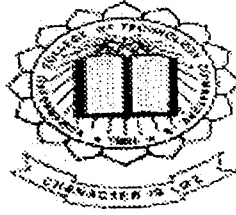# ONLINE MANAGEMENT – OFFLINE TRADING

## PROJECT REPORT

P - 919

Submitted in partial fulfillment of the requirements for the award of degree of M.Sc.
[Applied Science] Software Engineering.

**Submitted by**
**ARUN NAHAR . J.**
9837S0042.

Under the guidance of

**External Guide**

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Antarix c Applications Ltd.
(Senior IT Consultant)

**Internal Guide**

Mrs. Devaki
B.E., MS,
Assistant Professor / CSE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
**KUMARAGURU COLLEGE OF TECHNOLOGY**
(AFFILIATED TO BHARATHIAR UNIVERSITY)
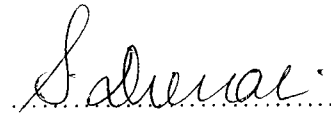COIMBATORE – 641006.

# CERTIFICATE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
# KUMARAGURU COLLEGE OF TECHNOLOGY
## (AFFILIATED TO BHARATHIAR UNIVERSITY)
## COIMBATORE – 641006.

## CERTIFICATE

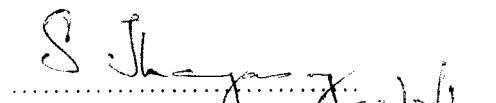This is to certify that the project entitled

## Online Management – Offline Trading
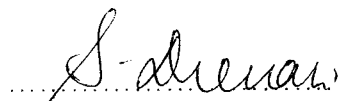
has been submitted by

## ARUN NAHAR.J.

In partial fulfillment of the award of the degree of Master of Science in Applied Science
– Software engineering of Bharathiar University, Coimbatore.
During the academic year 2002 – 2003.

Guide

Head of the Department 2) |3 |'o3

Certified that the candidate was examined by us in the project work viva voce
examination held on ..5/4./.2023.. and the university register number was
9837S0042.

Internal Examiner

External Examiner

# ACKNOWLEDGEMENT

# Acknowledgement

The Researcher acknowledges his respectful thanks to DR.K.K.Padmanabhan B.Sc (Engg.), M.Tech, Ph.D Principal, Kumaraguru College of Technology, Coimbatore, for giving me the opportunity to carry out this project.

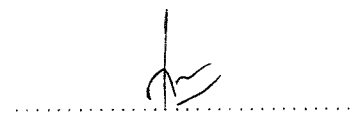This project work is a result of 5 months work in Antarix e Applications Limited, Chennai, in partial fulfillment of the award for the degree of master of science in applied science - Software Engineering of Bharathiar university, Coimbatore. In the accomplishment of this academic task I was assisted directly or indirectly by a host of teachers, well wishers, my colleagues, officials and the members of my family to whom Iam deeply indebted. However, a few of them deserve a special mention here.

It is a matter of privilege and honor for me to place on record Mr. Venugopal Madukkuri MCA, IT solutions Manager, Antarix e Applications Limited for his unstinted co-operation and encouragement at levels to undergo this project work.

I deem it a great pleasure to place on record my deep sense of gratitude and indebtness to Bharathiar University, for providing me this excellent opportunity to work on this project.

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My sincere thanks to my beloved parents and friends for their affectionate blessings and loving co-operation received from them at all moments and hours of this academic venture.

# SYNOPSIS

# Synopsis

*Online management - offline trading* is a product, which is being developed for a multi-branched hamburger firm in Germany.

Online management is a module, which is developed by creating a dynamic web site, which has discussion forums, chat rooms, e-mail, history and branch details.

Discussion forums    :   It is a place where people raise questions and seek solutions.

        It is again sub-divided into two forms :-
        1.Confidential Forum
            Developed specifically for higher-level authorities
            and branch managers.

        1. Open forum
            This forum is open to customers.

Chat Rooms          :   It is being developed for an online interaction between branches.

E-mail              :   A unique e-mail ID is being given to each and every branch. This helps the higher-level authorities to receive and send the confidential information and files.

History             :   It is a static data, which provides the history and the achievements of the firm.

Branch Details      :   It provides the name of branch manager and the address of where the branch is located.

Offline trading is a module, which is being developed by creating a database application using visual basic as front-end and oracle as backend.
This module generally helps the branch manager in providing information such as stock details, purchase details, customer details, expenses and billing.

It has six sub modules they are :-

> Billing

This module carries out the billing operation based on the customer's order. The final amount and the mode of payment will be stored in the database.

> Customer Information

This Module is basically being designed to keep track record of the customer. It also helps in communicating with the customers on special occasions and provides information on special offers.

> Product Information

This module generally provides the information about the product and the price list for the products set by the higher-level authorities.

> Employee Details

This module stores the personal information of each employee serving the firm.

> Stock Information
This module keeps track of records like how many products sold, how many brought from the production unit, how many got spoiled etc. As a result the net stock is determined.

> Expenses

Every branch has direct and indirect expenses. Various forms of expenses are salary, wages, transportation, electricity, maintenance and miscellaneous expenses. Every branch should store each and every expense meticulously and then pass on the report to the headquarters.

# CONTENTS

# TABLE OF CONTENTS

ABOUT THE COMPANY

## 1.    About the company

**Antarix E Applications Limited**

### 1.1    Antarix's Vision

To be a major global Internet services enabler with a range of comprehensive service offerings and a world-class secure infrastructure.

