GROUP NO: 03

GROUP MEMBERS:

- **Flying officer K.M** HASIBUDULA (201414064)
- BRAZAB NAYAK(201414089)
- ASIBUL ISLAM ASIB(201414100)
- HAMIM MD. ADAL(201414111)
- NAWSHEEN TARANNUM PROMY(201414118)
- K.M. TARIKUL ISLAM(201314062)

SOFTWARE ENGINEERING AND INFORMATION SYSTEM DESIGN SESSIONAL

CSE-320

MIST FORUM

SOFTWARE REQUIREMENTS SPECIFICATION (SRS)

FOR

MIST FORUM

FINAL REPORT

VERSION [1.0]

NOVEMBER 9 , 2016

TABLE OF CONTENTS

1. AIM---------- 5
2. FEATURES----------5
3. TARGET USERS----------5
4. PLATFORM----------5
5. SRS DOCUMENTS OF MIST FORUM

5.1 STALKHOLDERS----------6

5.1.1 END-USERS----------6

5.1.2 SYSTEM MANAGERS----------6

5.1.3 SYSTEM OWNERS----------6

5.1.4 EXTERNAL STALKHOLDERS----------7

5.1.5 TESTERS----------7

5.2 REQUIREMENTS

5.2.1 USER REQUIREMENT 1----------7
5.2.2 SYSTEM REQUIREMENT 1----------7
5.2.3 USER REQUIREMENT 2----------7
5.2.4 SYSTEM REQUIREMENT 2----------7
5.2.5 USER REQUIREMENT 3----------8
5.2.6 SYSTEM REQUIREMENT 3----------8

5.2.7 USER REQUIREMENT 4----------8
5.2.8 SYSTEM REQUIREMENT 4----------8

5.2.9 USER REQUIREMENT 5----------9
5.2.10 SYSTEM REQUIREMENT 5----------9

5.2.11 USER REQUIREMENT 6----------9
5.2.12 SYSTEM REQUIREMENT 6----------9

6. FUNCTIONAL REQUIREMENTS----------9
7. NON- FUNCTIONAL REQUIREMENTS----------10
8. CONTEXT DIAGRAM----------11-12
9. DATA FLOW DIAGRAM

9.1 POST &COMMENT MODULE----------13

9.2 POST FILTERING MODULE----------14

9.3 SECURITY & NOTIFICATION SYSTEM----------15

9.4 USER REGISTRATION MODULE----------15

10. CLASS DIAGRAM
10.1 Mist Forum Post Filtering System----------16
10.2 Mist Forum User Registration System----------17
11. USE CASE DIAGRAM
11.1 Post management system----------18
11.2 Teacher student interaction use-case diagram----------19
11.3 Post-categorise use-case diagram ----------20
11.4 Scenario
11.4.1 Scenario 1----------20-21
11.4.2 Scenario 2----------21-23
11.4.3 Scenario 3----------23-25
12. SEQUENCE DIAGRAM
12.1 Post And Comment Feedback----------26
12.2 Online Conversation----------27
12.3 Uploading A File ----------28
13 USER MANUAL ----------29-36

AIM

To help undergraduate, postgraduate students, alumni of MIST and others entitled to use this platform to make well-informed choices about their future working lives and to translate these effectively into appropriate decisions and actions.

FEATURES

- **To help the undergraduate and graduate students so that they can be made well informed choices about their future working lives.**
- **To maintain and develop links with the range of organizations providing appropriate opportunities for graduates, including further study.**
- **To continue to be the main provider of choice of careers education, information and guidance within MIST.**
- **To help students and graduates understand and develop the necessary skills to equip them for whatever career path they choose.**
- **Identify personal leadership qualities and strengths in effort to increase the leadership potential of the students.**
- **Utilize campus resource to inform students about life on and off campus.**

TARGET USERS

- **Present Students**
- **Ex- Students**
- **Faculty Members**
- **Staffs**

PLATFORM

WEB-BASED

FRONT-END: HTML , CSS

BACK-END: PHP

DATABASE: MySQL

SRS DOCUMENTS OF MIST FORUM

Stakeholders:

Any person or organizations who are directly or indirectly involved i.e. system customers, managers, system engineers, system test engineer, system management engineers are known as the stakeholders.

We came to find the following stakeholders for our project:

- ***End users*:**

MIST students and faculties (Both present and ex) who can create a social outlet among themselves and the former students who can play vital rolls on building up careers by sharing their experiences on and off the campus and providing information on studying abroad.

- ***System managers***:

IT experts who are responsible for maintaining the system (The members of the group) and specifying for any changes needed.

- **System owners**:

The members of the group.

- **External stakeholders**:

Students from different universities as we want to connect with students around the country in our national student forums. Indirectly, funders and sponsors who are vital for a successful completion of an event but are important contributors.

- **Tester:**

Our course instructors will be one of our first users (testers) who will judge our software's creditability and efficiency before it goes operational.

User requirements:1:

User requirements are the high level abstract requirements which are mainly demanded by the users of the system.

System requirements:1:

System requirements are the detailed description of what the system should do.

We came to find the following user and system requirements for our project:

User requirement:2:

- MIST forum will show all the blogs and forums based on the topic related, date of their publication, name and identity of the author.

System requirement:2:

- ❑ The system will publish the submitted forums and blogs in between a time given daily, as the writing needs to be verified before publishing.
- ❑ For this purpose back end PHP can be used and MySQL for database.

User requirement:3:

- ❑ Readers are free to comment independently related to the events.

System requirement:3:

- ❑ If forums are categorized into different topics and discussions then separate section will be opened for each event according to the description.

User requirement:4:

- ❑ In case of our forum students of different departments will be involved. Basically, one departmental students have no interest of other departmental activities. So, user need categorization according to their departments.

System requirement:4:

- ❑ System managers will specify the requirements and read them to check that they meet their needs.
- ❑ A forum section can be made available for each department of MIST to ease the management. Each section of forum will be categorized according to departments. We have to build up a vulnerable RDBMS.

User requirements:5:

- ❑ User needs interactive and friendly user interface.

System requirements:5:

- ❑ To decorate the front end we will use JavaScript, JQuery , and CSS3 etc.
- ❑ We have to ensure high data traffic and less time consume. That's why we use Ajax. Ajax will help us to reload the particular part of the web page rather than reloading the whole page. We have also Implement efficient algorithm by using server side scripting language.

User requirement:6:

- ❑ In Some cases author of a post will not prefer comment from a desired group of people.

System requirement:6:

- ❑ Access to comment on any forum or blog will be restricted according to the type of the post or post's author need.

Functional requirements:

***It describes functionality or system services depend on the type of software, expected users and the type of the organization*.**

The requirements are:

- ❑ A user will be able to search any of the particular forum or blog and can make their opinion useful by giving their reviews in the comment section.
- ❑ The system will refresh each day and publish the submitted writings (forums and blogs) stored on the previous day up to the following day.
- ❑ Each user using the system will be uniquely identified by id number as each section of the identity number denotes a student's department, batch and roll number.

Non-Functional requirements:

These define system properties and constrains e.g. reliability, security, efficiency.

For example:

- ❑ Users of the system can authenticate themselves by personal identification numbers (Id number).
- ❑ We have to aware about hackers act. We have to take potential steps for SQL injection.
- ❑ The writers will have some privacy as per the demand, for example all blogs are not free for the readers to comment.
- ❑ Users can submit on their blog anytime they want, so the forum will be kept functional all the time (avoiding system failure).

CONTEXT DIAGRAM

A **context diagram** (CD) in software engineering and systems engineering is a **diagram** that defines the boundary between the system, or part of a

system, and its environment, showing the entities that interact with it. This **diagram** is a high level view of a system.

The Context Diagram shows the system under consideration as a single high-level process and then shows the relationship that the system has with other external entities (systems, organizational groups, external data stores, etc.).

Another name for a Context Diagram is a Context-Level Data-Flow Diagram or a Level-0 Data Flow Diagram. Since a Context Diagram is a specialized version of Data-Flow Diagram, understanding a bit about Data-Flow Diagrams can be helpful.

As we are working on MIST FORUM software, we also work on our context diagram. It will help you to describe our project very easily.

Through our MIST FORUM we can see that we have registration system, posting & commenting system & also feedback system. Here we can also categorize posting.

Our project Mist forum context diagram is given below:

