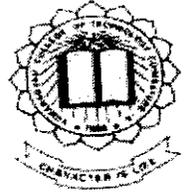


P-3273



KNOWLEDGE BASED SYSTEM FOR TECHNOLOGY ISSUES

PROJECT REPORT

Submitted By

R.VISWANATHAN

Register No.: 0720300056

*in partial fulfillment for the award of the degree
of*

MASTER OF COMPUTER APPLICATIONS

in

COMPUTER APPLICATIONS

KUMARAGURU COLLEGE OF TECHNOLOGY

(An Autonomous Institution Affiliated to Anna University, Coimbatore)

May, 2010

KUMARAGURU COLLEGE OF TECHNOLOGY

(An Autonomous Institution Affiliated to Anna University, Coimbatore)

COIMBATORE – 641 006.

Department of Computer Applications

PROJECT WORK

MAY 2010

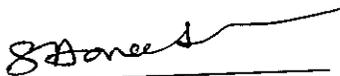
This is to certify that the project entitled
**KNOWLEDGE BASED SYSTEM FOR
TECHNOLOGY ISSUES**

is the bonafide record of project work done by

R.VISWANATHAN

Register No: 0720300056

of MCA (Computer Applications) during the year 2009-2010.

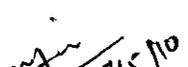


Project Guide



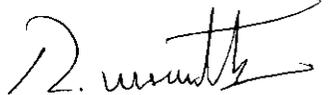
Head of the Department

Submitted for the Project Viva-Voce examination held on 17/05/2010



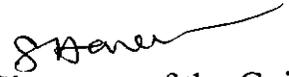
DECLARATION

I affirm that the project work titled **KNOWLEDGE BASED SYSTEM FOR TECHNOLOGY ISSUES** being submitted in partial fulfilment for the award of **MASTER OF COMPUTER APPLICATIONS** is the original work carried out by me. It has not formed the part of any other project work submitted for award of any degree or diploma, either in this or any other University.


(Signature of the Candidate)

Viswanathan.R
(0720300056)

I certify that the declaration made above by the candidate is true


Signature of the Guide,
(S. HAMEED IBRAHIM)
SENIOR LECTURER

With Name & Designation



April 20 2010

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Viswanathan R** has worked with our organization as a part of **Knowledge Base System for Technology Issues** team from December 2009 to April 20, 2010. He used the following technologies to accomplish his role in the project, they are:

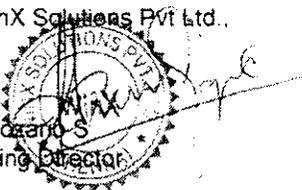
- Dot net framework 2.0
- SQL SERVER 2005
- Ajax
- Microsoft visual studio 2005

During his tenure in the project, his performance was good and to the satisfaction of the team management.

We wish him all the success in his project completion.

For WinX Solutions Pvt Ltd.,

Arun Rangan S
Managing Director



ACKNOWLEDGEMENT

First of all, I wish to thank the almighty who have blessed me with good health and wealth to carry out this project successfully.

I wish to express my sincere thanks to **Dr. S. Ramachandran**, Principal, Kumaraguru College of Technology, Coimbatore, for permitting me to undertake this project.

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My deepest acknowledgement to the project Co-ordinator and project guide , **Mr. S. Hameed Ibrahim**, Senior Lecturer, Master of Computer Applications, Kumaraguru College of Technology, Coimbatore, for his timely remarks and comments about the project, which helps us to improve our knowledge and project. His excellent suggestions and timely encouragement helped me complete the project and the project report.

I also wish to thank **Mr. Magesh**, Project Manager, Win X Solution Private Limited, Chennai for giving me inspiration and support for doing my project.

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ABSTRACT

The knowledge base application helps the user to store information based on categories. Use it to share knowledge with others. Publish and manage articles, post forums for online help and any other type of information. It can be used by teams to share information about their projects or disseminate information about known issues in their applications. It has been developed using ASP.Net 2.0 with SQL Server 2005 as back end.

New users to the application can perform only a category wise search or view the questions posted and the answers for those questions. They can not post a reply for a question or post a new question or article, they should register in order to post a new question or to answer for a question posted.

Registered users can perform a category wise search, post a new question or post answers for the question already posted. Registered users enjoys the maximum benefit in the application, they can view the profile of every other users and the articles posted by each users. They can edit their own profile details, upload profile photo.

Forum Module in which the user can post their articles, questions and reply to the postings which are posted by the other users. This Module facilitates the user to post their questions, answers and articles based on the category. It also consists of the different forums from the various topics available.

Search module is used to search a query based on the category. User can select a category from the available category list and all the postings which are related to the selected category are populated below.

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CHAPTER-1

INTRODUCTION

1.1 ORGANISATION PROFILE

WinX Enterprise Solutions, Inc. was founded in October, 1998 by Ken Tsoi with one vision - "Provide Web based Enterprise class software solutions to businesses at an affordable price". In a mission to realize this vision, WinX Enterprise Solutions, Inc. and Global Technology Partners at India joined forces and setup an off-shore development center, WinX Solutions Private Ltd in Chennai, India in 2001. Since its inception we have provided enterprise class applications to clients on time and on budget, thanks to our highly skilled resource pool.

By using the latest technologies, we are able to provide our clients scalable and feature rich software solutions in a short period of time and low cost of ownership. All of our customized software solutions or Off-the-shelf products are affordable without compromise of quality or reliability.

At WinX we are privileged to work very closely with clients. Our interaction with clients and our on site experience in client environments has helped us feel the pulse of our clients. That is why at WinX we take utmost care to communicate very clearly and clarify that we have understood the requirements of our client before beginning any project. Our communication-monitoring group, to ensure that there is no miscommunication, monitors all communication with clients with the state-of-art tools. Our clients are allocated with dedicated teams for the duration of the project along with a project manager. Our clients are also well informed of the status of the project and for web based applications can check the status directly at our development servers. At WinX we promise only what we can deliver and we make it a point to deliver what was promised. If you want hassle free development teams then WinX is where you can find it.

WinX Enterprise Solutions, Inc. has just one vision - to be your one and only reliable source for all your IT needs. To make this vision a reality our range of services

Custom Software Solutions

Each domain has unique needs, so does each client. To help clients get the best out of their investment we carefully study their business demands before suggesting any solution. WinX Enterprise Solutions, Inc. aims at providing cost effective solutions, every time. With customer satisfaction as the nucleus of our operations, our clients can be sure that they always get the right solutions for their business. At WinX we don't try to sell a solution that is easy for us to develop but we sell a solution that can do wonders for your business.

Off-The-Shelf Products

WinX Enterprise Solutions, Inc. has used its skilled pool of resources to engineer off-the-shelf products that are easy to deploy and have a short learning curve. WinX Enterprise Solutions, Inc. continues to build software products that address the needs of diverse business domains. All products developed in WinX are available for deployment on clients' own servers or as an ASP model hosted by us.

Hardware / Networking solutions

WinX Enterprise Solutions, Inc., on request provides, hardware and networking solutions for our client needs. We don't believe in packing a system with large memory and the latest processor when your need doesn't demand it. Clients can thus be sure that they are getting an effective solution at a price that is well within reach. And not to forget that we build systems only with genuine components, you can demand what brand you want.

Hosting solutions

WinX Enterprise Solutions, Inc. has expanded its service line to include hosting solutions to provide clients a dependable and affordable hosting medium. Why be worried about availability and security while you can let us handle it for you. Choose our hosting solutions today so that you can start focusing on your business for a better tomorrow.

1.2 OBJECTIVES

The knowledge base application helps the user to store information based on categories. Use it to share knowledge with others. Publish and manage articles, post forums for online help and any other type of information. It can be used by teams to share information about their projects or disseminate information about known issues in their applications.

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Search module is used to search a query based on the category. User can select a category from the available category list and all the postings which are related to the selected category are populated below. The search is been categorized in order to filter and provide a finer result. The user can not only search by the category, the user can also do a keyword search within a particular category. In this kind of search, the result will be displayed based on the keyword entered. Search results are displayed as topics or posts. The articles are displayed in a categorized way which makes it easy to navigate the knowledge base and find the answer for question in less amount of time.

CHAPTER-2

SYSTEM ANALYSIS

2.1 EXISTING SYSTEM ARCHITECTURE

- There is no existing system.
- They communication between the members are face to face.
- So, loss of information is highly possible.
- Information is not store and not maintain for the future use.
- New system as to procedure for the problem which raised in the current scenario.

2.2 PROPOSED SYSTEM ARCHITECTURE

- Business Intelligence
 - Analysis services
 - Integrated services
- Security code injection
 - Cross - site scripting is handled
 - SQL Injection is handled
- The information processed on the system is stored in the database.
- The information acts as a data warehouse for the knowledge based system.

2.3 FEASIBILITY STUDY

The main purpose of feasibility study is to determine the problem is worth solving. Feasibility study is high-level capsule version of the extra system analysis and design process. The success of a system also lies in the amount of feasibility study done on it. There are three main feasibility tests performed. They are

2.3.1 Economical Feasibility

This is the most important aspect that has to be critically evaluated. The costs and benefits have to be estimated. Considering the cost factor, the system will be economically feasible.

2.3.2 Operational Feasibility

During feasibility analysis, operational feasibility study is necessary as it ensures that the project developed is successfully implemented in the organization. According to software engineering principles, operational feasibility or in other words usability should be high. In this project, a thorough analysis is done and found that the system is operational.

2.3.3 Technical Feasibility

Technical feasibility takes care of the technical issues that are to be tested to see whether the system is feasible. Technical feasibility analysis makes a comparison between the levels of technology available and the technology that is needed for the project. The level of technology is determined by factors such as the software tools available, the machine environment, platform etc since, the resource required for the development of the project is already available, and this project is technically feasible.

CHAPTER-3

SYSTEM SPECIFICATION

3.1 HARDWARE REQUIREMENTS

Processor	:	Pentium IV 2.4 GHz
RAM	:	2 GB
Hard Disk	:	80 GB
Keyboard	:	104 Keys
Mouse	:	Optical mouse
Monitor	:	17 inches

3.2 SOFTWARE REQUIREMENTS

Web Server	:	ASP.Net Development Server
Front End	:	ASP.Net 2.0
Back End	:	SQL Server 2005
Operating System	:	Windows XP Professional

CHAPTER-4

SOFTWARE DESCRIPTION

4.1 FRONT END

ASP.NET, the Microsoft replacement for classic Active Server Pages (ASP) web programming technology, implements .NET and has a .NET class library. ASP.NET, as with all other .NET technologies is completely language independent. ASP.NET 2.0 is a monumental upgrade for ASP.NET including many "boiler-plate" controls to dramatically reduce the amount of code a developer writes. The design of ASP.NET 2.0 followed the overall .NET redesign task of allowing developers to write 70% less code as compared to what would be required using .NET 1.x.

