.

The following is a list of the new features provided in SQL Server 2000:

- User-defined functions
- Indexed views
- Distributed partitioned views
- INSTEAD OF and AFTER triggers
- New data types
- Cascading RI constraints
- Multiple SQL Server instances
- XML support
- Log shipping

The rest of this section takes a closer look at each of these new features and provides a reference to subsequent chapters where more information about the new feature can be found.

4.3.1 User-Defined Functions

SQL Server has always provided the ability to store and execute SQL code routines via stored procedures. In addition, SQL Server has always supplied a number of built-in functions. Functions can be used almost anywhere an expression can be specified in a query. This was one of the shortcomings of stored procedures—they couldn't be used inline in queries in select lists, where clauses, and so on. Perhaps you want to write a routine to calculate the last business day of the month. With a stored procedure, you have to exec the procedure, passing in

the current month as a parameter and returning the value into an output variable, and then use the variable in your queries. If only you could write your own function that you could use directly in the query just like a system function. In SQL Server 2000, you can.

SQL Server 2000 introduces the long-awaited support for user-defined functions. User-defined functions can take zero or more input parameters and return a single value—either a scalar value like the system-defined functions, or a table result. Table-valued functions can be used anywhere table or view expressions can be used in queries, and they can perform more complex logic than is allowed in a view.

4.3.2 Indexed Views

Views are often used to simplify complex queries, and they can contain joins and aggregate functions. However, in the past, queries against views were resolved to queries against the underlying base tables, and any aggregates were recalculated each time you ran a query against the view. In SQL Server 2000 Enterprise or Developer Edition, you can define indexes on views to improve query performance against the view. When creating an index on a view, the result set of the view is stored and indexed in the database. Existing applications can take advantage of the performance improvements without needing to be modified.

Indexed views can improve performance for the following types of queries:

- Joins and aggregations that process many rows
- Join and aggregation operations that are performed frequently within many queries
- Decision support queries that rely on summarized, aggregated data that is infrequently updated

CHAPTER 5

SYSTEM DESIGN



System design is the most creative and challenging phase in the life cycle of system development. The first step to determine is what input data is needed to form the system and the database that has to be designed should meet the requirement of the proposed system. The next step is to determine how the output is produced and in what format.

5.1 USE CASE DIAGRAM

A Use Case diagram is a graph of actors, a set of use cases enclosed by a system boundary, communication associations between the actors and the use cases, and generalization among the use cases. The main purpose of a use case diagram is to show what system functions are performed for which actor. Roles of the actors in the system can be depicted.

Use case diagrams depict:

Use cases - A use case describes a sequence of actions that provide something of measurable value to an actor and is drawn as a horizontal ellipse.

Actors - An actor is a person, organization, or external system that plays a role in one or more interactions with your system. Actors are drawn as stick figures.

Associations - Associations between actors and use cases are indicated in use case diagrams by solid lines. An association exists whenever an actor is involved with an interaction described by a use case. Associations are modeled as lines connecting use cases and actors to one another, with an optional arrowhead on one end of the line. The arrowhead is often used to indicating the direction of the initial invocation of the relationship or to indicate the primary actor within the use case.