### 1.2    Antarix's Mission

To provide comprehensive ASP Services to cover entire range of IT needs for corporate. To establish 'state-of-the-art portals' that will enable e-commerce in B2B, B2C and C2C segments.

To deliver committed service levels to our customers using our own secured infrastructure.

### 1.3    Partners

To succeed in the global business arena, you need to choose the right partners; who have blazed trails, trendsetters, innovators, people who set standards in their respective market segments, and most important, people who know the way to their customer's hearts. We did just that.

- Technology providers
- Solution partners

### 1.4    Technology and infrastructure at Antarix

The dawn of new economy was at large extent, facilitated by rapid advances in information technology. Internet, in particular, made the world a much smaller and a simpler place to live, by smashing the traditional barriers like distance, time and geographical access.

In this context, it is important for a service provider to carefully evaluate the changing needs of the global consumer and tailor technology towards effective service to customers, and in turn to shareholders and investors.

Antarix subscribes to this philosophy and has gone a step further by bringing about a revolution in information access through its voice portal technology and other such revolutionary initiatives. With partners like IBM, CA, Philips and AT & T by its side, Antarix hopes to scale new heights and make the fruits of technological innovation and research available to you.

It has dedicated research team that works towards this end, and Antarix has tied up with renowned research institutes like IIT-Chennai(India), IISc-Bangalore(India) among others, and is in the process of introducing cost-effective technologies that would make your life much, much simpler than ever.

## 1.5    Infrastructure

It is crucial to possess world-class infrastructure when you are offering solutions that directly impact a client's business. Antarix's infrastructure was designed with the fact in mind.

## 1.6    Antarix's Data Center

Fool proof, state-of-the-art security that employs biometric security system for physical security and advanced network security systems that protects client's business data encryption of client's data ensures only the client has access to the data-cutting-edge storage, retrieval and recovery systems. In-house power generation set up that ensures a 3-week power back-up precision air-conditioning for maintaining optimal temperature levels. World-class hardware, software and networking infrastructure.

# PLANNING FOR DEVELOPING ONLINE MANAGEMENT - OFFLINE TRADING

## 2. Planning for online management – offline Trading

### 2.1 Defining the problem

1. Hamburger Firm has various branches all over the world, maintaining and controlling each branch manually becomes difficult.

2. Lot of paper work is involved in doing calculations in each and every branch. Thus maintaining that paper work becomes difficult.

3. Communication between branches is difficult; as a result the development of the entire firm is at stake.

4. Billing involves lot of calculations and is a time consuming process. Thus the goodwill of the firm is affected.

5. Interaction between the higher-level authorities and the branch managers is not frequently been done. As a result the important issues are rarely discussed.

There are various other problems, which exist by doing the operations manually. But the important one's are discussed above.

### 2.2 Computerized Solution Strategy

1. Develop a dynamic web site with discussion forums, e-mail, chat rooms where each branch can have interaction with the other branch. Also, the higher-level authorities can have interaction with the branch managers.

2. Also develop a database application, which involves billing, stock-details, purchase details, expenses, customer-details etc.

Now let's solve each and every problem in a computerized way

1. Develop discussion forums where communication between branches becomes easier.

2. Develop static pages where the history of the firm and the product details are stored

3. Develop a database application where all the information regarding stock, customer, purchaser, expenses, billing are stored and retrieved.

4. Automatic billing will have in-built calculations and will be done quickly. Thus the customer doesn't have to wit for a long time and the goodwill of the firm will be improved.

## 2.3    Processing Environment

## 2.3.1 Hardware

- Pentium II / above with sufficient hard disk.
- Minimum of 64 kbps modem with telephone line.
- 64 mb RAM
- Network Connection from any provider.

## 2.3.2 Software

For developer

- Operating system – Windows ME
- Personal web server (PWS) for running ASP Programs
- Internet Explorer (IE) 5
- MS FrontPage and Dream Weaver for creating HTML Pages.
- Coffee Cup 2000 for understanding JavaScript concepts.
- Cute FTP to upload files into the server.
- Oracle 8 for database connectivity.

For User

- Operating system – Windows 98 and above.
- Internet Explorer 5 and above to view the site.
- Network Connection.

## 2.4. Programming Languages and Development Tools

### *Active Server pages*

Microsoft Active Server Pages (ASP) is a server side-scripting environment that can be used to create and run dynamic, interactive, high performance web server applications.

When scripts run on the server rather than on the client, web server does all the work involved in generating the Hyper Text Mark Up language (HTML) that is sent back to browsers. The Browser need not process a web page server does all the processing.

ASP Applications

- Completely integrated into HTML files
- Easy to create, with no manual compiling or linking of programs required.
- Object – oriented and extensible with ActiveX components.

This enables web providers to provide interactive business applications rather than merely publishing content.

For Example, a travel agency beyond just publishing flight schedules. It can use ASP scripting to enable customers to check available flights, compare fares and also reserve a seat on a flight.

Since the output of an ASP program is standard HTML, ASP-generated content is compatible with all standard browsers.

5

Process of serving an active server page

- Browser sends a request to the server for an active server page
- The web server receives the request and recognizes that the request is for an ASP file because the requested file has the extension of .asp
- The web server retrieves the proper active server page file from disk or memory.
- The web server sends the file to a special program named the ASP.dll
- The ASP.dll processes the active server page from top to bottom. Any internal commands encountered are executed. The output of this process is a standard HTML file.
- The HTML is sent back to the browser.

