ITIS-6112 Software Systems Design and Implementation

# Edu Avenue

Project Report



UNC CHARLOTTE

Group 2
5-6-2015

# Table of Contents

# 1. Executive Summary

## 1.1   Project Overview

Edu Avenue application would provide undergraduate and graduate students platform for communicating and gathering information which will help them decide the right University. Often students find it difficult to find right university as per their interest and constraints. Too many factors like research opportunities, on campus culture, fee, and cost of living play important role when it comes to select a specific university other than just the university ranking. Using Edu Avenue website prospective students would be able to view university profiles, get all the information about the same, would be able to interact with currently enrolled and alumni of the university they would like be part of. Currently enrolled students would be able to post and follow up coming and ongoing events on the campus.

## 1.2   Purpose and Scope of this Specification

The main purpose of this project is to give a clear and concise description of the functionality of the University Selection System to help the current, alumni and prospective students to be connected with each other like a social networking website. This system further provides the facility to the professors of the universities to be connected with the students and help them out regarding the courses offered first hand. Social Networking is a system which the students are actively engaged in and this system will be very helpful to retrieve relevant data to the prospective students. This system further helps the alumni to be associated/connected with the universities. This system basically helps the prospective students to connect with the university and accumulate relevant information using the university profile, discussion boards, etc.

### 1.2 Project Scope and Objectives

This project will consist of creating a web application to which students, universities and professors can login in and access Student profile, university profile and professor profile, share information, and interact. The application will include following features:

**Audience**

The intended audience for this project are the students who want to search for a university depending on various criteria. This project will help the new students find a suitable university on various factors such as fees, the research areas provided by the college, cost of living, on-campus opportunities etc.

**In scope:**

For Prospective Students:
- View University, Professor and Student Profiles
- Interact with fellow Students and Professors
- Post and Comment on University public forum.

For Current Student:
- View University, Professor and Student Profiles
- Interact with fellow Students and Professors
- Post and comment on University Private and Public Forum.

2

- Provide information to the prospective students about the University.
- View and post Events on the University Private Forum

For Alumni:
- View University, Professor and Student Profiles
- Interact with fellow Students and Professors
- Post and Comment on University Public and Private forum.
- View but not post on the Events on University Private Forum

For Professor:
- View University, Professor and Student Profiles
- Interact with fellow Students and Professors
- Post and comment on University Private and Public Forum.
- Provide information to the prospective students about the Department.
- View and post events on the University Private Forum

For Administrative Staff:
- View University, Professor and Student Profiles
- Interact with fellow students, professors
- Post, comment and delete on University Private and Public Forum.
- Update/Delete information of the University on the profile
- Post, View and Delete events on the University Private Forum

**Out of Scope:**

The following items in phase 3 of Edu Avenue Project are out of scope:
- The Perspective Student cannot be recommended to be placed to the university even if the student has a good reputation on the University public discussion board.
- No other group can be created except the original University group already created during design phase.
- There will be no integration at this phase with any other API's Eg: LinkedIn, Facebook.

# 2. Requirements

This section describes all the requirements for this product. Each requirement is give a priority and a short description for the designers to understand the importance of each requirement.

## 2.1 Functional Requirements

Following are the functional requirements of this product

| Req# | Requirement | Comments | Priority | Date Rvwd | SME Reviewed / Approved |
|------|-------------|----------|----------|-----------|-------------------------|
| EDU_A_01 | The system should allow authenticated students, professor and university Admin to log in, | Functions of the product can be accessed only by the authorized users. | 1 | | |
| EDU_A_02 | The system should allow registration of different actors (Students, Professor, and university Admin). | Registration is one the important features of this product | 1 | | |
| EDU_A_03 | The system should allow authenticated university admin to add/update the University profile and statistics.) | This feature allows the university Admin to keep track of University profile statistics. | 2 | | |
| EDU_A_04 | Perspective students can search for Universities based on their academic | This feature will help the perspective students to search for universities. | 1 | | |
| EDU_A_05 | The system should allow each actor to update their profile. | This feature will allow the actors to update their profile. | 1 | | |
| EDU_A_06 | The system should allow authenticated actors to add friends | This feature will help actors to get connected to other actors. | 2 | | |
| | | | | | |
| EDU_A_08 | The system should allow perspective student to post their queries on common discussion board of specific university. | This feature will help students to resolve their university related queries. | 3 | | |
| EDU_A_09 | The system should allow current students, alumni, professors to post answers to perspective student's queries on common discussion board | This feature will help students to resolve their university related queries. | 3 | | |

| | | | | | |
|---|---|---|---|---|---|
| | of specific university. | | | | |
| EDU_A_10 | The system should allow current students, alumni, professors to post on internal discussion board of specific university. | This feature will allow current students, alumni, professors to be updated about the ongoing events in university. | 3 | | |
| EDU_A_11 | The system should allow current students, alumni, professors to comment on post on internal discussion board of specific university. | This feature will allow current students, alumni, professors to express their comments about ongoing events in university. | 2 | | |
| EDU_A_12 | The system should allow authenticated actors to search and view other actor profiles | This feature will help the actors to get information about other actors | 2 | | |

## 2.2   User Interface Requirements

The following will be the User Interface Requirements:

- All screens will have the name of the system and logged in user name on each page.
- The system will have a list of options to help the user navigate through various functions of the system.
- The system will have tooltips for the users which will provide them with some more information about what that feature does for them.

## 2.3   Usability

This product will be very user friendly. This would be similar to other social networking site. So the users would be comfortable using an already know interface. We would also provide user manual for better understanding of the working of the website.

- The user will be able to search for Universities and profiles of other students of the universities.
- This user manual will also help the users to understand how to use various functions of the system and achieve specific tasks.

## 2.4   Performance

- Static numerical requirements-
  This system is expected to host a number of users working in parallel since this system will help the user to multitask. This system will be able to host 200 members parallel.
  Eg: The user will be able to chat as well as search for university profile at the same time.
- Dynamic numerical requirements- The search research will fetch 95% results within 1 second.

### 2.4.1  Capacity

1. As this product will be running on Apache Tomcat, the minimum number of simultaneous users supported is 200.
2. The maximum number of users supported at a time will depend upon the memory and processor of the server on which the product is hosted.

### 2.4.2  Availability

- Hours of operation- The system will up and running 24 X 7
- Level of availability required- Moderate.
- Coverage for geographic areas- Local
- Impact of downtime on users and business operations- Moderate.
- Impact of scheduled and unscheduled

## 2.5  Manageability/Maintainability

### 2.5.1  Monitoring

1. A server log will be maintained to keep track of all the server activities.
2. Exceptions will handled and logged efficiently.
3. Server troubleshooting will be available.

