AUTOMATIC MARKETING INFORMATION SYSTEM
Eonour Technologies Limited,Chennai

PROJECT REPORT

SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF
BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE AND ENGINEERING
OF
BHARATHIAR UNIVERSITY
COIMBATORE.

SUBMITTED BY
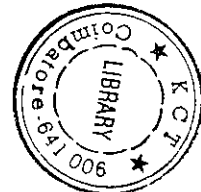
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March 2002

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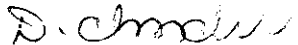COIMBATORE - 641006

CERTIFICATE

This is to certify the project work entitled

AUTOMATIC MARKETING INFORMATION SYSTEM

is a bonafide record of work done by,
Deepa B (Reg. No:9827K0169)
Mahalakshmi S (Reg. No. 9827K0187)
Sasidharan G (Reg. No. 9827K0211)

and submitted in partial fulfillment of the requirements for the award of the Degree of
Bachelor of Engineering(Computer Science and Engineering)
Of **Bharathiar University**

Head of the Department
Dr. S Thangasamy

Internal Guide
Mrs.D Chandrakala

Submitted for the University Examination held on _____

Internal Examiner

External Examiner

onour technologies limited
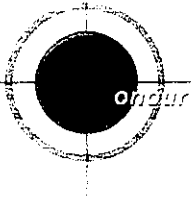
Date : 1ˢᵗ March 2002

CERTIFICATE

This is to certify that the following students of final year B.E (CSE) from Kumaraguru College of Technology, Coimbatore have successfully completed their project work titled *"Marketing Information System"* at Eonour Technologies Ltd., under my guidance.

1. **Deepa B**
2. **Mahalakshmi S**
3. **Sasidharan G**

Regards,

[Rodney Muthiah]
[Consultant]

ACKNOWLEDGEMENTS

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Any big achievement is possible only with the blessings of the God and the goodwill and support of helpful people. I take this opportunity to thank all of them.

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We extend our gratitude to all the folks at Eonour Technologies Ltd. for giving us the chance to do this project. We thank Mr.Rodnneey Muthiah, Eonour Technologies, for those various valuable comments and suggestions that has made this project as successful as it is. He went far beyond what we could have expected or hoped to have. We are more grateful than we can say.

We thank our parents who inspire all that we do and who ensured that we are educated enough to write this.
Finally, we thank our friends who were the bed-rock sources of encouragement when we needed the most.

AUTOMATIC MARKETING INFORMATION SYSTEM

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INTRODUCTION

1. INTRODUCTION

1.1.OBJECTIVE

In the conventional reporting techniques using excel, being adopted today do not have a dynamic and reusable filters. Using these systems it is possible to create the Daily Status Reports (DSRs) but the record for the previous day would automatically become inaccessible. Also Excel requires manual entry and updates. With this project it is made possible to access the previous records, on multiple client machines locally or remotely at no extra effort .

The Main objective of this project is to develop dynamic and reusable filters that makes access of the previous records possible.

Additional Objectives of the Project includes:

Creation of a secure and user friendly interface that serves as an intelligent assistant for the marketing officials.

Automatic reminding and reporting through the electronic mail system.

Creation of illustrative Reports that depict the past so that future can be more efficiently and economically planned.

1.2.SCOPE

To make a software for the marketing department that caters to all marketing functions.

Maintenance of Database Records

Analysis and interpretation of Marketing functions.

1.3.ORGANISATIONAL PROFILE

1.3.1.Eonour Technologies Ltd, Chennai

Eonour Technologies Ltd is an ISO 9001 certified IT company based in India. Headquartered in the South Indian city of Chennai, with branch offices at New Delhi and Mumbai in India; Their international offices are in USA and Singapore.

They offer e-business solutions which allow integration of existing systems such as ERP or legacy with external partners.

They possess a team of high caliber software professionals with a variety of skill sets. This team is involved in on-site and offshore development.

Their partners are the firms of international repute, who complement their business. This makes them a one-source solution provider.

1.3.2.Mission of Eonour

Making e-commerce a way of life.

1.3.3.Quality Policy

They are committed to provide IT solutions conforming to international standards, through constant upgradation of technology and processes, in order to ensure consistent quality for their customers.

SYSTEM REQUIREMENTS

2.SYSTEM REQUIREMENTS

2.1.PRODUCT DEFINITION:

2.1.1.Problem Statement:

The product is concerned with the development of dynamic and reusable filters. The product should serve as an intelligent assistant to the marketing officials. Most of the work being done by the marketing officials must be automated. Thus the project is named as **"Automatic Marketing Information System"**.

2.1.2. Functional Specification:

The function of the product is to enable access to the previous records in addition to the current ones. It should automatically remind the marketing officials when a call is to be made and reported and automatically report to the higher officials if an appointment is not kept. It should assist the marketing officials in their dealings. To achieve these dynamic filters that are reusable are incorporated. In addition many functions are included.

2.1.3.Processing Environment:

Hardware Specification:

Processor   :Pentium III 500MHz.

System RAM   :64 MB

Hard Disk   :10 GB

Floppy Disk Drive :1.44 MB

Mouse   :Microsoft Compatible PS/2 mouse

Keyboard   :104, standard

System Adapter   :VGA card with onboard 8 MB V RAM supporting a

resolution of 1024*768 with 16-bit color

Software Specifications:

Java 2 Enterprise Edition

JSP

HTML

Oracle

2.1.4.User Characteristics:

This product can be used by marketing and technical members of the company. The software is designed with maximum user friendliness . The user can interact with the system by using various options including menus and also by selecting the various facilities available. Lucid and appropriate response messages would be displayed to the user.

2.1.5.Solution Strategy:

The problem was approached in a systematic manner pertaining to the software developmental cycle followed in the industry. First the requirements were analyzed and understood. The SRS was prepared followed by case diagrams, HDD and Prototype for the screen layouts. Each document was approved by both the internal and external guide before proceeding to the next. Finally the project was implemented and tested.

The solution for creating a dynamic and reusable filter is to create a data warehouse and to use a developed procedure for implementing the concept of reusable filters.

The user interface presents a login screen which validates the user. Once the user is validated a list of options denoting the various functions is presented to him. The user can choose the desired menu option at any instance and that module is automatically called.

2.1.6.Product Features:

The product is developed mainly for creating dynamic, reusable filters and a system that caters to all the functions of the marketing department. The product has other functions like maintenance of an operational database and a data warehouse and Analysis & Interpretation of the past data.

The product is secure. The user can use the interface only after being validated. The time of last login is displayed to the user for verification. When a user is logged on it is not possible for any other person to log on using the same information. Thus round the clock security is ensured.

The validated user can create a DSR entry for a new product or update a existing entry. He can know his leave availability and apply for leave if eligible. He can view the status details of any product currently being dealt in the department. He can store or fetch the marketing documents like memorandum of understanding, Minutes of meeting, White papers, PPT presentations and the like. He can view the various reports like report on expenses, DSRs, WSRs, MSRs etc.

2.1.7. Glossary of Terms:

SRS   :Software Requirements Specification

HDD   :High-level Data Design

DSR   :Daily Status Report

WSR   :Weekly Status Report

MSR   :Monthly Status Report

2.2.PROJECT PLAN

2.2.1.Life Cycle Model:

The Spiral Model is the life cycle model followed while developing the product.
It Provides the potential for the rapid development of incremental version of the software.
The software is developed in a series of incremental releases. The spiral Model has six
tasks region.

Task Region 1:

- Terminology   : Customer Communication
- Milestones   :Nov 14th -16th 2001
- Work Product : The official defines about the filtering concepts the need
  for reusable filters. He describes the other functional
  features expected from the product.

Task Region 2:

- Terminology   :Planning
- Milestones   : Nov 17th - 22nd 2001
- Work Product   :Analysis of the product definition. The functions
  and features that the product has to perform, the
  Processing environment, the software tools and
  languages to be used and determined and
  understood.

Task Region 3:

- Terminology   :Risk Analysis
- Milestones   :Nov 22rd - 26th 2001

- Work Product :

    Technical Risk: In developing any software the design phase consumes more than 60% of the development time. The correctness of the product to be released depends on the correctness of the design. The design phase decides the logic and concepts that must be implemented in the product. If the design is correct coding can proceed without any hassle.

    Managerial Risk: The product is to be developed within a semester. To complete within the specified duration, time slots for each module is fixed. Some modules are independent in a sense that their development would not affect the other modules while some are sequential. The input and output of such modules may be forwarded from or to another module. Time specification for such modules must be strictly maintained.

Task Region 4:

- Terminology :Engineering
- Milestones :SRS Nov 26th - Dec 2nd 2001
- Work Product :Based on the needs of the marketing officials the Software Requirements Specification is prepared. SRS includes Product characteristics, Processing Environment and functional specification.
- Milestones :Design Documents- HDD ,Case diagrams and Architectural Design Dec 3rd- 20th 2001
- Work Product :Clear Design begets clear coding. Design documents decide on the logic to be used while

Task Region 5:

- Terminology   :Construction and Release

Milestones	Work product
Dec 21st -25th 2001	Front end creation - The user interface with the various options available
Dec 26th - 27th 2001	Creation of the database
Dec 28th 2001- Jan 10th 2002	Coding for Login module and Automatic mailing .
Jan 11th - 13th 2002	Coding for creating a new DSR entry
Jan 14th - 20th 2002	Coding for reusable filters and updating the DSR entry
Jan 20th - 23rd 2002	Coding for leave module (leave availability status, application of leave if eligible, information about officials on leave)
Jan 24th - 25th 2002	Coding for Product Status Report Generation
Jan 26th - 28th 2002	Coding for marketing document storage and retrieval.
Jan 29th - Feb 7th 2002	Coding for analysis and interpretation of data and generation of reports.
Feb 8th - 10th 2002	Testing
Feb 11th	Demonstration of the whole project.

Task Region 6:

- Terminology   :Customer Evaluation
- Milestones   :Feb 12th - 14th

- Work Product   :The customer's feedback. His feedback was that the product satisfied the requirements and works very well.

2.2.2.Development schedule:

P- 661
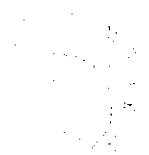
The development schedule is framed and maintained to meet the time constraints. The development schedule consists of milestones and reviews.

Milestones	Reviews
Nov 18th -Product Definition	A Rough draft is made to product definition and the definitions are reviewed.
Nov 20th -Product Analysis	A rough draft is made to product analysis and the review is made on the analysis to do step by step procedure.
Nov 21st - Programming Language	The programming Language decided. The problem goes to selection of development tool. Earlier it was decided to use EJB but after the review it was decided to use JSP
Nov 25th Risk Analysis	A rough draft is made to Risk analysis. The draft was reviewed and there was an introduction to the types of risks like Technical Risk and Managerial Risk.
Dec 1st - SRS -	SRS general formats was reviewed.
Dec 19th -Design Documentation	In Design Document the front end designs were Reviewed.
Dec 24th -Coding of the front end	Reviews were made to creation of the user interface.
Dec 26th -Creation of the database	Reviews were made regarding the various options available for creating the tables

Jan 9th -Coding for the Login Module	Reviews were made on the automatic mailing
Jan 12th -Coding for new DSR entry	Reviews were made on the DSR entry creation
Jan 20th -Coding for DSR update and filter creation	Reviews were made on the filtering concepts
Jan 23rd Coding for leave module	Reviews were made on the displaying of the leave availability status
Jan 25th -Coding for the PSR generation	No reviews
Jan 28th -Coding for the document storage and retrieval	Reviews were made on the logic which decides the accessibility of a document
Feb 7th -Coding for Report Generation	The display formats of the reports were reviewed
Feb 10th -Test plans	After doing the tests reviews were made on the plans
Feb 11th Demonstration of the full product	No reviews

SOFTWARE REQUIREMENTS SPECIFICATION

3.SOFTWARE REQUIREMENTS SPECIFICATION

3.1. Product Characteristics:

3.1.1 Operating Environment:

3.1.1.1 Hardware:
Pentium III, 10 GB HDD, 128 MB RAM
3.1.1.2 Software:
Win 98,Weblogic server, Java platform
3.1.1.3 Interface with other H/W and S/w:
N/A

3.2. Functional Specification:

3.2.1.DSR Entry and Update:

Scope:

This module is used to create a DSR entry for a new product and update the entry for an existing product. Provision for entering all the fields of the DSR format is to provided while creating an entry. A dynamic filter is to be created which filters the required data while DSR updating.

Inputs:

All the fields of the DSR format must be entered using the interactive interface using various options like text fields, menu, buttons etc.

Process:

The data from the user is stored in the database. The data ware house is also updated. Incorrect ,invalid or missing input values must be reported back to the user and the transaction must occur only after receiving all the relevant and correct data. After the transaction the user must be provided with a feedback confirming the entry or updation.

Output:

During creation of an entry the output are the messages indicating incorrect, invalid or missing inputs and after the entry is performed a feedback message

During updating the dynamic filter should display all the data that it has filtered. In addition messages indicating incorrect, invalid or missing inputs and after the updation is performed a feedback message must be presented to the user.

3.2.2.Leave Application and Information

Scope:

Apply:

The module must display the current leave availability status under different categories like sick, casual with pay ,casual without pay and the like. If the user is eligible for availing leave he must be provided with an application requesting the particulars and if the application can be sanctioned the leave must be granted.

