EXAMPAEDIA – MINI PROJECT REPORT

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COLLEGE OF ENGINEERING AND TECHNOLOGY

Mulavoor P.O, Muvattupuzha.

EXAMPAEDIA

MINI PROJECT REPORT

Submitted by

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AJAY GHOSH.M.K

ASWATHY.K

In partial fulfillment for the award of degree

of

BACHELOR OF TECHNOLOGY

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MAHATHMA GANDHI UNIVERSITY

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COLLEGE OF ENGINEERING AND TECHNOLOGY

Mulavoor P.O, Muvattupuzha.

BONAFIDE CERTIFICATE

This is to certify that the mini project report entitled *EXAMPAEDIA* is a bonafide record of the project work done by ALBIN SHAJI,AJAY GHOSH.M.K, ASWATHY.K during the academic year 2012-2013 towards the partial fulfillment of the requirement of the award of B-Tech Degree in *COMPUTER SCIENCE AND ENGINEERING* of Mahatma Gandhi University, Kottayam, Kerala.

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<div align="right">

ALBIN SHAJI

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ASWATHY.K

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ABSTRACT

Asking questions is one of the most basic human activities. People want to know why. And how. And how to. And when and where. Often, they are looking for the answers that help them get through their day. And make their day better.

EXAMPAEDIA is an engineering encyclopaedia that helps students finds apt answer corresponding to exam based questions rather than just a generic solution. The students can post answers to questions they feel is important in any language they desire. Similarly these answers can be viewed by students by using the search tab and at the same time be rated as most popular. Students can approach a topic in an exam oriented manner and find answers they want. Students can get appropriate answers in simple words. EXAMPAEDIA allows live chat between authorised members.

CHAPTER 1
INTRODUCTION

EXAMPAEDIA is an engineering encyclopaedia that helps students finds apt answer corresponding to exam based questions rather than just a generic solution. The students can post answers to questions they feel is important in any language they desire. The recommended operating system is Windows 7. The website is developed using ASP.Net 2.0, HTML and C# as front end and SQL server 2008 as the back end.

The purpose of EXAMPAEDIA is to support group study among geographically distinct pupil. Exampaedia provides a platform for conducting discussions about relevant topics.

Our project have 3 type of users Admin, Registered users, Guest.

CHAPTER 2
SYSTEM ANALYSIS

2.1 REQUIREMENT ANALYSIS

This phase is done for understanding what all are the improvements needed by the user for overcoming the drawbacks of the current system. The problem could be automating an existing manual process, developing a new automated system, or combination of these two.

The emphasis in the requirement analysis is to identify what are the users expect from the system, not how the system will achieve those requirements. If the client and developers don't understand the limitations of the system and failed to know the actual aim for developing the new one, ie., if requirement analysis is not properly done,it will lead to an inefficient system. So, before starting design, we should analyse the system and collect data from users, which are useful to our project. It must be able to get the answers of the following questions.

- Who will use our system?
- What are they expect from our site?
- What are their basic needs?

2.2 REQUIREMENT SPECIFICATION

The process of establishing the services, the system should provide and the constraints under which it should operate is called requirement analysis. System requirements should set out what the system must do rather than how it is done. A requirement definition is a statement in natural language plus illustration, which defines the constraints under which the proposed system must operate. The document is also called functional specification. It serves as a contract between the system user and software developer.

Firstly a requirement definition is written and then it is expanded to requirement specification. The software design is based directly on the requirement specification documents must specify all functional and performance requirements.

2.3 FEASIBILITY STUDY

Feasibility study is a procedure that identifies describes and evaluates candidate system and selects the best system for the job. An estimate is made of whether the identified user needs may be satisfied using current software and hardware technologies. The study will decide if the proposed system will be cost effective from a business point of view and if it can develop given existing budgetary constraints. The key considerations involved in the feasibility analysis are economic, technical, behavioural and operational.

2.3.1 ECONOMIC FEASIBILITY

The economic analysis is to determine the benefits and savings that are expected from the candidate system and compare them with cost. The system is economically feasible, as the organization possesses the hardware and software resources required for the functioning of the system. Any additional resources, if required, can also be easily acquired.

2.2.2 TECHNICAL FEASIBILITY

It centres on the existing computer system and to what extent it can support the proposed addition. Since the minimum requirements of the system like IIS of the server and a browser on the client, are met by any average user.

2.2.3 OPERATIONAL FEASIBILITY

The system operation is the longest phase in the development lifecycle of a system. So, operational feasibility should be given much importance. The users of the system don't need through training on the system. All they are expected to know to operate the system is the basic netsurfing knowledge. It has user friendly interface.

2.2.4 BEHAVIOURAL FEASIBILITY

In today's world, where computer is an inevitable entity, the system like auction site, which requires no special efforts than surfing the net are enjoying wide acceptance. Thus the organization is convinced that the system is feasible.

CHAPTER 3

SYSTEM DESIGN

The most creative and challenging of the system life cycle is system design. The term design describes a final system and the process by which it is developed. The design phase focuses on the detailed implementation of the system recommended in the feasibility study.

3.1 PROJECT MODULES

- **Admin**
- **Registered User**
- **Guest**

ADMIN

Admin is the authority who have right to manage whole operation of the website.

- Login
- E-mail validation
- Admin view
- Semester or subject
- Validation
- Removal based on rating

REGISTERD USER

- Login
- Topic management
- File upload
- Rating
- Chat
- Group chat

GUEST

- Top post view
- Signup

3.2 DATA DICTIONARY

Table 1: ADMIN LOGIN

Column name	Data type	Constraints	Size
Admin_id	Int	Primary key	Default
Admin_username	Varchar	Not null	50
Admin_password	Varchar	Not null	50

Fig 3.2.1

Table 2: ANSWERS

Column name	Data type	Constraints	Size
Ans_id	Int	Primary key	Default
Stud_id	Int	Not null	Default
Topic_id	Int	Not null	Default
Answer	Varchar	Not null	Max
Upload_file	Nvarchar	Not null	50
Post_date	Date	Not null	Default

Fig 3.2.2

Table 3: ANSWER UPLOADS

Column name	Data type	Constraints	Size
Upload_id	Int	Primary key	Default
Upload_file	Varchar	Not null	50
Cmnts	Nvarchar	Not null	Max
Stud_id	Int	Not null	Default
Post_date	Date	Not null	Default