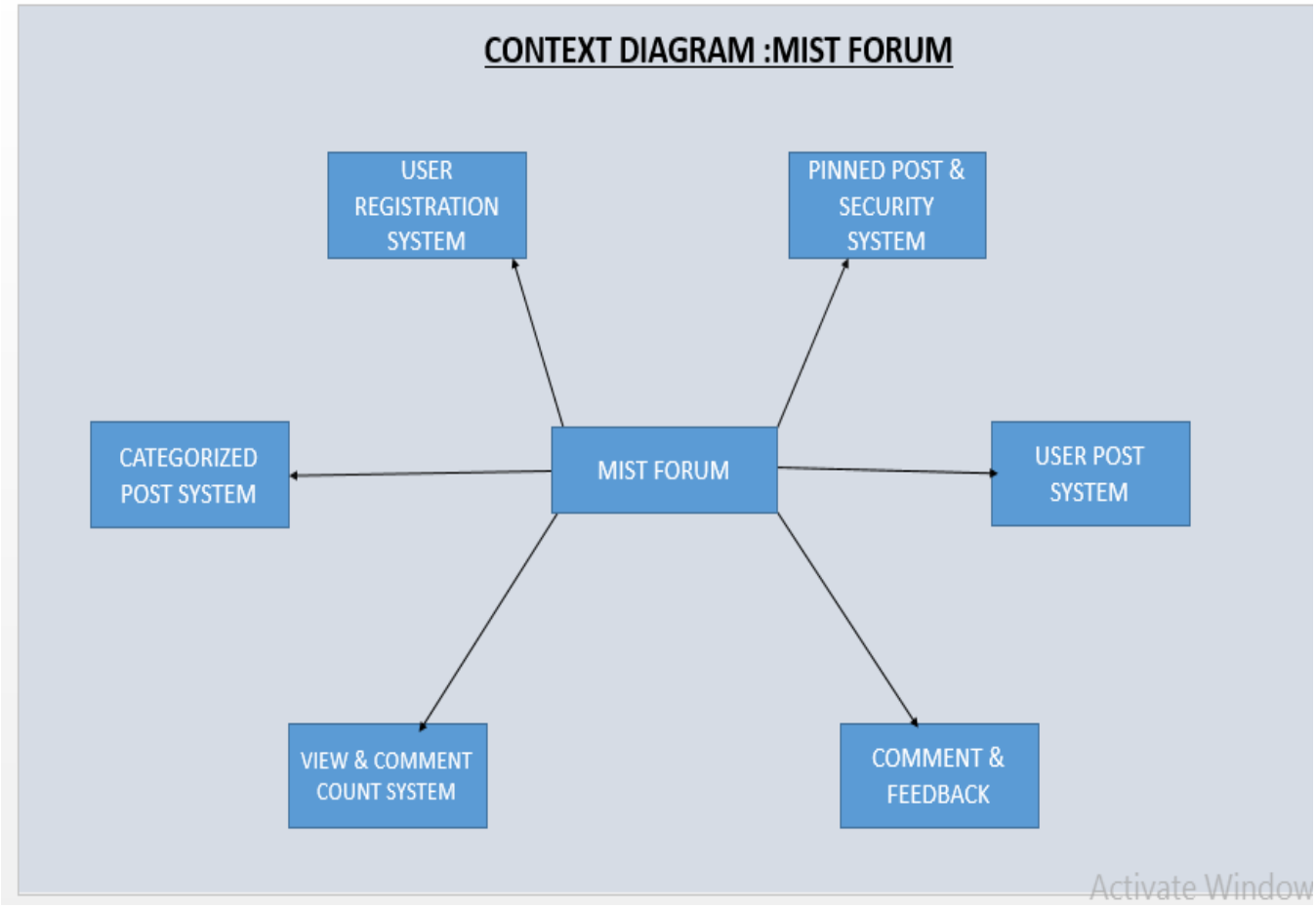


FIGURE: 01 CONTEXT DIAGRAM

DATA FLOW DIAGRAM

A data flow diagram (DFD) maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination. Context Diagrams and Data-Flow Diagrams were created for our project (Mist Forum) systems analysis and design.

Data flow diagram (DFD) projects an overview of an information system through representing the production and receive of 'data'. Visual Paradigm features all the DFD tools you need to draw professional DFD and generate complete DFD specification. You can also link up your DFD and business process diagram (BPD) for connecting your system processes and business activities.