The .NET framework is the infrastructure for the new Microsoft .NET platform. It is a common environment for building, deploying, and running web services and web applications. ASP.NET and Web Services are the main components of what is called the .NET framework. One of the most significant features of the .NET framework is it enables code written in multiple languages to work together seamlessly. One of the significant improvements in ASP.NET is the way the code is handled at run time. Instead of interpreting the page source each time a client requests a page; ASP.NET seamlessly compiles the page to Microsoft intermediate language (MSIL) code the first time the page is requested. Once the page is compiled in MSIL, the just-intime (JIT) compiler converts the MSIL to native code. Layered on top of the system services is the CLR which loads and runs code written in any language which targets the runtime. The .NET Framework classes provide classes that can be called from any .NET enabled language. On the top of the .NET Framework class library is ADO.NET and XML data. ADO.NET is a set of classes that provide data access support for the .NET Framework based on ADO but to work with XML and work in a disconnected environment. On top of ADO.NET and XML lies specific support for two different types of applications. One is the traditional client application that uses window Forms and the other is ASP.NET which offers Web Forms and XML Web Services. On top of these is the common language specification which ensures that each language has a common set of features.

4.2 FEATURES

The .NET Framework includes a new data access technology named ADO.Net, an evolutionary improvement to ADO. Though the new data access technology is evolutionary, the classes that make up ADO.Net bear little resemblance to the ADO objects with which you might be familiar. Some fairly significant changes must be made to existing ADO applications to convert them to ADO.Net. The changes don't have to be made immediately to existing ADO applications to run under ASP.Net, however.

ADO will function under ASP.Net. However, the work necessary to convert ADO applications to ADO.Net is worthwhile. For disconnected applications, ADO.NET should offer performance advantages over ADO disconnected record sets. ADO requires that transmitting and receiving components be COM objects. ADO.Net transmits data in a standard XML-format file so that COM marshaling or data type conversions are not required.

4.3 BACK END

SQL Server 2005's (formerly code named Yukon) integration with the .NET CLR makes it possible for developers to author stored procedures, triggers, user defined functions, and create other database objects using a managed language such as VB.NET or C#. This excellent feature provides a number of benefits, including increased productivity, significant performance gains, and the ability to leverage the features of .NET Code Access Security to prevent assemblies from performing certain operations. This article takes a look at this new CLR integration feature so you can understand how to create stored procedures in SQL Server using a managed language. You'll also see how to leverage .NET code access security to better control the assembly execution environment. Despite the benefits, it isn't appropriate to use .NET code for *every* stored procedure you write, so you'll see how to decide when to use T-SQL and when to use a .NET language for creating SQL Server stored procedures.

.NET CLR and SQL Server Integration

In previous versions of SQL Server, database programmers were limited to using Transact-SQL when creating server side objects such as stored procedures, triggers, user defined functions and so on. But the integration of SQL Server with .NET CLR opens up an avenue of wholly new opportunities. Before discussing the features of the .NET CLR integration with SQL Server, its important understand the limitations of T-SQL for creating server side objects.

Transact-SQL (T-SQL) is an extension of the Structured Query Language as defined by the International Standards Organization (ISO) and the American National Standards Institute (ANSI). Using T-SQL, database developers can create, modify and delete databases and tables, as well as insert, retrieve, modify and delete data stored in a database. T-SQL is specifically designed for direct data access and manipulation. While T-SQL can be very useful for data access and management, it is not a full-fledged programming language in the way that Visual Basic .NET and C# are. For example, T-SQL does not support arrays, strongly typed objects, collections, for each loops, bit shifting, classes and so on. While it's possible to simulate some of these constructs in T-SQL, managed code based languages such as VB.NET or C# have first-class support for them.

With CLR integration, things have changed dramatically. The CLR provides the execution environment for all the server side objects created using a .NET language. This means that database developers can now perform tasks that were impossible or difficult to achieve with T-SQL alone. The new integration allows you to more easily organize and maintain your code investments, especially when working with large amounts of server code. Unlike traditional stored procedures, this approach lets developers create code utilizing object-oriented concepts such as encapsulation. By allowing the code to run under the control of .NET CLR, you can also leverage the code access security features of .NET. Before executing code, the CLR can check to see if the code is safe. This process is known as "verification." During verification, the CLR performs several checks to ensure that the code is safe to run. For example, it checks the code to ensure that it doesn't try to read from

CHAPTER-5

PROJECT DESCRIPTION

5.1 OVERVIEW OF THE PROJECT

The knowledge base application helps the user to store information based on categories. Use it to share knowledge with others. Publish and manage articles, post forums for online help and any other type of information. It can be used by teams to share information about their projects or disseminate information about known issues in their applications.

5.2 MODULE DESCRIPTION

5.2.1 USER MODULE

New users to the application can perform only a category wise search or view the questions posted and the answers for those questions. They can not post a reply for a question or post a new question or article, they should register in order to post a new question or to answer for a question posted.

Registered users can perform a category wise search, post a new question or post answers for the question already posted. Registered users enjoys the maximum benefit in the application, they can view the profile of every other users and the articles posted by each users. They can edit their own profile details, upload profile photo.

Apart from this the user has change password, forget password features available. When the user is logged into the application, the home page of the application shows summary of the questions posted by the logged in user, questions replied and also the questions that are yet to be answered.

The home page shows all the recent activities in the application such as displaying most recently posted topics, most repeatedly searched topics in search module, the no. of posts posted in each category etc...

5.2.2 FORUM MODULE

This is the Module in which the user can post their articles, questions and reply to the postings which are posted by the other users. This Module facilitates the user to post their questions, answers and articles based on the category. It also consists of the different forums from the various topics available. Topics include the different categories on which the user is looking for the solutions and based on that, can gather information about it. The topics of the Forum will be displayed in the table with date and time by the user who updated recently. On clicking the topics, it redirects into separate screen for the elaborate view. The Next & Previous links with paging concepts e.g. (1, 2, 3, 4...10) are available to access easily. An important thing to be noted in this module is that the Audit changes done by every user is tracked for the future reference.

This Module also includes the following options,

1. Post Reply
2. Edit
3. Post New topic



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Post Reply

The User can reply the Forums by clicking the button “Post Reply” at the end of the particular forum below. On clicking the Post Reply button, it takes us to the separate window provided with the Text box for the Reply to be posted. Here, we can post our replies and even File attachment is also possible if necessary.

Edit

Here, the user can also edit their replies which they posted to the respective topics for their ease of convenience. On clicking the button “Edit”, it takes us to the separate window where our posted reply will be displayed in the Read/Write Textbox mode. User can click the update button available in the screen once the modifications done with. Similarly, File attachments also possible here. On doing this, it will overwrite the previous files attached.

Post New Topic

The users can also Post New Topics by clicking the button “Post New” available in the screen. On clicking the Post New button, it takes us to the separate window provided with the dropdown of available categories. Hence the User can Post new question by choosing any of the respected Categories available in the dropdown. Adding of new categories also available for the users which is possible only when we click the link “Add new category” available in the same screen. Similarly, the added new category will be added to the dropdown list respectively.

MS Word like toolbar allows article text to be easily formatted. The built-in powerful WYSIWYG (“What you see is what you get”) HTML Editor allows you to quickly create and edit the articles as if using like a word processor or HTML Editor. WYSIWYG Editor is the most unique online HTML Editor which provides advanced editing facilities designed to create stylish content. In the forum module the user can upload images directly using the WYSIWYG editor. The registered users of the application can receive email notifications when a new post is posted in the forum module. The user has the additional option of mailing topics to other forum members or to other external email addresses. Each and every edit done in the forum module are tracked & logged.

Post Features

- Familiar Word like, WYSIWYG editor is used to post a reply or to post a new topic
- Ability to preview post before submitting
- Upload images from the hard-drive directly into posts using the WYSIWYG editor
- Multiple attachments supported per post, configurable attachment types and upload permissions
- Expand or collapse posting area when working with posts.

5.2.3 SEARCH MODULE

Search module is used to search a query based on the category. User can select a category from the available category list and all the postings which are related to the selected category are populated below. The search is been categorized in order to filter and provide a finer result. The user can not only search by the category, the user can also do a keyword search within a particular category. In this kind of search, the result will be displayed based on the keyword entered. Search results are displayed as topics or posts. The articles are displayed in a categorized way which makes it easy to navigate the knowledge base and find the answer for question in less amount of time.

Search module instantly search across all the data including user submitted comments, tags & content attachments (Word, Excel, PDF & more). Categorize & tag the content to ensure easy discoverability. If a user performs any search in the search module the users search history is been saved and the user can view the search history for the searches he has made.