## *Hypertext Mark up language*

### Web Page

Web is a collection of files known as web pages. These web pages can contain hyperlinks to link other web pages. A hyperlink can be any text or image which when clicked would display another web page. There may be one or more pages in the home page, which is the initial web page present in a web site.

HTML stands for Hypertext Markup Language, which is an application of standard generalized mark up language (SGML). It is a simple language used to define and describe the layout of a web page. HTML supports multimedia and document links.

HTML consists of special codes which when embedded in text, adds formatting. The special characters, which separate HTML from ordinary text, are left and right brackets (<>). These brackets contain instructions known, as tags are not case sensitive.

HTML comprises of three major elements that render a well-structured look for a document. Some of these elements are optional yet their usage assures a better performance.

- Head
- Body
- Footer

The first HTML tag <HTML> is used to identify a HTML document. The entire document should be written inside <HTML> </HTML> tags.

Title of the document can be included in the <Title> </Title> tags.

Elements also includes <Head>...</Head> tags physically identify the head of the document.

Both <Html> and <Head> tags are optional.

The next element namely, the body will contain the entire content for a web page. The content is enclosed within <Body>...</Body> Tags.

Almost 80% of HTML tags will occur within a document's body. Within the body, HTML footer can be included. It does not have any special tag as it is mainly used to identify document content, URL of the page, date of preparation of data, version number, author's name, e-mail, phone number and other details.

## Introduction to JavaScript

With the advent of Internet and worldwide web, interactive communications at an exigency has become a necessity for mankind. The World Wide Web is a cluster of pages of information, combining text, pictures and sound. Each page has a hyperlink that refers to another page on the net.

JavaScript is a scripting language used to enhance the functionality of the browser. Netscape offers a host of tools to add value to their applications. These tools aid web page developers and authors in adding dynamic interaction to information provided on the Internet.

JavaScript is integrated with HTML and Navigator 2.02. JavaScript facilitates the developer with properties related to document windows, frames, forms, loaded documents and links. This scripting language also traps user events so programs can be developed for such events. This is an interpreter-based language and source code files are directly executed at runtime. JavaScript includes built-in objects related to the current windows and documents as well as objects such as math, string and date that contain mathematical functions, string functions and date functions respectively. Since JavaScript is an object-based language, it supports instances, methods and properties.

Integrating with HTML

To integrate JavaScript into HTML, Netscape has extended the standard HTML tags with the script tag.

The syntax is:

```
<Script language ="JavaScript">

JavaScript Program

</script>
```

Brief Description about the Development Tools

*MS FrontPage*

A product developed by Microsoft to create web pages with the tools provided. It's user-friendly software, which helps in developing web pages in minutes. There is no need to write HTML coding, you just have to use the tools and the software will write the code for you.

## *Cute FTP Software*

It's File Transfer Protocol Software, which helps in uploading the file from the hard disk into the server. Before using this software you should have registered a web space into the server and the computer should have the network connection to operate the software.

## *Personal Web Server*

It's a server, which resides in your hard disk. Before uploading ASP files into the real server, it's better to check the ASP with PWS, which acts as a server in the local host.

It helps you in testing and debugging the ASP file before uploading into the web space.

## *Macromedia Dream Weaver*

This software is very much similar to MS-FrontPage, which helps in developing web pages. The difference, which I have observed in these two software's are that dream weaver supports Flash files, which is not possible through FrontPage.

## 2.5. Documents to be Prepared

1. Software Requirements Specification for each and every module in the project.
2. Design – external and internal design of the entire project.
3. User Manual – Brief description about the product.
4. Testing
5. Source Code documents.

## 2.6. User Characteristics

- Users of the Online Management Module will be the higher Level Authorities of the firm, branch managers and customers.
- Based on authentication such as username and password, the user will be allowed to confidential information and discussion forums.
- Since the user has no technical background the module is developed in a very user-friendly fashion and solves all his problems, which he encountered while doing it manually.
- For Offline trading module the users are branch managers and account managers. They are people who have to deal with day-to-day activities. Thus each and every form is developed based on the user's thinking in that particular form.

## 2.7. Solution Strategy

There is no alternative than making a dynamic web site, which helps in the communication between higher-level authorities and the branch managers. Also developing a database application for offline trading can best be solved using visual basic as front-end and oracle 8 as backend. And the solutions to the various problems, which a user faces has been understood and will be solved.

Solution for every problem in a computerized way

1. Develop discussion forums where communication between branches becomes easier.

2. Develop static pages where the history of the firm and the product details are stored

3. Develop a database application where all the information regarding stock, customer, purchaser, expenses, billing are stored and retrieved.

4. Automatic billing will have in-built calculations and will be done quickly. Thus the customer doesn't have to wit for a long time and the goodwill of the firm will be improved.

## 2.8. Product Features

Before a web site is hosted and developed, a prototype is being developed which will be tested and modified.

Prototypes, which are to develop, are for discussion forums and administration module.

A model has to be developed for discussion forums and should be tested as real-time model, analyze the functionalities about the model and make necessary corrections.
With respect to administration module, lot of concern should be made on security by applying various security protocols.

## 2.9. Acceptance Criteria

- Any user can view the general information about the site.

- A unique username and password will be given to each and every branch manager, which will be the key for him to enter the site.

- The higher-level authority makes registration. And the confidential information will be e-mailed to the branch manager. Every branch manager will be given a unique e-mail ID.