### 2.5.2  Maintenance

This application will be easy to maintain as this product is not too complex. Any new features will not be too tedious.

### 2.5.3  Operations

The web-site will be maintaining a session for each user. The session will last for 2 minutes for an idle user after which the user will be logged out.

## 2.6  System Interface/Integration

EDU Avenue system will be Content management system to store University, students and Professors data. This will allow easy access at any time. A database would be created to store the data of University, students and professor which would be entered by themselves. This is created using MySQL. The system being a web service, it has no restriction on the operating system used. It works on Windows, Linux and Mac. The systems require a local server Apache tomcat or a web server to go live.

### 2.6.1  Network and Hardware Interfaces

For the Edu Avenue which is a web application, a desktop computer, laptop, tablets, or mobile would be required. Regardless of an operating system, the application can be accessed from Windows, Linux or Mac. The application could be accessed with a browser. A port on the host machine would be accessed and all the data would be forwarded to the guest machine using TCP or UDP. The guest machine would be running

in a web server listening to port 80, so the mapping would be to post 8080 on host machine. Then the application will be accessed with browser to localhost:8080 and browse the website.

## 2.7    Data Management

The Database system of Edu Avenue would store the following types of data:

- Character or email type for login username.
- Alphanumeric type for password.
- User information
- University Profiles
- Student Profiles
- University Groups

## 2.8    Standards Compliance

All language used in the software (including manuals and documentation) should comply with current University of North Carolina, Charlotte guidelines for decency and equal opportunities. The data of the players should be stored in the database so that the performance of the player could be traced over time.

## 2.9 Portability

This web services uses open source tools like WordPress, Apache Tomcat, MySQL. This will be very easy to expand, scale and move. There is no restriction on the operating system used. The web service can be transferred to any system with Apache Tomcat server or over the web.

# 3. User Scenarios/Use Cases

## 3.1 Use-case diagram

Edu Avenue

Search University

Message a user

<<uses>>

Follow university

<<uses>>

Search for profile

<<uses>>

Login

<<uses>>

Student

Professor

<<uses>>

<<uses>>

Post on Discussion Board

Add Friend

University Admin

Comment on ongoing discussion

Join university

mming & design] creately.com
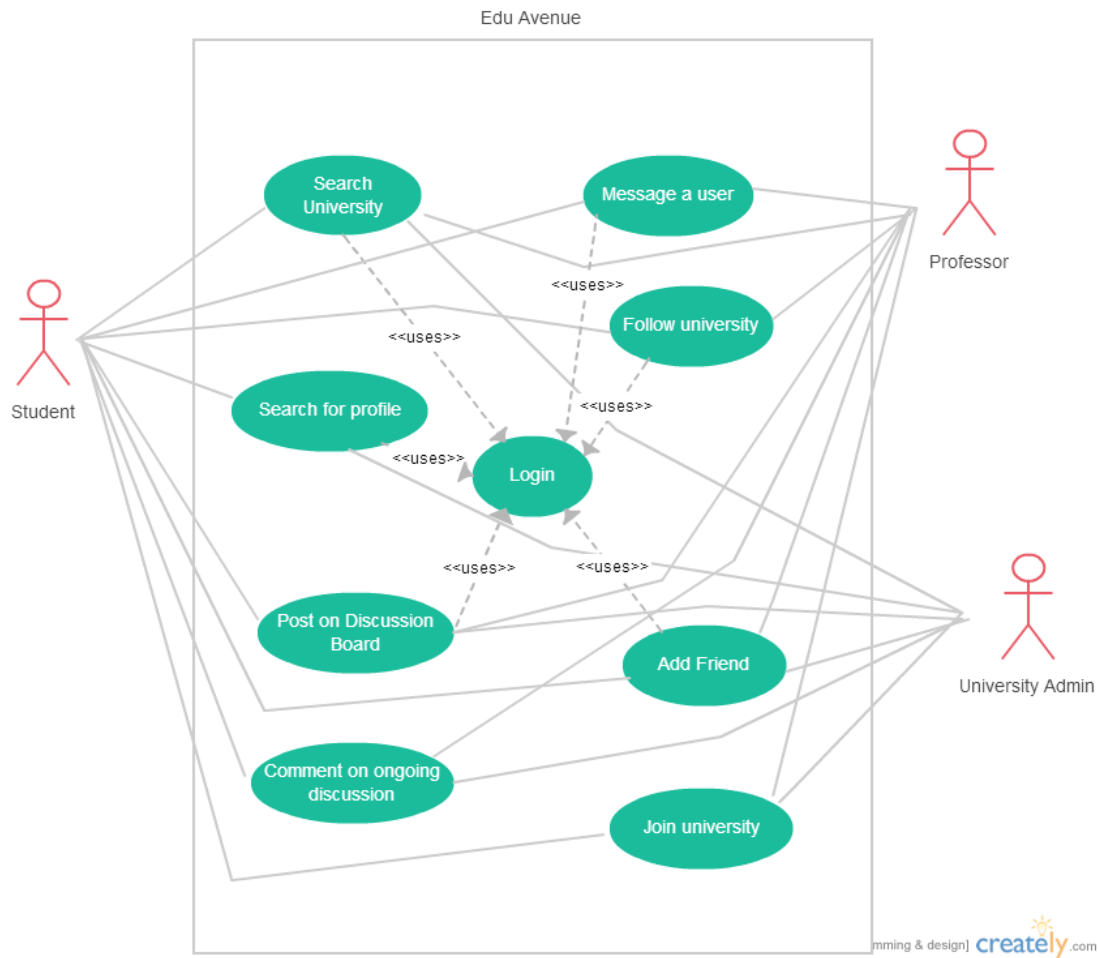
## 3.2 Actors:

- New Student
- Current Student
- Alumni
- Professor
- University Admin

## 3.3 Use Case Description:

**Author (s):** **Team 2**                                                      **Date:** <u>03/23/2015</u>

                                                                                                                **Version: 2.0**

| USE CASE NAME: | Login | USE CASE TYPE | |
|---|---|---|---|
| USE CASE ID: | Case_1 | Abstract: | ☑ |
| PRIORITY: | 6 | **Extension:** | ☐ |
| INVOKED BY: | All other use cases except Sign Up | | |
| PARTICIPATING ACTORS: | Student, Professor, University Admin | | |
| DESCRIPTION: | Actors Log in | | |
| PRE-CONDITION: | Open Website | | |
| TYPICAL COURSE OF EVENTS: | **Step 1**: Enter Login credentials | | |
| | Step 2: Click on Login | | |
| | | | |
| ALTERNATE COURSES: | - | | |
| POST-CONDITION: | Actor Logs in | | |