Info:

The list of BDOs on leave and their date of return must be provided to the user if he wishes to see the list. The availability status (whether he is on leave or available) of a particular BDO must also be displayed.

Inputs:

The system gets the input from the DSR database record to display the current availability status of the user. The particulars of the leave application are got from the applicant. The BDO name whose availability status is requested is got from the user.

Process:

If the user applies for a leave then his availability status is checked to find whether he is eligible and if he is found to be eligible the leave must be sanctioned and the database records must be updated if not a negative message must sent to the user.

The availability status of the BDO is determined from the database and displayed to the user.

Output:

The current availability status, the feedback message of the leave application and the availability status and date of return of the BDO name requested is displayed to the user.

3.2.3.Document Storage and Retrieval:
Scope:

The user interface must provide provision for storing or retrieving the marketing papers.

Input :

The location of the marketing paper is got as input from the user.

Process:

The complete path name indicating the location of the marketing paper is stored in the data base. When requested these papers must be displayed to the user according to the accessibility permissions defined while storing the paper.

Output:

The paper as requested by the user is displayed in the terminal. The appropriate message is displayed back to the user when the system is unable to perform the requested function.

3.2.4.Report Generation:
Scope:

Reports depicting the past data is generated. The reports must use visual display techniques like pie charts , bar charts, comparison tables. These reports must be in a easily printable form be and self explanatory.

Input :

The nature of the Report to be Generated. The data for generating the report is got from the operational database and data warehouse.

Process:

The DSR report indicates the daily, weekly, monthly reports must get automatically generated

For each BDO/MM. Details about the cold calls /visit in a week, activities performed in a week, no of prospective clients are also reported as an overhead detail of the previous week.

Report on the expenses incurred by a BDO or by way of a product or By way of a particular communication mode is generated

Output:

The generated Report.

3.2.5 Automatic Remainders:
Scope:

The BDO must be automatically reminded of a meeting one day before the actual meeting. If the meeting did not take place and the matter is not settled the higher officials must be informed (Reporters) .Both these operations must be automatically performed using the electronic mailing system.

Input:

The data from the database.

Process:

The software checks for the dates on which the reminders and reporters must be sent is checked against the current date and if they match the mail is sent to the person. Appropriate carbon copies must also be sent.

Output:

The mails sent.

DESIGN PHASE

4.DESIGN PHASE

The following design documents are produced.

4.1.CASE DIAGRAMS:

4.1.1.User Validation

BDO Validation

BDO Name

Personal Password
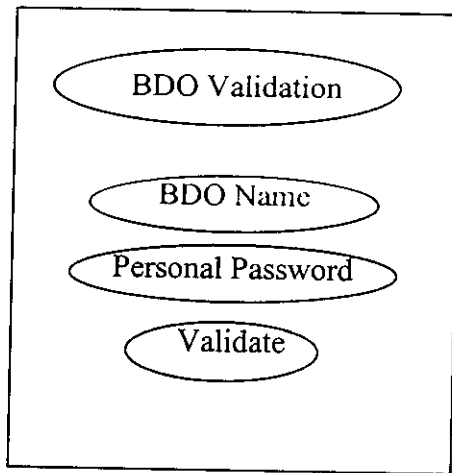
Validate

This validation is based on the individual passwords assigned to each BDOs. On clicking 'Validate' the BDO name and password are verified and further access is allowed.

4.1.2.Main display screen

DSR Entry

DSR Display

Product status

Leave

Document Entry

Document Fetch

Reports

Analysis
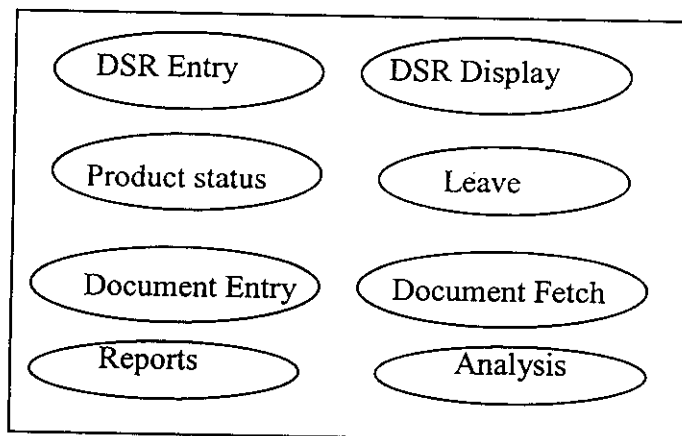
4.1.2.1. On clicking DSR Entry the DSR fields can be entered to be stored in the database.
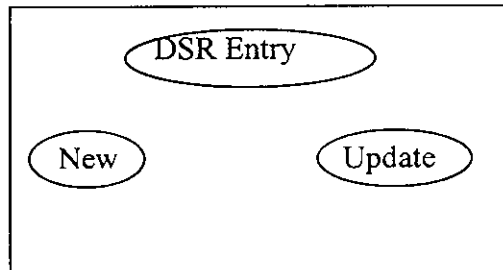
On choosing 'New' a new DSR entry can be created-for new products.

On choosing 'Update' the DSR fields of an existing product can be updated.

4.1.2.1.a.
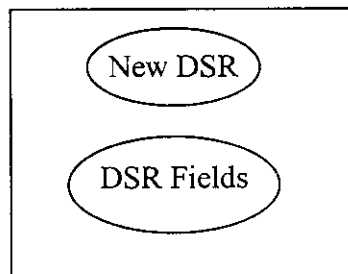
This is used to create a DSR entry for a new product. The provision for entering the values for various fields of the DSR is provided.

4.1.2.1.b.
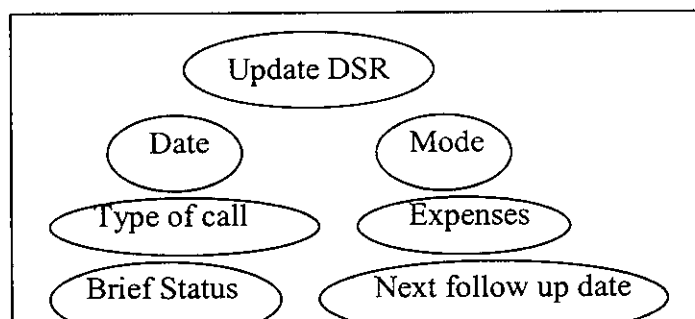
This is used to update the DSR entry of an existing product. The fields used for updating are as follows:

Date: the date on which the meeting took place.

Mode: Mode of communication employed (visit, phone, fax, e-mail)

Type of call: Cold call or Follow up call

Expenses: Expenses incurred for this meeting.

Brief Status: Outcome of the meeting.

Next follow up date: Date on which the next meeting has been agreed upon.

4.1.2.2.
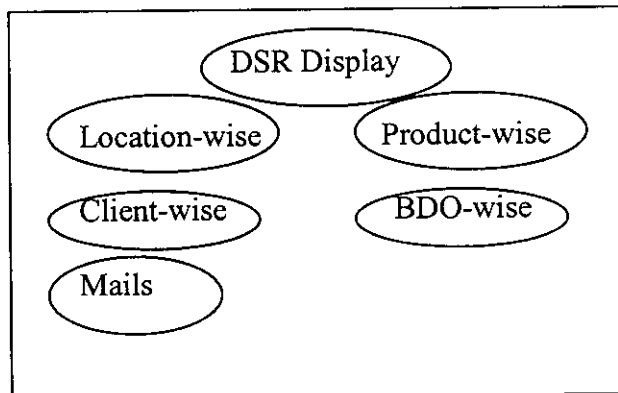
This is used to display the DSR according to the choice made.

Location-wise: DSRs of clients and their products - in a particular location.

Product-wise: DSR of a particular product- whose name is name is got as
        input.

Client-wise : DSRs of all the products with a client- whose name is got as
        input.

BDO-wise : DSRs of all the products being dealt by a single BDO.

4.1.2.3.

```
┌─────────────────────────────────────┐
│          ( Product Status )          │
│                                      │
│     ( Initial )   ( Process )        │
│                                      │
│   ( Perspective )  ( Closed )        │
│                                      │
│    ( Transfer )   ( Search )         │
└─────────────────────────────────────┘
```
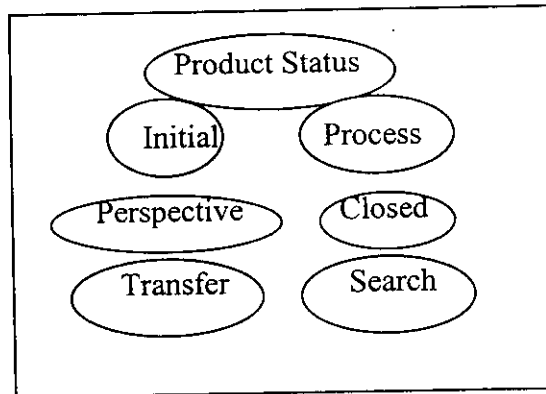
This is used to display the name and other significant details such as,

BDO name

Client name

Product name

Initial date

Next Follow up date

of products in the stage (initial, process, perspective, closed, transferred) chosen.

The provision to search for a particular product's details is also provided.

4.1.2.4.a.

```
┌─────────────────────────────────────┐
│            ( Leave )                 │
│                                      │
│   ( Application )  ( Information )    │
│                                      │
└─────────────────────────────────────┘
```
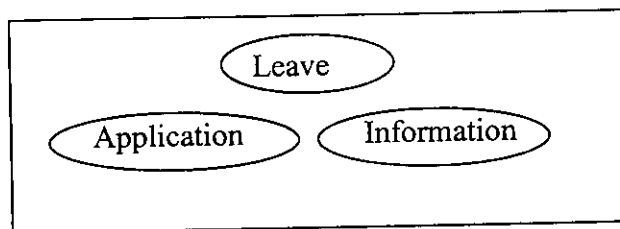
On Clicking 'Application' the 'Leave Application' is displayed.

On Clicking 'Information', the 'Leave Information' is displayed.

4.1.2.4.b.

```
┌─────────────────────────────────────┐
│       ( Leave Application )          │
│                                      │
│    ( From )        ( To )            │
│                                      │
│    ( Reason )      ( Apply )         │
```
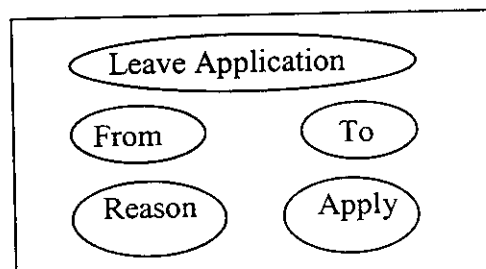
The '**From**' and '**To**' dates of the leave application are got as input and a confirmation message of the acceptance of the application is provided.

The '**Reason**' may be either personal or official(the person may be on tour or training)

4.1.2.4.c.
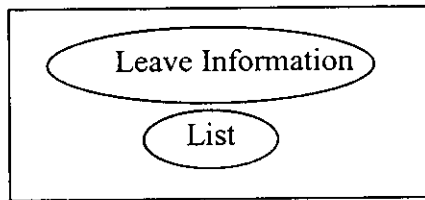
List : The List of BDOs currently on leave and not available is displayed

4.1.2.5.
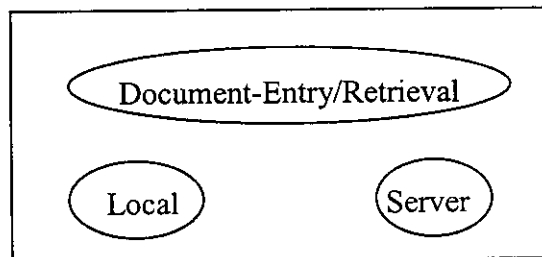
The various marketing papers associated with a product such as,

    White papers

    Presentations

    Confidential Documents (must be stored only in servers)

    Other Documents

can be entered using **Document entry** and accessed using **Document-Retrieval.**

These documents can be stored in **local** hard disks or in a central **server.**

The entry or retrieval of the confidential documents stored in server is done in a secure environment after password verification.

4.1.2.6.1.

```
┌────────────────────────────────────┐
│              ( Reports )            │
│                                     │
│   ( DSR )        ( Expenses )       │
│                                     │
│   ( BDO )        ( Product )        │
│                                     │
│   ( Mode )                          │
│                                     │
│                                     │
└────────────────────────────────────┘
```

4.1.2.6.2.

```
┌────────────────────────────────────┐
│              ( DSR )                │
│                                     │
│   ( Daily )  ( Weekly )  ( Monthly )│
│                                     │
└────────────────────────────────────┘
```
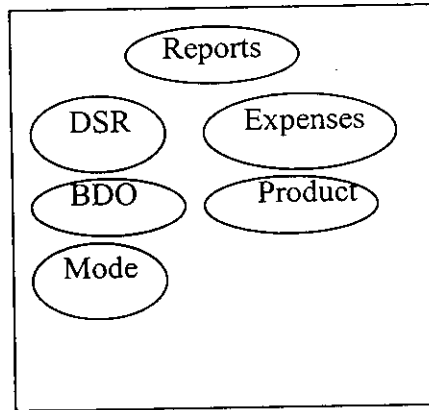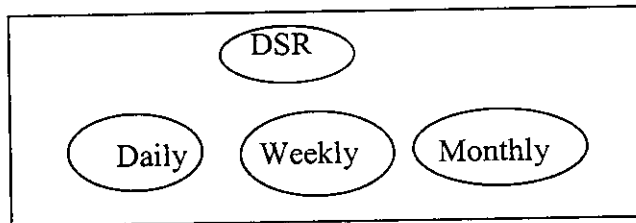
This is used to generate the DSR report on a **daily**, **weekly** or **monthly** according to the option chosen.

