WWW.TPRASSOCIATES.COM

(INDIA'S FINEST SHOPPING MART)

By

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Of

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COIMBATORE.

(Affiliated to Anna University)

A PROJECT REPORT

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Coimbatore – 641023

Department of Computer Science and Engineering

Bonafide Certificate

Certified that this project report titled **WWW.TPRASSOCIATES.COM** is the bonafide work of **Mr. D. GURU PRAKASH (Reg No. 71202702004)** 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.

R. Dinesh (16-6-2004)
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S. Thangaraj
HEAD OF THE DEPARTMENT

Submitted for the University Examination Held on 17/6/2004

R. Dinesh 17-6-2004
Internal Guide

External Guide

TPR ELECTRICA

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Phone : 394633

TNGST. No. 1861093 [1][9][9]

CST No. 279656 Dt. 6-4-90

Ref. No. :

Date **01/06/2004**

BONAFIDE CERTIFICATE

This is to certify that Mr. D. Guru Prakash (Reg.No. 71202702004) of Final year M.Sc [Applied Science - Computer Technology] of Kumaraguru College Of Technology has successfully developed and completed his website entitled "www.tprassociates.com" using ASP, Visual Studio 6.0 and Oracle 8i.

He has been working on this project from Dec 2003 – May 2004 in our concern.

We wish him all the best for his future endeavors.

For TPR ELECTRICA

Proprietor

ABSTRACT

The Project entitled "tprassociates.com" is an online shopping mart, which was developed for T.P.R Electrica, Coimbatore that currently deals with electronic equipments, electronic spares, computer peripherals and accessories.

Today the Internet seems to be one of the essential needs for human kind. People in this Internet world wishes to have a better way to buy the products according to their needs with a benchmark of products.

This website will be very much useful for buyers, resellers, marketers and mainly to the users. The technical details available in this website will help the users to select an apt product to fulfill their needs.

This website also provides online service center for their products, which helps the customer to feel that their product are always under care. This website is having a special administrative interface for enhancing and updating the website according to the new arrival of products and change in price.

In mere future this website will market entire range of products under all categories available in the market. This will also be implemented for mobile users and other palmtop users.

ACKNOWLEDGEMENT

I give all my honors and glory to the almighty GOD, for he has blessed and established all my works perfectly.

I hereby take this opportunity to express my sincere gratitude to the management of Kumaraguru College Of Technology, Coimbatore for giving me an opportunity to study in this esteemed institution.

I deem it a great privilege to express my profuse thanks to our beloved principal Dr. K. K. Padmanaban, PhD for providing all facilities during the course of study.

I profoundly thank our venerable Head Of The Department Of Computer Science and Engineering Dr. S. Thangasamy, PhD who has been a bastion of moral strength and a source of incessant encouragement to me.

I am greatly indebted to my esteemed project coordinator Mr. Ranganathan Dinesh, M.S who has not only guided me, but gave his constructive and innovative ideas at crucial times and tremendous encouragement, which helped me a lot to proceed my work.

D.Guru Prakash, Final M.Sc [AS-CT]

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CHAPTER 1

INTRODUCTION

1.1 COMPANY PROFILE

T.P.R ELECTRICA, started at 1989, is a leading electronic wholesale cum retail shop that deals electronic spares, industrial electronic equipments, computer peripherals and accessories. They supply goods to most of the schools, colleges, and electronic industries located in and around Coimbatore district.

By the end of year 2003, they planned to start an online shopping mart in association with their suppliers and other business friends, which will market computer peripherals, electronic equipments, mobile phones, furniture, jewels and gems. The website entitled "WWW.TPRASSOCIATES.COM" had been developed for this purpose.

1.2 PROJECT OVERVIEW

Tprassociates.com is going to be a user-friendly online shopping mart where the users can gather information of various products and they can easily benchmark those products with their competitive products to select an apt product that satisfies their needs. The entire project is broadly classified into two major modules namely web module and the administration module.

1.2.1 Web Module

Web module of this project is further divided into 10 modules. They are

- Computer Mart
- Electronic Mart
- Mobile Mart
- Jewellery Mart
- Furniture Mart
- Service Center
- Encryption And Decryption
- Mode Of Payment
- Advertisement
- Contact

Computer Mart

Branded computers and various brands of computer peripherals and accessories are available in this mart. Users of this website will be of two types namely the direct customers and resellers. Direct customers are one those who buy products for their use and resellers are one those who purchase products for resale. The resellers of this mart have to submit an application form in-order to purchase product at wholesale rate.

The "Quotation Maker" of this mart helps the users to select various configurations for their pc and to know the total cost it indeed. The "Click And Win" section of this mart helps the direct customers to avail special discounts on computer peripherals. The "Customer Helper" of this mart helps the customer to get an online consultant service that gives a list of configuration that fulfills their needs.

Electronic Mart

The electronic equipments such as televisions, air coolers, air-conditioners, washing machines, refrigerators and microwave ovens of various brands are available in this mart. The details such as power consumption, dimensions, weight and other technical details of these equipment specified in this mart will be very much helpful to the customers to select an apt product that fulfill their needs.

Mobile Mart

The various brands and models of mobile phones and their accessories are available in this mart. The "Mobile Exchanger" of this mart helps the customers to sell and buy their mobile phones with a reasonable rate, which gives benefits on both selling and buying to the customers.

Jewellery Mart

The various designs of bangles, rings, bracelets, necklaces, chains and other ornaments are available in this mart. It also contains different gems, birth and precious stones. It also contains detailed information of those gems.

Furniture Mart

The computer furniture and other household furniture under various variety of wood are available in this mart. The German, France and Egypt woodwork designs are available in this mart. The "Customer Choice" of this mart allows the user to post their design specifications, to buy furniture according to their choice.

Service Center

This website contains online service center to its customer. The customers can process service order online and they will be serviced in a day

one or two. The products come under warranty period will be mostly replaced within a week by the date the customer registered the order.

This module displays a client-side image map to users regarding the various service centers in India at different locations. When the user clicks a state in the image map, he or she can able to find the different service centers on that corresponding location. So it will be very much useful to the customers to get serviced faster.

Encryption and Decryption

Encryption and Decryption used in this website is a 128 bit, so the Internet hackers cannot trap the data that are transferred between the customer and the website. The credit card number and other confidential details of the customers will undergo dual processed encryption before data transfer, so it provides an added security to those confidential details.

Mode of Payment

Different mode of payment options are supported by this website such as

- Credit Cards
- Debit Cards
- Money Transfer
- Demand Draft
- Cash on delivery

Advertisement

Advertisements that are displayed in this project are separated as a unique module, so that the rotation of advertisement will be depending upon the scheme of advertisement the product marketer as chosen. This module uses

Ad-Rotator object of ASP, so it helps the advertisements administrator to update the advertisement easily.

Contact

The various marketers of different product can contact this website to market their products. Once the marketers register their product name, specification, email and phone number, the respective person of this website will guide the marketer to market their products through this website.

Advantages Of Website Module

- Colorful pamphlets, that contains image, cost of the product, transportation charges, special discounts and other features of the product, adds elegant view to the customers to easily select the product under a wide range of products under their economic condition.
- 128 bit dual processed encryption and decryption will provide high-level security to the customer's confidential data.
- The background music and pre-recorded audio information available in this website will helps the customers to browse the website in an entertaining way.
- The special services such as Quotation Maker, Click and Win, Customer Helper, Mobile Exchanger and Customer Choice are some of the useful services to the customers.
- Client-Side Image Maps available in Service Center helps the customers to easily locate the service centers and to register service order online.

1.2.2 Administrative Module

Each and every module of the website contains administrative forms to update the information and to add the latest product arrivals. It helps the website administrator to maintain the system in a highly efficient and effective

way. So there is no need to employ a computer software professional to maintain the website.

1.3 OBJECTIVES OF THE PROJECT

- To develop an India's finest shopping mart.
- To provide benefits, both to the customers and the marketers.
- To market the products online, at a cheaper price.
- To give some detailed idea to the customers about the product what they buy.
- To establish the business and to market the products worldwide.

CHAPTER 2

SYSTEM ANALYSIS

This is the phase where all the requirements needed for developing and implementing the project is gathered and placed as documentation for further reference. For implementing this project the needed requirements are

2.1 FEASIBILITY STUDY

The main objective of the feasibility study is to test the technical, social, and economic feasibility of developing a computer system. The proposed system must be evaluated from a technical, social and economic feasibility of developing a computer system. The proposed system must be evaluated from a technical viewpoint first, and if technically heir impact on the organization and staff must be accessed, if compatible social and technical systems can be devised. Then they must be tested for economic feasibility.

2.1.1 Assessing Technical Feasibility

The assessment of technical feasibility must be based on an outline design of system requirements in terms of inputs, outputs, files, programs, procedures and staff. This can be qualified in terms of volumes of data, trends, frequency of updating, cycles of activity etc, in order to give an indication of the technical system. The system is being built with ASP technology and Oracle8i as the back end database server, which are well known specifications.

2.1.2 Assessing Social Feasibility

The various social costs must also be evaluated. These will include the costs of education and training, communication, consultation, salary changes, job improvements, redundancy payment and hidden costs like those caused by hostility, ignorance, and fear. Training to the user will be minimal, since management of systems is with the administrators.

2.1.3 Assessing Economic Feasibility

Justification of any capital outlay is that it will reduce expenditure of improving the quality of service or goods, which in turn may be expected to provide, increased profits. The technique of cost benefits analysis often used as a basis for assessing economic feasibility. From the feasibility study it is found that the system will not cost heavily for its development and maintenance.

2.2 HARDWARE REQUIREMENTS

2.2.1 Application Server:

		Minimum	Recommended
Processor	:	Intel Pentium II	Intel Pentium IV
Speed	:	400MHz	2.2GHz
Memory	:	128MB RAM	512MB RAM
Hard Disk	:	8GB	80GB

2.2.2 Database Server:

		Minimum	Recommended
Processor	:	Intel Pentium II	Intel Pentium IV
Speed	:	400MHz	2.2GHz
Memory	:	128MB RAM	512MB RAM
Hard Disk	:	8GB	80GB

2.2.3 Client Machine:

		Minimum	Recommended
Processor	:	Intel/AMD	Intel/AMD
Speed	:	X86 Series	166MHz
Memory	:	16MB RAM	64MB RAM
Hard Disk	:	1GB	4GB

2.3 SOFTWARE REQUIREMENTS

2.3.1 Application Server:

Operating System	:	Windows 2000 and Above.
Web Server	:	Internet Information Server.
Front-End	:	Visual Interdev and Visual Basic.

2.3.2 Database Server:

Operating System	:	Windows 2000 and Above.
Database	:	Oracle 8i

2.3.3 Client Machines:

Operating System	:	Windows 9x and Above.
Software	:	Web Browser and VB Runtime.

2.4 SOFTWARE OVERVIEW

2.4.1 Active Server Pages

ASP (Active Server Pages) is a technology developed by Microsoft. Pages using ASP are primarily developed in JavaScript, VBScript, or PerlScript and are integrated into the HTML of your Web pages. The ASP code is compiled on-the-fly by the server and the resulting output is standard HTML. By using ASP, Web pages can be dynamic, full of ever-changing content, and browser independent.

Microsoft Active Server Pages (ASP) is a server-side scripting environment that we can use to create and run dynamic, interactive Web server applications. With ASP, we can combine HTML pages, script commands, and COM components to create interactive Web pages or powerful Web-based applications, which are easy to develop and modify.The first attempt at providing user interaction in web pages was through Server-Side scripts. The client browser would send a request to the server. A script on the server would process the request and send the results back to the client browser.