**Author (s):** **Team 2**                                                      **Date:** <u>03/23/2015</u>

                                                                                                                **Version: 2.0**

| USE CASE NAME: | Sign Up | USE CASE TYPE | |
|---|---|---|---|
| USE CASE ID: | Case_2 | Abstract: | ☑ |
| PRIORITY: | 6 | **Extension:** | ☐ |
| INVOKED BY: | | | |

| PARTICIPATING ACTORS: | Student, Professor, University Admin |
|---|---|
| DESCRIPTION: | Actors sign up for website |
| PRE-CONDITION: | Click on New User |
| TYPICAL COURSE OF EVENTS: | **Step 1**: Enter user details |
| | Step 2: Click Submit |
| ALTERNATE COURSES: | - |
| POST-CONDITION: | Actor signs up |

Author (s):     Team 2                                          Date:     <u>03/23/2015</u>

                                                                Version:  **2.0**

| USE CASE NAME: | Search University | USE CASE TYPE | |
|---|---|---|---|
| USE CASE ID: | Case_3 | Abstract: | ☑ |
| PRIORITY: | 1 | **Extension:** | ☐ |
| INVOKED BY: | | | |
| PARTICIPATING ACTORS: | Student, Professor, University Admin | | |
| DESCRIPTION: | Students and professor can search for universities. | | |
| PRE-CONDITION: | Be logged in | | |
| TYPICAL COURSE OF EVENTS: | **Step 1**:Click the search bar and enter keyword to search | | |
| | Step 2: Get results | | |
| | | | |
| ALTERNATE COURSES: | Step 1a: Click the search bar and select advanced search | | |
| | Step 1b: Select the filters required and enter the keyword <br><br> Resume at Step 2 | | |
| POST-CONDITION: | List of Universities related to keywords and filters will be displayed. | | |

Author (s):     Team 2                                          Date:     <u>03/23/2015</u>

| | | | | | |
|---|---|---|---|---|---|
| **USE CASE NAME:** | Search for profile | | **USE CASE TYPE** | | |
| **USE CASE ID:** | Case_4 | | Abstract: | | ☑ |
| **PRIORITY:** | 1 | | **Extension:** | | ☐ |
| **INVOKED BY:** | | | | | |
| **PARTICIPATING ACTORS:** | Student, Professor, University Admin | | | | |
| **DESCRIPTION:** | Actors search for other actors | | | | |
| **PRE-CONDITION:** | Be logged in | | | | |
| **TYPICAL COURSE OF EVENTS:** | **Step 1**: Enter the name of the user to search | | | | |
| | Step 2: get results | | | | |
| | | | | | |
| **ALTERNATE COURSES:** | Step 1a: Click the search bar and select advanced search | | | | |
| | Step 1b: Select the filters required and enter the keyword | | | | |
| | Resume at Step 2 | | | | |
| **POST-CONDITION:** | List of users matching the keyword and filters will be displayed | | | | |

**Author (s):     Team 2**                                                **Date:     03/23/2015**

| | | | | | |
|---|---|---|---|---|---|
| **USE CASE NAME:** | Post on Discussion Board | | **USE CASE TYPE** | | |
| **USE CASE ID:** | Case_5 | | Abstract: | | ☑ |
| **PRIORITY:** | 2 | | **Extension:** | | ☐ |
| **INVOKED BY:** | | | | | |

| | |
|---|---|
| **PARTICIPATING ACTORS:** | Student, Professor, University Admin |
| **DESCRIPTION:** | Users can post to the discussion board. |
| **PRE-CONDITION:** | User clicks on the discussion board option |
| **TYPICAL COURSE OF EVENTS:** | **Step 1**: Click on post topic button |
| | Step 2: Enter the details of the post (Topic and description) |
| | Step 3: Click post to forum |
| **ALTERNATE COURSES:** | - |
| **POST-CONDITION:** | Topic is posted to the forum |

Author (s):     Team 2                                                          Date:     03/23/2015

                                                                                 Version:  2.0

| USE CASE NAME: | Comment on an ongoing discussion | USE CASE TYPE | |
|---|---|---|---|
| USE CASE ID: | Case_6 | Abstract: | ☑ |
| PRIORITY: | 2 | **Extension:** | ☐ |
| INVOKED BY: | | | |
| PARTICIPATING ACTORS: | Student, Professor, University Admin | | |
| DESCRIPTION: | Users comments on an ongoing discussion | | |
| PRE-CONDITION: | User clicks on the specific discussion topic | | |
| TYPICAL COURSE OF EVENTS: | **Step 1**: User clicks on reply button (comment) | | |
| | Step 2: User enters content of the reply | | |
| | Step 3: User clicks on post reply | | |
| ALTERNATE COURSES: | - | | |
| POST-CONDITION: | Comment is posted. | | |

Author (s):     Team 2                                                          Date:     03/23/2015

                                                                                 Version:  2.0

| USE CASE NAME: | Message a user | USE CASE TYPE | |
|---|---|---|---|
| USE CASE ID: | Case_7 | Abstract: | ☑ |
| PRIORITY: | 3 | **Extension:** | ☐ |
| INVOKED BY: | | | |
| PARTICIPATING ACTORS: | Student and Professor | | |
| DESCRIPTION: | Users can send a message to other users | | |
| PRE-CONDITION: | Visit the user's profile page who you want to send the message to | | |
| TYPICAL COURSE OF EVENTS: | **Step 1**: Click on message button | | |
| | Step 2: Enter the content of the message | | |
| | Step 3: Click on send message | | |
| ALTERNATE COURSES: | Step 2a: User is blocked message is displayed | | |
| POST-CONDITION: | Message sent | | |

Author (s):     **Team 2**                                          **Date:**     03/23/2015