5.1.1 Admin Use Case Diagram

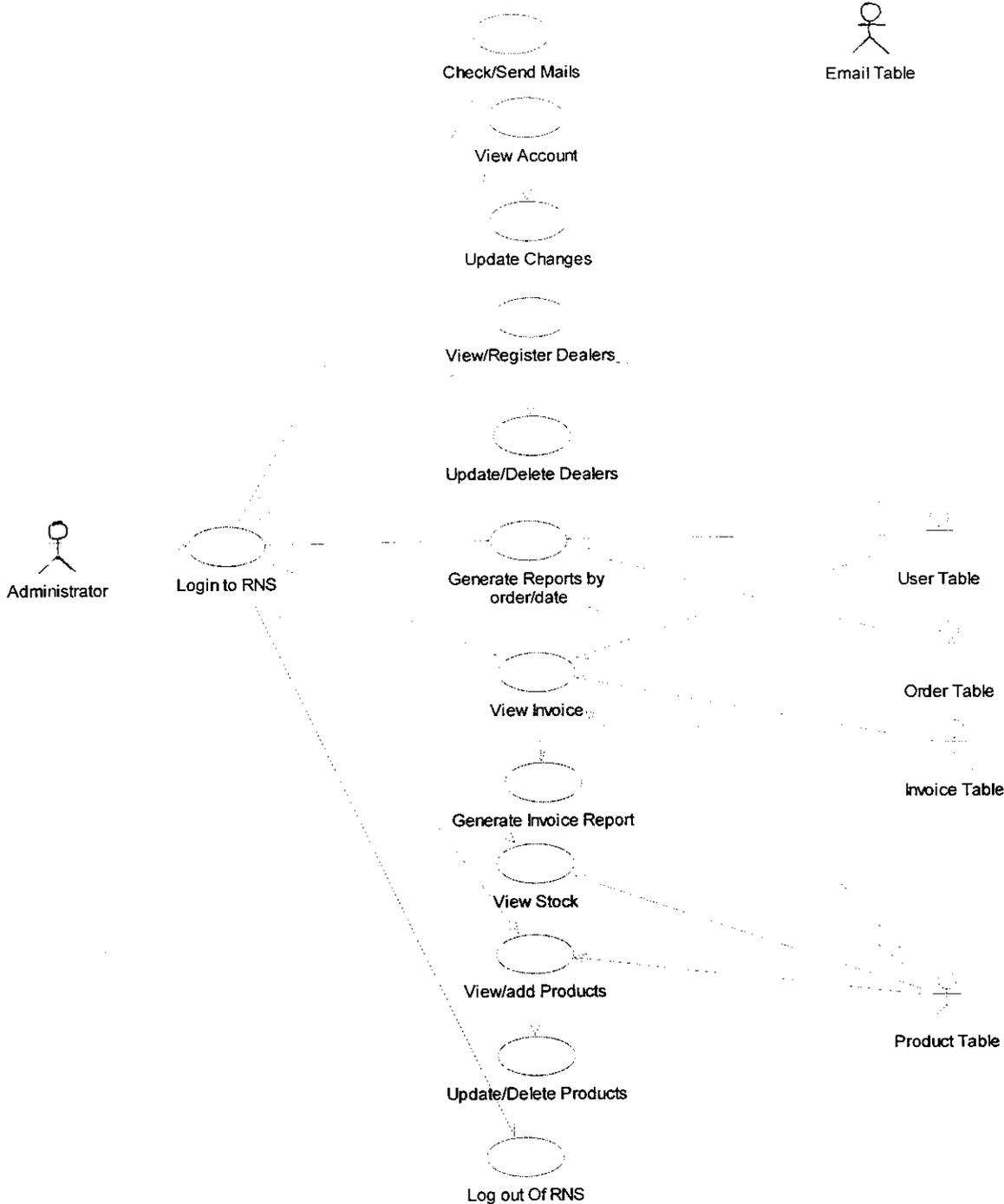


Figure 5.1: Use Case Diagram – Admin Module

5.1.2 Dealer Use Case Diagram

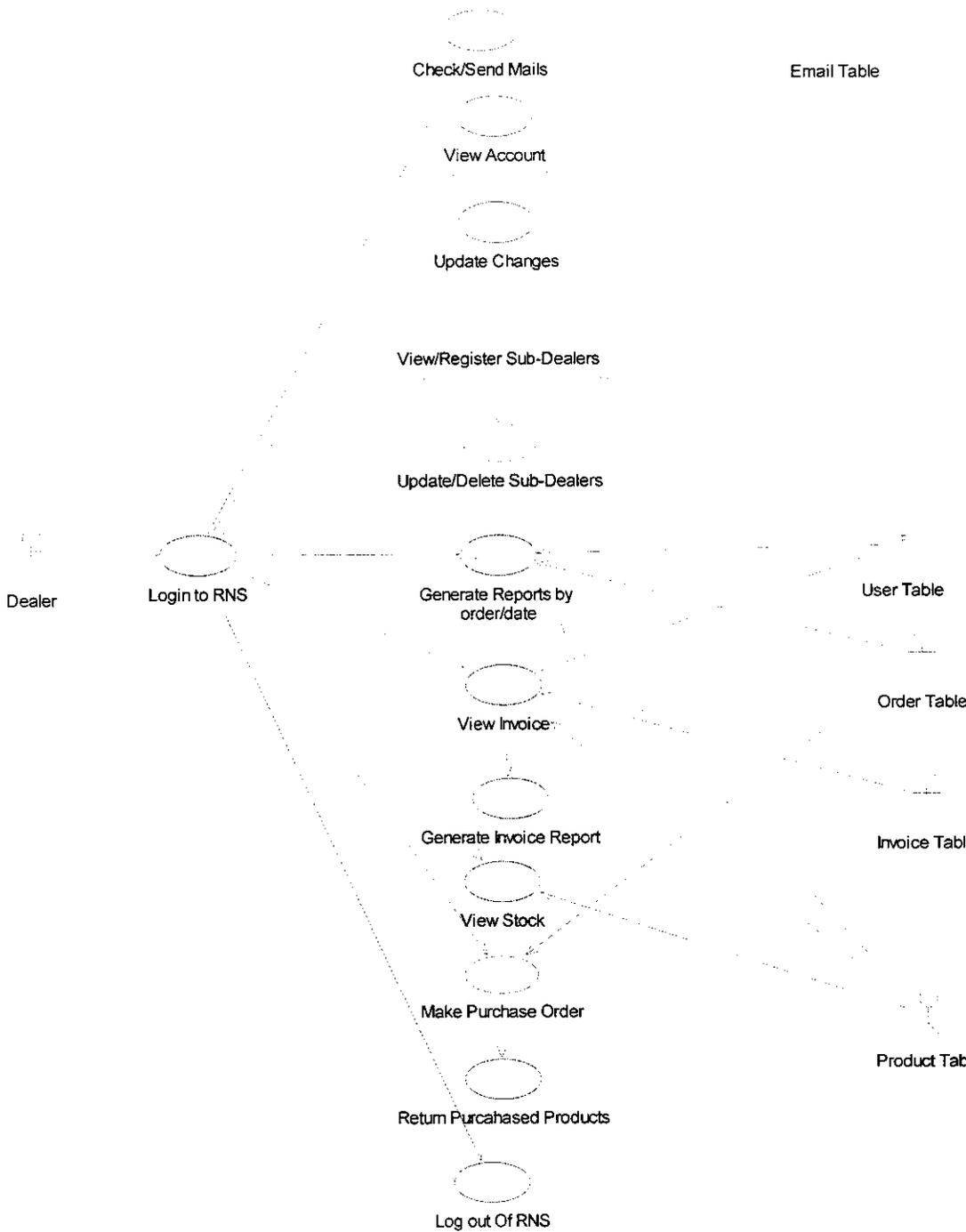


Figure 5.2: Use Case Diagram – Dealer Module

5.1.3 Sub Dealer Use Case Diagram

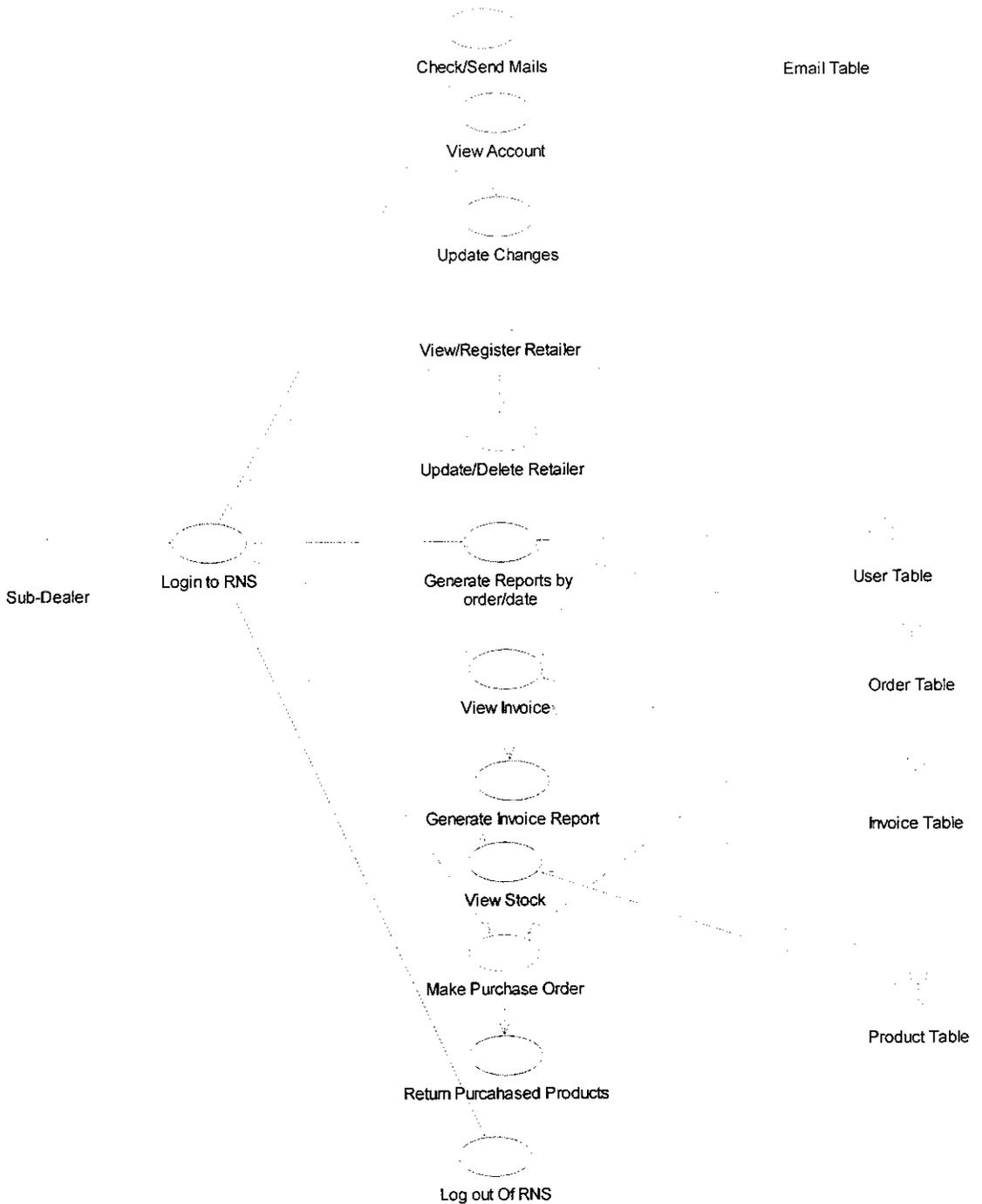


Figure 5.3: Use Case Diagram – Sub Dealer Module

5.1.4 Retailer Use Case Diagram

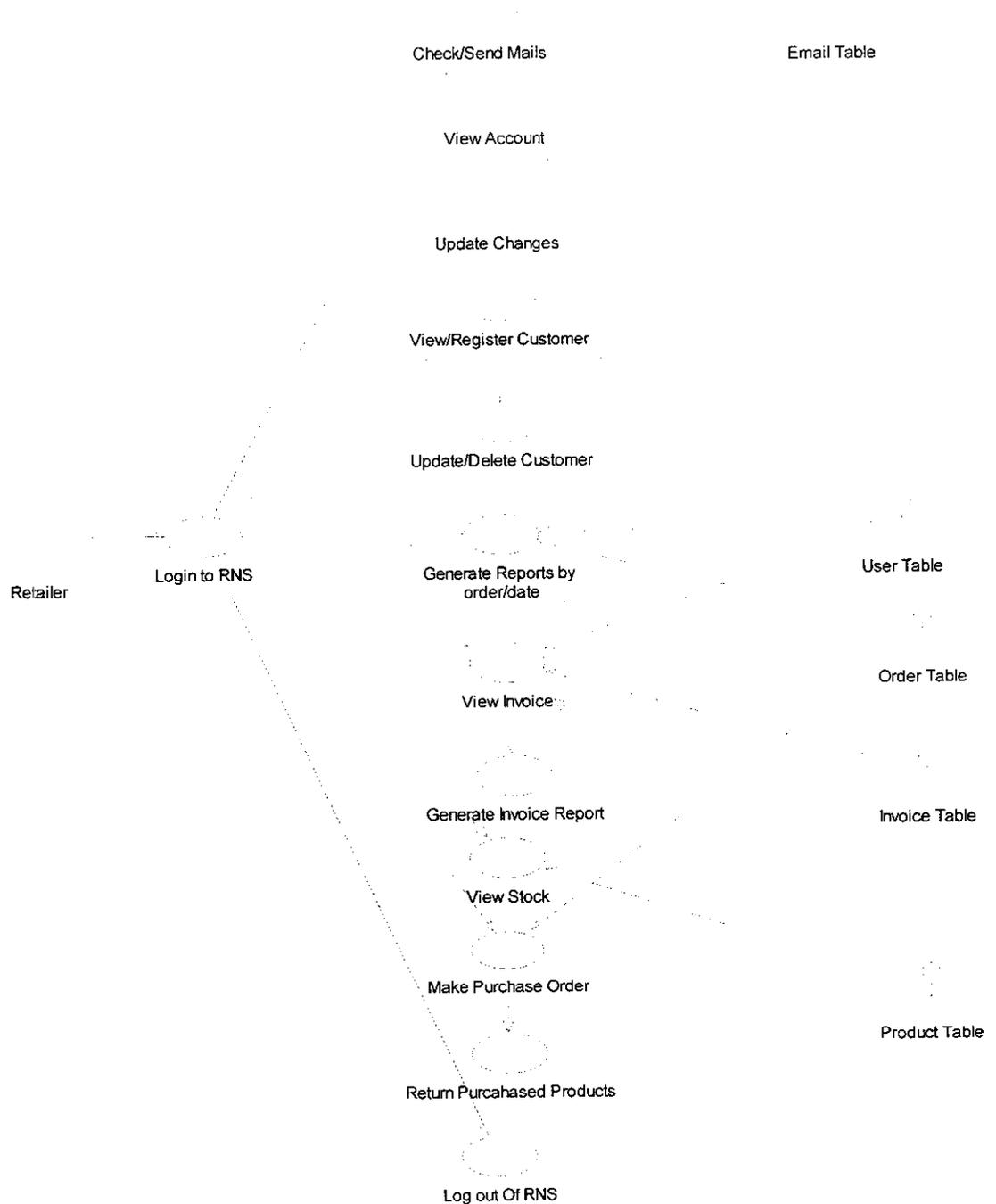


Figure 5.4: Use Case Diagram – Retailer Module

5.1.5 Customer Use Case Diagram

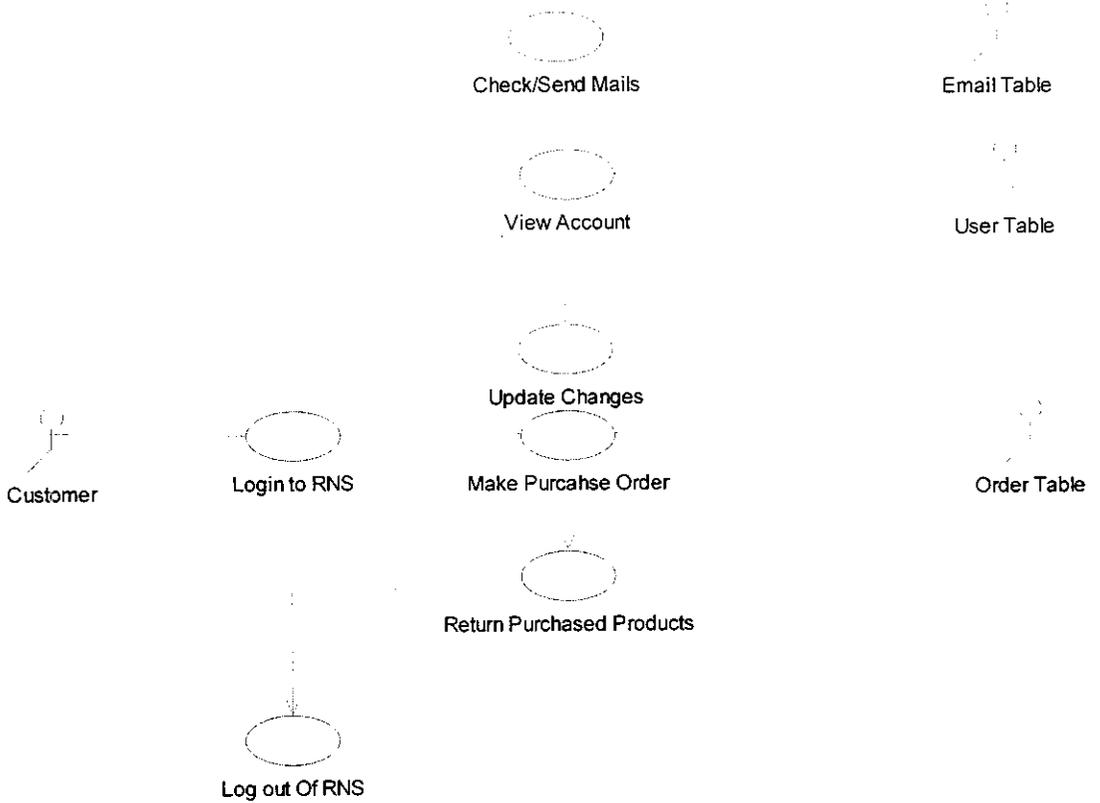


Figure 5.5: Use Case Diagram – Customer Module

5.2 SYSTEM FLOW DIAGRAM

