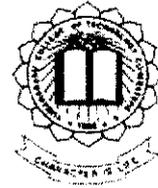




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## **B2C ARCHITECTURE USING WEB SERVICE**

By

**G. DHARINI**

**(Reg. No: 71204621008)**

Of

**KUMARAGURU COLLEGE OF TECHNOLOGY**

**COIMBATORE-641006**

**(Affiliated to Anna University)**

**A PROJECT REPORT**

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In partial fulfillment of the requirements

For the award of the degree

Of

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COIMBATORE-641006

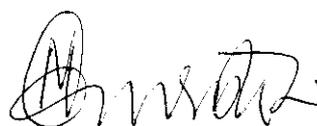
Department of Computer Applications

**BONAFIDE CERTIFICATE**

Certified that this project report titled **B2C ARCHITECTURE USING WEB SERVICE** is the bonafide work of **Ms. G. DHARINI (Reg.No: 71204621008)** who carried out the research under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.



**PROJECT GUIDE**



**HEAD OF THE DEPARTMENT**

Submitted for the University Examination held on 02/07/2007



**INTERNAL EXAMINER**



**EXTERNAL EXAMINER**



# **SRM Systems and Software Ltd.**

# 24, G.N.Chetty Road, T.Nagar, Chennai - 600 017 India  
Tel. : 91-44-28217918, 28269471, 42118632 Fax : 2828 3359

08-June-2007

## **CERTIFICATE**

This is to Certify that the Project work entitled “ **B2c Architecture Using Web Service**” was Analyzed, Designed and Developed by Ms **G.DHARINI** Kumaraguru College of Technology, Coimbatore M.C.A Computer Application has been carried out in our organization from December 2006 to May 2007. This project has been developed in **Asp.Net** using **VB.Net**.

We wish her success in all her future endeavors.

For SRM Systems and Software Limited

Manager - Project

## ABSTRACT

The project titled '**B2C ARCHITECTURE USING WEB SERVICE**' is basically an online shopping system for electronic products. This project entails a business to customer e-commerce solution stimulating a **3-tier web architecture** which makes use of **ASP .NET** as the **front end**, a **Web Service** as the **middleware** and **Microsoft SQL server** as the **back end**.

The project consists of the following modules:

- ❖ Administration Operations For Manipulating Products
- ❖ Customer Registration And Login Authentication
- ❖ Shopping Cart Operations
- ❖ FAQs And Responses
- ❖ Payment operations
- ❖ Order Reports and Delivery

**Administration operations** consist of login authentication, adding, modifying and deleting categories, sub categories and items, entering order details, and viewing various reports. **Customer registration and login authentication** deals with the various login operations that the customer can perform before entering into the site. These operations include registration, password recovery, and validation of user ID and password for accessing the site. **Shopping cart operations** consist of adding, modifying and deleting items for purchase. The **FAQs and responses** module help customers to post their queries to the site administrator and view existing FAQ responses provided by him. **Payment operations** include the credit card, banker's cheque and demand draft payment modes and their validation. **Order reports and delivery** module includes generation of reports based on order date, order number and category name. It also includes entering of details like draft/cheque number, their issue dates, order delivery date, delivery status and payment status.

## ACKNOWLEDGEMENT

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**LIST OF SYMBOLS AND ABBREVIATIONS**

ISO	-	International Standards Organization
SEI	-	Software Engineering Institute
CMM	-	Capability Maturity Model
ASP	-	Active Server Pages
DFD	-	Data Flow Diagram
SQL	-	Structured Query Language
IIS	-	Internet Information Services
CLR	-	Common Language Runtime
COM	-	Component Object Model
WSDL	-	Web Service Description Language
XML	-	Extensible Markup Language
SOAP	-	Simple Object Access Protocol
B2C Market	-	Business to Customer Market
FAQ	-	Frequently Asked Questions
HTTP	-	Hypertext Transfer Protocol
IDE	-	Integrated Development Environment
GUI	-	Graphical User Interface
DLL	-	Dynamically Linked Library

## CHAPTER 1

### INTRODUCTION

#### 1.1 OVERVIEW OF THE PROJECT

This project entails a B2C e-commerce solution stimulating a 3-tier web architecture which makes use of ASP .NET and Web Service in a Microsoft .NET framework consisting of a complete set of tools and strategies designed to help companies cost effectively.

Using B2C web applications, customers can make effective use of the system to fulfill their needs, saving time and effort. A B2C market is one in which online retailers do not need to have products physically in stock, in a network of retail outlets to sell them directly to customers.

The concept combines an advanced web technology (ASP .NET) and a user friendly interface (Web Service) to create a comprehensive application that will help customers to utilize the information on web effectively.

This application concerns an online shopping system. A common database is maintained based on product category for each company supplying the product. A periodic report is generated from the database and sent to the respective email addresses of companies.

This system also has a provision for FAQ's wherein a customer can look for various aspects of a product via the FAQ's posted by various other customers. The customer can also post his own questions regarding products for which appropriate response will be provided by the site administrator.

## 1.2 ORGANIZATION PROFILE

SRM Technologies Private Limited was started in 1998 with a focus towards the Japanese market. Since then, the team has grown and they now are a team of 250 highly skilled and trained professionals offering a dynamic blend of software services and solutions to meet the requirements of clients in Japan and Singapore.

The core competence of SRM Technologies has been in delivering technology solutions in the areas of Embedded Software, Networking Solutions, e-Business solutions and Migration & Legacy Conversion.

SRM Technologies is an ISO 9001 certified company and has acquired the SEI CMM Level 4 certification with its head office in India situated at Chennai.

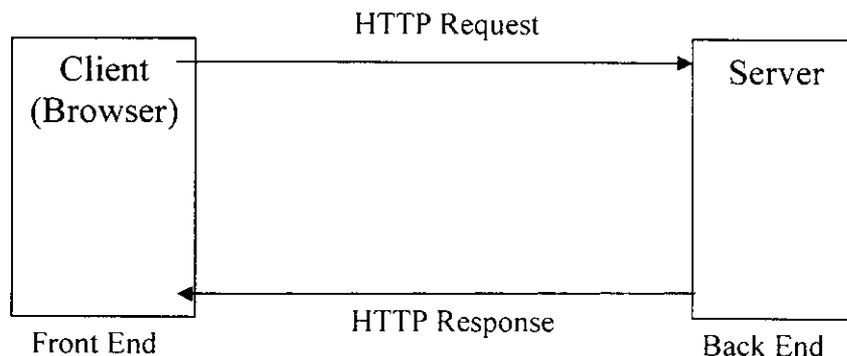
SRM Systems and Software (P) Ltd. is a branch of SRM Technologies which specializes in Software development, Consultancy Services and Application Domain Training.

## CHAPTER 2

### SYSTEM STUDY AND ANALYSIS

#### 2.1 EXISTING SYSTEM

The existing system makes use of either a 1-tier architecture where both the client and server programs reside on the same host, or a 2-tier web architecture which is a client/sever model illustrated as follows:



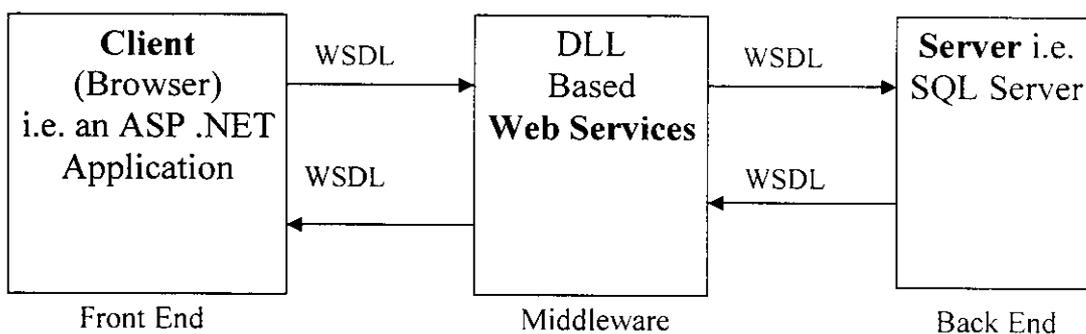
##### 2.1.1 Drawbacks of Existing System

- ❖ The Existing System is considered to be “monolithic” because they combine a variety of different services behind a single proprietary user interface.
- ❖ Monolithic applications take a great deal of time and resources to create. They are often tied to a specific platform or to specific technologies and they can’t be easily extended and enhanced.
- ❖ Projects which need integration of more than one application involve a lot of custom work that’s highly specific to a given scenario. Furthermore, every time you need to interact with another business, you need to start the integration process all over again.
- ❖ Most importantly, units of application logic can’t easily be reused between one application and another.

- ❖ In order to get information from a web application, such as an individual stock quote, you need to access and navigate through the entire web application, locate the correct page, and then perform the required task. There is no way to access information or perform a task without working through the GUI, which can be cumbersome over a slow connection.

## 2.2 PROPOSED SYSTEM

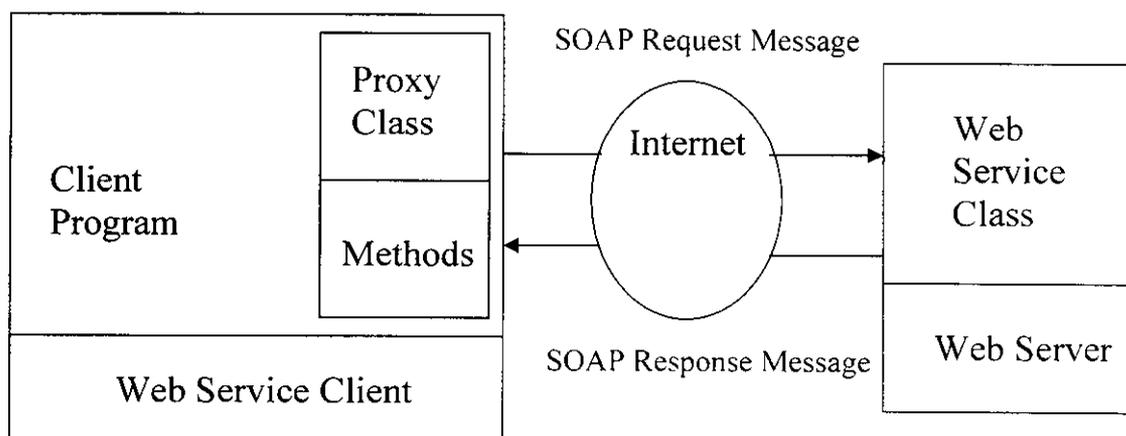
The proposed system makes use of a 3-tier web architecture which consists of a Front End (ASP .NET application), a Middleware (Web Service) and a Back End (SQL Server) illustrated as follows:



### 2.2.1 Advantages of Proposed System

- ❖ Here, communication between tiers takes place through WSDL which makes use of an XML + SOAP protocol.
- ❖ XML describes the structure and content of a document and SOAP standard specifies how a Client (i.e. a Browser) interacts with a Web Service, including details like methods, how parameters and return values should be encoded in a message and what protocol should be used for transmission over internet.
- ❖ SOAP is thus the preferred way to encode information (such as data values) before sending it to or from a Web Service.