An ASP document has an .asp file extension and can have a combination of HTML, Client-Side Script, Server-Side Script, ASP objects, Applets, ActiveX components. When an ASP file is displayed in the browser, the HTML syntax is executed and the page is displayed in the browser. The Server based script is executed on the server and the resulting HTML is send to the browser.

Advantages of using ASP:

- As a developer, we can make changes to the .asp file on the server and save the changes to the file. The next time the page is loaded, the script will be automatically compiled. The reason being, the ASP technology is built into all Microsoft Web Servers.

- We can create a web page with dynamic content. The web server processes the code and generates HTML depending on the request made by the user. For example we can display an Active Server Page that displays a greeting based on the time of day.

2.4.2 Visual Interdev

Microsoft Visual InterDev 6.0 provides a complete solution for building dynamic Web applications. Visual InterDev is the Web development component of Microsoft. Using Visual InterDev 6.0, we can create anything from a simple HTML-based Web page to complete data-driven Web sites and applications as well as integrated solutions that incorporate components written in any Visual Studio language.

Web applications are need of the hour. A typical web based application must provide a client side interface and user interaction. This can be done through HTML pages and client side scripts. Once the data is validated, it is send to the server for processing. Therefore, the application must include the Server based scripts that processes the data submitted by the user. Typically, ActiveX Server Pages are used to provide server based processing. Most applications are database oriented. Web based applications are more different.

Today, there are several tools and technologies that can be used to develop web based applications. Visual Interdev is an integrated tool that can be used to create, test, debug and deploy full-featured Web-Based applications. That is we can :

- Create HTML pages that display the client-side interface.
- Include client side scripts that validate the data entered by the user before it submitted to the server.
- Create ASP files that contain server-based scripts to process the data and provide the application logic.

2.4.3 Visual Basic

1. It is a front-end tool.
2. It is a GUI(Graphical User Interface)
3. It is a 4GL(Fourth Generation Language)

Visual Basic 6.0 is a powerful front-end tool from Microsoft Corporation. It effectively handles Windows application and database application, working in VB IDE (Integrated Development Environment) is a pleasant experience. It is based upon Event driven programming. Here there is a great advantage over programming languages, because the design can be changed to our satisfaction.

ADO (Active-X Data Objects) is enabled in VB 6.0, which features a simpler object model than DAO & RDO. Data environment is a new Active-X designer that enables the user to visually manage database connection and commands. The most notable enhancement includes Dynamic HTML support. DHTML application is a Visual Basic application that combines VB code with DHTML to create a browser-based application. Its purpose is to interact the user at browser.

2.4.4 ADO

Active Data Object (ADO) is Microsoft's data access framework that encompasses the function of Data Access Objects (DAO). Remote Data Object (RDO) as well as almost any other data access method. ADO uses a new database connection framework called OLEDB, which allows fast and more flexible access to multiple data provider, and ADO wraps it all into one easy-to-use interface.

The most common usage of ADO is to query a table or tables in a relational database, retrieve and display the results in an application, and perhaps allow users to make and save changes to the data. Other tasks include:

- Querying a database using SQL and displaying the results.
- Accessing information in a file store over the Internet.
- Manipulating messages and folders in an e-mail system.
- Executing stored procedures.
- Dynamically creating a flexible structure, called a **Recordset**, to hold, navigate, and manipulate data.
- Performing transactional database operations.
- Filtering and sorting local copies of database information based on run-time criteria.

2.4.5 Oracle 8i

A database is a collection of information related to a particular subject or purpose, such as tracking customer orders. If the database is not stored on a computer, or only parts of it, there is the information from a variety of sources that we have to coordinate and organize. Using oracle all the information is managed from a single database file, divide the data into separate storage containers called tables, view, add and update table data using online forms, find and retrieve the data using queries, and analyze or print data in a specific order using reports.

The core features of Oracle8i includes

- Enterprise Manager: This tool saves a great deal of code writing by aiding you with menus and windows for many database administrator task, such as creating new users and tables.
- SQL *Plus: This tool allows you to create and run queries, add rows, modify data and write reports.

CHAPTER 3

SYSTEM DESIGN

3.1 FUNDAMENTAL DESIGN CONCEPTS

System design is a transition from user-oriented documents to document oriented programmers or database personnel. It emphasis on translating performance specification into design specification and it involves conceiving and planning and then carrying out the plan by generating the necessary reports and outputs. Design phase acts as a bridge between the software requirement specification and implementation phase, which satisfies the requirements

The major step in design is the preparation of input and the design of output reports in a form, which is acceptable to the user. The first step in system design is to design the input and output within predefined guidelines. In the input design, the users oriented inputs are converted into computer-based format whereas in the output design, the emphasis is on producing the hard copy of information requested or either displaying output on the screen.

An Object Oriented Approach has been adopted in the development of the system. For process performing the similar operations or which require similar structure the Objects created are reused. A Relational approach is used in designing the database using Oracle8i as the supporting database tool.

3.2 DATABASE DESIGN

A database is a repository for stored operational data. It is simply a collection of inter related data stored with minimum redundancy to serve many users quickly and effectively. The main objective in database concept is to bring data integration so as to allow several users share a common data for various applications. It facilitates quick and easy access for all the users. The maintenance of database is done by the DBMS.

The major objectives for maintaining such databases are:

- Reduced Redundancy
- Enforcing Standards
- Sharing Of Data
- Maintaining Integrity
- Data Independence
- Applying Security Restrictions

The major database components are:

- File Manager
- DDL Compiler
- Database Manager
- Query Processor
- DML Pre-Compiler

3.2.1 Relational Database Design (RDBMS):

Relational database model is record based logical model. It represents data and relationships with unique names. The goal of relational database design is to generate a set of relational schemas that allow us to store information with our unnecessary redundancy, yet allow us to retrieve information easily.

3.2.2 Input Design

The design decisions for handling input specify how data are accepted for computer processing. Analysis decides whether the data are entered directly, or buying source documents, such as variable forms where the data are transferred in to the computer for processing.

Objectives Of Input Design:

The quality of system input determines the quality of system output. Input specifications describe the manner in which data enter the system processing. Input design features can ensure the reliability of the system and produce results from accurate data, or they can result in the production of erroneous information. The input design also determines whether the user can interact efficiently with the system.

Objectives guiding the design of the input focuses on:

- Effectiveness
- Accuracy
- Easy To Use
- Consistency

3.2.3 Output Design

One of the most important features of an information system for the users is the output it produces. Output is the information delivered to users through the information systems. Without quality output, the entire system may appear to be unnecessary that users will avoid using it. Users generally merit the system analyst works closely with the user through an interactive process, until the result is considered to be satisfactory. Therefore, an effective output design is an important feature specification.

Objectives Of Output Design

Since useful output is essential for gaining use and acceptance of the system, the system analyst should try and follow the objectives, which are useful for design acceptable outputs.

- Design output to serve the intended purpose.
- Design output to fit the user.
- Deliver the appropriate quantity of output.
- Assure that the output is needed.
- Provide output in time.
- Choose the appropriate output.

3.3 DESIGN NOTATIONS

3.3.1 Data Flow Diagram

A Data Flow Diagram (DFD) is a graphical technique that depicts information flow and the transformation that is applied as data moves from input to output. The data flow diagram may be used to represent a system at any level of abstraction. So the DFD may be partitioned into levels that represent increasing information flow.

Data Flow Design is a means of representing a system at any level of detail with a graphic network of symbols showing data flows, data stores, data processes, and data sources/destinations.

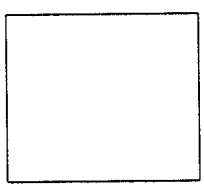
The purpose of data flow diagrams is to provide a semantic bridge between users and systems developers. The diagrams are:

- Graphical, eliminating thousands of words;
- Logical representations, modeling WHAT a system does, rather than physical models showing HOW it does it;
- Hierarchical, showing systems at any level of detail; and

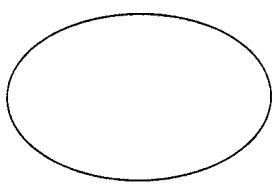
- Jargon less, allowing user understanding and reviewing.

The goal of data flow design is to have a commonly understood model of a system. The diagrams are the basis of structured systems analysis. Data flow diagrams are supported by other techniques of structured systems analysis such as data structure diagrams, data dictionaries, and procedure-representing techniques such as decision tables, decision trees, and structured English.

The basic symbols used to draw a DFD are the following.

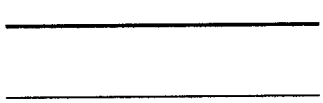


Represents the information that resided outside the bounds of the system to be developed.



A transformation of information that resided within the bounds of the system to be modeled

A data object, the arrowhead indicates the direction of Information flow

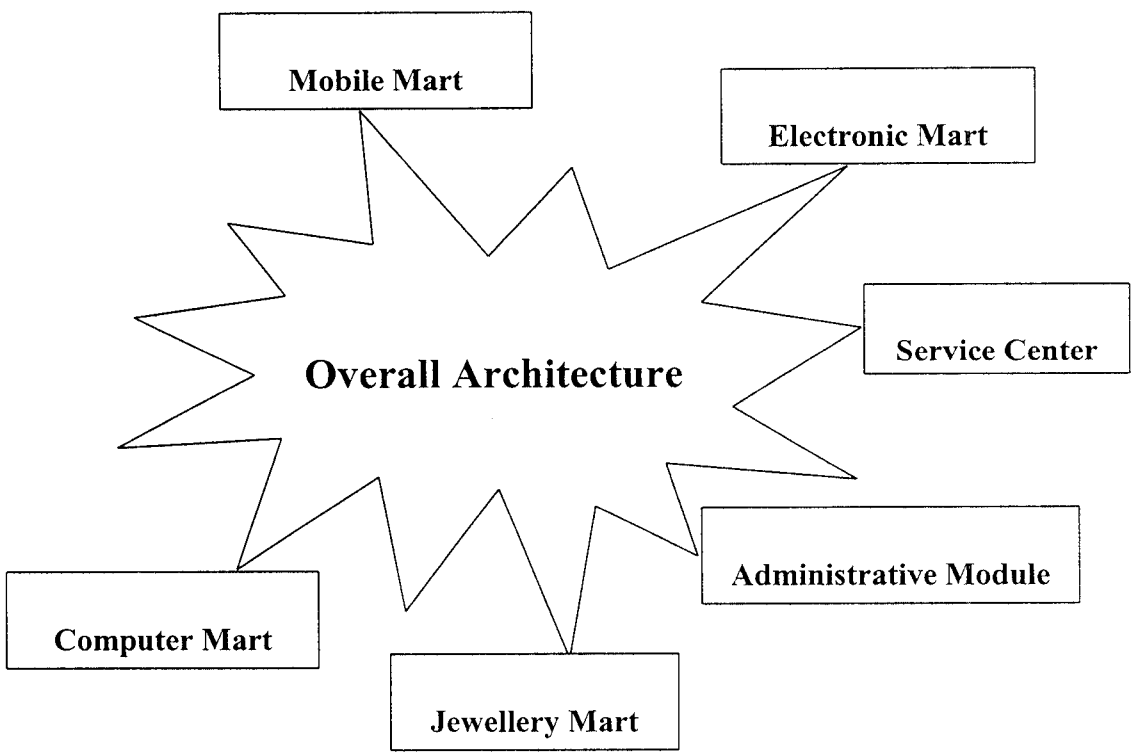


A repository of data that is stored for use by one or more processes. A data is represented inside this symbol.

Each of the bubbles that represent a process or transform may be refined or layered to depict information in more detail. Each such refinement is called a level. The level 0 DFD represent the fundamental system model, which can be refined to more detail.