Fig 3.2.3

Table 4: BATCH

Column name	Data type	Constraints	Size
batch_id	Int	Primary key	Default
batch_name	Varchar	Not null	50

Fig 3.2.4

Table 5: CHAT

Column name	Data type	Constraints	Size
chat_id	Int	Primary key	Default
from_stud_id	Int	Not null	Default
to_stud_id	Int	Not null	Default
Body	Nvarchar	Not null	Max
Date	Varchar	Not null	Default
Status	Int	Not null	Default

Fig 3.2.5

Table 6: GROUP

Column name	Data type	Constraints	Size
group_id	Int	Primary key	Default
batch_id	Int	Not null	Default
grp_msg	Nvarchar	Not null	Max
stud_id	Int	Not null	Default
Date	Nvarchar	Not null	50
Status	Int	Not null	Default

Fig 3.2.6

Table 7: GROUP ANSWER

Column name	Data type	Constraints	Size
grp_ans_id	Int	Primary key	Default
grp_answer	Nvarchar	Not null	50
stud_id	Int	Not null	Default
group_id	Int	Not null	Default

Fig 3.2.7

Table 8: RATING

Column name	Data type	Constraints	Size
rating_id	Int	Primary key	Default
ans_id	Int	Not null	Default
rating	Int	Not null	Default

Fig 3.2.8

Table 10: SEMESTER

Column name	Data type	Constraints	Size
sem_id	Int	Primary key	Default
sem_title	Varchar	Not null	50

Fig 3.2.9

Table 11: SUBJECT

Column name	Data type	Constraints	Size
sub_id	Int	Primary key	Default
sub_name	Varchar	Not null	50
sem_id	Int	Not null	Default

Fig 3.2.10

Table 12: SUGGESTIONS

Column name	Data type	Constraints	Size
s_id	Int	Primary key	Default
e_id	Nvarchar	Not null	50
suggestion	Nvarchar	Not null	Max

Fig 3.2.11

Table 9: REGISTER

Column name	Data type	Constraints	Size
stud_id	Int	Primary key	Default
stud_name	Varchar	Not null	50
email_id	Varchar	Not null	50
password	Varchar	Not null	50
address	Varchar	Not null	50
pincode	Varchar	Not null	50
phno	Varchar	Not null	50
hometown	Varchar	Not null	50
state	Varchar	Not null	50
country	Varchar	Not null	50
batch_id	Int	Not null	Default
batch_status	Bit	Not null	Default
sem_id	Int	Not null	Default
login_status	Bit	Not null	Default
gender	Nvarchar	Not null	50
sec_ques	Nvarchar	Not null	50
sec_answ	Nvarchar	Not null	50

Fig 3.2.12

Table 13: TOPIC

Column name	Data type	Constraints	Size
topic_id	Int	Primary key	Default
topic_name	Varchar	Not null	50
sub_id	Int	Not null	Default
stud_id	Int	Not null	Default
post_date	Date	Not null	Default
topic_status	Bit	Not null	Default

Fig 3.2.13

3.3 DATA FLOW DIAGRAM

The DFD is a network representation of the system. They are excellent mechanism for communicating with customers during requirement analysis. A DFD, also known as bubble chart, which clarify system requirements identifying major transformations. It is the starting point in the system design and decomposes the requirement specification down to the lowest level.

A DFD represents data flow between individual statement and blocks of statement in a routine, data flow between sequential routines, data flow between concurrent processes or a distributed computing system where each node represents a geographically remote processing unit. DFD are quite valuable for establishing naming conventions and names of systems, files, and data links. It describes what flow rather than how they are proposed, so it doesn't depend on hardware, software and data structures or file organizations.
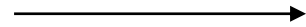
NOTATIONS USED

The logic data flow diagram can be drawn using four simple notations i.e. special symbols or icons and the notations that associates them with a specific system. The notations are specified below:
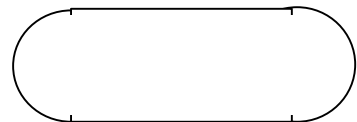
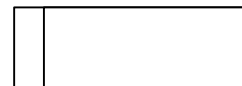| ELEMENT	REFERENCES
SYMBOLS	
Data flow process	
Source or Sink	
Process	
Data storage	

DESCRIPTION

Process   : Describes how input data is converted to output data.

Data Store   : Describes the repositories of data in a system.

Data Flow   : Describes the data flowing between process, stores

           and external entities.