4.1.2.6.3.

```
┌───────────────────────────────────────────────┐
│              ( Expenses )                      │
│                                                │
│ ( Cold calls ) ( Follow up  Calls ) ( Personal visits )│
│                                                │
└───────────────────────────────────────────────┘
```
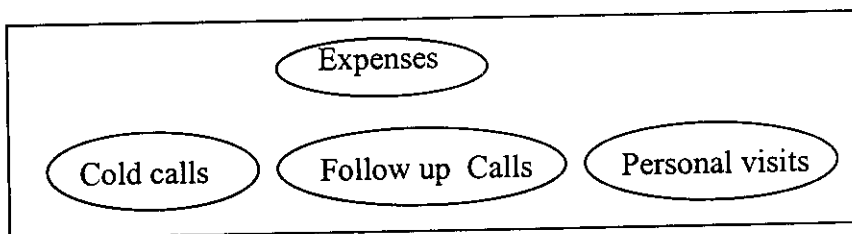
This is used to generate the reports regarding the total expenses incurred by all the BDOs by way of Cold calls, Follow up calls or Personal Visits according to the option chosen. The details displayed in the report are,

> BDO name
>
> Client company name
>
> Product name
>
> Date on which the call was made
>
> Charge for each call

A provision for summing the charges is provided.

4.1.2.6.4.

```
┌─────────────────────┐
│   ╭─────────╮       │
│  ( BDO     )        │
│   ╰─────────╯       │
│   ╭─────────╮       │
│  ( Search  )        │
│   ╰─────────╯       │
└─────────────────────┘
```
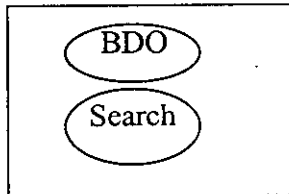
The search can be made and for a single BDO or all (for all BDOs)

The report generated contains the following details:

BDO Name

No of Clients handled by that BDO

Expenses incurred for each client

Total Expenses incurred by the BDO by way of handling all his clients.

4.1.2.6.5.

```
┌─────────────────────┐
│  ╭───────────╮      │
│ ( Product    )      │
│  ╰───────────╯      │
│  ╭───────────╮      │
│ ( Search     )      │
│  ╰───────────╯      │
└─────────────────────┘
```
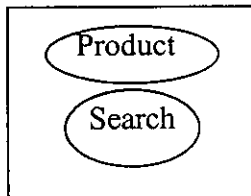
The search can be made for any particular product or all the products the company is dealing with currently.

The report generated contains the following details such as,

Client company name

BDO name

Mode of communication(phone, fax, visit, cold call, follow up call)

Date on which the communication was made

Charge for each communication

A provision for summing up the charges and displaying the sum is provided.

4.1.2.6.6.
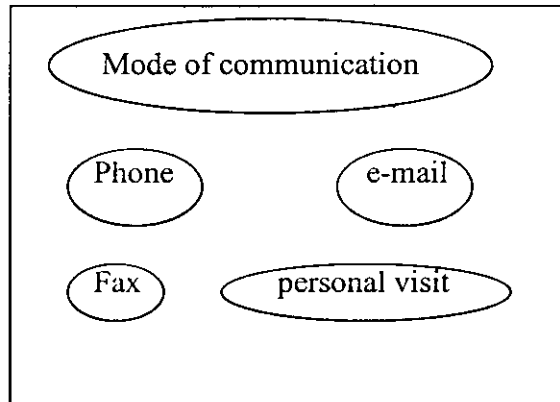
This report is used to calculate and display the total expenses incurred for each product

by way of the mode of communication (**Phone, e-mail, fax, personal visit**)

The report presents the following details:

BDO Name

Client company name

Product Name

Total expenses incurred by way of the mode of communication chosen.

4.2.HIGH LEVEL DATA DESIGN:

4.2.1.INTRODUCTION:

4.2.1.1.SCOPE:

This document is intended to show the top level design based on the SRS prepared.

This includes the top level module specification, flowchart ,structure of tables used

in the application.

4.2.1.2.DEFINITIONS/ACRONYMS/ABBREVIATIONS:

PK   :Primary Key

FK :Foreign Key

SRS : Software Requirements Specification

NA : Not Applicable

BDO :Branch Development officer

MM : Marketing Manager

CEO :Chief Executive Officer

DSR :Daily Status Report

PSR :Product Status Report

AR :Automatic Remainder

LA : Leave Application

LI :Leave Information

4.2.1.3.CONVENTIONS/NOTATIONS : None

4.2.1.4. REFERENCES: SRS

4.3.SYSTEM MODEL:

4.3.1.IMPLEMENTATION VIEW OF:

<u>**4.3.1.1.Data Flow Diagrams:**</u>

Default Page
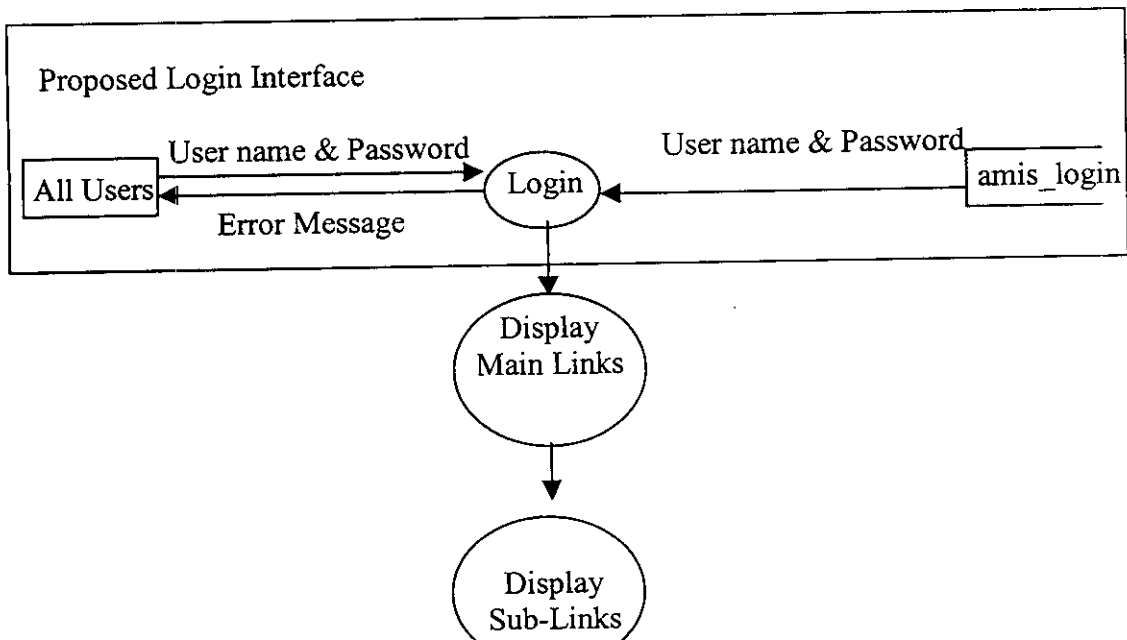
Regarding DSR ,Product Status and Leave Details

| BDO | --- Client & Product ---> | DSR Entry |

date, mode, type of call
Brief status, Next follow up date ---> amis_dsr

expenses ---> amis_expenses

BDO/MM/CEO

location/client name/

Product/BDO name ---> DSR Display <--- fields in amis_dsr

Initial/Process/Perspective/
Closed/Transfer ---> DSR Display <--- all fields --- amis_dsr

Dates (From & to), Reason ---> Leave Application <--- Leave Availability --- amis_leave

BDO id ---> Leave Information <--- amis_leave
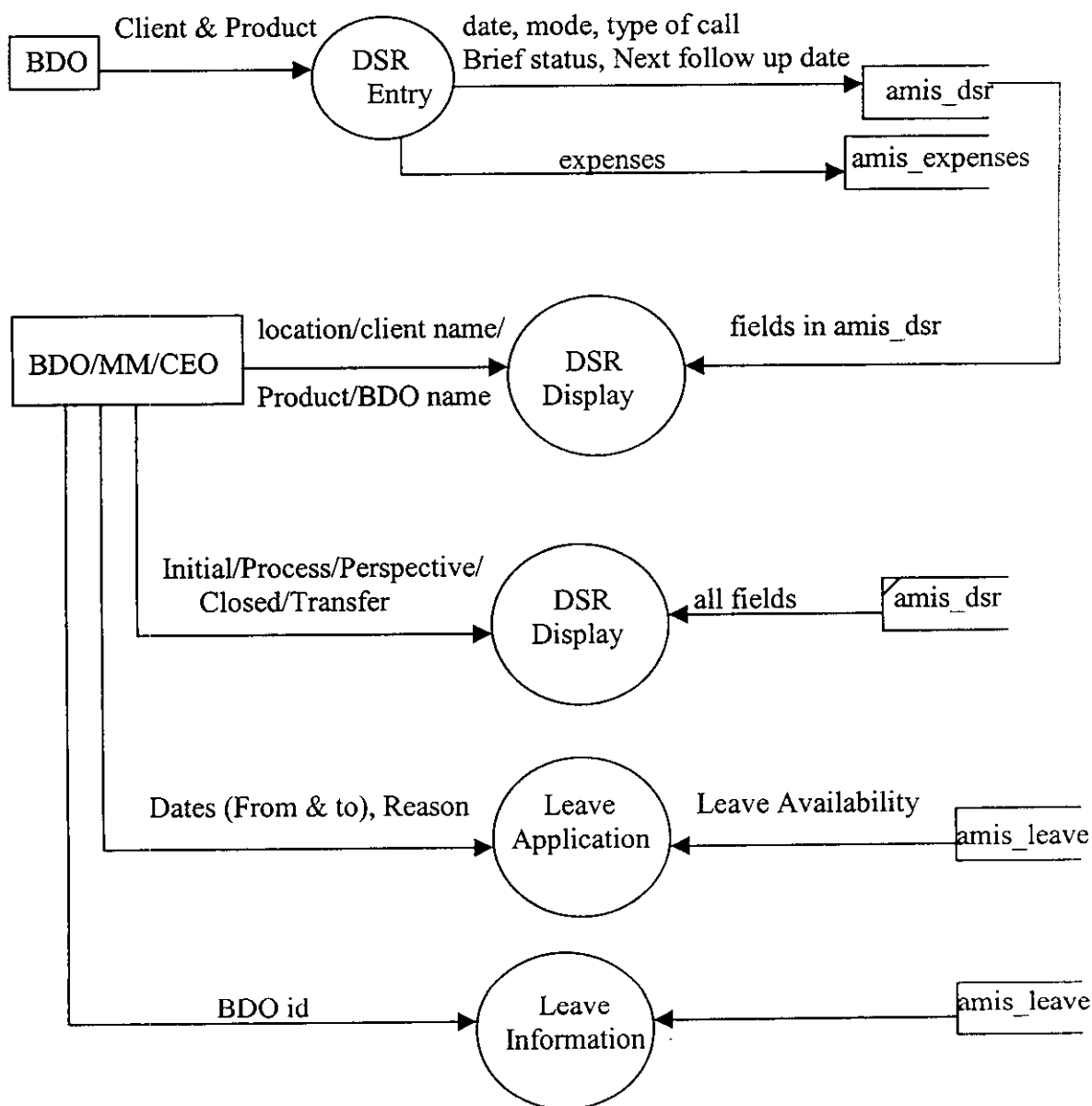
Regarding Marketing Papers