5.3 DATA FLOW DIAGRAM

LEVEL - 0

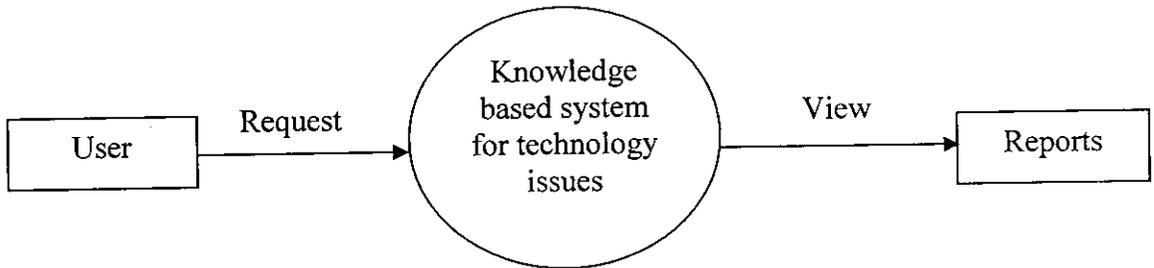


Figure 5.3.1: DFD Level-0

LEVEL - 1

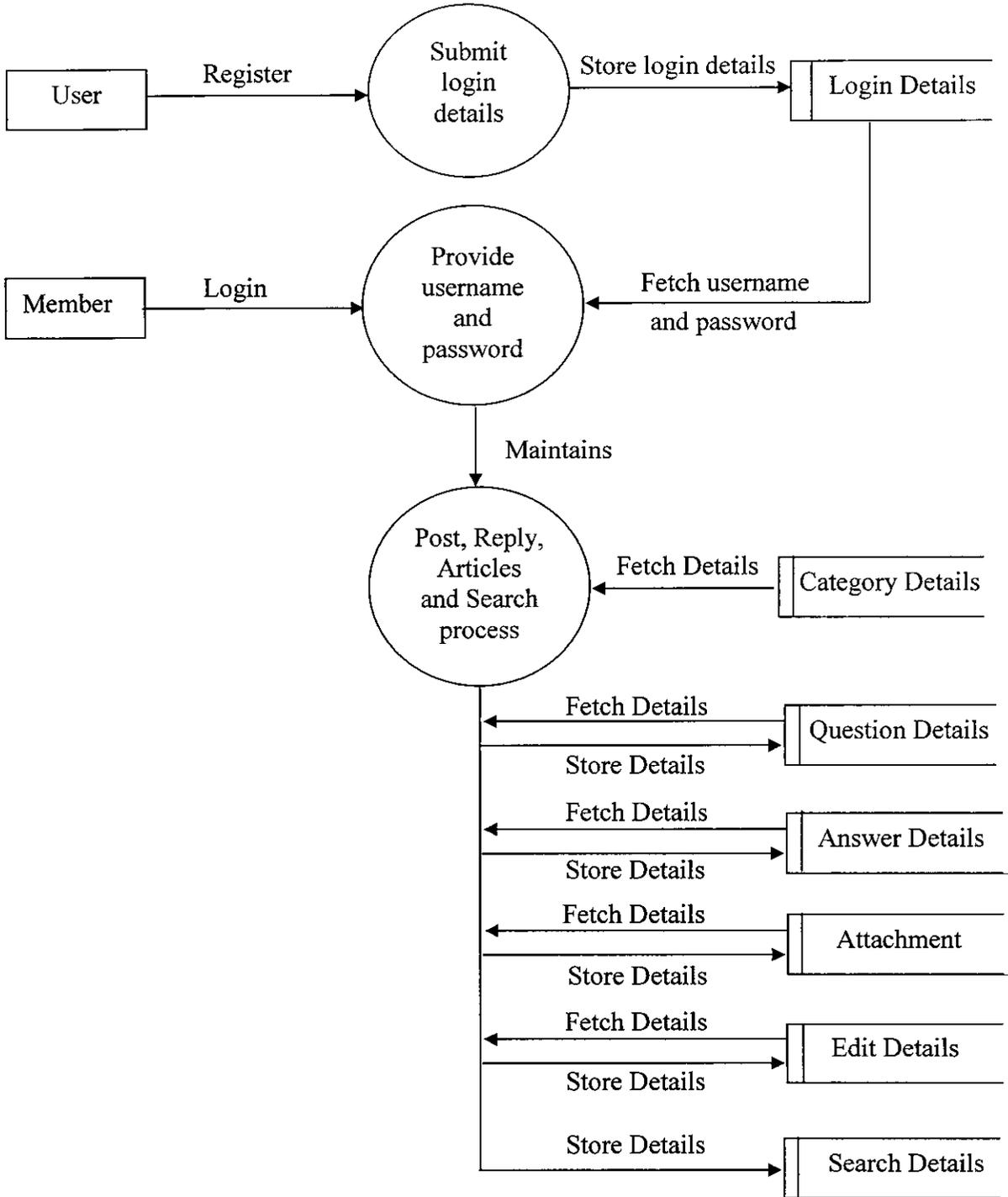


Figure 5.3.2: DFD Level-1

LEVEL - 2

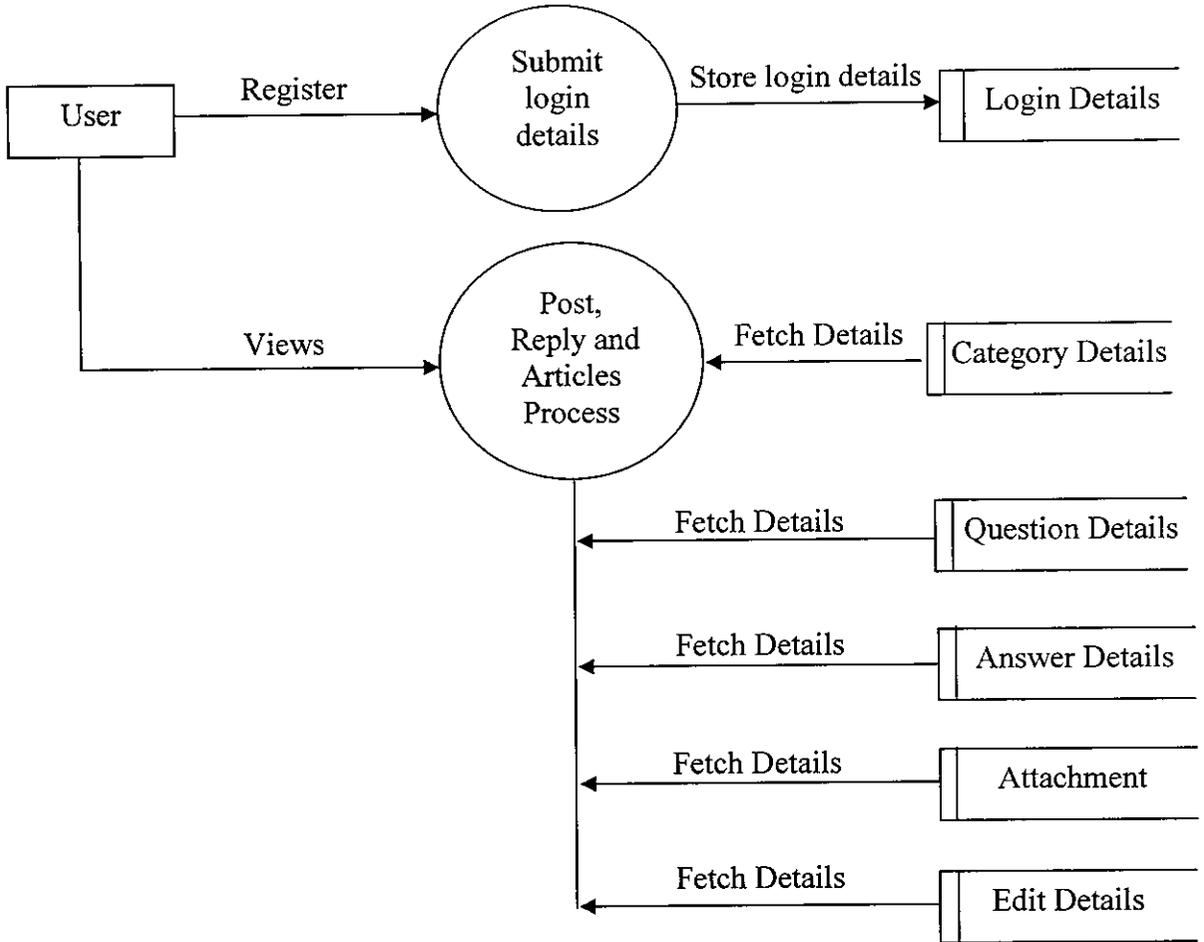


Figure 5.3.3: User Module DFD Level-2

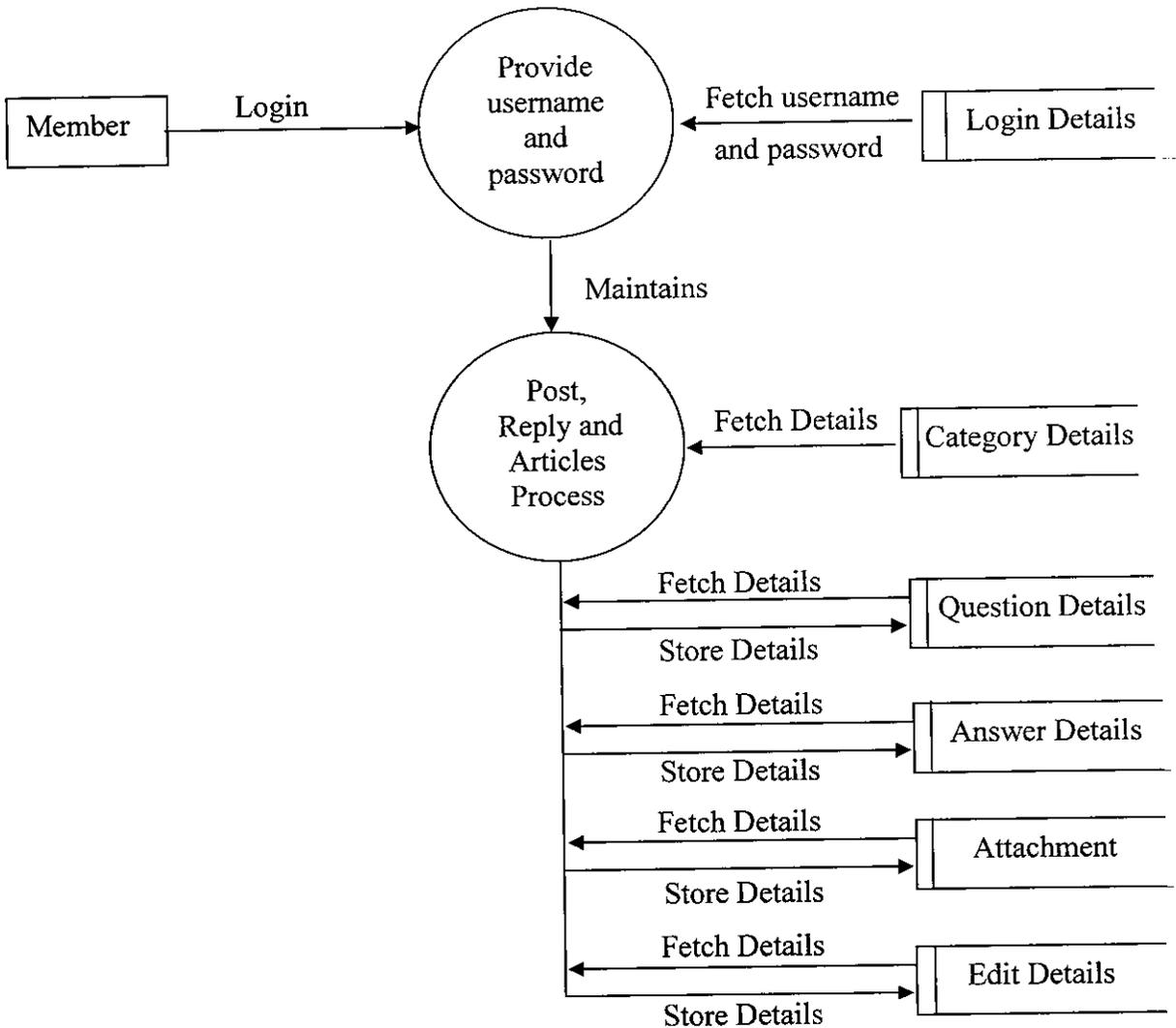


Figure 5.3.4: Forum Module DFD Level -2

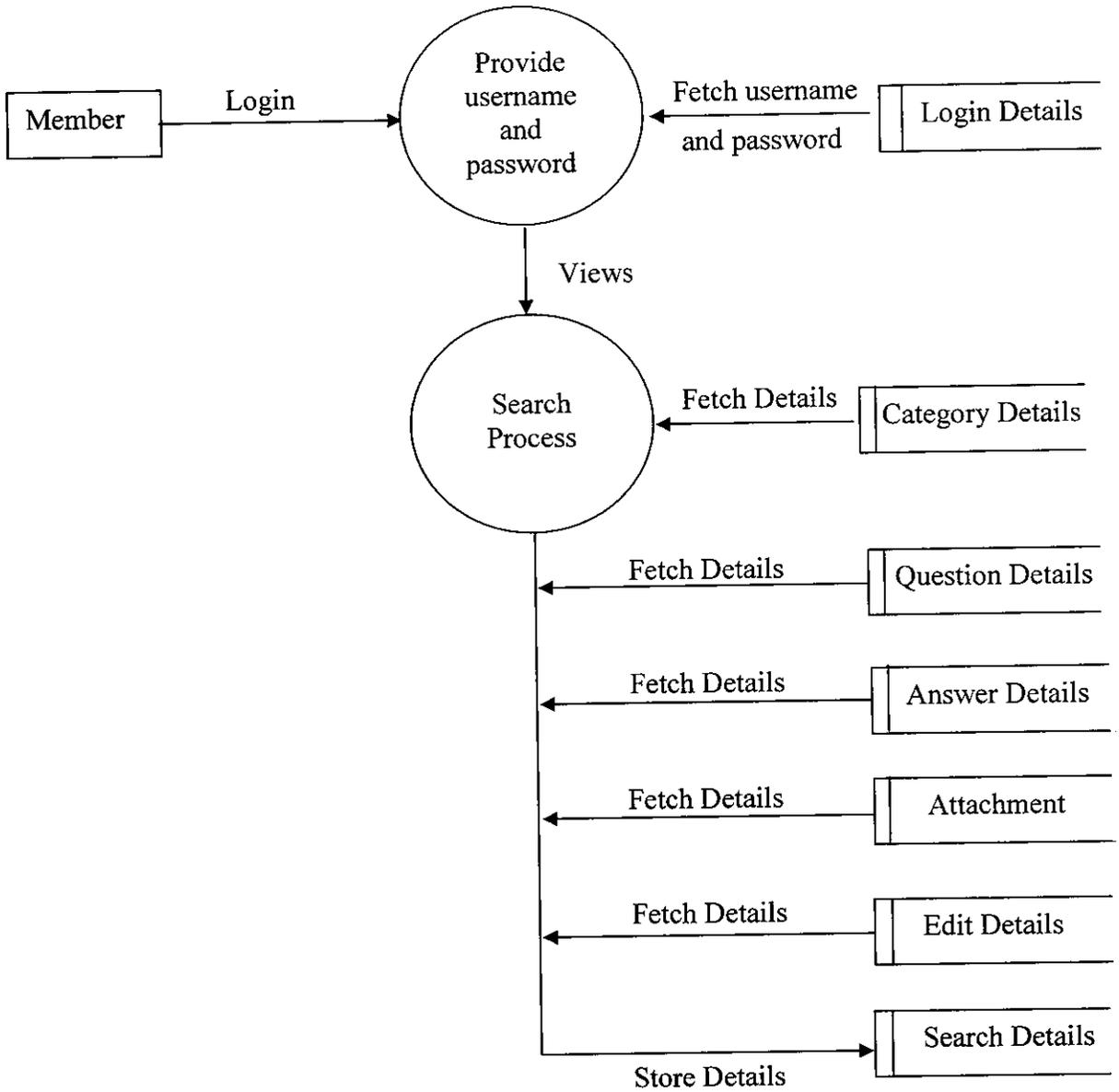


Figure 5.3.5: Search Module DFD Level-2

5.4 USE CASE DIAGRAM

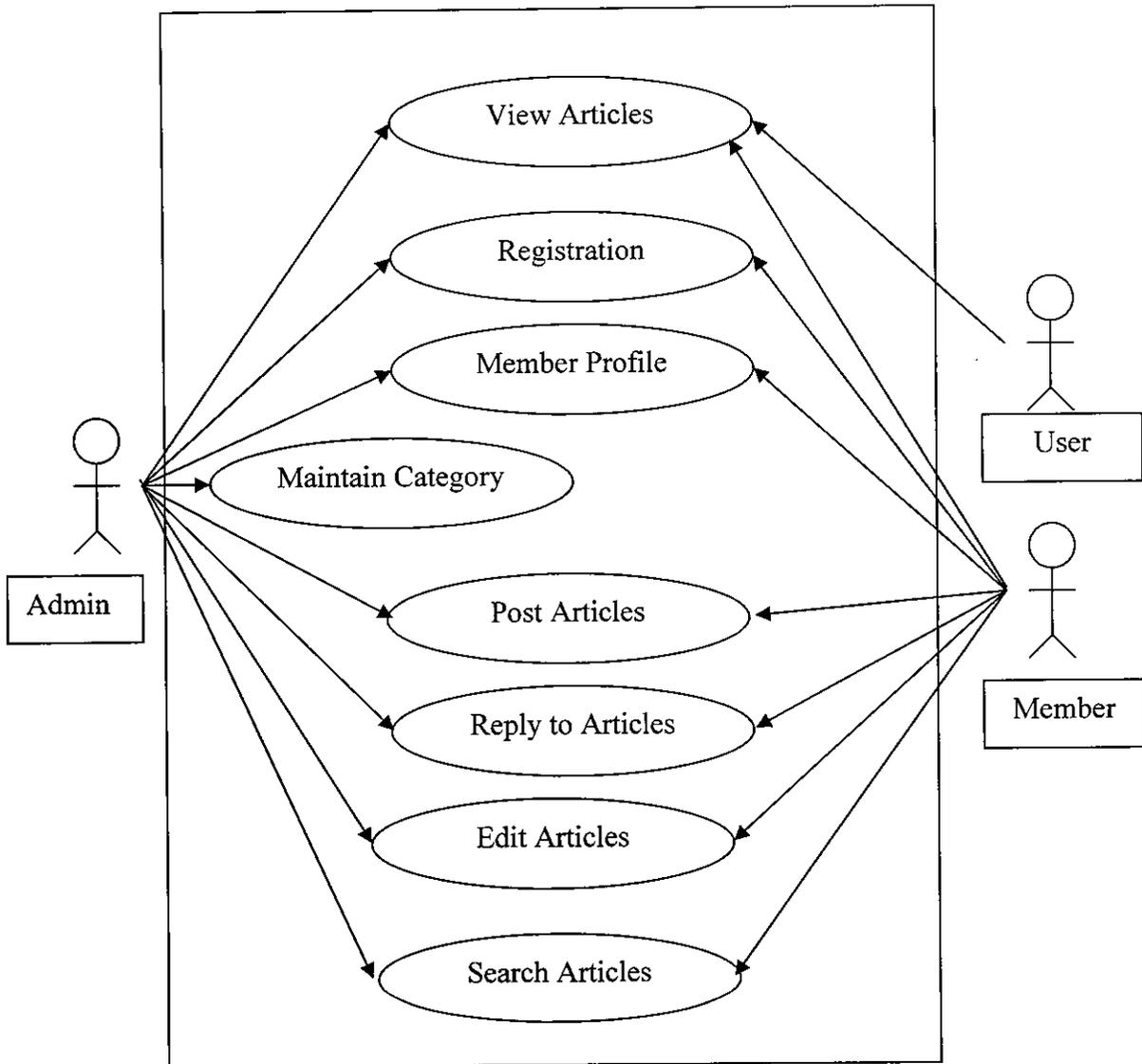


Figure 5.4.1: Use Case Diagram

5.5 DATABASE DESIGN

TABLE 5.5.1: LOGIN

Field Name	Data Type	Description
Loginid(Primary Key)	Varchar(10)	Id of the User
Firstname	Varchar(25)	First Name of the User
Lastname	Varchar(25)	Last Name of the User
Nickname	Varchar(25)	Nick Name of the User
Username	Varchar(25)	User Name of the User
Password	Varbinary(max)	Password
Question	Varchar(25)	Question
Answer	Varchar(25)	Answer of the User
Emailid	Varchar(25)	Email Id of the User
Image	Varchar(30)	Path of the Profile Picture

TABLE 5.5.2: CATEGORY

Field Name	Data Type	Description
Categoryid(Primary Key)	Varchar(10)	Id for Category
Categoryname	Varchar(25)	Name of the Category

TABLE 5.5.3: QUESTION

Field Name	Data Type	Description
Questionid(Primary Key)	Varchar(10)	Id for Question
Loginid(Foreign Key)	Varchar(10)	Id of the User
Categoryid(Foreign Key)	Varchar(10)	Id of the Category
Question	Varchar(50)	Description of the post
Questiondetails	ntext	Actual Post of the user
Dateofpost	Datetime	Date and Time of Post

TABLE 5.5.4: ANSWER

Field Name	Data Type	Description
Answerid(Primary Key)	Varchar(10)	Id for Answer
Questionid(Foreign Key)	Varchar(10)	Id of the Question
Loginid(Foreign Key)	Varchar(10)	Id of the User
Categoryid(Foreign Key)	Varchar(10)	Id of the Category
Answer	ntext	Answer for Post
Dateofanswer	Datetime	Date and Time of Answer

TABLE 5.5.5: EDIT

Field Name	Data Type	Description
Editid(Primary Key)	Varchar(10)	Id for Edit Post
Answerid(Foreign Key)	Varchar(10)	Id of the Answer
Loginid(Foreign Key)	Varchar(10)	Id of the User
Dateofedit	Datetime	Date and Time of Edit Post

TABLE 5.5.6: SEARCH

Field Name	Data Type	Description
Searchid(Primary Key)	Varchar(10)	Id for Search
Loginid(Foreign Key)	Varchar(10)	Id of the User
Categoryid(Foreign Key)	Varchar(10)	Id of the Category
Questionid(Foreign Key)	Varchar(10)	Id of the Question
Searchquery	Varchar(50)	Keywords of the User Search
Dateofsearch	Datetime	Date and Time of Search

TABLE 5.5.7: ATTACHMENT

Field Name	Data Type	Description
Fileid(Primary Key)	Varchar(10)	Id for File upload
Loginid(Foreign Key)	Varchar(10)	Id of the User
Answerid(Foreign Key)	Varchar(10)	Id of the Answer