Sources   : An external entity causing the origin of data.
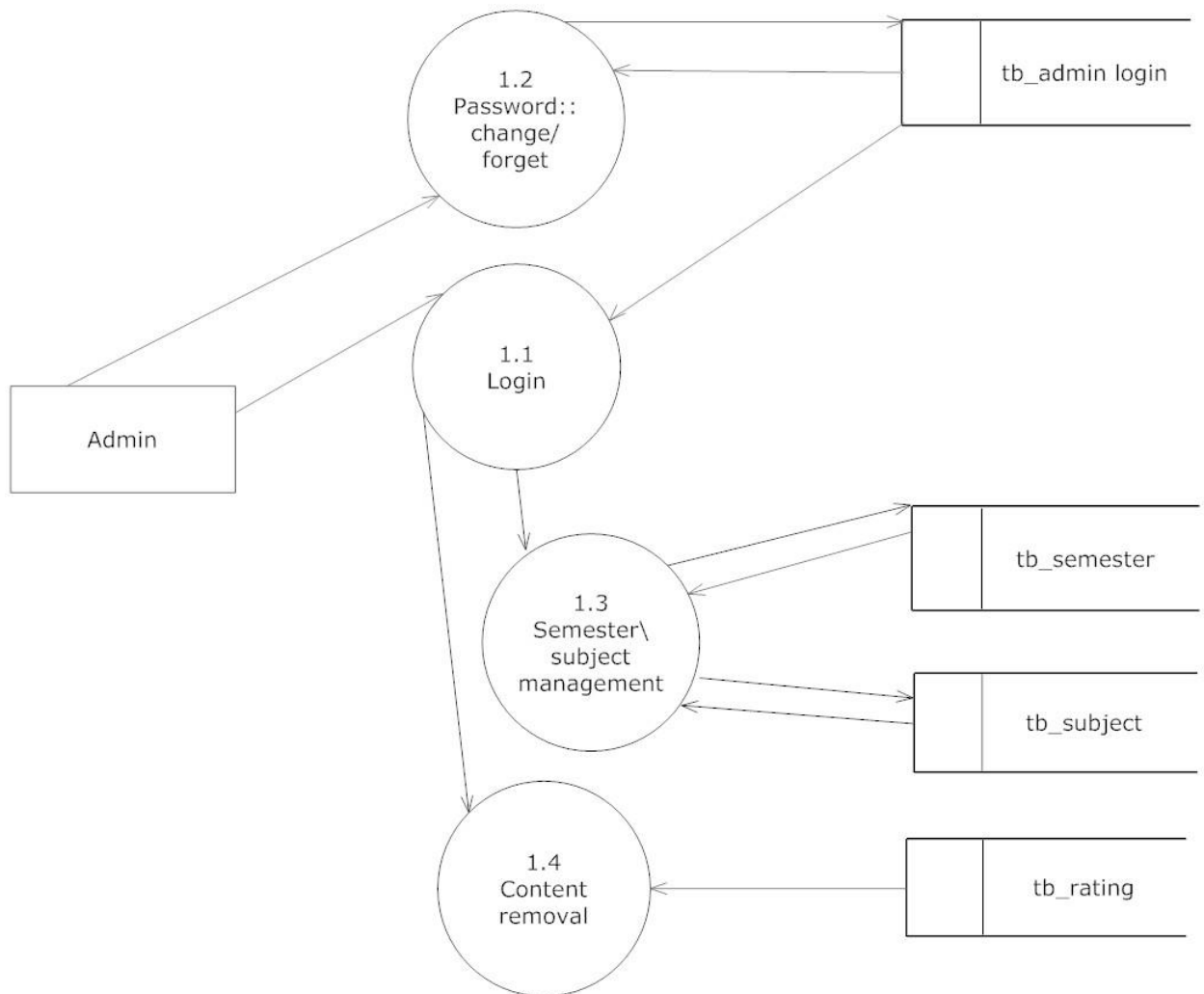
Sink   : An external