- ❖ With COM, developers found that they could develop components in their language of choice and reuse them in a variety of different programming environments, without needing to share source code.
- ❖ Similarly there was not much of a need to export and import information using proprietary file formats.
- ❖ COM thus allowed developers to package functionality into reusable chunks with well- defined interfaces.
- ❖ Web Services enable the same evolution as that of COM with a twist. They are individual units of programming logic that exist on a web server.
- ❖ They can be easily integrated into all sorts of applications, including everything from other ASP .NET applications to simple console (command-line) applications.
- ❖ The twist is that, unlike COM, which is a platform-specific binary standard, Web Services are built on a foundation of open standards.
- ❖ These standards allow Web Services to be created with .NET, but consumed on other platforms or vice versa. Microsoft uses WSDL standard natively in ASP .NET.
- ❖ The root standard for all the individual Web Service standards is XML. Because XML is text-based, Web Service invocations can pass over normal HTTP channels.
- ❖ Communication using Web Services takes place as illustrated below:



## **2.3 FEASIBILITY ANALYSIS**

Feasibility analysis is the measure of how beneficial or practical the development of an information system will be to the organization. Once the problem is explained, information is gathered about the system to test whether the system is viable Technically, Financially and Operationally.

### **2.3.1 Feasibility Considerations**

The key considerations involved in the feasibility analysis are

- Economic
- Technical
- Operational

#### **2.3.1.1 Economic Feasibility**

Economic feasibility is the measure of the cost-effectiveness of the proposed system. The investment to be made in the proposed system must prove a good investment to the organization by returning benefits equal to or exceeding the costs incurred in developing the system.

The proposed benefit of the system outweighs the costs to be incurred during system development. Since, the system does not require procurement of additional hardware facilities, it is economically feasible. In addition, capability of the system to incorporate future enhancement will improve the performance to suit the future need of the user and the fact that a single system can be used for a standalone organization as well as a corporate, improves its marketing prospect.

#### **2.3.1.2 Technical Feasibility**

Technical feasibility takes care of the technical issues that are to be tested to see whether the system is feasible. Technical feasibility analysis makes a comparison between the level of technology available and the technology that

is needed for the project. The level of technology is determined by factors such as the software tools available, the machine environment, platform etc. Since, the resources required for the development of the project are already available in the organization, the project is technically feasible.

### **2.3.1.3 Operational Feasibility**

The resources that are required for implementation are already with the organization. The personnel of the organization already have enough exposure to computers. So the project is operationally feasible.

The proposed system has found encouraging support from the management as it will be of great use to them. The employees of the organization are also committed to have the system operational as it will save time and reduce their workload.

## **2.4 PURPOSE OF THE PROJECT**

- ❖ To help customers utilize the information on web effectively and with great ease ensuring them quick, simple and secured payment transactions online.
- ❖ To maximize reusability of units of application logic, that is achieved via Web Service, which in turn helps the development of new applications at a faster rate.
- ❖ To minimize the cost as much as possible.
- ❖ To support cross-language and platform interoperability via CLR engine, which helps to improve the system portability.
- ❖ To increase the speed of system execution by retrieving the required information quickly based on the customer's demands.
- ❖ To provide ways for the system administrator to generate reports required to know the business status and to mail them to specified email addresses.

## CHAPTER 3

### SYSTEM REQUIREMENT SPECIFICATION

The Software Requirements Specification is a technical specification of requirements for the software product. The goal of software requirements definition is to completely specify the technical requirements for the software products in a concise and unambiguous manner.

The Software Requirements specification is based on the system definition. High-level requirements specified during initial planning, are elaborated and are more specific in order to characterize the features that the software product will incorporate. The requirement specification is primarily concerned with functional and performance aspect of the software product and emphasis is placed on specifying product characteristics without implying how the product will provide those characteristics.

#### 3.1 HARDWARE SPECIFICATION

PROCESSOR	: PENTIUM IV
RAM	: 128 to 512 MB
HARD DISK	: 40 to 80GB
POWER SUPPLY	: 300 V
INTERNET CONNECTION	: 256 KBPS

#### 3.2 SOFTWARE SPECIFICATION

OPERATING SYSTEM	: WINDOWS XP
FRONT END	: ASP .NET USING VB .NET
BACK END	: SQL SERVER
WEB SERVER	: IIS
WEB BROWSER	: INTERNET EXPLORER 5.0

### 3.3 SOFTWARE OVERVIEW

#### 3.3.1 ASP .NET Using VB .NET

##### 3.3.1.1 ASP .NET

The .NET framework is a cluster of different technologies like:

- ❖ **The .NET Languages**, which include C# and Visual Basic .NET, the object-oriented and modernized successor to Visual Basic 6.0.
- ❖ **The Common Language Runtime (CLR)**, the .NET runtime engine that executes all .NET programs, and provides modern services such as automatic memory management, security, optimization, and garbage collection.
- ❖ **The .NET class library**, which collects thousands of pieces of pre-built functionality that you can snap in to your applications. These are sometimes organized into technology sets, such as ADO .NET (the technology for creating database applications) and Windows Forms (the technology for creating desktop interfaces).
- ❖ **ASP .NET**, the platform services that allow you to program web applications and Web Services in any .NET language, with almost any feature from the .NET class library.
- ❖ **Visual Studio .NET**, an optional development tool that contains a rich set of productivity and debugging features.

#### ASP .NET Features:

- ❖ **Better language support**
  - ASP .NET uses the new ADO .NET.
  - ASP .NET supports full Visual Basic, not VBScript.
  - ASP .NET supports C# (C sharp) and C++.
  - ASP .NET supports JScript.

### ❖ **Programmable controls**

- ASP .NET contains a large set of HTML controls. Almost all HTML elements on a page can be defined as ASP .NET control objects that can be controlled by scripts.
- ASP .NET also contains a new set of object oriented input controls, like programmable list boxes and validation controls.
- A new data grid control supports sorting, data paging, and everything you expect from a dataset control.

### ❖ **Event-driven programming**

- All ASP .NET objects on a Web page can expose events that can be processed by ASP .NET code.
- Load, Click and Change events handled by code makes coding much simpler and much better organized.

### ❖ **XML - based components**

- ASP .NET components are heavily based on XML. Like the new AD Rotator, that uses XML to store advertisement information and configuration.

### ❖ **User authentication, with accounts and roles**

- ASP .NET supports forms-based user authentication, including cookie management and automatic redirecting of unauthorized logins. (You can still do your custom login page and custom user checking).

### ❖ **Higher scalability**

- ASP .NET allows for user accounts and roles, to give each user (with a given role) access to different server code and executables.

### ❖ **Increased performance – Compiled code**

- The first request for an ASP .NET page on the server will compile the ASP .NET code and keep a cached copy in memory. The result of this is greatly increased performance.

### ❖ **Easier configuration and deployment**

- Configuration of ASP .NET is done with plain text files.

- Configuration files can be uploaded or changed while the application is running. No need to restart the server.
- No more server restart to deploy or replace compiled code. ASP .NET simply redirects all new requests to the new code.

#### ❖ Not fully ASP compatible

- ASP .NET is not fully compatible with earlier versions of ASP, so most of the old ASP code will need some changes to run under ASP .NET.
- To overcome this problem, ASP .NET uses a new file extension ".aspx". This will make ASP .NET applications able to run side by side with standard ASP applications on the same server.

#### 3.3.1.2 VB .NET

##### VB .NET Features:

- ❖ All new, easy-to-use, powerful IDE.
- ❖ Full set of built-in controls, which can be clicked and dragged onto forms to create efficient user interfaces.
- ❖ Response to mouse and keyboard actions.
- ❖ Clipboard and printer access.
- ❖ Full array of mathematical, string handling and graphics functions.
- ❖ Can easily work with arrays of variables and objects.
- ❖ Sequential file support.
- ❖ Useful debugger and structured error – handling facilities.
- ❖ Easy-to-use graphic tools.
- ❖ Powerful database access tools.
- ❖ Ability to develop both Windows and internet applications using similar techniques.
- ❖ New common language runtime module makes distribution of applications a simple task.



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### 3.3.2 Overview of SQL Server 7.0

SQL Server 7.0 is the 100% ANSI SQL compatible relational database management system. It is available on a wide range of mainframes, mini and microcomputers. It offers both relational database and object oriented facilities. Managing large amount of data could present administrative and performance problem. SQL Server 7.0's data partitioning help to minimize the program. Each of the partition can be managed individually, thereby allowing more efficient management of database. In it all information are stored as simple tables consisting of rows and columns.

There are three categories of tools provided by SQL Server 7.0

- ❖ To perform the administration of database.
- ❖ For controlling access to the data present in the database.
- ❖ To control the manipulation of the data in the database.

#### SQL Server 7.0 Features:

- ❖ SQL compatibility.
- ❖ Portability.
- ❖ Connect ability.

#### SQL Server 7.0 Advantages

- ❖ It can store hundred million terabytes of data.
- ❖ It supports 32 bit processors.
- ❖ It is possible to execute 16 simultaneous instances of a single SQL Server.
- ❖ It supports replications, transactions, distribution, remote access and more.
- ❖ It supports GUI environment through SQL Server Enterprise Manager and CUI environment through SQL Server Query Analyzer.

## CHAPTER 4

### SYSTEM DESIGN AND DEVELOPMENT

System Design is the most creative and challenging phase in the development of a software system. Design implies a description of the final system and the process by which it is developed. The first step is to determine what input data is needed for the system and then to design a database that will meet the requirements of the proposed system. The next step is to determine what outputs are needed from the system and the format of the output to be produced.

During the design of the proposed system some areas where attention is required are:

- What are the inputs required and the outputs produced?
- How should the data be organized?
- What will be the processes involved in the system?
- How should the screen look?

The steps carried out in the design phase are as follows:

- Modular Design
- Input Design
- Output Design
- Database Design

#### 4.1 MODULAR DESIGN

It is always difficult for any System Development team to grasp a system without breaking it into several smaller systems. These smaller systems will be a part of the original system yet they will be independent in the sense that they will incorporate within them the major functionalities of the proposed system. A software system is always divided into several subsystems which make it easier

to develop and perform tests on the whole system. The subsystems are known as the modules and the process of dividing an entire system into subsystems is known as Decomposition.