DFD : POST &COMMENT MODULE

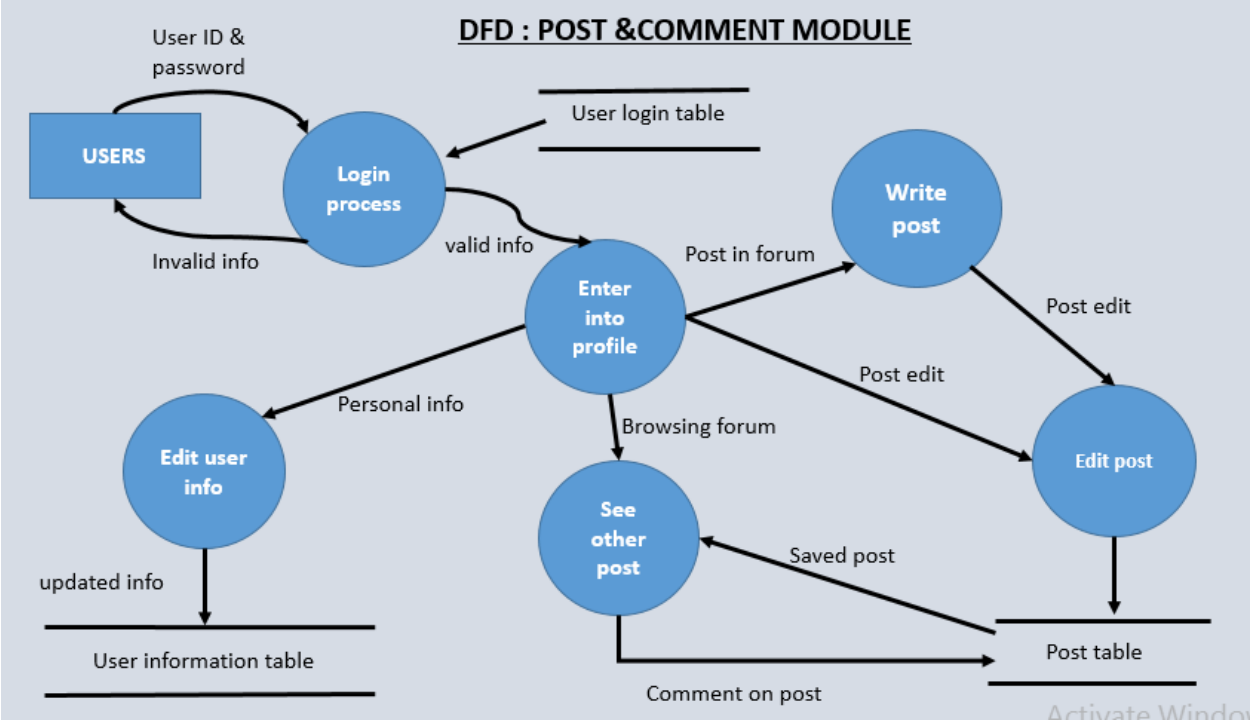


FIGURE: 02

DFD : POST FILTERING MODULE

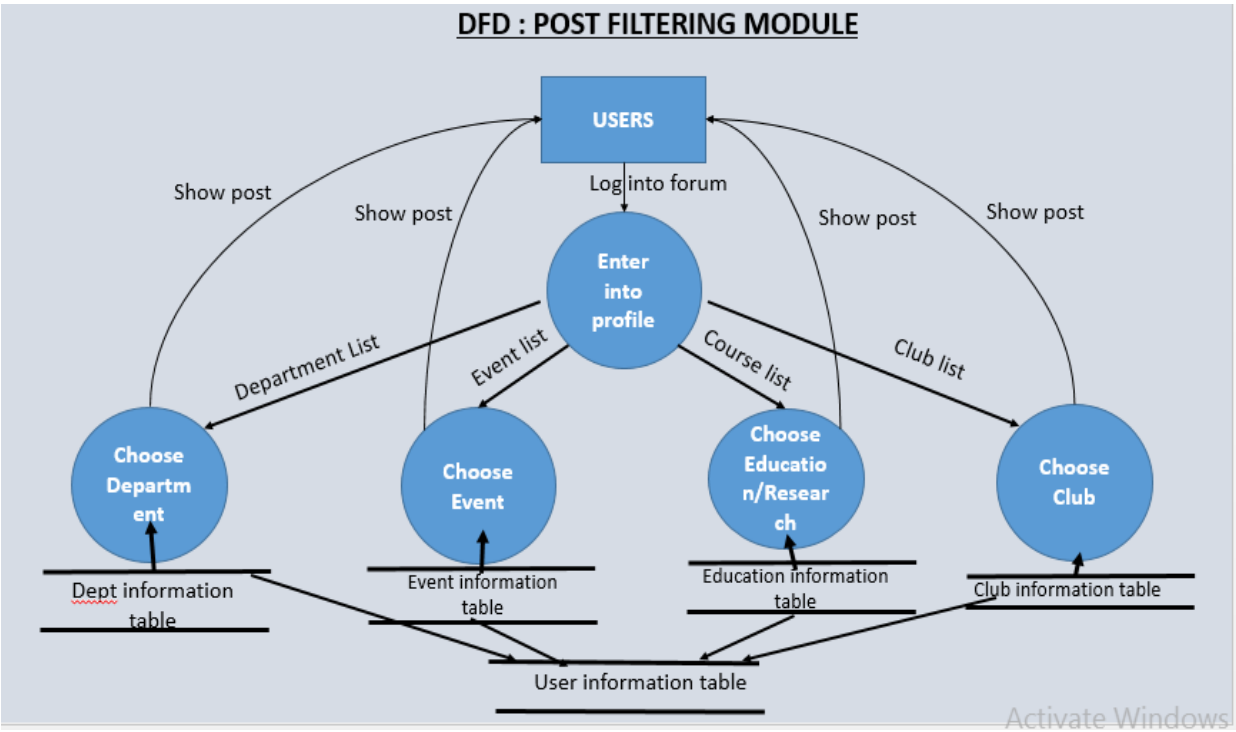


FIGURE : 03

DFD : SECURITY & NOTIFICATION SYSTEM

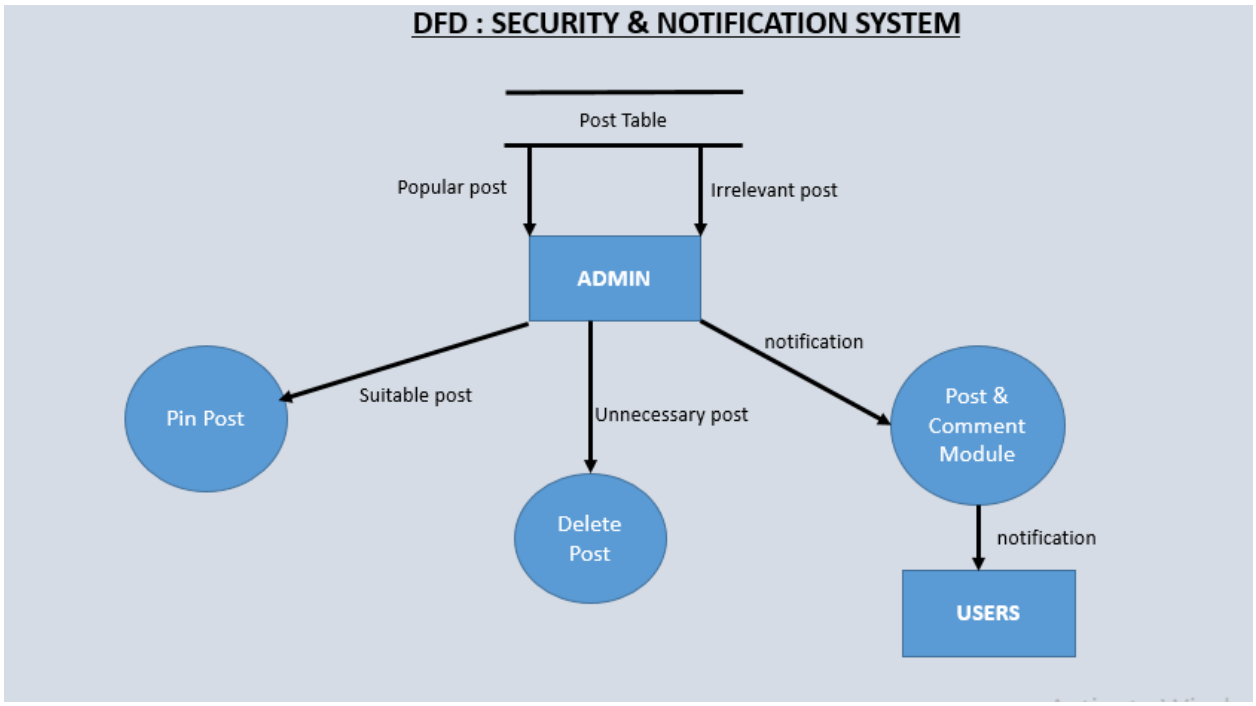
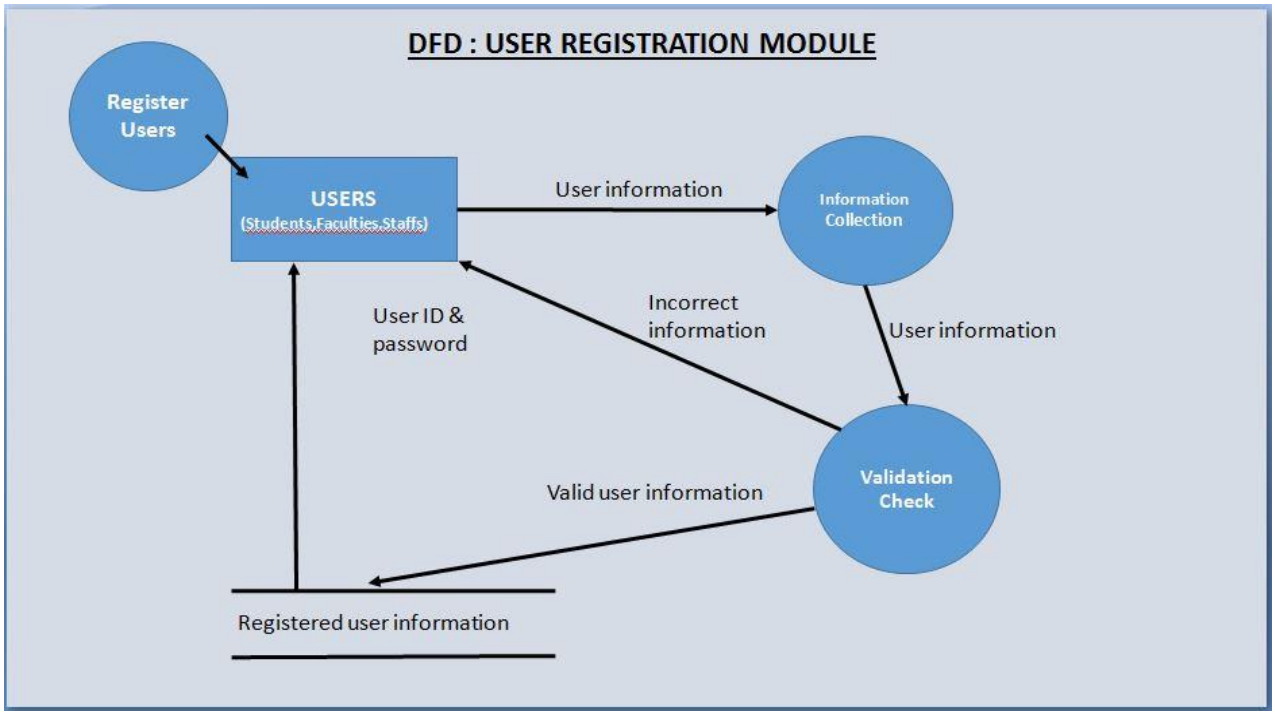


FIGURE: 04

DFD: USER REGISTRATION MODULE



CLASS DIAGRAM

In software engineering, a **class diagram** in the Unified Modeling Language (UML) is a type of static structure **diagram** that describes the structure of a system by showing the system's **classes**, their attributes, operations (or methods), and the relationships among objects.

Class diagrams are used during Analysis, Design and Development. Class diagram are the most fundamental UML Diagram. In our project using two Class diagram

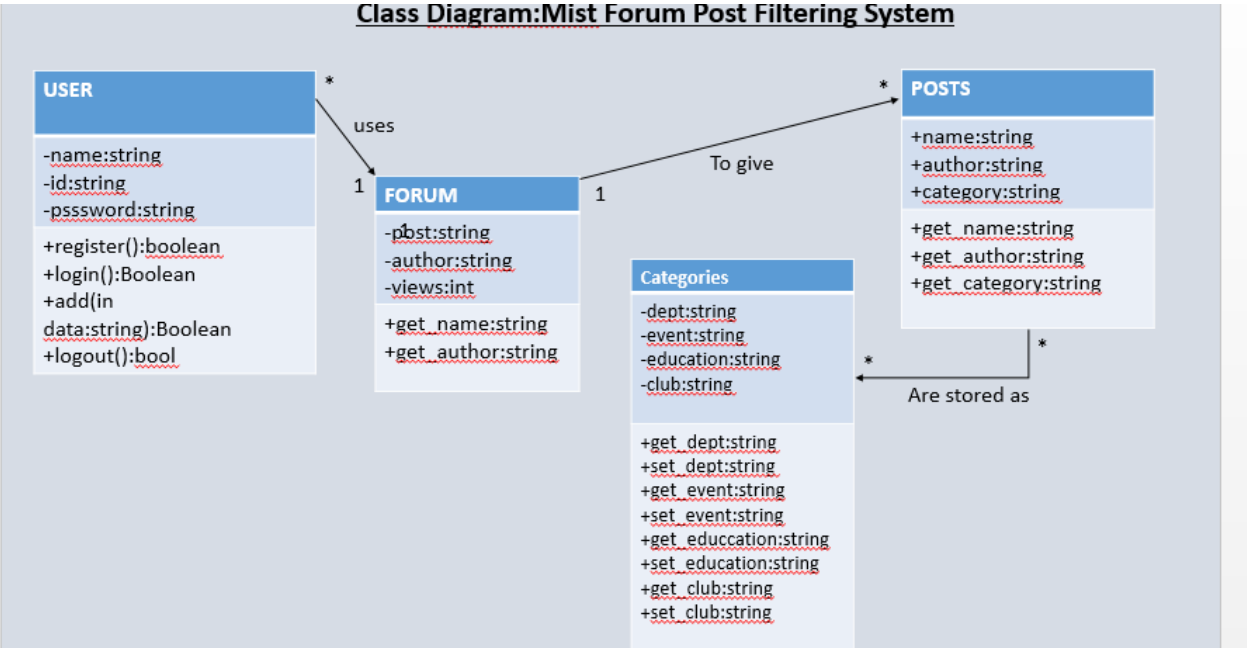


FIGURE : 06 (Class Diagram: Mist Forum Post Filtering System)

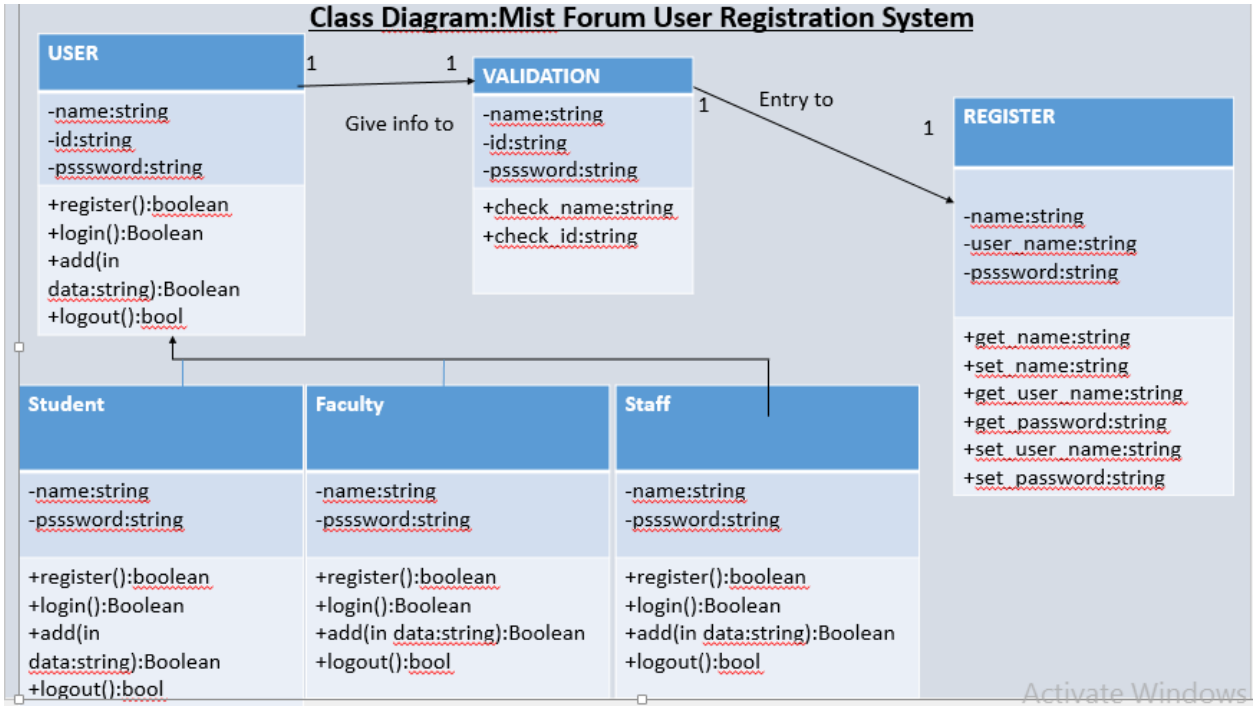


FIGURE : 07 (Class Diagram: Mist Forum User Registration System)

USE CASE DIAGRAM

The purpose of use case diagram is to capture the dynamic aspect of a system. But this definition is too generic to describe the purpose.

Because other four diagrams (activity, sequence, collaboration and Statechart) are also having the same purpose. So we will look into some specific purpose which will distinguish it from other four diagrams.

Use case diagrams are used to gather the requirements of a system including internal and external influences. These requirements are

mostly design requirements. So when a system is analyzed to gather its functionalities use cases are prepared and actors are identified.