- An obvious criterion is that the user should have the network connection to enter the site.

## 2.10. Sources of Information

- The major sources of information were from the clients i.e. higher-level authorities of the hamburger firm.
- Regarding the outlook of discussion forums, various sites were visited which had discussion forums. Analyzed those forums and then designed our module.
- General interaction with the team members and analyzing the practical difficulties in each module.

# SOFTWARE REQUIREMENTS SPECIFICATION

## 3. Software Requirements Specification

## 3.1 Introduction

### 3.1.1. Purpose

1. To computerize the world-class hamburger firm in Germany.

2. The firm has 125 branches throughout Germany, thus maintaining each branch become difficult. This product might help them to overcome this difficulty.

3. Communication between branches is a major hurdle in the development of the firm. The product leads to better communication between branches with the development of discussion forums and chat rooms.

4. The product helps in sharing ideas and views of each branch regarding the recipes and the upcoming products.

5. Comparison between the branches regarding the performance becomes easier and quicker.

6. Accounting the net profit within each branch and the overall profit of the firm can be easily determined. Also the product supports billing of day-to-day activities.

7. Customer handling becomes easier and quicker which as a result improves the goodwill of the firm.

8. Product helps the higher-level authorities to communicate with the brach managers for the development of each branch.

## 3.1.2. Scope

1. Product provides lot of support both internally and externally of the organization.

2. The firm had difficulties in maintaining records and development of individual branch, which can now be solved using the product.

3. The firm had difficulties in communicating between branches which can be overcome using the product which has discussion forums.

4. Lot of manual calculations can be avoided. Billing becomes easier and convenient, thus at higher-level net profit can be easily calculated for each branch.

5. Lot of paper work can be reduced; customer and product details can be stored and retrieved in an easier and quicker fashion.

6. Product leads to better customer handling.

## 3.1.3 Overview

1. Project has two major modules: -
   - Online Management
   - Offline Trading

2. Online Management further has six sub modules they are: -
   - History about the Company.

     This Module generally has the textual information about the origin of the company, it's higher-level authority details and it's employee details.

   - Branches all over the world.

This module has the information about the various branches the firm and the precise history about each branch.

➤ Discussion Forums

This module is developed for better communication between branches. Here the question will be raised by one branch and the answer in more than one form will be retrieved from the other branch. Also the communication between the higher-level authorities and the branch managers becomes easier and convenient.

➤ E-mails

The firm gives an E-mail ID to each branch. Some personal and confidential information can be shared using the E-mail facility. Also the daily reports have to be forwarded to the headquarters using this facility.

➤ Online Ordering

Online Management module also provides the facility to order the food products you want Online. Credit card is the mode by which the billing transactions take place. Based on the customer's location, the order will be forwarded to the particular branch.

➤ Recipes

This module provides textual information about the product recipes. The customer who visits the site can access this module.

3. Offline Trading

This module will be developed which will be independent to each branch, which carries out the day-to-day activities of the branch.

It has six sub modules they are: –

> ## Billing

This module carries out the billing operation based on the customer's order. The final amount and the mode of payment will be stored in the database.

> ## Customer Information

This Module is basically being designed to keep the track record of the customer. It also helps in communicating with the customers on special occasions and provides information on special offers.

> ## Product Information

This module generally provides the information about the product and the price list for the products set by the higher-level authorities.

> ## Employee Details

This module stores the personal information of each employee serving to the firm.

> ## Stock Information

This module keeps track record of how many products sold, how many brought from the production unit, how many got spoiled etc. As a result the net stock is determined.

> ## Expenses

Every branch has direct and indirect expenses. Various forms of expenses are salary, wages, transportation, electricity, maintenance and miscellaneous expenses. Every branch should store each and every expense meticulously and then pass on the report to the headquarters.

## 3.2. General Description

### 3.2.1. Product Perspective

As the product has two important modules
- Online Management and
- Offline Trading

For Online Management the tools used are: –

1. Active Server Pages (ASP) for developing Dynamic web pages like Authentication page, Customer Information page, Feedback page etc.