                                                                     **Version:  2.0**

| USE CASE NAME: | Follow university | USE CASE TYPE | |
|---|---|---|---|
| USE CASE ID: | Case_8 | Abstract: | ☑ |
| PRIORITY: | 4 | **Extension:** | ☐ |
| INVOKED BY: | | | |
| PARTICIPATING ACTORS: | Students and Professor | | |
| DESCRIPTION: | Follow a university to get relevant information on your timeline | | |
| PRE-CONDITION: | Visit the university's profile page. | | |
| TYPICAL COURSE OF EVENTS: | **Step 1**: Click on the follow button | | |
| ALTERNATE COURSES: | Step 1a: User is already following the university (Unfollow is displayed) | | |

| POST-CONDITION: | User is following the University |
|---|---|

**Author (s):** **Team 2**                    **Date:** <u>03/23/2015</u>

**Version: 2.0**

| USE CASE NAME: | Add Friend | USE CASE TYPE | |
|---|---|---|---|
| USE CASE ID: | Case_9 | Abstract: | ☑ |
| PRIORITY: | 5 | **Extension:** | ☐ |
| INVOKED BY: | | | |
| PARTICIPATING ACTORS: | Student, Professor, University Admin | | |
| DESCRIPTION: | A user can add another user as his/her friend and the other user needs to accept this | | |
| PRE-CONDITION: | Visit the user's profile who you want to add | | |
| TYPICAL COURSE OF EVENTS: | **Step 1**: Click on add friend | | |
| | Step 2: Second user clicks on the notification | | |
| | Step 3: Second user clicks accept | | |
| ALTERNATE COURSES: | Step 3a: Second user clicks decline | | |
| POST-CONDITION: | Users are added to each other's friend list | | |

**Author (s):** **Team 2**                    **Date:** <u>03/23/2015</u>

**Version: 2.0**

| USE CASE NAME: | Join university | USE CASE TYPE | |
|---|---|---|---|
| USE CASE ID: | Case_10 | Abstract: | ☑ |
| PRIORITY: | 6 | **Extension:** | ☐ |
| INVOKED BY: | | | |
| PARTICIPATING ACTORS: | Student, Professor, University Admin | | |
| DESCRIPTION: | User can join a university | | |
| PRE-CONDITION: | Visit the university profile page which you want to join | | |
| TYPICAL COURSE | **Step 1**: Click on join university button | | |

| OF EVENTS: | |
|---|---|
| | Step 2: Enter .edu email address |
| | Step 3: Verify .edu email address |
| ALTERNATE COURSES: | Step 3a: User does not get email and clicks resend email |
| | Step 4a: Verify .edu email address |
| POST-CONDITION: | User has joined the university |

## 3.4 Scenarios

- Login- Students, University profile Admins, Professors can login into the system using their Username and Passwords. This unique combination is maintained in the database.
- Sign Up- Students, University profile Admins, Professors can register for the system and create a unique username and password combination.
- Search University- The student and professor can search for a University.
- Search for profile- The students and professors can search for a student profile, university profile or a professor profile. The results display all the profiles related to the searched term.
- Post on Discussion Board- All the university groups have a forum/discussion board related to them. Only members of the group can post of the discussion board.
- Comment on an ongoing discussion- All the group members can comment on the discussion board.
- Message a user- Any user can message another user only if they are friends with each other. There is an add friend button provided to add the person.
- Follow university- Every university profile page contains a follow button. When enabled, the university updates are displayed on the activity feed of the user.
- Add Friend- Add button is provided to add another user as a friend.
- Join university- Every university has a group. Any user can join the group by clicking on the join button. The user becomes a member of the group and then can post and receive updates of the discussion board.

# 4. Agile Scrum

**Scrum** is an iterative and incremental agile software development framework for managing product development. It defines "a flexible, holistic product development strategy where a development team works as a unit to reach a common goal".

- Product Backlog
- Sprint Backlog
- Sprint Planning
- Daily Standup/Scrum Meeting
- Sprint Review

Product Backlog:

| ID | Theme | Role | Story | Priority | Sprint |
|---|---|---|---|---|---|
| 1 | User Profiles | Registered users | As a site member, I want to describe myself on my own page in a semi-structured way. That is, I can fill in predefined fields, but also have room for a free-text field or two. | 1 | 2 |
| 2 | Login | Registered users | As a site member, I want to be able to login into the site and see my profile and data relevant to me. | 1 | 2 |
| 3 | Sign-up | New user | As a new user, I want to be able to sign up and create a new account with my valid information. | 1 | 2 |
| 4 | University Profiles | University Admin | As an University admin, I want to be able to describe my University on the University page in a semi-structured way. That is, I can fill in predefined fields, but also have room for a free-text field or two. | 1 | 2 |
| 5 | Search | Registered users | As a registered user, I want to be able to search for other users or Universities and see basic information about the same. | 1 | 2 |
| 6 | Common Discussion Board | Registered users | As a registered user, I want to be able to post and/or comment in the common discussion board of a University . | 2 | 2 |
| 7 | Closed Discussion Board | Member of University | As a member of a University, I want to be able to post and/or comment in the closed discussion board of the University. | 3 | 2 |
| 8 | Add Friend | Registered user | As a registered user, I should be able to add other registered users as friends. (Relationship will not hold till other user accepts) | 3 | 3 |
| 9 | Chat | Registered user | As a registered user, I should be able to have a conversation with my friends through instant messaging. | 3 | 3 |

## Sprint Backlog:

The Sprint Backlog is a document that lists the tasks to be performed as part of a Sprint. The main aim is to document the list of activities to be implemented during a Sprint and also implement and possibly deliver a working increment of the software.

Sprint backlog in our application:

**Sprint 1 backlog:**

| ID | Role | Story | Notes | Effort | Priority | Team member/s | Status | Sprint |
|----|------|-------|-------|--------|----------|---------------|--------|--------|
| 1 | Misc | Environment setup(XAMPP/WAMP) | Basic installations | 1d | 8 | All | Completed | 1 |
| 2 | Misc | Database installation and connectivity | DB connectivity | 6h | 8 | All | Completed | 1 |
| 3 | Misc | BuddyPress Installation | Basic installations | 4h | 8 | All | Completed | 1 |