Regarding Reports

4.3.1.2.Object Interaction Diagrams :NA
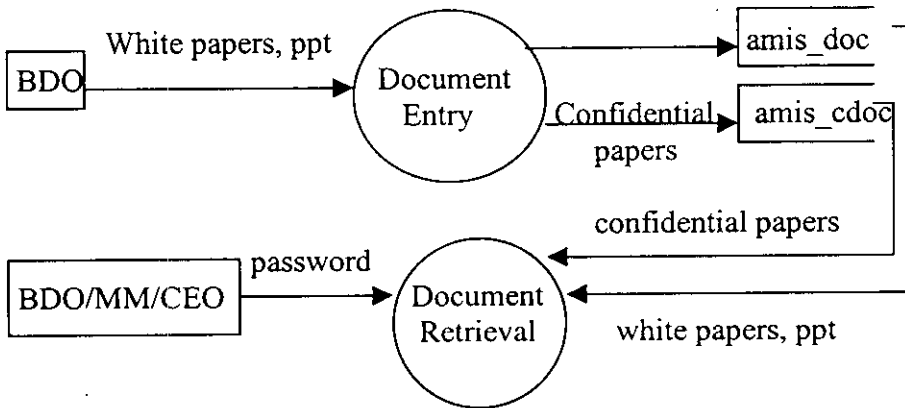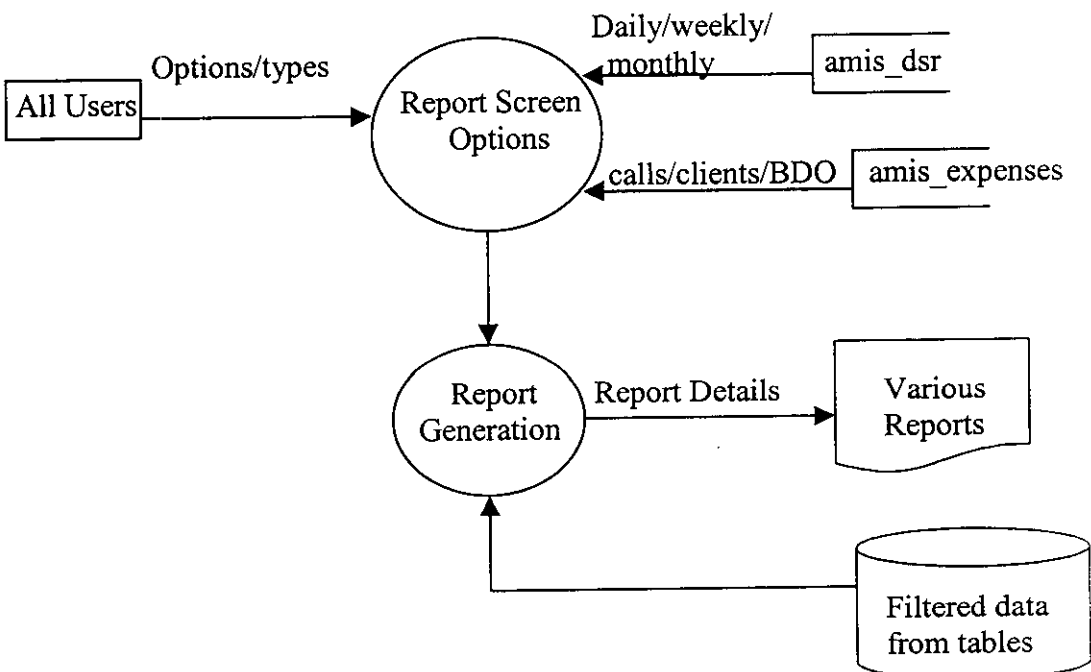
4.3.1.3.Sequence Diagram   :NA

4.3.2.4.Collaboration Diagrams   :NA

4.4.MODULES:

The MIS (Marketing Information System) is broken down into modules based upon the links to be presented for the user to interact with the MIS. The user should log in to access the Links. Upon validation of the user the last login time and date is displayed and the following links will be displayed in the default page:

        1.DSR Entry

        2.DSR Display

        3.Product Status

        4.Leave

        5.Document Entry

        6.Document Fetch

        7.Reports

DSR Entry: This link is used to create a new DSR entry or update an existing DSR entry. Options available under this link are:

> NEW- when a DSR entry has to be initiated for a new product
> UPDATE- when an existing DSR entry has to be updated.

DSR Display: This link is followed to view the DSRs of the products according the various options available. The options available under this link are,

> LOCATION- For the DSRs of clients and products in a particular location
> PRODUCT- For the DSRs of a particular product
> CLIENT- For the DSRs of all the products of a client
> BDO- For the DSRs of all the products being dealt by a BDO

Product Status: This link is used to display the details of the products in various current status of the marketing department. The various options available under this link are,

- ➢ INITIAL
- ➢ PROSPECTIVE
- ➢ PROCESS
- ➢ CLOSED
- ➢ TRANSFER

Leave: This link is followed by a BDO for applying leave. It also provides a list of BDOs on leave for access by the BDOs, MM, CEO. The options under this link are,

- ➢ APPLY
- ➢ INFORMATION

Document Entry/Retrieval: A BDO can store the marketing papers either locally in their hard disks or server. The options available under this link are,

- ➢ HARD DISK-to store marketing papers locally
- ➢ SERVER- to store confidential documents (retrieval is password protected)

Reports: This link has a variety of options so that a user can view a report of his choice. The reports are generated interactively.

The following table lists the various screens and reports available in the system and the access rights for the different types of users. The options that are not available to the particular users are entered as NA.

S.No	Screen/Report Names	CEO	MM	BDO
1.	DSR Entry Screen	NA	NA	R/W
2.	DSR Display Screen	R	R	R
3.	Project Status Screen	R	R	R
4.	Leave Application Screen	NA	NA	R/W
5.	Leave Information Screen	R	R	R
6.	Documents Entry Screen	NA	R/W	R/W
7.	Document Retrieval Screen	R	R	R
	REPORTS			
8.	Daily Status Report	R	R	R
9.	Weekly Status Report	R	R	R
10.	Monthly Status Report	R	R	NA
11.	Report on communication modes	R	R	R
12.	Report on days taken to complete	R	R	R
13.	Report on expenses for a product	R	R	R
14.	Report on Expenses by BDO	R	R	R
15.	Report on current status of the Dept.	R	R	R

4.5.1 MODULE SPECIFICATION:

4.5.1.1. System:

Home:
Irrespective of the type of user this link would take him to the default page of the system. The login status of the user will be persistent.

Logout:

This will end the user's session with the system and place him back in the home page of the company's web site.

4.5.1.2.DSR

DSR Entry Screen:

Interface for the BDO:

This allows the BDO to enter the name of a new product and create a DSR entry for the same. This also enables the updating of the existing DSR entries.

Interface for the MM:

This option is not available.

Interface for the CEO:

This option is not available.

DSR Display Screen:

Interface for BDO:

This interface allows the BDO to view the daily status reports of the products being dealt by him.

Interface for the MM:

This interface allows the MM to view the daily status reports of the products classified according to the location of the client, according to the product id, according to the BDO id, and according to the client.

Interface for the CEO:

This interface allows the CEO to view the daily status reports of the products classified according to the location of the client, according to the product id, according to the BDO id, and according to the client.

4.5.1.3.Leave

Leave Application Screen:

Interface for BDO:

This inter face allows the BDO to apply for Leave. After getting no of days and the reason as the input from the BDO, it is checked whether the leave

could be sanctioned or not and an appropriate message is displayed.

Interface for MM:

This inter face allows the MM to apply for Leave. After getting no of days and the reason as the input from the MM, it is checked whether the leave could be sanctioned or not and an appropriate message is displayed.

Interface for CEO:

This is not applicable.

Leave Information Screen:

Interface for BDO:

This interface displays a list of the BDOs currently on leave and not available and also the list of BDOs on duty.

Interface for MM:

This interface displays a list of the BDOs currently on leave and not available and also the list of BDOs on duty.

Interface for CEO:

This interface displays a list of the BDOs currently on leave and not available and also the list of BDOs on duty.

4.5.1.4.Record Maintenance of Papers
Document Entry Screen:

Interface for BDO:

This interface allows the BDO to store the marketing papers such as white papers , Presentations ,minutes of meetings and other related documents either locally on in a secure server(password protected)

Interface for MM:

This interface allows the MM to store the marketing papers and other confidential documents either in local hard-disks or in central server(password protected)

Interface for CEO:

This interface allows the CEO to enter confidential documents such as

MOUs in a secure environment provided by a central server

Document Retrieval Screen:

Interface for BDO:

This interface allows the retrieval of the marketing papers that he has permission to access.

Interface for MM:

This interface allows the retrieval of the marketing papers and confidential documents that he has permission to access.

Interface for CEO:

This interface allows the retrieval of the marketing papers and the confidential documents that he has permission to access.

4.5.1.5. Reports:

On clicking the report link a screen with the report lists and the various options available with it is displayed. The user can choose the report he wants to view .

The reports that are provided by the system are as follows:

Daily Status Report:

This displays the DSRs of the products generated for a particular product or BDO or for all the products currently being dealt.

Weekly Status Report:

This displays the weekly status report of the products generated for a particular product or BDO or for all the products currently being dealt.

Monthly Status Report:

This displays the Monthly status reports of the products generated for a particular product or BDO or for all the products currently being dealt.

Reports on Cold calls:

This displays the expenses incurred by way performing the cold calls within a specified duration.

Reports on Follow up calls:

This displays the expenses incurred by way performing the follow up calls within a specified duration.

Reports on Personal Visits:

This displays the expenses incurred by way personal visits within a specified duration.

Reports on Expenses by a BDO:

This displays the expenses incurred by a BDO while dealing with his clients.

Reports on Personal Visits:

This displays the expenses incurred while dealing with a particular client.

4.6.FLOWCHARTS :
  4.6.1.Default page for MIS

```
                    ( Start )
                       |
                       v
              | Login Interface |
                       |
                       v
                    /      \
                   /  Check  \      Invalid user      | Display error |
                   \ for      / -----------------> | message       |
                    \Valid user/
                    \      /
                       |
                       | Valid user
                       v
              | Get the links   |
              | And sub links   |
                       |
                       v
              / Display the     \
              \ Default page    /
```

4.6.2.DSR Entry Screen:

```
            ( Start )
               |
               v
   +------------------------+
   |  Display the Sub links |
   +------------------------+
               |
               v
              / \
     New     / If new or \  update
  <---------<   Update    >--------->
     |        \         /            |
     |         \ /                   |
     v                               v
 /-----------\              /------------------------\
/ Get all the \           / Get the product id        \
\ DSR fields  /           \ and relevant DSR fields   /
 \-----------/             \------------------------/
     |                               |
     +-------------+-----------------+
                   |
                   v
   +------------------------+
   | Store the DSR entry    |
   +------------------------+
                   |
                   v
              ( end )
```

4.6.3.DSR Display screen:

```
            ( Start )
               |
               v
   +--------------------------+
   |  Display the sub options |
   +--------------------------+
               |
               v
   +--------------------------+
   | Display the DSRs of the  |
   | Products w.r.t to the    |
   | Sub option chosen        |
   +--------------------------+
               |
               v
            ( End )
```
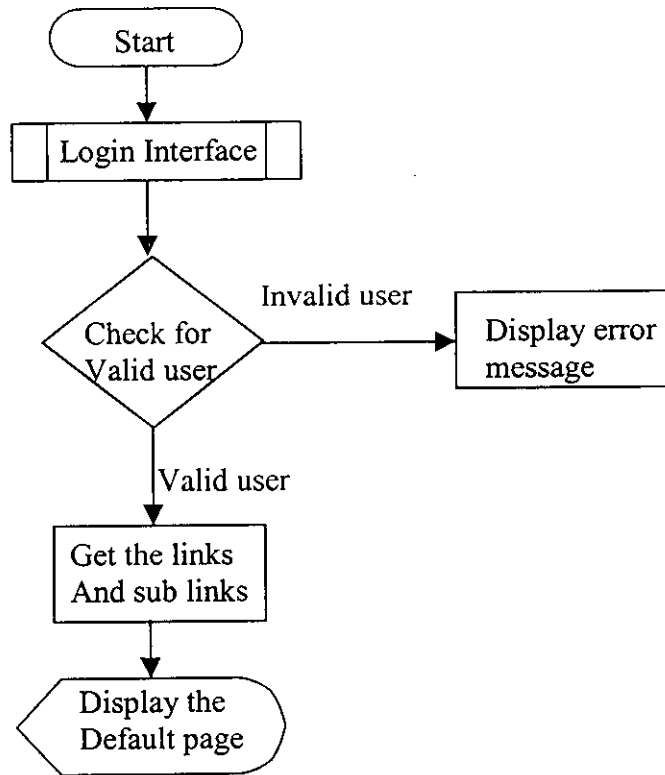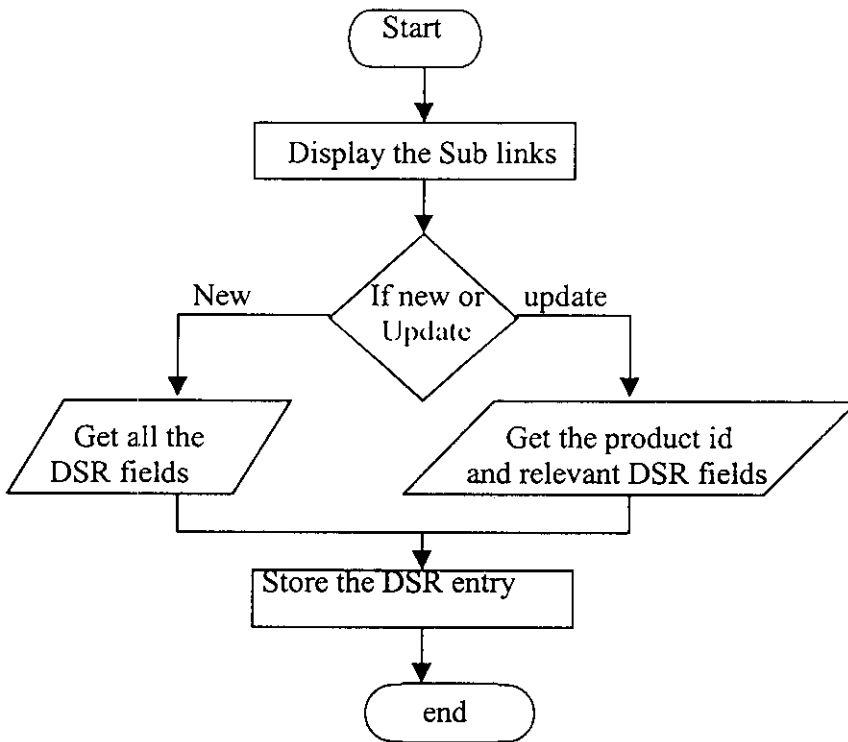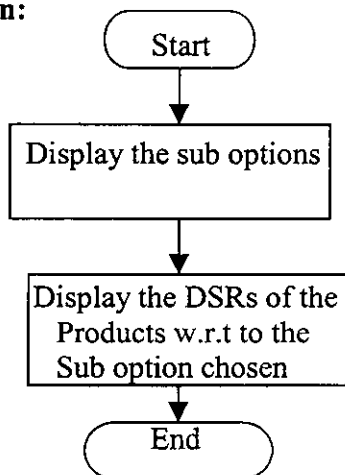
4.6.4.Product Status Screen:

```
        ( Start )
            |
            v
   +---------------------+
   | Display the various |
   | Status of products  |
   | As  sub links       |
   +---------------------+
            |
            v
          / Is  \
   Y    / Option \    N
  <----<  Search?  >---->
       \          /
        \        /
            |                    +------------------------+
            |                    | Display the list of    |
  +------------------+           | products in the status |
 / Get product id   /           | Chosen                 |
/------------------/            +------------------------+
            |                              |
            v                              |
  +----------------------+                 |
  | Display the details of|                |
  | the product           |               |
  +----------------------+                 |
            |                              |
            +------------------------------+
                      |
                      v
                 ( End )
```