**The modules identified for the proposed system are as below:**

- ❖ Administration operations for manipulating products
- ❖ Customer registration and login authentication
- ❖ Shopping cart operations
- ❖ FAQs and responses
- ❖ Payment operations
- ❖ Reports

#### **4.1.1 Administration operations for manipulating products**

The operations performed in this module are

➤ **Administration login**

Here, only the site administrator is given access to the various administration forms for manipulating products, using login ID and password authentication.

➤ **Add category**

Here, the site administrator adds item category details like category ID and category name to the category table of the database.

➤ **Modify category**

Here, the site administrator modifies existing item category details in the category table of the database.

➤ **Delete category**

Here, the site administrator deletes existing item category details from the category table of the database.

➤ **Add sub category**

Here, the site administrator adds item sub category details like sub category ID and sub category name to the subcategory table of the database.

➤ **Modify sub category**

Here, the site administrator modifies existing item sub category details in the category table of the database.

➤ **Delete sub category**

Here, the site administrator deletes existing item sub category details from the category table of the database.

➤ **Add items**

Here, the site administrator adds item details like item code, item name, unit price, description and picture path to the items table of the database.

➤ **Modify items**

Here, the site administrator modifies existing item details in the items table of the database.

➤ **Delete items**

Here, the site administrator deletes existing item details from the items table of the database.

➤ **Provide FAQ responses**

Here, the site administrator types in the response for unanswered FAQs posted by the customers who visit the site.

➤ **Enter payment details**

Here, the site administrator enters various payment details like demand draft number and its issue date, bankers cheque number and its issue date, order delivery date, payment status, delivery status etc. after customers place orders on a particular date.

➤ **View Reports**

Here, the site administrator can view various order and item reports based on a selected date, a specified category or a specified order number.

### 4.1.2 Customer registration and login authentication

The operations performed in this module are

➤ **Customer registration**

Here, if a customer is a new user, he/she has to sign up by registering themselves to the site. For this, the customer has to fill and submit a registration form with the required personal details like name, email ID, site login ID, site login password, residential and office address, phone no, etc., and finally specify a question and answer related to the site login password for its recovery purpose.

➤ **Password recovery**

Here, a registered customer can recover his/her site login password by answering the password question specified during registration correctly. In this case the customer's Login ID and password will be sent to his/her email address specified during registration for security purpose.

➤ **Profile modification and change password**

Here, a registered customer can modify his/her existing personal profile including the site login password along with the password recovery question and its answer. In case the password is changed, it will be sent to the customer's email address along with the site login ID for security purpose.

➤ **Customer login authentication**

Here, when a registered customer enters his/her site login ID and password, the system matches it with the values that were stored in the registration table of the database during the registration process. The customer is allowed to gain access to the site only if he/she enters his/her login ID and password correctly.

### 4.1.3 Shopping cart operations

The operations performed in this module are

➤ **Add item to cart**

Here, when a customer clicks the 'ADD TO CART' button at the bottom of an item which he wishes to purchase, the system calculates the total price of the item based on the quantity specified by the customer. This price is calculated for each item that is added to the cart. Then, the system calculates the total amount payable inclusive of 5% discount if the purchases amount to Rs. 30000 and above after finding the sum of all price values calculated for each added item.

➤ **Modify item quantity in cart**

Here, when a customer changes the quantity of any of the items present in the cart, the system recalculates the total price of that particular item. This price is calculated for each item whose quantity in the cart is modified. The system then recalculates the total amount payable inclusive of 5% discount if the purchases amount to Rs. 30000 and above after finding the sum of all price values calculated for each item whose quantity was modified.

➤ **Remove item from cart**

Here, when a customer deletes or removes any of the items present from the cart, the system recalculates the total amount payable inclusive of 5% discount if the purchases amount to Rs. 30000 and above after finding the sum of all price values calculated for each existing item after a selected item was deleted from the cart.

#### **4.1.4 FAQs and responses**

The operations performed in this module are

➤ **Posting FAQs**

Here, customers can type in their queries and post them to the site administrator. Note that the customer need not register him/her self to post FAQs.

➤ **Viewing FAQ responses**

Here, a customer can view FAQs posted by all customers if and only if appropriate responses are provided for them by the site administrator.

#### **4.1.5 Payment operations**

The payment options that are provided are

➤ **Pay using PayPal**

**About PayPal**

- Founded in 1998, PayPal, an eBay Company, enables any individual or business with an email address to securely, easily and quickly send and receive payments online. PayPal's service builds on the existing financial infrastructure of bank accounts and credit cards and utilizes the world's most advanced proprietary fraud prevention systems to create a safe, global, real-time payment solution.
- PayPal has quickly become a global leader in online payment solutions with 100 million account members worldwide. Available in 103 countries and regions around the world, buyers and sellers on eBay, online retailers, online businesses, as well as traditional offline businesses are transacting with PayPal.
- PayPal has received close to 20 awards for technical excellence from the internet industry and the business community at large -most recently the 2003 Webby Award for Best Finance Site and the 2003 Webby People's Voice Award for Best Finance Site.

### **Sending and receiving payments using PayPal**

- When a customer clicks the 'PAY USING PAYPAL' button after confirming the items he/she wishes to purchase in the shopping cart, the customer is redirected to the <https://www.paypal.com> website.
- The customer must then click on the 'Send Money' tab.
- In the Send Money box:
  - 1) The customer enters the recipient's email address or phone number.
  - 2) Then the customer enters his/her email address.
  - 3) Then the customer enters the amount to be paid.
  - 4) Then the customer selects the appropriate purchase category.
  - 5) Then the customer clicks the 'Send Money' button.
- To complete the payment, the customer has to create a PayPal account. To create a PayPal account the following steps are followed:
  - 1) The customer must enter his/her first and last name.
  - 2) The customer must then select the credit card type.
  - 3) The customer must then enter the credit card number, the expiry date and the card security code.
  - 4) The customer must then enter his/her address, city, state and ZIP code.
  - 5) The customer must then enter his/her telephone number and email address.
  - 6) The customer must then enter and confirm his/her PayPal password.
  - 7) The customer must then enter the code shown in the box.
  - 8) The customer must then click the 'User Agreement' and 'Privacy Policy' links.
  - 9) The customer must then click the 'Agree & Continue' button.
  - 10) The customer can now review his/her payment details.
    - a) The customer can change any information by clicking the appropriate 'Change' link.

b) The customer can cancel the payment by clicking 'Cancel' button.

11) The customer should now, finally click the 'Send Money' button.

- The recipient will receive an email notification for the payment. This mail will contain a link. The recipient can then click this link to log into their PayPal account and receive their payment. A recipient who does not have an account must open an account to receive the payment.

➤ **Other payment options**

- **Credit card**

When the customer selects this payment option, he/she is asked to fill in the details like credit card type, credit card bank, card number, security code, and expiry date, followed by the shipping address. The credit card number validation event is then triggered, once the customer confirms the order. If the number is valid, a bill template is displayed containing the order number, order date, customer name, shipping address, item details and instructions regarding payment and delivery of the order. Otherwise, the customer is asked to fill in the correct credit card number.

- **Demand draft**

When the customer selects this payment option, he/she is asked to fill in the shipping address. Once the customer confirms the order, a bill template is displayed containing the order number, order date, customer name and shipping address, item details and instructions regarding payment and delivery of the order.

- **Bankers cheque**

When the customer selects this payment option, he/she is asked to fill in the shipping address. Once the customer confirms the order, a bill template is displayed containing the order number, order date, customer name and shipping address, item details and instructions regarding payment and delivery of the order.

### 4.1.5 Reports

➤ **Order date wise reports**

Here, the site administrator can view the order and item details of customers on a particular date.

➤ **Category wise reports**

Here, the site administrator can view the order and item details of customers based on a specified category and mail them to the respective email addresses of companies supplying their products.

➤ **Order number wise reports**

Here, the site administrator can view the order and item details of customers based on a specified order number for facilitating references to them in case of any doubts, replacements, returns or complaints regarding the orders and their delivery.

## 4.2 INPUT DESIGN

Input design is the process of converting user originated inputs to a computer based format. Input design is a part of the system design and hence must be carefully designed which will otherwise lead to serious errors in the later stages of development. Inaccurate input data is the most common cause of errors in data processing. The main objectives of designing input focus on,

- Controlling the amount of input required.
- Avoiding delayed response.
- Controlling errors.
- Keeping processes simple.
- Avoiding errors.

The required inputs are stored in the form of tables. They may be numeric or alphanumeric values. The input screens should be user friendly, so that every

one can access the options on it without having knowledge regarding the complete system.

### **4.3 OUTPUT DESIGN**

The output must be provided in a format easily understandable even by a novice user. After analyzing the operations of the system, output information required for each jobs are determined. In addition to this, these outputs may be in format suitable as inputs for subsequent processing.

A major form of output is a hard copy from the printer. Printout should be designed around the output requirements of the user. An efficient output design should improve the system relationship with the end user. Output design refers to the results generated by the system. The output of a system can take many forms. The most common forms are reports, screen displays, printed form and graphical drawing forms.

The normal procedure in developing a system is to design the output in detail first and then move back to the input. The output will be in the forms of views and reports.

### **4.4 DATABASE DESIGN**

A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general objective of the database design is to make the data access easy, inexpensive and flexible to the user. Database is one of the most critical parts of design phase. An elegant database can play a strong foundation for the whole system. The details about the data relevant for the system are identified first.

According to their relationship, tables are designed by following standard database design methods. The data types for each data item in tables are decided. For optimum design of the database, for having data integrity, for avoiding redundancy and for securing the database, all the tables created are normalized. A database design transforms the information domain model created during the analysis into the data structure that will be required to implement the system software.

The database design is made up of two levels namely,

- ❖ Conceptual level
- ❖ Normalization

### **Conceptual level**

This level represents major data objects and the relationships between them. Conceptual level describes the essential features of the system data. Just like a DFD for a system, the conceptual level uses symbols for representing objects and their relationships. This is known as the entity relationship model.

Relationships between entities represent the database structure. Four types of relationships exist between entities. They are, one-to-one, one-to-many, many-to-one and many-to-many. A one-to-one relationship is an association wherein the participating entities exhibit a single relation with each other. A one-to-many relationship describes an entity that may have two or more entities related to it. A many-to-one relationship describes two or more entities that may have a single entity related to it. Likewise a many-to-many relationship describes two or more entities having two or more entities related to them.