Filename	Varchar(30)	Path of the File uploads

5.6 INPUT DESIGN

Input Design consists of developing specifications and procedures for data preparations and data entry. The following objectives are to be achieved.

1. Controlling the amount of Input

Data preparation and data entry depends on people. The costs get high if the input is high. The input phase of computing is slow which leaves the system idle consuming more time. The major reason for controlling the amount of input are, first, as the lab our is high; the cost of preparing the data and entering the data is also high. Second, the input phase of computing can be a slow process that can take many times longer than the time needed by computers to carry out their tasks. By reducing input requirements, the analyst can speed the entire process from data capture to processing to providing results to users

2. Avoiding Delay

The delay in data entry and data preparation is called Bottleneck. Avoiding this bottleneck should be the objective of the analyst designing the input. in one sense, the rate at which errors occur depends on the quantity of data, since the smaller the amount of data input ,the fewer the opportunities for errors. The manner in which the data is entered also affects the occurrence of error .Another aspect of avoiding errors is the need to detect the error when they do occur. These are done using input validation techniques.

3. Avoiding Errors in Data

Reducing the volume of data can reduce the number of errors. Validation techniques can be used to avoid errors while Data entry it self.

4. Avoiding Extras Steps

Sometimes volume of data gets uncontrollable. To be effective avoid input design with extra steps. When the volume of transaction can't be reduced, the analyst must be sure the process is as efficient is possible. The analyst must also avoid input design that causes extra steps.

5.7 OUTPUT DESIGN

Output refers to the results information that is generated by the system. Designing the computer output should proceed in a well organized, well thought out manner. The right output must be developed while ensuring that each output element is designed so that people will find system easy to use effectively. The basis of the output generated is to evaluate the usefulness of the application.

The arrangement of information on a display, or a printed document is termed as a layout. The output design is specified on layout forms, sheets that describe the location characteristics and the format of the column headings and pagination. Output design phase of system is concerned with the convergences of information to the end user in user friendly manner.