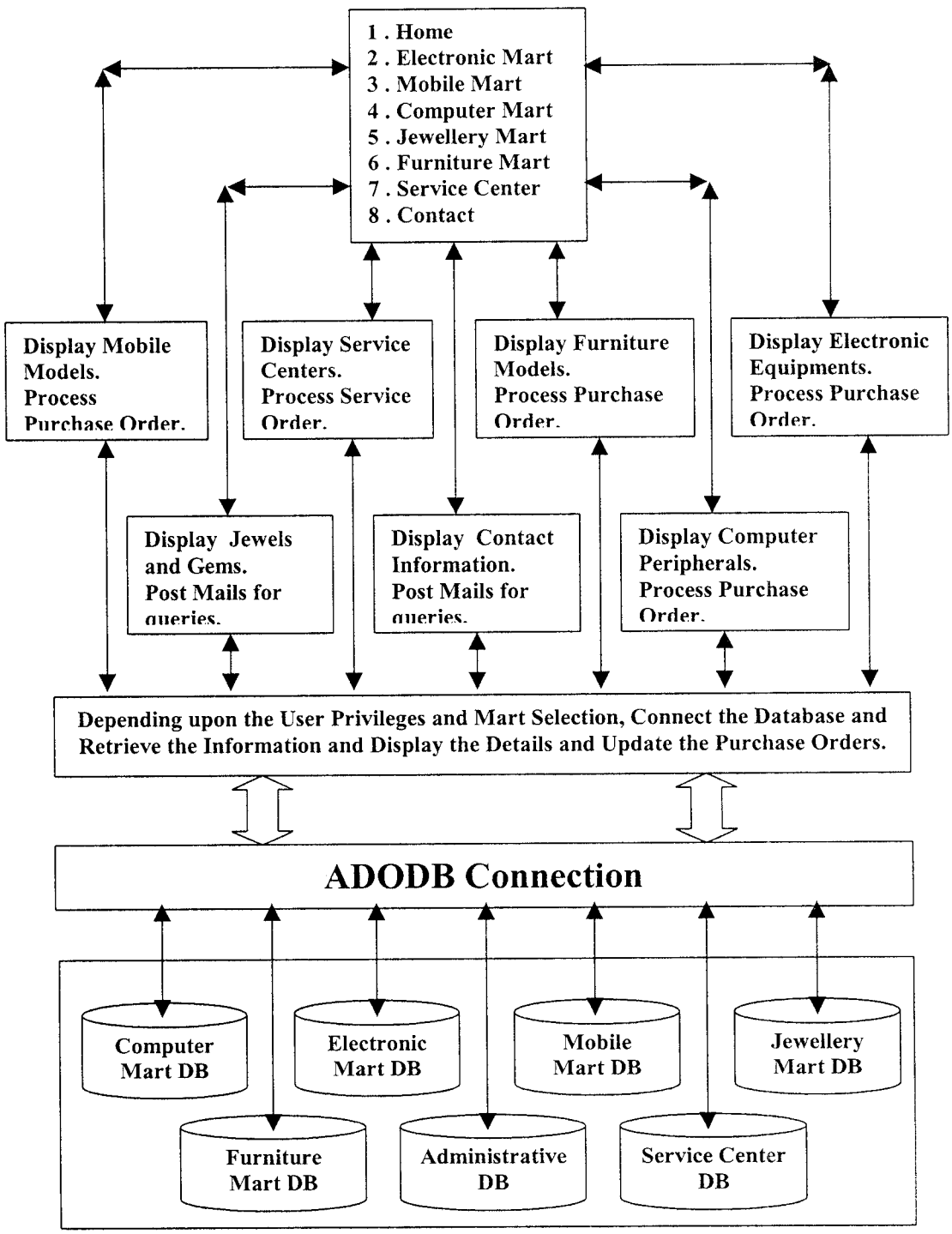
OVERALL ARCHITECTURE

Figure 3.3.1



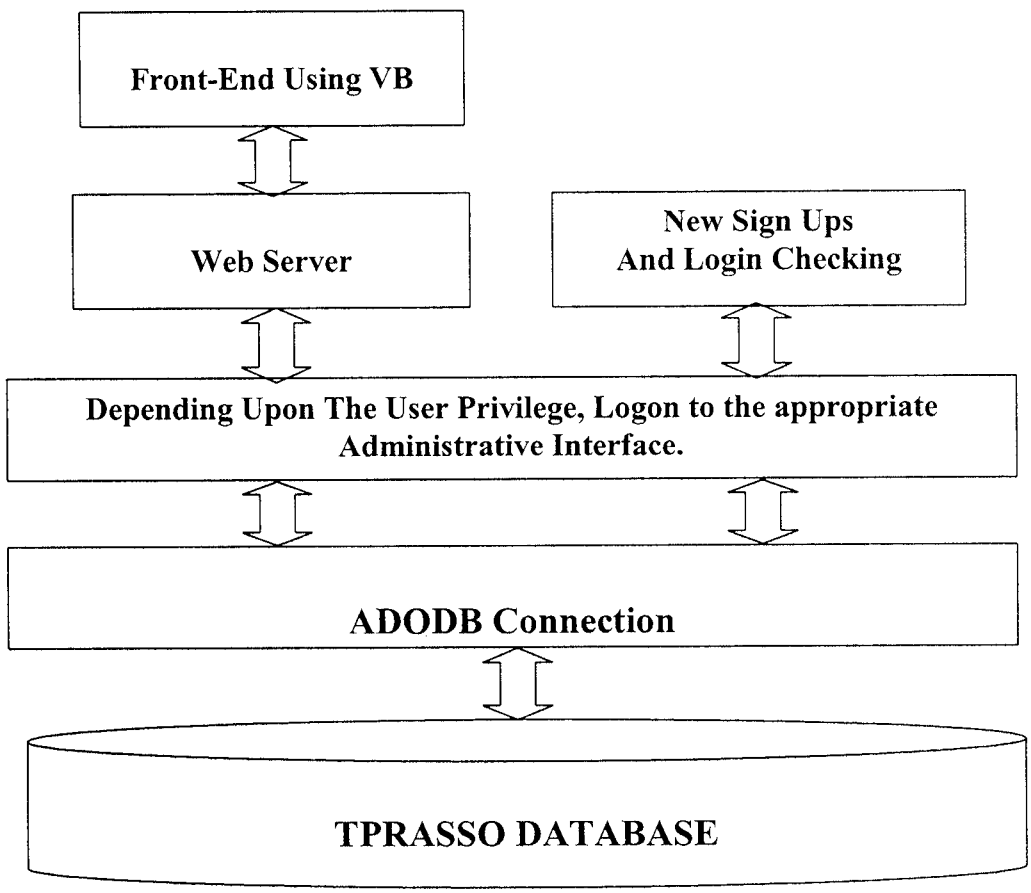
DETAILED DESIGN DIAGRAM

Figure 3.3.2



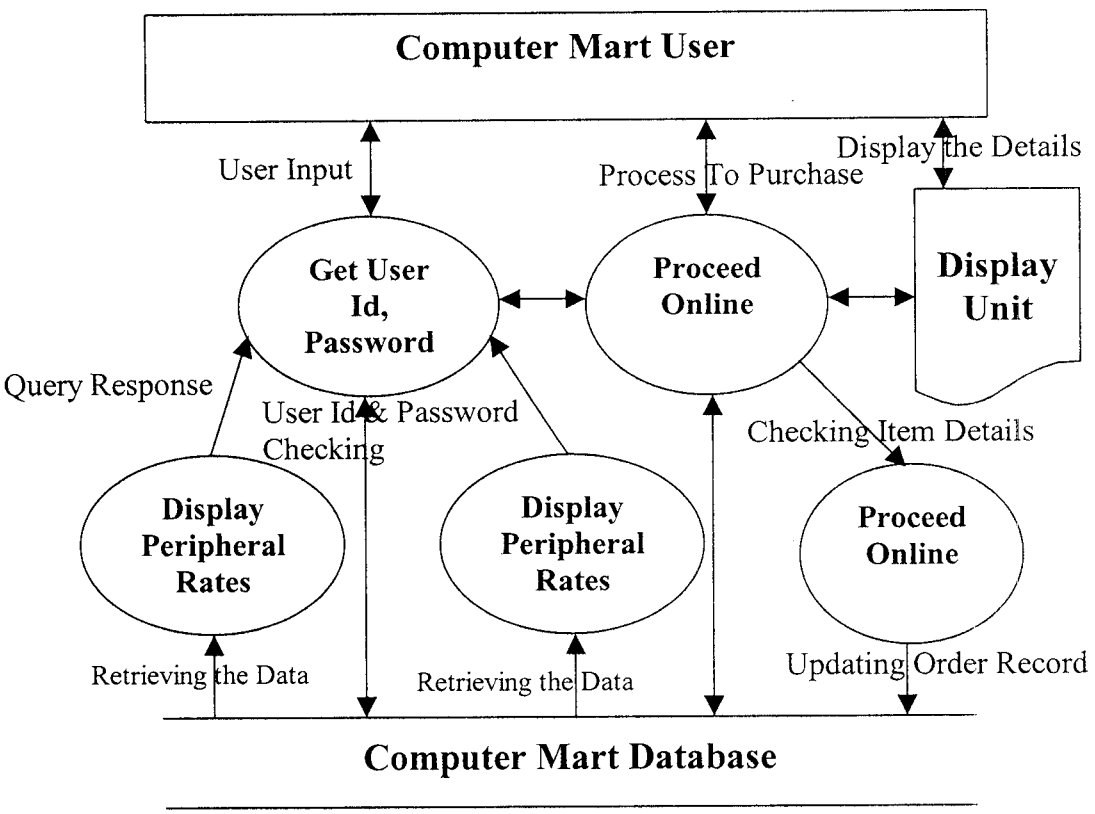
DETAILED DESIGN DIAGRAM-ADMIN SYSTEM

Figure 3.3.3



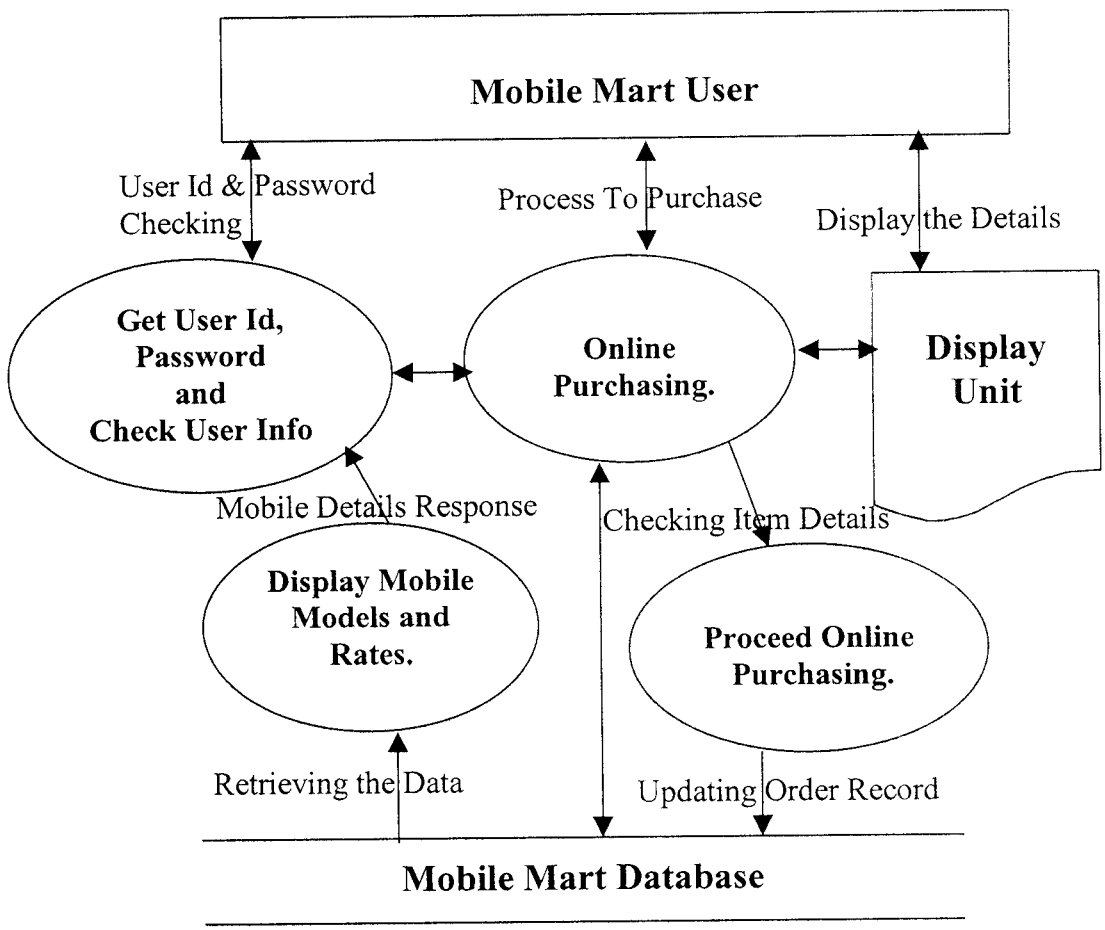
DATA FLOW DIAGRAM OF COMPUTER MART

Figure 3.3.4



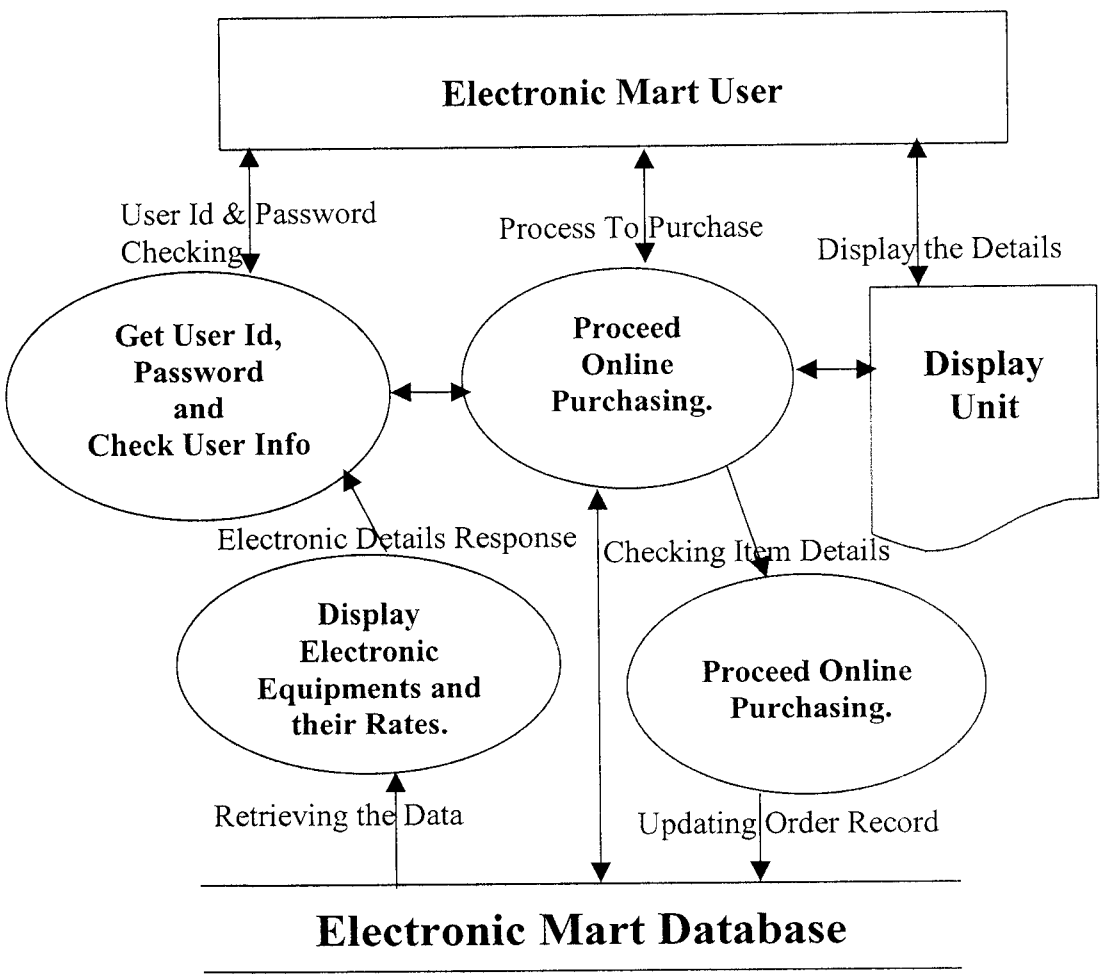
DATA FLOW DIAGRAM OF MOBILE MART

