CORPORATE INTRANET AND SALES SYSTEM

A DISSERTATION

Submitted in partial fulfilment of the requirements for the award of the degree of

MASTER OF COMPUTER APPLICATIONS

By

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CANDIDATE'S DECLARATION

I hereby declare that the work which is being presented in this Dissertation entitled **"Corporate Intranet And Sales System"** in partial fulfillment of the requirement for the award of the degree of Master of Computer Applications, submitted in the Department of Mathematics, Indian Institute of Technology Roorkee, Roorkee is an authentic record of my own work carried out in the period from January 2002 to June 2002 under the supervision and guidance of **Dr. R. C. Joshi,** Professor, Department of Electronics and Computer Engineering, IIT-Roorkee and **Mr. R. K. Bohara** , Project Manager Cosmic InfoTech Solution (CITeS).

I have not submitted the matter embodied in this project work for the award of any other degree.

Date: 10-06-02

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CERTIFICATE

This is to certify that the above statement made by the candidate is correct to the best of my knowledge and belief.

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COMPANY CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is certify that the project titled " **Corporate Intranet and Sales System** " being submitted by **Mr. Hem Chandra Joshi,** a student of Indian Institute of Technology ,Roorkee in partial fulfillment of the award of the degree of Master of Computer Application, has been completed under my supervision at Cosmic Softech Ltd (formerly Cosmic Infotech Solution), New delhi during the period from Jan-2002 to May -2002.

This work has not been submitted to any other Institution or University for the award of any degree to the best of my knowledge.

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Date : 29-05-02

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Hem Chandra Joshi

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ABSTRACT

"Corporate Intranet and Sales System " consists of two main parts Corporate Intranet and sales system. Corporate Intranet project uses current Internet technologies. Basically it is developed for providing all the facilities and information to the user that is provided by the company. The sales system application is a powerful tool for increasing sales effectiveness by tracking all the information critical to the sales opportunities.

In Corporate intranet the module developed are Leave Management, Complaint Management, Meeting Organizer and Personal forum. The Leave management module keep track on the leave record of employee. Through complaint management an employee can post his personal or general complaint to the solution provider. Through Meeting organizer an employee can organize a meeting. Through personal forum an employee can buy and sell his item. In the sales system the module developed are login module and administrative module.

The tools used in the projects are at the front end ASP (Active server pages) and at the back end Microsoft SQL server 7.0 . The browser used was Internet Explore 5.0.

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Introduction About Company

Cosmic InfoTech Solutions (CITeS) is a part of the Maharishi Group, acclaimed for its philanthropic activities worldwide. The diversified operations of the group are managed from its establishment in more than 26 countries, including India, USA, UK, Germany, Holland, Russia, Japan, Brazil and Australia. CITeS' dizzying range of cutting-edge software solutions include all kind of web-related customised software application, e-commerce, on-site consultation, offshore development, and telecommunications. Recently it entered into a strategic alliance with CIT Solutions of Iowa, USA--the globally acclaimed developer of state-of-the-art telecom systems.

1.2 Corporate Intranet

Cites developed a Corporate Intranet. Cites Intranets takes the existing Internet technologies and allow corporations to benefit in several ways. First off, they are quick to deploy and assemble, since in many cases the basic software components have been around for a long time. Being based on the Internet, this means that technologies have standard interfaces and programming constructs that make it easier for corporate developers to mix and match the right kind of features and products they need.

Intranets also provide more than just point-to-point communications, as is the case with email technologies, because they can be used for tracking conversations or used for group collaborations.

Intranets are more than just web servers and browsers: they make use of the web for sure, but extend it in ways that help a corporation manage their work flows and discussions, as well as keeping track of their work product of documents, spreadsheets, and Presentations.

And unlike traditional groupware products such as Notes, Intranet technologies can fit in to existing corporate data structures on both the back end -- where the data is stored maintained -- and the front end -- where users create queries and reports on their office automation tools such as word processors and spreadsheets.

1.3 Sales System

Sales System is a powerful application for increasing sales effectiveness by tracking all the information critical to your sales opportunities. Sell system software has been envisaged as a web-based solution, which would provide a platform for the sales person to keep a track of their clients and provide them with a good and efficient service. Organizations can use this package to share, manage and track sales related information at a centralized database and effectively manage communication with the members operating from remote locations. Users can log into the central database using any standard browser and can update information, add new information and share information with others. User will have facility to upload information from his machine to the central web site and share it with the other members. Administrator will manage access rights to the members.

1.4 Organization of the report

The first chapter "Introduction" provides a brief overview about the project. The second chapter "Corporate Intranet" includes all the information about corporate intranet project. It contains SRS (Software requirement specification) document and also the standards and guidelines that should be followed throughout the project. The third chapter "Description about different modules " provides the details description about the entire module. In the first two modules description the requirement specified are provided while in the rest module a brief overview is provided. The forth chapter "Sales System " provides the detail description about the Sales System project. It provides SRS (software requirement specification) documents and brief description about all the modules of the project. The standard and guidelines for the project are same for this project as for the corporate intranet project. The fifth chapter "Description about different modules – eCRM" provides the details description of all the module developed .the Sixth chapter " Programming concept used in the projects " provides the most commonly used Active Server Pages and Microsoft SQL server concepts. Finally the chapter "Results and conclusion" provides the information that whether the developed module satisfied clients need or not and the future work for both the projects.

2.CORPORATE INTRANET

2.1 INTRODUCTION

Corporate Intranet makes the Web easily used by non-technical staff, and to effectively manage the large amounts of information that will become available. Before developing software a SRS (Software Requirement Specification) document is needed which specifies the entire client's requirement. The detailed description of this SRS is given blow.

2.1.1 Purpose

Requirement Analysis has been done based on the detailed discussion with Cosmic InfoTech Solution and collecting the required data after studying their present working structure. A detailed document providing all the findings of Requirement Analysis is titled as "Software Requirement Specifications Document" (SRS Document).

Requirement Analysis for different modules has been conducted to finalize the following aspects:

1. Data Capture and Maintenance Requirements
2. Processing Requirements
3. Online Information Extraction for Decision Making
4. Administration Requirements.

The objective of the Software Requirement Specifications Document is to define the functionalities and scope of the modules. SRS Document identifies all user requirements, which need to be Designed and Developed. Project team should verify that all the contents are complete and exhaustive. The feedback on the proposed system needs to be known at this stage, as the cost of making any changes later grows exponentially as the system is developed and implemented.[2]

2.1.2 Scope

The scope of Designing and Development of the "Cites-Corporate Intranet " has been envisaged in the following modules:

Policies / Rules & Regulations:

The Various information to be displayed are

- General policies like
- Midi-claim
- Taxation & LTA
- Leave
- Rules and regulation (Code Of Conduct)

Employee Details:

Various Employee details are to be displayed on the web (Intranet). And provision for query will be given. It will also include the following information.

- The Residence Contact telephone numbers and addresses for all Employees.
- Extension numbers of all Employees.
- Blood Groups
- Birth Day/Marriage Anniversary of Employees.
- Qualification
- Experience Detail

Time Line:

Various project details are to be displayed on the web (Intranet)

- List of current projects and project involvement of individual (Team).
- Facility to View and Update Skill set depending on the access rights.
- Version Control Management

Leave Management:

- Leave record of individual Employee, Balance leaves for Employee.
- List of official Leaves (Corporate Calendar)
- Employee can fill leave application through the Intranet and the same will be sanctioned or rejected and mails are to be generated to the respective Employee.

Library Management System:

To facilitate smooth operation of Library. This system will allow the librarian to manage issues and collection. Also provision for following reports will be provided.

- List of Books available in the library and Desired Books.
- List Of issued and non-issued Books.

Help Desk:

Help desk supports the Employee to mail their problems and the mails to be directed to respective Depts. for quick support. It will also have a list which guides-

- Complaint management system
- FAQs'

QMS:

- Templates for Standard Documentation.

Discussion Forum:

To enable the employees to discuss their problems through this forum.

- Message Board

Personal Forums:

This forum helps to Employees to distribution of personal information so that Employee can sell/buy some items.

Tech Cell:

Through Tech cell Technical articles will flashed and update articles on the request of Employees.

- Articles
- Books
- Down Loaded Software
- References (Components, Packages, Procedures, Triggers)
- News

Facility Management:

This will facilitate the following:

- Request for H/w and S/w
- Meeting Organizer Feed Back Forms (Complaints)
- List of Software (category Wise)

Company Profile

- Vision of the Company
- Organization Chart
- Organization Hierarchy
- Projects
- Technologies
- Communications
    - Corporate Presentations
- Alliances
- Partners

HR

- Online Tests
- Joining & Confirmation
- Resignation, Clearance & Full & Final Settlement
- Performance Appraisal (in Word)

Finance/Accounts

- Medical & Vehicle Reimbursements(Excel)
- Office Expense Sheet (Excel)
- PF Application (Excel)
- Purchase Order (Excel)
- Work Order (Excel)
- Sales Order (Excel)
- Voucher Making (cash/ bank/ contra/ JV)
- Imprest Detail (Account HeadWise)
- TDS
- Bank reconciliation Statement
- Asset Detail (Yearly)
- Telephone Detail (with Graphic presentation)
- Medical & Vehicle Detail (Due vs. Paid)

Monthly Magazine (Cites - E-biz)

Meditation (Link to a Maharishi's Site)

2.1.3 Definitions, Acronyms, and Abbreviations

S. No.	Term/Acronym/Abbreviation	Meaning
1.	CITeS	Cosmic InfoTech Solutions
2.	User	Person responsible for particular module
3.	Administrator	User with power to manage other users and do administrative jobs
4.	RDBMS	Relational Database Management System
5.	Search String	Set of words (customer/product) used by user/administrator for getting more information about the same
6.	HOME	Head Office of Cosmic InfoTech Solutions.
7.	DFD	Data Flow Diagram.
8.	ASCII	American Standard Code for Information and Interchange.

Table 2.1

2.2 Product Functions

2.1) Following facilities provided in the application are to be developed:

Company Profile

- Vision of the Company
- Organization Chart
- Organization Hierarchy
- Projects
- Technologies
- Communications
- Corporate Presentations
- Alliances
- Partners

Policies/Rules & Regulations

Various information to be displayed are

- General policies like
- medi-claim
- Taxation & LTA
- Leave
- Rules and regulation (Code Of Conduct)

Applications.

Time Line:

Various project details are to be displayed on the web (Intranet)

- List of current projects and project involvement of individual (Team).
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- Version Control Management

Meditation (Link to a Maharishi's Site)

Employee Details

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- The Residence Contact telephone numbers and addresses for all Employees.
- Extension numbers of all Employees.
- Blood Groups
- Birth Day/Marriage Anniversary of Employees.
- Qualification
- Experience Detail

Finance

- Medical & Vehicle Reimbursements(Excel)
- Office Expense Sheet (Excel)
- PF Application (Excel)
- Purchase Order (Excel)
- Work Order (Excel)
- Sales Order (Excel)
- Voucher Making(cash/ bank/ contra/ JV)
- Imprest Detail (Account HeadWise) TDS

- Bank reconcilation Statement
- Asset Detail (Yearly)
- Telephone Detail(with Graphic presentaion)
- Medical & Vehical Detail(Due vs Paid)

Human Resourses

- Online Tests
- Joining & Confirmation
- Resignation, Clearance & Full & Final Settlement
- Performance Appraisal (in Word)

Facilities Management

Monthly Magazine (Cites - E-biz)

Tech Cell:

Through Tech cell Technical articles will flashed and update articles on the request of Employees.

- Articles
- Books
- Down Loaded Software
- References(Components, Packages, Procedures,Triggers)
- News

Personal Forums:

This forum helps to Employees to distribution of personal information so that Employee can sell/buy some items.

Library Management System:

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Help desk:

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- Complaint management system

- FAQs'

QMS:

Templates for Standard Documentation.

Discussion Forum:

To enable the employees to discuss their Problems through this forum.

- Message Board

Other Facilities

- Request for H/w and S/w
- Meeting Organizer
- Feed Back Forms (Complaints)
- List of Software (category Wise)

2.3 Design Constraints

2. 3.1 Standards Compliance

- The application will be designed for 640/480 resolutions.
- Each screen will also include a drop down menu feature which are again supported with drop down features.
- All displayed links in the menu will be to suit the User.
- All functions must flow together coherently. Should be logical and easy to navigate.

2.3.2 Hardware Limitations

- This application will be developed for IBM Compatible Personal Computer, Pentium server or higher series of computers under Windows operating system. For Sever system minimum of 1.0 GB RAM and 50 GB Hard Disk Drive with Mouse will be required. On the system, there must be a provision of taking backup on the network.
- For uploading the site, FTP access to the web server must be available.
- For taking database backup, Telnet access to the database must be available.

2.4 Attributes

- The administrator id and password based security will ensure protection from unauthorized access/tampering of the data for the Administrator section of the application.
- A periodic backup will be taken manually to ensure restoration of the system with last backup in case of data lost due to system crashes.

2.5 External Interface Requirements

The External Interface Requirements are listed below for the execution of the software.

- **User Interfaces**

  The application will be user friendly for navigation supported with FAQs for help.

- **Hardware Interfaces**

  The application will be loaded on IBM compatible Personal Computer, Pentium or higher series of computers under Windows 98 operating system.

- **Software Interfaces**

  The following language and database have been used to develop the Sale and Print Tag module.

  - Front End: ASP
  - Back End: SQL Server 7.0

- **Communication Interfaces**

  This application is to be designed with three-tier architecture. Both the database server and the web server may be installed on the same or different computer systems. All the interacting computers should be connected through TCP-IP protocol.

2.6 Standards and Guidelines

This section will be used to name different work products in the projects. It also defines the way to name various program components. The convention described here applies to Visual Basic, ASP and VB Script code.

2.6.1. File Naming Conventions

Physical File Naming Convention

In order to identify a file a unique name has to be assigned to every file. The Name given to a file should be able to uniquely identify some features to the file.

1	2	3	4
M	FFFF	Y	EXT

Where

M – Module

C	**C**hat Module
E	**E**xpert System Module
S	**S**earch Module
D	Departments Module

FFFF – Descriptive File Name

Y – Document Type

F	**F**unctional Specs
P	**P**rogram specs
M	User **M**anual
C	**C**ode Files (Main ASP, HTM Code etc)
H	**H**elp Files
D	**D**efect Log
U	**U**nit Test reports
I	**I**ntegration Test report
Q	**Q**AR
A	Release **A**dvise
S	**S**tyle Sheets
J	**J**avaScript Files
E	Back **E**nd Processing Files

EXT – File Extension

DOC	For Document Files
ASP	For ASP scripts files
HTM	For HTML files
JS	For JavaScript Files
CSS	For Cascading Style Sheets

DLL Naming Convention

The DLLs, which are made for projects are a sort of wrapper around a set of related tables in the database. The name of the DLL must specify some of the basic purpose / feature of the DLL. They must be named as per the following convention.

<Logical Name>.DLL

For example product.dll – this specifies that this dll consists of those functions which are related to product or its related tables.

The name of the class file related to the DLL should be prefixed with cls that is

Cls<Logical Name>.DLl

For example clsProduct.cls

Similarly ,the related interface, if any should be prefixed with "I" that is

I<Logical Name>

Further the objects and variables used in the dll code should follow the same convention as stated in the section OBJECT NAMING CONVENTIONS and VARIABLE & CONSTANTS NAMING CONVENTION given below in this document.

The code should also follow the formatting and commenting rules as stated for all other files.

2.6.2 ASP Coding Standards And Guidelines

This section presents a set of suggested coding conventions for ASP programs. Coding conventions are programming guidelines that focus not on the logic of the program but on its physical structure and appearance. They make the code easier to read understand, and maintain. Coding convention can include.

- **Naming Convention for objects, Classes, variables and procedures**
- **Standardized formats for labeling and commenting code.**
- **Guidelines for spacing, formatting and indenting.**

a. Object Naming Convention.

Objects should be named with a consistent prefix that makes it easy to identify the type of objects. This lists recommended convention for controls, data access and menus.

Suggested Prefixes for ADO

Use the following prefixes to indicate ActiveX data objects.

Database Objects	Prefix	Example
Database	db	dbUser
Field	fd	fdAddress
Connection	con	conDash
Index	ix	ixUserId
Parameter	prm	prmUserId
QueryDef	qry	qryUserInfo
Recordset	rs	rsPropertyInfo
Command	com	comObject1

Table 2.2

b. Variables & Constants Naming Convention

This topic lists recommended conventions for constants and variables supported by ASP files. It also discusses the issues of identifying data type and scope. Variables should always be defined with the smallest scope possible. Global variables can create enormously complex state machines and make the logic of an application extremely difficult to understand.

The name of the variables should be as per the following naming convention:

<X><YYY><ZZZZZZZZ...>

Where X is as follow

f Local Variables local to function(Local with respect to the particular function)

s Session variables (applicable to ASP pages)

a Application level variables (Applicable to ASP pages)

i Input parameter to a sub routine (to function or sub procedures)

p Page level Variables(Local respective to a page)

q Query string Variable(Variables to be passed from query string)

h Hidden Fields Variables

o Output parameter to a sub routine (to function or sub procedures)

Where Y is the datatype of the variable. List of datatypes is as follows :

For purpose of readability and consistency, use the following prefixes with descriptive names for variables in code.

Data type	**Prefix**	**Example**
Boolean	Bin	l_binFound
Byte	Byt	g_bytRasterData
Date(Time)	Dtm	a_dtmStart
Double	Dbl	s_dblTolerance
Error	Err	l_errOrder
Integer	Int	l_intQuantity
Long	Lng	l_lngDistance
Single	Sng	l_sngAverage
String	Str	l_strFirstName
User-defined type	Udt	l_udtCustomer
Const	Con	l_conTax
Collection	Cll	l_cllCustomer
Variant	Vnt	m_vntChecksum
Objects	Obj	l_objCurrent

Table 2.3

Note : - For arrays ,variables should be names as

<x><yyy>Arr<Logical Name>

Where x is the scope level alphabet i.e. either l / m / g / a / s only

Where yyy is the prefix for the data type like str / int / vnt

For Example

lstrArrName for array of sting datatype (local)

mintArrName for array of integer data type (module level)

avntArrName for array of variant datatype (application scope)

For input /output parameter , use the following convention

<x><yyy><Logical Name>

where x is "i" or "o" where yyy is the data type of the value

Input parameter for example – istrName , iarrListOfNames etc.