## Normalization

After the conceptual level, the next level of organizing the database is called normalization. The process of normalization simplifies entities and their relationships, removes the redundancies from system data and finally builds a data structure, which is both flexible and adaptable to the system. Normalization offers a systematic step-by-step approach towards this goal.

The tables in the database are normalized using the following forms of normalization:

- **First normal form (1NF):** Every attribute is atomic or single valued - there are no repeating fields.
- **Second normal form (2NF):** All attributes that are not part of the primary key must be dependant on the full key and not just part of the key.

The database is designed using RDBMS concepts, there by enabling the sharing of data and was normalized to avoid redundancy.

### 4.5 TABLE STRUCTURE

#### adminlogin

Field Name	Data Type	Size	Constraint	Description
loginid	varchar	10	Primary Key	Admin login ID
loginpasswd	varchar	10	Not Null	Admin login password

**Table 4.5.1 adminlogin**

**category**

Field Name	Data Type	Size	Constraint	Description
categoryid	varchar	10	Primary Key	Item category ID
categoryname	varchar	20	Not Null	Item category name

**Table 4.5.2 category****subcategory**

Field Name	Data Type	Size	Constraint	Description
subcategoryid	varchar	10	Primary Key	Item sub category ID
subcategoryname	varchar	20	Not Null	Item sub category name
categoryid	varchar	10	Foreign Key	item category ID

**Table 4.5.3 subcategory****items**

Field Name	Data Type	Size	Constraint	Description
itemcode	varchar	10	Primary Key	Item code
itemname	varchar	20	Not Null	Item name
subcategoryid	varchar	10	Foreign Key	Item sub category ID
itemdescription	varchar	200	Null	Item description
unitprice	decimal	9	Not Null	Item's unit price
picturepath	varchar	20	Null	Item's picture path

**Table 4.5.4 items**

**productfaqs**

Field Name	Data Type	Size	Constraint	Description
faqid	numeric	9	Primary Key	FAQ identification no.
faq	varchar	50	Not Null	Contains customer FAQs
faqresponse	varchar	100	Null	Contains admin FAQ responses
faqanswered	numeric	9	Not Null	Indicates whether an FAQ is answered or not

**Table 4.5.5 productfaqs****shoppingcart**

Field Name	Data Type	Size	Constraint	Description
cartid	varchar	10	Primary Key	Customer's shopping cart ID
itemcode	varchar	10	Primary Key	Purchased item code
itemname	varchar	20	Not Null	Purchased item name
unitprice	decimal	9	Not Null	Purchased item's unit price
quantity	numeric	9	Not Null	Purchased item's quantity
totalprice	decimal	9	Not Null	Purchased item's total price
orderdate	varchar	10	Not Null	Purchased item's order date

**Table 4.5.6 shoppingcart**

**registration**

<b>Field Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Constraint</b>	<b>Description</b>
loginid	varchar	10	Primary Key	Customer login ID
firstname	varchar	20	Not Null	Customer's first name
middlename	varchar	10	Null	Customer's middle name
lastname	varchar	10	Not Null	Customer's last name
emailid	varchar	20	Not Null	Customer's email ID
loginpasswd	varchar	10	Not Null	Customer's login password
residaddress	varchar	50	Not Null	Customer's residential address
officeaddress	varchar	50	Null	Customer's office address
city	varchar	10	Not Null	Customer's city
postalzipcode	numeric	9	Not Null	Customer's pin or zip code
state	varchar	10	Not Null	Customer's state
country	varchar	10	Not Null	Customer's country
residphone	numeric	9	Null	Customer's residential phone no.
officephone	numeric	9	Null	Customer's office phone no.
mobilephone	numeric	9	Null	Customer's mobile no.
faxno	numeric	9	Null	Customer's fax no.
passwdqn	varchar	25	Not Null	Customer's password question
passwdans	varchar	25	Not Null	Customer's password answer

**Table 4.5.7 registration**

**orderdetails**

<b>Field Name</b>	<b>Data Type</b>	<b>Size</b>	<b>Constraint</b>	<b>Description</b>
orderno	numeric	9	Primary Key	Order number
loginid	vvarchar	10	Foreign Key	Customer's login ID
totalbillamt	decimal	9	Not Null	Total bill amount to be paid
orderdate	vvarchar	10	Foreign Key	Order date
paymentmode	vvarchar	14	Not Null	Payment mode
creditcardtype	vvarchar	16	Null	Credit card type
creditcardbank	vvarchar	10	Null	Credit card bank
creditcardno	numeric	9	Null	Credit card no.
securitycode	numeric	9	Null	Credit card security code
cardexpirydate	vvarchar	10	Null	Credit card expiry date
draftno	numeric	9	Null	Demand draft number
draftissuedate	vvarchar	10	Null	Demand draft issue date
bchequeno	numeric	9	Null	Bankers cheque no.
bchequedate	vvarchar	10	Null	Bankers cheque issue date
shipaddress	vvarchar	50	Not Null	Order shipping address
city	vvarchar	10	Not Null	Customer's city
postalzipcode	numeric	9	Not Null	postal or zip code
state	vvarchar	10	Not Null	Customer's state
country	vvarchar	10	Not Null	Customer's country
phoneno	numeric	9	Null	Customer's phone no.
mobileno	numeric	9	Null	Customer's mobile no.
faxno	numeric	9	Null	Customer's fax no.
deliverydate	vvarchar	10	Null	Order delivery date
deliverystatus	vvarchar	13	Not Null	Order delivery status
paymentstatus	vvarchar	13	Not Null	Payment status

**Table 4.5.8 orderdetails**

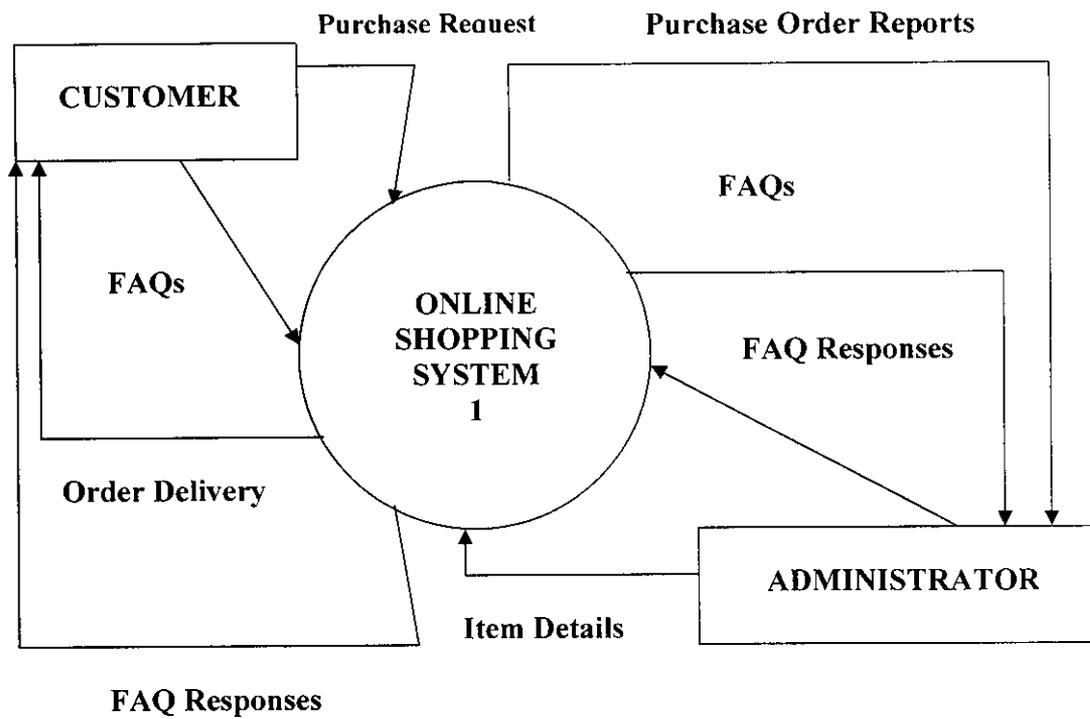
## CHAPTER 5

### SYSTEM FLOW DIAGRAM

#### 5.1 Data flow Diagram

The data flow diagram is a graphical representation which depicts flow of control and transformation of data from input to output. The data flow may be used to represent the system or software at any level of abstraction. In fact, data flow diagrams may be partitioned into levels. A level 0 diagram is called the context diagram, which represents the entire software as a single process with input and output arrows from and to its software entities.

DFD is thus a graphical tool for requirement analysis. It serves two purposes: 1) to provide an indication of how data are transformed as they move through the system and 2) to depict the functions (and sub functions) that transform the data flow. The DFD provides additional information that is used during the analysis of the information domain and serves as a basis for the modeling of function. A description of each function presented in the DFD is contained in a process specification. In terms of program design the DFD may represent the data flow between individual statements or block of statements.