MIST FORUM has some use case diagram which are given below:

1. Post management system

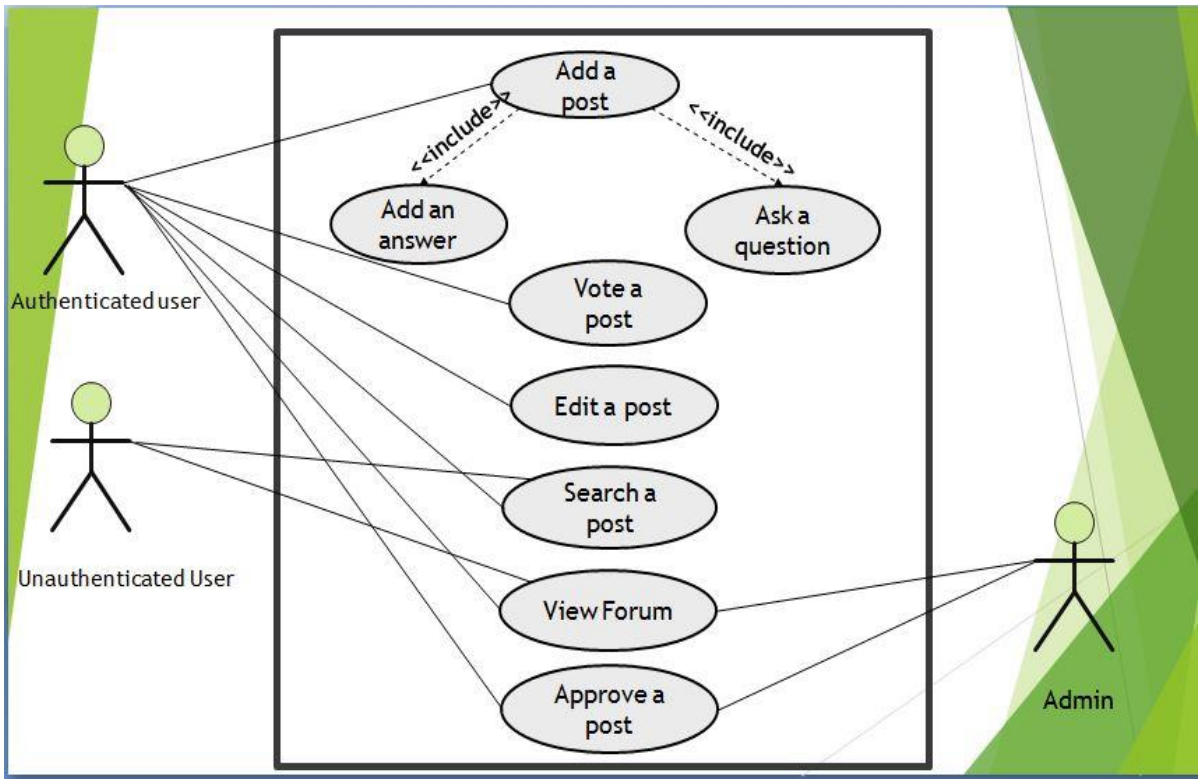


FIGURE : 08

2 .Teacher student interaction use-case diagram

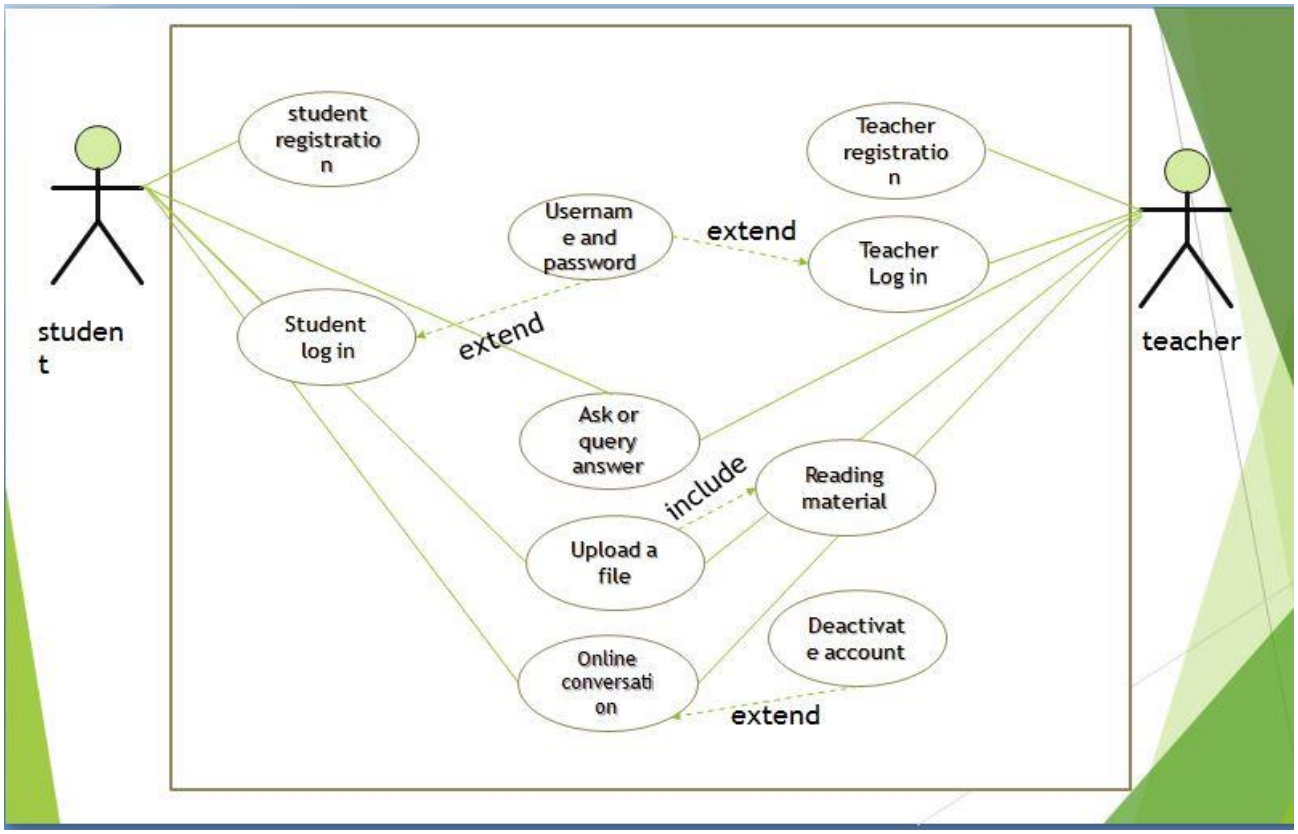


FIGURE : 09

3 Post-categorise use-case diagram

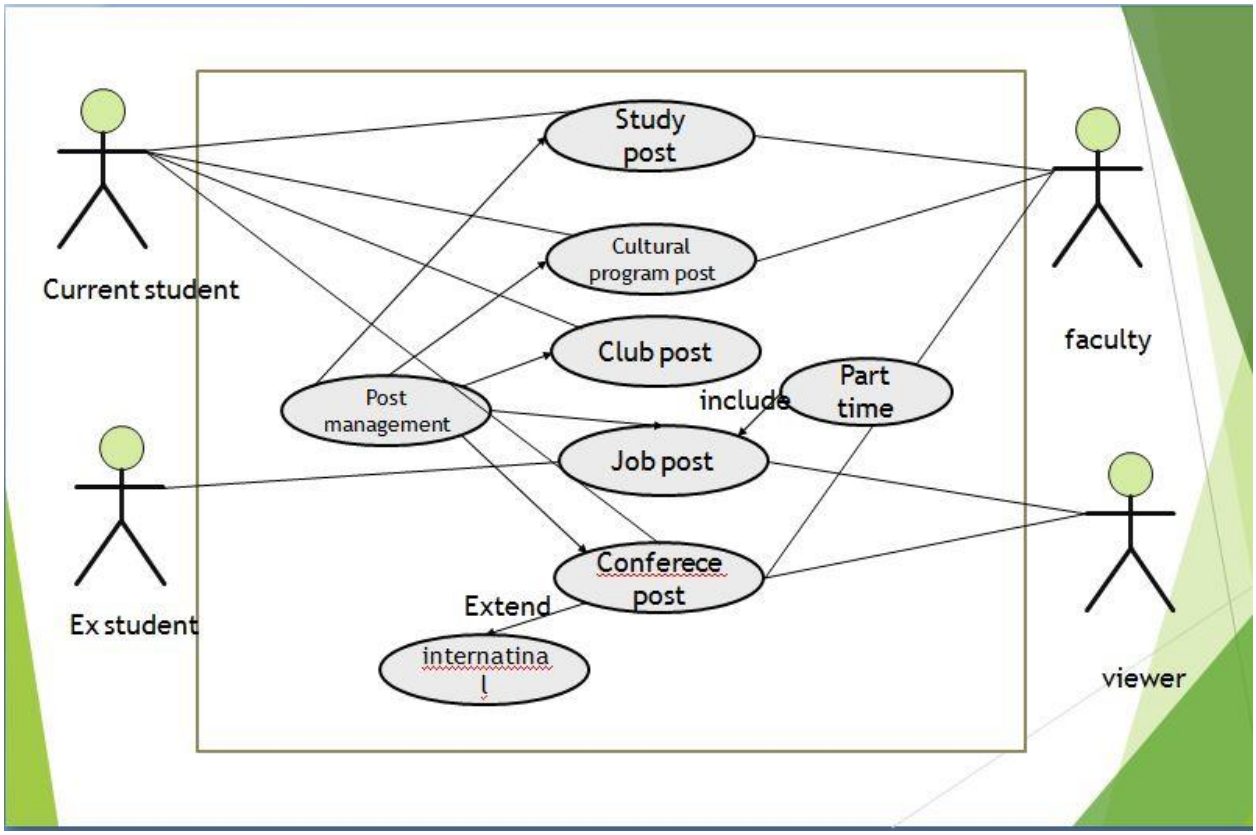


FIGURE : 10

SCENARIO 1:

- **Use case UC1** : post and feedback
- **Primary Actor** :Current Student
- **Stakeholders and interests:**
- **Current student:** They can gain knowledge and be acquainted with the ex-students.
- **Admin:** Need to know their profile information and validity.

- **Ex-students:** They can find job and can be attached with the welfare of their own Institute.
- **Faculty :** They can be interactive with the students and can get information from the researcher.
-
- **Preconditions:** To post user must have registered in the forum.
- **Post conditions:** System Administrator can see detail information of selected user information in the system.
- Main Success scenario (Basic Flow):
- 1)First student have to log in as he/she will find a log in button.
- 2)Then he/she have to click on the post button
- 3)Then he/she have to choose the category from the category list
- 4)Then he/she may have give some information about ownslef
- 5)Then have to click on the submit button
- Extensions scenario (Alternative Flows):
- At any time system fails:
- a)Then the writing can be saved there as there will be an notepad for the users where they can save the writing.
- Wrong identifier: If ID and password is wrong then no modification will occur.
- Special requirements:

- 1.We want robust recovery when access to remote services such the inventory system is falling.
- 2.Touch screen UI on a large flat panel monitor.Text must be visible fro 1 meter.
- 3.Response from the admin will be as much quick as possible.
- Technology and data variations list:
- Whole system will be website based.
- With the demand of the user portable software of this can be available.
- Frequency of operations: continuous.