entity, which consumes the data.
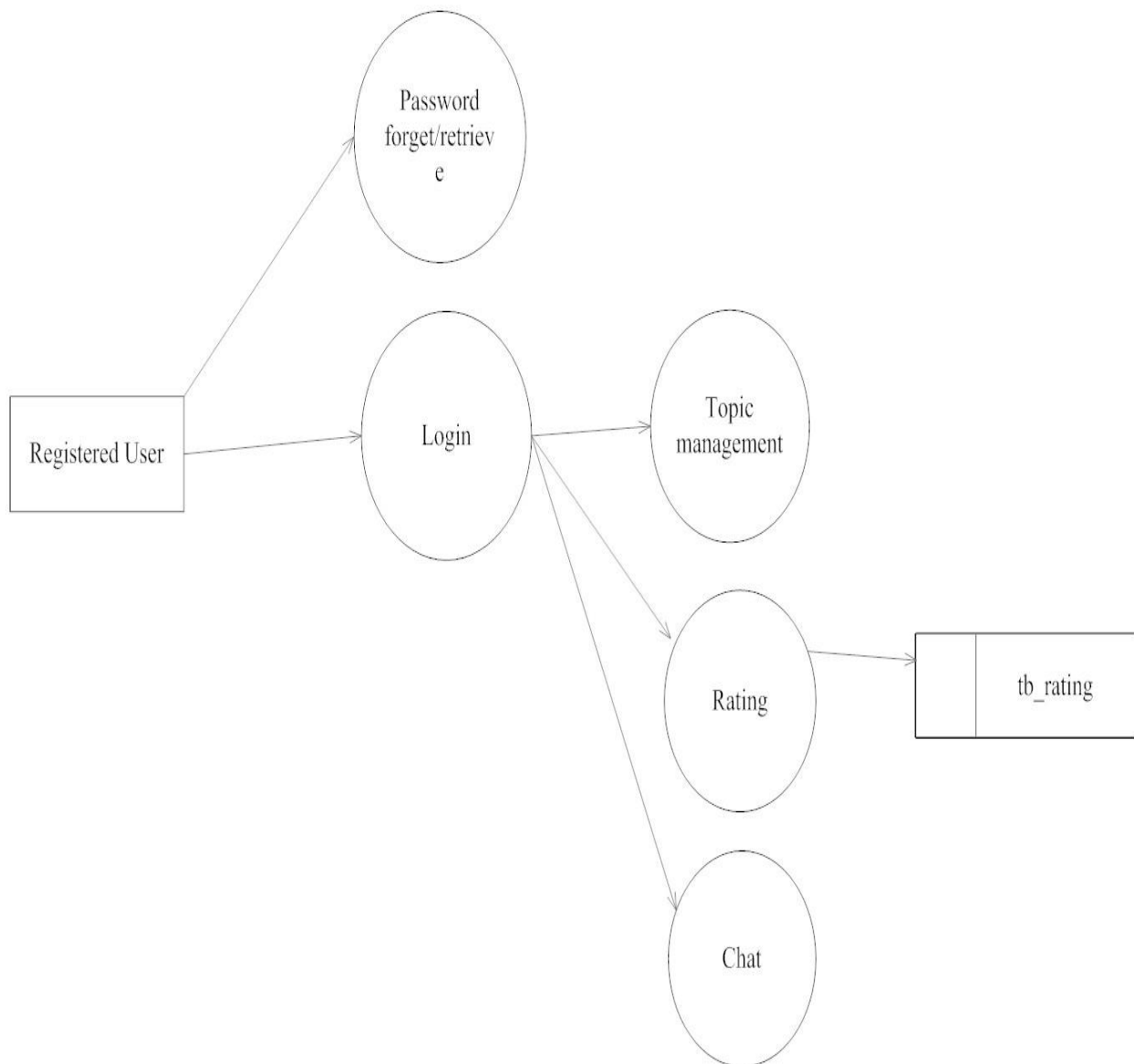
DFD: LEVEL 0
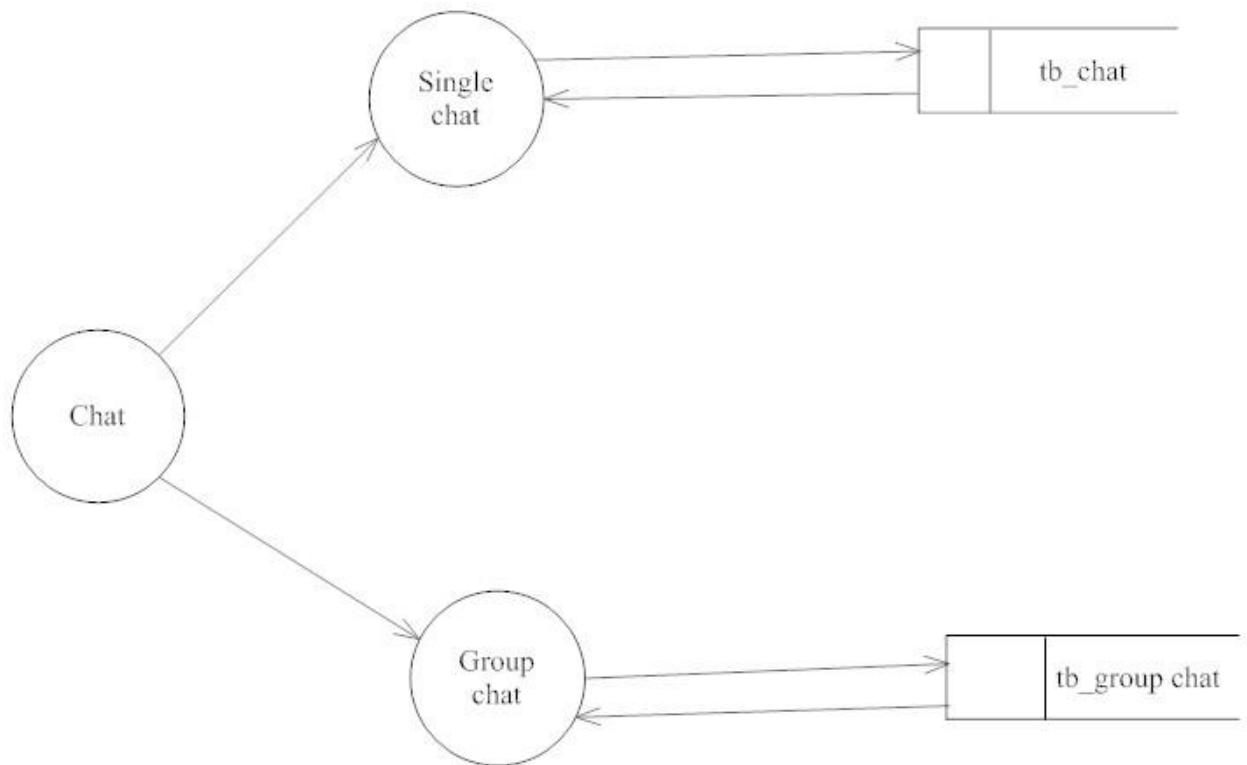