**Level 0 DFD (Context Diagram)****Figure 5.1.1 Overall Data Flow Diagram**

Level 1 DFD

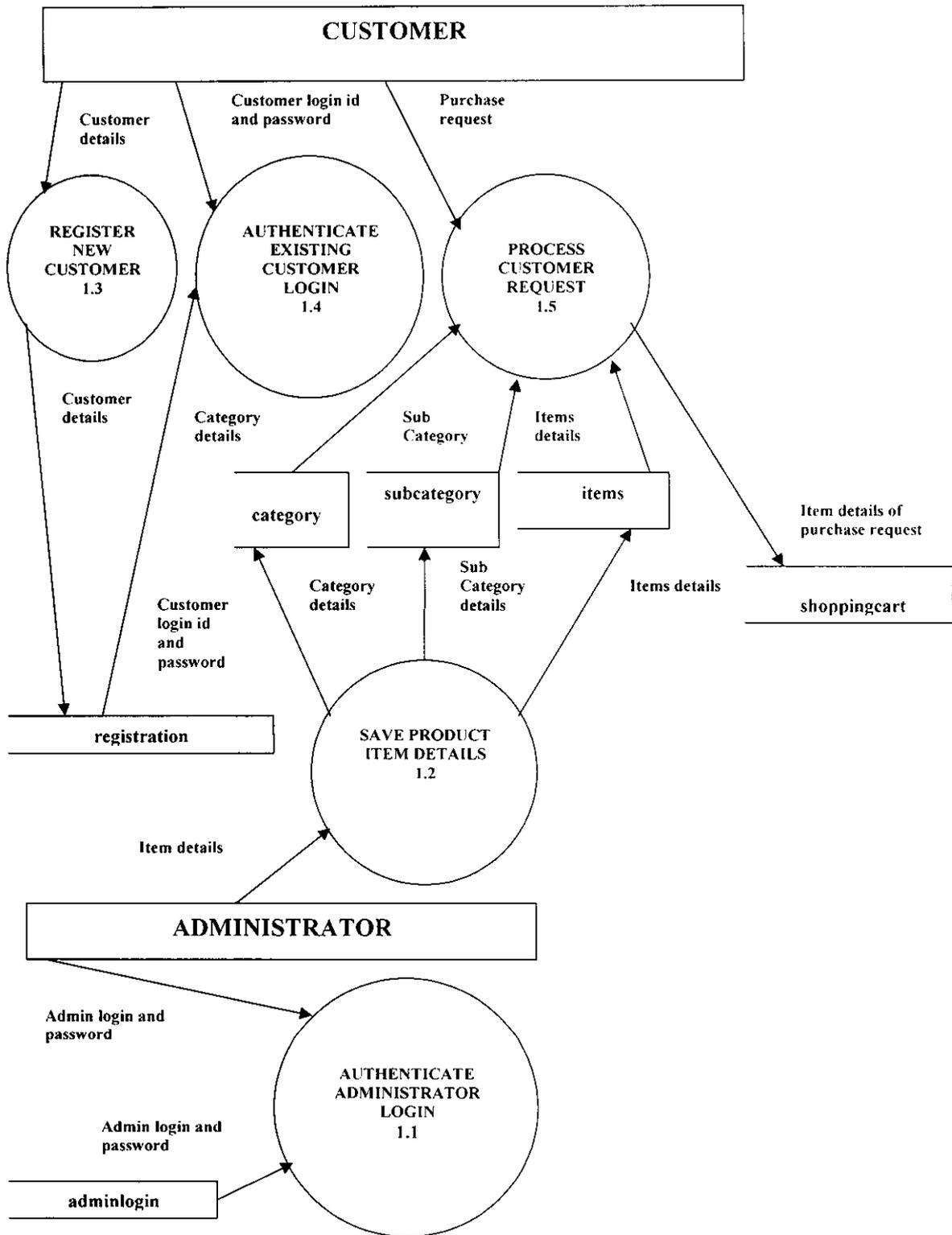


Figure 5.1.2 Elaborate Data Flow Diagram



Level 2 DFD

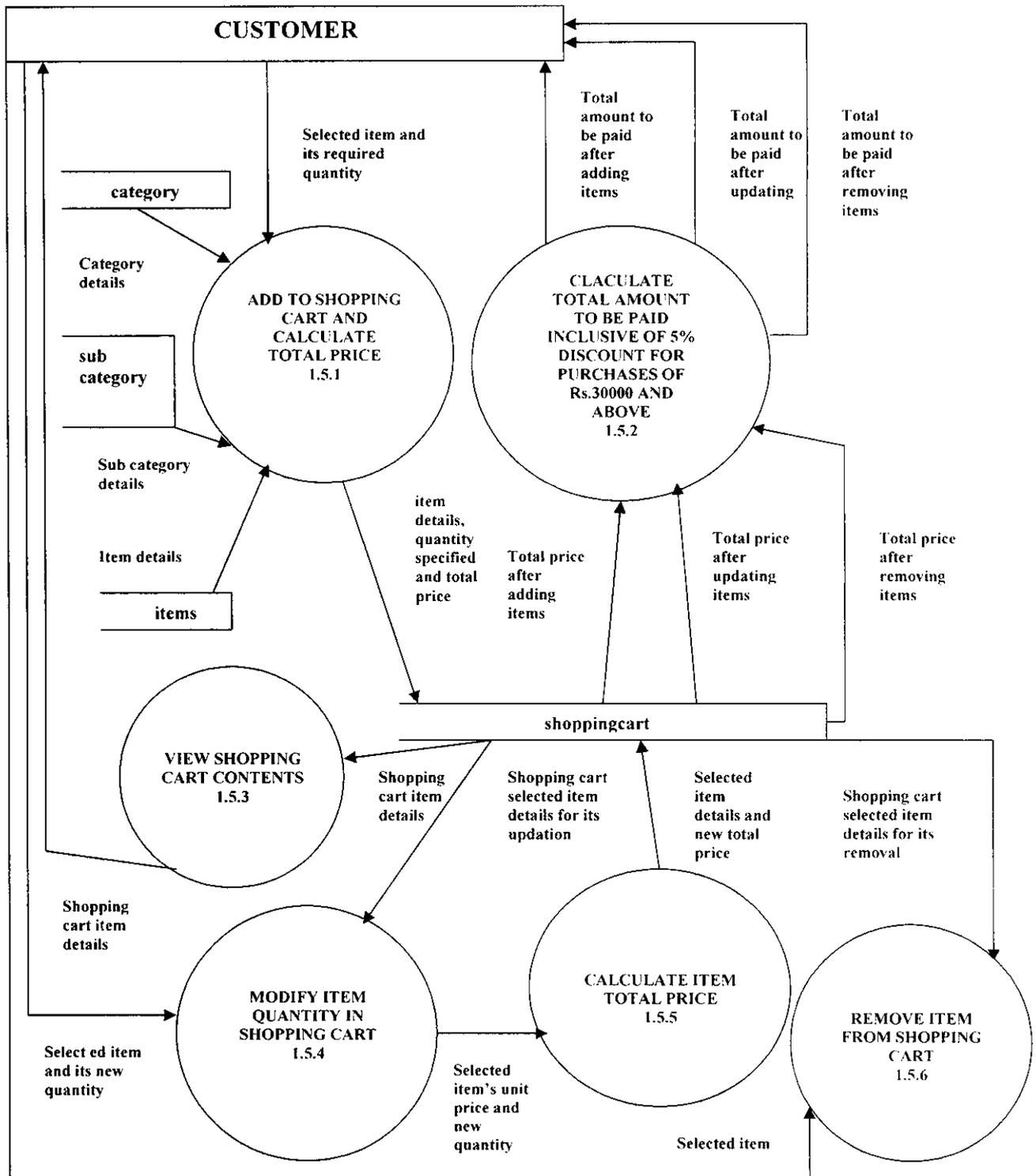


Figure 5.1.4 Process Customer Request

## CHAPTER 6

### SYSTEM TESTING AND IMPLEMENTATION

#### 6.1 TESTING

Testing is a critical element of software quality and assurance and represents the ultimate review of specification design and coding. It is a vital activity that has to be enforced in the development of any system. This could be done in parallel during all the phases of system development. The feedback received from these tests can be used for further enhancement of the system under consideration. The testing phase conducts test using the Software Requirement Specification as a reference and with the goal to see whether the system satisfies the specified requirements.

Standard procedures have been followed in testing this project. Test cases are generated for each screen. These test cases will cover every possibility which could result in both positive and negative results. These test plans are maintained for any further testing done on the system. The test plan stores information such as, the test script/input, expected output, actual output, comments and name of the tester. This plan will be followed for all types of testing done in the system.

Testing Objectives are,

1. Testing is a process of executing a program with the intent of finding an error.
2. A successful test is one that uncovers an as yet undiscovered error.
3. A good test case is one that has a high probability of finding an as yet undiscovered error.

The main types of tests carried out on the project are:

- Unit Test
- Integration Test
- Validation Test
- System Test

### 6.1.1 Unit Testing

Module or Unit Testing is the process of testing all the program units that make up a system. Unit testing focuses on an individual module thus allowing one to uncover all the errors made logically and while coding in the module. In the project each page is tested separately as a unit. Initially the flow of control and data through that page is checked. When considering a module as a unit, the flow of data and control through the whole module is tested. The result is stored in the test plan. In a page, each control is further tested using unit testing. The process is done in all the pages of the system. Once the errors are rectified, the testing procedure is repeated with same test cases to ensure this hasn't produced new errors. Hence this is a continuous process. Test cases were generated to test the control flow of each unit or module. Almost all cases needed for testing control flows have been generated.

Test Cases for the Login Screen:-

Sr. No	Test Case	Expected Result	Observed Result	Status
1	User id : admin, Password : XYZ	Invalid Login	Invalid Login	Pass
2	User id : admin, Password : groupowner	Login successful	Login Successful	Pass
3	User id : Xyz, Password : abc	Invalid Login	Invalid Login	Pass
4	User id : dharishops, Password : agathachriste	Login Successful	Login Successful	Pass

### **6.1.2 Integration Testing**

Integration testing tests the process of integrating the various modules to form the completed system. Integration starts with a set of units each individually tested in isolation and ends when the entire application has been built. Integration testing verifies that the combined units function together correctly. It facilitates in finding problems that occur at interfaces or communication between individual units.

This project followed top-down integration testing. Modules were linked to the main menu in a sequence as required in the real time operating mode of the system. Menu items were created as and when required for the integration. Each module in a particular level is tested to check for proper flow of information within it. Then the upper level is taken into action. The flow of data through the whole module in the upper level is taken and executed. A change of data made in one screen should have reflected in all other screens.

This process is continued from the page level to module level, finally to the system level. In the final stage, the whole system is taken together and tested for integration. A change in one place should be reflected throughout the system. Regression testing is done after each change made into the software. This tests if the change has affected any part of the project negatively after the change was made. The whole set of test cases need to be run again to do the regression testing.

### **6.1.3 Validation Testing**

At the end of integration testing, software is completed assembled as a package, interfacing errors are uncovered and correction testing begins.

Software testing and validation is achieved through a series of black box tests that demonstrate conformity with the requirements. A test plan outlines the classes of tests to be conducted and a test procedure defines specific test cases

that will be used to demonstrate conformity with the requirements. Both the plan and the procedure are designed to ensure that all functional requirements are achieved, documentation is correct and other requirements are met.

After each validation test case has been conducted, one of two possible conditions that exist is: 1) The function or performance characteristics conform to the specification and are accepted. 2) A deviation from the specification is uncovered and a deficiency list is created. Deviation or error discovered at this stage in a project can rarely be corrected prior to scheduled delivery. It is often necessary to negotiate with the customer to establish a method for resolving deficiencies.

Configuration review is an important element of the validation process. The intent of the review which is sometimes known as the audit is to ensure that all elements of the software configuration have been properly developed, are cataloged and have the necessary detail to bolster the support phase of the software life cycle.

Two kinds of tests namely, alpha and beta tests are conducted to uncover errors that only the end-user seems able to find. The alpha test is conducted at the developer's site by a customer. Thus, alpha tests are conducted in a controlled environment. The beta test is conducted at one or more customer sites by the end-user of the software. Unlike alpha testing, the developer is generally not present. Therefore, the beta test is the "live" application of the software in an environment that cannot be controlled by the developer. As a result of problems reported during beta tests, software engineers make modifications and then prepare for release of the software product to the entire customer base.