Figure 3.3.5



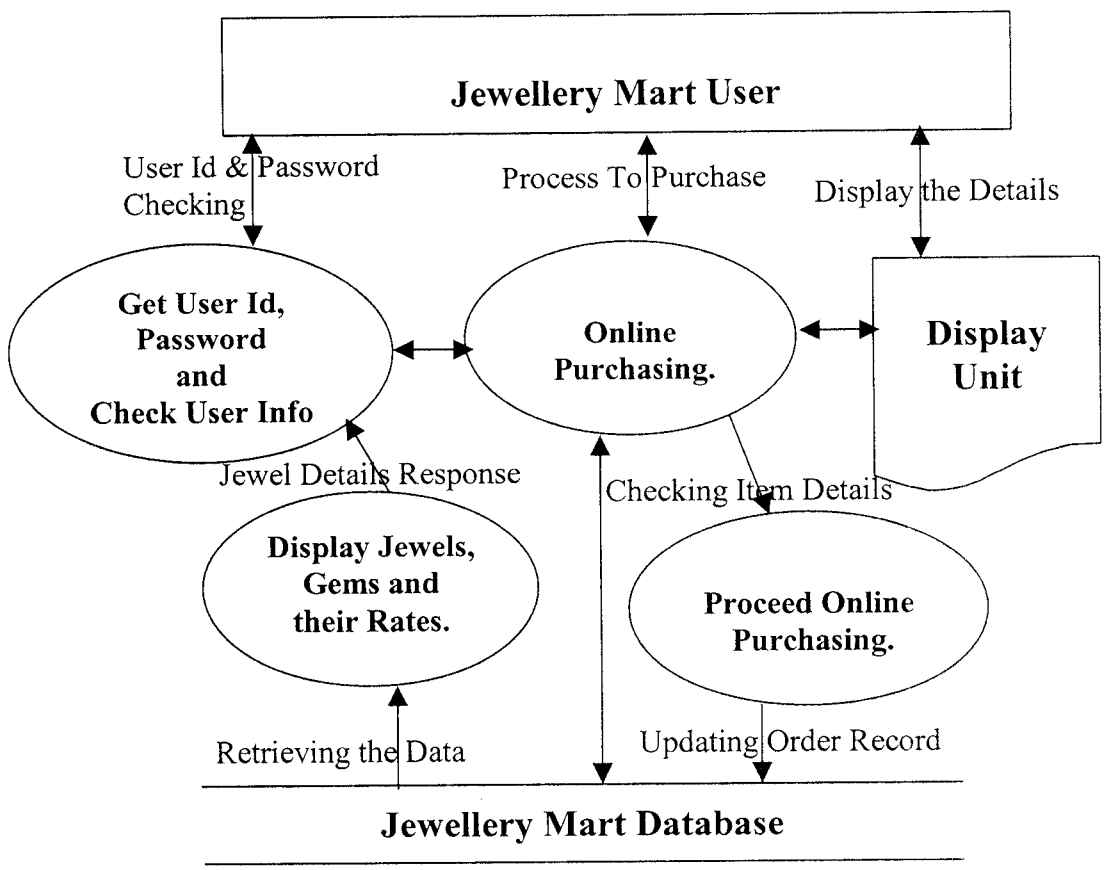
DATA FLOW DIAGRAM OF ELECTRONIC MART

Figure 3.3.6



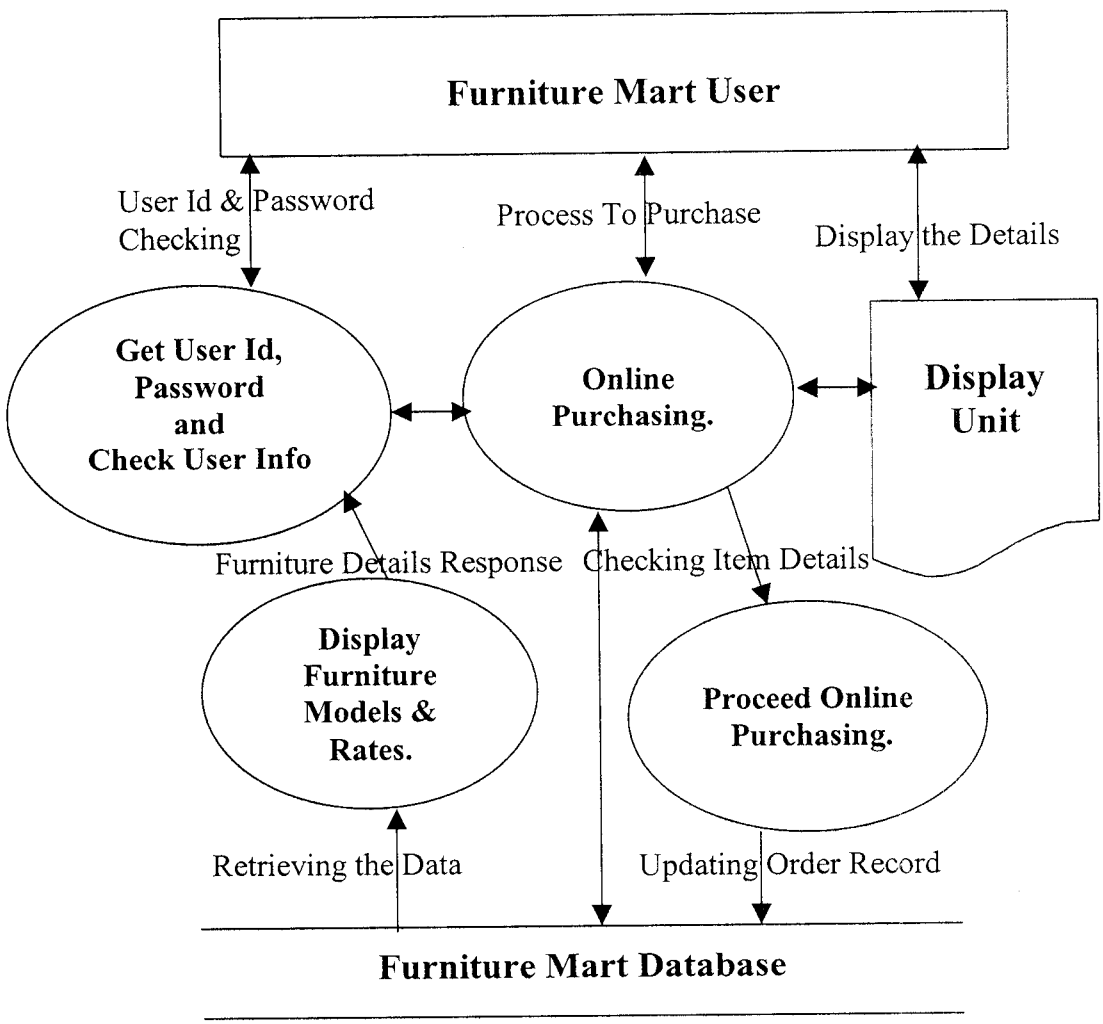
DATA FLOW DIAGRAM OF JEWELLERY MART

Figure 3.3.7



DATA FLOW DIAGRAM OF FURNITURE MART

Figure 3.3.8



3.4 TABLES DESIGN

Table 3.4.1: ADMINUSER

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
NAME	VARCHAR	25		PRIMARY KEY
PASSWORD	VARCHAR	15		
CATEGORY	VARCHAR	15		