A system flow diagram (SFD) is a graphical representation of the flow of activities through an information system. System diagrams are used to describe the behavior of a system. An SFD provides information about the ordering of processes and about whether processes will operate in sequence or in parallel.

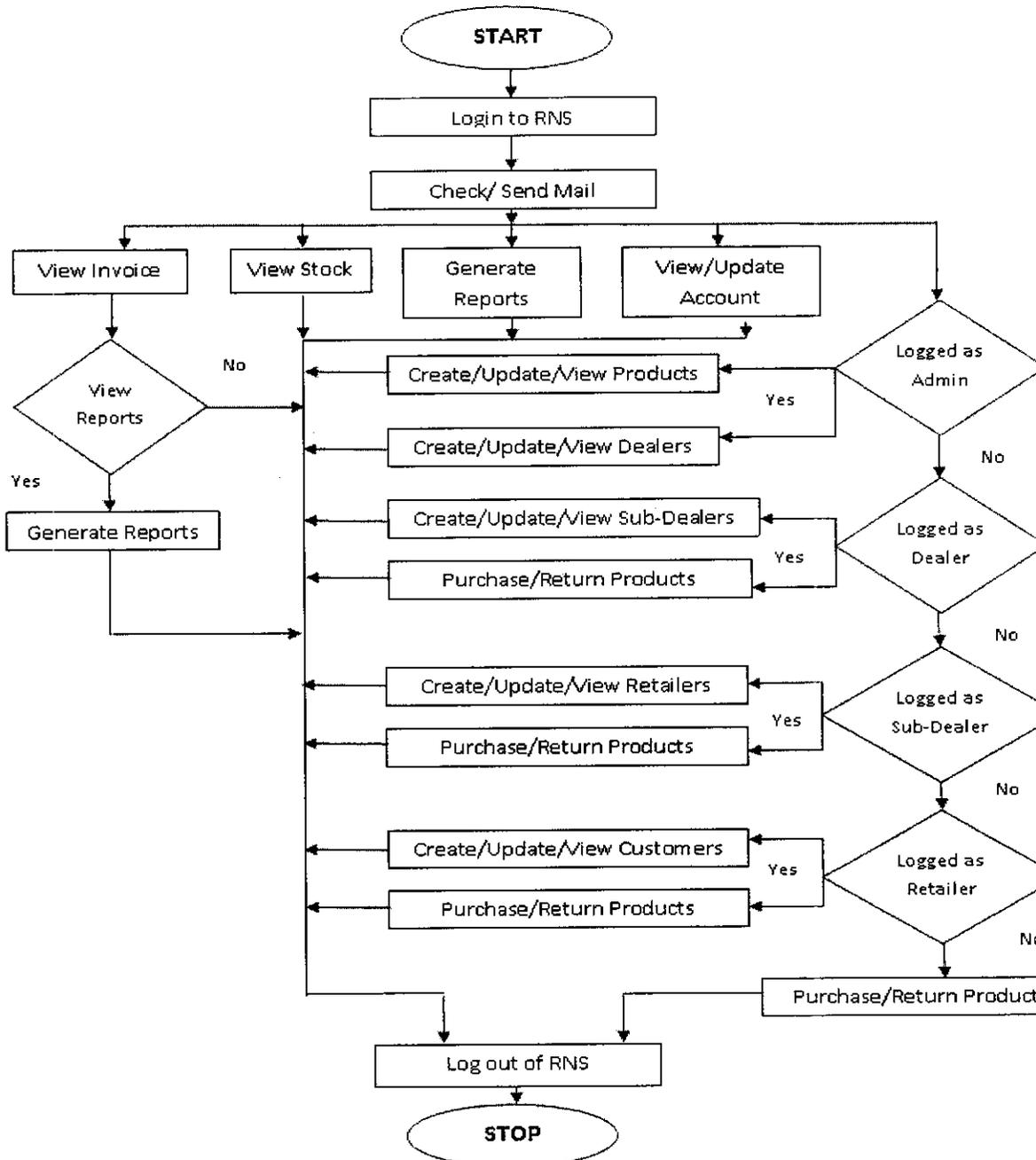


Figure 5.6: System Flow diagram - RNS

5.3 DATA FLOW DIAGRAM

Data Flow Diagrams (DFD) shows the flow of data from external entities into the system, the data moved from one process to another, as well as its logical storage. It illustrates how data is processed by a system in terms of inputs and outputs.