## **6.1.4 System Testing**

System testing is actually a series of different tests, whose primary purpose is to fully exercise the computer-based system. This helps in verifying that all the system elements have been properly integrated and perform the allocated functions. It verifies the entire product after having integrated all software and hardware components, and validates it according to the original project requirements. System testing takes into consideration, both the hardware and software. That is, the project should be able to be run on the specified hardware for a variety of cases.

### **6.1.4.1 Recovery Testing**

Recovery testing is a system test that forces the software to fail in a variety of ways and verifies that recovery is properly performed. If recovery is automatic (performed by the system itself), reinitialization, checkpointing mechanisms, data recovery, and restart are evaluated for correctness. If recovery requires human intervention, the mean-time-to-repair (MTTR) is evaluated to determine whether it is within acceptable limits.

### **6.1.4.2 Security Testing**

Security testing is important in system testing. The system in no way shall be accessible to unauthorized users. Testing is done to ensure that a user with respective rights can only view the various forms and reports presented by the project. If users try to perform something beyond his assigned rights corresponding messages should be displayed. The project in such cases redirects the user to the corresponding security error page.

Security testing thus, attempts to verify that protection mechanisms built into a system will, in fact, protect it from improper penetration.

### **6.1.4.3 Stress Testing**

Stress Testing executes a system in a manner that demands resources in abnormal quantity, frequency or volume. For example, 1) special tests may be designed that generate ten interrupts per second, when one or two is the average rate, 2) input data rates may be increased by an order of magnitude to determine how input functions will respond, 3) test cases that require maximum memory or other resources are executed, 4) test cases that may cause thrashing in a virtual operating system are designed, 5) test cases that may cause excessive hunting for disk-resident data are created. Essentially, the tester attempts to break the program.

A variation of stress testing is a technique called sensitivity testing. In some situations, a very small range of data contained within the bounds of valid data for a program may cause extreme and even erroneous processing or profound performance degradation. Sensitivity testing attempts to uncover data combinations within valid input classes that may cause instability or improper processing.

### **6.1.4.4 Performance Testing**

Performance testing is designed to test the run-time performance of software within the context of an integrated system. Performance testing occurs throughout all steps in the testing process. Even at the unit level, the performance of an individual module may be accessed as white-box tests are conducted. However, it is not until all system elements are fully integrated that the true performance of the system can be ascertained.

## **6.2 IMPLEMENTATION**

### **6.2.1 Implementation Procedure**

Implementation is the process of converting a new system into an operational one. The designed system is converted to an operational one using a suitable programming language.

Implementation includes all those activities that take place to convert an old system into a new one. Proper implementation is essential to provide a reliable system that meets the organizational requirements. The most commonly used implementation methods are pilot running and parallel running.

Processing the current data by a single user at a time is called the pilot running process. When one user is accessing the data at one system, the system is said to be engaged and cannot be used by the user at another machine connected to the network. This process is used in systems where more than one user is restricted.

Processing the current data by more than a single user at a time is called the parallel running process. The same system can be viewed and accessed at the same time on different machines connected to the network. This process is useful in systems where multiple users are entertained.

The implementation phase involves careful planning, investigation of systems and constraints, design of methods to achieve the change over, the training of staffs in the change over phase finally the evaluation of change over. This project has been designed and developed to be used by many users at a time. For example, orders are placed by many customers on a same particular date and time. So, more care must be taken during the implementation of the software.

There are three types of implementation:

a) Implementation of a computer system to replace a manual system.

The problems encountered are converting manual files, training users, creating accurate computerized files or storage and verifying printouts for integrity.

b) Implementation of a new computer system to replace an existing one.

This is usually a difficult conversion. If not properly planned, it may lead to serious problems. Some computer systems have taken as long as a year to convert.

c) Implementation of a modified application to replace an existing one using the same computer.

This type of conversion is relatively easy to handle, provided there are no major changes in the files.

## CHAPTER 7

### CONCLUSION AND FUTURE ENHANCEMENT

#### 7.1 CONCLUSION

This project '**B2C ARCHITECTURE USING WEB SERVICE**' has been designed and developed within the **ASP .NET framework using VISUAL BASIC .NET and SQL SERVER 7.0**. It is extremely user friendly and provides quick access to the necessary information about a desired item by narrowing search options based on the category and subcategory under which the item lies. The search for item details is furthermore facilitated through the Google search engine code that is embedded within the application.

The current online shopping system overcomes most of the drawbacks existing in the previous ones through the use of web service interface and successfully meets the requirements of the organization. Moreover, it can be easily modified or upgraded to suit the changes in requirements or technology, arising at any point of time in the future.

The current online shopping system is very efficient because it has been repeatedly tested with the help of a variety of test cases and can therefore be implemented successfully at the site of usage. Since the system has been developed using standard programming codes, rules and conventions, it is easily understandable and can be reused under any similar circumstances in the future.

## 7.2 FUTURE ENHANCEMENT

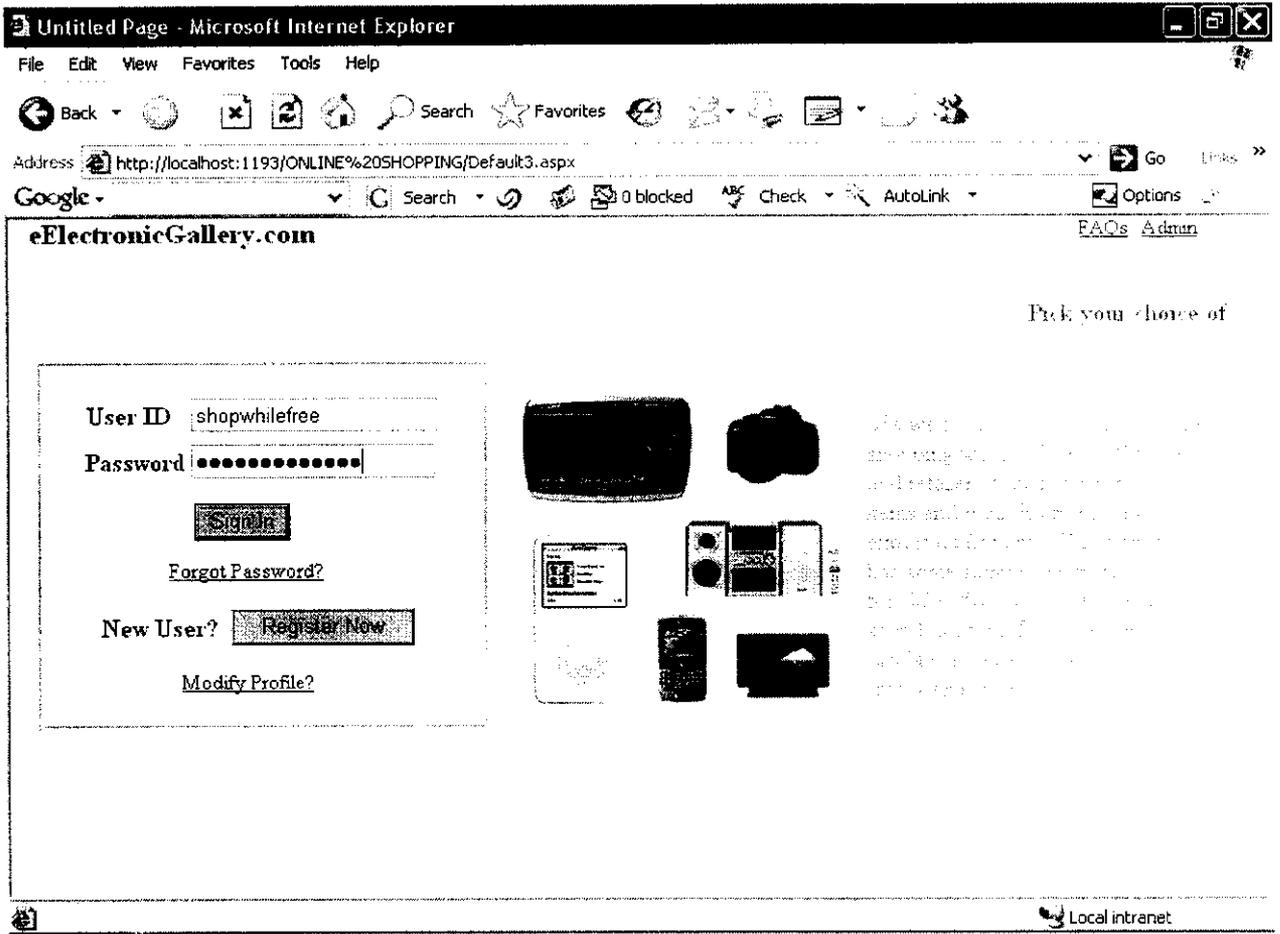
The future enhancements that the project can be subjected to are:

- ❖ Comparison between the costs of various brands of a particular item supplied for purchase can be included so that customers are given the choice of selecting items at cheaper rates.
- ❖ Discussion forums can be included in the project for discussing various aspects and feedback for purchase items with members of a group or the site administrator online. This helps customers to view comments and feedbacks provided by others online and get an idea about the item he/she wishes to purchase.
- ❖ The project can be enhanced to include additional categories and subcategories of purchase items other than electronic items, say, Apparel and accessories, kid's corner, interiors etc.
- ❖ The project can also be enhanced to accept foreign currency from international customers by implementing appropriate currency conversion procedures.