2. Active Server pages (ASP) for developing discussion forums and chat rooms.

3. Hyper Text Markup Language (HTML) / Microsoft FrontPage / Macromedia Dream weaver for developing static web pages.

4. Personal Web Server for testing and debugging the dynamic web pages.

5. Cute FTP Software for uploading files into the server.

6. Platform used for running this module is Windows and the files stored in the server uses Windows NT platform.

7. Browser used for viewing the site is Internet Explorer 5 / Netscape Navigator.
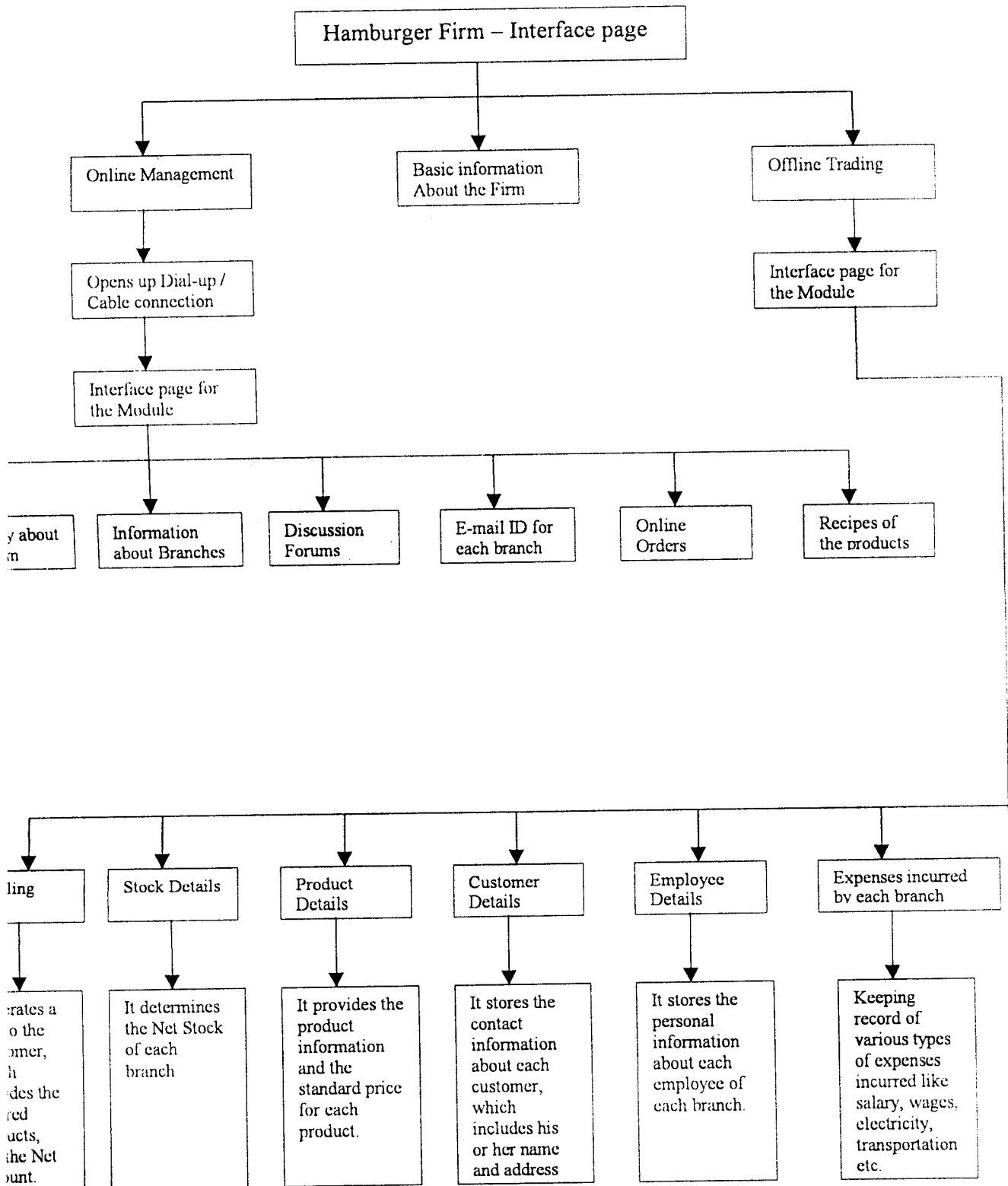
For Offline Trading the tools used are: –

1. Visual Basic 6.0 for designing the forms.

2. Oracle 8 as a database

3. Macromedia Flash for designing the Forms and web pages.

4. Platform used for running this module is Windows.

## 3.2.2 Product Functions

```
                    ┌──────────────────────────────────┐
                    │  Hamburger Firm – Interface page  │
                    └──────────────────────────────────┘
         ┌──────────────────────┬──────────────────────────┐
         ▼                      ▼                           ▼
┌──────────────────┐  ┌──────────────────┐      ┌──────────────────┐
│ Online Management│  │ Basic information│      │ Offline Trading  │
│                  │  │ About the Firm   │      │                  │
└──────────────────┘  └──────────────────┘      └──────────────────┘
         ▼                                                 ▼
┌──────────────────┐                          ┌──────────────────┐
│ Opens up Dial-up/│                          │ Interface page for│
│ Cable connection │                          │ the Module        │
└──────────────────┘                          └──────────────────┘
         ▼
┌──────────────────┐
│ Interface page for│
│ the Module        │
└──────────────────┘
```

| y about ·n | Information about Branches | Discussion Forums | E-mail ID for each branch | Online Orders | Recipes of the products |
|---|---|---|---|---|---|

| ling | Stock Details | Product Details | Customer Details | Employee Details | Expenses incurred by each branch |
|---|---|---|---|---|---|
| :rates a o the )mer, h ·des the ·ed ucts, ·he Net )unt. | It determines the Net Stock of each branch | It provides the product information and the standard price for each product. | It stores the contact information about each customer, which includes his or her name and address | It stores the personal information about each employee of each branch. | Keeping record of various types of expenses incurred like salary, wages, electricity, transportation etc. |

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## 3.2.3 User Characteristics

1. Users of the product are generally the managers of each branch.

2. Branch Managers are the people who have a direct link to the customer and who give the bill to the customer in a computerized form.

3. Higher Level Authorities are also the user of the product who communicates with the branch managers.

4. General Customers are the least users of the online management product to get the general information about the company and the product, which they are selling.

## 3.2.4. General Constraints

1. Security of Information within the firm is at risk. A good security tool like SSL should be applied to overcome this hurdle.

2. All the details of the firm are stored in the server, if server collapses everything leads to chaos. Thus a good server should be provided and maintained.