4.6.5. Leave Screen:

```
                    ( Start )
                        |
                        v
                      /\
        Information  /  \  Application
    <---------------< Leave >--------------->
    |               \Application or/        |
    |                \Information /         |
    |                 \   ?    /            |
    v                   \  /                v
+------------------+     \/        /------------------/
| Display list of  |              / Get dates, reason/
| BDOs on leave    |             /------------------/
+------------------+                    |
    |                                   v
    |                                  /\
    |                    N            /  \            Y
    |              <-----------------<if Leave>--------------->
    |              |                 \sanctioned/            |
    |              |                  \   ?    /             |
    |              |                    \  /                 |
    |              |                     \/                  |
    |              v                                         v
    |      +------------------+              +----------------------+
    |      | Display a        |              | Display a confirmation|
    |      | negative message |              | message               |
    |      +------------------+              +----------------------+
    |              |                                         |
    |              v                                         |
    |          ( End )<------------------------------------- 
    +-------------->|
```
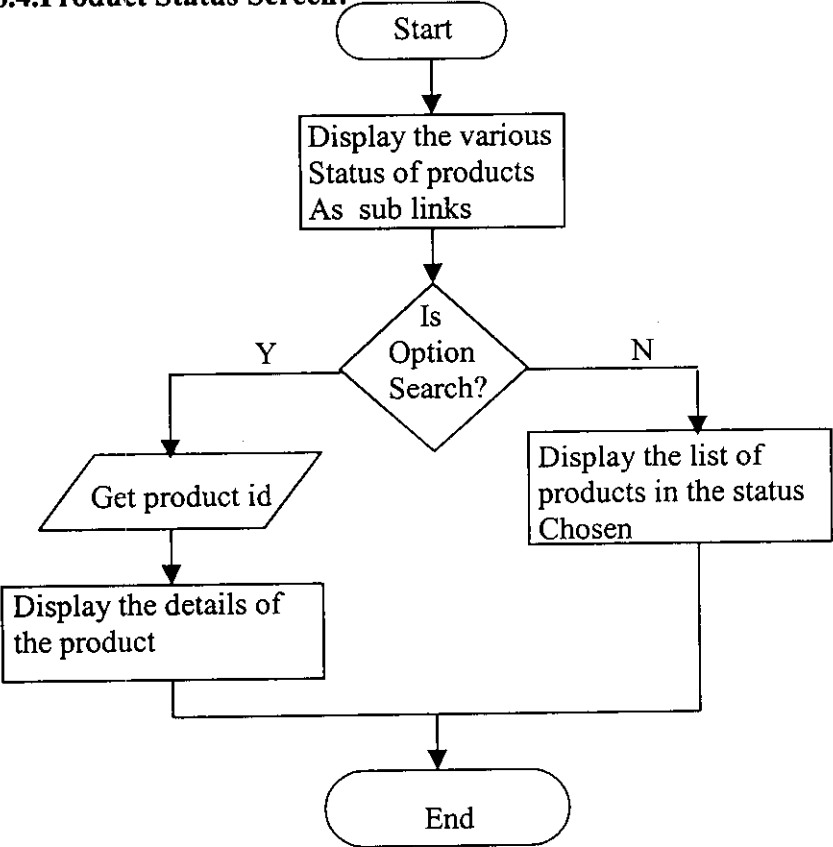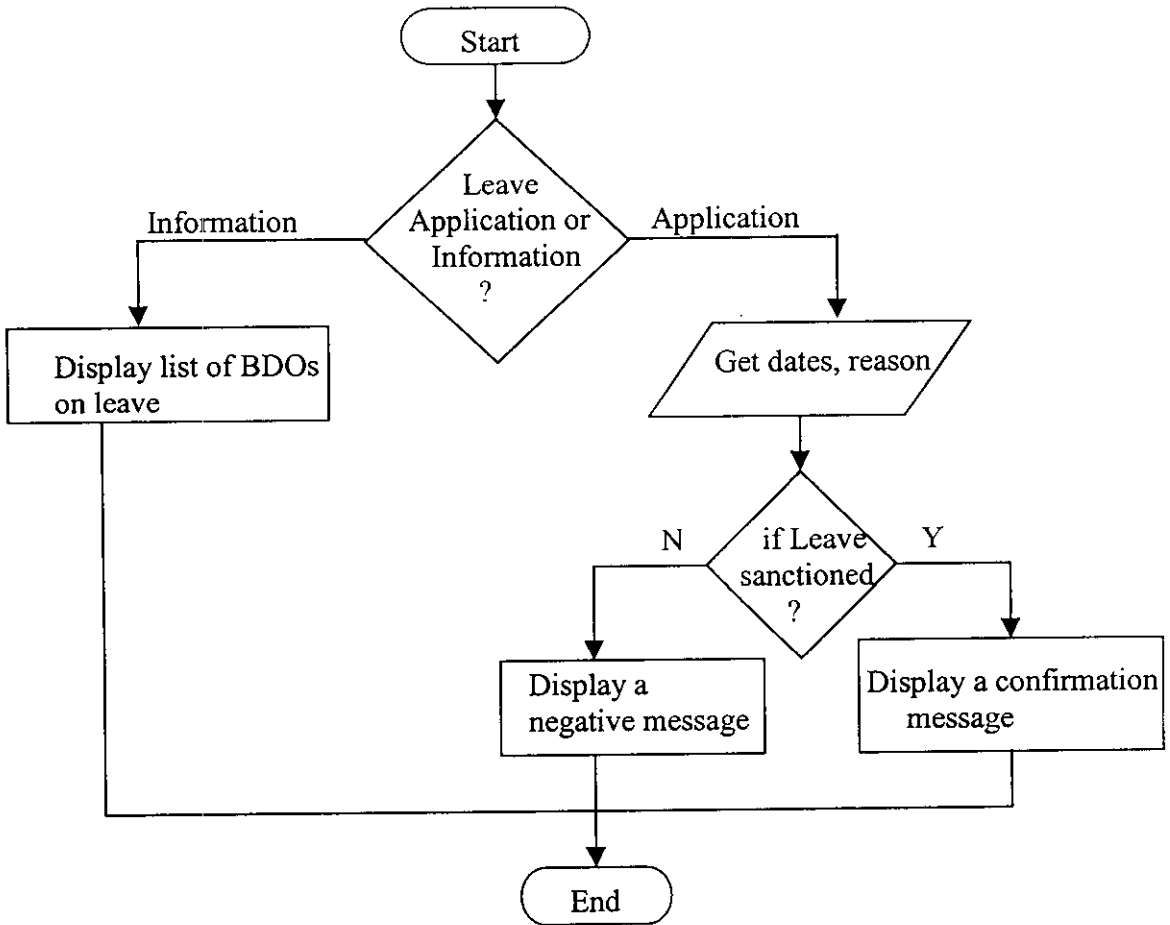
4.6.5.Marketing papers Entry/Retrieval Screen:

4.6.6.Reports:

```
                    ( Start )
                        |
                        v
              +-------------------+
              | Display report    |
              | options and       |
              | Sub options       |
              +-------------------+
                        |
                        v
              / Display the        \
              \ Requested report   /
```
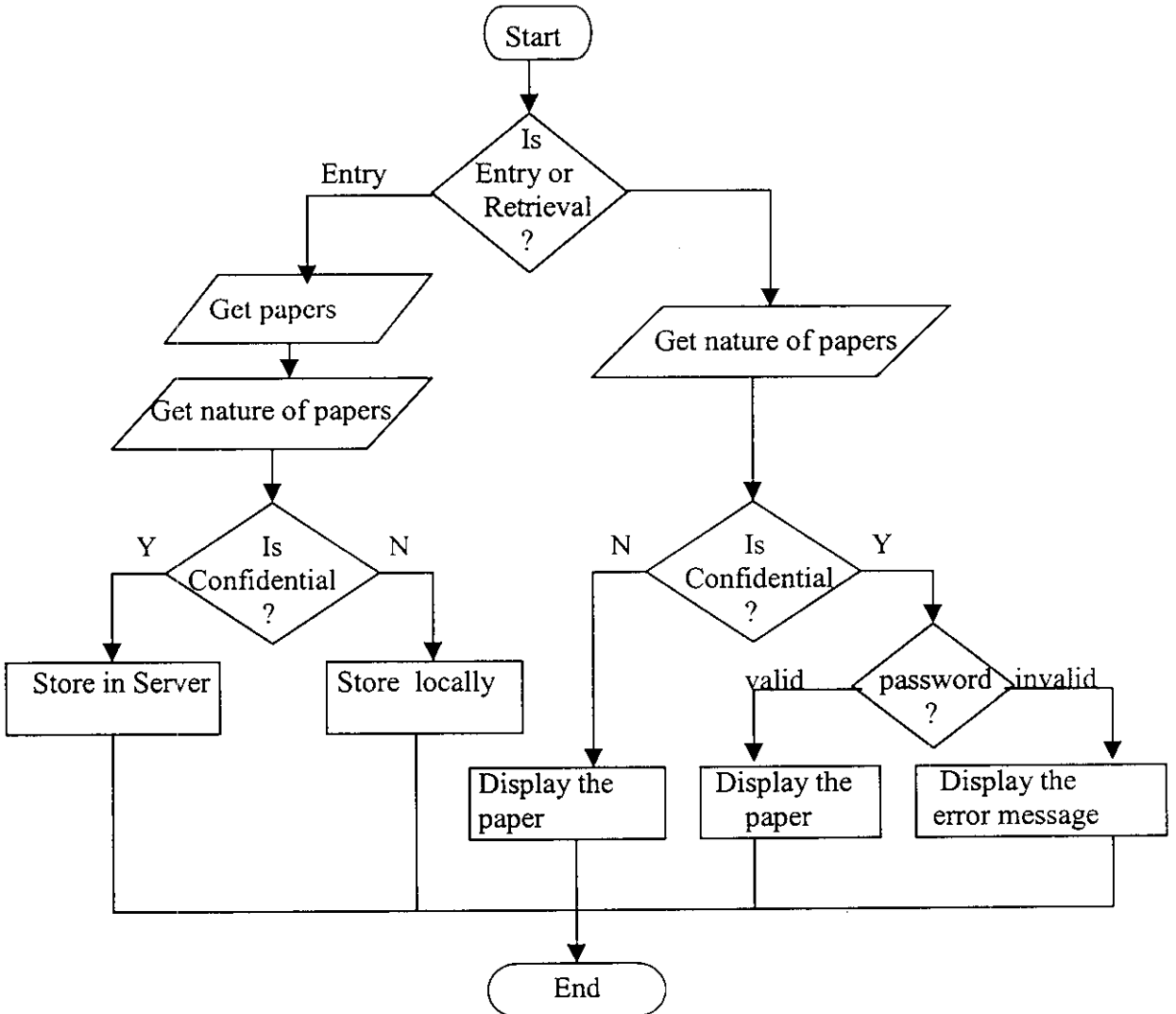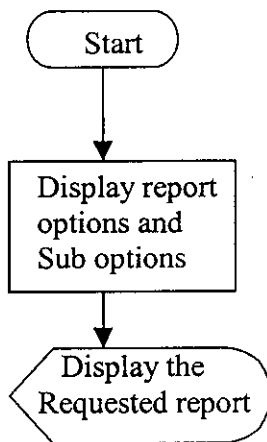
4.7.EXTERNAL INTERFACES:
4.7.1.Third party Components: None
4.7.2.Other Applications : This system will be plugged in to the company's web site.
4.7.3.Hardware Devices: None.

4.8.DATABASE DETAILS:
4.8.1.Tables:

S.No	Table name	Table description
1.	amis_dsr	This table stores the DSR entries for all the products
2.	amis_login	This table stores the log on information and the availability status of the marketing personnel.
3.	amis_expenses	This table stores the expenses for the communications carried out with the clients.
4.	amis_leave	This table has the details of the leave availed by the marketing personnel.
5.	amis_doc	This table stores the marketing papers of the products

…ctd.