# CHAPTER 8

## APPENDICES

### 8.1 CUSTOMER LOGIN FORM



## 8.2 HOME PAGE CONTAINING MAIN CATEGORIES

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address: <http://localhost:1193/ONLINE%20SHOPPING/Default5.aspx> Go Links

Google Search blocked Check AutoLink Options

Welcome To eElectronicGallery.com damini !! [Sign Out](#)

[Home](#) | [Cart Instructions](#) | [View Cart](#) | [Change Quantity](#) | [Remove Items](#) | [Delete Cart](#) | [FAQs](#)

**Categories**  
**Electronics & Durables**

- [Mobile Phones](#)
- [Televisions](#)
- [Music Systems](#)
- [Digital Cameras](#)
- [MP3 Players](#)
- [Radios](#)

Mobile Phones Televisions Music Systems

Digital Cameras MP3 Players Radios

Done Local intranet

### 8.3 ITEMS

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Stop Refresh Home Search Favorites

Address <http://localhost:1564/ONLINE%20SHOPPING/Default30.aspx?prodsubcategoryname='Canon%20Digital%20Cameras'> Go Links

Google Search blocked Check Look for Map Options

## Canon Digital Cameras [Sign Out](#)

[Home](#) | [Cart Instructions](#) | [View Cart](#) | [Change Quantity](#) | [Remove Items](#) | [Delete Cart](#) | [FAQs](#)

Categories				
<b>Electronics &amp; Durables</b> <ul style="list-style-type: none"> <li>• <a href="#">Mobile Phones</a></li> <li>• <a href="#">Televisions</a></li> <li>• <a href="#">Music Systems</a></li> <li>• <a href="#">Digital Cameras</a> <ul style="list-style-type: none"> <li>▪ <a href="#">Canon</a></li> <li>▪ <a href="#">Fuji</a></li> <li>▪ <a href="#">Kodak</a></li> <li>▪ <a href="#">Panasonic</a></li> <li>▪ <a href="#">Olympus</a></li> </ul> </li> <li>• <a href="#">MP3 Players</a></li> <li>• <a href="#">Radios</a></li> </ul>				
	<ul style="list-style-type: none"> <li>• <b>Canon Digital Rebel XT</b> 10.1 Megapixels - SLR / Large Digital Camera - 2.5 in LCD Screen - Built In Flash Found at 36 stores COST- Rs.10000</li> <li>• <b>Canon PowerShot SD800 IS</b> 3.8 X Optical Zoom, 4 X Digital Zoom - Compact / Small Digital Camera - 2.5 in LCD Screen - With Image Stabilization Found at 40 stores COST- Rs.15000</li> <li>• <b>Canon EOS Digital Rebel XT</b> 8.2 Megapixels - 3 X Optical Zoom, 6 X Digital Zoom - SLR / Large Digital Camera - 1.8 in LCD Screen - Built In Flash Found at 35 stores COST- Rs.12000</li> <li>• <b>Canon PowerShot S3 IS</b> 6 Megapixels - 12 X Optical Zoom, 4 X Digital Zoom - Compact / Small Digital Camera - 2 LCD Screen - Storage: SD/MMC Found at 40 stores COST- Rs.11000</li> </ul>	<u>Description</u> <input type="button" value="ADD TO CART"/>	<u>Description</u> <input type="button" value="ADD TO CART"/>	<u>Description</u> <input type="button" value="ADD TO CART"/>

Done Local intranet

## 8.4 ADD ITEMS TO CART

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Stop Refresh Home Search Favorites Stop Mail Print

Address <http://localhost:1193/ONLINE%20SHOPPING/Default22.aspx?proditemname=Motorola+KRZR+K1M+Cell+Phone> Go Links >>

Google Search 0 blocked Check AutoLink Options

---

**STORE ITEMS IN SHOPPING CART** [Sign Out](#)

[Home](#) | [View Cart](#) | [Change Quantity](#) | [Remove Items](#) | [Delete Cart](#) | [FAQs](#)

<b>ITEM CODE</b>	Mot2
<b>ITEM NAME</b>	Motorola KRZR K1M Cell Phone
<b>UNIT PRICE</b>	2570
<b>QUANTITY</b>	<input type="text" value="2"/>
<b>TOTAL PRICE</b>	5140

---

Done Local intranet

## 8.5 MODIFY QUANTITY OF ITEMS IN CART

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Stop Refresh Home Search Favorites Stop Reload Print

Address <http://localhost:1193/ONLINE%20SHOPPING/Default20.aspx?proditemcode=Mot2> Go Links

Google Search 0 blocked Check AutoLink Options

**CHANGE QUANTITY** [Sign Out](#)

[Home](#) | [View Cart](#) | [Remove Items](#) | [Delete Cart](#) | [FAQs](#)

ITEM CODE	Mot2
ITEM NAME	Motorola KRZR K1M Cell Phone
UNIT PRICE	2570
EXISTING QUANTITY	2
EXISTING PRICE	5140
QUANTITY	<input type="text" value="1"/>
TOTAL PRICE	2570

Done Local intranet

## 8.6 REMOVE ITEMS FROM CART

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address <http://localhost:1193/ONLINE%20SHOPPING/Default21.aspx?proditemcode=Mot2> Go Links

Google Search 0 blocked Check AutoLink Options

**REMOVE ITEM** [Sign Out](#)

[Home](#) | [View Cart](#) | [Change Quantity](#) | [Delete Cart](#) | [FAQs](#)

<b>ITEM CODE</b>	Mot2
<b>ITEM NAME</b>	Motorola KRZR K1M Cell Phone
<b>UNIT PRICE</b>	2570
<b>EXISTING QUANTITY</b>	1
<b>EXISTING PRICE</b>	2570

**REMOVE ITEM**

Done Local intranet

## 8.7 VIEW ITEMS IN CART

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address <http://localhost:1193/ONLINE%20SHOPPING/Default23.aspx> Go Links

Google Search 0 blocked Check AutoLink Options

### SHOPPING CART CONTENTS

[Sign Out](#)

[Home](#) | [Change Quantity](#) | [Remove Items](#) | [Delete Cart](#) | [FAQs](#)

Total Amount: Rs. 38745

Amount After 5% Discount: Rs. 1937.25

Net Amount Payable: Rs. 36807.75

**PAYMENT OPTIONS**

**OTHER PAYMENT OPTIONS**

ITEM CODE	ITEM NAME	ITEM UNIT PRICE	ITEM QUANTITY	ITEM PRICE
TvSam3	Samsung HL-R5067W 50 TV	38745	1	38745

<http://localhost:1193/ONLINE%20SHOPPING/Default61.aspx> Local intranet

## 8.8 CREDIT CARD PAYMENT MODE

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Stop Home Search Favorites Refresh Mail Print

Address <http://localhost:1193/ONLINE%20SHOPPING/Default26.aspx> Go Links

Google Search blocked Check AutoLink AutoFill Options Sign Out

### PAYMENT DETAILS AND ORDER CONFIRMATION

[Home](#) | [Change Quantity](#) | [Remove Items](#) | [Delete Cart](#) | [FAQs](#)

Dear Customer, the fields which are colored and marked with "\*" must certainly be filled. Filling the remaining fields are optional.

For Customers Residing Outside Coimbatore Payment Should Be Made By Demand Draft Favouring eElectronicGallery Drawn On State Bank Of India Main Branch Payable At Coimbatore.

For Customers Residing In Coimbatore Payment Should Be Made By Bankers Cheque Favouring eElectronicGallery Drawn On State Bank Of India Main Branch Payable At Coimbatore.

**Total Amount To Be Paid: Rs. 36807.75**

\* Payment Mode

\* Credit Card Type

\* Credit Card Bank  \* Security Code

\* Credit Card No.  \* Expiry Date

\* Select Any One Option To Specify The Address For Order Delivery

Address For Order Delivery Is Same As Residential Address

Address For Order Delivery Is Same As Office Address

Done Local intranet

## 8.9 DEMAND DRAFT AND BANKER'S CHEQUE PAYMENT MODE

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Stop Refresh Home Search Favorites Print Mail Stop

Address http://localhost:1193/ONLINE%20SHOPPING/Default26.aspx Go Links >>

Google Search 0 blocked Check AutoLink AutoFill Options

\* Select Any One Option To Specify The Address For Order Delivery

Address For Order Delivery Is Same As Residential Address

Address For Order Delivery Is Same As Office Address

Specify Some Other Address For Order Delivery

\* Address

\* City

\* Postal/Zip Code

\* State

\* Country

Phone No.(Preceded By STD or ISD code)

Mobile No.

Fax No.

Done Local intranet

## 8.10 BILL TEMPLATE GENERATION

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Stop Refresh Home Search Favorites Stop Print Mail News RSS

Address <http://localhost:1193/ONLINE%20SHOPPING/Default66.aspx> Go Links

Google Search 0 blocked Check AutoLink Options

**eElectronicGallery.com**

Dear Customer, the total purchases made by you amounts to Rs. 36807.75 (inclusive of 5% discount) and your payment information has been sent to [Info@eElectronicGallery.com](mailto:Info@eElectronicGallery.com). You will receive an **email receipt** for this transaction shortly. For details on your transaction please contact: [Info@eElectronicGallery.com](mailto:Info@eElectronicGallery.com).

---

**ORDER NUMBER:** 5 **ORDER DATE:** 5/3/2007

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**SHIPPING DETAILS**

<b>NAME:</b> damini raj malhothra	<b>ADDRESS:</b> door no 12, dinesh apartments, 15th street, nehru nagar, ghatkoper
<b>CITY:</b> mumbai	
<b>STATE:</b> maharashtra	<b>POSTAL/ZIP CODE:</b> 654542
<b>PHONE NO:</b> 2262700877	<b>COUNTRY:</b> India
<b>FAX NO:</b> 6342389274	<b>MOBILE NO:</b> 9199842023456

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**PAYMENT AND PURCHASE DETAILS:**