## 3.2.5. Assumptions and Dependencies

1. Product will function in any windows platform with Internet Explorer / Netscape Navigator.

2. Based on the username and password the branch manager is being identified.

3. Chat Rooms and Discussion forums are developed for branch manager's to communicate.

## 3.3 Specific Requirements

### 3.3.1 External Interface Requirements

Network Connection and the browser are required in order to access the Online Management module. There will be information about the firm, address of various branches, links to discussion forums and online ordering. E-mail ID will be given to each branch. No other software or tool is required to view the site.

With respect to offline trading some references has to be loaded into your system for visual basic product to run successfully. Also Flash has to be loaded to view certain clipping made in flash. This software will be loaded while installing the product into the system.

### 3.3.2. Functional Requirements

As mentioned in the product functions the online management and offline trading will function independently and will have no correlation with each other.

The graphical representation of how the entire product works is described in the previous Illustration.

### 3.3.3. Performance Requirements

Online Management is being developed using windows platform and the remote server where the file resides are stored in Windows NT Platform. It is advisable that user uses windows based machines from Pentium – I and upward so that he/ she will not have real problems in accessing and viewing the site.

### 3.3.4. Design Constraints

The team focuses the following problems with designing the project: –

1. Analyzing the activities happening in the firm.

2. Giving priorities to the major activities.

3. Planning of how to transform those activities into a computerize form.

4. Modifying some functions, which have problems in doing manual operations, so that the product solves those problems and helps the user.

5. Meeting time limitations.

6. Meeting user expectations.

This implies that we have to set realistic goals for the project. We will do our best to meet those goals.


## 3.3.5. Attributes

The product will have the following attributes: –

➤ Security: Each and every branch will be given a unique username and password to ensure the safety of information communicated.

➤ Availability: (based on the availability of the server) 24 hours a day, 365 days a year

➤ Maintainability: Product will adopt the most readable and understandable document methods for future modifications.

# SYSTEM DESIGN AND DEVELOPMENT

## 4. System design and development

## 4.1. Logical system design

## 4.1.1. Data Dictionary

*Online Management Module*

Table definitions

Table Name    :    Questionnaire

Primary Key    :    Name of the Questionnaire

Foreign Key    :    Nil

Column Definition

| Field Name | Data type | Width | Null |
|------------|-----------|-------|----------|
| Name | Varchar | 15 | Not Null |
| Title of Question | Varchar | 25 | Not Null |
| Question | Varchar | 150 | Not Null |
| Date | Date / Time | – | Not Null |

Table Description

| Column Name | Description |
|-------------|-------------|
| Name | Keyed in by the questionnaire. Name of the person should not exceed more than 15 characters. Also only characters are allowed. Textbox is a component used. |
| Title | Here the title of the question should be entered. Textbox is a component used. |
| Question | Here question is entered. Text area component is used. |
| Date | This field is automatically stored based on the current date. No component is used. |

Table Name   :   Replier

Primary Key   :   Name of the Questionnaire

Foreign Key   :   Nil

Column Definition

| Field Name | Data type | Width | Null |
|---|---|---|---|
| Name | Varchar | 15 | Not Null |
| Title of Reply | Varchar | 25 | Not Null |
| Reply | Varchar | 150 | Not Null |
| Name of Questionnaire | Varchar | 15 | Not Null |
| Date | Date / Time | - | Not Null |

Table Description

| Column Name | Description |
|---|---|
| Name | Keyed in by the Replier of the person should not exceed more than 15 characters. Also only characters are allowed. Textbox is a component used. |
| Title | Here the title of the answer should be entered. Textbox is a component used. |
| Answer | Here the reply is entered. Text area component is used. |
| Date | This field is automatically stored based on the current date. No component is used. |
| Name of the questionnaire | This is a primary key. Here the contents are automatically stored based on the contents of the previous table. |

Table Name　　　:　　Authentication

Primary Key　　　:　　username, password

Foreign Key　　　:　　Nil

Column Definition

| Field Name | Data type | Width | Null |
|---|---|---|---|
| Username | Varchar | 15 | Not Null |
| Password | Varchar | 15 | Not Null |

Table Description

| Column Name | Description |
|---|---|
| Username | Keyed in by the authentic user. Username should not exceed more than 15 characters. Also only characters are allowed. Textbox is a component used. |
| Password | Keyed in by the authentic user. Alphanumeric characters are allowed. Textbox is a component used. |

*Offline Trading*

Table definitions

Table Name        :        stock

Primary Key       :        product Number

Foreign Key       :        Nil

Column Definition

| Field Name | Data type | Width | Null |
|---|---|---|---|
| Product Name | Varchar | 15 | Not Null |
| Product Number | Number | 6 | Not Null |
| Stock purchased | Number | 6 | Not Null |
| Stock sold | Number | 6 | Null |
| Purchase price | Number | 4 | Not Null |
| Selling price | Number | 4 | Not Null |
| Balance | Number | 6 | Not Null |

Table Description

| Column Name | Description |
|---|---|
| Product Name | Keyed in. Should not exceed more than 15 characters. Also only characters are allowed. Textbox is a component used. |
| Product Number | Keyed in. Should not exceed more than 6 digit numbers. Also only numbers are allowed. Textbox is a component used. |
| Stock Purchased | Keyed in. Stock purchased by the branch is entered. Also only numbers are allowed. Textbox is a component used. |
| Stock Sold | Keyed in. Stock sold by the branch is entered. Also only numbers are allowed. Textbox is a component used. |
| Purchase Price | Keyed in. purchase price of the product is entered. Also only numbers are allowed. Textbox is a component used. |
| Selling Price | Keyed in. Selling price of the product is entered. Also only numbers are allowed. Textbox is a component used. |

| | |
|---|---|
| Balance | Automatically generates the difference between stock purchased and stock sold. |