S.No	Table name	Table description
6.	amis_history	This table stores the past details of the products
7.	amis_dcreport	This table stores information for generating report
8.	amis_planner	This table stores the appointments for the BDO
8.	amis_exp	This table stores the details of the experience of the BDO and with the clients.
9.	temp_login	This table Stores the names of the BDO currently using the system

4.8.2.Columns:

4.8.2.1. Table Name: amis_dsr

Constraint Name: (i) cpname (Primary key)

(ii) cdname (BDO name Foreign Key references amis_login)

S.No	COLUMN NAME	COLUMN DESCRIPTION	DATA TYPE	WIDTH	NULL/ NOT NULL
1.	PID	The unique id for each product	nvarchar	50	not null
2.	DATE	The date of entry	datetime	8	null
3.	BDOID	The id of the BDO dealing	nvarchar	50	not null
4.	CCOMPANY	The name of the client company	nvarchar	50	null
5.	CINTEREST	The nature of the product	nvarchar	50	null
6.	STATUS	The current status of the dealing	nvarchar	10	null
7.	FI/CO/DE	Cold call or follow up call done	nvarchar	10	null
8.	MODE	The mode of communication	nvarchar	10	null
9.	BSTATUS	The result of the communication	nvarchar	10	null
10.	NFDATE	The next follow up date	datetime	8	null
11.	FCDATE	The date on which the first call was made	datetime	8	null
12.	CPERSON	The contact person in the client company	nvarchar	30	null
13.	CPDESIG	The designation of the contact person	nvarchar	30	null

14. CPSTD	The STD code of the contact person's place	nvarchar	10	null
15. CPPHONE	The phone number of the contact person	nvarchar	10	null
16. CPFAX	The fax no. of the contact person	nvarchar	15	null
17. CPMOBILE	The mobile no of the contact person	nvarchar	30	null
18. CPEMAIL	The mail address of the contact person	nvarchar	30	null
19. CPADDR		nvarchar	50	null
20. CPCITY	The postal address of the Contact person	nvarchar	30	null
21. CPSTATE		nvarchar	30	null
22. CPPINCODE		nvarchar	15	null
23. CPLANDMARK		nvarchar	50	null

4.8.2.2. Table Name: amis_login

Constraint Name: (i)cname (Primary Key)
(ii)cpass (unique)

S.No	Column Name	Description	Data type	Width	Null/ Not Null	Default
1.	ID	ID of the employee	char	7	Not Null	-
2.	Name	Name of the employee	varchar	30	Not Null	-
3.	password	password of employee	varchar	10	Not Null	-

4.	Status	available or absent	varchar	15	Null	-
5.	time	last login	datetime	20	Null	-

4.8.2.3.Table Name: amis_expenses
Constraint Name: cepid (PID Foreign Key References amis_history(PID))

S.No	Column Name	Description	Date type	Width	Null/ Not Null	Default
1.	PID	The ID of the product	varchar	10	Not Null	-
2.	Type	The type of communication	varchar	30	Null	-
3.	During_status	communication was done during status	datetime	10	Null	-
4.	charge	charge	Float	10	Null	-

4.8.2.4. Table name:amis_leave :
Constraint Name: lname (ID Foreign Key References amis_login (id))

S.No	Column Name	Description	Data type	Width	Null/ Not Null	Default
1.	ID	ID of the Employee	varchar	7	Not Null	-
2.	CL	No. of casual leave still available	tinyint	2	Null	-
3.	SL	No. of sick leave still available	tinyint	2	Null	-
4.	PL	No. of casual leave still available	varchar	100	Null	-
5.	CWL	No.of casual leave without pay available	varchar	100	Null	-

4.8.2.5.Table Name: amis_history

S.No	COLUMN NAME	COLUMN DESCRIPTION	DATA TYPE	WIDTH	NULL/ NOT NULL
1.	PID	The unique id for each product	nvarchar	50	not null
2.	DATE	The date of entry	datetime	8	null
3.	BDOID	The id of the BDO dealing	nvarchar	50	not null
4.	CCOMPANY	The name of the client company	nvarchar	50	null
5.	CINTEREST	The nature of the product	nvarchar	50	null
6.	STATUS	The current status of the dealing	nvarchar	10	null
7.	FI/CO/DE	Cold call or follow up call done	nvarchar	10	null
8.	MODE	The mode of communication	nvarchar	10	null
9.	BSTATUS	The result of the communication	nvarchar	10	null
10.	NFDATE	The next follow up date	datetime	8	null
11.	FCDATE	The date on which the first call was made	datetime	8	null
12.	CPERSON	The contact person in the client company	nvarchar	30	null
13.	CPDESIG	The designation of the contact person	nvarchar	30	null
14.	CPSTD	The STD code of the contact person's place	nvarchar	10	null

15. CPPHONE	The phone number of the contact person	nvarchar	10	null
16. CPFAX	The fax no. of the contact person	nvarchar	15	null
17. CPMOBILE	The mobile no of the contact person	nvarchar	30	null
18. CPEMAIL	The mail address of the contact person	nvarchar	30	null
23. CPADDR		nvarchar	50	null
24. CPCITY	The postal address of the Contact person	nvarchar	30	null
25. CPSTATE		nvarchar	30	null
26. CPPINCODE		nvarchar	15	null
23. CPLANDMARK		nvarchar	50	null

4.8.2.6. Table Name: amis_dcreport

S.No	Column Name	Description	Data type	Width	Null/ Not Null	Default
1.	login_name	login name of the BDO	varchar2	30	not null	null
2.	ondate	date of appointment	date	–	null	null
3.	appointments	the appointments to keep	varchar2	200	null	null

4.8.2.7. Table Name: amis_exp

S.No	Column Name	Description	Data type	Width	Null/ Not Null	Default
1.	name	The name of BDO/client	varchar2	30	null	null
2.	exp	Experience- of BDO/ with Client	number	3	null	null

4.8.2.8. Table Name: amis_dcreport

S.No	Column Name	Description	Data type	Width	Null/ Not Null	Default
1.	cinterest	the name of the product	varchar2	30	null	null
2.	login_name	the name of the BDO	varchar2	30	null	null
3.	ccompany	the client company	varchar2	30	null	null
4.	no_days	days taken to complete	number	3	null	null
5.	cost	Total cost incurred	number	10,3	null	null

4.8.2.9. Table Name: temp_login

Constraint Name: *ctname* (Foreign Key References amis_login)

S.No	Column Name	Description	Data type	Width	Null/ Not Null	Default
1.	name	The name of BDO/client	varchar2	30	null	null

PRODUCT TESTING

5.PRODUCT TESTING

5.1.**Type of Test**: Functional Testing

Machine Configuration:

> Processor: Pentium III
>
> Hard Disk:10 GB
>
> Floppy Disk: 1.44 MB
>
> Operating System: Windows 98

Requirements Being Tested:

> A missing data in the login screen should be indicated to the user.

Exact Test Stimuli:

> The user name field is empty and the validation function is done.

Expected Outcome:

> The user is to be instructed to fill in both the user name and password for validation

5.2.**Type of Test**: Functional Testing

Machine Configuration:

> Processor: Pentium III
>
> Hard Disk:10 GB
>
> Floppy Disk: 1.44 MB
>
> Operating System: Windows 98

Requirements Being Tested:

> Simultaneous access using the user name and password should not be allowed.

Exact Test Stimuli:

> The user name and password of a user who is currently logged in is used for the validation function.

Expected Outcome:

> The user is indicated that he is already using the software.

5.3.Type of Test: Functional Testing

Machine Configuration:

Processor: Pentium III

Hard Disk:10 GB

Floppy Disk: 1.44 MB

Operating System: Windows 98

Requirements Being Tested:

The DSR entry creation must not be possible for an already existing product.

Exact Test Stimuli:

A new DSR entry is tried to create with the product name of a product being already dealt by the department .

Expected Outcome:

The user is indicated that the product is already under dealing.

5.4.Type of Test: Functional Testing

Machine Configuration:

Processor: Pentium III

Hard Disk:10 GB

Floppy Disk: 1.44 MB

Operating System: Windows 98

Requirements Being Tested:

The Updation of a product's DSR is done only by the BDO who is dealing it.

Exact Test Stimuli:

A user trying to update a product being dealt by a different BDO.

Expected Outcome:

The user is indicated that he is not allowed to perform the operation.

5.5.Type of Test: Functional Testing

Machine Configuration:

Processor: Pentium III

Hard Disk:10 GB

Floppy Disk: 1.44 MB

Operating System: Windows 98

Requirements Being Tested:

Leave is sanctioned only if eligible (eligible if his leave availability is not

exhausted)

Exact Test Stimuli:

The user applies for leave exceeding the availability.

Expected Outcome:

The user is indicated that leave cannot be sanctioned.

5.6.Type of Test: Functional Testing

Machine Configuration:

Processor: Pentium III

Hard Disk:10 GB

Floppy Disk: 1.44 MB

Operating System: Windows 98

Requirements Being Tested:

Missing data during DSR entry, DSR update, Leave application, Generating

Reports and Document Retrieval is indicated to the user

Exact Test Stimuli:

The user tries to perform the function with some data fields empty.

Expected Outcome:

The user is indicated that all the data must be present for performing the function.

5.7.Type of Test: Functional Testing

Machine Configuration:

Processor: Pentium III

Hard Disk:10 GB

Floppy Disk: 1.44 MB

Operating System: Windows 98

Requirements Being Tested:

Invalid inputs during DSR entry, DSR update, Leave application, Generating

Reports and Document Retrieval must be indicated to the user

Exact Test Stimuli:

The user provides invalid inputs(like alphabets where numeric value is expected)

while performing the function.

Expected Outcome:

The user is indicated that invalid inputs are being provided by him and he should

correct them to perform the function.

6.PROJECT LEGACY

PROJECT DESCRIPTION:

This project is mainly concerned with the creation of dynamic reusable filters which allows access to the previous data in addition to the current data.
The objective is to create a software system that caters to all the needs of the marketing department. A secure and friendly user interface is to be created.

INITIAL EXPECTATIONS:

The objective of the Automatic Marketing Information System is the creation of the dynamic reusable filters. The user requests are received from the console or from programs they are processed and the result is reported back. The main functions of the marketing department supported by the software are creation of a new DSR entry , update an existing one, generation of reports, leave application and information, and document storage & retrieval. The user interface must be user-friendly and tolerate all errors committed by the users knowingly or unknowingly.

CURRENT STATUS OF THE PRODUCT:

The product developed has all the features required and the functioning correctly and efficiently. The time taken to provide the result or feedback to the user is kept to the minimum by efficient coding and using the best options of the software. The filters created is reusable and overcomes all the disadvantages of the existing system being used currently. The user interface created presents a self understandable and interactive web pages. Security is also adequate. The system caters to all the needs of the customer.

PROJECT LEGACY

ACTIVITIES/ TIME LOG(s):

Time Logs	Activities
Nov 18th 2001	Product definition
Nov 22nd	Product Analysis
Nov 26th	Risk Analysis
Dec 2nd	SRS
Dec 20th	Design
Dec 25th	Front end creation
Dec 27th	Database Creation
Jan 10th 2002	Coding for login module and auto mailing
Jan 13th	Coding for DSR module
Jan 20th	Creation of reusable filters
Jan 23rd	Coding for product Status Generation
Jan 25th	Coding for leave module
Jan28th	Coding for Document Storage and retrieval
Feb 7th	Report Generation
Feb 10th	Testing
Feb 11th	Demonstration at the customer's site

TECHNICAL LESSONS LEARNT:

Many technical lessons were learnt while working with the organization. One of the best one selected, learnt and implemented is the developmental cycle of a software product.

The software used were new to us and we learnt them quickly and systematically to implement the products. Learning a software within a short duration as this seemed impossible initially but our sincere and systematic approach had fruitful results.

FUTURE ENHANCEMENTS

We also learnt to analyze a software and use it efficiently. We learnt to use the best software available for the implementation of the concept in hand and the integrate into the main product.

MANAGERIAL LESSONS LEARNT:

In this organization in addition to the technical lessons we had an opportunity to learn many managerial lessons too. We learnt to approach a problem systematically, deciding the best alternative from a list of available ones. Establishing a time schedule and maintaining it was one of the best lessons learnt. We also learnt a lot about coordination and team spirit. Discussing the various possibilities with the team members and the customer improved our negotiating skills and the way to present and support an opinion .

7.FUTURE ENHANCEMENTS

The mail server implemented in the project is capable of performing the basic functions -sending and receiving mail. Even the sending facility is not available for the user only the software uses it. For replying to the mail received (reporters) the users currently have to use other mailing systems. These could be provided to the users and other functionality like facility to send attachments which could be useful to the officials can be incorporated, thus making the system completely self supporting.

CONCLUSION

8.CONCLUSION

The project was developed to work in an intranet. It was put to test and was found to be working perfectly and in accordance with the requirements.
This project was aimed to reduce the burden of the marketing officials and has succeeded in it. The software serves as not just an assistant, but an intelligent one, assisting, reminding, and reporting matters to the marketing professionals, thus making their job less hectic and hassle free.

The project was very challenging and demanding but the experience we gained by having it done for a realistic application in the systematic manner of the industry is worth all the hardships that we faced.