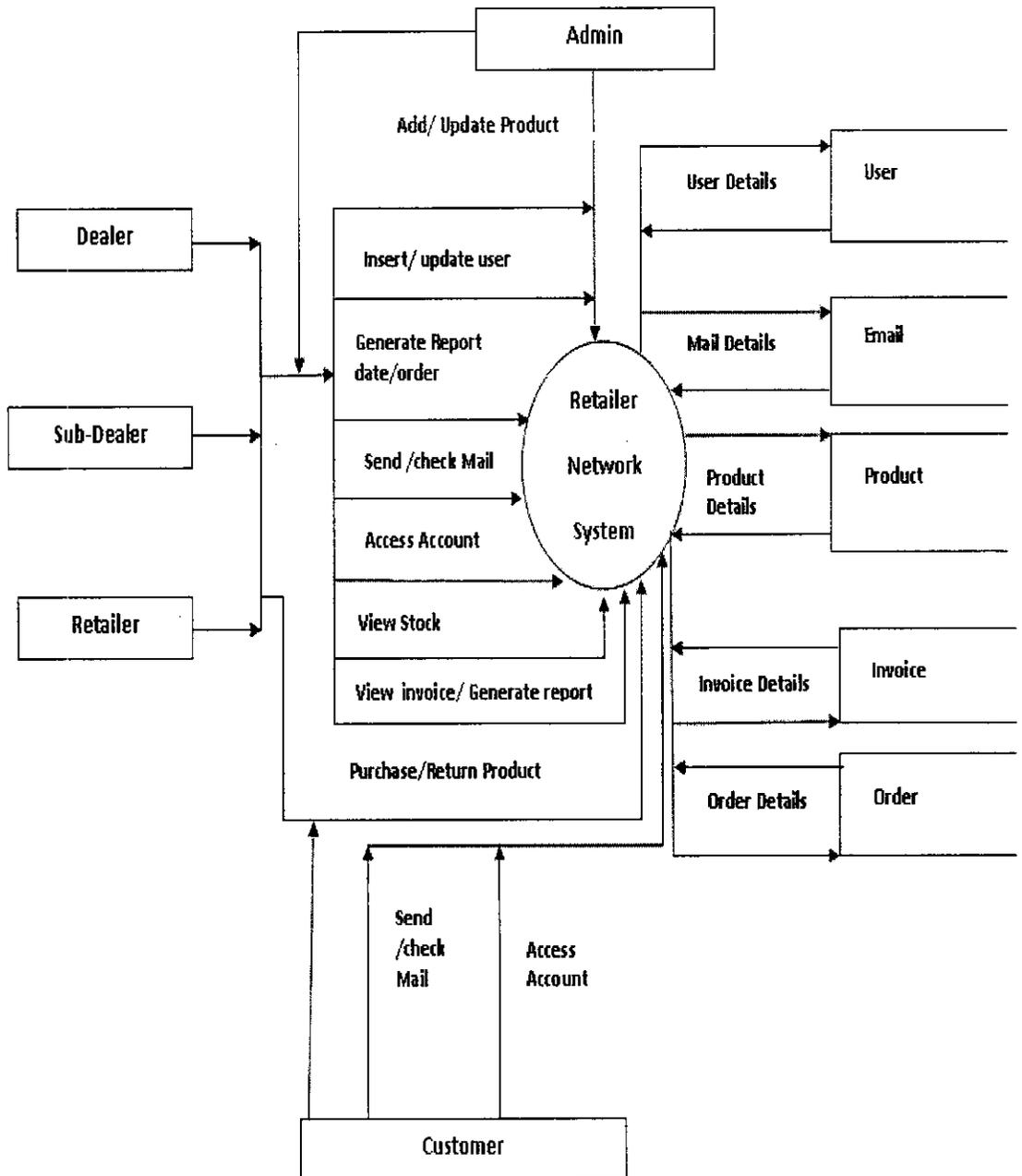


Figure 5.7: Data Flow Diagram - RNS

5.4 ENTITY RELATIONSHIP DIAGRAM

An Entity-Relationship Model (ERM) is an abstract and conceptual representation of data. Entity-relationship modeling is a database modeling method, used to produce a type of conceptual schema or semantic data model of a system, often a relational database, and its requirements in a top-down fashion. Diagrams created using this process are called entity-relationship diagrams.

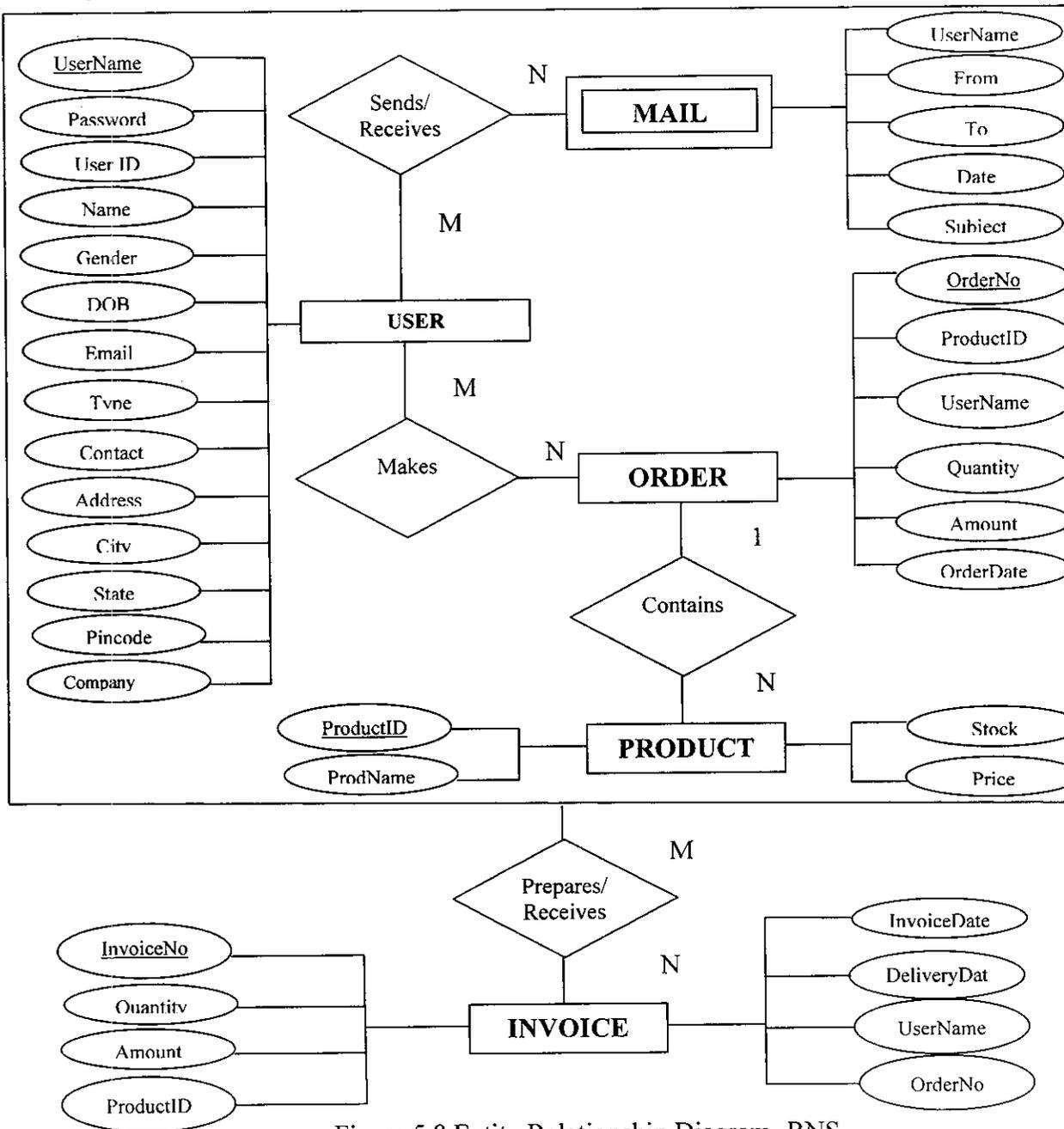


Figure 5.8 Entity Relationship Diagram -RNS

CHAPTER 6

TABLE DESIGN

A table is a data structure to organize information, just as it is on paper. It organizes the information about a single topic into rows and columns. For instance, the database stores information of users, their order and invoice details and their stock details. The table structures represented in this chapter is converted into MS SQL tables.

6.1 TABLES

6.1.1 User Table

The User table is used to store the user information despite the role they play as Dealer/Sub Dealer/Retailer/Customer. The user information is retrieved mostly giving the UserName or UserID. The User table has the table structure as shown in Table 6.1.

S.NO	Field	Data type	Size	Description
1	CmpName	Varchar	30	Company Name of the User
2	UserID	Number	4	Identification Number
3	UserName(Pk)	Varchar	15	User ID For the user
4	Password	Varchar	10	Password
5	Name	Varchar	25	Name of the User
6	Gender	Varchar	8	Gender Details
7	Dob	Varchar	10	Date of Birth of the User
8	Email	Varchar	30	User Email ID
9	Type	Varchar	15	Type of the User

10	Contact	Varchar	10	Mobile number
11	Address	Varchar	20	Address details
12	City	Varchar	20	City Name
13	State	Varchar	20	State Name
14	Pincode	Varchar	10	Pin code of city of customer

Table 6.1

6.1.2 Mail Table

The mail table is used to store the mails send by the various users. They are retrieved by using the UserName of the mails. The Mail table has the table structure as shown in Table 6.2.

S.No	Field Name	Data Type	Size	Description
1	UserName(fk)	Varchar	15	User ID for the User
2	EFrom	Varchar	100	Address of the Receiver
3	ETo	Varchar	100	Address of the Sender
4	Date	Varchar	13	Date on which email send
5	Subject	Varchar	1000	Message of the email

Table 6.2

6.1.3 Product Table

The product table contains the details of various products available in this system. The product details are retrieved by using the productid. The product table has the table structure as shown in Table 6.3.