SCENARIO 2

- Use case UC2: Upload a file
- Primary Actors : Student and faculty
- Stakeholders and interests:
- Student: Student may invent something creative which they upload here.
- Faculty: The faculty can upload reading materials here.
- Researcher: They can upload here their research to get the preview and to give concept to the students also.

- PreConditions: User must have to be registered and the file format also have to be supported type.
- Post conditions: The file will be saved in server and will also be authenticated by the admins.
- Main Success scenario (Basic Flow):
- 1)First user have to log in.
- 2)Then user will find a button named upload.
- 3)Then user have to give some necessary information for the validity check
- 4)Then he will browse it from where the file is kept by clicking “choose file” option
- 5)Then there will be a tik mark clicking which user can upload his/her file.
- Extensions scenario (Alternative Flows):
- At any time system fails. To support recovery there will be some allocated space for individual user.
- Invalid identifier : System detects and rejects entry.
- If any kind of malware or unpotential file is detected then the file wont be uploaded.
- Special Requirements:
- 1)Language internationalization on the text is displayed.
- 2)There will be a eror detector which will prevent the mis-spelling.

- 3)System will be robust to save the uploaded file.
- Technology and data variations list:
- Quick and fast uploading system.
- Distionary to prevent the miss-spelling.
- Frequency of operations: can be continuous.

SCENARIO 3

- Use case UC3 : online conversation
- Primary Actor :Student and faculty
- Stakeholders and interests:
- Student: They can knock a faculty for any kind of help there without any hesitation.
- Faculty :They can also have a conversation with the desired student in any matter.
- 3)Ex-student: They can asked any individual student for part time job or another reason.

- Preconditions: Both have to be agreed to have the conversation and both have to be follow each other.
- Post Conditions: The text will be saved in the server and sending text cant be deleted after the other one have seen it.

- Main Success scenario (Basic Flow):
- 1)First the user have to log in.
- 2)There will be a side bar where a list of online member whom user follow
- 3)Then the user have to send request to have a conversation
- 4)Then the other user have two option to reject or accept
- 5)If the other one accept
- 6)Then they can have the online conversation

- Special Requirements:
- 1)The conversation should be meaningful.If any kind of harassment occurs then there’s a option to report about the particular one.
- 2)Touch screen UI on a large flat panel monitor.Text must be visible fro 1 meter.
- Technology and data variations list:There will be audio,video or text file.

SEQUENCE DIAGRAM

A **Sequence diagram** is an interaction **diagram**that shows how objects operate with one another and in what order. It is a construct of a message **sequence** chart. A **sequence diagram** shows object interactions arranged in time **sequence**.

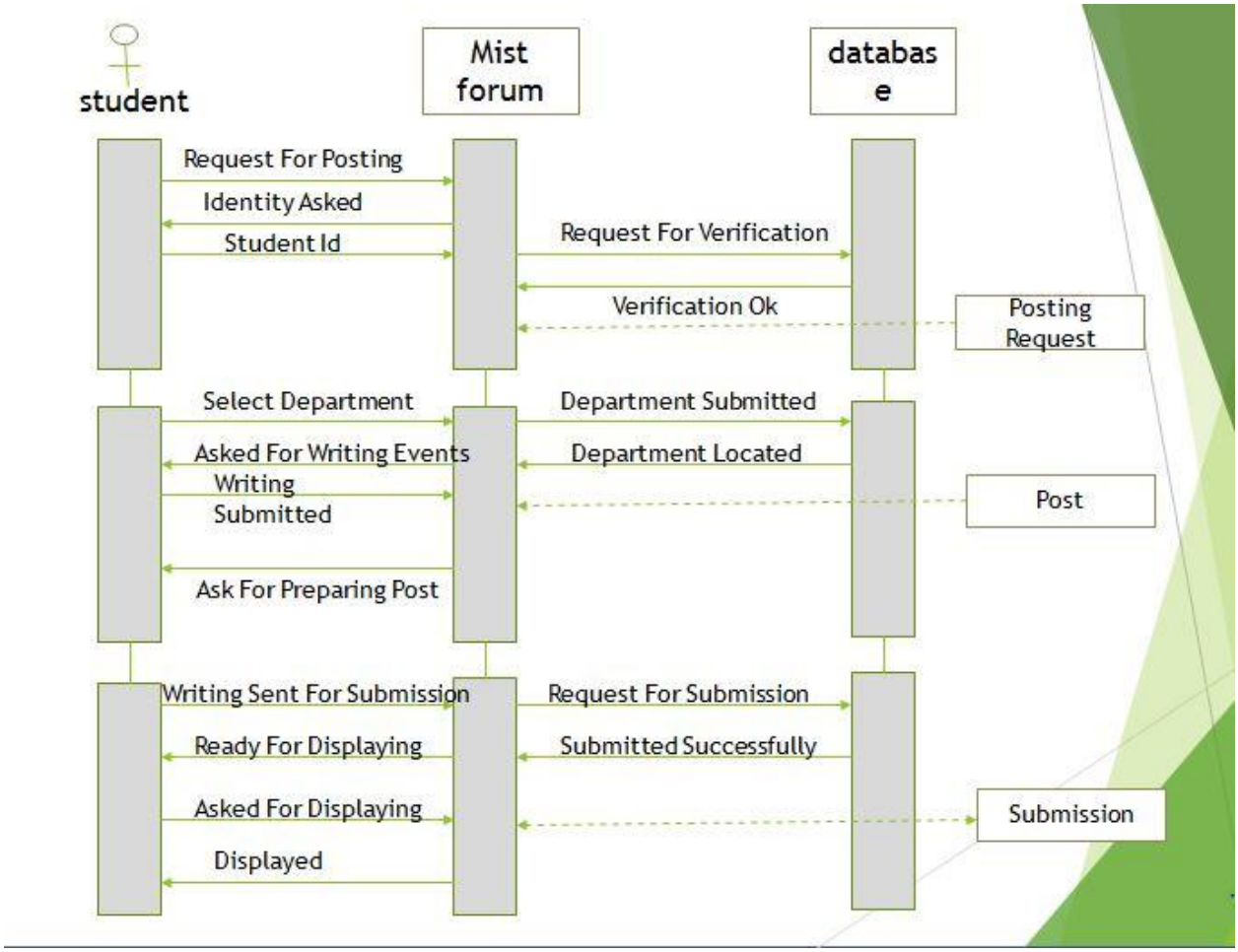


FIGURE : 11 (POST AND COMMENT FEEDBACK)

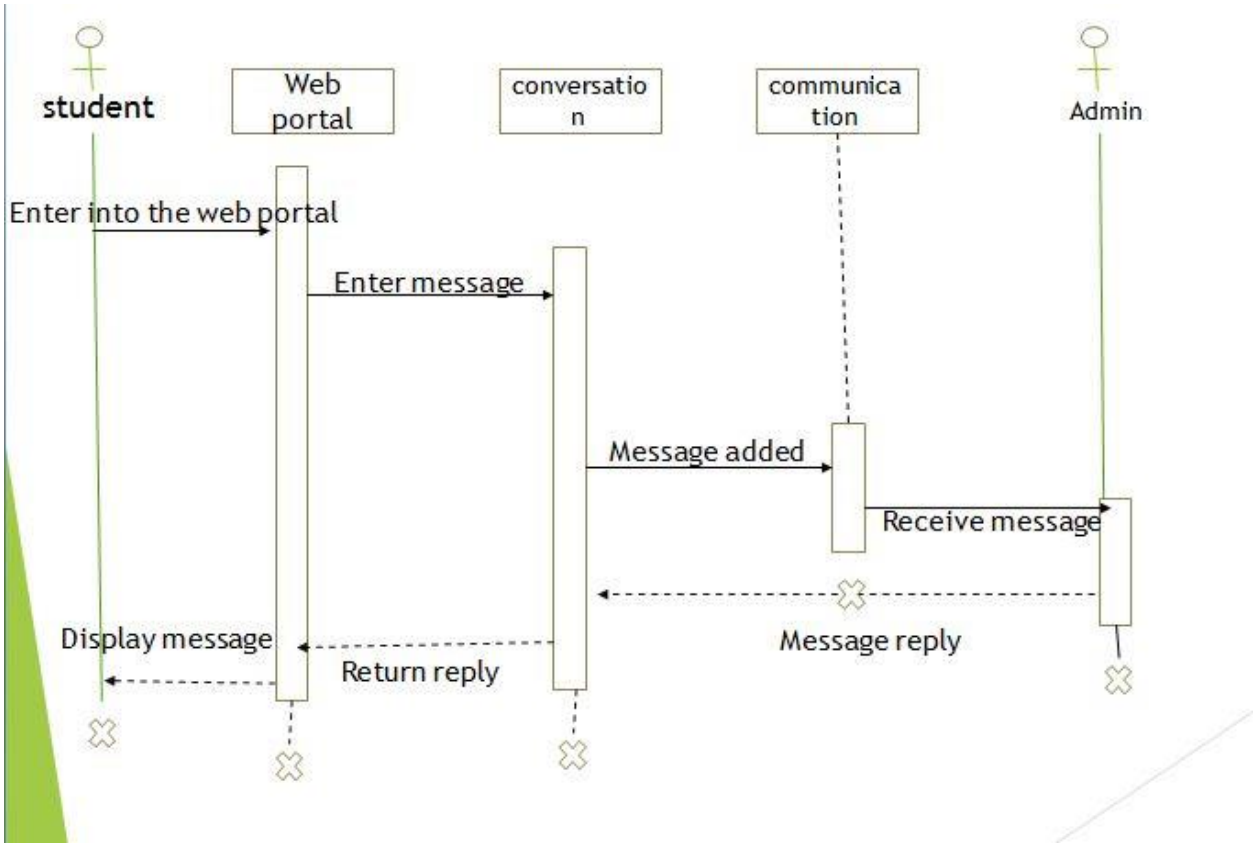


FIGURE: 12(ONLINE CONVERSATION)