The output design should be efficient, intelligible so that relationship with the end user is improved considerably and thereby, enhancing the decision-making process. The contents of the output are then defined in a detailed manner during the physical design of outputs .Certain data are in a desirable manner.

Objectives of Effective Output Design

- ◆ Convey data about the past activities, current status, projections of the future.
 - Signal important events, problems, opportunities or warning.
 - Trigger an action.
- ◆ Confirm an action.
- ◆ Determine what information to present.
- ◆ Decide whether to display, print, or voice the information and select the medium of output.
- ◆ Arrange the presentation of information in an acceptable format.

CHAPTER-6

SYSTEM TESTING

6.1 UNIT TESTING

The first step in testing is unit testing. Unit testing is normally considered as an adjunct to the coding step. After the coding has been developed, received and verified for correct syntax, unit testing begins. Here each module is tested to provide its correctness been met, errors are noted down and corrected immediately. Unit testing is the important and major part of the project. So errors can be rectified easily in each module and program clarity can be increased.

Registration Form

Test Suite 1

Test Suite – First Name (Should not be blank and should not accept numbers)

Test Data – Blank

Expected Result – Should display error message

Actual Result – Error message stating ‘First Name cannot be blank’ is displayed

Comments – Ok

Test Suite 2

Test Suite – Nick Name (Should not be blank)

Test Data – Blank

Expected Result – Should display error message

Actual Result – Error message stating ‘Address cannot be blank’ is displayed

Comments – Ok

Test Suite 3

Test Suite – Word Verification (Should not be blank and matches with the image letters)

Test Data – ejd42f

Expected Result – Should display error message

Actual Result – Error message stating ‘The code you typed does not match the code in the

Test Suite 4

Test Suite – Confirm Password (Should match exactly to the password)

Test Data – password

Expected Result – Should display error message

Actual Result – Error message stating ‘Re-enter Password’ is displayed

Comments – Ok

Test Suite 5

Test Suite – Email id (Should not be blank and should be in a proper mail-id format)

Test Data –mathugmail.com

Expected Result – Should display error message

Actual Result – Error message stating ‘Re-Enter Id EG: Sample@ABC.COM’ is displayed

Comments – Ok

6.2 BLACK BOX TESTING

Black box testing is also called as behavioral testing. Black box testing focuses on the functional requirements of the software. Black box testing attempts to find errors in the behavior or performance errors and incorrect or missing functions.

Post Question Form

Test Suite1

Action : Statements in the Clear procedure is commented
Test Function : Clear (Clears the values in the controls)
Input given : Click the 'Clear' Button
Expected result : Values in all the controls should not be cleared
Actual result : Values in all the controls are not cleared
Report : Test Succeeded

Reply Form

Test Suite 1

Action : Statements in the Clear procedure is commented
Test Function : Clear (Clears the values in the controls)
Input given : Click the 'Clear' Button
Expected result : Values in all the controls should not be cleared
Actual result : Values in all the controls are not cleared
Report : Test Succeeded

6.3 WHITE BOX TESTING

White box testing is also known as loop testing. White box testing focuses exclusively on the validity of the loop constructs. Loop testing can be applied to simple loops, nested loops, Concatenated loop and Unstructured loops. In this project simple loops are tested using white box testing. The test conditions applied to test the loops were:

Search Form

Test Suite 1

Test condition- Skip the loop entirely.

Loop tested - while loop

Expected result- data should not be displayed in the controls

Actual result- data is not displayed in the controls

Report- Test Succeeded

Test Suite 2

Test condition- Execution of loop till end of file.

Loop tested- while loop

Expected result- data should be displayed in the controls

Actual result- data is displayed in the controls

Report - Test Succeeded

CHAPTER-7

SYSTEM IMPLEMENTATION

Implementation Process

System Implementation is the part of the software engineering life cycle, where, the design artifacts are converted to a working application. Coding is done in this stage using an framework and programming language, which would solve the specific problem the best way. Once the design is coded into a working application, it has to be verified, validated and tested in detail. The tested product if successful is deployed in the user environment.

System Verification

Verification testing checks whether the product development is moving towards the actual product needed by the customer requirements and specification verification is done in a step by step process.

In this System, verification was done during the development itself. Each database bindings are verified after binding to test whether the control is bound to the right data field.

System Validation

Validation testing is done to ensure whether the work steps and deliverables during the project are acceptable. It verifies whether right data is being accessed and performs the functions properly.

For example in the registration form word verification is implemented. Login page word verification is implemented. Password is encryption and decryption is implemented using AES Algorithm.

CHAPTER-8

CONCLUSION AND FUTURE ENHANCEMENT

8.1 CONCLUSION

The project titled “knowledge based system for technology issues” was designed to the employee

- Since users wishing to view the articles can view it without registration.
- SQL injection is handled in this project.
- Cross – site scripting is handled in this project.
- System is act as data warehouse of the project.

The following are the limitations of the project:

- User should register the details to post articles, reply to the articles etc.
- In the file attachment, size limit to 10 MB.

8.2 FUTURE ENHANCEMENTS

This project can be enhanced in future by including the following options:

- Online chatting.
- Statistical analysis report.
- Rating user and topic.
- Report to admin
- Provide private message, internal and external email to the member.

Chapter-9 APPENDIX

9.1 SCREEN SHOTS

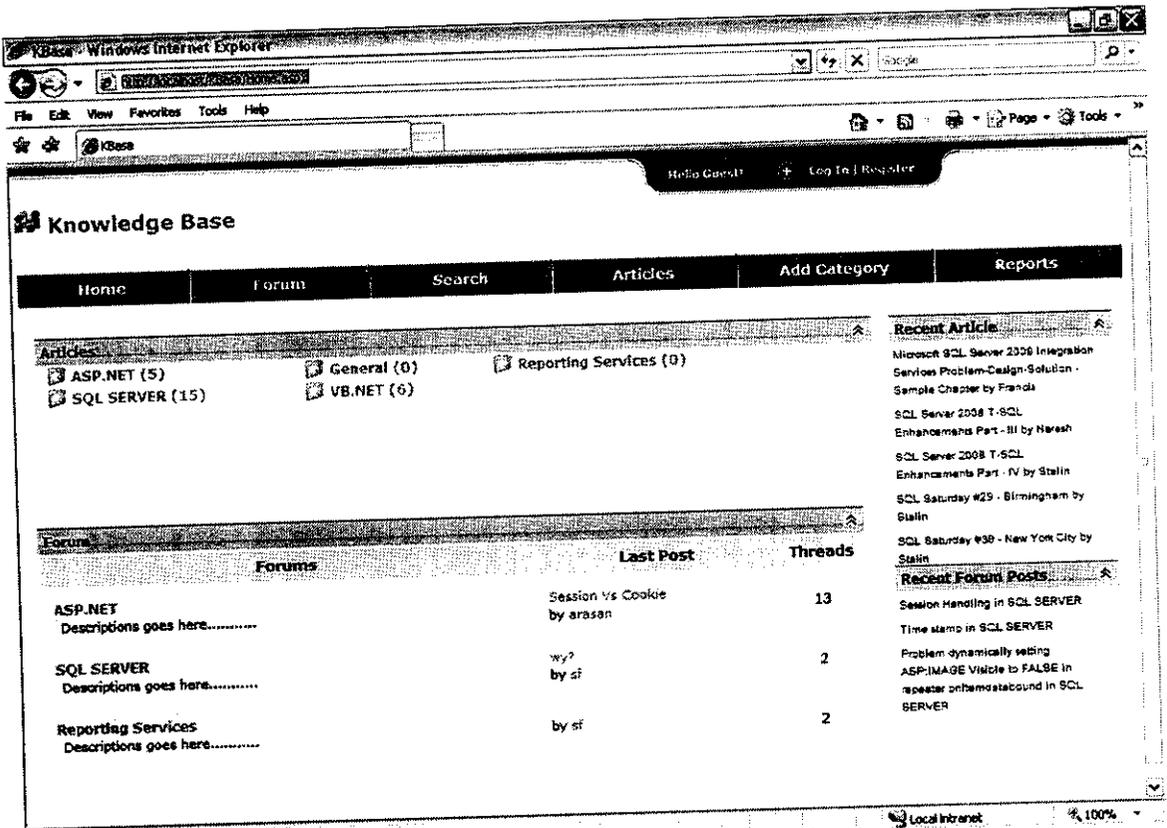


Figure A.1: Home Page

Welcome to Knowledge Base

A Forum for Complete Solution

You can find answers for your questions and you can post your new articles. You can also reply to the post posted by other users.

Member Login

Username:

Password:

[Login](#)

Not a member yet? Sign Up!

For full access to our site, please complete this simple registration form.

[Register](#)

Home | Contact Us | 2008 T-SQL

Forums

Forums	Last Post	Threads
ASP.NET Descriptions goes here.....	Session Vs Cookie by araan	13
SQL SERVER Descriptions goes here.....	sys? by sf	2
Reporting Services Descriptions goes here.....	by sf	2

Recent Forum Posts

- SQL Saturday #29 - Birmingham by Stalin
- SQL Saturday #38 - New York City by Stalin
- SQL Server 2008 T-SQL Enhancements Part - III by Naresh
- SQL Server 2008 T-SQL Enhancements Part - IV by Stalin
- Session Handling in SQL SERVER
- Time stamp in SQL SERVER
- Problem dynamically setting ASP:IMAGEDefault to FALSE in <code>webpart ontomastabound in SQL SERVER