**Sprint 2 backlog:**

| ID | Role | Story | Notes | Effort | Priority | Team member/s | Status | Sprint |
|----|------|-------|-------|--------|----------|---------------|--------|--------|
| 1 | Start point of the application | Role based registration | Users can register according to the roles. | 2d | 2 | All | Complete | 2 |
| 2 | New Student/Professor/Existing Students | Add friend | Student/Existing students and Professors can add friends in the network | 2d | 5 | Pragya and Preeti | Incomplete | 2 |
| | | Follow university feature | Student/Existing students and Professors can follow the University of their choice | 1d | 5 | Nikhil and Ojas | Incomplete | 2 |
| | | View and Send messages | Student/Existing students and Professors can send and view messages in their inbox | 1d | 4 | Preeti and Nitin | Incomplete | 2 |
| | | View,Post and comment on discussion board | Student/Existing students and Professors can view post and comment on forum of University | 1d | 5 | Nikhil and Pragya | Incomplete | 2 |
| 3 | University Admin | Create events | University Admin can create events on University Forum | 6h | 5 | Nikhil and Nitin | Incomplete | 2 |
| | | Comment and edit any posts on discussion board | University Admin can comment and edit any post on forum | 6h | 5 | Pragya and Ojas | Incomplete | 2 |

| | | Update university information | University Admin can update university information | 1d | 3 | Nitin and Pragya | Incomplete | 2 |
|---|---|---|---|---|---|---|---|---|
| 4 | Professor/ Existing Students | Create and modify events on university page created by them | Professor and Existing Students of the University can create events and modify/delete events created by them | 1d | 5 | Nikhil and Preeti | Incomplete | 2 |
| 5 | System | Login validation | The System will validate the email of the user upon signup by sending an email verification. | 2d | 3 | Ojas and Preeti | Incomplete | 2 |
| | | Design Recommender System | Recommendations will be provided based on the search history of the user. | 5d | 2 | Ojas and Nitin | Incomplete | 2 |
| 6 | All users | Basic search to search university, student, events | All the users can search for anything using the basic search on the system | 1d | 3 | Nikhil and Ojas | Incomplete | 2 |
| | | Advance search with filters to search particular university profile, student profile. | All the users can use advanced search to search for particular profile of the student, university or professor using filters | 2d | 2 | Nikhil and Nitin | Incomplete | 2 |
| | | View profile | All the users can view profiles of any student, professor or university | 6h | 6 | Preeti and Nitin | Incomplete | 2 |

**Sprint 3 backlog:**

| ID | Role | Story | Notes | Effort | Priority | Team member/s | Status | Sprint |
|---|---|---|---|---|---|---|---|---|
| 1 | System | Implement Recommender System | Recommendations will be provided based on the search history of the user. | 4d | 2 | Ojas and Nitin | Incomplete | 3 |
| | | Chat functionality | User can do personal or group real time chat. | 3d | 2 | Pragya and Preeti | Incomplete | 3 |
| | | GUI | Asthetics of the application | 3d | 2 | Preeti and Nikhil | Incomplete | 3 |
| | | Project Report | Documentation | 2d | 2 | Nitini and Pragya | Incomplete | 3 |

| 2 | Student/Professor | Verification of edu id | For joining college group the user is supposed to submit their edu email id and a verification url will send to their id. | 3d | 3 | Ojas and Nikhil | Incomplete | 3 |
|---|---|---|---|---|---|---|---|---|

## Sprint Planning:

In Scrum, every iteration begins with the sprint planning meeting. The stories that are of the highest priority to the release and the ones which will generate the highest business value are decided during this meeting.

## Daily Standup/Scrum Meeting:

The Daily Scrum is a short meeting held every day to coordinate the effort and overcome roadblocks during a Sprint.

## Sprint Review Meeting:

A Sprint Review Meeting is held at the end of each Sprint. During the meeting, the team presents what they could achieve by demoing the software functionality (the Increment of Product Functionality). The meeting is informal, with the intention to bring people together and demonstrate progress and seek for feedback.

## Sprint Retrospective:

The Sprint Retrospective is intended to answer two fundamental questions:

• What went well during the last Sprint that we continue doing?

• What could we do differently to improve?
The Sprint Retrospective meeting must end with a list of action item that have been agreed upon and that will be implemented. Those changes may be added to the Product Backlog.