**NET AMOUNT PAYABLE:** Rs. 38745

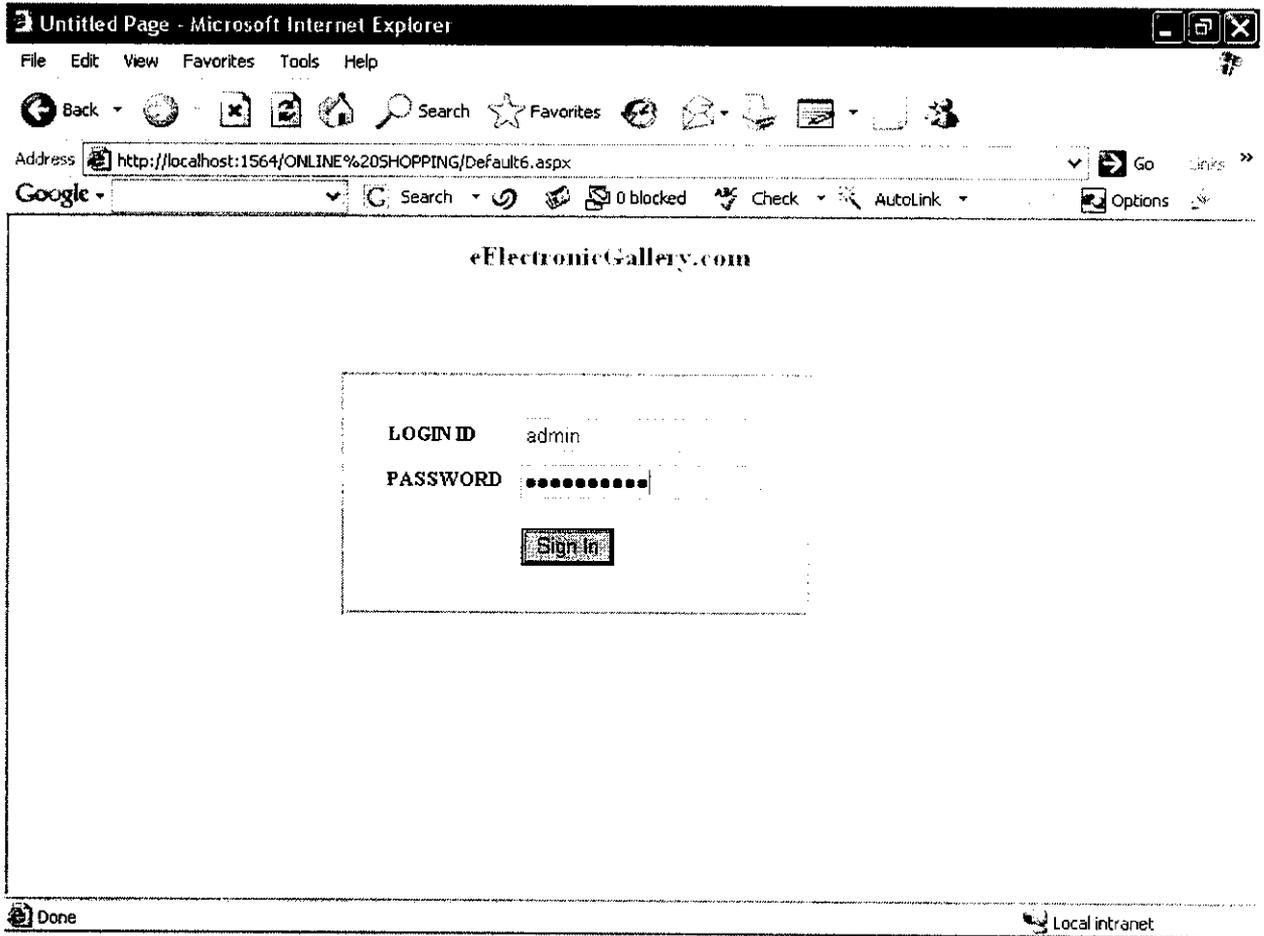
Done Local intranet

## 8.11 POSTING OF FAQs

The screenshot shows a Microsoft Internet Explorer browser window. The title bar reads "Untitled Page - Microsoft Internet Explorer". The menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The address bar shows the URL "http://localhost:1564/ONLINE%20SHOPPING/Default61.aspx". The page content is titled "Frequently Asked Questions" and includes a "Sign Out" link. A navigation menu contains links for "Home", "Cart Instructions", "View Cart", "Change Quantity", "Remove Items", and "Delete Cart". A search form is present with the text "Type Your Question Here" and the input field containing "how do i search a desired item?". Below the input field is a "POST" button. At the bottom, there is a table of frequently asked questions with "View" links for each.

FAQs	CLICK TO VIEW ANSWERS
how do i get my login id and password to enter the site?	<a href="#">View</a>
how to get my password if i forget it?	<a href="#">View</a>
how do i change my password?	<a href="#">View</a>
why am i unable to login?	<a href="#">View</a>
I purchased a Nokia mobile from ur site. but there is a problem in its battery since it takes one full day to recharge	<a href="#">View</a>

## 8.12 ADMINISTRATION LOGIN FORM



## 8.13 ADD ITEMS FOR SALE

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Stop Refresh Home Search Favorites Stop Print Mail

Address <http://localhost:1564/ONLINE%20SHOPPING/Default13.aspx> Go Links >>

Google Search blocked Check AutoLink Options

**ADDING ITEMS** [Back To Operations Menu](#) [Sign Out](#)

**SELECT A SUB CATEGORY NAME**

BPL Washing Machines

**ITEM CODE** BPLFullAuto

**ITEM NAME** BPL Fully Automatic Was

**ITEM DESCRIPTION** This machine is fully automatic which is programmed to perform soak wash, normal wash and spin dry operations in a single unit. COST- Rs.45000

**UNIT PRICE** 45000

**PICTURE PATH** oppingimages\BPLWVM.jpg

**ADD ITEM**

Done Local intranet

## 8.14 PROVIDING FAQ RESPONSES

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address <http://localhost:1564/ONLINE%20SHOPPING/Default63.aspx?Itemfaq=how%20do%20i%20search%20a%20desired%20item> Go

Google Search 0 blocked Check AutoLink Options

**FAQ Responses** [Back To FAQs](#) [Back To Operations Menu](#) [Sign Out](#)

how do i search a desired item?

FAQ Response Either narrow your search by selecting the appropriate category and sub cate

**SAVE RESPONSE**

Done Local intranet

## 8.15 ENTERING ORDER DETAILS

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address <http://localhost:1193/ONLINE%20SHOPPING/Default70.aspx?custorderno=2> Go

Google Search 0 blocked Check AutoLink Options

POSTAL/ZIP CODE: 612342

STATE: maharashtra

COUNTRY: India

PHONE NO: 226500924

MOBILE NO: 9865853633

FAX NO: 42657238283

EXISTING ORDER DELIVERY STATUS: Not Delivered

EXISTING CUSTOMER PAYMENT STATUS: Not Paid

DEMAND DRAFT NO:

DEMAND DRAFT ISSUE DATE:

ORDER DELIVERY DATE: 5/7/2007

NEW ORDER DELIVERY STATUS: Not Delivered

NEW CUSTOMER PAYMENT STATUS: Not Paid

**SAVE DETAILS**

Done Local intranet

## 8.16 ORDER DATE WISE REPORTS

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address: http://localhost:1193/ONLINE%20SHOPPING/Default69.aspx

Google Search 0 blocked Check AutoLink Options

**ORDER DETAILS REPORT** [Back To Operations Menu](#) [Sign Out](#)

ORDER NUMBER	CUSTOMER NAME	EMAIL ID	TOTAL AMOUNT PAYABLE	PAYMENT MODE	CREDIT CARD TYPE	CREDIT CARD BANK	CARD EXPIRY DATE	DRAFT NO.	DRAFT ISSUE DATE
1	dhairini	dhairiniganesan@gmail.com	19520	Credit Card	Visa Card	SBI Bank	12/12/200		
2	Namratha	Nam Kapoor@yahoo.co.in	45747	Demand Draft					
3	meera	kalyantjan1962@yahoo.com	74333	Bankers Cheque					

Done Local intranet

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address: http://localhost:1193/ONLINE%20SHOPPING/Default71.aspx

Google Search 0 blocked Check AutoLink Options

**ITEM DETAILS REPORT** [Back To Operations Menu](#) [Sign Out](#)

CART ID	ITEM CODE	ITEM NAME	UNIT PRICE	QUANTITY	TOTAL ITEM PRICE
dhairishops	Rim1	RIM BlackBerry Pearl w-myFaves Cell Phone	5000	2	10000
dhairishops	Cre2	Creative Zen V Plus (4 GB) MP3 Player	9520	1	9520
namlikestoshop	TvSam3	Samsung HL-R5067W 50 TV	38745	1	38745
Meerajan1962	SSys2	Polk Audio DS-2 Full Sized Audio System	78245	1	78245
namlikestoshop	Son6	Sony Psyc NW-E105PS White MP3 Player	9410	1	9410
paarvathijuly1984	Oly3	Olympus FE-230	16510	1	16510
paarvathijuly1984	Nok8	Nokia 6236i Cell Phone	3100	1	3100

Done Local intranet

## 8.17 ORDER NUMBER WISE REPORTS

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address http://localhost:1193/ONLINE%20SHOPPING/Default74.aspx

Google Search blocked Check AutoLink Options

ENTER THE ORDER NUMBER 1

VIEW DETAILS

ORDER DETAILS:

CUSTOMER NAME	EMAIL ID	TOTAL AMOUNT PAYABLE	PAYMENT MODE	CREDIT CARD TYPE	CREDIT CARD BANK	CARD EXPIRY DATE	DRAFT NO.	DRAFT ISSUE DATE	BANKERS CHEQUE NO.
dhairini	dhairiniganesan@gmail.com	19520	Credit Card	Visa Card	SBI Bank	12/12/200			

Done Local intranet

Untitled Page - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address http://localhost:1193/ONLINE%20SHOPPING/Default74.aspx

Google Search blocked Check AutoLink Options

ORDER DETAILS:

CUSTOMER NAME	EMAIL ID	TOTAL AMOUNT PAYABLE	PAYMENT MODE	CREDIT CARD TYPE	CREDIT CARD BANK	CARD EXPIRY DATE	DRAFT NO.	DRAFT ISSUE DATE	BANKERS CHEQUE NO.
dhairini	dhairiniganesan@gmail.com	19520	Credit Card	Visa Card	SBI Bank	12/12/200			

ITEM DETAILS:

CART ID	ITEM CODE	ITEM NAME	UNIT PRICE	QUANTITY	TOTAL ITEM PRICE
dhairishops	Rim1	RIM BlackBerry Pearl w-myFaves Cell Phone	5000	2	10000
dhairishops	Cre2	Creative Zen V Plus (4 GB) MP3 Player	9520	1	9520

Done Local intranet

## CHAPTER 8

### REFERENCES

#### BOOKS REFERRED:

- 1) Matthew MacDonald, Tata McGraw-Hill Publication, 2002 Edition, ASP .NET: The Complete Reference.
- 2) Jeffrey R. Shapiro, Tata McGraw-Hill Publication, 2002 Edition, VB .NET: The Complete Reference.

#### WWW SITES REFERRED:

- 1) **Company Websites :**  
<http://www.srmsoft.com>  
<http://www.srmtech.com>
- 2) **WSDL Website :**  
<http://www.w3.org/TR/2001/NOTE-wsdl-20010315>
- 3) **XML Website :**  
<http://www.w3.org.XML>
- 4) **SOAP Website :**  
<http://www.w3.org/TR/SOAP>
- 5) **ASP .NET Download Websites :**  
<http://www.asp.net>  
<http://www.gotdotnet>
- 6) **Luhn's Formula For Credit Card Number Validation:**  
[http://webopedia.com/TERM/L/Luhn\\_formula.html](http://webopedia.com/TERM/L/Luhn_formula.html)
- 7) **About PayPal:**  
<http://www.paypal.com/cgi-bin/webscr?cmd=p/gen/about-outside>
- 8) **Including PayPal's Buy Now Buttons:**  
<http://www.paypal.com/cgi-bin/webscr?cmd=p/xcl/rec/singleitem-intro-outside>