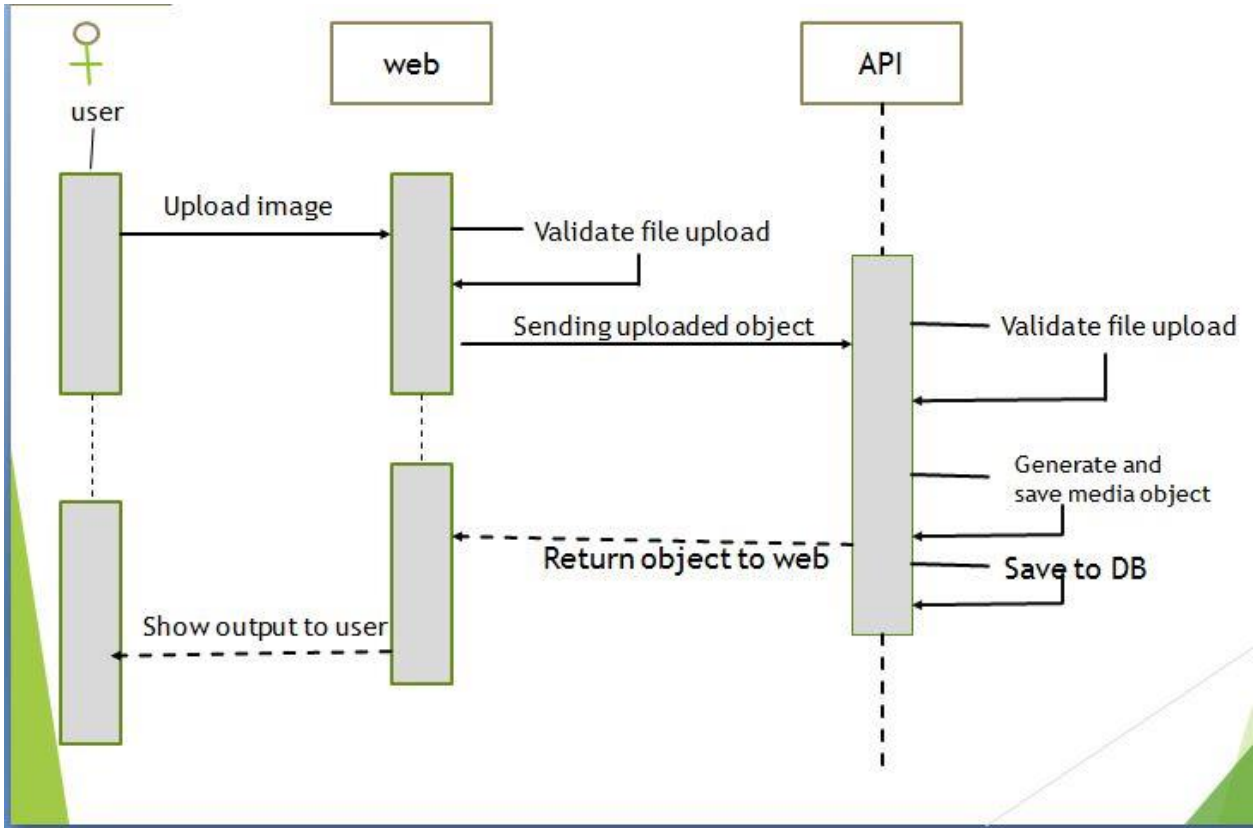


FIGURE : 13 (UPLOADING A FILE)

USER MANUAL OF MIST FORUM

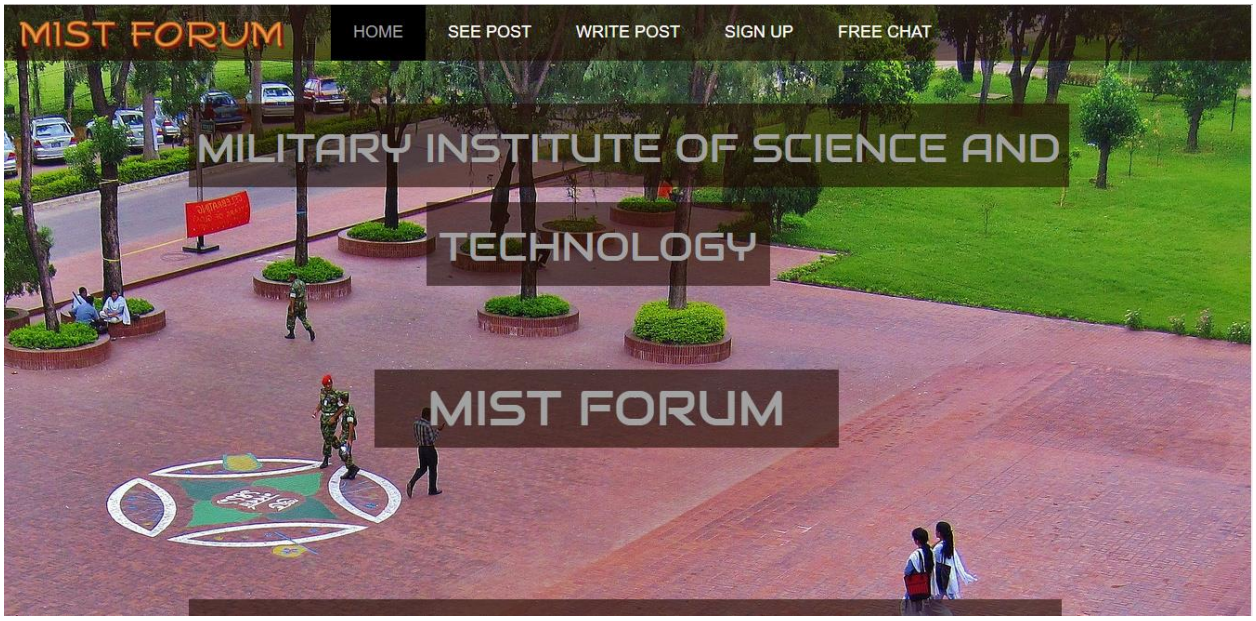


FIG: HOMEPAGE

This is the homepage of our MIST FORUM where we can see a navigation bar where home button is marked. Now before seeing any post or writing in post in the forum at first you have to create an account or sign up with your previous account. If you want to create a new account you have to click the below sign up button by scrolling the homepage.

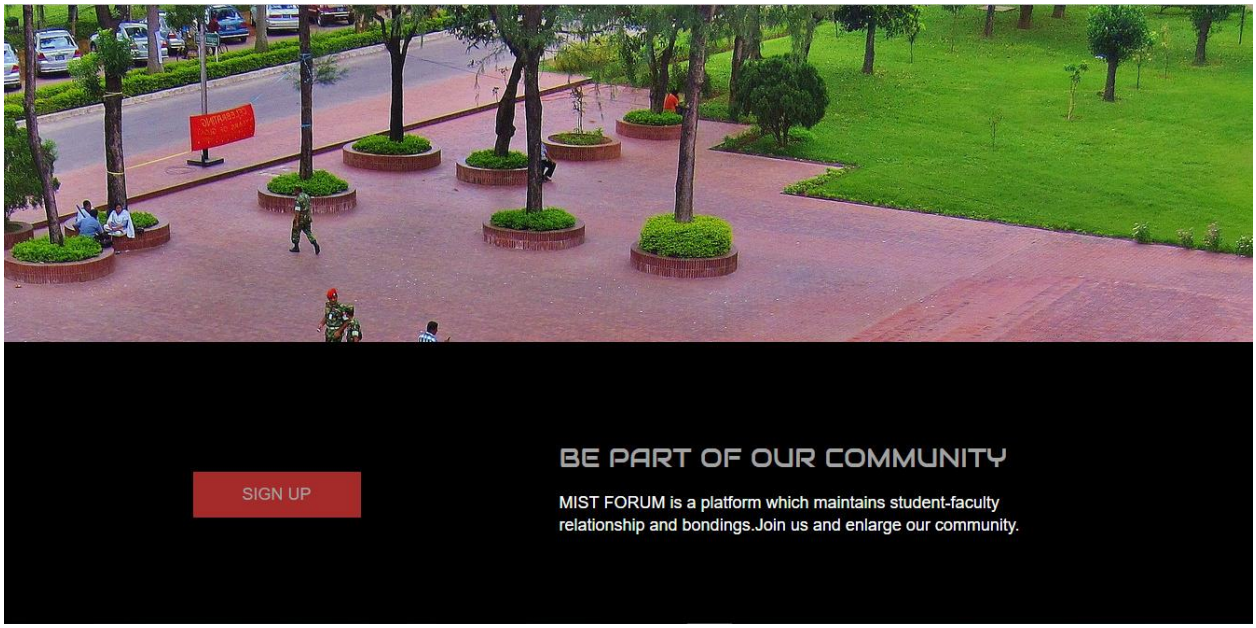
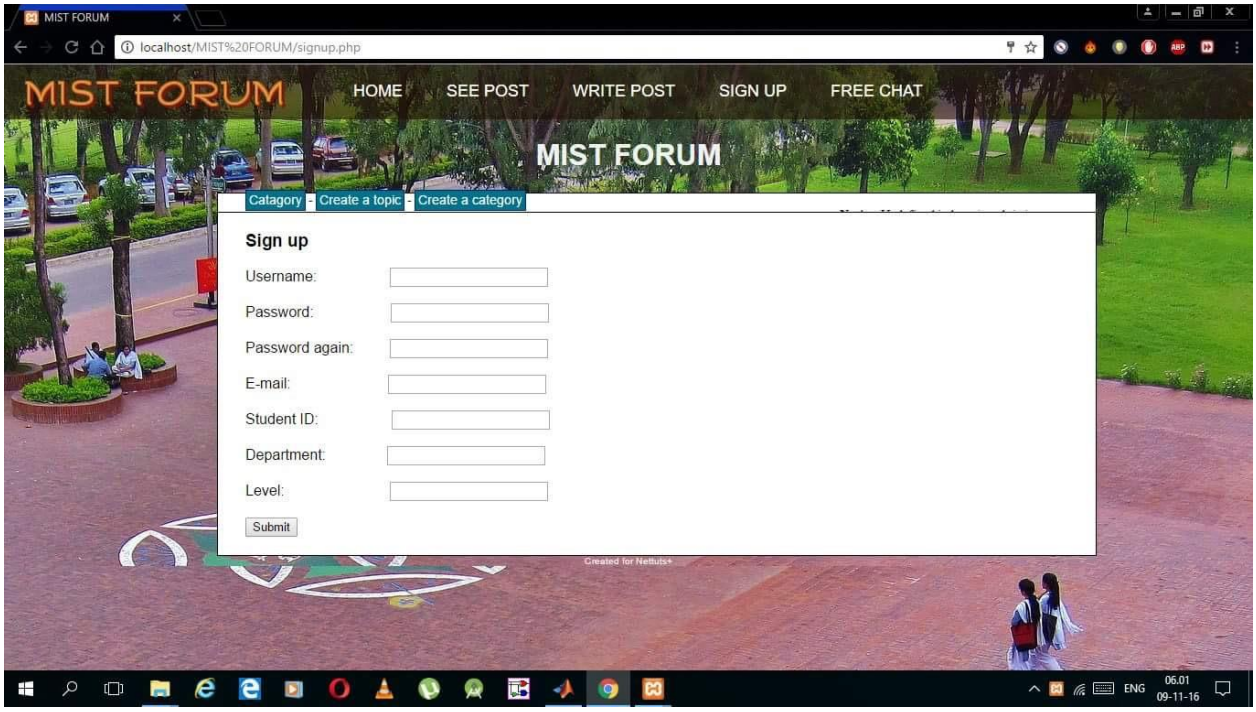


FIG: SIGN UP

Here you can register yourself as a verified MIST student, ex-student or faculty member. When you click the sign up button you will find that there will be a registration page where you can register yourself as a user.