# 5. Architecture
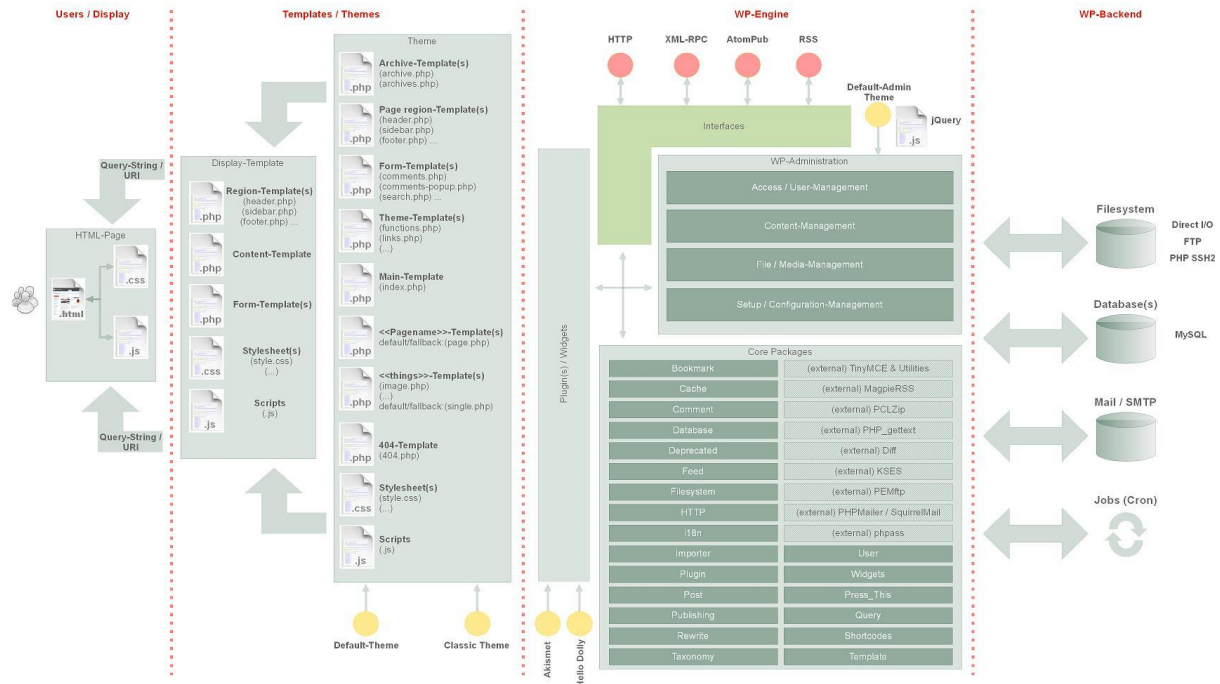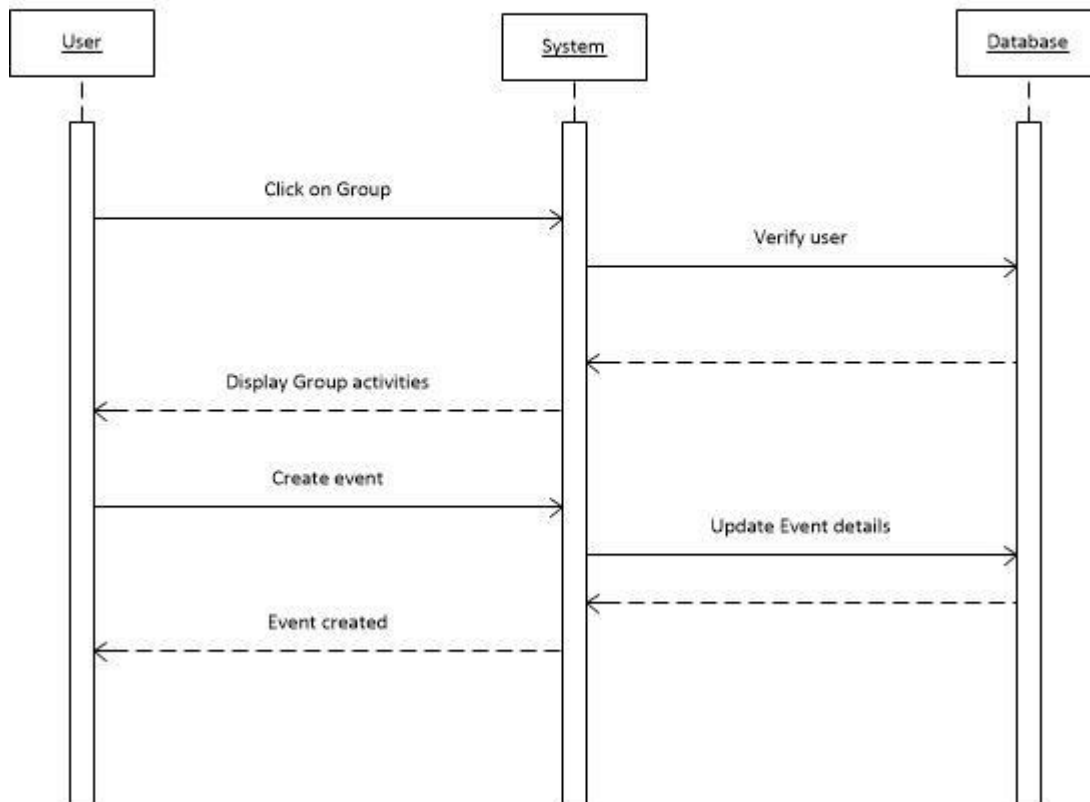
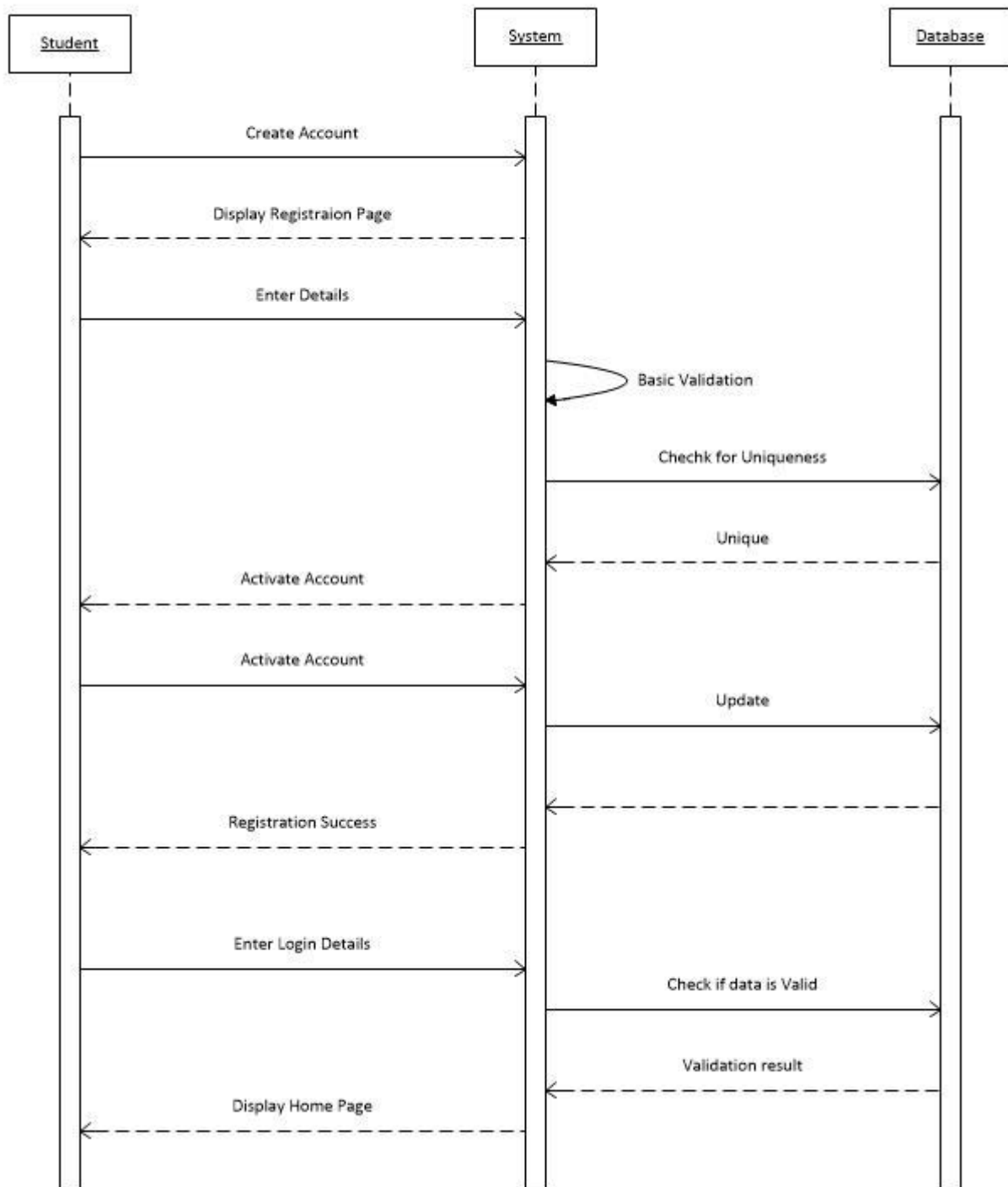The System is based on a WordPress