Output Parameter for example – ostrName , oarrListOfName , etc

Note :

1. The variable name should not exceed 30 character as a whole .

2. Though in VBSCRIPT the variables declared are all of type VARIANT but still use the above naming convention as per the data type of the data value of the variables.

3. Use Hungarian Notation of the data type and logical name part of the variables.

For Sub Programs following scheme is used :-

<YYYY><ZZZZZZZ...>

Where y is func – function , proc – Procedure and Z is descriptive name of the sub program e.g fnGetDeptList , sbCheckPrice . The sub program name should not exceed 30 as a whole.

Descriptive Variables and Procedure Names

The body of a variable or procedure name should use mixed case and should be as long as necessary to describe its purpose. In addition,function names should begin with a verb , such as sbInitdeptArray or fnCloseConnection.

For frequent used or long term,standard abbreviations are recommended to help keep name length reasonable .In general variable names greater than 32 character can be difficult to read on VGA displays.

When using abbreviation, make sure they are consistence throughout the entire application. Randomly switching between Cnt and Count within a project will lead to unnecessary confusion.

Control Naming Convention in ASP pages

Control type	**Prefix**	**Example**
3D Panel	pnl	pnlGroup
Combo box	cb	cbEnglish
Command button	cmd	cmdExit
Common dialog	dlg	dlgFileOpen
Control	ctl	ctlCurrent
Data control	dct	dctBiblio
Data-bound grid	dbgrd	dbgrdQueryResult

List Box	lb	lbDirectory
Form	frm	frmEntry
Frame	fra	fraLanguage
Grid	grd	grdPrices
Image	img	imgIcon
Button	btn	btnPush
Label	lbl	lblHelpMessage
Menu	mnu	mnuFileOpen
MS Tab	mst	mstFirst
Report	rpt	rptQtr1Earnings
Text box	txt	txtLastName
ImageList	ils	ilsAllIcons
Toolbar	tlb	tlbActions
ProgressBar	prg	prgLoadFile
Radio Box	opt	optCheckOption

c. **Structured Coding convention**

In addition to naming convention, structured coding convention, such as code commenting and consistent indenting, can greatly improve readability. This topic discusses standards for these areas.

Code commenting convention

All Procedures and functions should begin with a brief comment describing the functional characteristics of the procedures (what it does). This description should not describe the implementation details (how it does) because these often change over time, resulting in unnecessary comment maintenance work.

Section Heading	**Comment Contents**
Project Name	Name of Project
Purpose	What the Procedure does (not how)
Author	The name of the person who has developed the procedure

Date	The Date on which development of the procedure started
Date Modified	Date on which modification have been done after review

Table 2.4

The following points should also be incorporated:

- Every important variable declaration should include an inline comment describing the use of the variables being declared.
- Variables, controls and procedures should be named clearly enough that inline commenting is only needed for complex implementation details.

Formatting Code

As many programmers still use AGA display screens, screen space should be conserved as much as possible while still allowing code formatting to reflect logic structure and nesting. Here are few pointers.

- Standard nested blocks should be intended by one tab
- The highest-level statements that follow the overview comments should be intended by one space, with each nested block intended an additional tab.

The ASP Program should contain the comment header as :

```
'''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''
'Project Name   :  Corporate Intranet
'Function Name  :  fnGetStoreOwnerInfo()
'Purpose        :  Retrieves the information of the store owner from the
'database       :  Cites-karma-nt
'Parameter      :  No input parameter.
'Returns        :  Store Owner information as string datatypes.
Author          :  Hem Chandra Joshi
'Date           :  05/05/2002
'Modified Date  :
'Modified By    :
'''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''''
```

```
Public Function fnGetStoreOwnerInfo (ByRef o_strOwnerName, ByRef o_strOwnerAddress, ByRef o_strOwnerLocation) As String
Dim cnTemp  As New ADODB.Connection
Dim rsStore  As New ADODB.Recordset
Dim l_strSql  As String
cnTemp.Open "dsn=store;uid=sa;pwd=eshop"
l_strSql ="select owner,owner_location,owner_address fromstore_config"
Set rsStore = cnTemp.Execute(l_strSql)
If rsStore.EOF And rsStore.BOF  Then
     fnGetStoreOwnerInfo ="No Records Found"
Else
    o_strOwnerName =rsStore("owner")
    o_strOwnerAddress = rsStore(owner_address")
    o_strOwnerLocation = rsStore("owner_location")
    fnGetStoreOwnerInfo =""
    rsStore.close
    set rsStore = Nothing
End if
End Function
```

GENERAL:

- Set indents to 3 (default is 4). Two is too small, and 4 or more take up too much space on the screen.
- Make code lines short enough to be visible without horizontal scrolling.
- DIM statements — one variable per line, with comments unless VERY self-explanatory.
- Always use Option Explicit

3 DESCRIPTION OF DIFFERENT MODULE

Corporate Intranet project enables a client to utilize all the features, which will assist the Individual and Management of the Organization to attain the maximum efficiency in terms of internal functioning. The Features include Personal Information about Employees, Technical Article sharing, Display various Terms and condition of Organization, Internal Mail System, Internal Chat, Grievance System, Online Technical Discussion, Event Organizer, Opinion Poll, Corporate News, Online Magazine Publication, Leave Management, Help Desk, MIS Reports etc.

3.1 Leave Management

This Module will assist Employee to View Leave status, apply online for Leave, and get Leave sanctioned online. This will be automatically updated in Database once the Authorized Person approves it.

Apart from that HR Manager will be having the option to control the Leave Record with the help of Masters. HR Manager will be able to View, Add, Modify and Update the Masters. He will be having the option to generate Report also.

3.1.1 Types of Members

There are four types of member in the company

1) Employee
2) Supervisor
3) Hr Manager
4) Vice president

Employee:

1) He Can apply leaves, Check his leave record and check his application status

If He had applied leave his apply leave link will be disabled and check application status will be enabled.

- If his application is not viewed by his supervisor and VP then not viewed is displayed in status field.
- If his application is approve by supervisor then pending is displayed
- If his application is approve by VP then accepted is displayed

Supervisor:

He Can apply leaves, Check his leave record, check his application status and check applied leaves

If He had applied leave his apply leave link will be disabled and check application status will be enabled.

- If his application is not viewed by his supervisor and VP then not viewed is displayed in status field.
- If his application is approve by supervisor then pending is displayed
- If his application is approve by VP then accepted is displayed

If any employee under him has applied leave only then check applied leave link is enabled. Here he will see the list of all employee who had applied leaves by clicking on their names he will get full application form from here he can either accept or reject the application.

Hr Manager

1) He Can apply leaves, Check his leave record, check his application status and check applied leaves

If He had applied leave, his apply leave link will be disabled and check application status will be enabled.

- If his application is not viewed by his supervisor and VP then not viewed is displayed in status field.
- If his application is approve by supervisor then pending is displayed
- If his application is approve by VP then accepted is displayed

2) He can enter the record for new employees.
3) He can update leave register **(pending)**
4) He can view reports **(pending)**
5) He can see the sanctioned leaves. This link will only be enable if VP has approve any leave application

Vice President

1) He can view reports **(pending)**
2) He can view approve leaves. This link will only be enable when supervisor has approve any leave

2) He can view approve leaves. This link will only be enable when supervisor has approve any leave

3.1.2 Leave Rules for Employees

a) Objective:

- To provide an opportunity for the Employees working at CITeS to avail leave.
- The enable them to fulfill their social obligations/exigencies.

b) Eligibility:

- Casual Leave (CL), Privileged Leave (PL):
  - All Employees working at CITeS
- Maternity Leave
  - All married females

c) Scheme Period:

- This scheme is effective from January 1, 2000 to December 31, 2000.
- CITeS reserves the right to continue/modify/suspend the scheme at any time

d) Benefits:

1) Casual Leave (CL)
   - One day of Casual Leave (CL) for every month of service i.e. leave for 12 working days in a calendar year.
2) Privilege Leave (PL)
   - Maximum 24 days of PL for continuous service of 12 months

   Maternity Leave
   - Paid leave for 12 weeks, (including the day of delivery) with a maximum limit of 6 weeks before the date of delivery.

     OR

     Leave for 6 weeks in case of miscarriage, following the day of miscarriage. The term miscarriage is to be interpreted as the per the Maternity benefit Act, 1961.
   - In addition to the aforesaid benefits, a leave for a further period of 4 weeks can be availed in the case of illness, arising out of pregnancy, delivery, premature delivery and miscarriage.

e) Credit and Entitlement

1) Casual Leave

- At the beginning of each calendar year, the leave account will be credited with twelve days as an advance credit.
- Those who join during the calendar year will be credited leave on a prorate basis as an advance credit.
- CL not availed at the end of the calendar year will lapse at the end of the year.
- Employees who resign during the calendar year and have availed CL in excess of their entitlements, will have their excess leave adjusted against PL if any, or gross monthly salary.
- CL can be availed for half a day. CL can be availed to a maximum of 3 days at a stretch.

2) Privilege Leave

- For joiners, PL becomes due only after the employee has put in one year of continuous service from the date of joining
- For joiners, PL is credited on the anniversary of joining @2 days per month.
- PL cannot be availed in the first year of service.
- PL will be credited quarterly @ 6 days per 3 months. It will be credited at the end of each quarter.
- PL cannot be availed more than thrice in a calendar year.
- PL can be accumulated up to a maximum of 24 days. If the excess leave is not availed then the employee has the following options:
- The value of the excess leave will be computed and credited automatically to the medical basket.
- Encashment of leave is taxable. However if the employee is interested in encashment of the excess leave, the same can be encashed.
- For computing the value of leave, only the basic salary component will be taken into account.
- In case of resignation/termination, balance leave will be encashed. PL cannot be availed during the notice period.

3) Leave without pay (LWP)

- Any sanctioned leave, which does not fall under any of the above categories, will be considered as LWP.
- Leave taken over and above the leave sanctioned will be considered as absence unless applied for and sanctioned.
- In case of LWP, proportionate deductions will take place in the monthly gross salary.

f) Company Holidays

- A list of all company holidays will be circulated at the beginning of the year.

g) Holidays during Leave

- Except for CL, off Saturdays/Sundays/holidays will be considered as leave, if they fall within the total leave period. However, they will be excluded if they are prefixed or suffixed with the leave period.
- Holidays will be excluded if they are prefixed and suffixed with the CL

h) Application Procedure

1) Casual Leave

To avail leave, an application will be given and will have to be sanctioned prior to proceeding on leave. However in exceptional circumstances, if the employee is unable to seek prior approval, he/she may inform the immediate supervisor and apply for the same within 48 hours of returning to duty.

2) Privilege Leave

To avail leave, an application will be given and will have to be sanctioned prior to proceeding on leave. Prior approval is necessary.

3) Maternity Leave

Prior approval of at least 30 days is necessary from the date of commencement of leave along with a certificate issued by a registered Medical Practitioner indicating expected date of delivery.

3.1.3 Leave Rules for Trainees

a) Objective:

To provide an opportunity for the Trainees working at CITeS to avail leave.

b) Eligibility:

- All Trainees working at CITeS

c) Scheme Period:

- This scheme is effective from January 1, 2000 to December 31, 2000.
- CITeS reserves the right to continue/modify/suspend the scheme at any time

d) Benefits:

- One day of trainee leave (TL) for every month of training.

e) Credit and Entitlement

- TL not availed in the month will lapse at the end of the month.
- TL can be availed for half a day.

f) Leave without Pay (LWP)

- If a trainee takes more than one-day leave in a month, it will be counted as LWP.
- In the case of LWP and absence without information, proportionate deductions will take place.
- Calculation=No. Of LWP day * Stipend / no. Of days in the month

g) Holidays during Leave

- Holidays will be excluded if they are prefixed and suffixed with the TL

h) Application Procedure

To avail leave, an application will be given and will have to be sanctioned prior to proceeding on leave. However in exceptional circumstances, if the employee is unable to seek prior approval, he/she may inform the immediate supervisor and apply for the same within 48 hours of returning to duty.

3.1.4 Implementation procedure-

a) Functional Requirements.

This section lists the functional requirements. Functional requirements describe the possible effects of a software system, in other words what system must accomplish.

b) Application

At a concept level, the application(s)site must

- Facilitate ***Employee*** to view Leave status and apply Online..
- Facilitate ***Supervisor*** to accept or reject the application as per the case.
- Facilitate ***HR Manager*** to manage the Leave Record with the help of Masters.

c) Module Consideration

The design considerations will include

- Should support site objective
- Should support a vibrant employee community
- Should address the primary motivators
- Should have a common look and feel
- Should have a strong and consistent representation.
- The site will be so designed so that the different features of the sites can be added in phases. Currently two phases are envisaged.

d) General User Requirements

1) Employee and Supervisor

- Leave Status display and Ability to apply Leave online and sending Information like the Address, Contact No., and Charge given to Employee etc to the Database.
- Ability to accept or reject Application for Supervisor as per case.
- Ability to send information to Applicant and HR Manager about acceptance or rejection of Application.

2) HR Manager

Ability to manage Leave Record with the help of Masters

- Add
- Modify
- View
- Delete

Ability to generate Report.

Various Reports will be generated like

- Monthly Leave Status for Employees
- No. of Leaves Issued to Employees
- List of Holidays
- List of Employees who have availed all Leaves.

e) System Requirements

- Ability to calculate Leave Status for individual Employees internally.
- Carry Over Leaves
- Accrued Leaves for Employees

f) System Administrator.

The system shall provide administrators the following features:

- The system shall provide basic user registration and user profile related functionality. Only users who have been validated by the system will be allowed to access the Module.

g) Reporting

- Monthly Leave status for all Employees.

h) Interface Requirements

This section describes how the software interfaces with users for input and output or other software products.

i) User Interfaces

The following diagram depicts the anticipated pages of the Leave Management System of Corporate Intranet.

- Home Page

- Online Application Form
- Filled Application

Master

- Add New Employee
- View all Employees
- Modify Leave
  - Through Attendance Register
- Delete Employee.
- Report Generation

j) Hardware Environment

The new system will be hosted on an existing, dedicated, server within the EDS hosting environment. Details are as follows:

Item Description

Platform Microsoft Operating System Win NT

RAM 128 MB

k) Software Environment

Item Description

An implementation of Active Server Pages as Personal web server by Microsoft Database Relational Database Management System (RDMS) such as MS Sql Server.

l) Performance Requirements

The new system will be stress tested using an industry standard Web Stress Tool such as Homer, and must meet the following performance guidelines:

Test Acceptance Result Required

A demonstrated capacity to conduct a minimum of 100 concurrent sessions simulating both browsing and uploads, without degradation of the response of the Server and without affecting Data Integrity.

Agency Access A demonstrated capacity to conduct a minimum of 50 concurrent sessions without degradation of the response of the Server and without affecting

m) Quality Assurance

In addition to performance testing, regular quality assurance reviews will be conducted to ensure that development follows the methodology outlined in this document. In particular, adherence to a modular, object based system that conforms to the application framework and that the developed system is truly reflected by the system documentation.

n) Architecture

Through the requirement phase, strong emphasis was placed on a modular design to allow for ease of maintenance and adaptability to future requirements. This resulted in the adoption of an object based framework solution for the operation of the system.[1]

The framework specifically encourages the re-use of code through the implementation of an Object Orientated Programming Methodology (OOPS). Business Logic is clearly separated from the data and display through the zoning of objects into a number of functional areas. These include:

- User Interface Display
- Workflow.
- Business Logic.
- Data Storage

o) Example Scenario

We will use the "Display of a leave application form to the supervisor" scenario as an example of implementing the system using an object based approach.

Process Steps:

1. Supervisor requests a leave application to be displayed. The leave application is identified by its employee Id.

2. Control passes to the Display Application ASP.

3. Display Application confirms that the employee exists and displays a application form on the User browser.

4 Supervisor they either presses accept or reject button leave record database is updated

The process listed above is represented in the following diagram.

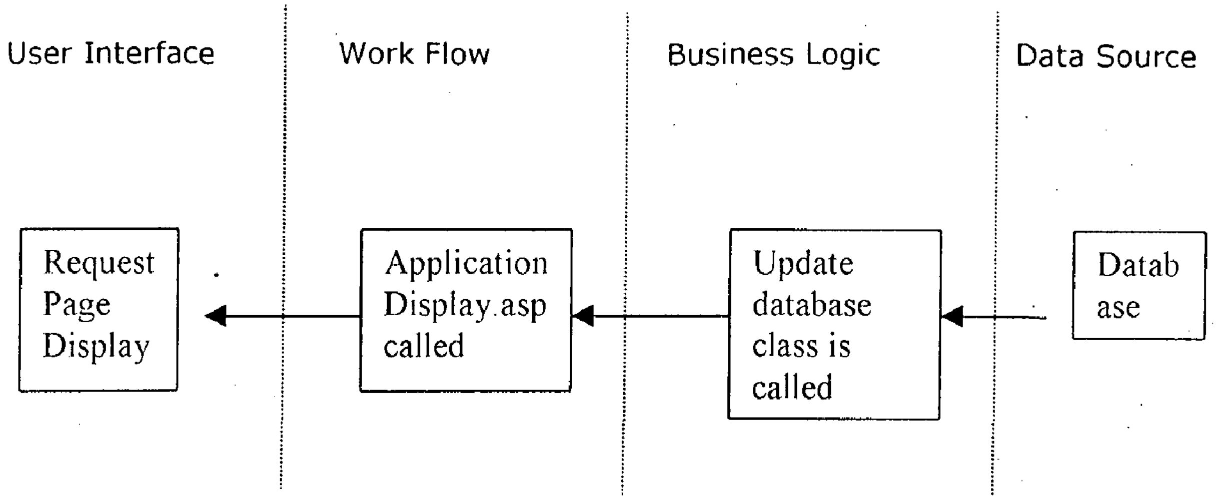


Figure 3.1 Application Display Dataflow Model

p) Security

Security is critical to any Web server and its applications. Security guarantees that only authorised users have access to the resources on a Web site.
For the system the following Roles have been defined:

Title Role

Title	Role
Employee	Apply for leave
Supervisor	Accept or reject application
HR Manager	Sees reports
Administrator	System administrator

Table 3.2 Authentication Roles

q) Active Server Pages

Active Server Pages 2.0 is the latest update to Microsoft's server- based technology, which comes free as part of both IIS 4.0 and Personal Web Server 4.0. It is designed to create dynamically generated HTML pages for a WWW site or corporate intranet. Put simply, an Active Server Page is a file with a .asp suffix that contains combination of HTML statements and script logic. When IIS4 receives an HTTP request for an ASP file, the final HTML response is generated dynamically from the static HTML statements plus the insertion of any HTML generated by the scripting. In this site we will show how to use ASP to its fullest[3]

3.1.5 LMS SITE

a) Overview

Leave Management System Module of this Project assist Employee to View Leave status, apply online for Leave, and get Leave sanctioned online. This will be automatically updated in Database once the Authorized Person approves it. Apart from that HR Manager will be having the option to control the Leave Record with the help of Masters. HR Manager will be able to View, Add, Modify and Update the Masters. He will be having the option to generate Report also.

b) Web Site Map

The following diagram depicts the anticipated structure of the LMS Site.