http://localhost/KBase/Home.aspx# Local intranet 100%

Figure A.2: Login Page

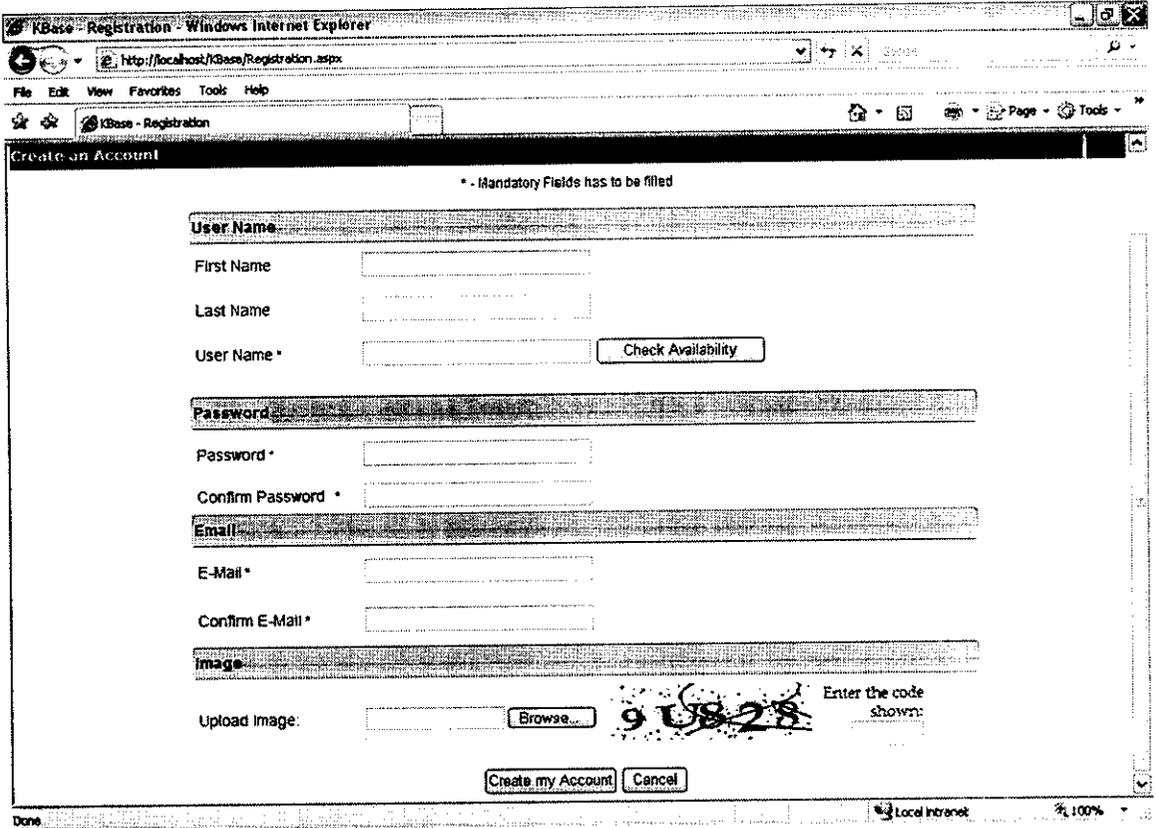


Figure A.3: Registration Page



Figure A.4: View Profile Page

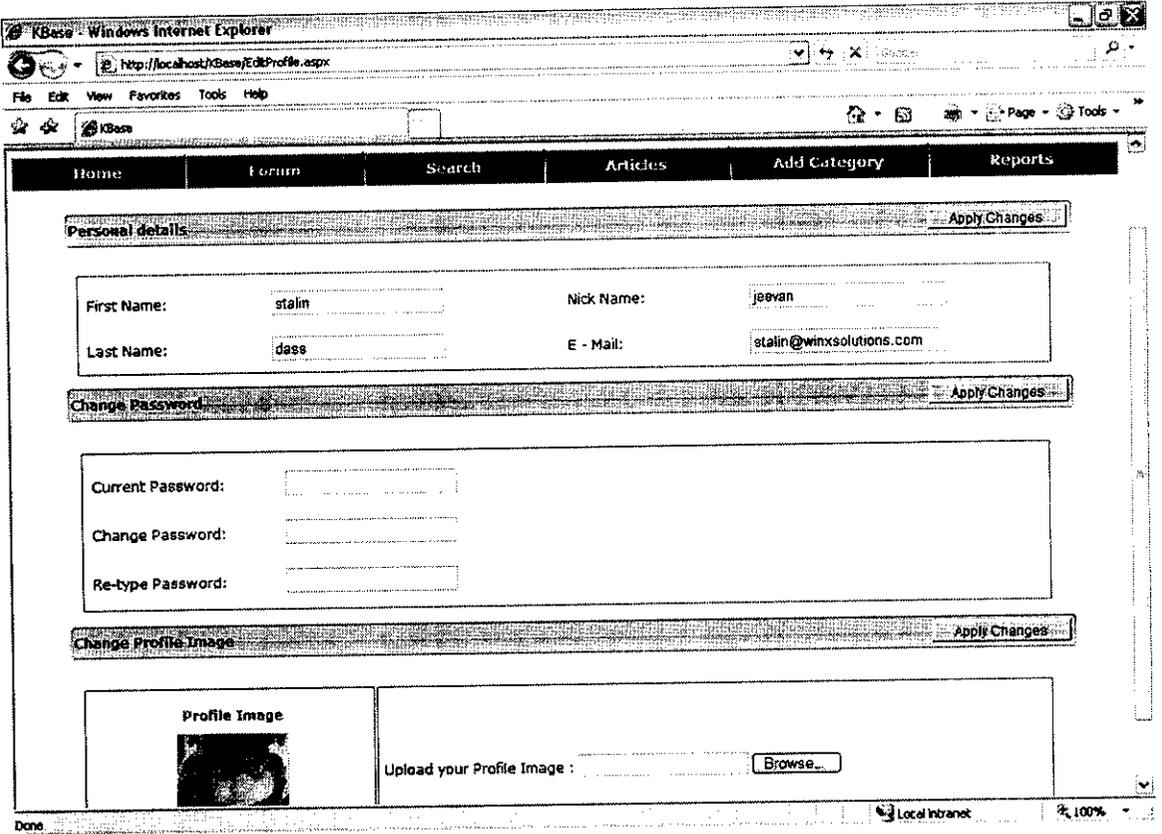


Figure A.5: Edit Profile Page

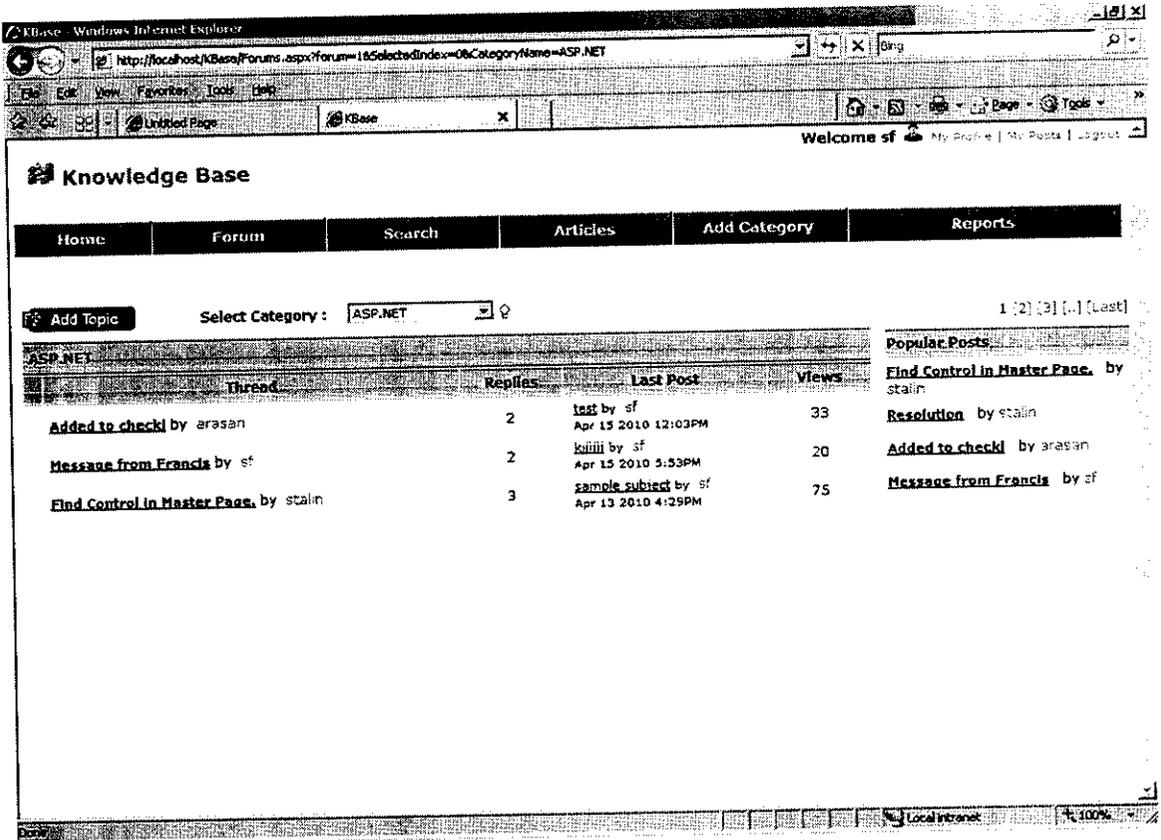


Figure A.6: Forum Page