Fig 3.3.1

LEVEL 1:

- ADMIN PROCESSES

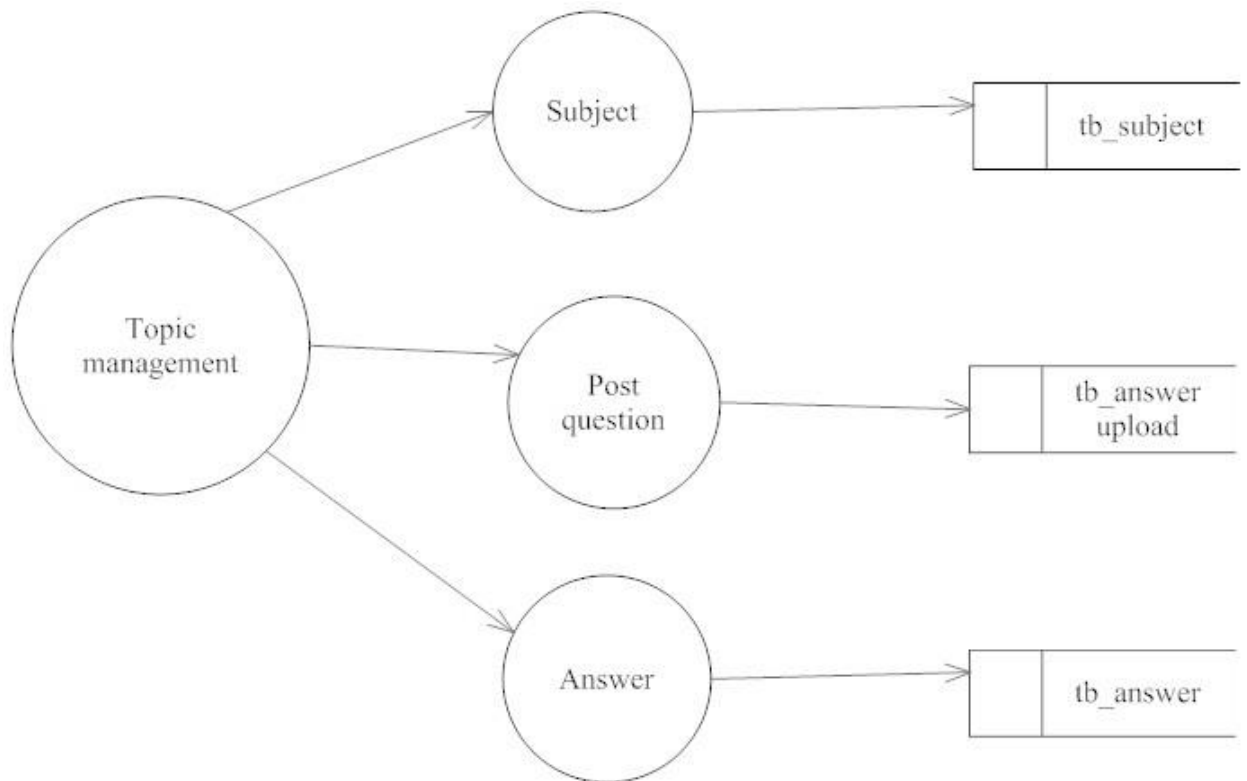
Fig 3.3.2

- REGISTERD USER PROCESSOR

Fig 3.3.3

- CHAT

Fig 3.3.4

- TOPIC MANAGEMENT

Fig 3.3.5

- GUEST PROCESSES
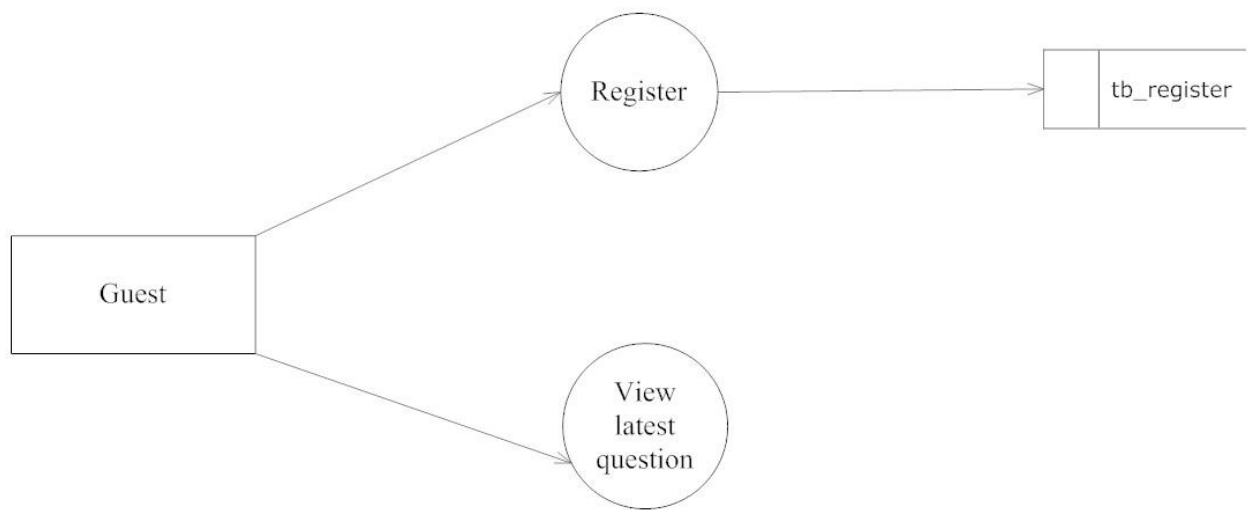
Fig 3.3.6

3.4 HARDWARE AND SOFTWARE SPECIFICATION

3.4.1 Hardware Specification

Processor	: Intel Pentium 4 with 1.5 Giga Hertz or higher
Memory	
Primary	: 512MB RAM or higher
Secondary	: 20 GB Hard disk or higher
Monitor	: LCD or higher
Keyboard	: 104 keys
Pointing Device	: two or three button
Mouse	
Printer	: Laser Printer

3.4.2 Software Specification

Operating System	: Windows 7
Front end	: ASP.NET 2.0, HTML, C#.
Back end	: SQL Server 2008

CHAPTER 4
SOFTWARE TOOLS USED

FRONT END

About Visual Studio.NET Framework:

Visual Studio.NET is a complete set of development tools for building ASP Web applications, XML Web server services, desktop applications, and mobile applications. Visual basic .NET, Visual C++.NET and Visual C#.NET, all use the same integrated development environment (IDE), which allows them to share tools and facilitates in the creation of mixed-language solutions. In addition, these languages leverage the functionality of the .NET framework, which provides access to key technologies that simplify the development of ASP Web applications and Web services.

The following are some features of Visual Studio.NET

- All the languages in .NET share a common environment. If you are familiar with the tools of VB then you can easily move around in C++.

- The Common Language Environment (CLR) manages all code and components at run time and makes it easy to create Multilanguage projects.

- Previously all languages have their own libraries in .NET all languages shares a common run time library.

- All languages have their own compiler. In order for they are to interoperability between two different languages, the compiler must share some common ground. This is the job of Common Language Specification.

- Common Type Specification, which creates a set of universal data types, both primitives and complex, that can now be communicated between two modules written in two modules.

- The major building block of .NET is assemblies. Versioning and security are set at this level.

- **ASP.NET**

ASP.NET is a programming framework built on the common language run time that can be used on a server to build powerful web applications. ASP.NET combines unprecedented developer productivity with performance, reliability and deployment.

Developer Productivity

ASP.NET helps you deliver real world Web application in record time.

Easy Programming Model: ASP.NET makes building real world web applications dramatically easier.

Flexible Language Options: ASP.NET now supports more than 25 .NET languages (including built-in supports for VB.NET, C#, and Jscript.NET no tool required), giving you unprecedented flexibility in your choice of language.

Great Tool Support: You can harness the full power of ASP.NET using any text editor-even notepad.

Rich Class Framework: Application features that used to be hard to implement, or required a third party component, can now be added in just a few lines of code using the framework.

Improved Performance and Scalability

ASP.NET lets you serve more users with the same hardware.

Compiled execution: ASP.NET is much faster than classic ASP. ASP.NET will automatically detect any changes, dynamically compile the file if needed, and store the compiled results to reuse for subsequent requests. Dynamic compilation ensures that your application is always up to date, and compiled execution makes it fast.

Rich output caching: ASP.NET output caching can dramatically improve the scalability and performance of your application. When output caching is enabled on a page, ASP.NET executes the page just once and saves results in memory in addition to sending it to the user. When another user requests the same page, ASP.NET serves the cached result from memory without re-executing the page.

Web-farm Session State: ASP.NET session state lets you share session data user-specific state values across all machines in your Web farm. Now a user can hit different servers in the farm over multiple requests and still have full access to her session.

SECURITY

With built-in Windows authentication and pre-application configuration, you can be assured that your applications are secure.

VISUAL C# .NET

Microsoft Visual C# .NET is the most creative tool, which helps a programmer to create a user interface than writing several lines of code. The predecessor of Visual C# .NET was BASIC (Beginners All Purpose Symbolic Instruction Code). BASIC was mainly interpreter-based whereas Visual C# .NET is that it is rapid Application Development Tool. This is the main reason why Visual C# .NET is widely used as a prototyping language.

Visual C# .NET is object oriented, whereas each object possesses some properties like size, position, colour and appearance etc. By modifying certain properties and invoking the methods of these objects, we exert a great deal of control over the user interaction with the Visual C# .NET program we have written. Each object has its own event handling procedures.

Visual C# .NET is a member of Visual Studio.

BACK END

SQL SERVER 2008

SQL Server 2008 the database for the internet computing provides advanced tool to manage all type data in website. It is much more than simple relational database model. The Internet File System combines the power of SQL Server 2008 with the ease of use of the file system. It allows all users to move all of the data into SQL Server 2008 database, where it can be stored and managed efficiently.

SQL Server offers a comprehensive high performance Internet platform for e-commerce and data warehousing. This integrated platform includes everything needed to develop and manage Internet applications.