Welcome Page – Employee

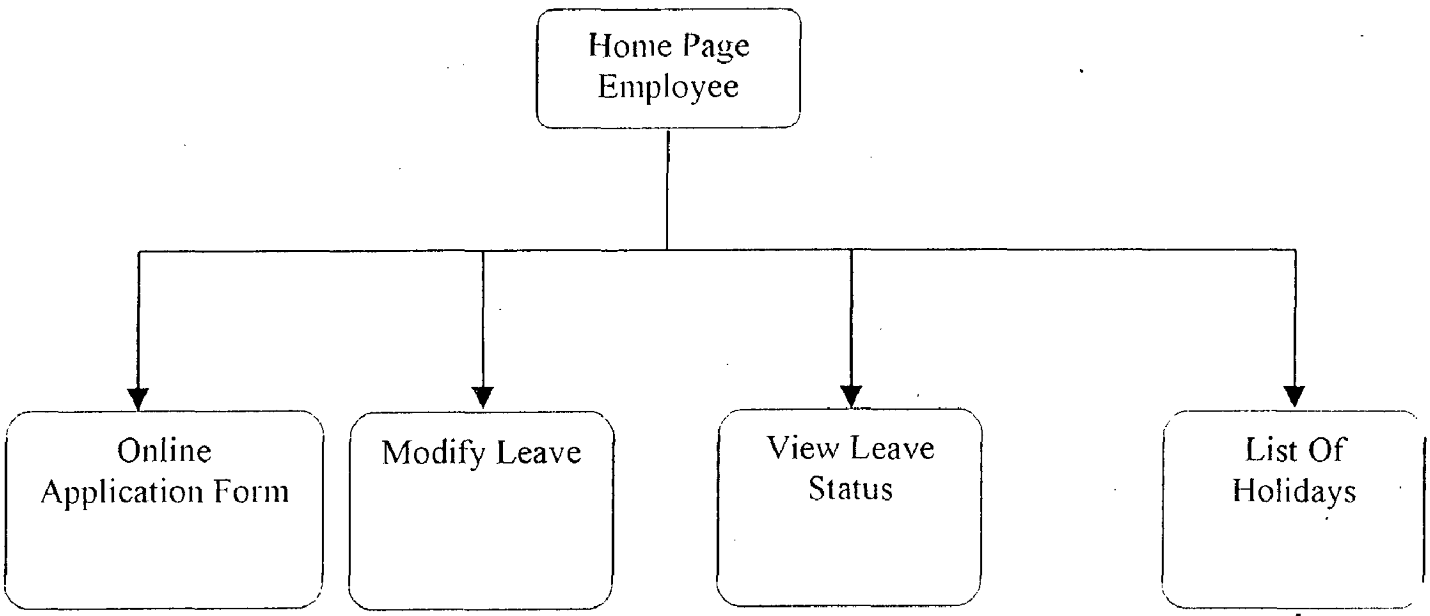


Figure 3.1 Welcome Page Employee

Welcome Page – Supervisor

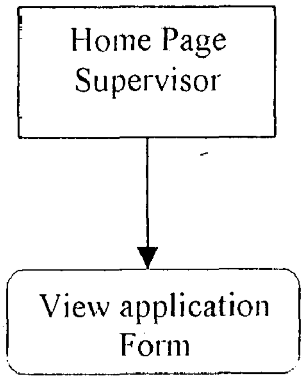


Figure 3.2 Welcome page Supervisor

Welcome Page – System Admin

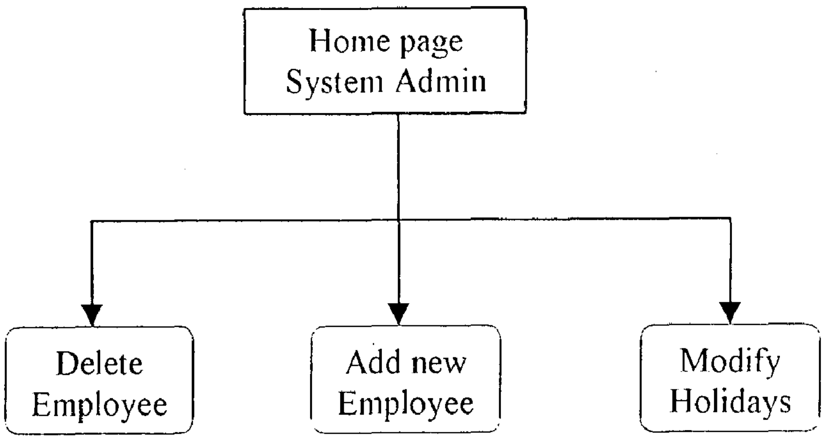


Figure 3.3 Welcome Page Admin

Welcome Page – HR Manager

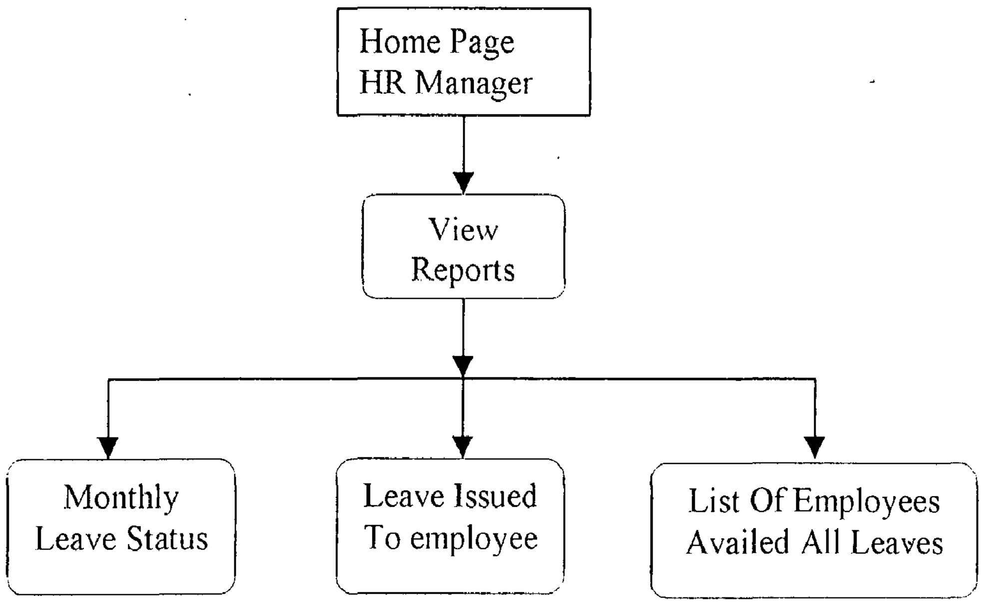


Figure 3.4

3.1.6 REPORTING

Various Reports will be generated like

- Monthly Leave Status for Employees
- No. of Leaves Issued to Employees
- List of Holidays
- List of Employees who have availed all Leaves.

3.2 Complaint Management System

Complaint Management System Module of this Project will assist Employee to Post/View his/her Complaints regarding the functioning of the Organization/Individuals. The employee will be having the options to send General Complaints, which can be viewed by any Individual who is logged in Corporate Intranet as a member along with the solutions of the complaints (if posted by respective Authorised Person). Apart from that He/She can directly send Personal Complaints to Respective Authorised Persons, which will be in the mode of one to one communication between Sender and Receiver. This complaint will not be displayed to others. He/She may decide the priority of complaints also.(Urgent/Normal)

Authorized Persons will be having option to view Complaints apart form other details attached with it, to send solutions to individuals (General display in case of General Complaints and Mail to individual in case of Personal Complaints) and to generate Reports on certain criterions like maximum complaints prone area/individuals, Complaints in specified Period.

3.2.1 Functional Requirements.

This section lists the functional requirements. Functional requirements describe the possible effects of a software system, in other words what system must accomplish.

a) Application

At a concept level, the application(s)site must

- Facilitate ***Employee*** to Send and View General or Personal Complaints along with their solutions.
- Facilitate ***Authorized Person (VP/System Adimn./HR Manager)*** to view or send solutions of the complaint as per the case.

b) Module Consideration

The design considerations will include

- Should support site objective
- Should support a vibrant employee community
- Should address the primary motivators
- Should have a common look and feel
- Should have a strong and consistent representation.

The site will be so designed so that the different features of the sites can be added in phases. Currently two phases are envisaged.

3.2.2 User Characteristics

a) Actors

An actor represents a role played by an outside object. The following Actors have been identified in the system.

Actor	Description
Employee	A user of the module and working as an Employee of Organization.
Solution Provider	Authorized Person who will view or send solutions of complaints to individuals.
System Administrator (alias: Admin user)	A nominated contact with privileges to maintain system level data

Table 3.3. Actors

3.2.3 General User Requirements

a) Employee

- Ability to Send General or Personal Complaints to Concerned Persons.
- Ability to View General Complaints and their solutions.
- Ability to get solutions of the Personal complaints through mail.
- Ability to set the priority of the Complaints.

b) Solution Provider (VP/System Admin./HR Manager)

- Ability to View Complaints on the basis of
  - Title
  - Priority
- Ability to Send Solutions against complaints.
  - General Posting in case of General Complaints
  - Through Mail in case of Personal Complaints.
- Ability to generate Report.

  Various Reports will be generated like
  - Individual against whom Maximum Complaints have been lodged.
  - Complaints with in a specified period.

c) **System Administrator.**

The system shall provide administrators the following features:

- The system shall provide basic user registration and user profile related functionality. Only users who have been validated by the system will be allowed to access the Module.

3.2.4 Reporting

- Monthly Complaints display report.

3.2.5 Security Model and User Management

- The system shall capture Complaint related information and other related requirements.

3.2.6 Interface Requirements

This section describes how the software interfaces with users for input and output or other software products. The following diagram depicts the anticipated pages of the Complaint Management System of Corporate Intranet.

<u>For General User</u>-

- Home Page
- General Complaints
  - *Send
  - *View
- Personal Complaints
  - *Send

<u>For Solution Provider</u>-

- Home Page
- General Complaints
  - *View

*Reply

- Personal Complaints

  *View

  *Reply

- Reports

3.3 Corporate Intranet-Meeting organizer

Corporate Intranet project provides the facility to the top order employees to organize meeting through the intranet. In this module the meeting organizer fills a form in which includes all the information about the meeting such as nature of meeting (official or private), agenda, venue, date, time and duration. After filling all the information and by submitting it organizer gets a drag and drop menu. In the drag and drop menu there is a list of all the employees in the intranet. With the help of this list the organizer can select all the participants of meeting by dragging the name into the invitation list. Now from here the organizer has two options to inform the participants to attend the meeting one is contact through intranet notice board and other one is through mails. By selecting one of the two options the participants gets all the information to attend the meeting. The meeting organizer main page has also a link named as Attend Meeting by clicking to this link the employee can see all the information of the meeting, which he is supposed to attend.