Table definitions

| | | |
|---|---|---|
| Table Name | : | Customer details |
| Primary Key | : | Customer Number |
| Foreign Key | : | Nil |

Column Definition

| Field Name | Data type | Width | Null |
|---|---|---|---|
| Customer Name | Varchar | 15 | Not Null |
| Customer Number | Number | 6 | Not Null |
| Address | Varchar | 50 | Not Null |
| Phone number | Number | 8 | Null |
| D.o.b | Date / time | – | Not Null |

Table Description

| Column Name | Description |
|---|---|
| Customer Name | Keyed in. Should not exceed more than 15 characters. Also only characters are allowed. Textbox is a component used. |
| Customer Number | Keyed in. Should not exceed more than 6 digit numbers. Also only numbers are allowed. Textbox is a component used. |
| Address | Keyed in. Address of the customer is entered. Also alphanumeric characters are allowed. Textbox is a component used. |
| Phone Number | Keyed in. Phone Number of the customer is entered. Also only numbers are allowed. Textbox is a component used. |
| D.O.B | Keyed in. Date of birth of the customer is entered. Date picker component is used. |

## Table definitions

Table Name    :    Purchaser Details

Primary Key   :    Purchaser Number

Foreign Key   :    Nil

## Column Definition

| Field Name | Data type | Width | Null |
|---|---|---|---|
| Purchaser Name | Varchar | 15 | Not Null |
| Purchaser Number | Number | 6 | Not Null |
| Address | Varchar | 50 | Not Null |
| Phone number | Number | 8 | Null |

## Table Description

| Column Name | Description |
|---|---|
| Purchaser Name | Keyed in. Should not exceed more than 15 characters. Also only characters are allowed. Textbox is a component used. |
| Purchaser Number | Keyed in. Should not exceed more than 6 digit numbers. Also only numbers are allowed. Textbox is a component used. |
| Address | Keyed in. Address of the purchaser is entered. Also alphanumeric characters are allowed. Textbox is a component used. |
| Phone Number | Keyed in. Phone Number of the purchaser is entered. Also only numbers are allowed. Textbox is a component used. |

Table definitions

Table Name        :        expenses

Primary Key       :        date of expense

Foreign Key       :        Nil

Column Definition

| Field Name | Data type | Width | Null |
|---|---|---|---|
| Date of expense | Date / time | – | Not Null |
| Type of expense | Varchar | 50 | Not Null |
| Amount | Number | 6 | Not Null |

Table Description

| Column Name | Description |
|---|---|
| Date of expense | Selected from the date picker component |
| Type of expense | Keyed in. It accepts only characters. |
| Amount | Keyed in. Here only numbers are entered. |

## 4.2. Input Design

Input design is a process of converting user-organized input into computer-based format. To enter the various data captured through the paper forms into the system, screens are designed. The elements are shown in the screen by which any user or customer can easily follow. The input to the system was designed such that the required information can be collected and corrected quickly.

The goal of input design is to make data entry easier, logical and free from errors. The decisions made during input design are:

- To provide cost-effective methods of input.
- To achieve the highest possible level of accuracy.

- To ensure that input is understood by user.

Input data of a system may not necessarily be raw data captured into the system. These can also be output of another system or subsystem. The design of input covers all phases of input from the creation of initial data to actual entering of data into the system for processing. It involves identifying the data need, specification the characteristics of each data item, ensuring correctness of data.

Here in this project, the user has to fill in the personal details so that it will be stored for further processing. This is like ho he enters his username and password and how he fills the registration form. Further, the user can move into the staff maintenance page, project maintenance page or to timesheet page. In this manner the input data is secure and it is stored in the database forever.

## 4.3. Output Design

The output is designed in terms of data content and approximate layout. The information required by the management is also taken into consideration. Output design refers to the results and information that are generated by the system. For many end-users, output is the main reason for developing the system on the basis on which they will evaluate the usefulness of this application.

Output of a system can take various forms. The most common are reports, screen displays, printed forms, graphical drawings etc. the basic requirements of output are that it should be accurate, timely and appropriate in terms of content, medium and layout for its intended purpose. Hence it is necessary to design output, so that the objective of the system is met in the best possible manner.

They are three types:

- External output are those whose destination will be outside the organization and which requires special attention.

- Internal outputs are whose destination is within the organization and to be carefully designed, as they are the users of main interface with the system.

- Interactive output are those, which the user uses in communicating directly with the computer.

# SYSTEM TESTING AND IMPLEMENTATION

## 5.    System Testing and implementation

## 5.1    Testing

Testing is an important phase in software development and application development in the World Wide Web. Testing will lead to an error free application for the client.

For Online management - Offline Trading there is a need for six types of testing. They are: -

Unit Testing

Validation Testing

Integration Testing

Output Testing

Acceptance Testing

User Acceptance Testing

### 5.1.1    Unit Testing

Unit Testing comprises the set of tests performed by an individual programmer prior to the integration of the unit into the large system. A program unit is usually small enough that the programmer who developed the unit can test it. Then the unit is integrated into the large part of the system. Unit testing is always white-box oriented and the step can be conducted in parallel for modules.