SQL Server offers wide variety the most advanced Graphical User Interface driven development tool to build the business applications as well as an image suit of software applications for many areas of business and industry, stored procedure functions and packages can be written by using SQL, PL/SQL.

CHAPTER 5

SYSTEM TESTING

Method Accepted for system testing

      System testing is the stage of implementation, which is aimed at ensuring that the system works accurately and efficiently before leave operation commences. An elaborate testing of data is prepared and the system is based using the test data. While testing errors noted and corrections are measured. The users are trained to operate the developed system.

Testing objectives: Testing is a process of executing a program with the intent of finding an error. Good test case is one that has a probability of finding an as yet undiscovered error. A successful test is one that uncovers an uncovered error.

Testing Principle: All tests should be traceable to end user requirements.

Tests should be planned before long test begins.

Testing should begin on small scale and progress towards testing in large.

Exhaustive testing is not possible.

To be most effective, testing should be conducted by an independent party.

Testing strategies: A strategy for software testing integrates software test cases into a series of well planned steps that result in a successful construction of software. Software testing is a broader topic for what is referred to as verification and validation. Verification refers to the set of activities that ensure that the software that has been built is traceable to customer's requirements.

Testing Steps:

- Unit Testing
- Integration Testing
- Acceptance Testing

Unit Testing

      Unit testing means testing each units of design separately. Here in this project we tested each unit of design separately and verify that there were no errors. For this testing

each design is run individually After executing each page if there any error occurs correction mechanism is done instantly.

Integration Testing

In our project we combine many units module to form a sub system. These sub systems are then tested. This is done to see whether the modules can be integrated properly. Based on integration testing some changes made to the design.

Acceptance testing

The goal of acceptance testing is to see if the software meets all the requirements as needed. The testing was performed by data of all the users of the system. It was found that the software meets all the requirements of the students, teachers, administrator and placement officer as needed.