BIBLIOGRAPHY

9.BIBLIOGRAPHY

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3.George Koch and Kevin Loney "Oracle 8- The Complete Reference" Tata McGraw
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   First Edition 1999

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APPENDIX

APPENDIX - A

SAMPLE CODE

LOGIN MODULE

```
<%@ page language="java"
import="java.util.*,java.sql.*,java.util.Date,java.io.*,java.util.Random" session="true"
%>
<HTML>
<HEAD>
<TITLE>LOGIN FORM
</TITLE>
</HEAD>

<STYLE>
body { background-image: url(linkb.gif) ;
     background-repeat: repeat
   }
</STYLE>

<BODY  text='white'>
<%

  PreparedStatement ps1=null,ps2=null,ps3=null,ps4=null;
  ResultSet rs1=null,rs4=null;
  Connection con=null;
  try {
        Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
        con = DriverManager.getConnection("jdbc:odbc:Amis", "scott", "tiger");
      ps1=con.prepareStatement("select sysdate from dual");
      rs1=ps1.executeQuery();
      if(rs1.next())
      {
        java.sql.Date d=rs1.getDate(1);
        ps2=con.prepareStatement("update amis_leave set cstatus=? where dreturn=?");
        ps2.setString(1,"available");
        ps2.setDate(2,d);
        ps2.executeUpdate();

      }

    }
  catch(Exception e)
  {
    System.out.println(e);
```

```
}
if(con!=null)
 {
  if(ps1!=null)
   {
    rs1.close();
    ps1.close();
   }
  if(ps2!=null)ps2.close();
  if(ps3!=null)ps3.close();
 }

%>
<%

PreparedStatement send=null,ps1=null,ps2=null,ps3=null,ps4=null;
ResultSet senddate=null,rs1=null,rs2=null;
Connection con=null;
PreparedStatement rep=null;
ResultSet repdate=null;

try {
        Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
        con = DriverManager.getConnection("jdbc:odbc:Amis", "scott", "tiger");
     send=con.prepareStatement("select sysdate+2 from dual");
     senddate=send.executeQuery();
     if(senddate.next())
      {
       java.sql.Date d=senddate.getDate(1);
       ps1=con.prepareStatement("select login_name,cinterest,ccompany,bstatus from
amis_dsr where nfdate=?");
       ps1.setDate(1,d);
       rs1=ps1.executeQuery();
       if(rs1.next())
        {
          String login_name=rs1.getString(1);
          String cinterest=rs1.getString(2);
          String ccompany=rs1.getString(3);
          String bstatus=rs1.getString(4);
          ps2=con.prepareStatement("select * from amis_mail where cinterest=? and
nfdate=?");
          ps2.setString(1,cinterest);
          ps2.setDate(2,d);
          rs2=ps2.executeQuery();
          if(rs2.next())
```

```
{out.println("reminders already sent");rs2.close();ps2.close();}

        else
        {
         ps3=con.prepareStatement("insert into amis_mail values(?,?,?,?,?,?)");
         ps3.setString(1,login_name);
         ps3.setString(2," ");
         ps3.setString(3,cinterest);
         ps3.setString(4,ccompany);
         ps3.setString(5,bstatus);
         ps3.setDate(6,d);
         int i=ps3.executeUpdate();
         out.println("reminders sent now");
         if(i==1){ps3.close();}
        }

      }

     else{out.println("no reminders");}
     }
     else{}

//REPORTERS

     rep=con.prepareStatement("select sysdate-2 from dual");
     repdate=rep.executeQuery();
     if(repdate.next())
     {
      java.sql.Date d=repdate.getDate(1);
      ps1=con.prepareStatement("select login_name,cinterest,ccompany,bstatus from
amis_dsr where nfdate=?");
      ps1.setDate(1,d);
      rs1=ps1.executeQuery();
      if(rs1.next())
      {
        String login_name=rs1.getString(1);
        String cinterest=rs1.getString(2);
        String ccompany=rs1.getString(3);
        String bstatus=rs1.getString(4);
        ps2=con.prepareStatement("select * from amis_mail where cinterest=? and
nfdate=?");
        ps2.setString(1,cinterest);
        ps2.setDate(2,d);
        rs2=ps2.executeQuery();
        if(rs2.next())
```

```
      {out.println("reporters already sent");rs2.close();ps2.close();}

      else
      {
      //REPORT TO MM
      ps3=con.prepareStatement("insert into amis_mail values(?,?,?,?,?,?)");
      ps3.setString(1,"MM");
      ps3.setString(2,login_name);
      ps3.setString(3,cinterest);
      ps3.setString(4,ccompany);
      ps3.setString(5,bstatus);
      ps3.setDate(6,d);
      int i=ps3.executeUpdate();
      if(i==1){ps3.close();//ps4.close();
      ps3=con.prepareStatement("insert into amis_mail values(?,?,?,?,?,?)");
      ps3.setString(1,login_name);
      ps3.setString(2," ");
      ps3.setString(3,cinterest);
      ps3.setString(4,ccompany);
      ps3.setString(5,bstatus);
      ps3.setDate(6,d);
      int j=ps3.executeUpdate();
      out.println("reporters sent now");
      if(j==1){ps3.close();}

        }
      }

    }

  else{out.println("no reporters");}
  }
  else{}



}
  catch(Exception e)
  {
    System.out.println(e);
  }
  if(con!=null)
  {
    senddate.close();
```

```
        send.close();
        rs1.close();
        ps1.close();
        repdate.close();
        rep.close();

        con.close();
      }

%>
<FORM METHOD="POST" ACTION="http://localhost:8000/validate.jsp">

<DIV ALIGN="CENTER">
<H2>LOGIN</H2>
<HR>
<BR><BR>
  <TABLE BORDER="0">
    <TR>
      <TD>Login Name:</TD>
      <TD><INPUT NAME="LOGINNAME" SIZE="20"></TD>
    </TR>
     <TR>
      <TD>Password:</TD>
      <TD><INPUT TYPE="PASSWORD" NAME="PASSWORD" SIZE="20"></TD>
    </TR>
  </TABLE>
<INPUT TYPE="SUBMIT" VALUE="VALIDATE" NAME="VALIDATE">
</DIV>
<%

  String err = request.getParameter("err");
  if (err == null) {}
  else {out.println("<p align=center><h5>"+err+"</h5></p>");err=null;}
%>

</FORM>
</BODY>
</HTML>
```

DSR UPDATE

```
<%@ page language="java" import="java.sql.*,java.util.*,java.util.Date,java.lang.*" %>
<STYLE>
BODY { background-image: url(b.gif) ;
    background-repeat: no-repeat
    }
</STYLE>
<BODY  text='white'>

<%

  String cinterest=request.getParameter("CINTEREST");
  String login_name=request.getParameter("LOGIN_NAME");
  String ccompany=request.getParameter("CCOMPANY");
  String status=request.getParameter("STATUS");
  String bstatus=request.getParameter("BSTATUS");
  String nfdate=request.getParameter("NFDATE");
  String cmode=request.getParameter("CMODE");
  String expenses=request.getParameter("EXPENSES");
PreparedStatement
ps=null,ps1=null,ps2=null,ps3=null,ps4=null,ps5=null,ps6=null,ps7=null;ResultSet
rs1=null,rs5=null;
    Connection con=null;

if(cinterest.equals("")||login_name.equals("")||ccompany.equals("")||status.equals("")||bsta
tus.equals("")||nfdate.equals("")||cmode.equals("")||expenses.equals(""))
  {out.println("please specify all the details");}
  else
  {

  try
  {

    Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
    con=DriverManager.getConnection("jdbc:odbc:Amis","scott","tiger");
    ps1=con.prepareStatement("select nfdate from amis_dsr where cinterest=?");
    ps1.setString(1,cinterest);
    rs1=ps1.executeQuery();
    if(rs1.next())
    {
    ps3=con.prepareStatement("insert into amis_dsrhistory(select * from amis_dsr where
cinterest=?)");
```

```java
        ps3.setString(1,cinterest);
        ps3.executeUpdate();
        ps=con.prepareStatement("update amis_dsr set tdate=?,bstatus=?,nfdate=?,status=?
where cinterest=?");
        ps.setDate(1,rs1.getDate(1));
        ps.setString(2,bstatus);
        ps.setString(3,nfdate);
        ps.setString(4,status);
        ps.setString(5,cinterest);
        ps.executeUpdate();

        ps2=con.prepareStatement("insert into amis_expenses values(?,?,?,?,?)");
        ps2.setString(1,cinterest);
        ps2.setString(2,login_name);
        ps2.setString(3,cmode);
        ps2.setString(4,expenses);
        ps2.setString(5,status);

        if(bstatus.equalsIgnoreCase("closed"))
            {
            ps6=con.prepareStatement("insert into amis_dsrhistory(select * from amis_dsr
where cinterest=?)");
            ps6.setString(1,cinterest);
            ps6.executeUpdate();

            ps4=con.prepareStatement("delete from amis_dsr where cinterest=?");
            ps4.setString(1,cinterest);

            int i=ps4.executeUpdate();
            if(i!=1)
            {out.println("errorinupdation");}
            else
            {out.println("updation performed");}

            }
        else{out.println("updation performed");}


        }
    }
    catch(Exception e){System.out.println(e);}
    }

    if(con!=null)
     {
      if(ps1!=null){rs1.close();
```

```
  ps1.close();}
  if(ps!=null){ps.close();}
  if(ps3!=null){ps3.close();}
  if(ps2!=null){ps2.close();}
  if(ps4!=null){ps4.close();}
  if(ps6!=null){ps6.close();}
 }

%>
```

PRODUCT REPORT

```
<HTML>
<HEAD><TITLE></TITLE></HEAD>
<%@ page language="java" import="java.sql.*,java.util.*,java.util.Date,java.lang.*" %>
<STYLE>
BODY { background-image: url(b.gif) ;
    background-repeat: no-repeat
   }
</STYLE>
<BODY  text='white'>

<%
  String wise=request.getParameter("WISE");
  String search=request.getParameter("SEARCH");

 if(wise.equalsIgnoreCase("SELECT")||search.equals(""))
 {
  response.sendRedirect("psr.jsp?err=specify all the fields");
 }
 else
 {
   wise=wise.toLowerCase();
   search=search.toLowerCase();

   PreparedStatement ps=null;
   ResultSet rs=null;
   Connection con=null;
   try
   {
    Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
    con=DriverManager.getConnection("jdbc:odbc:Amis","scott","tiger");
    if(wise.equalsIgnoreCase("LOCATION-WISE"))
    {
```

```
ps=con.prepareStatement("select cinterest,login_name,ccompany,status,nfdate from
amis_dsr where cpcity=?");
     ps.setString(1,search);
   }
   else
   {
    if(wise.equalsIgnoreCase("BDO-WISE"))
    {
     ps=con.prepareStatement("select cinterest,ccompany,status,nfdate from amis_dsr
where login_name=?");
     ps.setString(1,search);
    }
    else
    {
     if(wise.equalsIgnoreCase("PRODUCT-WISE"))
     {
      ps=con.prepareStatement("select login_name,ccompany,status,nfdate from
amis_dsr where cinterest=?");
      ps.setString(1,search);

     }
     else
     {
      if(wise.equalsIgnoreCase("STATUS-WISE"))
      {
       ps=con.prepareStatement("select cinterest,login_name,ccompany,nfdate from
amis_dsr where status=?");
       ps.setString(1,search);
      }
     }
    }
   }
   rs=ps.executeQuery();
   if(!rs.next())
   {
    response.sendRedirect("psr.jsp?err=search crieteria did not return any data");
   }
   else
   {
    out.println("<H2> PRODUCT STATUS REPORT</H2> <BR><BR>");
    out.println("YOUR SEARCH CRIETERIA:
"+wise+","+search+"<BR><HR><BR>");
    do
    {
     if(wise.equalsIgnoreCase("LOCATION-WISE"))
```

```
    {
      out.println("Product Name: "+rs.getString(1));
      out.println("<BR>"+"BDO Name: "+rs.getString(2));
      out.println("<BR>"+"Client: "+rs.getString(3));
      out.println("<BR>"+"Current Status: "+rs.getString(4));
      out.println("<BR>"+"Next Follow Up Date: "+rs.getString(5).substring(0,10));
      out.println("<HR><BR><BR>");
    }
    if(wise.equalsIgnoreCase("BDO-WISE"))
    {
      out.println("Product Name: "+rs.getString(1));
      out.println("<BR>"+"Client: "+rs.getString(2));
      out.println("<BR>"+"Current Status: "+rs.getString(3));
      out.println("<BR>"+"Next Follow Up Date(yyyy-mm-dd):
"+rs.getString(4).substring(0,10));
      out.println("<HR><BR><BR>");
    }
    if(wise.equalsIgnoreCase("PRODUCT-WISE"))
    {

      out.println("BDO Name: "+rs.getString(1));
      out.println("<BR>");
      out.println("Client: "+rs.getString(2));out.println("<BR>");
      out.println("Current Status: "+rs.getString(3));out.println("<BR>");
      out.println("Next Follow Up Date(yyyy-mm-dd):
"+(rs.getString(4)).substring(0,10));out.println("<BR>");
      out.println("<HR><BR><BR>");
    }
    if(wise.equalsIgnoreCase("STATUS-WISE"))
    {
      out.println("Product Name: "+rs.getString(1));
      out.println("<BR>"+"BDO Name: "+rs.getString(2));
      out.println("<BR>"+"Client: "+rs.getString(3));
      out.println("<BR>"+"Next Follow Up Date(yyyy-mm-dd):
"+rs.getString(4).substring(0,10));
      out.println("<HR><BR><BR>");
    }
  }while(rs.next());


  }
 }
 catch(Exception e)
 {
  System.out.println(e);
```

```
}
   if(con!=null)
   {
    rs.close();
    ps.close();
    con.close();
   }
}
%>


</BODY>
</HTML>
```