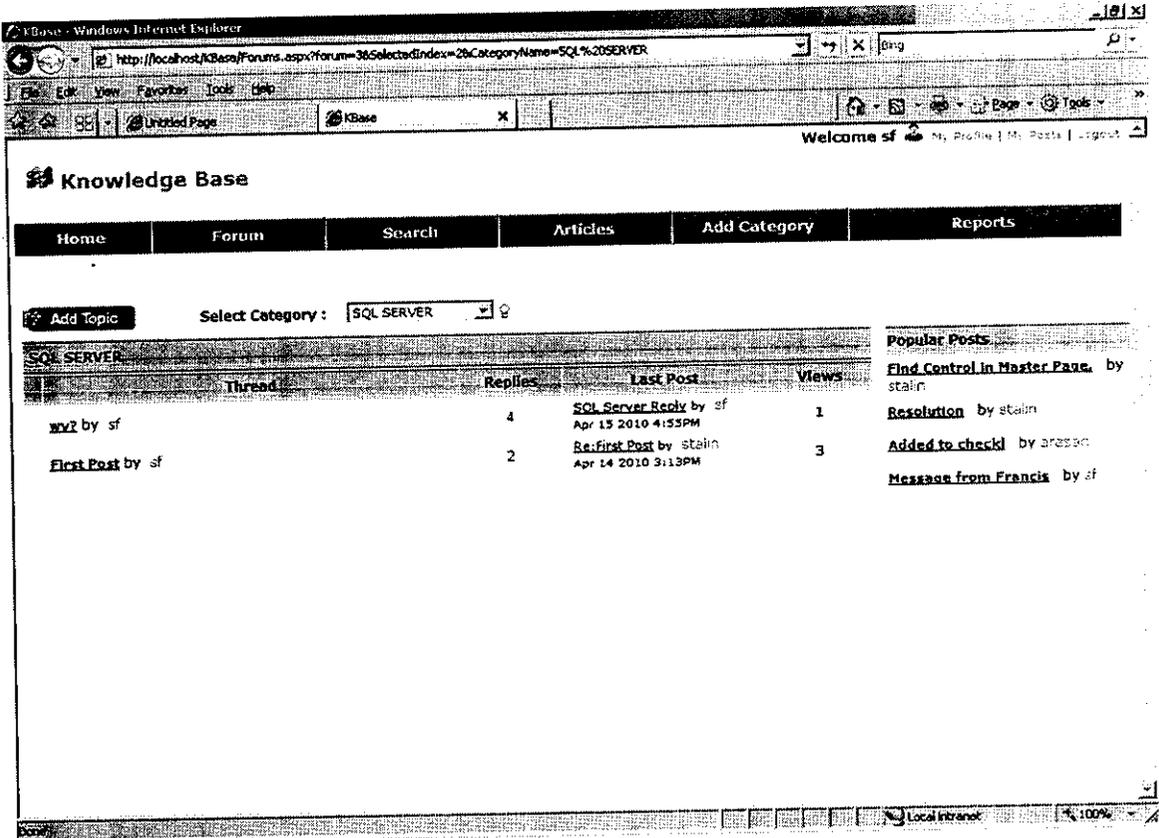


Figure A.7: Category Wise View Page

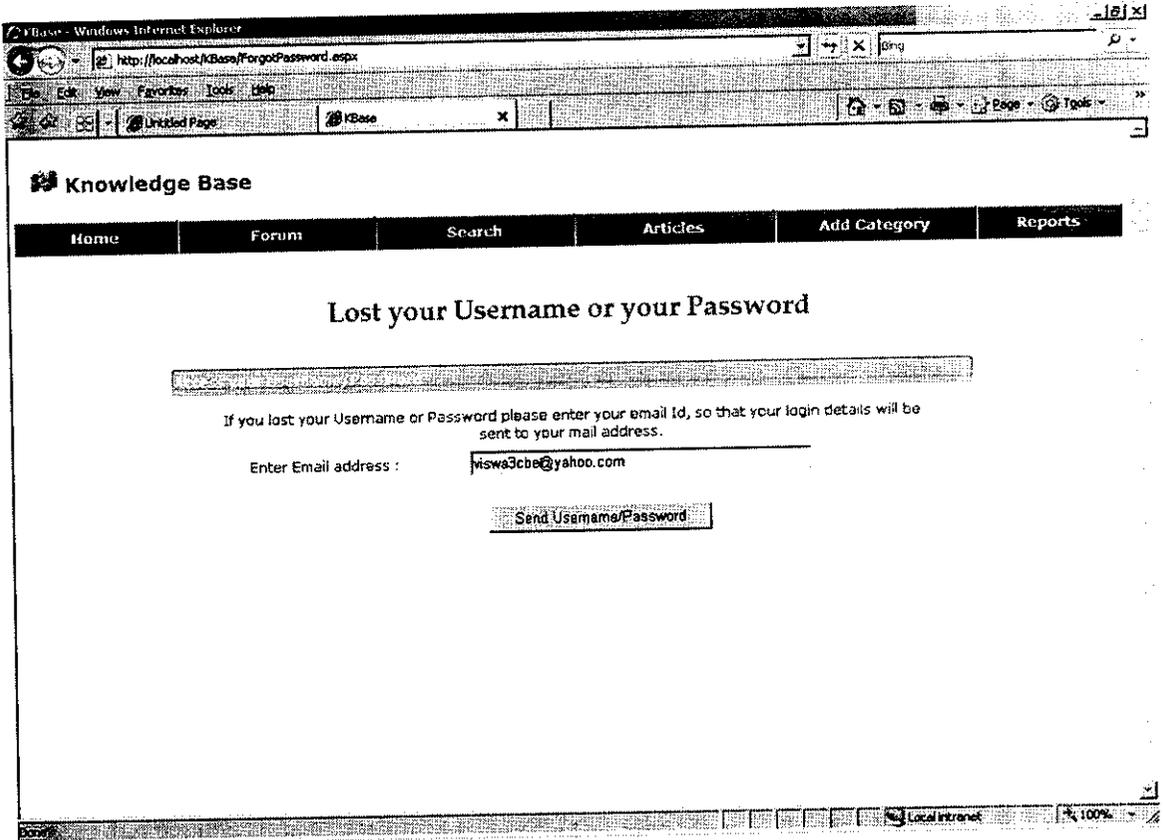


Figure A.8: Forget Password Page



Figure A.9: Post View Page

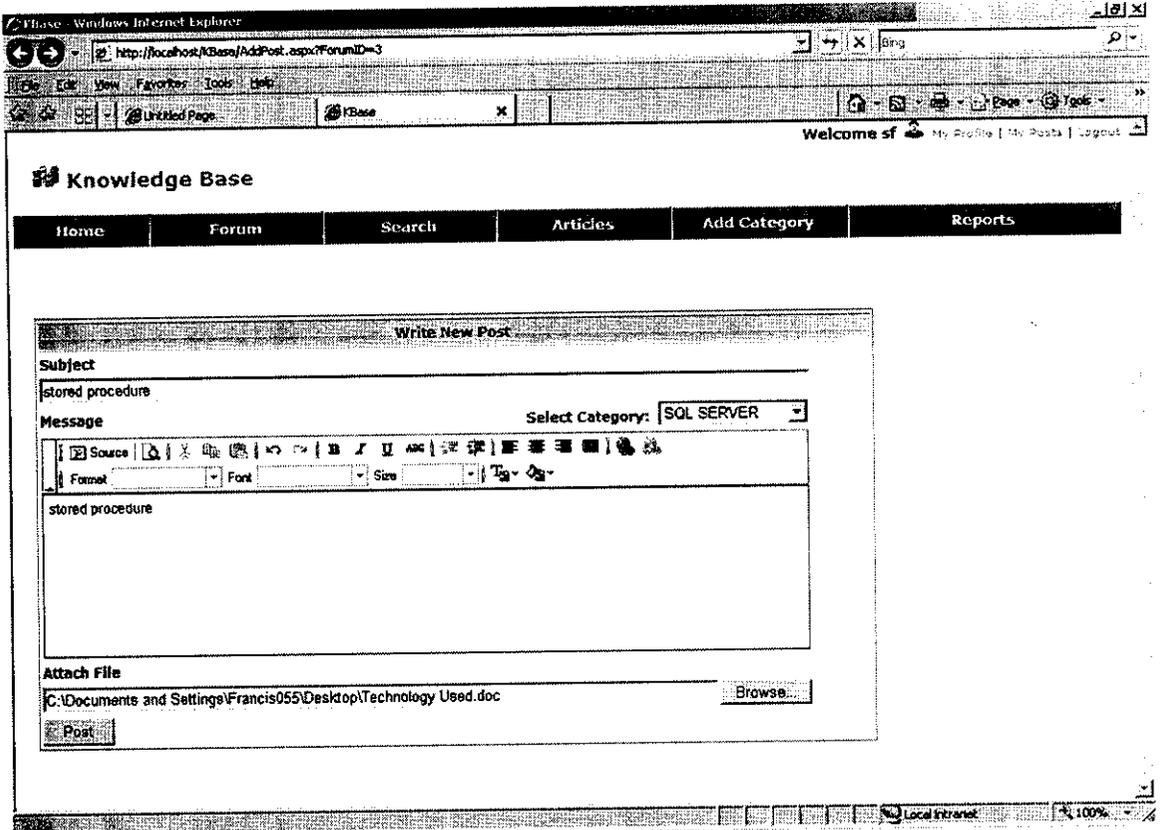


Figure A.10: Add New Topic Page

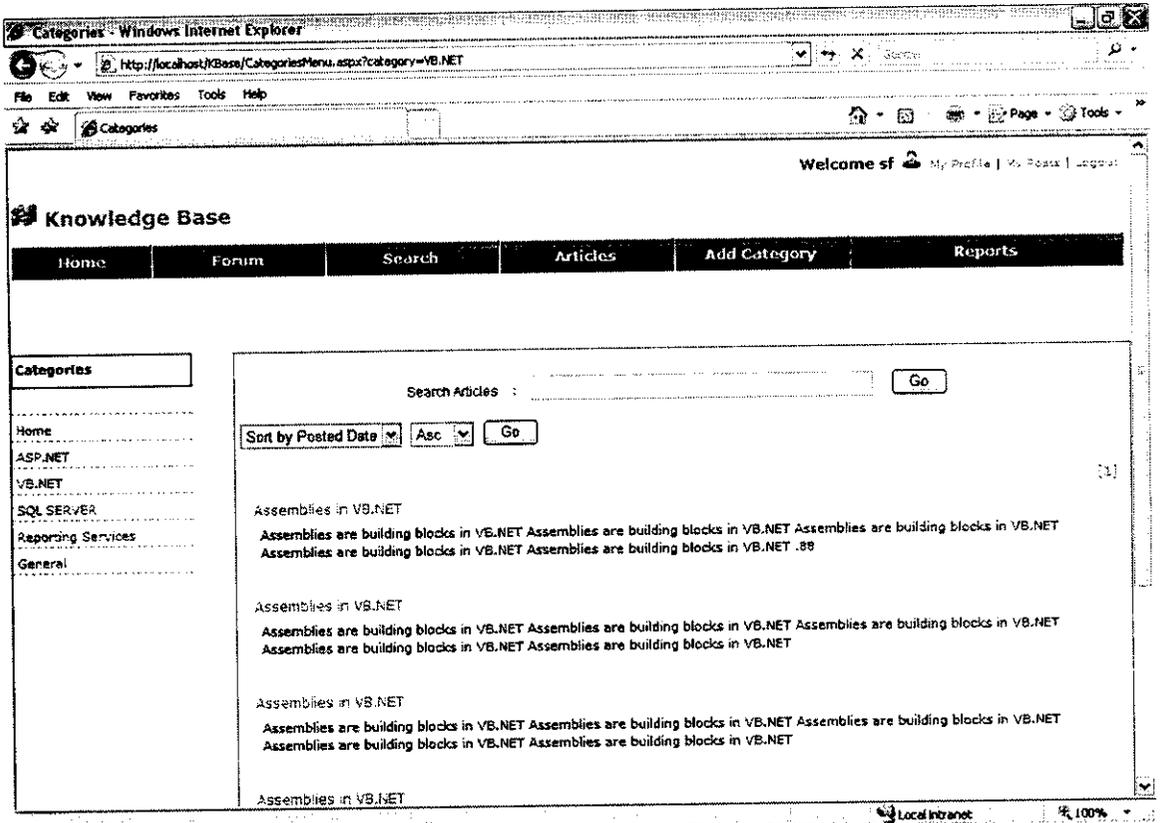


Figure A.11: Search Page

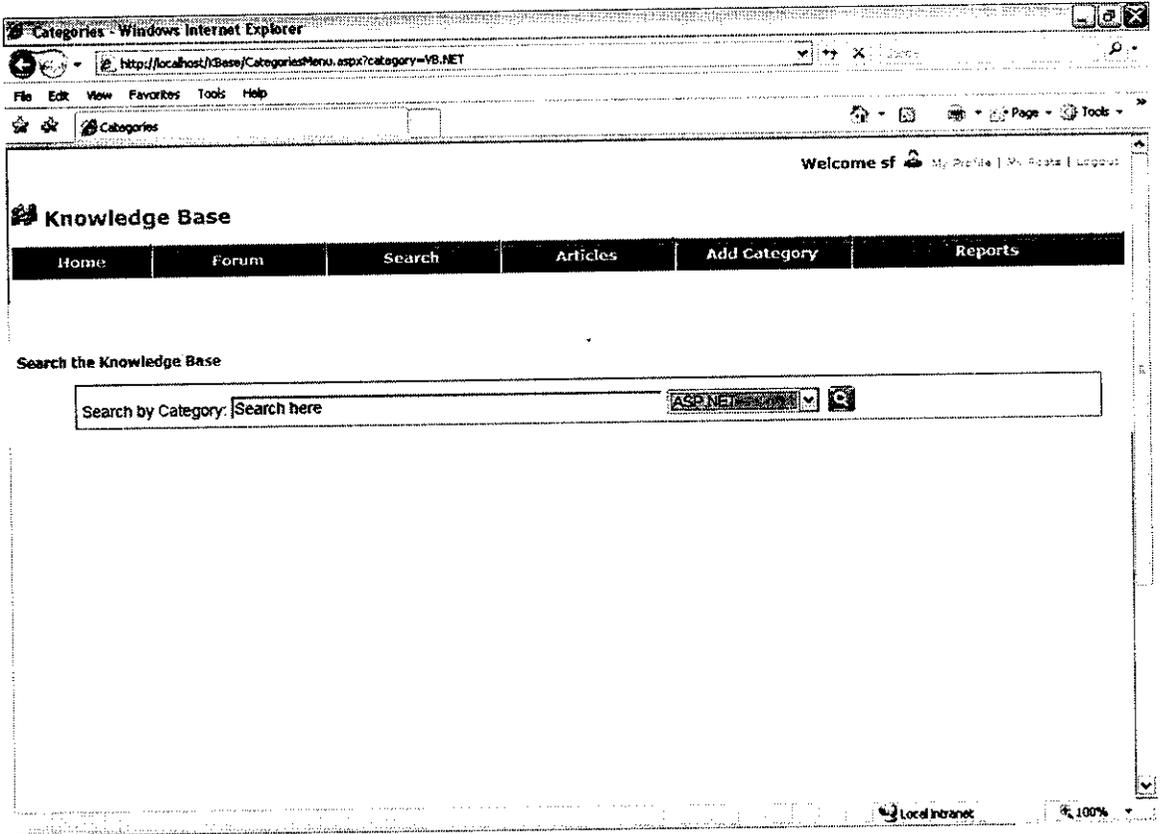