CHAPTER 6

SCREEN SHOTS

Fig 6.1: **HOME**
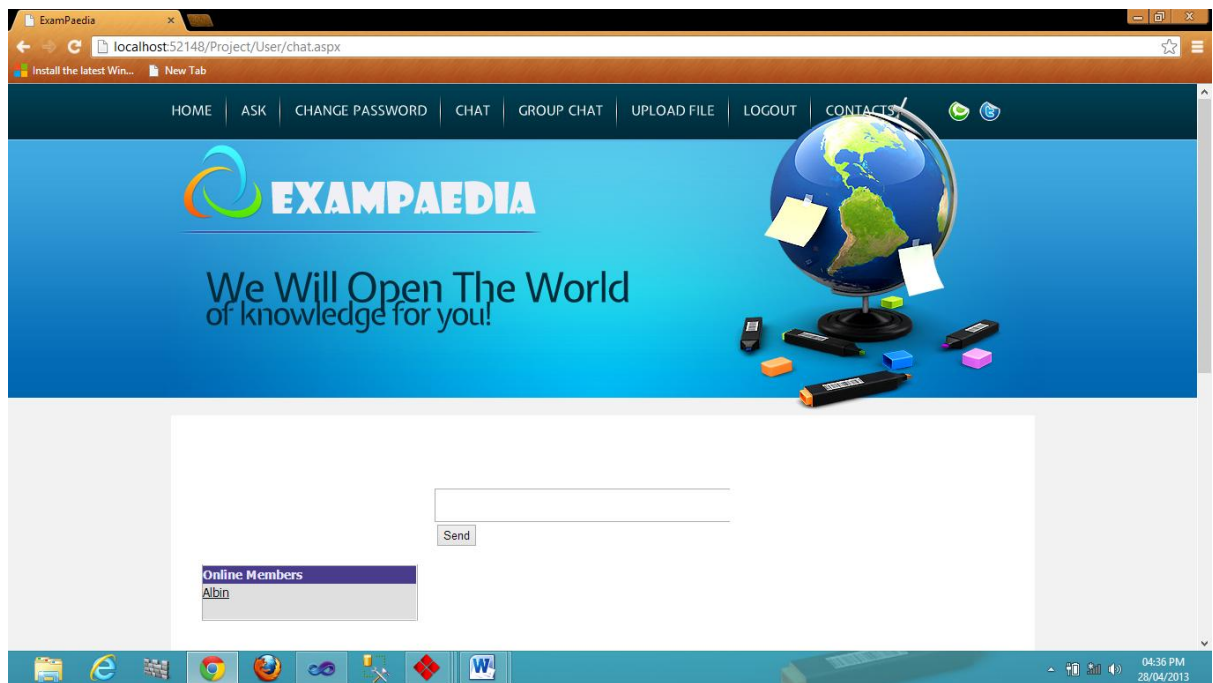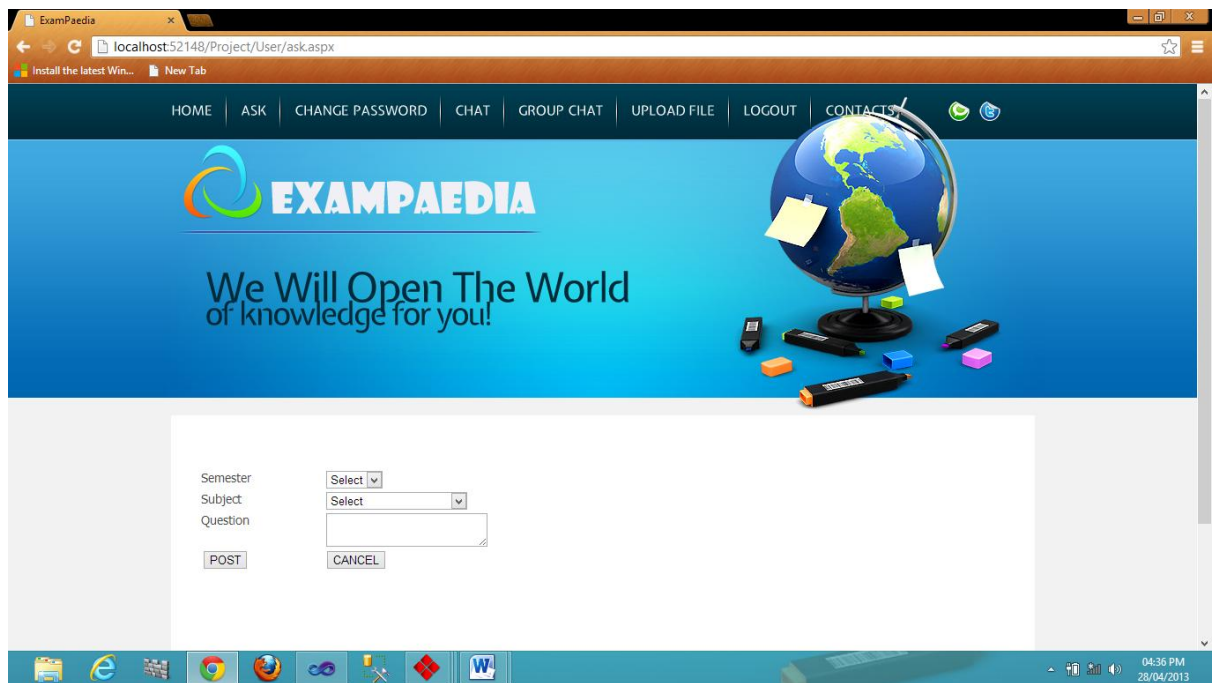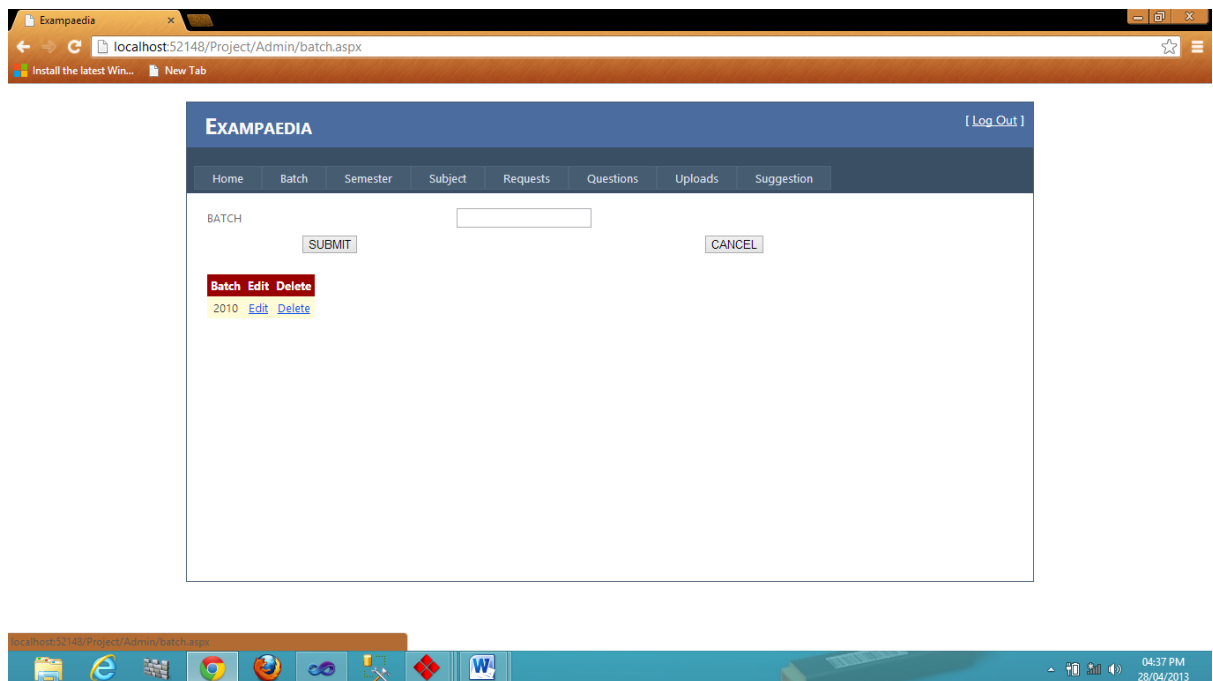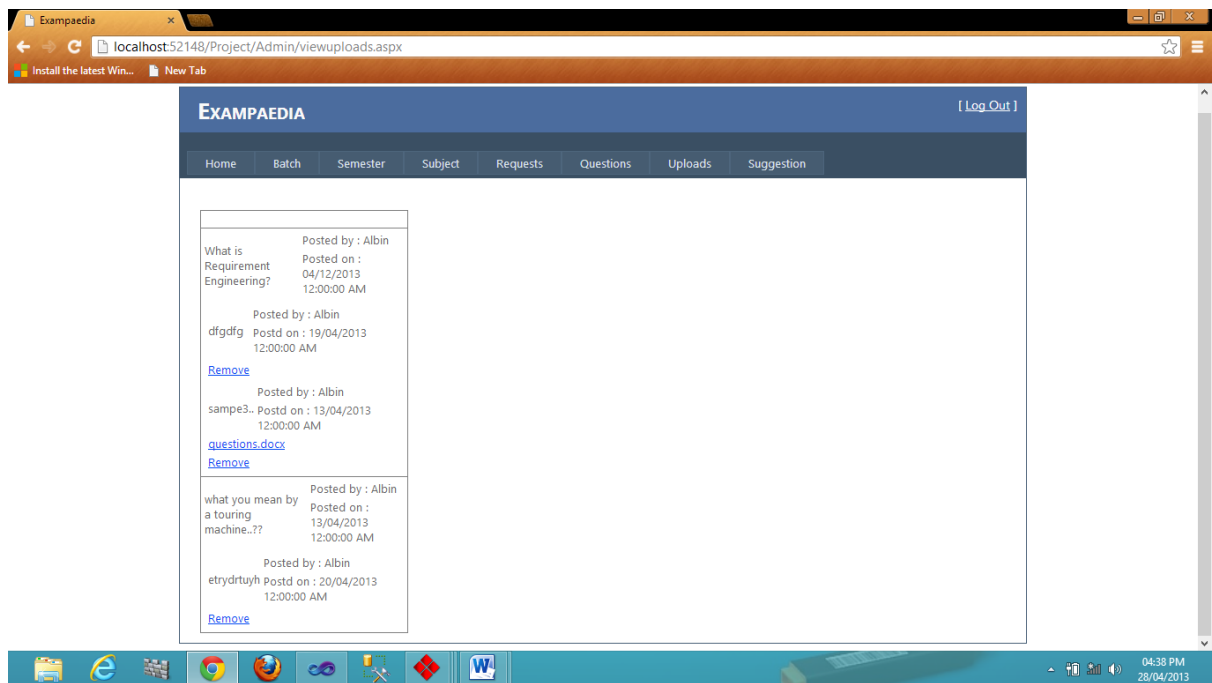
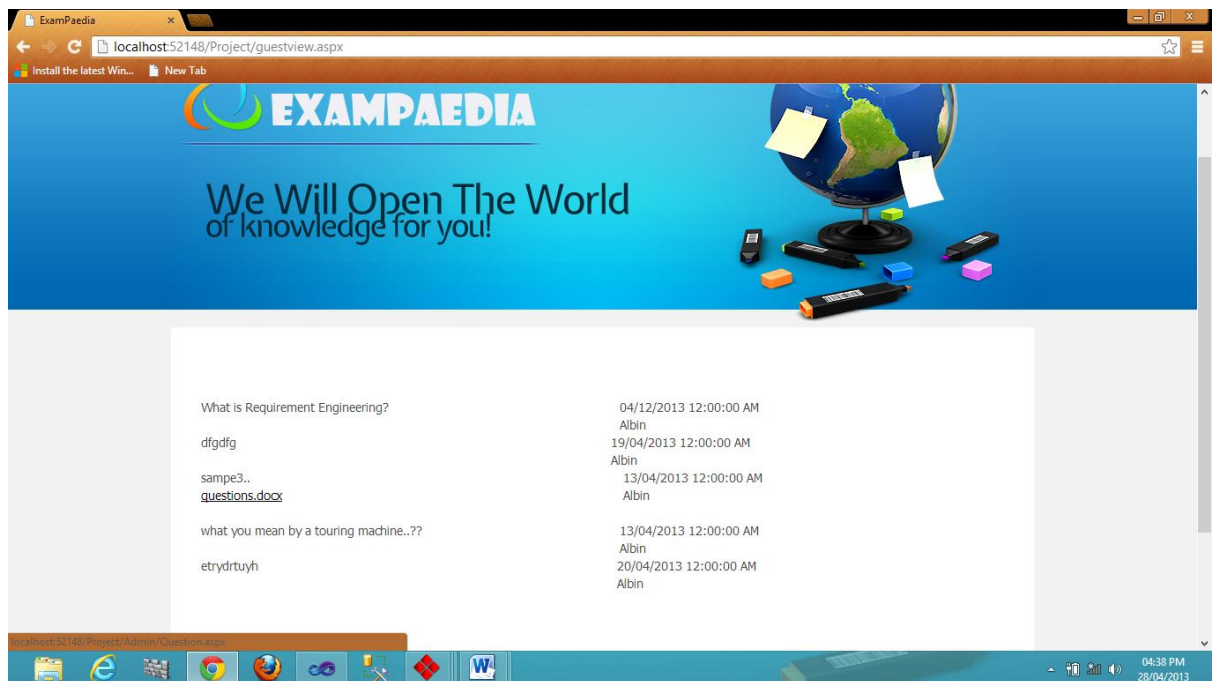**Fig 6.2: SIGNUP**
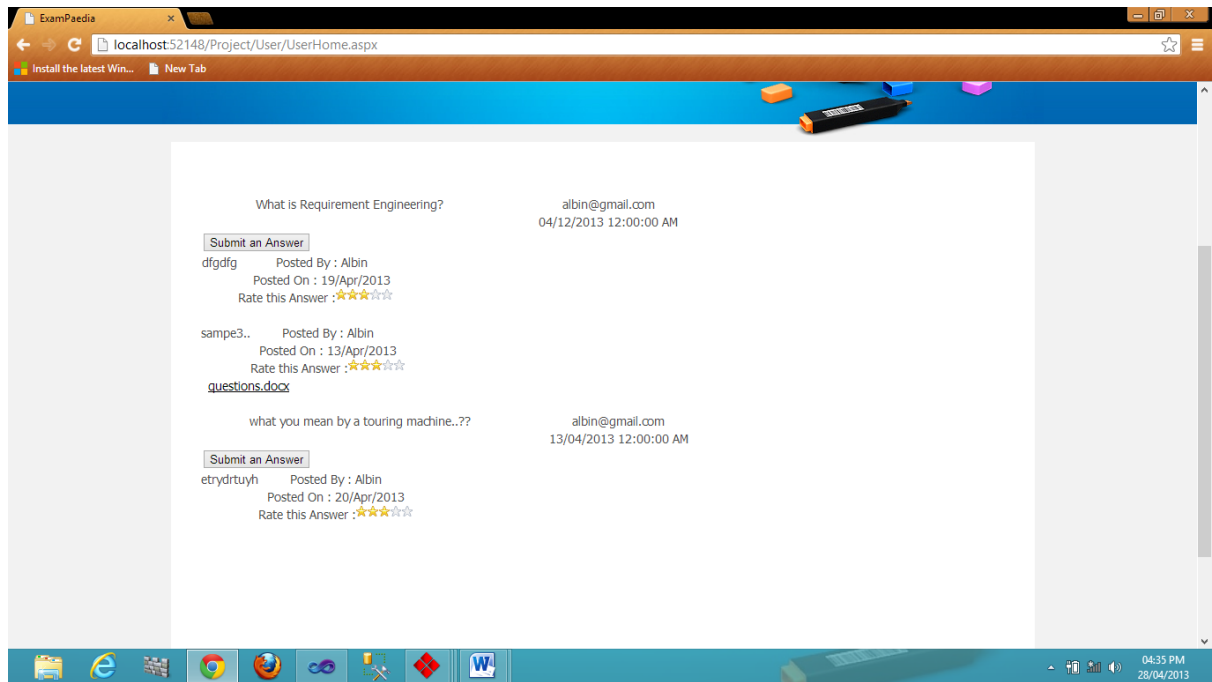
Fig 6.3: USER HOME

Fig 6.4: CHAT

Fig 6.5: ASK QUESTION

Fig 6.6: ENTER BATCH

Fig 6.7: UPLOADED FILE VIEW

Fig 6.8: LATEST QUESTION VIEW

CHAPTER 7

CONCLUSION

This project was successfully completed, within the time span allotted. All the modules are tested separately and input together to form the main system. Finally the system is tested with real data and everything worked successfully. Thus the system has fulfilled the entire objective identified.

The system had been developed in an attractive dialogue fashion. So user with minimum awareness about computers can also operate our site easily. To conclude this, we thank all the people who help us to complete this project.

CHAPTER 8
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