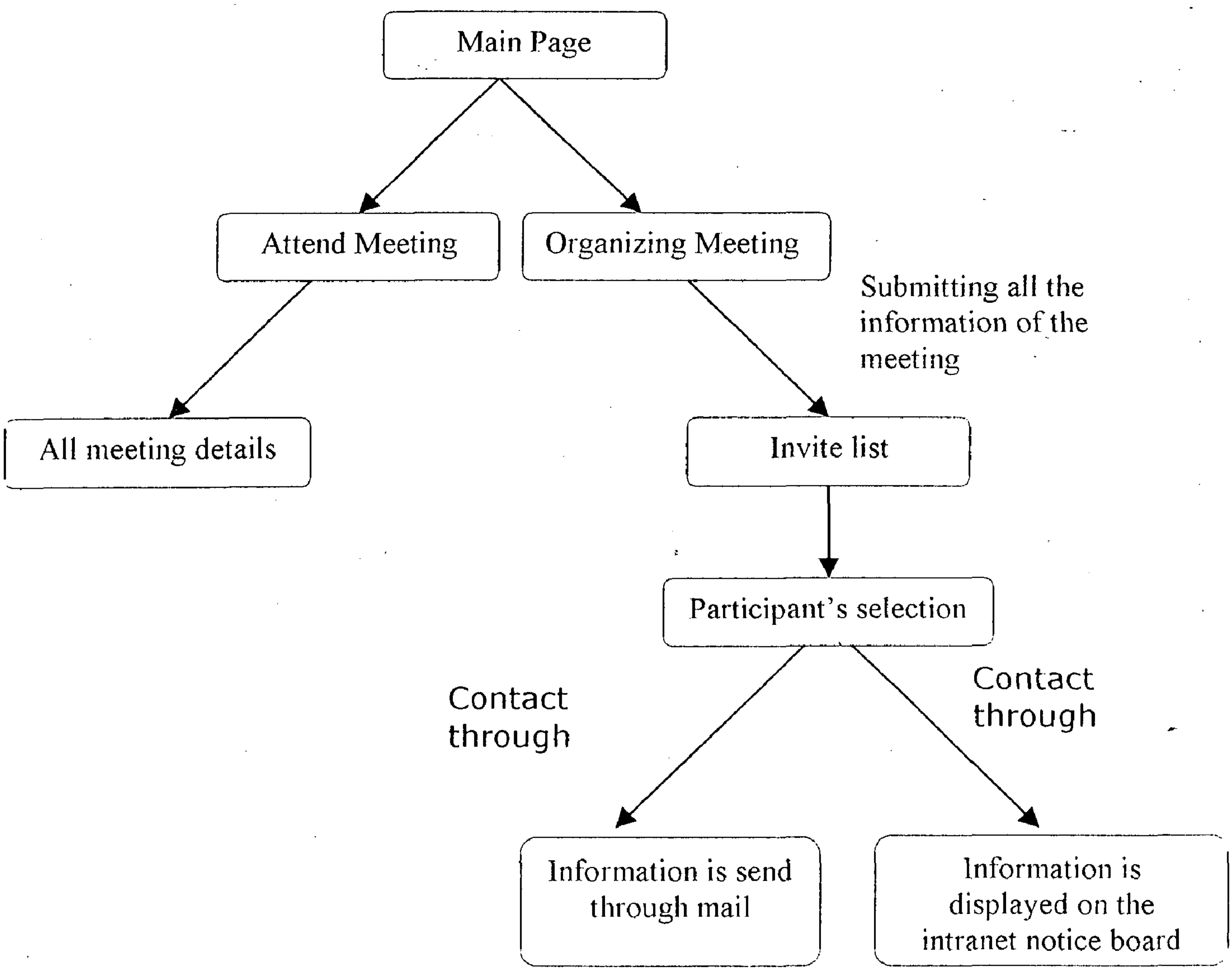


Figure 3.5 Flow chart for meeting organizer module

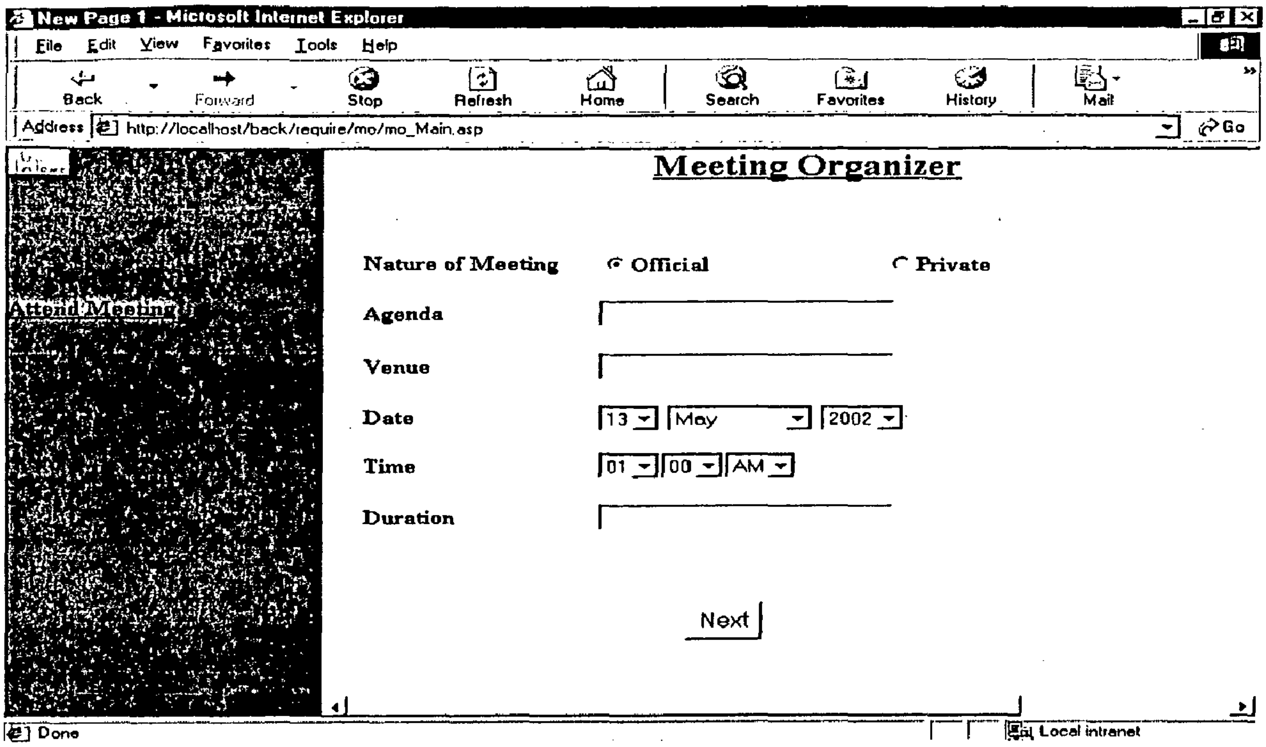


Figure 3.6 Meeting Ionizations home page

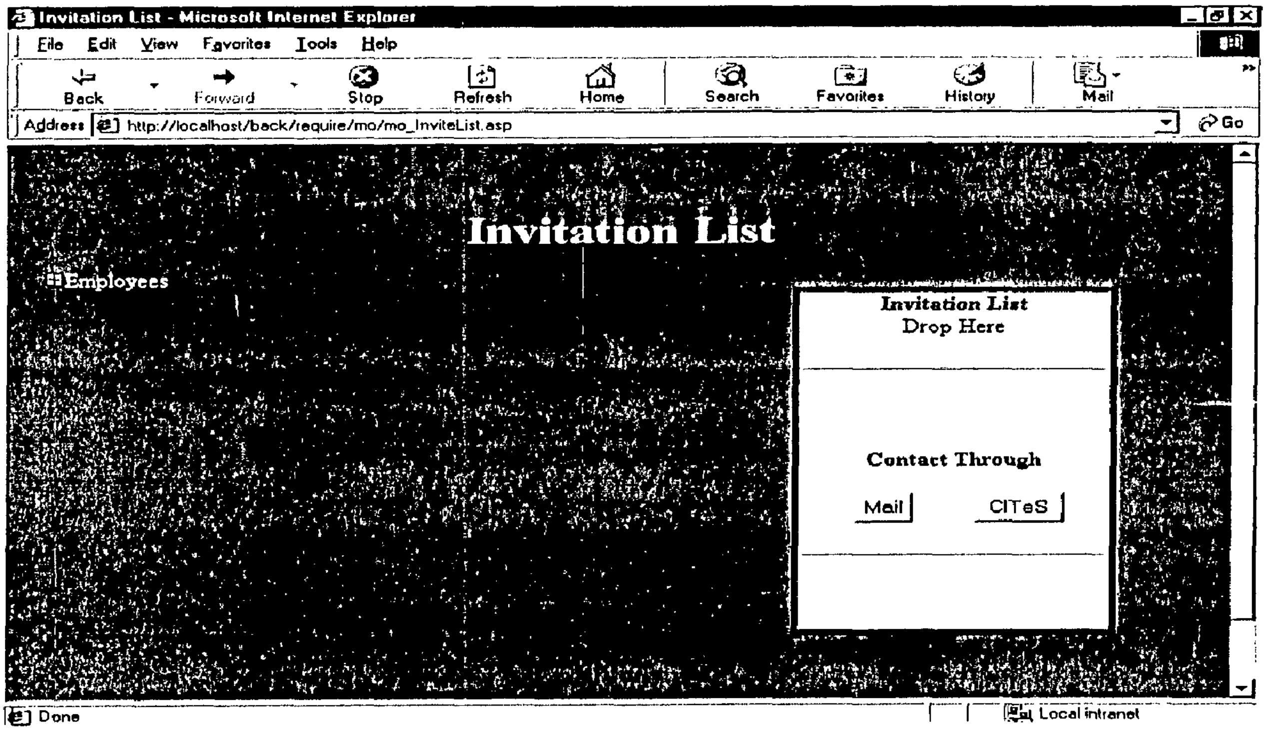


Figure 3.7 Invitation list

Figure 3.8 Name of all the employee in the menu from database

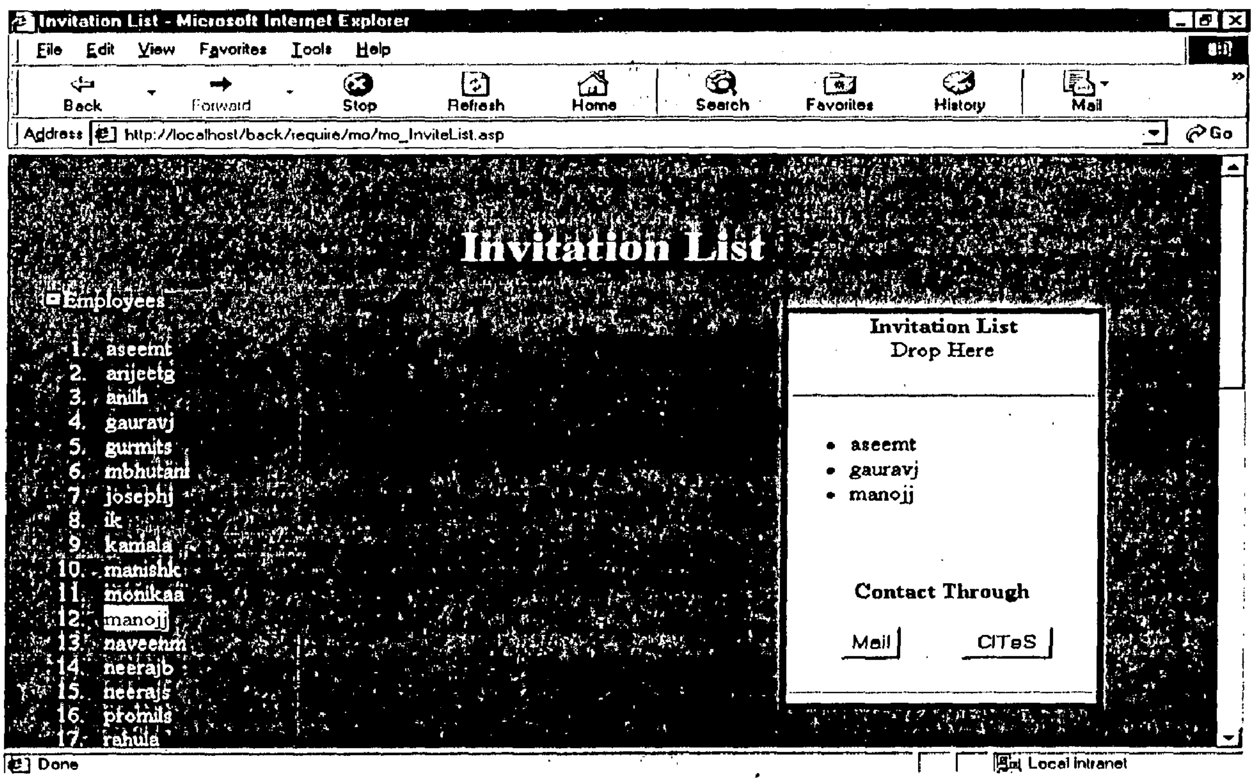


Figure 3.9 Name of the participants in the invitation list after dragging

3.5 Corporate Intranet- Personal Forums

Corporate Intranet project enables an employee to sell or buy personal item within the intranet. This module mainly consists of two parts one is for selling item and other one is for buying an item. For selling an item employee has to fill up a form, which is send to the selling corner. The form includes all the information about the item such as item name, model no., and price on which he want to sell an item. In the selling corner the interested person who want to buy that item can move the item to the meeting corner and also send the information in how much price he want to buy that item. When the employee (seller) sees the item in that any employee is interested to buy his item then he decide to meet to the interested person. If in the meeting both buyer and seller are agree to buy and sell the item then the item is moved to the dealing corner otherwise the item is resend to the selling corner. In the dealing corner if the deal is confirmed it means the buyer had paid the negotiated price then the item is removed from the Database else it is resend to the selling corner. If an item remain in the database for more than 30 day's it is automatically deleted form there.

For buying an item employee has to fill up a forming the same manner as for selling an item, which is send to the buying corner. The form includes all the information about the item such as item name, model no., and expected price on which he want to buy that item. In the buying corner the interested person who want to sell that item can move the item to the meeting corner and also send the information in how much price he want to sell that item. When the employee (buyer) sees the item in that any employee is interested to sell his item then he decide to meet to the interested person. If in the meeting both buyer and seller are agree to buy and sell the item then the item is moved to the dealing corner otherwise the item is resend to the buying corner. In the dealing corner if the deal is confirmed it means the buyer had paid the negotiated price then the item is removed from the Database else it is resend to the buying corner. If an item remain in the database for more than 30 day's it is automatically deleted form there.