Here we can see that this is a registration form. & when you fill up this form admin will verify you by your roll no & email ID. After having perfect registration now you can sign up & enter if you want to use our MIST FORUM website. The following page is the sign in page where we can see that hamim can enter himself as a user.

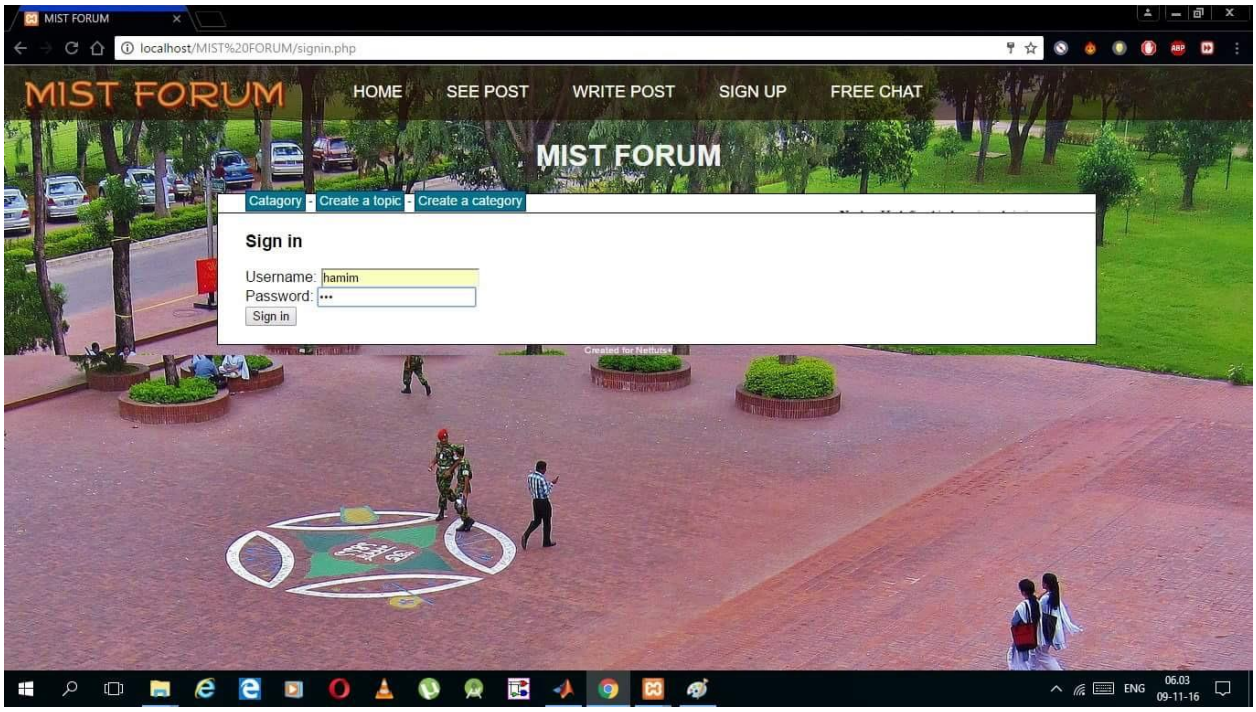


FIG: SIGN IN

Now as we mention earlier in our context diagram, DFD or in class diagram that we will have a see post option where if we click we can see the posts of different categories.

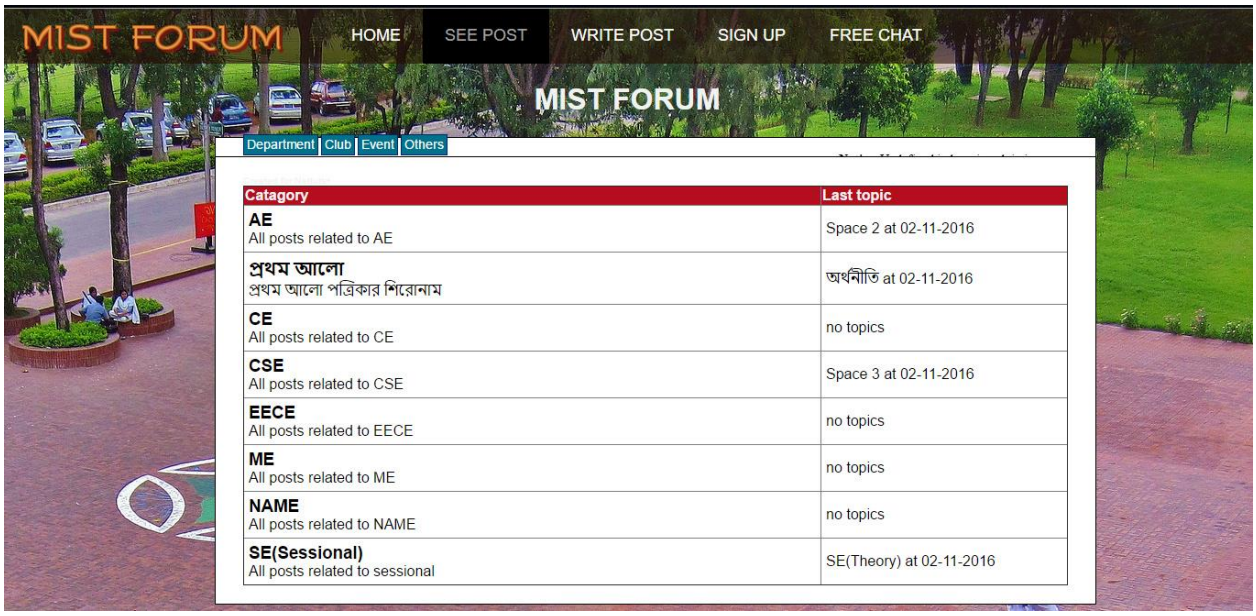
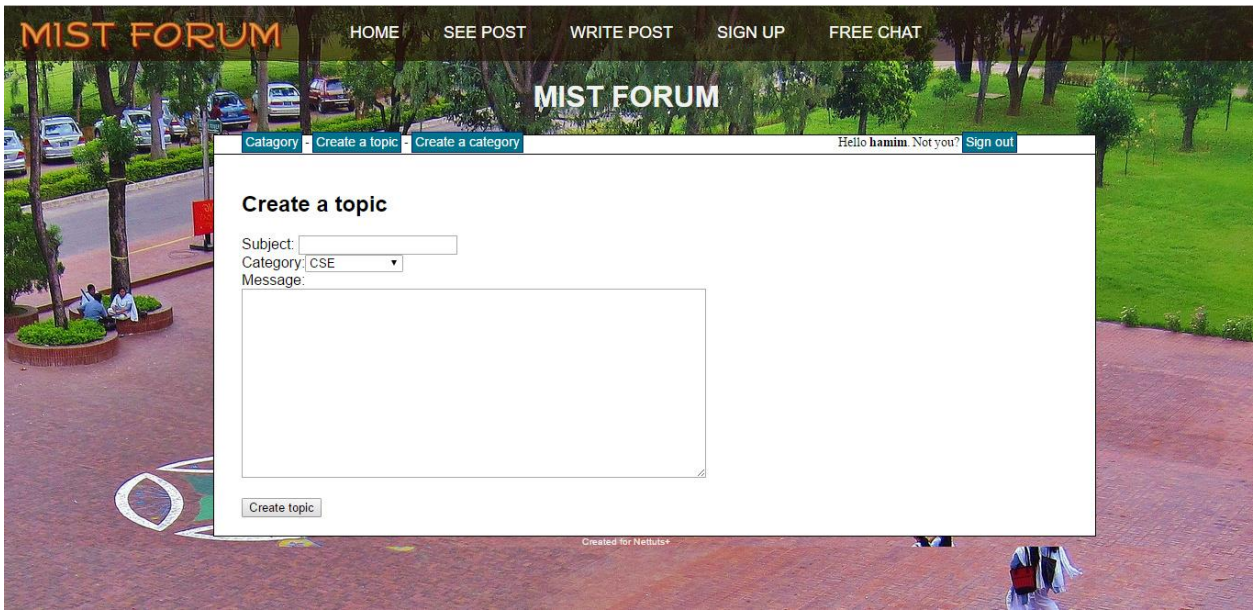


FIG: SEE POST

This is our see post page. Here we have different options at 1st dropdown department, club etc. in this see post fig we can show you how our dept dropdown is working. We can also see that our Unicode is working like here we can give input in bangle too & database will accept that.



Now in this page we can see that topic create which means any general user can create a topic in any section & other can reply too.

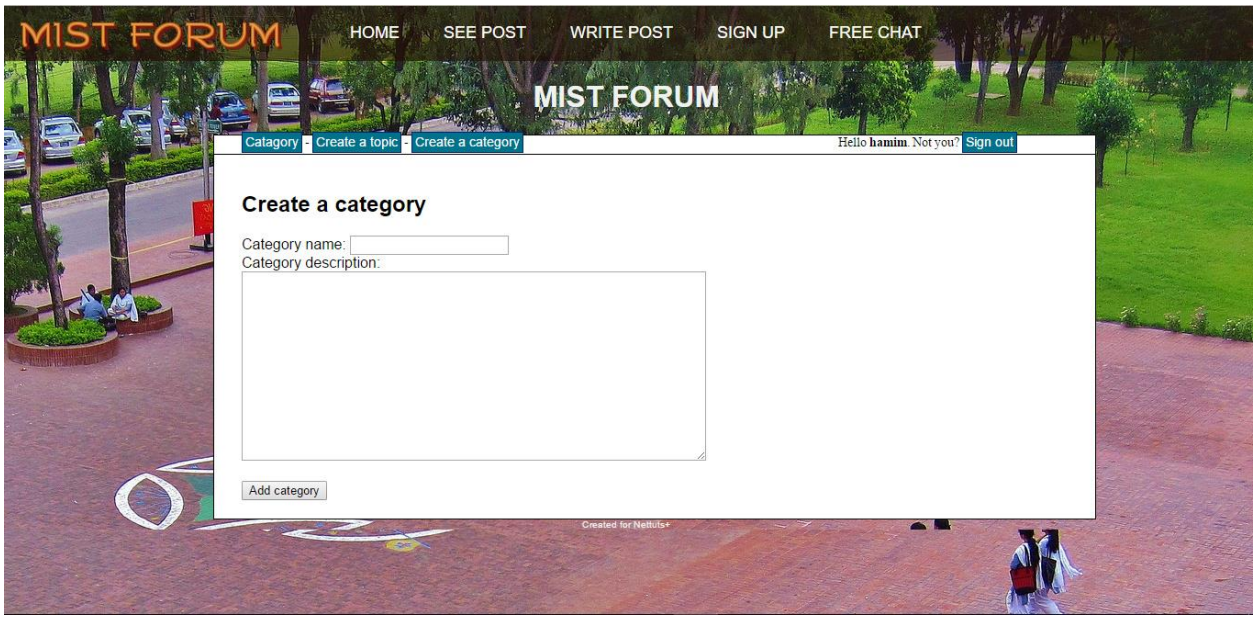


FIG: CREATE CATEGORY

But an admin can create a category too. Like after 2014 MIST has some new departments like Architecture, BME, etc. So admin can make this options for them too.