### 5.1.2    Validation Testing

Software Testing and validation is achieved through a series of black box tests that demonstrate conformity with the requirements. A test plan outlines the classes to test to be conducted and a test procedure defines specific test cases that will be used to demonstrate conformity with the requirements. Both, the planned procedures are designed to ensure that all functional requirements are archived, documentation is correct and

other requirements are met. After each validation test case has been conducted, one of the two possible conditions exists.

They are:

The function or performance characteristics conform to the specification and are accepted.

A deviation from specification is uncovered and a deficiency list is created.

This project is validated under different test conditions. The requirements as per the specification are met. The performance is tested at full capacity of users, accessing, saving and modifying the alumni details.

## 5.1.3  Integration Testing

Bottom-up integration is the traditional strategy to integrate the components of the software system into the functional unit. Bottom-up integration consists of unit testing of the entire system.

Modules are tested in isolation from one another in an artificial environment, known as a "test harness", which consist of the driver programs and data necessary to exercise the modules.

Moreover integration testing addresses the issues associated with the dual problem of verification and program construction. After the application has been integrated a set of high-order tests were conducted.

## 5.1.4  Output Testing

The outputs are tested thoroughly by giving sample data, for which results are known. The outputs from the system are matched with that of the known values and the results are found to be accurate. Test data of about 10n username are validated on the registration form. The results were found to be accurate.

## 5.1.5 Acceptance Testing

Acceptance Testing involves planning and execution of functional tests, performance tests, and stress tests in order to demonstrate that the implemented system satisfies its requirements.

In addition to functional performance tests, stress tests are performed to determine the limitations of the system. Tools of special importance during acceptance testing include a test coverage analyzer, a timing analyzer and a coding standard checker.

Testing is the process of executing test cases with the intension of exposing the errors.

## 5.2    System Implementation

Implementation is the stage where the theoretical design is converted into working system. It consist of

Testing and Debugging

Error Correction

Training the user

Change over

Implementation includes equipments installation and user training. For the system to begin operation, a sufficient number of users have been trained to the system. Several hours were scheduled for a number of users so that they were able to fully understand the new system and had an opportunity to familiarize themselves with various input screens and generation of output.

The change over is another important aspect of the implementation process and had to be handled carefully.

The existing system is changed to the new system and the system is found to meet its objectives. Data from the previous system, static contend is ported to the new system and the result produced are compared with that of previous system. The new system is found to satisfy the user needs.

It allows the result to the new system to be compared with the old system before acceptance by the user, thereby promoting the user confidence.

## 5.3     Maintenance of the system

It is very essential to maintain any system. The categories in maintenance namely perfect, adaptive and corrective maintenance are used in maintaining the system.

The web pages are updated regularly. The dead links are checked and removed as soon as it is found in any pages. The web server performance is monitored at equal intervals of time.

The database records are backed up at regular intervals of time. The search pages are improved for the user to browse them without any trouble. The users with lowest modem configuration can view the web pages without any long result pages.

# CONCLUSION

Conclusion

I wish the product online management – offline trading which is being developed for an hamburger firm, helps in doing their day-to-day activities more efficiently and effectively.

I personally feel that the entire product is developed based on the client's requirements.

I also feel that the product is very user-friendly and requires no technical experience and knowledge to operate it.

I thank the entire team for helping me to play an effective role in this project. Without the team's co-operation and understanding the project wouldn't have been completed successfully.

I wish "All the Best" to higher-level authorities of the client who will be controlling the entire product. I also warn them about the security of the site.

Thus I would like to conclude that the product is developed very efficiently, keeping in mind the client's requirements and the technology available.

# SCOPE FOR FUTURE ENHANCEMENTS

## 7. Scope for future enhancements

The product online management – offline trading is an on-going activity, which will be developed and enhanced based on the necessity.

Upcoming things to the product are: –

- A user manual will be prepared which will provide the entire operation of the product.

- Maintaining the product and providing the offline-services to the client is a major factor.

- Product is developed in a way, which can always be updated based on the techniques and tools available.

- More and more static information will be added, as per the requirements of the client.

- Better and better algorithms for security will be updated, for safety of information in the product.

- Database administration will be checked frequently until the client gets familiar to it.

# GLOSSARY

## 8.   Glossary

ASP   –   Active Server Page

IIS   –   Internet Information server

HTML –   Hyper Text Markup Language

ODBC –   Open Database Connectivity

PWS   –   Personal Web Server

SQL   –   Structured Query Language

WWW   –   World Wide Web

XML   –   Extensible Markup Language

SGML –   Standard Generalized Markup Language

DLL   –   Dynamic Link Library

FTP   –   File Transfer Protocol

HTTP –   Hyper Text Transfer Protocol

SRS   –   Software Requirements Specification.

# REFERENCES

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- Practical ASP, Ivan Bayross, BPB (p) Ltd.1999

- ASP using Visual Interdev, SSI Press

- Software Engineering Concepts, Richard Fairley, Tata McGraw-Hill 1999.

- Software Engineering Principles, Roger Pressman.

- HTML Complete Reference – Patrick Naughton, Prentice-Hall of India Pvt. Ltd. 1997.

- Hyper Text Markup Language, SSI Press

- Concepts of JavaScript, SSI Press

- Java script Bible, Eric Smith, IDG Books India (p) Ltd. 1999.

- Black book of Visual Basic

## 9.2. Web – Sites

- www.google.com which is a major search engine

- www.photo.net, which is an online photographic community.

- www.arsdigita.com, which provides books on how to develop discussion forums.

- www.aspupload.com which provides concepts of ASP

- www.aspforums.com, which provides the different prototypes of discussion forums.