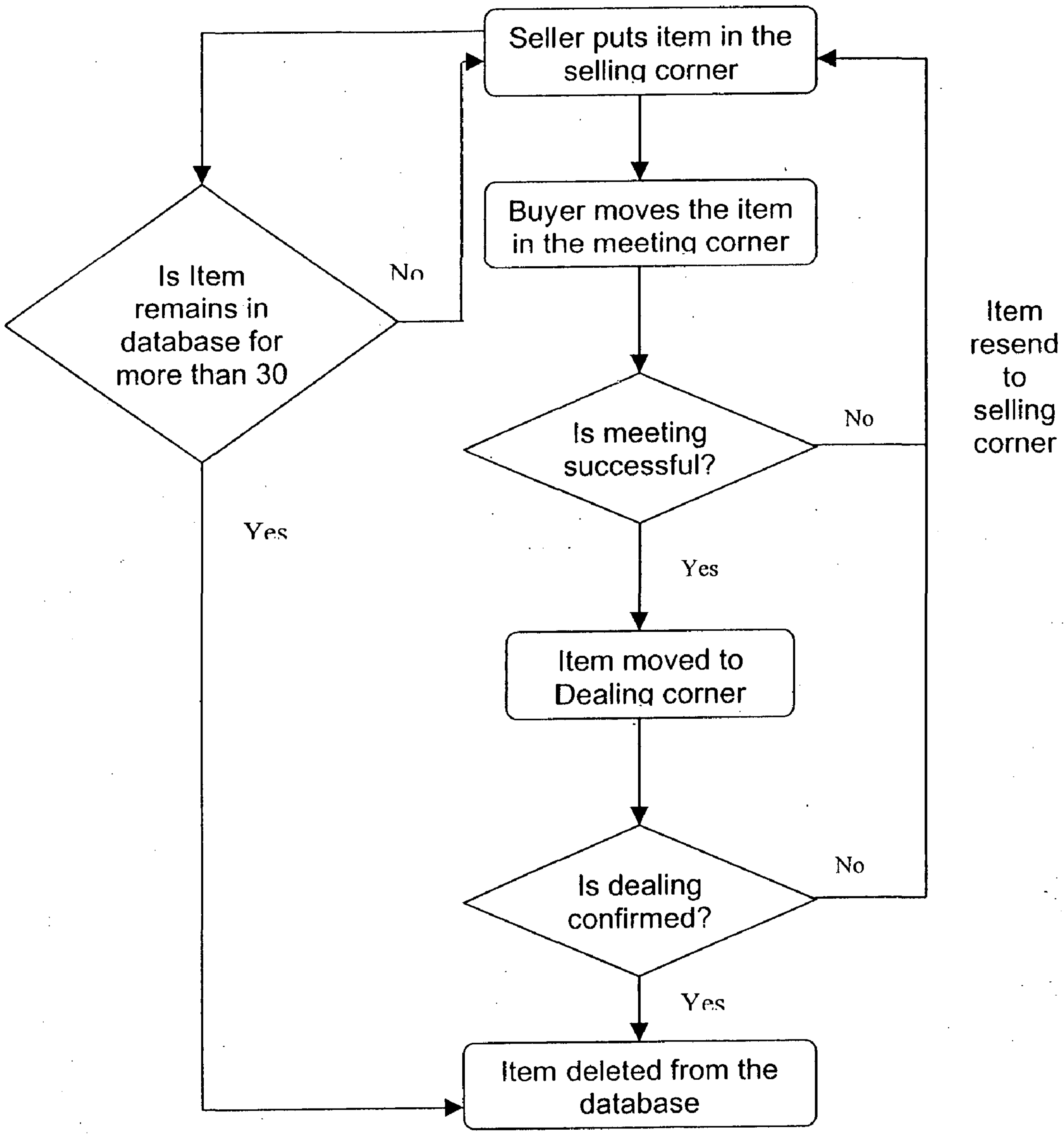


Figure 3.10 Flow Chart for selling an item

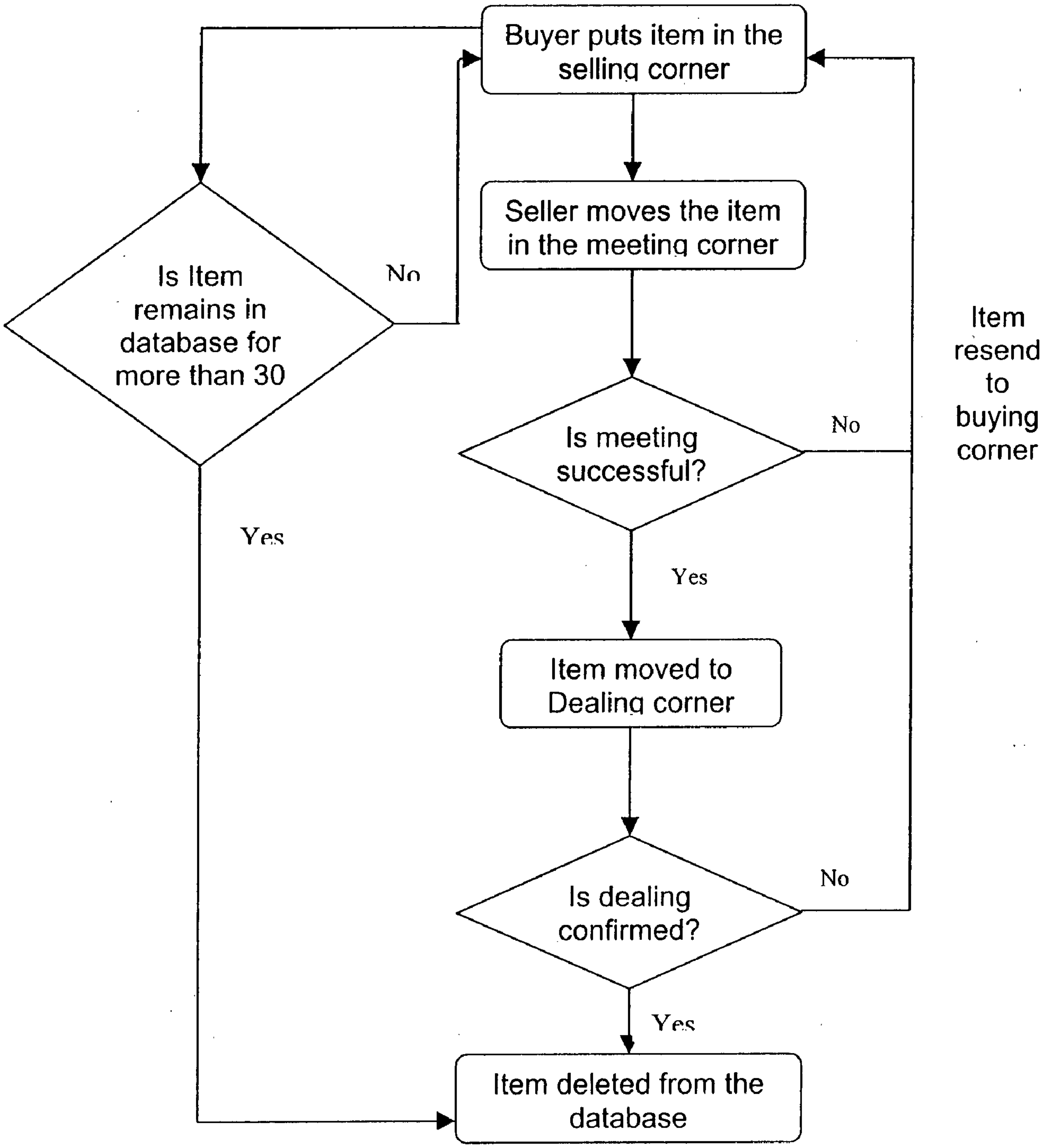


Figure 3.11 Flow Chart for buying an item

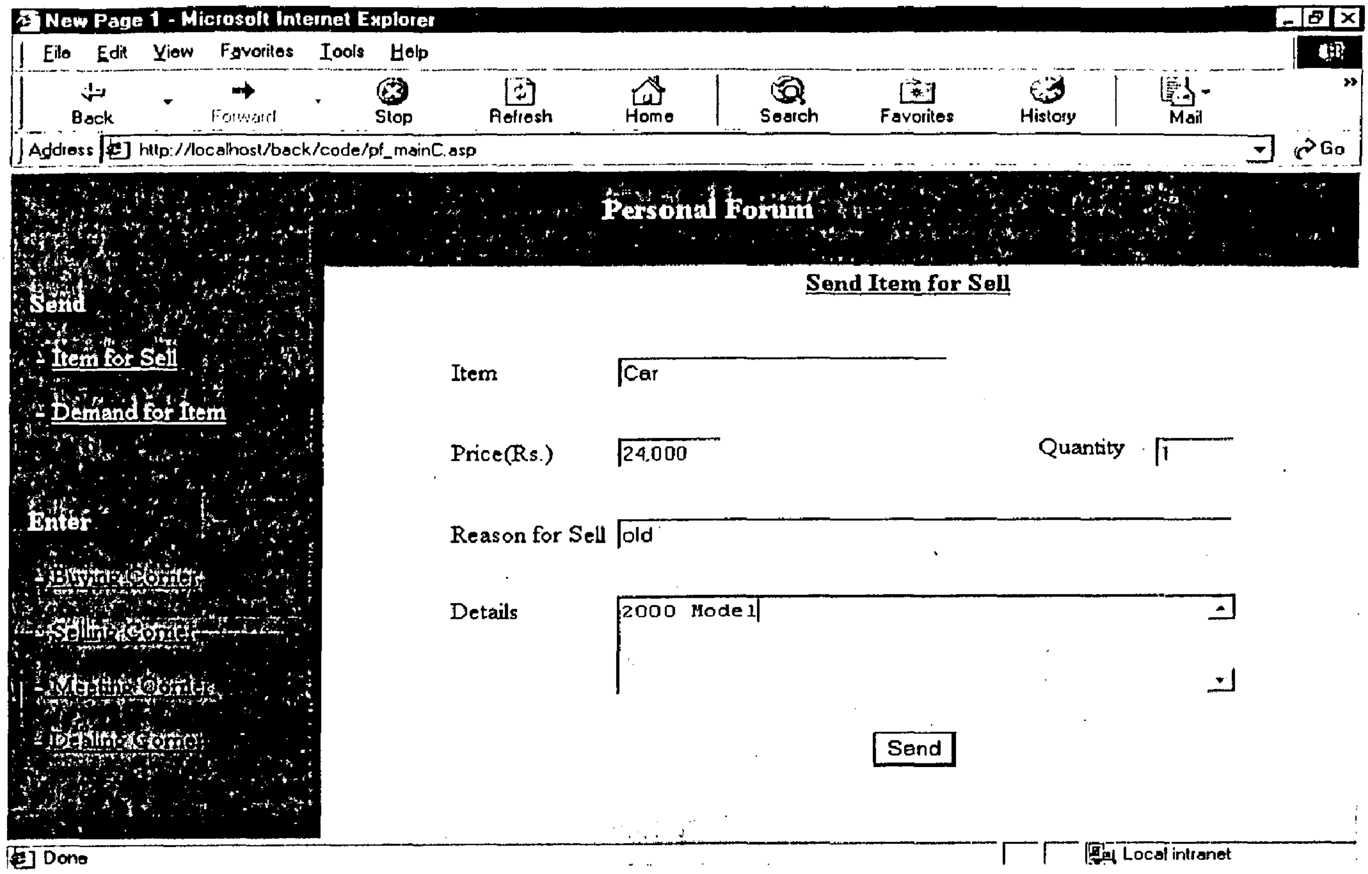


Figure 3.12 Form field by the seller

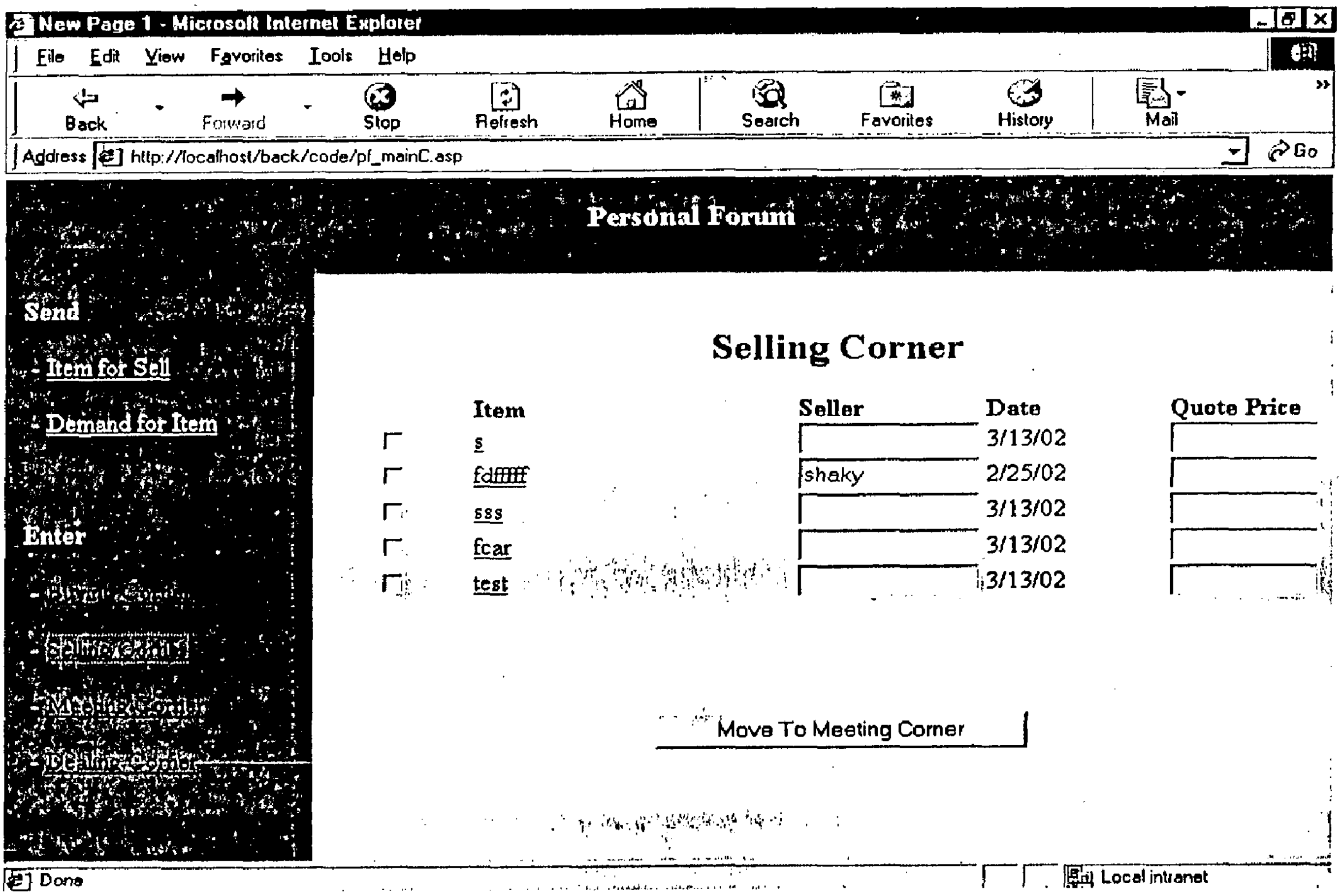


Figure 3.13 Item moved to selling corner

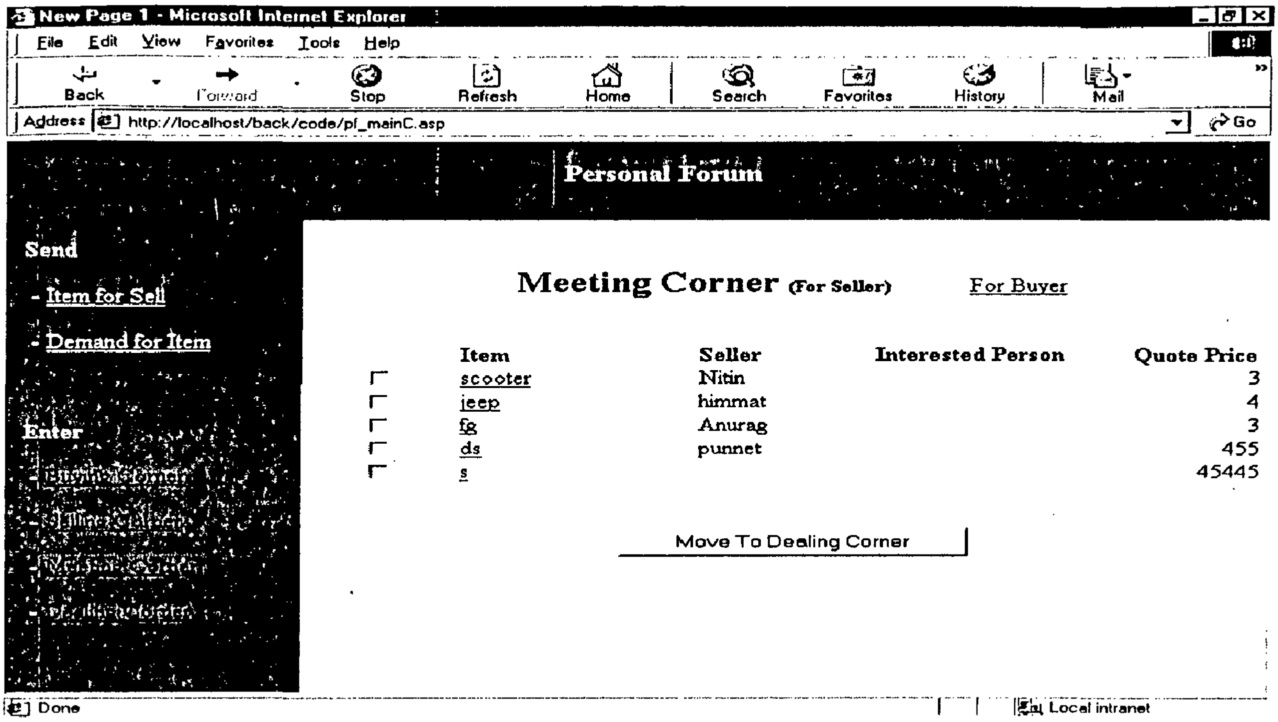


Figure 3.14 Item In meeting corner

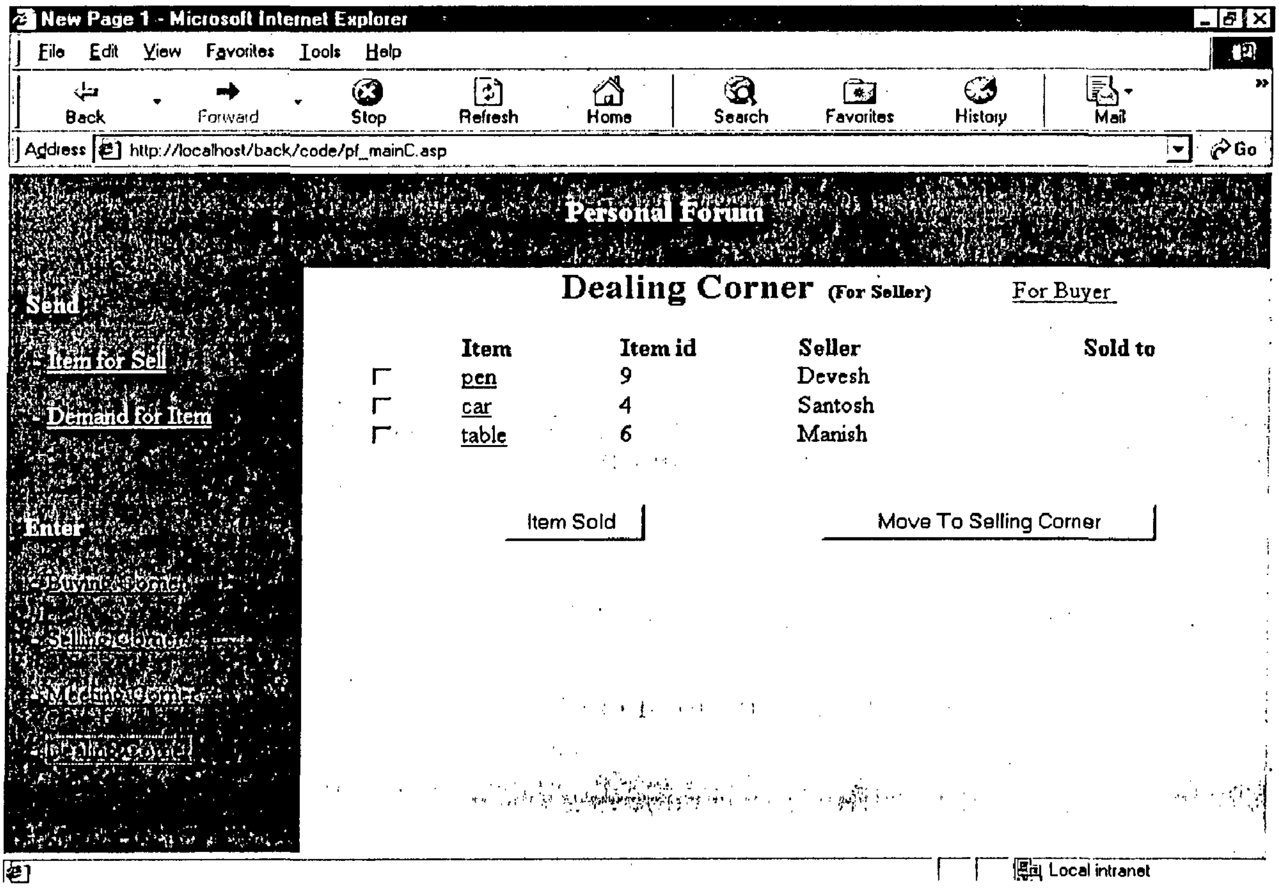


Figure 3.15 Item moved to dealing corner

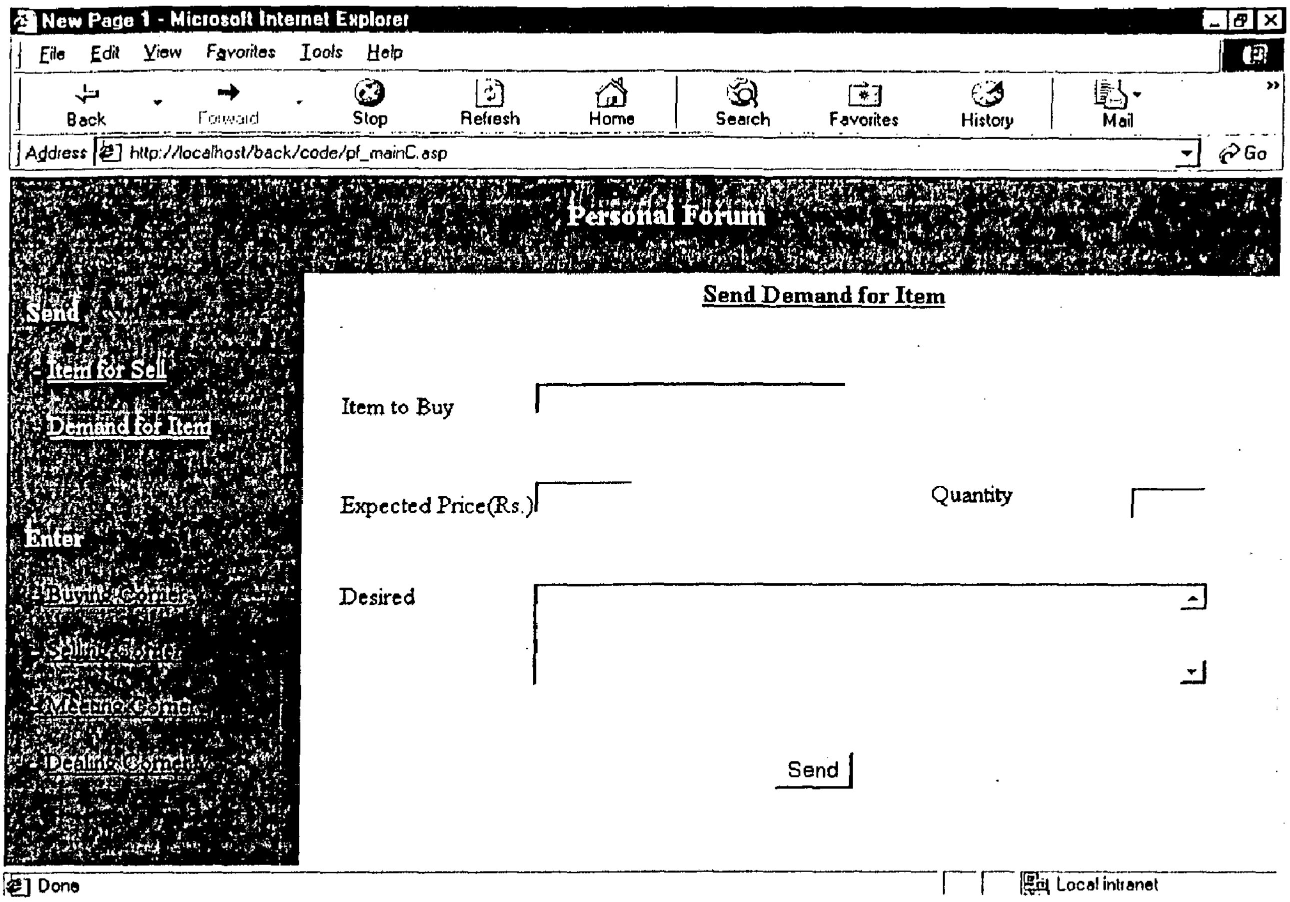
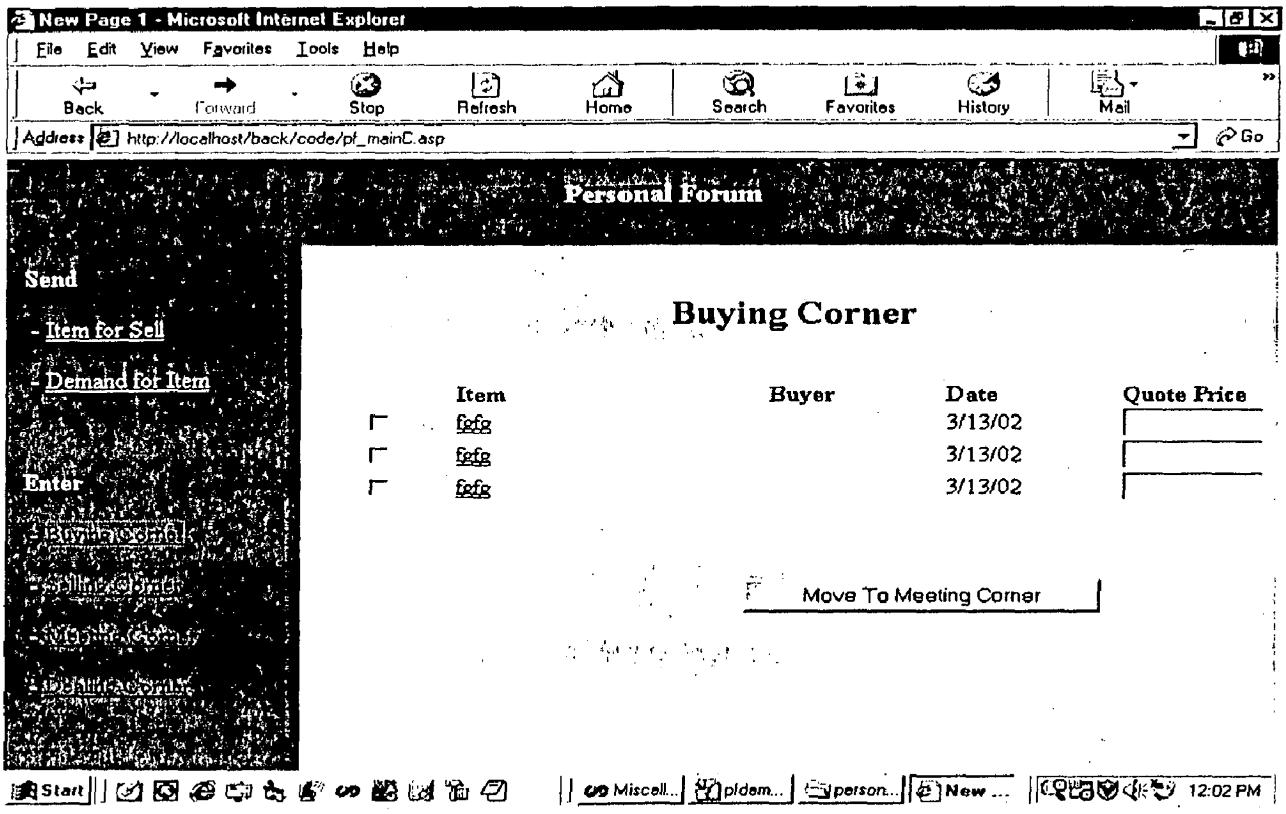