Table 3.4.2: QBANK

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
QNO	NUMBER	3	0	PRIMARY KEY
QUESTION	VARCHAR	200		
OPTION1	VARCHAR	100		
OPTION2	VARCHAR	100		
OPTION3	VARCHAR	100		
OPTION4	VARCHAR	100		
RESULT	VARCHAR	100		

Table 3.4.3: CUSTOMERS

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
CUS_ID	VARCHAR	10		PRIMARY KEY
PASSWORD	VARCHAR	15		
NAME	VARCHAR	25		
AGE	NUMBER	3	0	
SEX	CHAR	1		
DOOR NO	VARCHAR	25		
STREET	VARCHAR	50		
STREETPLUS	VARCHAR	25		
CITY	VARCHAR	25		
STATE	VARCHAR	25		
COUNTRY	VARCHAR	25		
PHONE	VARCHAR	15		
FAX	VARCHAR	15		
EMAIL	VARCHAR	35		

Table 3.4.4: RESELLERS

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
RES_ID	VARCHAR	10		PRIMARY KEY
PASSWORD	VARCHAR	15		
CNAME	VARCHAR	35		
NAME	VARCHAR	25		
AGE	NUMBER	3	0	
SEX	CHAR	1		
DOOR NO	VARCHAR	25		
STREET	VARCHAR	50		
STREETPLUS	VARCHAR	25		
CITY	VARCHAR	25		
STATE	VARCHAR	25		
COUNTRY	VARCHAR	25		
PHONE	VARCHAR	15		
FAX	VARCHAR	15		
EMAIL	VARCHAR	35		

Table 3.4.5: SER_PROVIDERS

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
SERP_ID	VARCHAR	5		PRIMARY KEY
CPERSON	VARCHAR	25		
CNAME	VARCHAR	35		
DOOR NO	VARCHAR	25		
STREET	VARCHAR	50		
STREETPLUS	VARCHAR	25		
CITY	VARCHAR	25		
STATE	VARCHAR	25		
COUNTRY	VARCHAR	25		
PHONE	VARCHAR	15		
FAX	VARCHAR	15		
EMAIL	VARCHAR	35		
PRODUCT	VARCHAR	25		
PRMAKE	VARCHAR	15		

Table 3.4.6: DISCOUNT

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
DIS_IN	VARCHAR	5		PRIMARY KEY
CUS_ID	VARCHAR	10		
DIS_GOT	NUMBER	2		

Table 3.4.7: SER_ORDER

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
SERO_ID	VARCHAR	5		PRIMARY KEY
SERP_ID	VARCHAR	5		
PRODUCT	VARCHAR	25		
PRMAKE	VARCHAR	15		
ODATE	VARCHAR	10		
VDATE	VARCHAR	10		
ADATE	VARCHAR	10		
FAULT	VARCHAR	200		
CUS_ID	VARCHAR	10		
RES_ID	VARCHAR	10		
INVOICE_NO	VARCHAR	10		
INVOICE_DT	VARCHAR	10		
TYPE	VARCHAR	15		

Table 3.4.8: SALES_ORDER_DET

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
SO_ID	VARCHAR	5		PRIMARY KEY
PRNAME	VARCHAR	50		
QTY	NUMBER	2	0	
AMOUNT	NUMBER	7	2	
TRANS	NUMBER	3	0	
TAX	NUMBER	3	0	
DISCOUNT	NUMBER	3	0	
TCOST	NUMBER	7	2	

Table 3.4.9: SALES_ORDER

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
SO_ID	VARCHAR	5		PRIMARY KEY
CUS_ID	VARCHAR	10		
SO_DATE	VARCHAR	10		
STYPE	VARCHAR	15		
PNAME	VARCHAR	35		
DOOR NO	VARCHAR	25		
STREET	VARCHAR	50		
STREETPLUS	VARCHAR	25		
CITY	VARCHAR	25		
STATE	VARCHAR	25		
COUNTRY	VARCHAR	25		
PHONE	VARCHAR	15		
FAX	VARCHAR	15		
EMAIL	VARCHAR	35		
DIS_DESC	VARCHAR	25		
DIS_AMT	NUMBER	6	2	
AMOUNT	NUMBER	7	2	
STATUS	VARCHAR	10		

Table 3.4.10: CDROM

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
CDR_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
ATIME	VARCHAR	25		
BUFFER	VARCHAR	25		
DIM	VARCHAR	25		
INTERFACE	VARCHAR	25		
LOADTYPE	VARCHAR	25		
MTYPE	VARCHAR	25		
PRICE	NUMBER	8	2	

Table 3.4.11: BRANDEDPC

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
BPC_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
FDD	VARCHAR	25		
HDD	VARCHAR	25		
KEYBOARD	VARCHAR	25		
MEMORY	VARCHAR	25		
MODEM	VARCHAR	25		
MONITOR	VARCHAR	25		
MOUSE	VARCHAR	25		
OPTICALDR	VARCHAR	25		
PROCESSOR	VARCHAR	25		
SPEAKERS	VARCHAR	25		
PRICE	NUMBER	8	2	

Table 3.4.12: CABINET

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
CB_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
COMPACT	VARCHAR	25		
PRICE	NUMBER	8	2	

Table 3.4.13: CDWRITER

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
CDW_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
ATIME	VARCHAR	25		
BUFFER	VARCHAR	25		
DTS	VARCHAR	25		
DIM	VARCHAR	25		
INTERFACE	VARCHAR	25		
LOADTYPE	VARCHAR	25		
SUP_DF	VARCHAR	200		
RS	VARCHAR	25		
WSCDW	VARCHAR	25		
WSCDRW	VARCHAR	25		
PRICE	NUMBER	8	2	

Table 3.4.14: MOUSE

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
M_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
INTERFACE	VARCHAR	25		
KEY _FEAT	VARCHAR	100		
PCTYPE	VARCHAR	25		
PRICE	NUMBER	8	2	

Table 3.4.15: KEYBOARD

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
KB_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
INTERFACE	VARCHAR	25		
KEY _FEAT	VARCHAR	100		
PCTYPE	VARCHAR	25		
PRICE	NUMBER	8	2	

Table 3.4.16: PROCESSORS

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
PR_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
SPEED	VARCHAR	12		
BUSSPEED	VARCHAR	12		
CACHE	VARCHAR	12		
PRICE	NUMBER	8	2	

Table 3.4.17: MEMORY

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
MR_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
INTERFACE	VARCHAR	25		
CAPACITY	VARCHAR	12		
PRICE	NUMBER	8	2	

Table 3.4.18: MBBOARD

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
MB_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
SUITABLE	VARCHAR	25		
ADD_OS	CHAR	1		
GDESC	VARCHAR	500		
MEM_SUP	VARCHAR	12		
PRICE	NUMBER	8	2	

Table 3.4.19: HDD

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
HD_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
RPM	VARCHAR	12		
CAPACITY	VARCHAR	12		
PRICE	NUMBER	8	2	

Table 3.4.20: FDD

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
FD_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
INTERFACE	VARCHAR	25		
RPM	VARCHAR	12		
CAPACITY	VARCHAR	12		
WORKMODE	VARCHAR	100		
PRICE	NUMBER	8	2	

Table 3.4.21: UPS

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
UPS_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
BACKUP	VARCHAR	25		
BATTERY	VARCHAR	25		
DIM	VARCHAR	25		
EMI_SURGE	VARCHAR	3		
IVOLT	VARCHAR	12		
INTERFACE	VARCHAR	25		
OVOLTB	VARCHAR	12		
OVOLTL	VARCHAR	12		
POUT	VARCHAR	100		
RETIME	VARCHAR	25		
SCAP	VARCHAR	12		
PRICE	NUMBER	8	2	

Table 3.4.22: SPEAKERS

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
SK_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
INTERFACE	VARCHAR	25		
SURROUND	VARCHAR	3		
CAPACITY	VARCHAR	12		
SP_FEAT	VARCHAR	100		
PRICE	NUMBER	8	2	

Table 3.4.23: MONITOR

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
MT_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
COLORS	VARCHAR	25		
DIM	VARCHAR	25		
DPITCH	VARCHAR	25		
INTERFACE	VARCHAR	25		
PCTYPE	VARCHAR	25		
PIXELF	VARCHAR	25		
PCONS	VARCHAR	100		
RESMAX	VARCHAR	25		
RESREC	VARCHAR	25		
SIZE	VARCHAR	25		
SPEAKERS	VARCHAR	25		
UCONT	VARCHAR	50		
VIMGS	VARCHAR	25		
PRICE	NUMBER	8	2	

Table 3.4.24: MODEM

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
MM_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
INTERFACE	VARCHAR	25		
SPEED	VARCHAR	25		
PCTYPE	VARCHAR	25		
PRICE	NUMBER	8	2	

Table 3.4.25: MOBILE

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
MBL_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	100		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
ACC_INC	VARCHAR	25		
BATTERY	VARCHAR	25		
DIM	VARCHAR	25		
GAMES	VARCHAR	25		
NETWORK	VARCHAR	25		
OT_FEAT	VARCHAR	250		
MOB_COL	VARCHAR	25		
ST_FEAT	VARCHAR	250		
WAP	VARCHAR	3		
PRICE	NUMBER	8	2	

Table 3.4.26: DCAMERA

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
MM_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	250		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
CAPACITY	VARCHAR	25		
PRICE	NUMBER	8	2	

Table 3.4.27: LAPTOPS

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
LT_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	250		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
AUDIO	VARCHAR			
BATTERY	VARCHAR			
BUND_SW	VARCHAR			
DIM	VARCHAR			
HDD	VARCHAR			
KEYBOARD	VARCHAR			
MODEM	VARCHAR			
MONITOR	VARCHAR			
MOUSE	VARCHAR			
OPTICALDR	VARCHAR			
PCW	VARCHAR			
PROCESSOR	VARCHAR			
V_GRAPH	VARCHAR			
PRICE	NUMBER	8	2	

Table 3.4.28: FURNITURE

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
FR_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	250		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
DIM	VARCHAR	25		
WEIGHT	VARCHAR	25		
WOODTYPE	VARCHAR	25		
COLOR	VARCHAR	25		
CUPB	VARCHAR	50		
MOUNTTYPE	VARCHAR	25		
BASETYPE	VARCHAR	25		
PRICE	NUMBER	8	2	

Table 3.4.29: TELEVISION

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
TV_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	250		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
SP_FEAT	VARCHAR	250		
PRICE	NUMBER	8	2	

Table 3.4.30: WISHLIST

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
PR_ID	VARCHAR	5		PRIMARY KEY
CUS_ID	VARCHAR	10		
WL_DAYS	VARCHAR	25		
PR_TYPE	VARCHAR	15		