Figure A.12: Category Wise Search Page

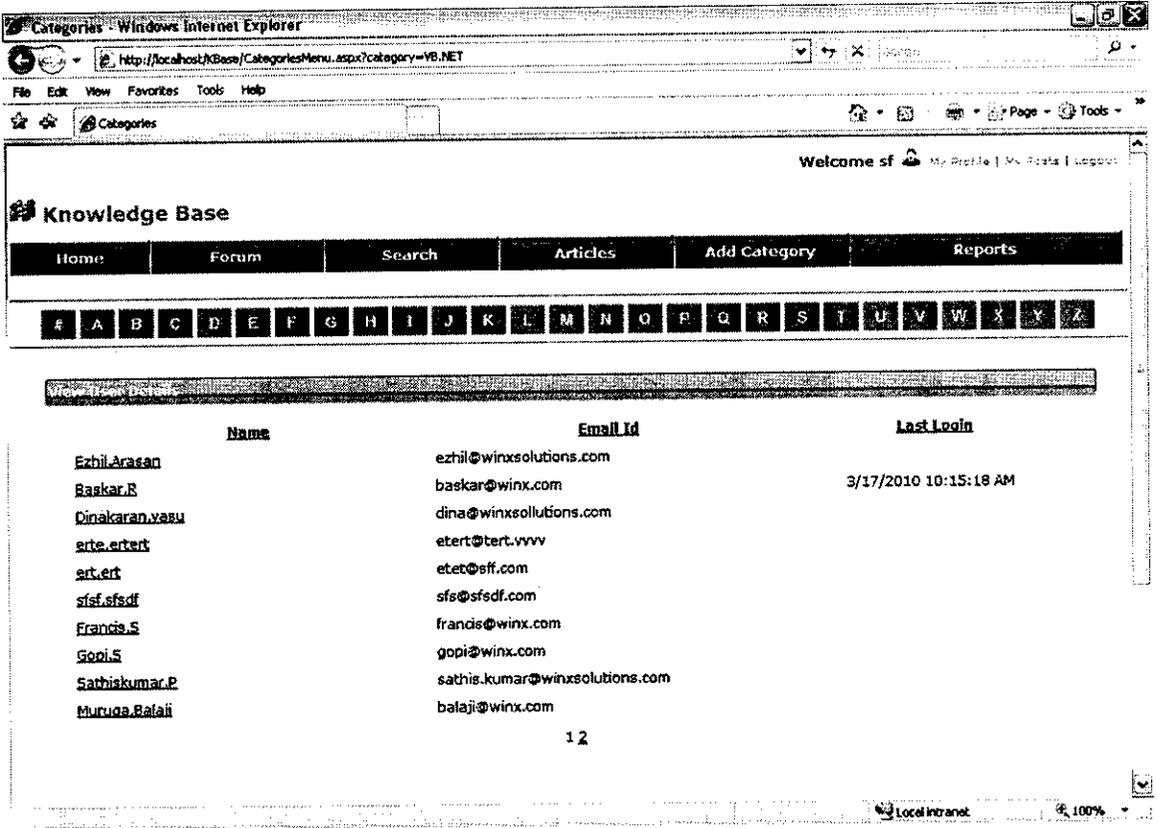


Figure A.13: View User List Page

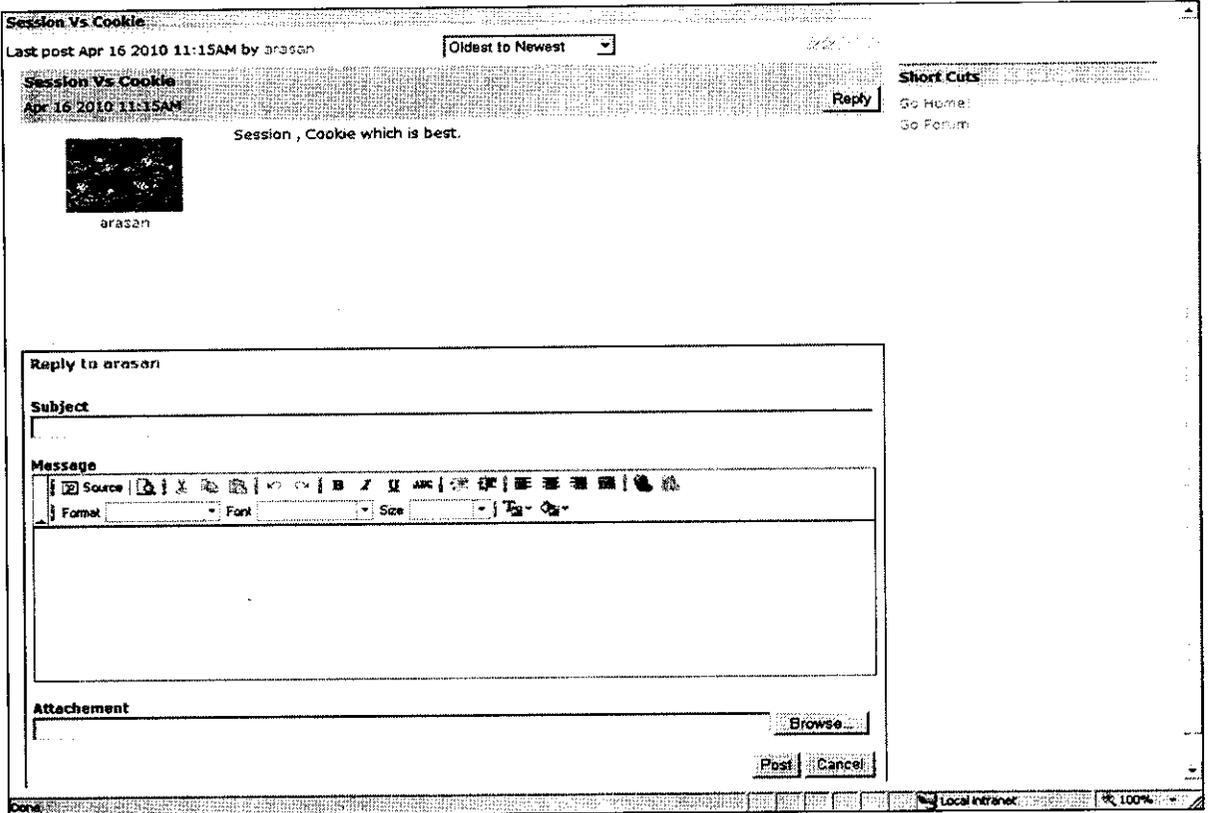


Figure A.14: Reply Post Page

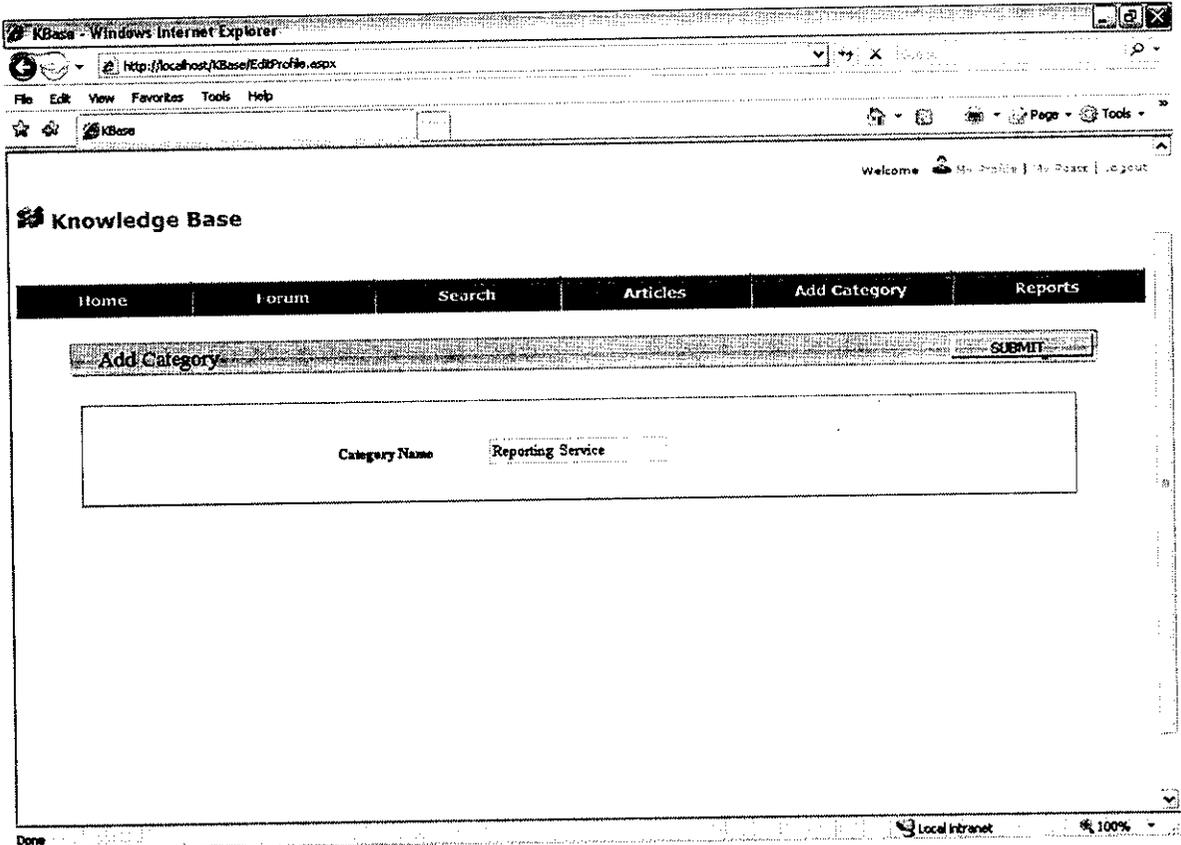


Figure A.15: Add Category Page

CHAPTER-10

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