Figure 3.16 Form filled by the Buyer



3.17 Item in buying corner

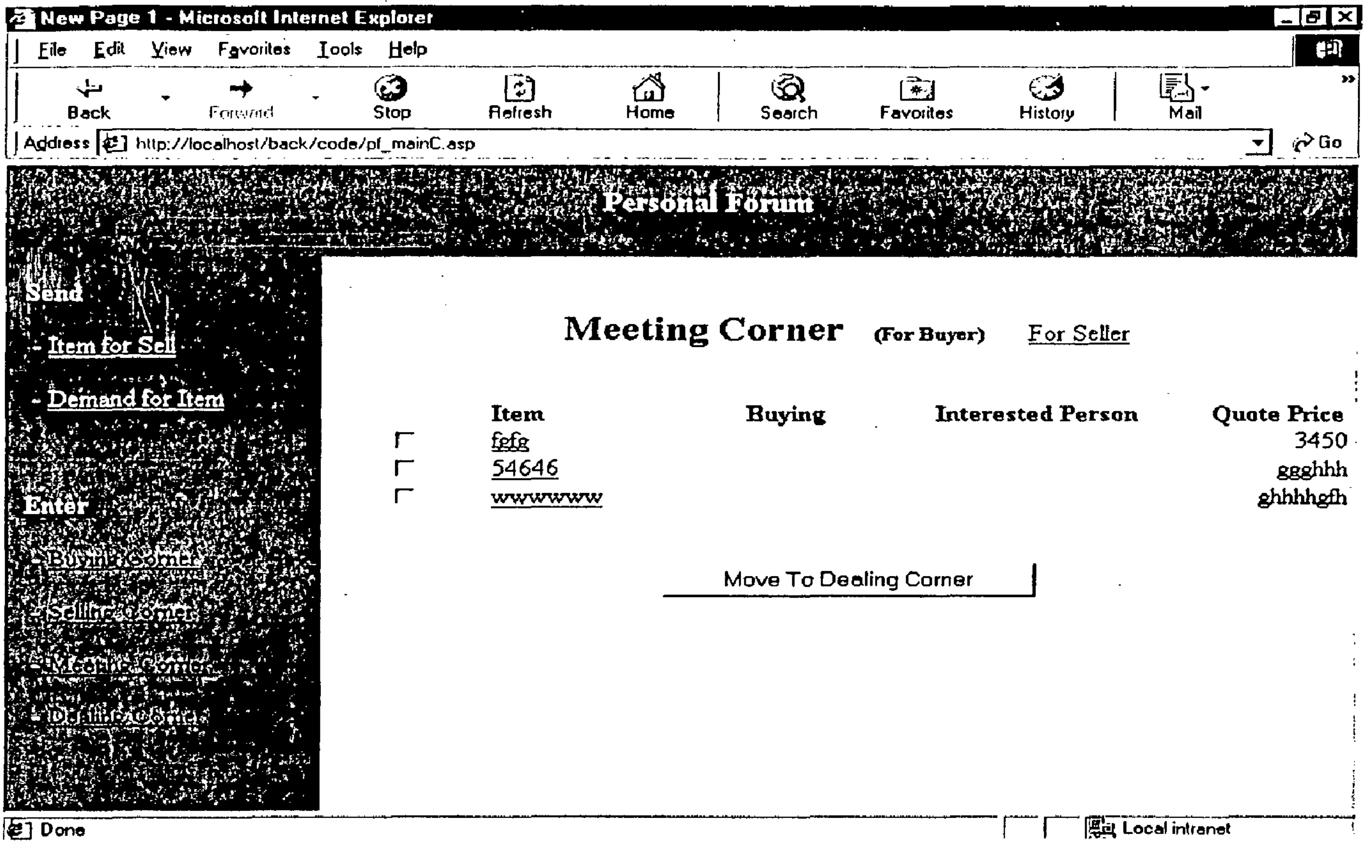
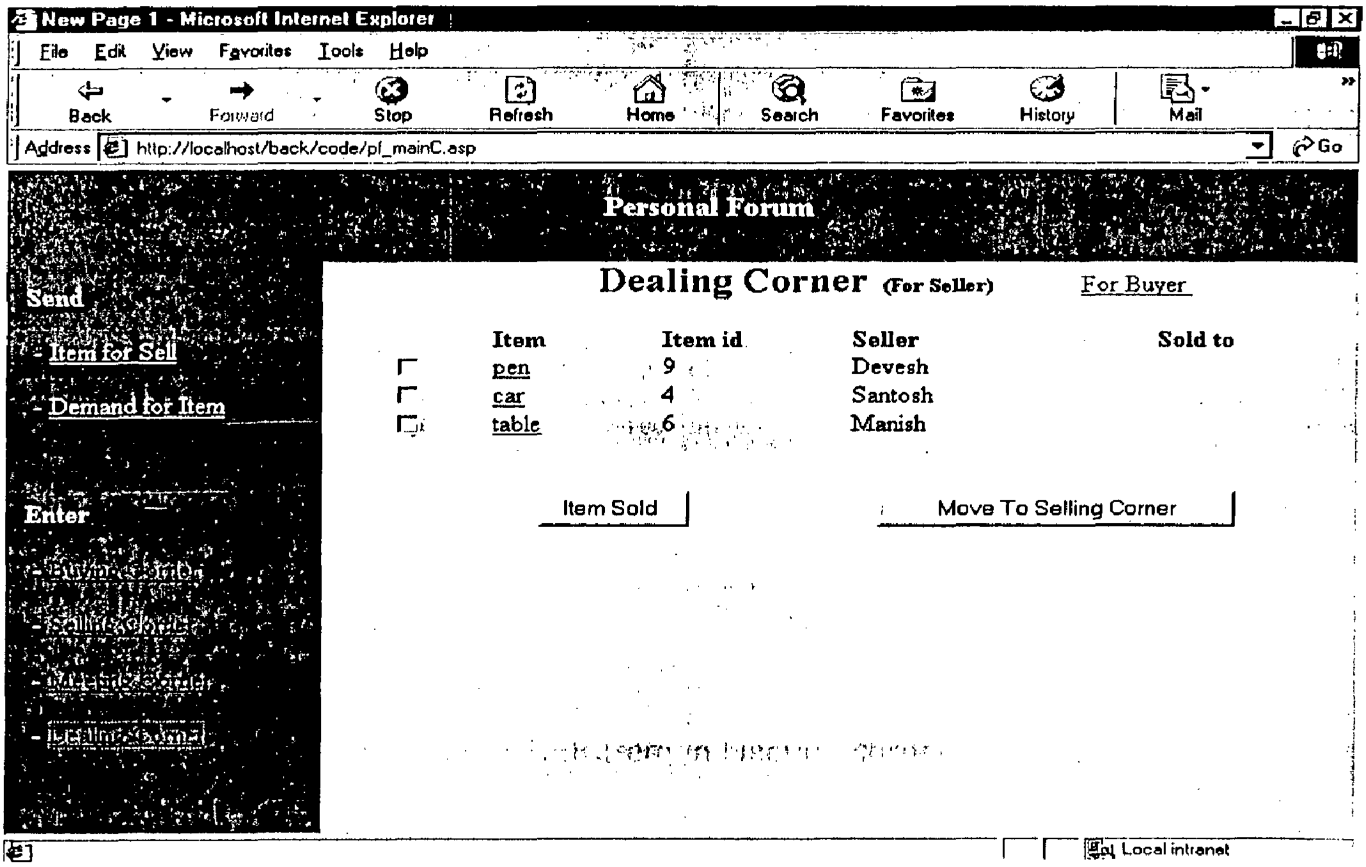


Figure 3.18 Item in Meeting corner



3.19 Item moved to dealing corner

4 SALES SYSTEM

4.1. Introduction

eCRM is a powerful application for increasing sales effectiveness by tracking all the information critical to your sales opportunities.

Requirement Analysis has been done based on the study of the Seibel software and subsequent meetings with the marketing team. A detailed document providing all the findings of Requirement Analysis is titled as "Software Requirements Specifications Document" (SRS Document).

Requirement Analysis for the different modules has been conducted to finalize the following aspects:

1. Processing requirements
2. Administration requirements

The objective of Software Requirement Specifications Document is to define the scope of the modules. SRS Document identifies all user requirements, which need to be Designed and Developed. The feedback on the proposed system needs to be known at this stage as the cost of making any changes later grows exponentially as the system is developed and implemented.

4.2 Scope

The scope of Designing and Development of eCRM has been envisaged in the following modules:

1. Login Module.
2. Opportunity Module
3. Accounts Module
4. Contacts Module
5. Activities Module
6. Calendar Module
7. Correspondence Module
8. Expenses Module
9. Service Requests Module
10. Reports Module

11. Administrator Module.

The following areas are not in the present scope of work:

1. Integration of the eCRM software with other financial packages.
2. Integration of the eCRM software with other purchase packages.
3. Integration of the eCRM software with other HRD packages.
4. Integration of the eCRM software with inventory packages.

4.3 The General Description

Following is the list of facilities provided on the eCRM to be developed:

4.3.1 Login Module

a. Member can login to the site and access the various functionalities available.

b. If a member forgets his password, he can be reminded of the same through Email or prompted on the screen.

c. Member will have the option to change his password.

4.3.2 Opportunity Module

a. Member can add/modify/delete a particular opportunity at hand

b. Members can view and edit following items related to a particular opportunity:

- Activities
- Attachments
- Contacts
- Notes
- Charts
- New Business Analysis
- Sales Pipeline Analysis

4.3.3 Accounts Module

- Member can add/modify/delete a particular account
- Members can view and edit following items related to a particular account:

- Activities
- Attachments
- Contacts
- Notes
- Opportunities
- Service Requests
- Charts
- State Analysis

4.3.4 Contacts Module

- Member can add/modify/delete a particular contact
- Members can view and edit following items related to a particular contact:
  - Activities
  - Attachments
  - Notes
  - Opportunities
  - Service Requests

4.3.5 Activities Module

- Members can add/modify/delete a particular activity.
- Members can view and edit following items related to a particular activity:
  - To Do List
  - Attachments

4.3.6 Calendars Module

- Members can add/modify/delete a particular appointment.
- Members can view and edit their appointments on the following basis:
  - Daily
  - Weekly
  - Monthly

4.3.7 Correspondences Module

- Members can add/modify/delete a particular correspondence.
- Members can view and edit following items related to a particular correspondence:
  - My Correspondence Requests
  - Templates

4.3.8 Expenses Module

a. Members can add/delete/modify tour expenses or any other expense incurred by the member.

b. Members can view and edit the following items related to a particular expense.

- My Expense Report
- Expense Report Details

4.3.9 Service Request Module

- Members can add/delete/modify/copy any service requests from the accounts.
- Members can view and edit the following items related to a particular service request.
  - My Service Requests
  - Activities

4.3.10 Reports Module

- By Sales person
- By account
- By opportunity
- By daily/weekly/monthly/quarterly/yearly sales

4.3.11 Administration Module

a. Define users and their access controls.

b. Add/update/Delete the Master Tables.

c. View/Delete the user details and information.

d. Database Maintenance.

4.4User Characteristics

The user who is using the product must have knowledge of browsing on Internet/Intranet.

5 DESCRIPTION OF DIFFERENT MODULE -

5.1 Login Module

5.1.1 Introduction

A member can log on to the eCRM site using his login Id and password provided to him by the administrator to avail the full functionalities available with that type of membership.

5.1.2 Scope

Login Id shall be unique for each registered member. If a member forgot his password, he can ask for the same from the administrator. The member shall have a facility to change the password provided to him.

5.1.3 DFD

A data flow diagram:

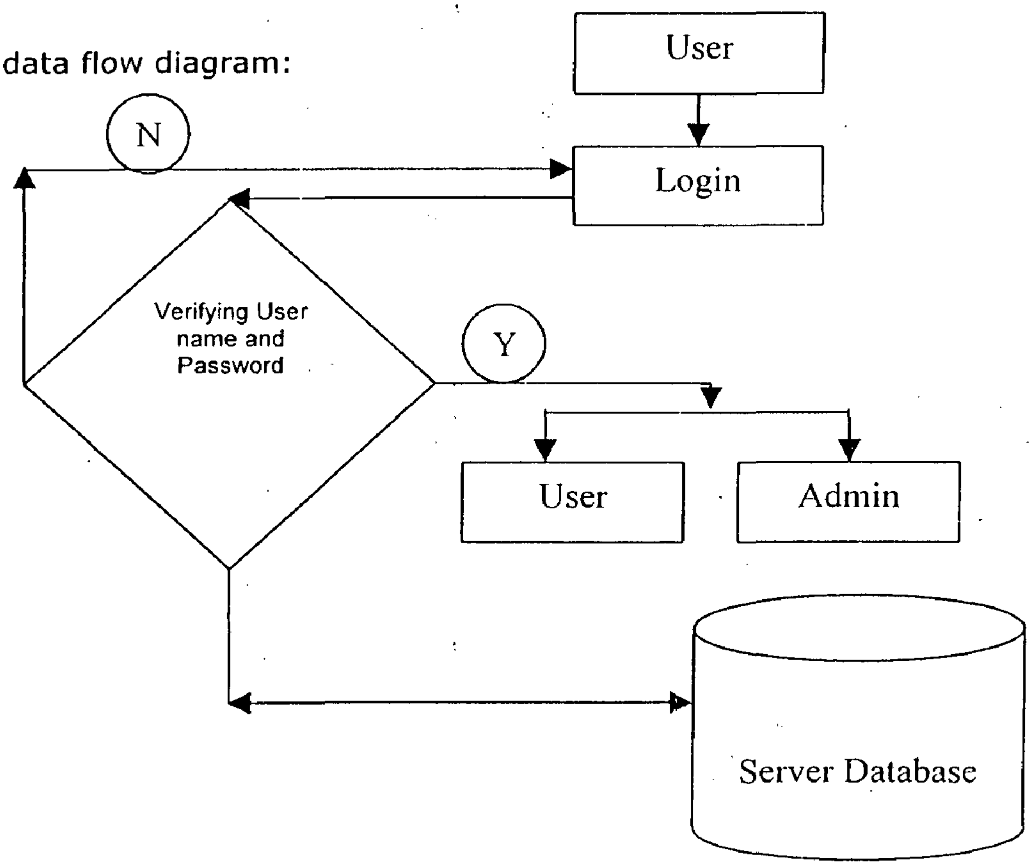


Figure 5.1 Login Module

5.1.4 Inputs

Login

1. Login Id: Member enters his login Id (provided by the administrator).
2. Password: Member enters the password.

Change Password

1. Login Id: Member login Id at the Server.
2. Member old password.
3. Member new password.
4. Re-enter member new password.

5.1.5 Outputs

Login

1. Member's data popped up in the eCRM with a welcome note or alerts if any.
2. Error message for incorrect login Id or password.

Change Password

New password will be updated after validation of the login Id and old password.

5.1.6 Processing

1. Member will enter his 'Login Id' and 'password' provided to him by the administrator. If Login Id and password are correct then the member shall be able to enter into the eCRM website and perform the functionalities that he wishes to perform and is allowed to perform. Upon logging in to the system the member shall be able to view any pending alerts that he had set and view the daily activities that he is supposed to perform.
2. Member will get the error message "Incorrect Login Id or password" in case member enters incorrect Login Id or password. The member is then redirected to the login page for re-entering login Id and password again.
3. On selecting the 'Change Password' link, the member will be prompted for login Id, old password and new password. If the entered information is valid, new password will be updated in the database and a confirmation

message will be displayed to member indicating that the password has been changed/updated successfully.

5.1.7 Validations

1. For members, the login Id and password shall be validated in the database and related information should be displayed depending upon his/her access rights.
2. For a new user created by administrator, it is checked whether the login Id chosen by him already exists or not.
3. Correct data type shall be validated at the client side in the registration form.
4. Login Id, password fields cannot be left blank while logging in.

5.2 Opportunity Module

5.2.1 Introduction

An opportunity is a potential revenue-generating event, with a close date and a win probability. The eCRM Sales Opportunities views allow you to track critical information about your opportunities throughout the sales cycle, including the probability of closure, the expected value, the current sales stage, and the reason the deal was won or lost. In eCRM Sales you can associate one or more accounts, contacts and activities with an opportunity to give you access to the information you need to close a deal. You can record your notes and attach files created in another application, such as email notes, word processing documents, and spreadsheets.

5.2.2 Scope

The **My Opportunities** view lists all opportunities. It shows opportunity details, track the status of an opportunity from creation to closure, create new opportunities, and update opportunities. Queries can be used with this view to look at groups of opportunities.

The **Opportunity Activities** view lists all activities for an opportunity. It can be used to record and view activities—phone calls, meetings, presentations, and so on.

The Opportunity Attachments view lists all the files that has been attached to the opportunity. It can be used to attach files created in other applications—for example, emails, letters, and spreadsheets—to the opportunity, to review a list of attachments, and to open an attachment in the application used to create it.

The **Opportunity Contacts** view lists all the contacts associated with an opportunity. It can be used to view the contacts for an opportunity, look up information about contacts and create new contacts.

The **Opportunity Notes** view allows to create and track notes about an opportunity.

5.2.3 Input

Input to the virtual desktop will come in following ways

1. User can move information like files, Web pages, URLs etc. from the desktop, windows explorer, Internet browser, or any other application.
2. User can write a note or any text and save it into a project or send it directly to a user in the group via email.
3. User can move information like files, web pages, URLs etc. between projects or within the same project.