Table 3.4.31: REFRIDGERATOR

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
RF_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	250		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
SP_FEAT	VARCHAR	250		
PRICE	NUMBER	8	2	

Table 3.4.32: ACOND

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
ACD_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	250		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
SP_FEAT	VARCHAR	250		
PRICE	NUMBER	8	2	

Table 3.4.33: WASHMAC

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
WM_ID	VARCHAR	5		PRIMARY KEY
BNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	250		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
SP_FEAT	VARCHAR	250		
PRICE	NUMBER	8	2	

Table 3.4.34: JEWELLERY

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
LT_ID	VARCHAR	5		PRIMARY KEY
JNAME	VARCHAR	25		
TRANS	NUMBER	3	0	
NOD	NUMBER	2	0	
SDESC	VARCHAR	250		
WARRANTY	VARCHAR	25		
PRIMAGE	VARCHAR	12		
GRAMS	VARCHAR	25		
WAGES	VARCHAR	25		
WASTAGES	VARCHAR	25		
STONES	VARCHAR	25		
SP_FEAT	VARCHAR	200		
JTYPE	VARCHAR	25		
PRICE	NUMBER	8	2	

Table 3.4.35: SHOPPINGCART

FIELD NAME	TYPE	WIDTH	DEC	DESCRIPTION
PR_ID	VARCHAR	5		PRIMARY KEY
CUS_ID	VARCHAR	10		
SC_ID	VARCHAR	15		
PR_TYPE	VARCHAR	15		
DATE	VARCHAR	10		

CHAPTER 4

TESTING AND IMPLEMENTATION

4.1 SYSTEM TESTING

Testing plays a vital role to the success of the project, which is the last stage of the software development. The testing stage has several purposes to affirm the quality of the project, to find and eliminate any residual errors from the previous stage to validate the software and to eliminate the operational reliability of the system.

There are two general category of testing. Pre implementation and post implementation. Software testing for the process planning system has been done during the pre implementation stage using various software testing strategies.

4.1.1 Unit Testing

The individual modules are tested for their proper functioning and are found to be satisfactory. It is the process of taking the program module and run it isolated from the rest of the software product by using prepared input and comparing the actual results predicted by the specification and design of the module. Since the module developed has high cohesion, unit testing was simplified.

4.1.2 Integration Testing

An integration test plan is developed to incorporate each module into the overall software structure. Integrated testing accomplishes the following tasks.

- Testing each step in assembly to isolate errors introduced by newly incorporated modules.
- The usability test verifies the user-friendly nature of the system.

4.1.3 Validation Testing

Data are entered as input to the system and the necessary reports are obtained and the validated as per the given instruction.

4.1.4 Black Box Testing

In this testing the actual working of the system is not taken into consideration. The system is tested with the point of view of the user. The user interface is checked. A person who is not familiar with the system can best carry out this testing. All the operations are checked intensively and their error is rectified if any is found. This testing is very important in the point of view of user.

Here we do not go into the detail working of the system, rather just the interfaces and the part of the system that the user deals with. This testing is required to show that the system is user-friendly and responds correctly and as planned to various events that take place within the systems.

4.1.5 White Box Testing

This testing is just vice-versa of black box testing. Here the tests are carried out with the knowledge of the background working of the system. This is done by developers of the system and is requiring showing that the system

works as planned and the transfer of data between the various modules are taking place correctly.

This testing gives a clear idea of what is actually going on inside the system and errors, if any, will be clear and can be rectified easily. The website thus developed has undergone all these tests and had given positive results.

4.2 SYSTEM IMPLEMENTATION

Implementation includes all those activities that take place to creating a domain name, uploading the files to the website and other administrative activities. A proper implementation is essential to provide a reliable system to meet the requirements of the customers and the company. An improper installation may affect the success of the website and the administrative system.

4.2.1 Implementation Procedure

Implementation Plan

The implementation plan includes a description of all the activities that must occur to launch the website and to put it into operation. It identifies the personnel responsible for the activities and prepares a time chart for launching the website. The implementation plan consists of the following steps.

- List all files that have to be uploaded.
- Identify all data required to build new files during the upload.
- List all new documents and procedures that go into the new system.

The implementation plan should anticipate possible problems and must be able to deal with them. The usual problems may be missing documents; mixed data formats between current files, errors in data translation, missing data etc. The implementation will start after all the modules of the website are integrated and tested together.

4.3 SYSTEM MAINTAINENCE

Once the website and administration system has been developed, it cannot be considered as the end of the system life cycle. After the implementation it is necessary that the system be constantly monitored so that it may be decided as to how the system is working. If any problem is encountered it is necessary that the in charge person rectifies the problem so that the clients may not be affected by the problem. This phase of the system development life cycle is called the System Maintenance period. During this period all the possible problems will be rectified. Maintenance is making adaptation of the software for external changes (requirements changes or enhancements) and internal changes (fixing bugs). When changes are made during the maintenance phase all preceding steps of the model must be revisited.

There are three types of maintenance:

1. Corrective (Fixing bugs/errors)
2. Adaptive (Updates due to environment changes)
3. Perfective (Enhancements, requirements changes)

The corrective maintenance is just a one step process. Just the errors are corrected and the person leaves. The further details regarding the system are not the concern of the system engineer.

The adaptive maintenance occurs when the environment in which the system had been working is modified or changed. The system will have to be changed so that it may become adaptable to the changes that have been made to the environment.

A Perfective maintenance occurs when further enhancements are to be made to the existing system. This type of maintenance also occurs when the customer requirement changes.

CHAPTER 5

CONCLUSIONS

Undertaking a Project is the best teacher and we can make out how much we have learnt. In that aspect I am very proud that the time I spend to develop this website has been a striking realization for me.

The website "www.tprassociates.com" will fulfill both the customers and marketers. Presently the system is under testing phase. And after testing, it will undergo integration with the other modules of the website.

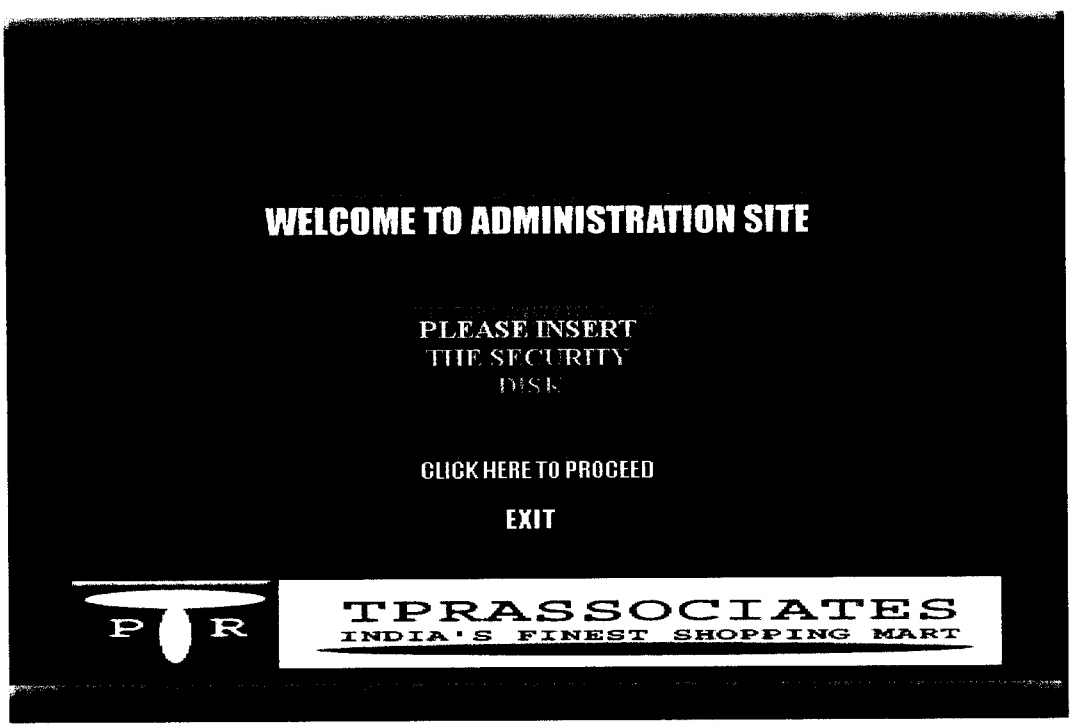
To Conclude "www.tprassociates.com" is a user-friendly website and since it is developed using Visual Interdev and Visual Basic, future enhancements can be appended with the website easily.

Scope For Further Enhancement:

- This website will market entire range of products under all categories available in the market.
- This will also be implemented for mobile users and other palmtop users.
- Depending upon the suggestions of the customers, the website will be enhanced.
- Full administration control will be launched through the Internet itself.