theme called Buddy Press. The architecture of WordPress is shown above
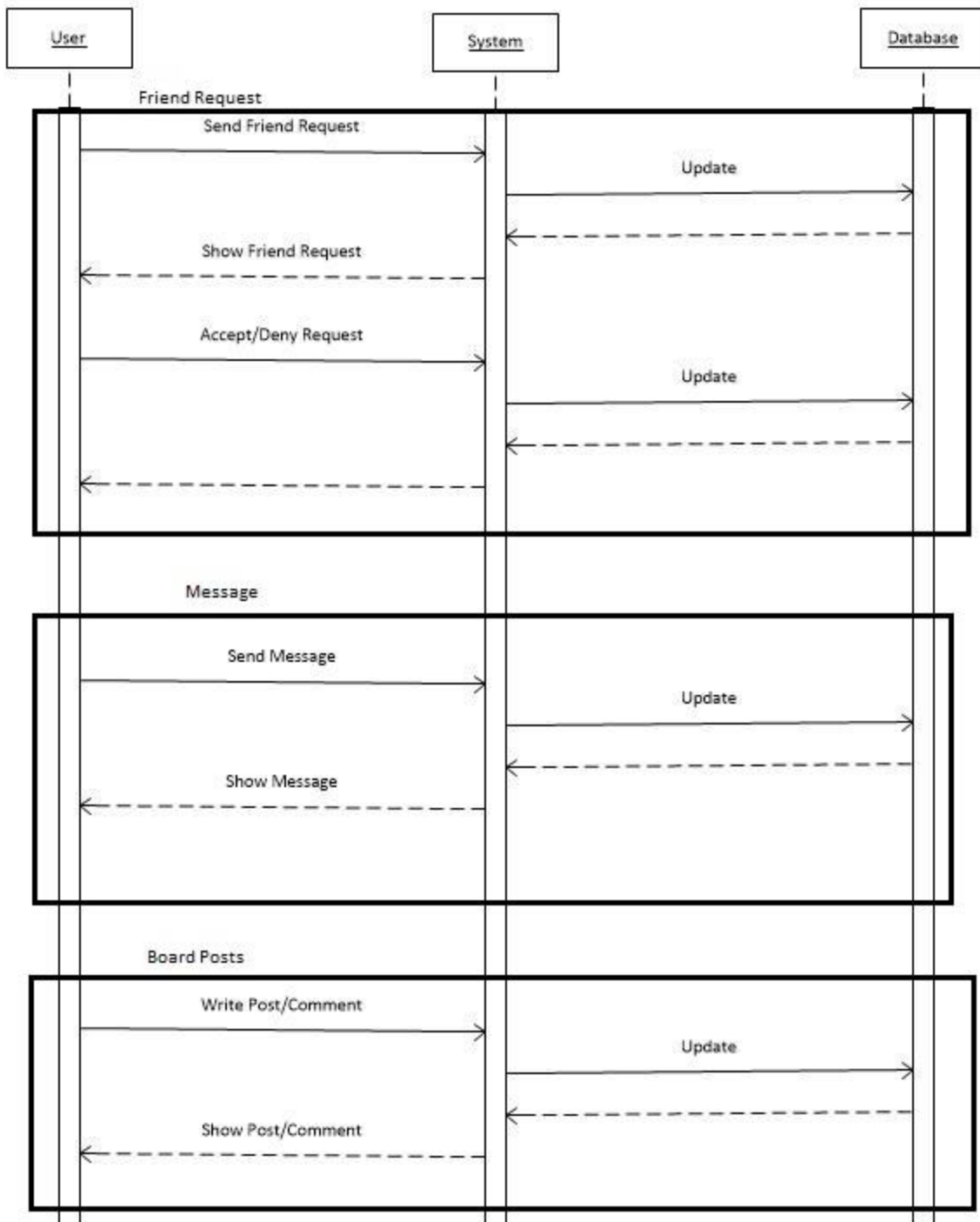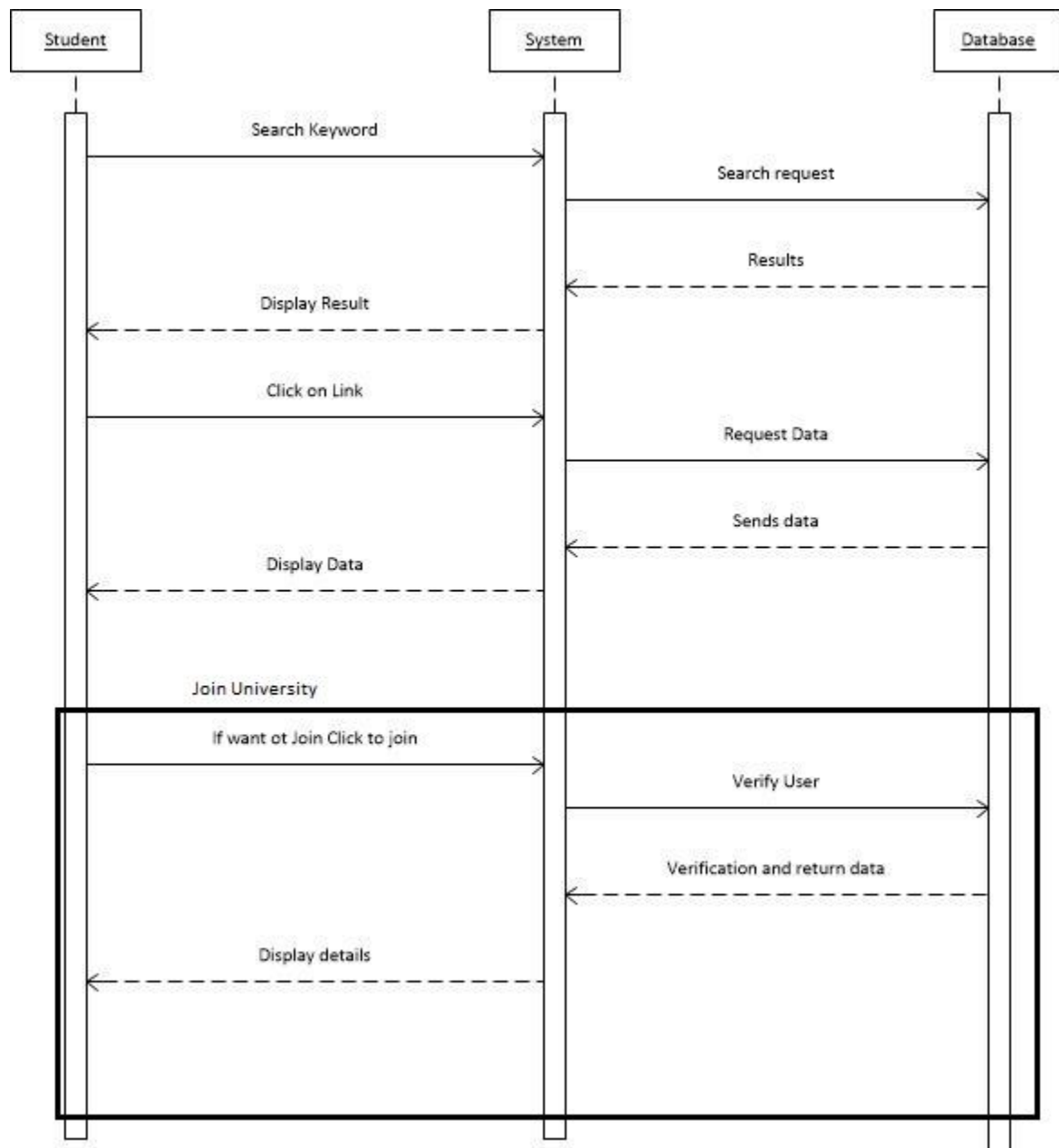
# 6. UML Diagrams:

Sequence Diagram:

Create Event

## Registration

# Posts/Friend Request/
## Message



Friend Request

Send Friend Request

Update

Show Friend Request

Accept/Deny Request

Update

Message

Send Message

Update

Show Message

Board Posts

Write Post/Comment
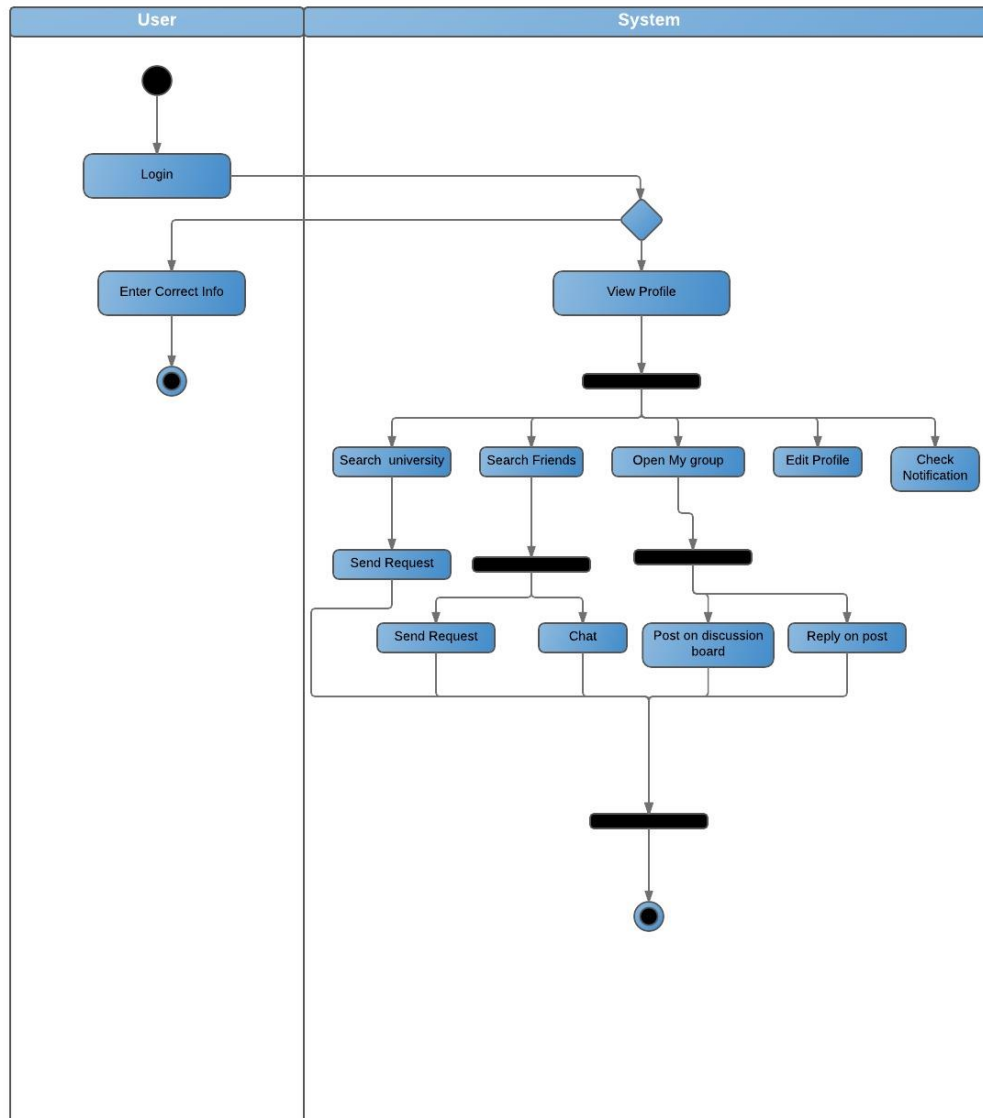
Update

Show Post/Comment

User    System    Database

Activity Diagram:

# EduAvenue Activity Diagram

# 7. Technologies Used

Software:

- Apache Tomcat
- BuddyPress
- MySQL
- Browser
- Windows 7
- Windows 8
- Linux

Hardware:

- Intel Pentium 4
- 80 GB Hard Disk
- 2 GB RAM

# 8. Future Scope

- Better Recommendations – The current recommendation system can be enhanced to provide better university recommendations to the students.

- Calendar Integration – This feature allows the user to view the scheduled dates notified in the calendar integrated in the application.

- Hosting- This application can be hosted on the web servers.

- Automated Notification Service – Integration of a texting notification service, so that an email can be sent instantly to the students

- Porting the Web application to Mobile application - Port this web application to mobile application or a tablet.

# 9.   Deleted or Deferred Requirements

Following are the use-cases which are deferred to next phase.

| EDU_A_07 | The system Should allow authenticated actors to chat and interact with their friends. | Deferred on 04/12/2015 | 3 | |

# 10. Design Evaluation:

**Functionalities:**

**University**:

Login-Complete
Search user- Complete
Create a Group- Complete
Post on Discussion board- Complete
Accept a Member add request- Complete
Provide email verification to add a new student to the group- Complete

**Student/Professor:**

Login – Complete
Search University- Complete
Search another user - Complete
Join University - Complete
Post on Discussion Board - Complete
Add a friend – Complete
Receive Recommendation of Universities- Complete


**Completion Percentage- 13/13**

**Design Accuracy- 90%**

## Group Members:

**Nikhil Sanil**
**Preeti Harkanth**
**Pragya Rai**
**Nitin Kabra**
**Ojas Deshpande**