5.2.4 Output

1. All the related information of the item to be displayed if the user drags the item from desktop, windows explorer, Internet browser, or any other application otherwise customized message to be prompted if user drags incompatible information.
2. Customized message to be prompted if user tries to alter project information which violates the pre-defined standard of the applications e.g. if user tries to modify nodes/folders defined by administrator, customized warning will be displayed.
3. Project tree will be automatically refreshed on new addition or deletion of nodes/folders/files in the project.

5.2.5 Processing

1. User can select item/folder and can move them between projects or within project.

2. User can double click on project tree nodes to expand it.
3. User can double click on files to view or modify contents in notepad editor, file viewer, or sketchpad.
4. User can use delete option to delete files/folder/nodes from the project.
5. User can save project status using save option.
6. User can add Project nodes using add option.

5.2.6 Validations

1. Data field's validations are done by the application according to business logic and database structure.

5.3 Accounts Module

5.3.1 Introduction

Sales System gives the option of managing your business by focusing on accounts, as well as opportunities, so that, in addition to managing the deals you're currently working on and the contacts you're currently working with, you can track your long-term relationships with organizations.

The Sales System Account views allow you to enter and view detailed information about your accounts, including any parent or sub-accounts. To further broaden the available account information, you can associate information about one or more contacts, activities, and opportunities with an account. Additionally, you can maintain a set of notes about an account and attach files created in another application, such as email notes, word processing documents, and spreadsheets.

The Accounts views also include organization charts to give you a visual profile of an account's reporting hierarchies, a chart that provides a graphical view of your accounts by state, the ability to generate a report for all your accounts or specific groups of accounts, and the ability to customize the record for an account by creating your own custom information categories

5.3.2 Scope

The My Accounts view lists all your accounts. Use it to view account information and create new accounts. Use queries with this view to look at groups of accounts, for example, accounts in a particular geographical area.

The Account Activities view lists all your activities for an account. Use it to record and view your activities—phone calls, meetings, presentations, and so on.

The Account Attachments view lists all the files that you have attached to the account. Use it to attach files created in other applications—for example, emails letters, and spreadsheets—to the opportunity, to review a list of attachments, and to open an attachment in the application used to create it.

The Account Categories view allows you to create and use your own categories for recording information. The categories you create can serve as custom, or user, fields. The Account Contacts view lists all the contacts associated with an account. Use it to view the contacts for an account, look up information about contacts, and create new contacts. The Account Notes view allows you to create and track notes about an account.

The Account Opportunities view lists all the opportunities associated with an account.

The Account Organization Analysis view allows you to view and edit organization charts for accounts so that you can display a visual profile of an account's reporting hierarchy.

The Account Chart view provides an Account State Analysis chart that shows the number of accounts by state..

5.3.3 Inputs

1. Administrator can execute the database backup script by connecting to the server.
2. Administration Login Name: Enter the Administrator login name, for accessing the administration section of the site.
3. Password: Enter the administrator password.
4. View Member Details: Links on the Member list page to view the member specific details.
5. Add/Delete Member: Select the particular member and delete the same or add new member.
6. Add project/nodes: Add project/nodes in the database.
7. Grant Permission: grant permission to projects

5.3.4 Outputs

1. The database backup script shall take the backup of database at the specified place.
2. The selected member shall be deleted from the database.
3. The selected projects shall be deleted/added/updated in the database.
4. The selected files and folders shall be deleted/added/updated in the database.
5. Selected members will be granted permission on the projects.

5.3.5 Processing

1. Administrator can run the database backup script any time by connecting to the server, which will store the database backup at the specified place.
2. Administrator can logon to the site by submitting the Login name and Password, provided to the administrator.
3. After login to the site as administrator he will be displayed the Administration. Home page with menu for specific to the administrator.
4. From the menu if administrator selects list members, list of members shall be displayed. Administrator can delete the members or view the member's details or add new members.
5. From the menu if administrator selects project admin, list of projects shall be displayed. Administrator can view/add/update/delete the projects.
6. From the menu if the administrator selects General Queries, the administrator will have to select / enter the query criteria. The result will be displayed.

5.3.6 Validations

1. Administrator login name and password shall be validated.
2. Mandatory fields will be validated for valid data type.

5.3.7 Security considerations

1. Only Member with Administrator login Id and Password will be able to use the Admin section.
2. Administrator will have the right to maintain the database for efficient functioning of the site.

5.3.8 Error Recovery

1. Data Type mismatch: The User can go back to the field and re-enter the Information in the field

5.4 Contacts Module

5.4.1 Introduction

The Sales System Contact views allow you to record and track detailed business and personal contact information. Queries make it easy to track and work with groups of contacts, as do the contact reports. The Sales system Contact views synchronize with Microsoft Outlook so that you can use the Sales System application with your personal digital assistant.

5.4.2 Scope

The My Contacts view lists all your contacts. Use it to view contact information and create new contacts. Use queries with this view, to view groups of contacts—for example, personal contacts, business contacts, and sales promotion contacts—and to create lists of contacts—for example, call lists and mailing lists. The Contact Activities view lists all your activities for a contact. Use it to record and view your activities—phone calls, meetings, presentations, and so on. The Contact Attachments view lists all the files that you have attached to the contact. Use it to attach files created in other applications—for example, emails, letters, and

Spreadsheets—to the contact, to review a list of attachments, and to open an attachment in the application used to create it. The Contact Categories view allows you to create and use your own categories for recording information. The categories you create can serve as custom, or user, fields. The Contact Notes view allows you to create and track notes about a contact. The Contact Opportunities view lists all the opportunities associated with a contact.[4]

5.4.3 Inputs

1. Administrator can execute the database backup script by connecting to the server.
2. Administration Login Name: Enter the Administrator login name, for accessing the administration section of the site.

3. Password: Enter the administrator password.
4. View Member Details: Links on the Member list page to view the member specific details.
5. Add/Delete Member: Select the particular member and delete the same or add new member.
6. Add project/nodes: Add project/nodes in the database.
7. Grant Permission: grant permission to projects

5.4.4 Outputs

1. The database backup script shall take the backup of database at the specified place.
2. The selected member shall be deleted from the database.
3. The selected projects shall be deleted/added/updated in the database.
4. The selected files and folders shall be deleted/added/updated in the database.
5. Selected members will be granted permission on the projects.

5.4.5 Processing

1. Administrator can run the database backup script any time by connecting to the server, which will store the database backup at the specified place.
2. Administrator can logon to the site by submitting the Login name and Password, provided to the administrator.
3. After login to the site as administrator he will be displayed the Administration. Home page with menu for specific to the administrator.
4. From the menu if administrator selects list members, list of members shall be displayed. Administrator can delete the members or view the member's details or add new members.
5. From the menu if administrator selects project admin, list of projects shall be displayed. Administrator can view/add/update/delete the projects.
6. From the menu if the administrator selects General Queries, the administrator will have to select / enter the query criteria. The result will be displayed.

5.4.6 Validations

1. Administrator login name and password shall be validated.

2. Mandatory fields will be validated for valid data type.

5.4.7 Security considerations

1. Only Member with Administrator login Id and Password will be able to use the Admin section.
2. Administrator will have the right to maintain the database for efficient functioning of the site.

5.4.8 Error Recovery

1. Data Type mismatch: The User can go back to the field and re-enter the Information in the field

5.5 Administration Module

5.5.1 Introduction

Purpose of this module is to allow administrator to run the database backup program for tacking the backup whenever required. The administrator will be able to view/add/update/delete information about Members and Projects and will be responsible for creating groups, assign/remove users from the group. Administrator will manage users and control the privileges to be given to them.

5.5.2 Scope

A database backup script shall be provided, which can be executed by the administrator to take the database backups.

The administration section of the site will have restrictive access to the Administrator through login and password.

The following functionalities shall be provided in the administration section:

1. User Administration: List of Member and view their details/delete/add member.
2. Project administration: View/add/update/delete Projects/nodes – must be able to create new project/nodes. Can view/update/delete files and folders.
3. Permission administration: View/add/update/delete Permission for various projects.

5.5.3 Inputs

1. Administrator can execute the database backup script by connecting to the server.
2. Administration Login Name: Enter the Administrator login name, for accessing the administration section of the site.
3. Password: Enter the administrator password.
4. View Member Details: Links on the Member list page to view the member specific details.
5. Add/Delete Member: Select the particular member and delete the same or add new member.
6. Add project/nodes: Add project/nodes in the database.
7. Grant Permission: grant permission to projects

5.5.4 Outputs

1. The database backup script shall take the backup of database at the specified place.
2. The selected member shall be deleted from the database.
3. The selected projects shall be deleted/added/updated in the database.
4. The selected files and folders shall be deleted/added/updated in the database.
5. Selected members will be granted permission on the projects.

5.5.5 Processing

1. Administrator can run the database backup script any time by connecting to the server, which will store the database backup at the specified place.
2. Administrator can logon to the site by submitting the Login name and Password, provided to the administrator.
3. After login to the site as administrator he will be displayed the Administration. Home page with menu for specific to the administrator.
4. From the menu if administrator selects list members, list of members shall be displayed. Administrator can delete the members or view the member's details or add new members.
5. From the menu if administrator selects project admin, list of projects shall be displayed. Administrator can view/add/update/delete the projects.

6. From the menu if the administrator selects General Queries, the administrator will have to select / enter the query criteria. The result will be displayed.

5.5.6 DFD

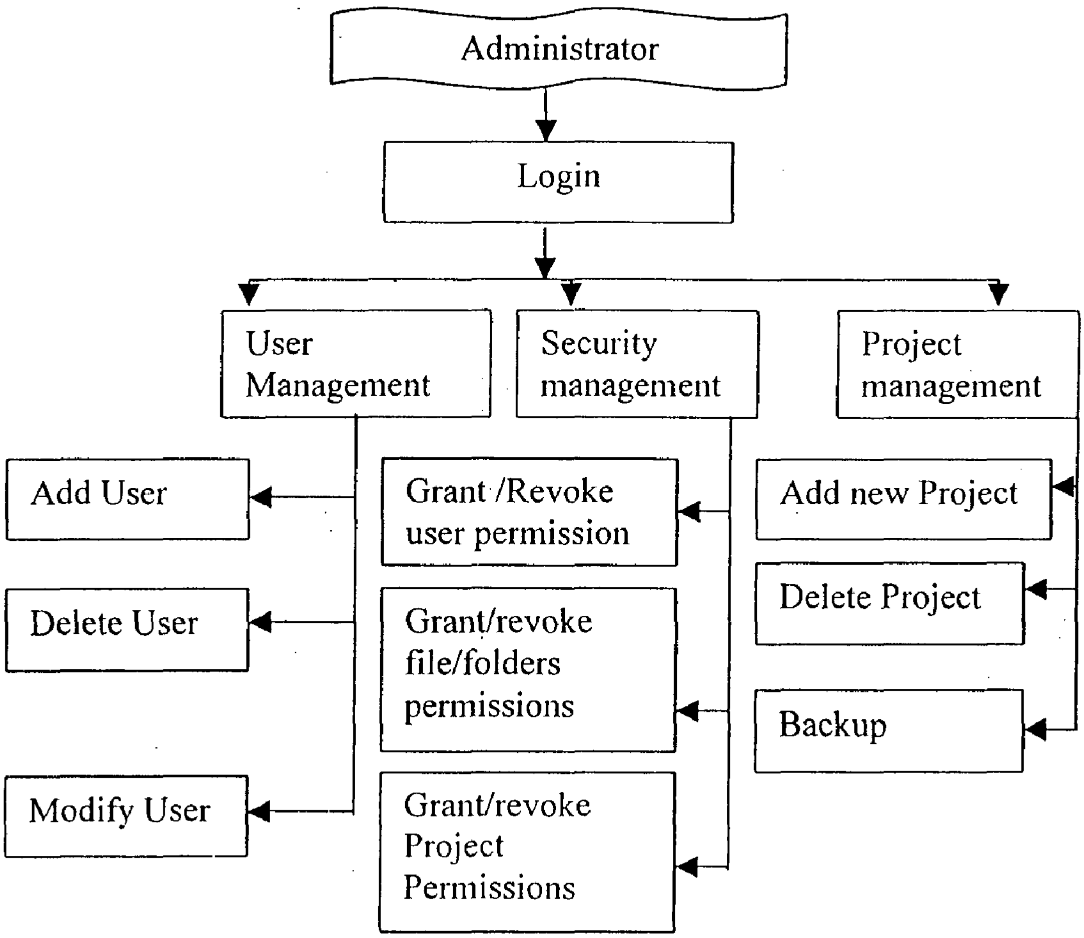


Figure 5.2 Administration Module

5.5.7 Validations

1 Administrator login name and password shall be validated.

2 Mandatory fields will be validated for valid data type.

5.5.8 Security considerations

1. Only Member with Administrator login Id and Password will be able to use the Admin section.
2. Administrator will have the right to maintain the database for efficient functioning of the site.

5.5.9 Error Recovery

1. Data Type mismatch: The User can go back to the field and re-enter the Information in the field

5.6 Design Constraints

5.6.1 Standards Compliance

- The web pages will be designed for 640/480 resolutions.
- Web pages can be opened in Internet Explorer 5.0 (and higher).
- Cookies must be enabled on the client browser for accessing the some of the functionalities.
- Each page will also include the drop down menu feature. Menus will have drop down features.
- All displayed links in the menu will be to suit the member.
- Frames can be used, but hesitantly.
- Menus have drop down features and menu links are dynamic. Sub links will also be present *within* the content of the page.
- All functions **must** flow together coherently and should be logical and easy to navigate.

5.6.2 Hardware Limitations

- This site will be developed for Pentium server or higher series of computers under Win NT operating system. For Sever system minimum of 512 MB RAM and 50 GB Hard Disk Drive with Mouse will be required.
- On the system, there must be a provision of taking backup on the network.

- For uploading the site, FTP access to the web server must be available.
- For taking database backup, access to the database must be available.

5.6.3 External Interface Requirements

The External Interface Requirements are listed below for the execution of the software.

a) User Interfaces

The web site will be user friendly for navigation. The access to the website will be through a standard browser.

b) Hardware Interfaces

For Server: -

The site will be hosted on Pentium or higher series of Server under Win NT operating system.

For Desktop: -

Any client System having MS Internet connected on Network.

c) Software Interfaces

The developed site will have interface with the following software:

i. Operating System, Win NT 4.0 or higher
ii. MS SQL Server 7.0.
iii. ASP,COM

d) Communication Interfaces

This site is to be designed with three-tier architecture. Both the database server and web server may be installed on the same computer system or on different computer systems. All the interacting computers should be connected through TCP-IP protocol.

6. Programming Concept Used In The Project

6.1 Active Server Pages

An Active Server Page is a standard HTML file that is extended with additional features. Like a standard HTML file, an Active Server Page contains HTML tags that can be interpreted and displayed by a browser. Any thing, which can be, placed in an HTML file – Java applets, blinking text, client side script, ActiveX control can be placed in an active server Page. However, an Active server Page has three important features that make it unique: [6]

- An Active Server Page can contain server side scripts. By including server-side scripts Active Server Page, Web pages can be created with dynamic content.
- An Active Server Page provides several built in objects. By using the built-in objects accessible in an Active Server Page much more powerful script can be made more powerful. For example, by using a Request object, we can retrieve information that a user has posted in an HTML form and respond to that information within a script.
- An Active Server Page can be extended with additional components. Active Server Pages comes bundled with several standard, server-side ActiveX components. These components enables to do such things as work with databases, send email, and access the file system.

The process of serving an Active Server Page can be broken into the following steps:

1. A user enters the Internet address of an Active Server Page file into the address bar of a Web browser and presses Enter to request an Active Server Page.
2. The browser sends a request for the Active Server Page to IIS.
3. The Web server receives and request and recognizes that the request is for Active Server Page file because the requested file has the extension .asp.
4. The Web server retrieves the proper Active Server Page file from the disk or memory.
5. The Web server sends the file to special program named ASP.dll.

6. The Active Server Page file is processed from top to bottom and any commands it encounters are executed .The result of this process is a standard HTML file.
7. The HTML file is send back to the browser.
8. The user's Web browser interprets the HTML file, and the results are displayed in the browser window.

6.2 Active Server Pages Objects

An object is something that typically has methods, properties, or collection. An objects method determines the thing you can do with the object. An object's properties can be read or set to specify the state of the object. Objects collections constitute different sets of key and value pairs related to the objects. The following list provides a quick overview of each of the built-in objects: [7]

- **The Application object** – The Application object is used to store and retrieve information that can be shared among all user of an application
- **The Request object** – The object can be used to access all information sent in a request form from a browser to the server. You can use the Request object to retrieve the information that a user has entered into a HTML form.
- **The Response object** – The Response object is used to send information back to a browser.
- **The Server object** – the server object enables a user to use various utility functions on the server.
- **The Session object** – The Session object can be used to store and retrieve information about particular user sessions. A user can use the Session object to store information that persists over the course of a visit by a user to your Web site.
- **The ObjectContext object** – The ObjectContext object is used to control Active Server Pages Transaction. The Transaction are managed by the Microsoft Transaction Server (MTS).

6.3 The Methods and Properties of Response object

- **Write method** – The write method outputs a string to a browser.

- **Buffer Property** – Normally, when an Active Server Page is processed on the server, the output from the page is sent back to the browser immediately after each command in the page is executed. In some situation a user wants to buffer the output of an Active Server Page. When the output is buffered none of the page is sent to the browser until the server has finished processing all of the page .For this in the script the user set true to the Buffer property of the Response object
- **ContentType Property** – The Content-Type header indicate the media type of the body of the response. A user can set this Content-Type by setting ContentType property of the response object.
- **Redirect Method** – By Redirect method of response object a user can redirect a Active Server Page.

6.4 The Request object

The Request objects includes three collections that corresponds to part of the HTTP request:

- **The QueryString Collection** – This is used to retrieve the value of the variable passed in a query string.
- **The Form Collection** – Working with Form collection is similar to working with the QueryString Collection. The Form Collection is used to store the variables posted with in an HTML form.
- **The ServerVariables Collection** – When a browser request a Web page from a server, the request includes several headers. A user can retrieve these headers by using the ServerVariables Collection.

6.5 Session Object

A session is something that starts the moment a user request a page from Web site and ends soon after the user leaves. Each visitor to the web site is given an individual session. Active Server Pages sessions are very easy to use. A user can control all aspects of a session by using the Active Server Pages Session object. If a user needs to store data that will persist through a user session, he simply stores the data in a collection of the Session object.