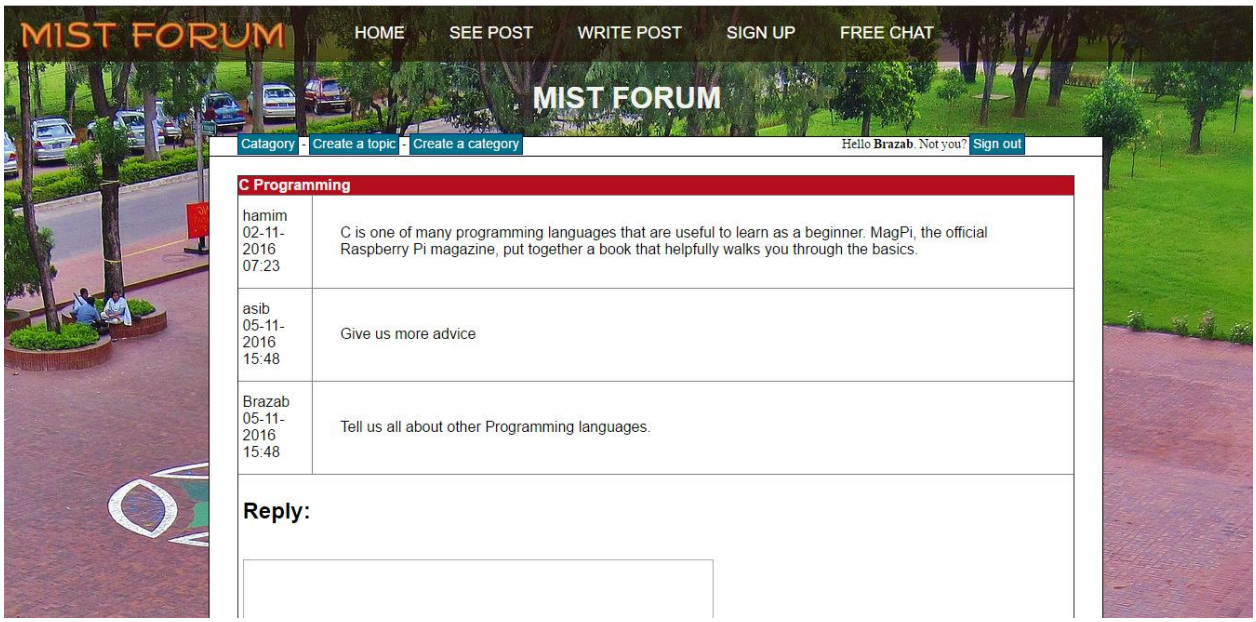


FIG: WRITE POST

Here we can see that in C Programming category there is a post & others are replying & the time off their replying & who is replying is showing in the left.

Our next attraction was online conversation. In the following page we can see that an online conversation is going on.

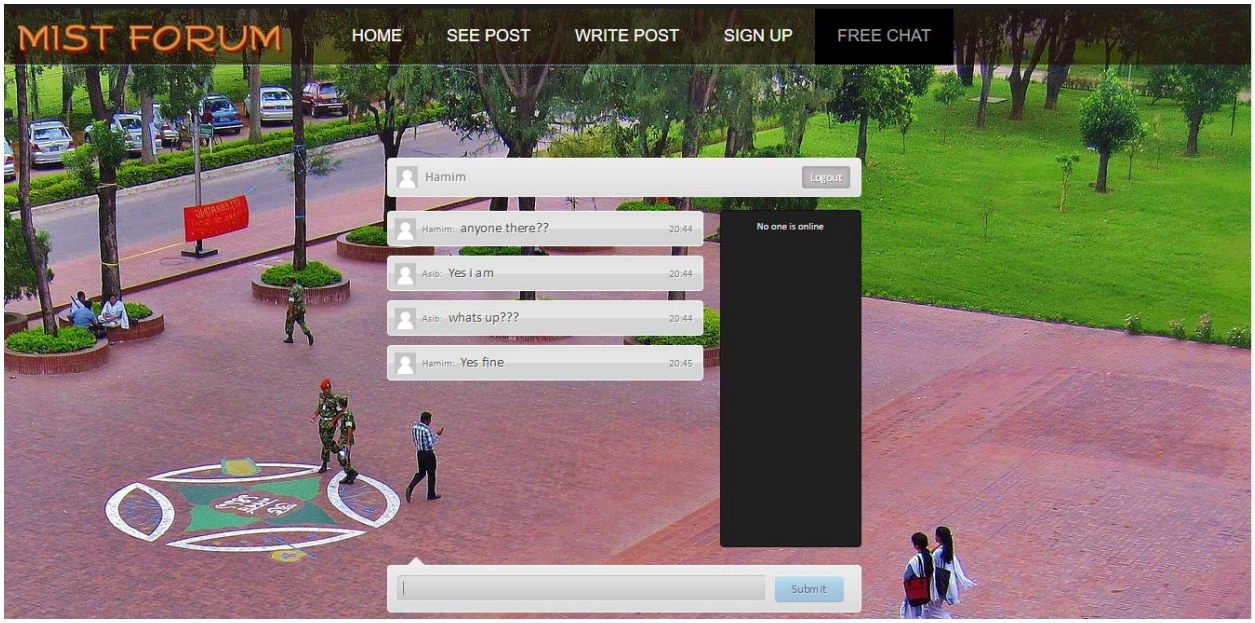


FIG: FREE CHAT

Here we can see that 2 person can have free conversation.

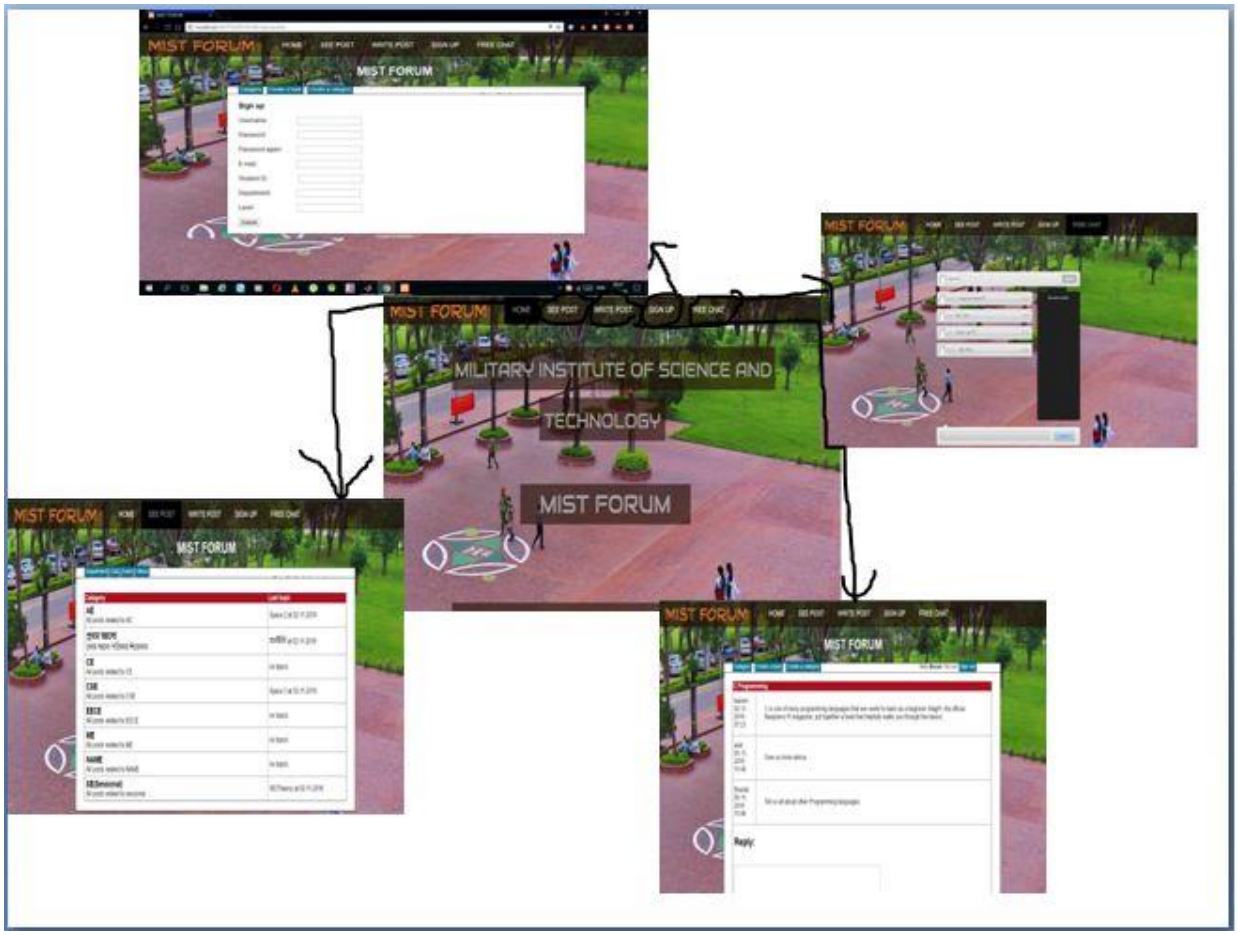


FIG: OUR MIST FORUM WEBSITE

This is our final website. How it is going to look. This is a flow chart of moving one page to another.