S.No	Field Name	Data Type	Size	Description
1	Productid(pk)	Number	4	Particular Product ID
2	ProdName	Varchar	30	Name of the product.
3	Price	Float	8	Price of the product
4	Stock	Number	10	Total Quantity of product.

Table 6.3

6.1.4 Order Table

This order table contains the details of various products ordered by the users with the date of ordering. The details are retrieved by using the OrderNo. The Order table has the table structure as shown in Table 6.4.

S.NO	Field	Data type	Size	Description
1	OrderNo(pk)	Varchar	10	Order number
2	UserName(fk)	Varchar	15	User Name
3	OrderDate	Varchar	13	Product Order Particular Date
4	Productid(fk)	Number	4	Particular Product ID
5	Quantity	Number	4	Particular Product Quantity
6	Amount	Float	8	Product Total Amount

Table 6.4

6.1.5 Invoice Table

This Invoice table contains the details of various invoices for the users. The details are retrieved by using the InvoiceNo. The Invoice table has the table structure as shown in Table 6.5

S.NO	Field	Data type	Size	Description
1	InvoiceNo(pk)	Varchar	10	Invoice number
2	UserName(fk)	Varchar	15	User Name
3	InvoiceDate	Varchar	13	Product Invoice Particular Date
4	Productid(fk)	Number	4	Particular Product ID
5	OrderNo(fk)	Varchar	10	Order Number of a product
6	Quantity	Number	4	Particular Product Quantity
7	Total Amount	Number	10	Product Total Amount
8	Delivery Date	Varchar	15	Date of the delivery of product

Table 6.5

6.2 TABLE RELATIONSHIP

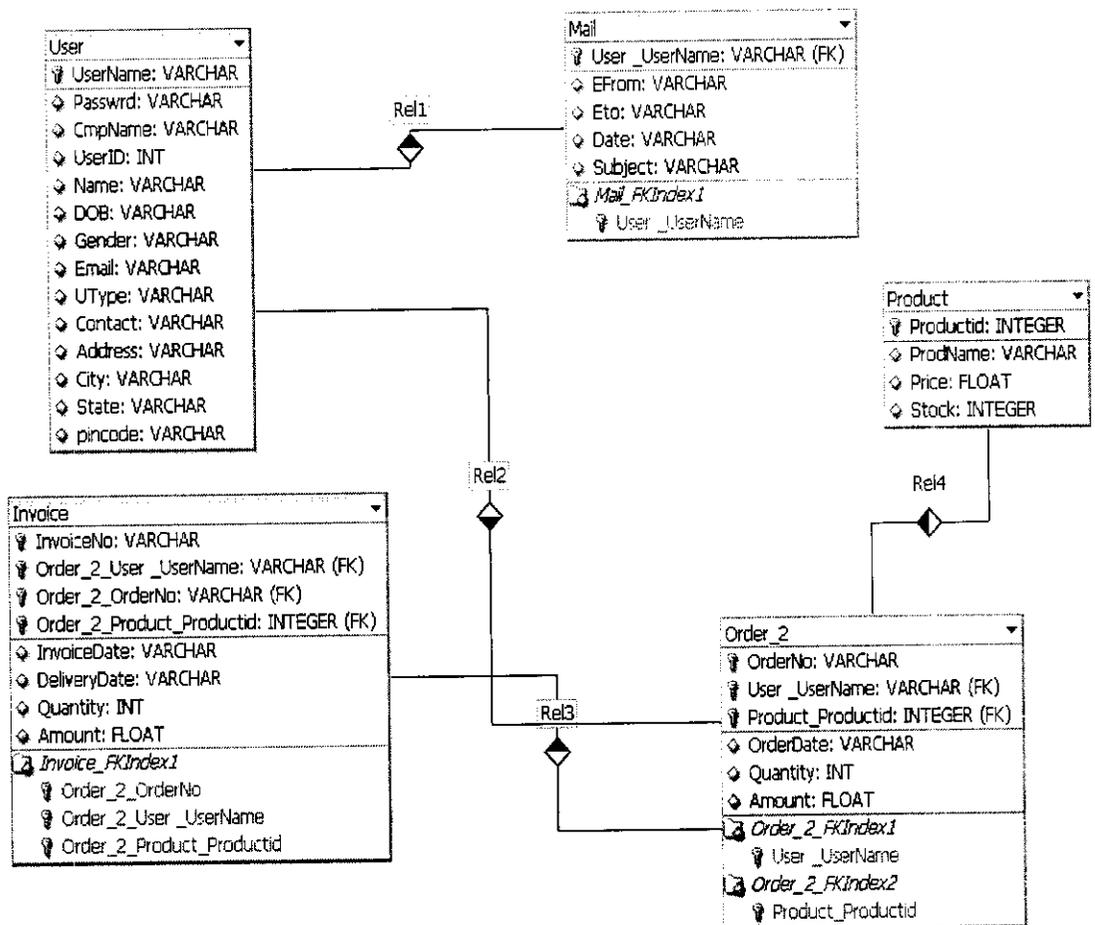


Figure 6.1 Table Relationship - RNS

CHAPTER 7

SYSTEM DEVELOPMENT

7.1 INTRODUCTION

System development is a series of operations performed to manipulate data to produce output from computer system. This aim at translating the design of the system produced during the design phase into code in user programming language. A modular approach is used for the development of the software.

The development phase for the project was created from the specifications created during the design phase. A principal activity of the development phase is coding and testing the computer program that make up the computer program component of the overall system. Other important activities include implementation, planning, equipment acquisition and system testing. The development phase concludes with the report and review.

7.2 MODULE DESCRIPTION

The module description is based on different roles using the system and basically defines the activities performed by the particular role:

- ✓ Admin Module
- ✓ Dealer Module
- ✓ Sub Dealer Module
- ✓ Retailer Module
- ✓ Customer Module

7.2.1 Admin Module

The Administrator logged in can check/send mails and edit his account. The administrator is provided with facility of adding/updating new products in the

database and also the privilege of adding/updating dealers. The administrator can view his stock and generate dealer reports based on order or date. Dealer Invoice Reports can also be generated by the administrator.

7.2.2 Dealer Module

The dealer logged in can check/send mails and edit his account. The dealer is provided with facility of purchasing/returning products and also the privilege of adding/updating sub dealers. The dealer can view his stock and generate dealer reports based on order or date. Sub-Dealer Invoice Reports can also be generated by the dealer.

7.2.3 Sub Dealer Module

The sub-dealer logged in can check/send mails and edit his account. The sub-dealer is provided with facility of purchasing/returning products and also the privilege of adding/updating retailers. The sub-dealer can view his stock and generate sub-dealer reports based on order or date. Retailer Invoice Reports can also be generated by the sub-dealer.

7.2.4 Retailer Module

The retailer logged in can check/send mails and edit his account. The retailer is provided with facility of purchasing/returning products and also the privilege of adding/updating customers. The retailer can view his stock and generate retailer reports based on order or date. Customer Invoice Reports can also be generated by the retailer.

7.2.5 Customer Module

The Customer logged in can check/send mails and edit his account. The Customer is provided with facility of purchasing/returning products.

7.3 FEATURES

Mails

This option can be selected to display mails for the user from the database. This system has also the option to send mails to other users of the system.

Product

This option allows the administrator to add new products, delete or update or view existing products.

Order

This option can be used to place orders based on user login and also to view the ordered reports.

Invoice

This option is used to generate invoice based on user logged in. It also provides the option to generate reports.

Stock

The option allows viewing stock of the user logged in.

Reports

This option is used to generate reports based on user logged in. Two modes of report can be generated.

- By Date
- By Order

User account

This option allows user to view his details. The user also can update his personal information.

User Information

This option allows the logged in users to create or update or delete or view information of his sub ordinates. Eg. Incase of dealer logged in he can view or update or add or delete sub-dealer.

CHAPTER 8

SYSTEM TESTING

The testing process focuses on the logical internals of the software assuring that all the statements have been tested and also on the functional externals by conducting tests to uncover errors. This process also ensures that defined input will produce actual results that agree with required results.

8.1 UNIT TESTING

This is the first level of testing. It focuses on the modules independently of one another to locate errors. In this software, all the modules from three perspectives are tested and error list was prepared.

8.2 INTEGRATION TESTING

The main objective of integration testing is to take unit tested modules and to build a program structure that has been dictated by design. Once all modules are tested, they are combined together for integration testing. In this software the integration of three different perspective modules are test and error list was prepared.

8.3 VALIDATION TESTING

Validation succeeds when the software works in a manner expected by the customer. Software validation is achieved through a series of black box tests that demonstrate conformability with requirements. After validation testing one of the two possible conditions exist.

- The functions conform to the specification and are accepted. The modules in the project conform to the specifications.
- Deviation from the specification is found and a deficiency list is created.

Validation testing proved to be a highly successful one in this case as many hidden bugs were detected and corrected.