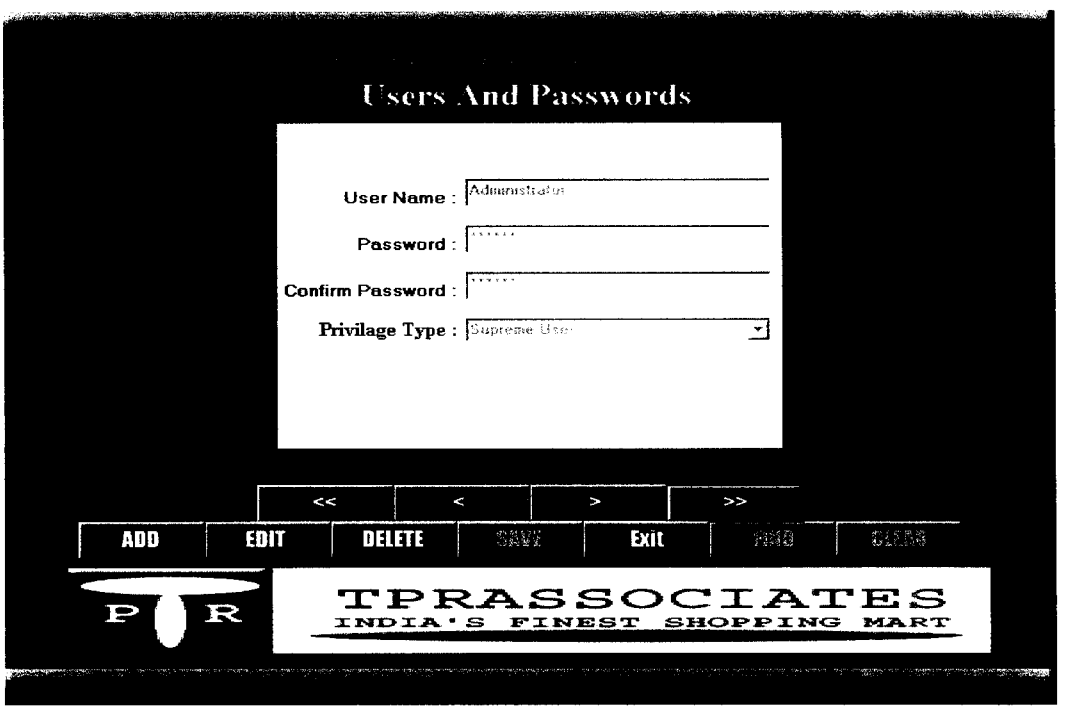
APPENDICES

Administrative Application – Opening Form

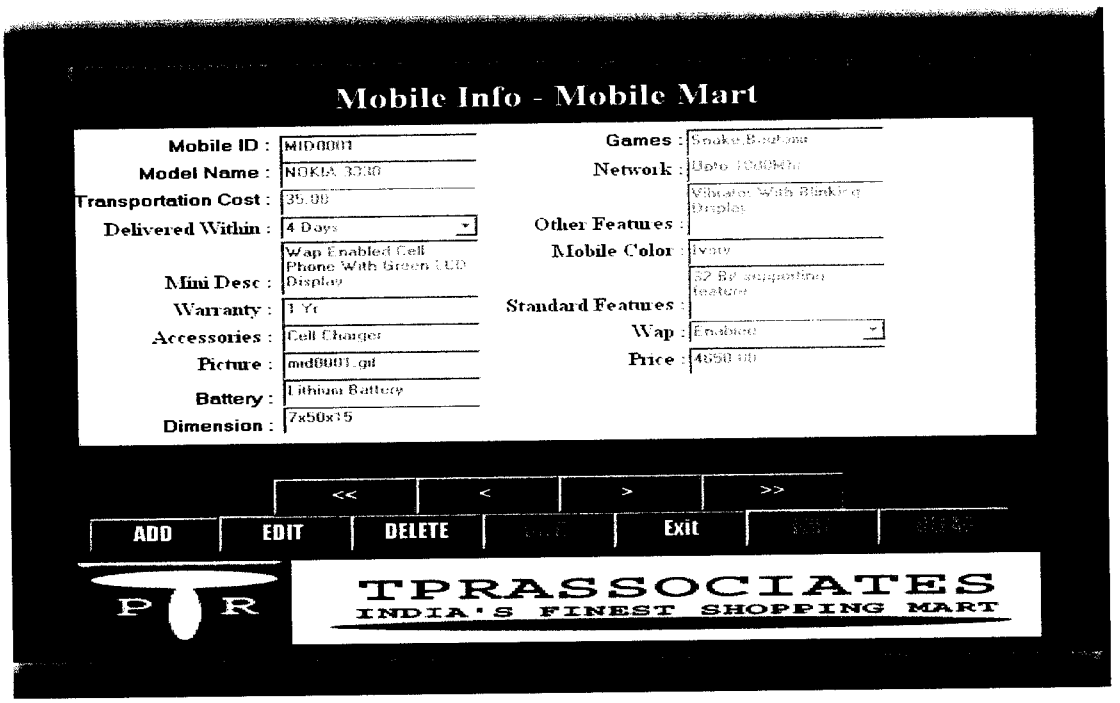


Administrative Application – Opening Form

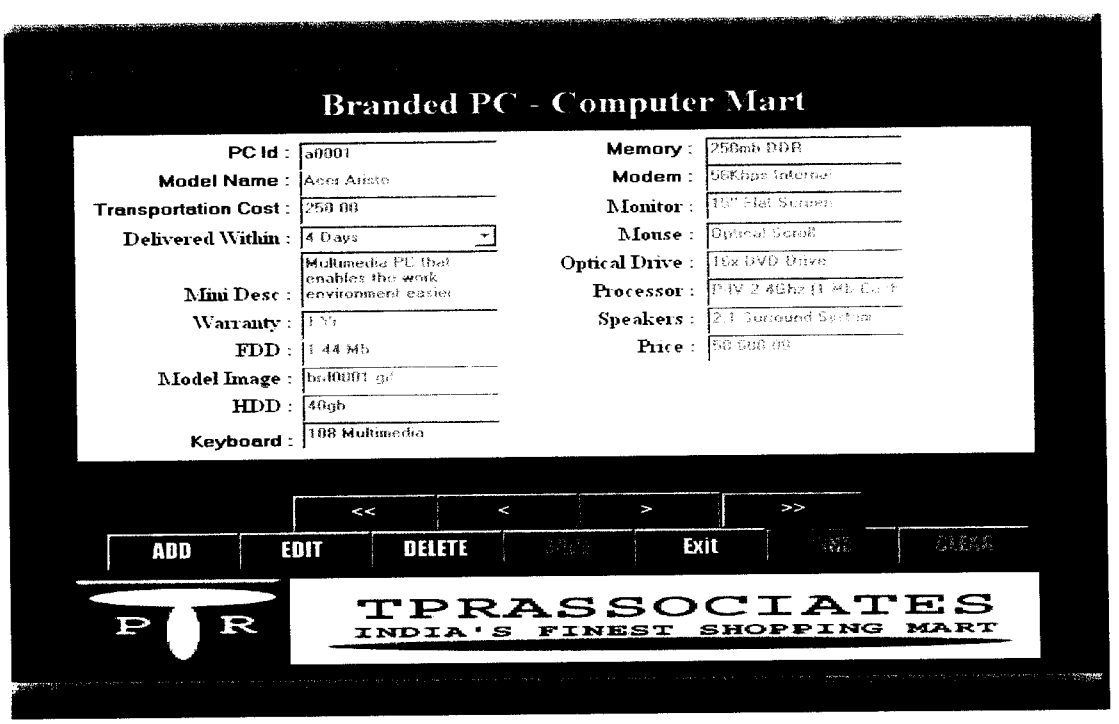
Administrative Application – Users And Password Administrative Form



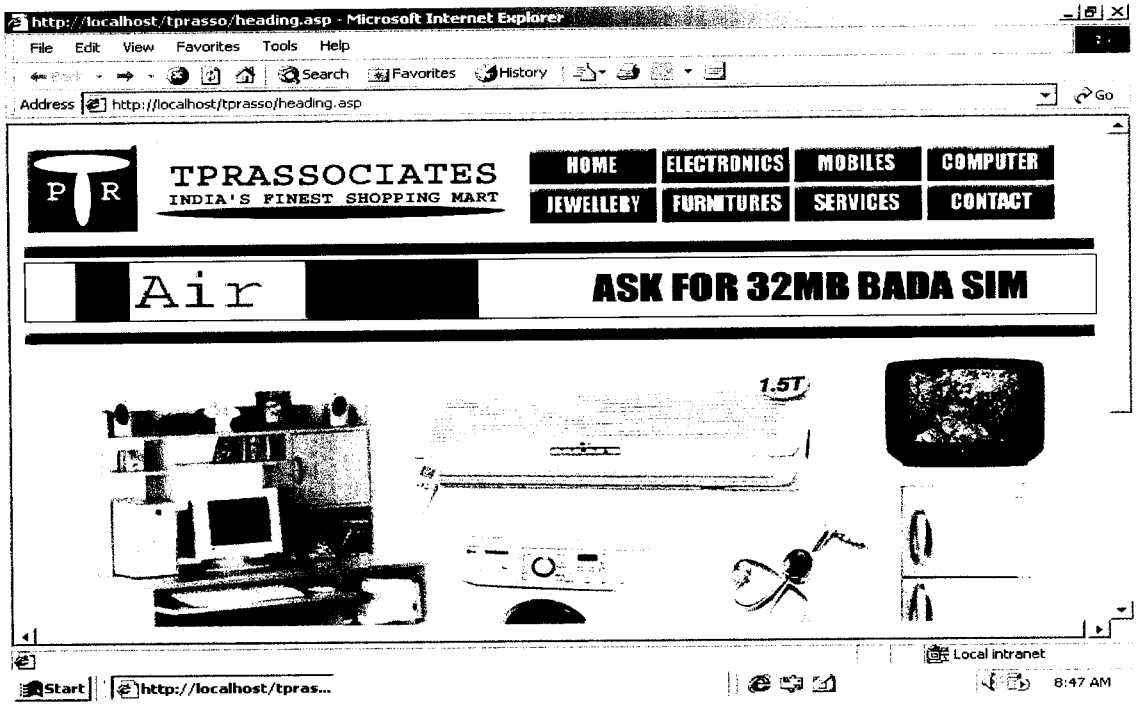
Administrative Application – Mobile Mart Administrative Form



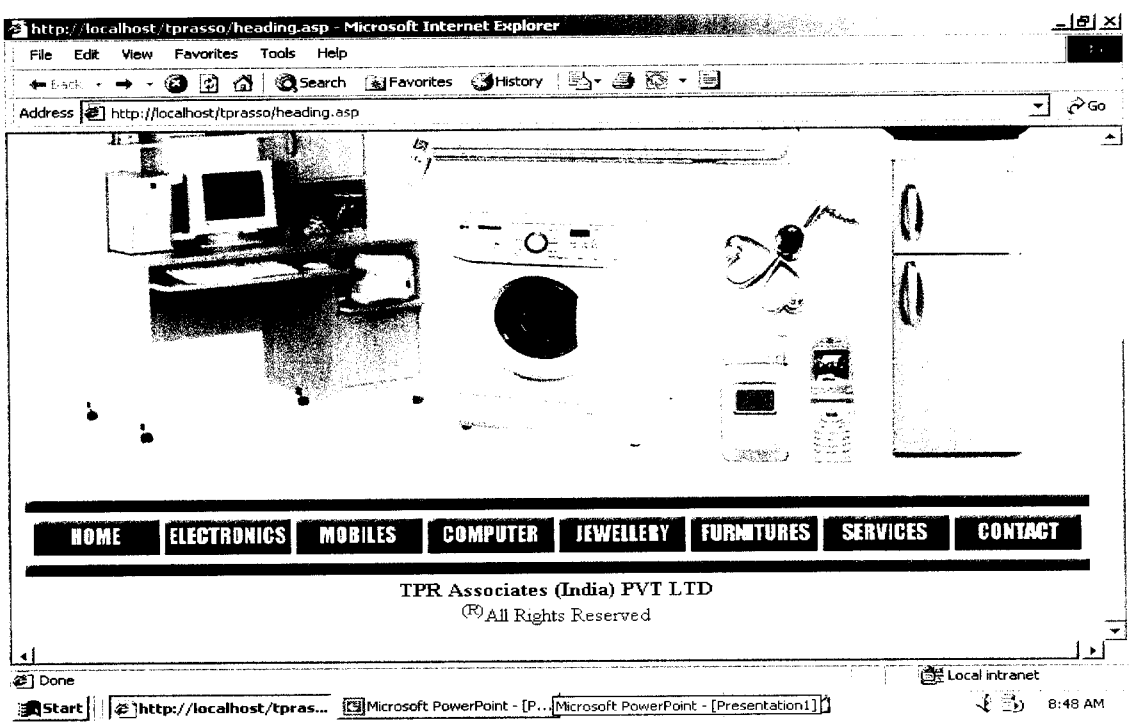
Administrative Application – Branded PC Administrative Form



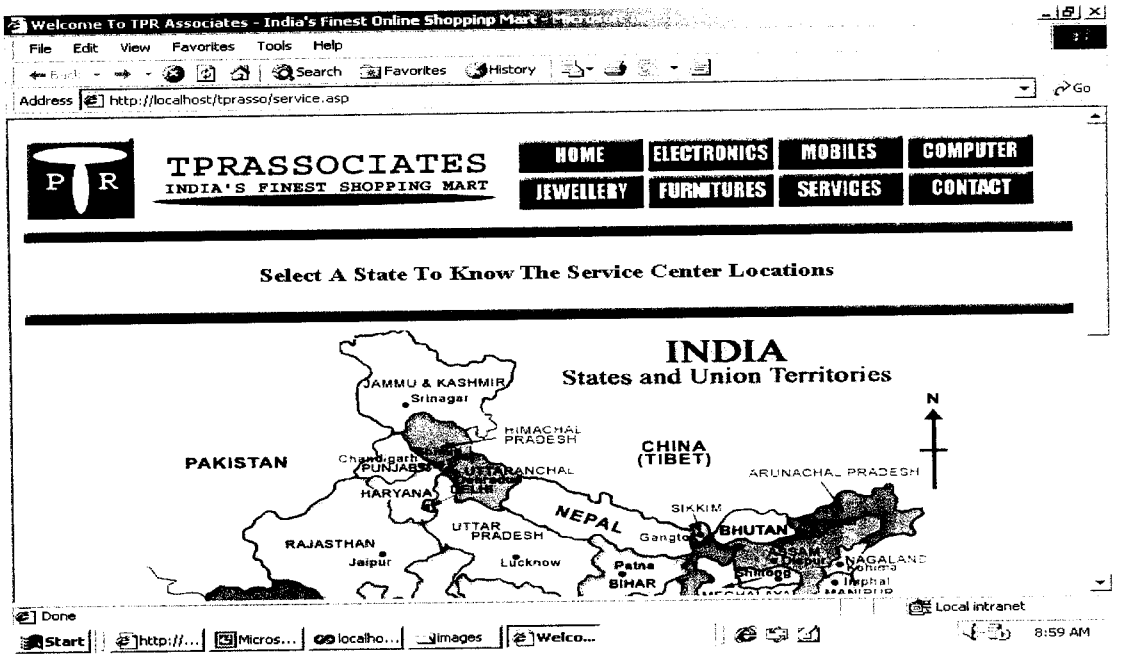
Web Application – Index Page [Top View]