APPENDIX -B
SAMPLE SCREENS

LOGIN SCREEN

Login screen validates the user.
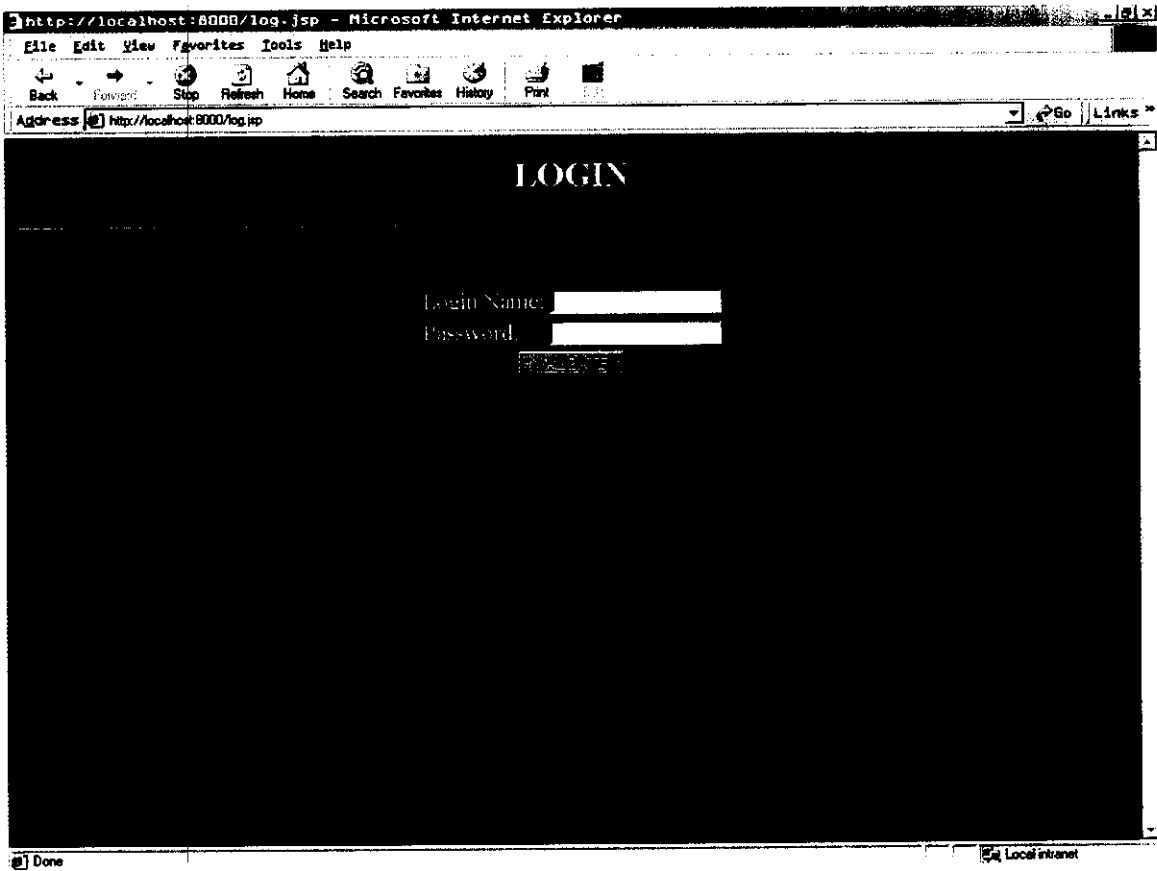
MAIN SCREEN

The main screen is displayed with its sub links.

Automatic Marketing Information System

DSR UPDATE

The concept of dynamic filters is implemented. The relevant data are auto generated.

LEAVE APPLY

The session is tracked and the leave availability is of the user is auto generated.
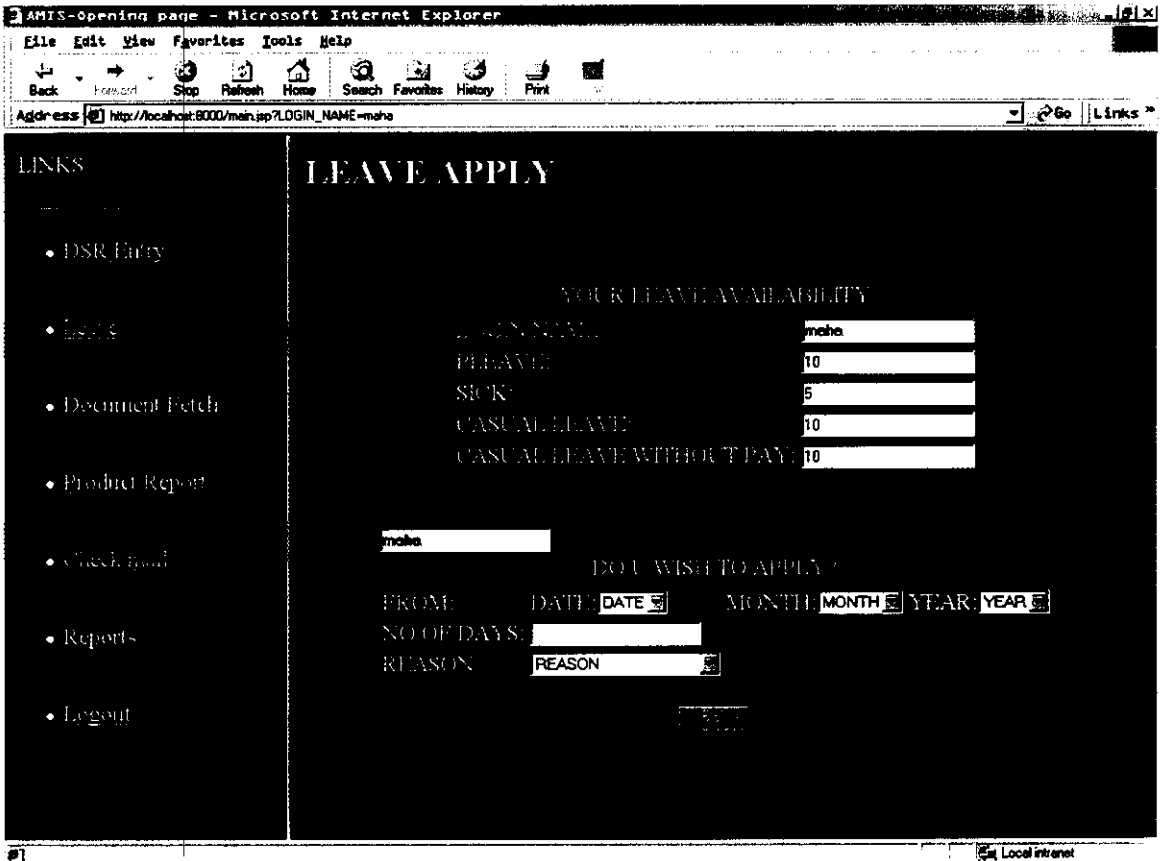
REPORTS

The Report Generation module displays all the reports titles that can be generated.
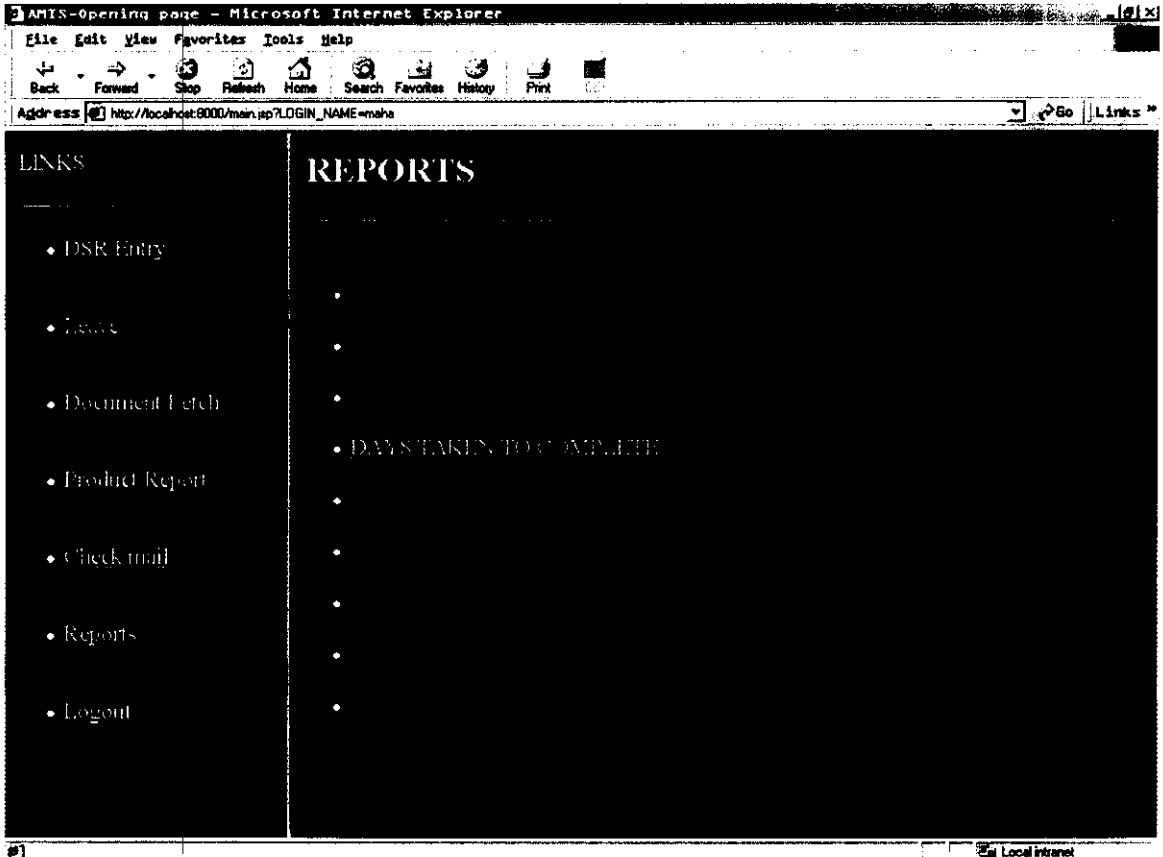
REPORT ON DAYS TAKEN TO COMPLETE

The report displays the number of days taken to complete a dealing and attempts to analyze the reason.

<u>REPORT ON EXPENSES</u>

This report displays a pie chart depicting the expenses incurred by way of different communication modes during the completion of a dealing.
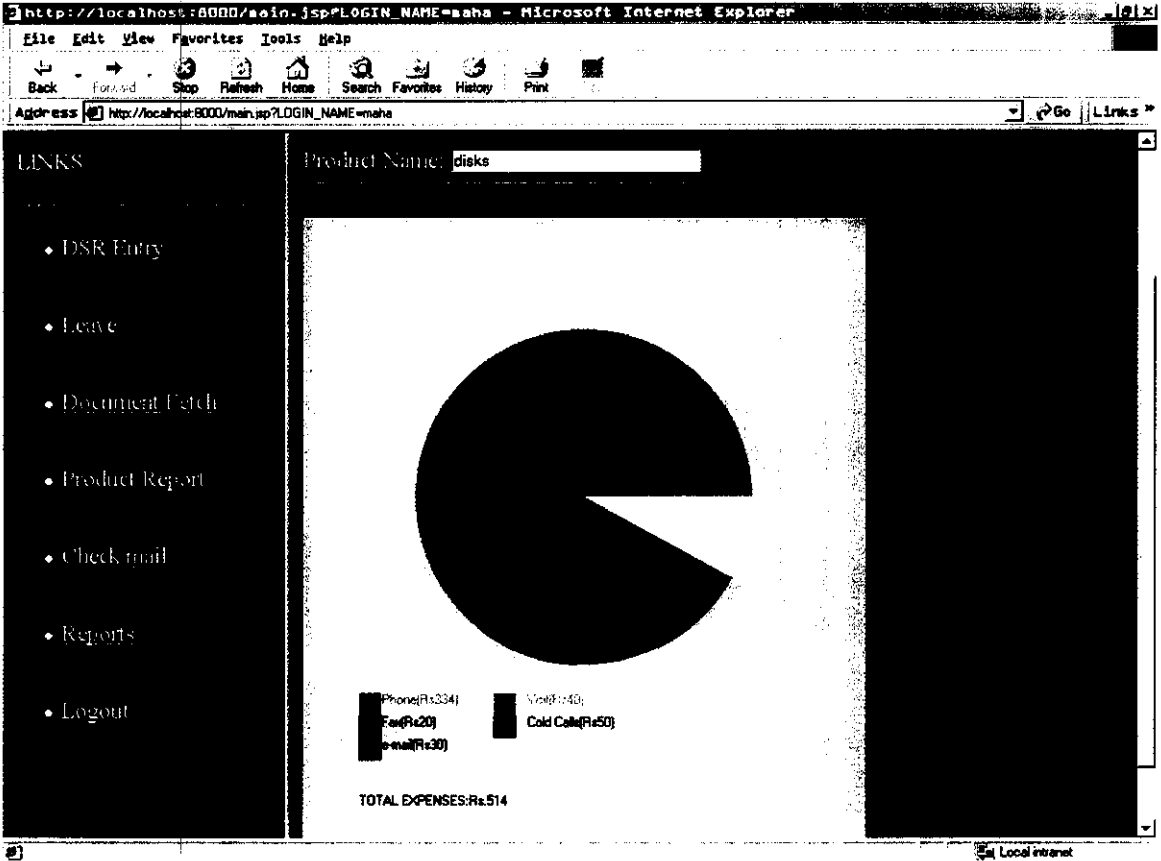
LOGOUT

The successful log out is indicated by the message and a thought for the day.