By the Abandon method of Session object a user lost all the information in session when he request a new page and a new ID is assigned to the session. After the Abandon method is called, the server treats the user as a new user.

6.6 Active Server Pages and SQL Server

ActiveX Data Objects (ADO) – The ActiveX Data Objects provides an application-level interface to data providers such as Microsoft SQL Server. A user uses the ADO directly within his Active Server Pages to communicate with database. The ADO contains all the objects that users normally use within his Active Server Pages. Three main objects contained in the ADO:

- **Connection Object –** The Connection object represent all the features of a connection to a data source. A user must open a connection with the Connection object before he want to communicate with a data source.
- **Recordset Object –** A Recordset objects represent the rows of data source. For Example If we query a database, the rows of the data returned from the database are returned in a set of records represented by the Recordset object.
- **Command Object –** The Command object represent a command that can be executed against a data source. Typically, the Command object is used to execute a SQL Stored procedure.

6.7 Recordset Fields

Every Recordset contains a Fields collection. The Fields collection contains individual Field objects. The Field collection represent the columns returned from a database query.

6.8 Recordset Cursor and Locking Types –

A Recordset is opened – implicitly or explicitly – with a particular cursor and locking type. Cursor and locking types are important for two reasons.

- First, using different cursor and locking types can have a dramatic effect on the performance of Active Server Pages scripts. If a wrong choice is made, it can take forever for the Active Server Pages to retrieve and display a list of database record.
- Second, certain properties of the Recordset object are available only when a user uses the correct cursor and locking types.

6.8.1 Different types of Cursor -

- **Forward-only cursor** – This is the default cursor and provides the fastest performance. When a Recordset is opened with a forward-only cursor, all the records are fetched serially, from start to finish. Forward-only cursor do not support backward scrolling, allowing only a single pass through the Resultset.[5]

- **Static Cursor** – A static cursor reflects the state of the data in a table when the cursor is first opened. The cursor can not detect whether rows in the underlying table have been updated or deleted or whether new row have been added. Unlike a forward-only cursor, however a static cursor can be used to scroll back and forth through the Resultset.

- **Keyset-driven cursor** – A keyset-driven cursor can detect certain changes made to the underlying rows in a table, but not all changes. In particular, a keyset-driven cursor can c accurately reflects data that has been updated. However, it cannot detect whether rows has been inserted or deleted by other user. A keyset-driven cursor supports scrolling.

- **Dynamic Cursor** – A dynamic cursor is the richest cursor type. It can detect any changes made to a table by other users while the cursor is open. It also fully supports scrolling.

6.8.2 ADO Locking Types

A database driven Web site might need to support hundreds of user accessing the same database table at the same time. When more than one user is updating and reading data in a data in a database table at the same time, conflict will occurs. To control these conflicts Recordset's

LockType property is used. The LockType property can have following values

- **adLockReadOnly** – This is the default locking type. Read-only locking is used to allow multiple users to read the same data at the same time. However when a Recordset is opened with this locking type the data cannot be altered.
- **adLockPessimistic** – When a Recordset is opened with pessimistic locking other users are prevented from accessing the data as soon as editing the record is begun.
- **adLockOptimistic** – When a Recordset is opened with optimistic locking, other user can access the record until the changes are actually committed.
- **adLockBatchOptimistic** – This locking type is used when performing batch updates.

7. RESULTS & CONCLUSION

7.1 Result

Although both the Corporate Intranet project and Sales System are their development stage, but all modules that have been developed (Complaint Management System, Leave Management System, Personal Forum, Meeting Organizer etc) are working fine. In the Module level testing all developed modules are tested in CITeS Intranet and all modules clear their first level testing. After the module level testing, Integration testing is performed on the same Intranet, which is also satisfactory to the client's need. Both the module level testing and integration testing are performed in Windows NT server with Microsoft SQL server7.0. For Windows 2000 server the testing is still to be performed. The browser used for testing is Internet explorer 5.0. The execution speed is also quite satisfactory to the client need. Although in the Sales System, the system hangs up while downloading or uploading a long size file in the personal web server edition but it work fine with IIS. Depending on the page both systems takes 3 to 5 sec second to open a page. This time variation depends on whether a connection is established to database server or not.

7.2 Conclusion

From the company and employees point of view, the corporate intranet provides all the facilities required in an intranet. The FAQ (Frequently Asked Question) Module solves employees field problem. The library module provides all the important documents, which are generally needed. The complaint management module solves employees personal or general problems. Meeting organizer modules facilities to organize meeting. Through the personal forum module, an employee can buy or sell his/her item. The leave management modules give the status of employees leave records. The sales system application will help to increase the company sales. It provides all the sale system employees performance by comparing their target sales plan to their actual sales achieved. Employees can get their reports in Excel sheets.

For the future work for the corporate intranet is developing modules for HR Manager, marking department and for accounts department. In Sales System the Calendar Module, Expense Module, Correspondence Module and Service Request module has to be developed.

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[3] Microsoft Script Technology URL: http://msdn.microsoft.com/scripting

[4] " *Siebel Sales Personal Addition* "Siebel Systems,1999

[5] ASP URL: http://www.15seconds.com

[6] Greg Perry and Sanjaya Hettihewa *"SAMS Active Server Pages in 24 Days"*, Techmedia Publication, 1998.

[7] Microsoft Developer Network (MSDN-July 2001)

1. Connecting to SQL Server

```
<%
'***************************************************************
'Project Name                     :   CMS
'UserInterface/Template Name :   connection.ASP
'Purpose                          :   To make Database connection once for all
'DLL interaction                  :       None
'Included in Template             :       None
'Author                           :
'Date                             :
'Modified Date                :
'Modified By                      :
'Reviewed Date                    :
'Reviewed By                  :
'***************************************************************dim
cnnCMSdb            'Creating Connection Object
dim rstCMSdb              'Creating Record Set Object
set cnnCMSdb =server.CreateObject("ADODB.connection")
cnnCMSdb.open"filedsn=asptraining;uid=asptraining;pwd=asptraining" 'Opening
Connection
'cnnCMSdb.open "Driver={SQL Server};Server=cites-karma-nt; Database =
asptraining ;uid=asptraining;pwd=asptraining;"
set rstCMSdb=server.CreateObject("ADODB.Recordset")
%>
```

2. Fetching records from the database

```
<%@ Language=VBScript %>
<%option explicit%>
<!--#include file="../../../connection.asp"-->
<HTML>
<BODY bgcolor="#E3D08C" leftmargin="0" topmargin="0" >
       
<Form Name=frmSelling  Method=Post Action=pf_MeetingConfirmC.asp>
<p align="center">
<b><font size="3">  </font><font size="5">Selling
Corner    </font>
<br>
  <%
      dim fTotal,fFlag
      fFlag = 0
      rstCMSdb.open "select * from sellitem  WHERE status='" & fFlag & "' ",
                    cnnCMSdb,3,1
     fTotal=rstCMSdb.Recordcount
     rstCMSdb.close
   if(fTotal<>0) then
```

```
</table>
<p align="center">
  <%else%><BR><BR><BR>
<b><font size="3">
   There is no record to view.
<br></font></b><br>
  <a href ="pf_sellMainC.asp" align="center">Back</a>
<P> </P>
<%end if%>
</form>

<script Language ="JavaScript">
function verify()
 {
    y=0;
   x=<%=fTotal%>;
   for(i=0;i<x;i++)
    {
     str="chk_SelectItem"+i
     if(((document.frmSelling.chk_SelectItem[i].checked==true)))
        y++  ;
    }
   if(y==0)
    {
     alert ("Please ensure that u have checked the Checkbox and fill the Quote
       price");
      return false;
     }
    else
     return  true;
 }
  </script>
 </BODY>
</HTML>
```

3. File upload and Download

For file uploading and file downloading three ASP files are used –

1. CtbUploadDownLoadC.asp

```
<%@ Language=VBScript %>
<!--#include file="../../adovbs.inc"-->
<html>
<head>
<title>Document Upload</title>
<SCRIPT>
 function msg()
  {
       self.status = 'File Downloads For <%= Date() %>';
       return true
  }
```

```
</SCRIPT>
</head>
<body topmargin=0 leftmargin=0 onLoad="msg()">
<form name="frmUpload" method="post" action = "CTbDocumentUploadE.asp"
ENCTYPE="multipart/form-data" >
<% dim qString,p_intStatus,p_strUserId
 qString=request.querystring("q_confirm")
 p_strUserId="rahula"
 if(qString="")then
   p_intStatus=0
 elseif(qString="U")then
   p_intStatus=1
 else
   p_intStatus=2
 end if  %>
<br><div align="center">
  <table border="0" cellpadding="0" cellspacing="0" width="780">
    <tr>
      <td>
        <div align="center">
          <table border="0" cellpadding="0" cellspacing="0" width="780">
            <tr>
                <td colspan="3">
                  <b> Name : <input type="FILE" name="mfile" size="30" >
                  </b>
                </td>
             </tr>
            <tr>
              <td>
                <p align="right"><b>Document Type :  </b></td>
              <center>
              <td><select size="1" name="cmbDocumentType">
                  <option value="1">Presentation</option>
                  <option value="2">Letter</option>
                  <option value="3">Proposal</option>
                  <option value="4">Approach Page</option>
                </select></td>
              <td> </td>
              </tr>
            </center>
            <tr>
              <td>
                <p align="right"><b>Description :  </b></td>
              <center>
              <td><input type="text" name="txtDocumentDesc" size="20">     </td>
              <td> </td>
              </tr>
            </center>
            <tr>
              <td>
                <p align="right"><b>Private :  </b></td>
              <center>
              <td><input type="checkbox" name="chkPrivate" value="ON"> </td>
```

```
            <td> </td>
          </tr>
          <tr>
             <td colspan="3">
             <p align="center"><input type="submit" value="Upload" name= "B1">
              </p>
             </td>
           </tr>
           <tr>
             <td colspan="3"></td>
           </tr>
        </table>
      </div>
    </center>
        </td>
      </tr>
     </table>
</div>
<div id="confirmUpload" style="left: 215; position: absolute; top: 160; visibility:
hidden; width: 534; height: 19">
<font face="MS Serif" color="Green" size="2"><strong>File Uploaded
successfully</strong></font>
</div>
<div id="fileAlreadyExist" style="left: 215; position: absolute; top: 160; visibility:
hidden; width: 534; height: 19">
<font face="MS Serif" color="Red" size="2"><strong>File Already
Exist</strong></font>
</div>
<BR><BR>
<hr><BR>
<%
   Dim strThisPage
   strThisPage = Request.ServerVariables("SCRIPT_NAME")
   strThisPage = Right(strThisPage, Len(strThisPage) - 1)
  'FILE_FOLDER =StripFileName(Request.ServerVariables (   "PATH_TRANSLATED"))
   FILE_FOLDER = StripFileName(Request.ServerVariables( "APPL_PHYSICAL_PATH"
                    ) &"ecrm\crm\Documents \Private\ & p_strUserId&"\")
   FILE_FOLDER1 = StripFileName(Request.ServerVariables(
                    "APPL_PHYSICAL_PATH")&"ecrm\crm\Documents\Public\" &
                    p_strUserId&"\")
   %>
<TABLE BORDER=1 ID=tblFileData BACKGROUND="" width=780>
   <TR>
       <TD ><b>File Name</b></TD>
       <TD ><b>File Desc</b></TD>
       <TD ><b>Private/Public</b></TD>
       <TD ><b>Created</b></TD>
   </TR>
<%set p_conDownload=server.CreateObject("ADODB.connection")
 p_conDownload.Open "DRIVER=SQL Server;UID=sales_trg;PWD=
 sales_trg;DATABASE=sales_trg;SERVER=cites-karma-nt"
 set p_cmdDownload = Server.CreateObject("ADODB.Command")
 set p_rsDownload=server.CreateObject ("ADODB.RecordSet")
```

```
p_rsDownload.CursorLocation=adUseClient
 p_cmdDownload.ActiveConnection = p_conDownload
 p_cmdDownload.CommandText="ProcRetrieveDocumentAttachment"
 p_cmdDownload.CommandType = adCmdStoredProc
 p_cmdDownload.Parameters.Append
  p_cmdDownload.CreateParameter("@i_UserId",adVarchar,adParamInput,50,trim(p
  _strUserId))
 p_rsDownload.open p_cmdDownload.Execute ()
Set oFS = Server.CreateObject("Scripting.FileSystemObject")
while not p_rsDownload.EOF
strFileName = oFS.GetFileName(p_rsDownload("Path"))
%>
<TR>
  <TD><%Response.Write ("<A HREF="&Chr(34)& "CTbstartDownloadE.asp ? File=
          " _& Server.urlEncode(Request.ServerVariables( "APPL_PHYSICAL_PATH")
          &"ecrm\crm\Documents\"&p_rsDownload( "Path")) & "&Name=" &
          Server.urlEncode(strFileName) & "&Size=" & strFileSize & Chr(34) _
    & " onMouseOver=" & Chr( 34) & "self.status='" & strFileName & "'; return
   true;" & Chr(34) _
    & " onMouseOut=" & Chr(34) & "self.status=''; return true;" & Chr(34) & ">" &
   strFileName & "</A><BR>")
    %></TD>
<TD> <%=p_rsDownload("FileDescription")%></TD>
<TD><%if p_rsDownload("Private")=true then
        Response.Write("Private")
     else
        Response.Write("Public")
     end if
%></TD>
<TD><%=formatDateTime(p_rsDownload("Created"),2)%></TD>
</TR>
 <%p_rsDownload.MoveNext
 wend

Function StripFileName(strFile)
    StripFileName = Left(strFile, inStrRev(strFile, "\"))
End Function%>
%>

</TABLE>
</form>
</body>
<script language=Javascript>
fnShowConfirm();
 function fnShowConfirm()
  {
  strQueryConfirmUpdate = <%=p_intStatus%>;
  if(strQueryConfirmUpdate=="1")
        confirmUpload.style.visibility="visible"
  if(strQueryConfirmUpdate=="2")
        fileAlreadyExist.style.visibility="visible"
 }
 </script>
```

```
</html>
```

2. CtbDocumentUploadE.asp –

```
<!--#include file="../../adovbs.inc"-->
<% Response.Buffer =true

 Dim p_strFileName,p_objFileObject,p_strFilePath
 Dim p_strMessageFile,p_strFindFile,Id,MyFolder,p_strUserId,p_strDocumentPath
 Dim p_strNewFolder,p_strExtension,p_intCount
 dim p_conUpload
 p_strUserId ="rahula"
 Set Upload = Server.CreateObject("ASPSoft.Upload")
 strFileName = Upload.Form("mfile").Properties("SourceFileName")

 if Upload.Form("chkPrivate") ="ON" then
 f_intPrivate=1
 p_strFilePath=Request.ServerVariables("APPL_PHYSICAL_PATH")&"ecrm\crm\Docu
                ments\Private\"
 p_strDocumentPath="private\"
 else
 f_intPrivate=0

 p_strFilePath=Request.ServerVariables("APPL_PHYSICAL_PATH")&"ecrm\crm\Docu
 ments\Public\"
 p_strDocumentPath="public\"
 end if
 Set p_objFileObject = Server.CreateObject("Scripting.FileSystemObject")
 If p_objFileObject.FolderExists(p_strFilePath&p_strUserId) Then
   p_strNewFolder = p_strFilePath&p_strUserId
 Else
   p_strNewFolder= p_objFileObject.CreateFolder(p_strFilePath&p_strUserId)
 End If
 If Len(strFileName) > 0 Then
  If p_objFileObject.FileExists(p_strNewFolder &"\" & CStr(strFileName)) Then
    Response.Redirect ("CTbUploadDownloadC.asp?q_confirm=E")
   Else
    Upload.Form("mfile").SaveToFile p_strFilePath&p_strUserId, CStr(strFileName),
True
  End If
 Else
   Response.Write("<br>There was no file specified for upload.<br>")
 End If
 Set p_objFileObject = Nothing
 set p_conUpload=server.CreateObject("ADODB.connection")
 p_conUpload.Open "DRIVER=SQL  Server;UID=sales_trg;PWD=sales_trg;
 DATABASE=sales_trg;SERVER=cites-karma-nt"
 set p_cmdUpload = Server.CreateObject("ADODB.Command")
 set p_rsAccountStatusAdd=server.CreateObject ("ADODB.RecordSet")
 Response.Write(p_strNewFolder)
 p_cmdUpload.ActiveConnection = p_conUpload
 p_cmdUpload.CommandText="ProcInsertDocumentAttachment"
 p_cmdUpload.CommandType = adCmdStoredProc
```

```
p_cmdUpload.Parameters.Append p_cmdUpload.CreateParameter("@i_DocName",
adVarchar,adParamInput,50,trim(CStr(strFileName)))
p_cmdUpload.Parameters.Append p_cmdUpload.CreateParameter("@i_UserId",
adVarchar,adParamInput,50,trim(p_strUserId))
p_cmdUpload.Parameters.Append p_cmdUpload.CreateParameter("@i_Desc",
adVarchar,adParamInput,50,trim(Upload.form("txtDocumentDesc")))
p_cmdUpload.Parameters.Append p_cmdUpload.CreateParameter("@i_Path",
adVarchar,adParamInput,100,trim(p_strDocumentPath&p_strUserId&"\"&strFileName
))
p_cmdUpload.Parameters.Append p_cmdUpload.CreateParameter("@i_Private",
adInteger ,adParamInput,50,f_intPrivate)
p_cmdUpload.Parameters.Append p_cmdUpload.CreateParameter("@i_DocTypeId",
adVarchar,adParamInput,50,trim(upload.Form("cmbDocumentType")))
p_cmdUpload.Execute ()
Response.Redirect ("CTbUploadDownloadC.asp?q_confirm=U")
%>
```

3. CtbStartDownloadE.asp

```
<%
strFilePath = Request.QueryString("File")
strFileName = Request.QueryString("Name")
Const adTypeBinary = 1
Set objStream = Server.CreateObject("ADODB.Stream")
objStream.Open
objStream.Type = adTypeBinary
objStream.LoadFromFile strFilePath
Response.AddHeader "Content-Disposition", "attachment; filename=" & strFileName
Response.BinaryWrite objStream.Read
Response.Flush
objStream.Close
Set objStream = Nothing
%>
```