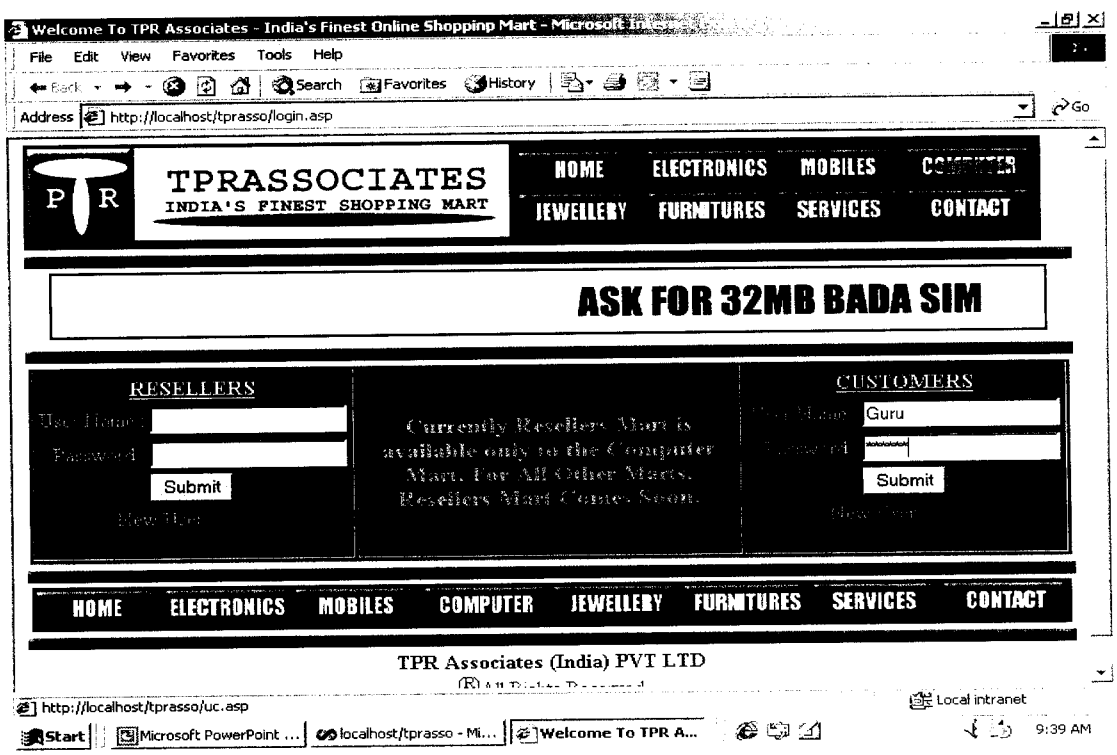
Web Application – Index Page [Bottom View]



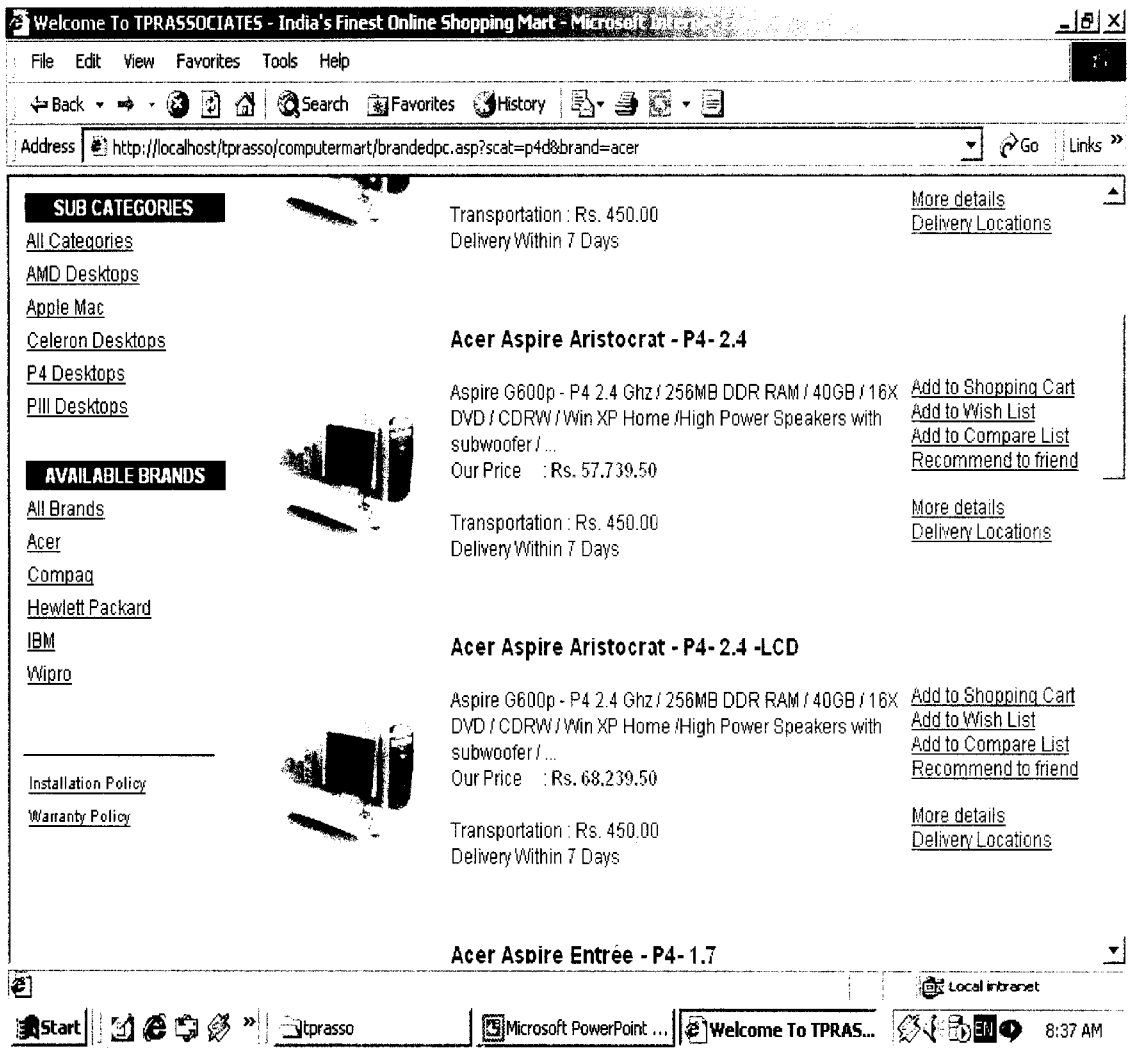
Web Application – Service Center [Image Map]



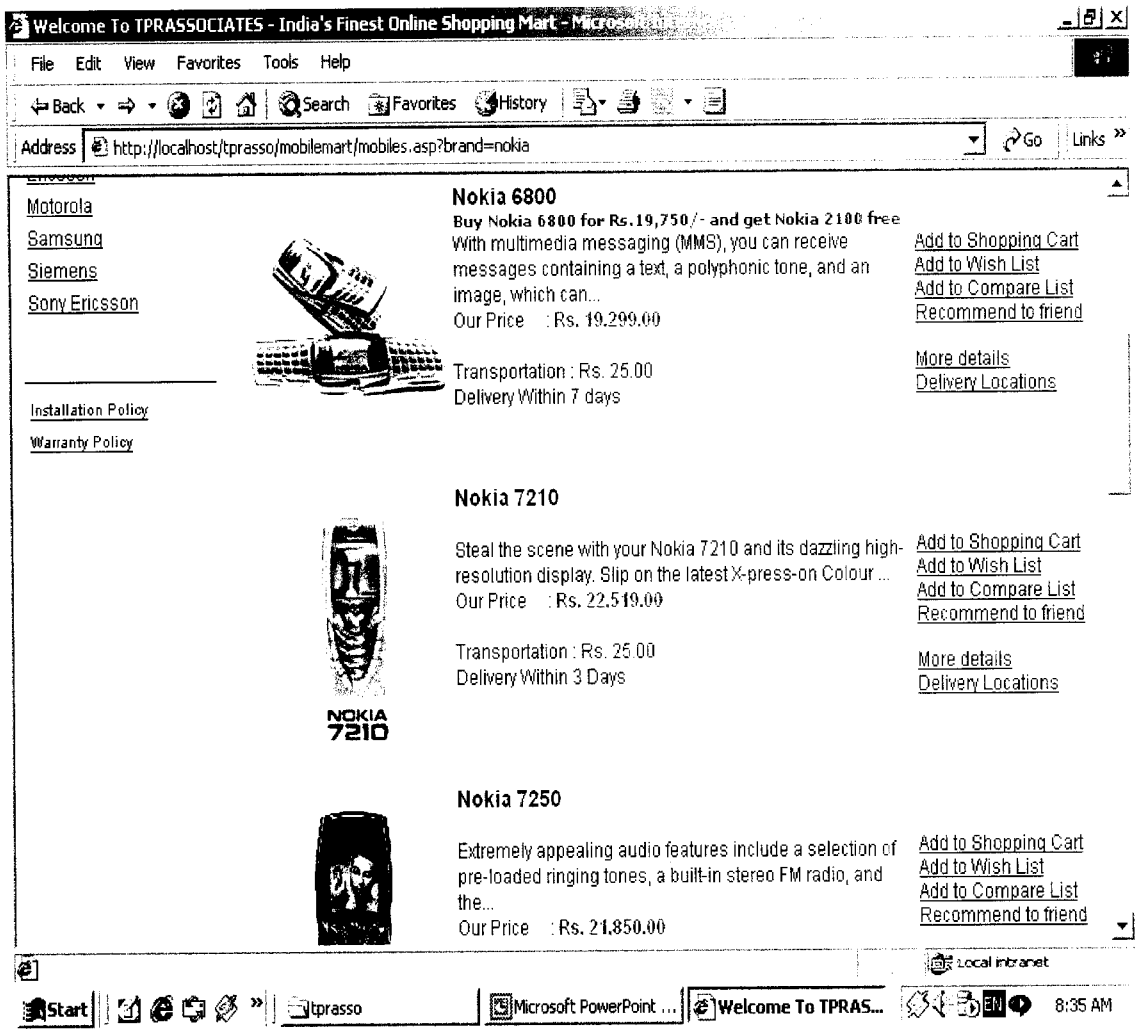
Web Application – Resellers/Customers Login Page



Web Application – Computer Mart [Branded PC Display Page]



Web Application – Mobile Mart [Mobile Models Display Page]



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