8.4 SYSTEM TESTING

System Testing is a series of tests whose primary purpose is to fully exercise the computer-based system. It begins when integration testing is completed. This software was also subjected to testing by giving inputs in wrong format. Bugs were detected and corrected.

8.5 TEST CASE

S. No	Page	Typical test scenario	Expected Result	Actual Result	Status
1	Login	Login with correct user name and password	Show the home with respect to the user logged in	User's Home page	Pass
2	Login	Login with incorrect user name and password	Show error as Enter correct user name	Show error as Incorrect user name	Pass
3	Login	Login with correct user name and incorrect password	Show error as Enter the correct password.	Show error as Enter the correct password.	Pass
4	Admin Account page	Enter the Email address	Show error as Enter Valid Email Address(If the Email is not in proper format)	Show Error message as Enter Valid Email Address	Pass
5	Admin Order Report	Enter the Dealer Name	Show Error as Enter the Correct Dealer's User	Show Error as Enter the correct	Pass

S. No	Page	Typical test scenario	Expected Result	Actual Result	Status
	Page		Name(If Incorrect Name is entered)	Dealer's User Name	
6	Dealer Order Report Page	Enter the SubDealer Name	Show Error as Enter the Correct SubDealer's User Name(If Incorrect Name is entered)	Show Error as Enter the correct SubDealer's User Name	Pass
7	SubDealer Order Report Page	Enter the Retailer Name	Show Error as Enter the Correct Retailer's User Name(If Incorrect Name is entered)	Show Error as Enter the correct Retailer's User Name	Pass
8	Admin Order Report Page	Enter the Customer Name	Show Error as Enter the Correct Dealer's User Name(If Incorrect Name is entered)	Show Error as Enter the correct Dealer's User Name	Pass
9	Registration Form	Enter the password in Retype Password text box	Show error as Retype Password (If Password and retype password text mismatches)	Show Error as Retype Password	Pass
10	Registration Form	Enter the Email address	Show error as Enter Valid Email Address(If the Email is not in proper format)	Show Error message as Enter Valid Email Address	Pass
11	Updating	Enter the Email	Show error as	Show Error	Pass

S. No	Page	Typical test scenario	Expected Result	Actual Result	Status
	Form	address	Enter Valid Email Address(If the Email is not in proper format)	message as Enter Valid Email Address	
12	My Account Form	Enter the password in Retype Password text box	Show error as Retype Password (If Password and retype password text mismatches)	Show Error as Retype Password	Pass
13	My Account Form	Enter the Email address	Show error as Enter Valid Email Address(If the Email is not in proper format)	Show Error message as Enter Valid Email Address	Pass

CHAPTER 9

CONCLUSION

The Project was completed and executed successfully, with all the features being tested positively with a few minor bugs found and fixed then and there. A valuable collection of coding standards, design and development guidelines were used in development. This system provides a common platform for all users to perform activities based on their roles. All these activities collectively aid in the smooth functioning and management of the entire system.

This project has developed with maximum care. It has been developed with an eye on expansion and flexibility at every stage of all the modules. This is, developed to meet almost all the requirements of the user. This will replace the existing manual system. This is more advantageous over the existing system as it reduces paper work, time consumption and produces accurate and all kinds of detailed reports.

Further enhancements can be made at any later point of time. Reports can be represented in all-necessary perspectives. This system has scope for reusability, as it can be extended to support any user involved in wholesale of products and who has their enterprise spread across places. In the upcoming versions, new features required for RNS can be added.

CHAPTER 10

APPENDICES



Retailer Network Systematize



[Search](#)

[Contact Us](#)

[About Us](#)

RETAILER NETWORK

Retail-Index contains all key information about national and international retail chains including data on turnover, numbers of hypermarkets, supermarkets, discounters, department stores, specialty stores etc. Rankings and profiles are given in the same style for all retail companies, sectors and countries. Advanced Search on the profile provides with the name, headquarter address, phone, fax, management, company website, turnover development, banners, number of stores and much other relevant information.

All data are updated frequently adding new sectors, countries and profiles. The total number of retailers per sector and country can be seen by using the scroll-down menu at the top. Securing the retail computing environment has never been more important, or more necessary, than it is today. Store technology is shifting from closed, proprietary systems to open, flexible systems that allow greater and more meaningful interaction with the customer, headquarters, and partners, as well as better control and understanding of store operations. The main process of this system is to give up to date information about the dealers and about stock. It is very easy to handle. In this system there is a separate user ID for all customers,retailers,sub dealers and the dealer. It is a full featured secured system. No one can open another one's ID without the knowledge of

[Admin/Dealer/Subdealer/ Retailer/Customers](#)

[Click Here to Login](#)

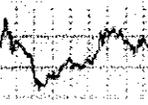
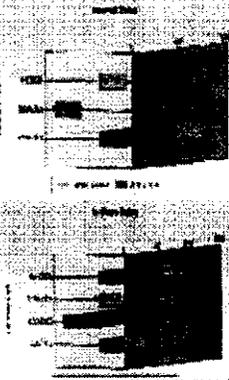
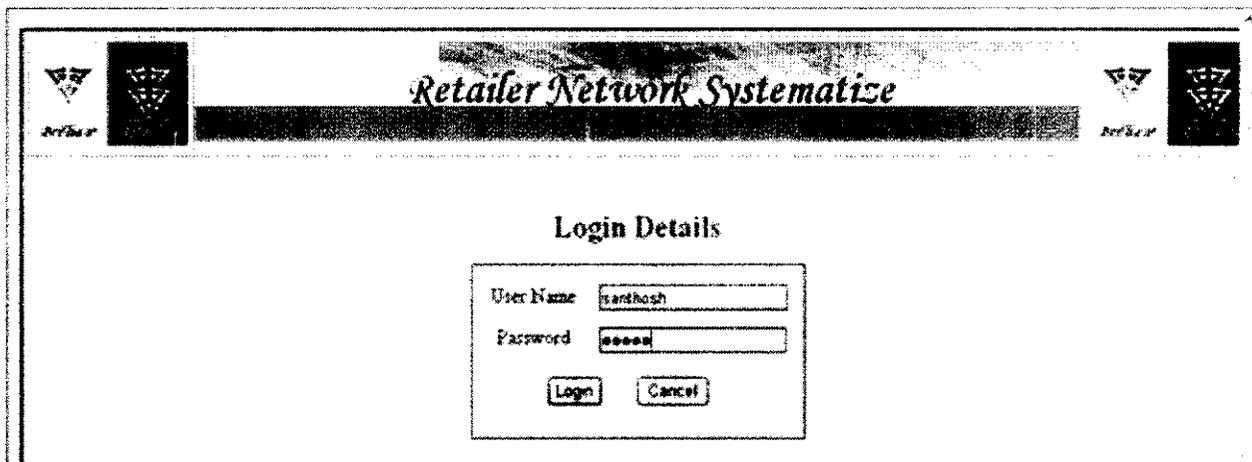



Figure A.1 Home Page



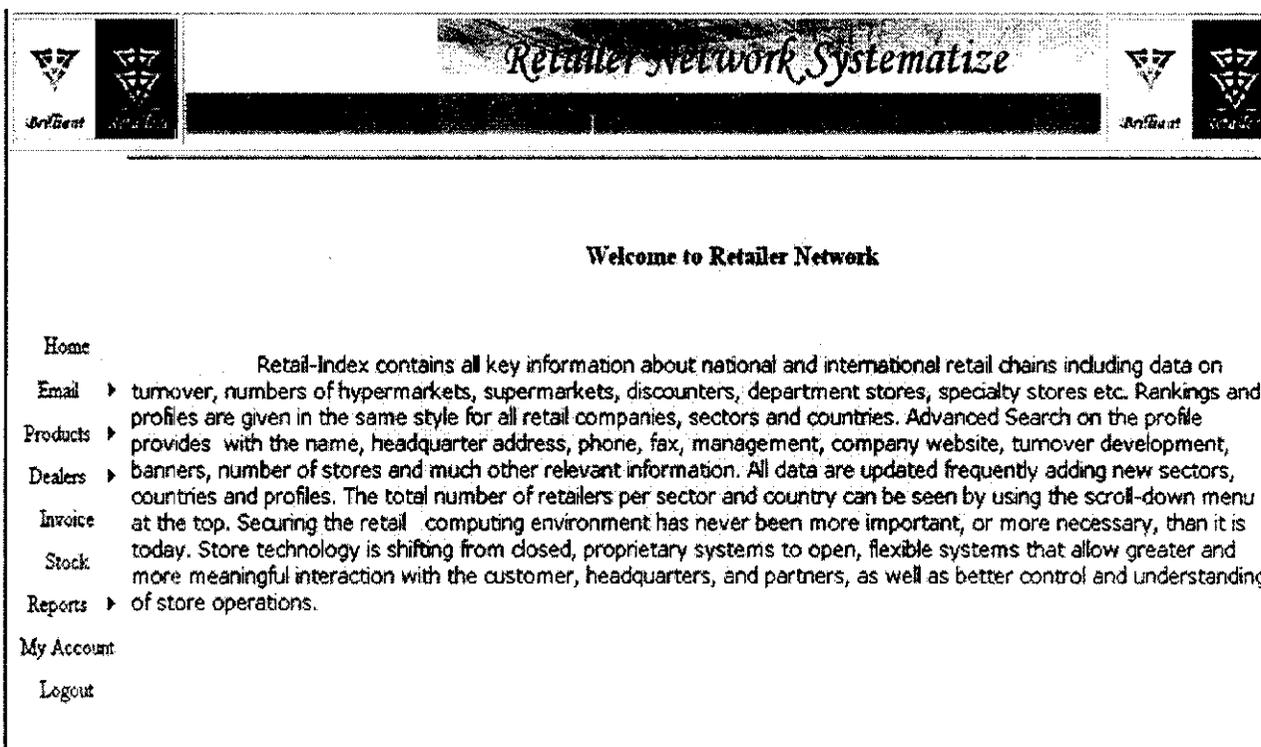
Retailer Network Systematize

Login Details

User Name:

Password:

Figure A.2 Login Screen



Retailer Network Systematize

Welcome to Retailer Network

Home

Email ▶ Retail-Index contains all key information about national and international retail chains including data on turnover, numbers of hypermarkets, supermarkets, discounters, department stores, specialty stores etc. Rankings and profiles are given in the same style for all retail companies, sectors and countries. Advanced Search on the profile provides with the name, headquarter address, phone, fax, management, company website, turnover development, banners, number of stores and much other relevant information. All data are updated frequently adding new sectors, countries and profiles. The total number of retailers per sector and country can be seen by using the scroll-down menu at the top. Securing the retail computing environment has never been more important, or more necessary, than it is today. Store technology is shifting from closed, proprietary systems to open, flexible systems that allow greater and more meaningful interaction with the customer, headquarters, and partners, as well as better control and understanding of store operations.

Products ▶

Dealers ▶

Invoice

Stock

Reports ▶

My Account

Logout

Figure A.3 Admin Home Page



Retailer Network Systematize



INBOX

- Home
- Email ▶ Inbox
- Products ▶ Send Mail
- Dealers ▶
- Invoice
- Stock
- Reports ▶
- My Account
- Logout

From	Message	Time	View
f@gmail.com	Mail	4/21/2009 5:09:13 PM	view
f@gmail.com	Mail	4/29/2009 5:09:31 PM	view
f@gmail.com	Return	5/31/2009 2:56:20 PM	view

Dealer sathish returned the product keyboard, Qty = 5 due to damaged

[Reply](#)

Figure A.4 Email Inbox Form



Retailer Network Systematize



OUTBOX

- Home
- Email ▶
- Products ▶
- Dealers ▶
- Invoice
- Stock
- Reports ▶
- My Account
- Logout

From:

To:

Date:

Subject:

Msg:

[Send mail](#)

Figure A.5 Email Outbox Form

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address http://localhost:1346/New_Retailer/ClientHome.aspx Go Links

Brilliant Retailers *Retailer Network Systematize* **Brilliant Retailers**

Home

Email ▶

Products ▶

Dealers ▶

Invoice

Stock

Reports ▶

My Account

Logout

Product Details

ProductID	<input type="text" value="23"/>
ProductName	<input type="text" value="HeadPhones"/>
Opening Stock	<input type="text" value="100"/>
Price (per piece)	<input type="text" value="400"/>

Done Local intranet

Figure A.6 Product Create Form




Retailer Network Systematize




Home

Email ▶

Products ▶

Dealers ▶ Create
View

Invoice Update

Stock Delete

Reports ▶

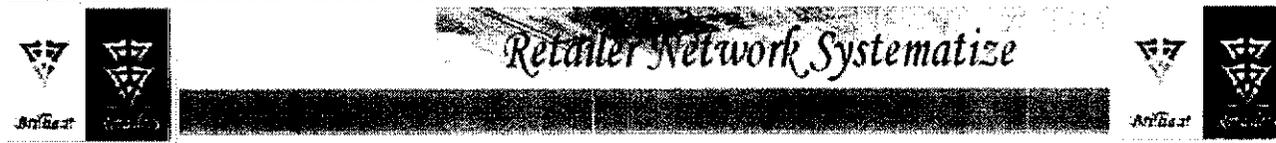
My Account

Logout

Dealer Viewing Details

ID	2
Company Name	A to Z solutions
Name	Dhanasekaran
User Name	09dt02
Gender	<input checked="" type="radio"/> Male <input type="radio"/> Female
Dob	20/03/1985
Email	dhana@gmail.com
Contact Number	9856487560
Address	17 Ramar Extension
City	Erode
State	Tamilnadu
Pincode	639568

Figure A.7 Dealer View Form



Sub Dealer Registration Details

<ul style="list-style-type: none"> Home Email ▶ Sub Dealers ▶ Purchase ▶ Invoice Stock Reports ▶ My Account Logout 	<p>ID <input type="text" value="3"/></p> <p>Company Name <input type="text" value="Lankan Industries"/></p> <p>Name <input type="text" value="Chandran"/></p> <p>User Name <input type="text" value="09s003"/></p> <p>PassWord <input type="password" value="*****"/></p> <p>ReType Password <input type="password" value="*****"/></p> <p>Gender <input checked="" type="radio"/> Male <input type="radio"/> Female</p> <p>Dob <input type="text" value="24/01/1980"/></p> <p>Email <input type="text" value="chandru@gmail.com"/></p> <p>Contact Number <input type="text" value="9565845262"/></p> <p>Address <input type="text" value="67/321, Elangoran street"/></p> <p>City <input type="text" value="Madurai"/></p> <p>Pincode <input type="text" value="642253"/></p> <p style="text-align: center;"><input type="button" value="Save"/></p>
---	---

Figure A.8 Sub-Dealer Registration Form

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address http://localhost:1346/New_Retailer/SubDealerHome.aspx

Brilliant

Retailer Registration Details

Home	ID	<input type="text" value="3"/>
Email ▶	Company Name	<input type="text" value="Qwerty International"/>
Retailers ▶	Name	<input type="text" value="Murugan"/>
Purchase ▶	User Name	<input type="text" value="09rtr03"/>
Invoice	PassWord	<input type="password" value="....."/>
Stock	ReType Password	<input type="password" value="....."/>
Reports ▶	Gender	<input checked="" type="radio"/> Male <input type="radio"/> Female
My Account	Dob	<input type="text" value="29/01/2006"/>
Logout	Email	<input type="text" value="murug@gmail.com"/>
	Contact Number	<input type="text" value="9548756910"/>
	Address	<input type="text" value="90/10 A,Seventh cross street"/>
	City	<input type="text" value="Coimbatore"/>
	Pincode	<input type="text" value="641205"/>

Local Intranet

Figure A.9 Retailer Registration Form

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address http://localhost:1346/New_Retailer/RetailerHome.aspx

Briliant

Customer Registration Details

Home	ID	<input type="text" value="3"/>
Email ▶	Name	<input type="text" value="Amuthan"/>
Customers ▶	User Name	<input type="text" value="09cus03"/>
Purchase ▶	PassWord	<input type="password" value="....."/>
Invoice	ReType Password	<input type="password" value="....."/>
Stock	Gender	<input checked="" type="radio"/> Male <input type="radio"/> Female
Reports ▶	Dob	<input type="text" value="14/08/1975"/>
My Account	Email	<input type="text" value="amuth@gmail.com"/>
Logout	Contact Number	<input type="text" value="9874561259"/>
	Address	<input type="text" value="9,opposite to lakshmi mills"/>
	City	<input type="text" value="coimbatore"/>
	Pincode	<input type="text" value="641002"/>

Local intranet

Figure A.10 Customer Registration form



Dealer Purchase Order Details

Order No: Admin:
 Order Date:

Product: Qty: Rate: Amount:

OrderNo	ProdId	Productname	Qty	Rate	Amount	DId	id
ord08	7	Shampoo	20	23.90	478.00	1	1

Total Amount:

Figure A.11 Purchase Order Form


1/1
Main Report
100%
Business Objects

DEALER ORDER FORM

Order No: ord08 Order Date: 6/8/2009

To Address: Frank Industries
 19,anna salai
 Chennai - 600028

Ship To: santhosh
 19,TNagar
 Chennai - 600026

ProductName	Quantity	Rate	Amount
Shampoo	20	23.90	478.00
Total:			478.00

Figure A.12 Purchase Order Report Screen

Retailer Network Systematize

- Home
- Email ▶
- Sub Dealers ▶
- Purchase ▶
- Invoice
- Stock
- Reports ▶
- My Account
- Logout

Purchase Return Details

Product	Shampoo ▼	Qty	2
Report	Damaged		
<input type="button" value="Return Product"/>		<input type="button" value="Report"/>	

Figure A.13 Purchase Returns Form

1/1 100%

PURCHASE RETURN REPORT

- Home
- Email ▶
- Sub Dealers ▶
- Purchase ▶
- Invoice
- Stock
- Reports ▶
- My Account
- Logout

Return From:

Date: 6/8/2009

sathish
19, TNagar
Chennai - 600026

ProductID	Product Name	Quantity	Unit Rate	Amount
07	Shampoo	2	23.90	47.80

Reason:

Dealer sathish returned the product Shampoo, Qty = 2 due to Damaged

Figure A.14 Purchase Returns Report Form




Retailer Network Systematize




Dealer Invoice Details

Invoice No

Invoice Date

Dealer Name

Order No

OrderNo	ProdId	Productname	Qty	Rate	Amount	DId	id
ord08	7	Shampoo	20	23.90	478.00	1	1

Home

Email ▶

Products ▶

Dealers ▶

Invoice

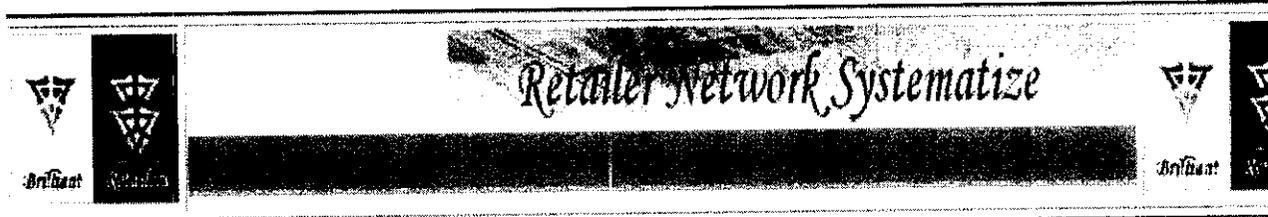
Stock

Reports ▶

My Account

Logout

Figure A.15 Invoice Form



1/1
Main Report
100%
Business Objects

INVOICE REPORT

[Home](#)
[Email](#) ▶
[Products](#) ▶
[Dealers](#) ▶
[Invoice](#)
[Stock](#)
[Reports](#) ▶
[My Account](#)
[Logout](#)

Frank Industries

Maheshwaran
 19,anna salai
 Chennai - 600028

Date : 6/8/2009

Invoice No : inv08

Delivery Date: 6/10/2009

SHIP TO:

sathish
 19,TNagar
 Chennai - 600026

ProductID	Product Name	Quantity	Unit Price	Amount
7	Shampoo	20	23.90	478.00
Total:				478.00

Figure A.16 Invoice Report Form

	ProdId	ProdName	OpnStock
Home	19	pen	100
Email ▶	20	petroleum goods	100
Products ▶	03	powder	50
Dealers ▶	04	slints	17
Invoice	05	pen drive	15
Stock	06	Soap	48
Reports ▶	07	Shampoo	45
My Account	18	mobile	5
Logout			

Figure A.17 Stock Form




Retailer Network Systematize




Home
From To

Email ▶



1 / 1

Main Report ▼

100% ▼


Products ▶
Dealers ▶

Invoice
6/6/2009

Stock

<u>OrderNo</u>	<u>OrderDate</u>	<u>ClientID</u>	<u>Total</u>	<u>Dealid</u>
ord01	4/04/2009	1	256.00	1
ord02	4/29/2009	1	2,803.00	1
ord03	4/29/2009	1	2,365.00	1
ord04	4/29/2009	1	300,000.00	1
ord05	5/1/2009	1	4,500.00	1

Reports ▶

My Account

Logout

Figure A.18 Report By Date Form

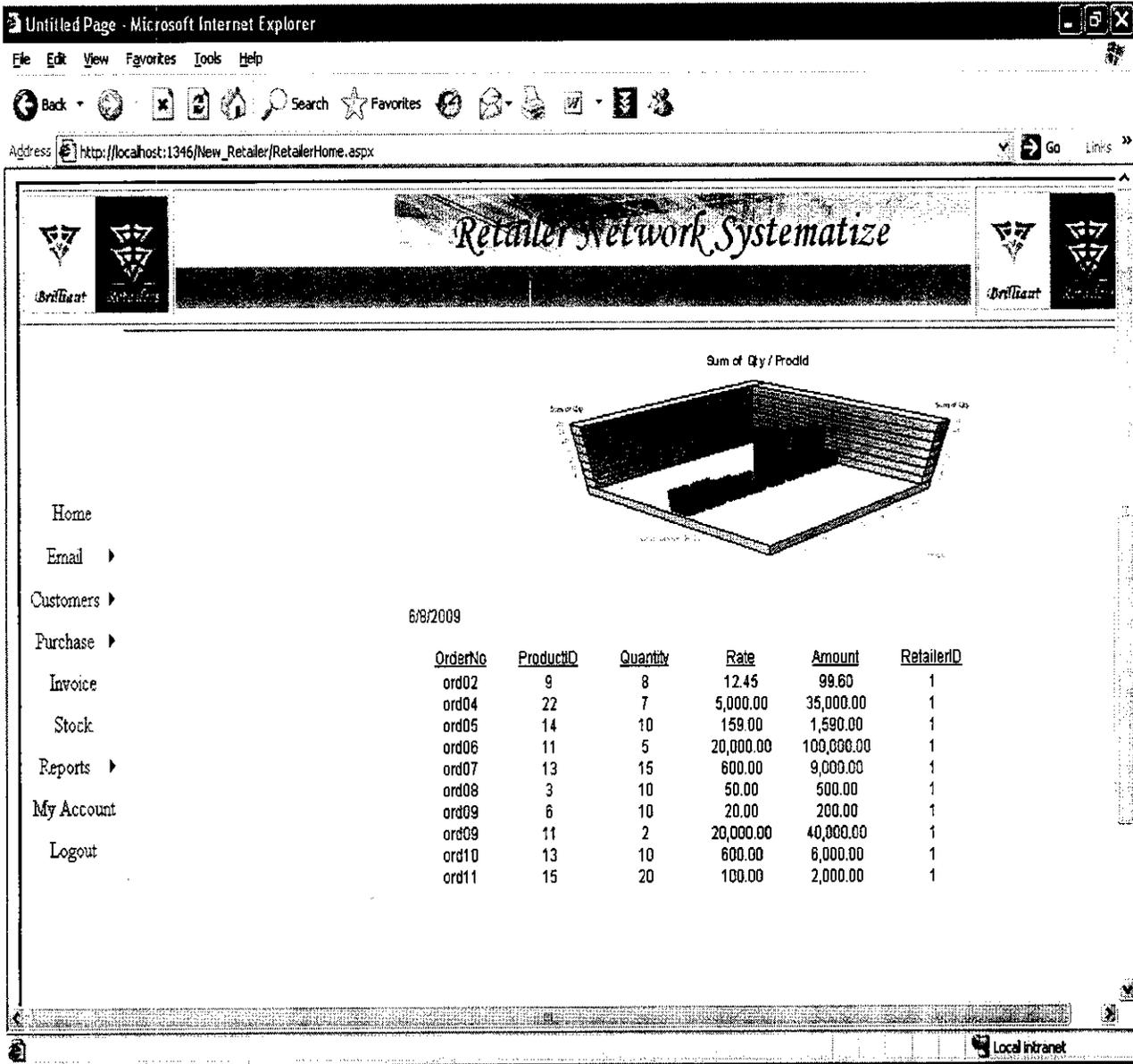


Figure A.19 Report By Order Screen



Contact Us

Address:

Frank Industries
19,anna salai
Chennai - 600028
Tamilnadu

Email:

sanfrank@gmail.com

Phone:

9874561580
044 - 2240345

Fax:

+ 91 - 0422 -
2696913 Ext 28

[About Us](#)

[Home](#)

CONTACT US!



Figure A.20 Contact Us Screen

Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: http://localhost:1346/New_Retailer/aboutus.aspx

Retailer Network Systematize

About Us

We prosper with you Be a part of us

Welcome to Retailer Network Systematize

The Retailer Network systematize was started long back in 1985 in Chennai. The process involved in the retailer business was handled manually for 24 years. Growing in quality and taking value of time into consideration, from 2009 the business has transferred the business process on the web. Retailer Network Systemize has recently bagged the "Largest Retailer Deal" ever done by any South Indian Retailing company.

OUR ONLY GOAL IS TO RETAIN CUSTOMERS BY PROVIDING QUALITY SERVICE.



Done Local intranet

Figure A.21 About Us

CHAPTER 10

REFERENCES

BOOKS REFERENCE

1. Robert Patton, Mesabaha Ahamada, Jonothon Ortiz, Wei Meng Lee, "Asp.Net Web Developer's Guide", Syngress, 2002.
2. Cameron Wakefield, Adrian Turtschi, Saurabh Nandu, Greg Hack, ebrary, Inc, Joseph Albahari, Wei Meng Lee, Jason Werry, "C#.net Web developer's guide", Syngress, 2002.
3. Stephen Walther, "ASP.NET unleashed", Sams Publishing, 2003.
4. Allen G.Taylor, SQL For Dummies, Fifth edition, Wiley Publications.

ONLINE REFERENCE

5. <http://www.w3schools.com/>
6. <http://www.sqlservercentral.com/>
7. www.dotnet-guide.com
8. <http://msdn.microsoft.com>