2nd year 2nd semester B.Sc.(Hons.) Final Examination -2020

ICT-2200 : Project Work-II and Course Viva

JU Social & e-Learning Platform

(By PHP and MySQL)

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DECLARATION

This project report is submitted to the Institute of Information Technology, Jahangirnagar University, Savar, Dhaka in partial fulfillment of the requirements for having the B.Sc (Hons.) degree in ICT. This is also needed to certify that the project work is under the 2nd Year 2nd Semester course of the IIT "ICT-2200: Project Work-II and Course Viva". So, we are here declaring that this project report has not been submitted elsewhere for the requirement of any kind of degree, diploma or publication.

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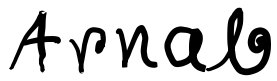
192334	Arnab Purkaystha	
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ACCEPTANCE

This project report is submitted to the Institute of Information Technology, Jahangirnagar University,Savar, Dhaka in partial fulfilment of the requirements for having the B.Sc (Hons.) degree in Information and Communication Technology.

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ACKNOWLEDGEMENTS

First of all, we want to thank the Almighty for giving us the opportunity to complete this work successfully. Our acknowledgement is meant to express our thankfulness to all the persons who helped us by sharing their experiences and amazed us with their personal opinions to make our project a better one . We are thankful to our parents for their continuous support. Most importantly we are grateful to our honorable supervisor, **Dr. Mohammad Abu Yousuf** sir who helped us by monitoring each step we have taken to make our project work and provided us with all the necessary materials and sufficient knowledge that was the major requirement.

Finally, we convey our gratitude and felicitation to our honorable teacher **Dr. Mohammad Abu Yousuf** sir for giving us the opportunity to learn the subjects practically and implement it to our project.

ABSTRACT

Day to day work of university students and teachers is maintained asynchronously. That means the works are distinctly done and have no connectivity or the scope of integration between them. This problem occurs because there is no centralized database server that keeps track of all the work done. There are many types of web-based applications where we can perform specific operations like communication between students and teachers through our own dedicated social media so that we can get connected with each other and, like comment view other friends posts, creates groups with others members who are listed as friends and share posts and media files in that group and chat with friends and groups whom we contact frequently etc., various course content and examination management, searching information about various students and teachers, keeping track of the course content covered by the course instructor, etc. But, the problem is that they all are distinct, and one person must install or go to many servers or websites to get all the work done. It is a lengthy process, and one must suffer many problems while maintaining all the websites simultaneously. **"JU Social & e-Learning Platform"** is a program that can make it possible. In this program, we have kept details of teachers and students in the time of the registration, and once the registration request is approved by the admin (after email verification), then they will receive a message to log in. Then they can view their information, update it and search any other student or teacher with various categories and specific search keys(classroom section), and search many any student or teacher or specified group(social media section). This will help them to find all the details in one system so that we don't have to waste our time in searching the details and communicate with their friends, juniors, seniors and teachers in amount of a short time and also get there study contents arranged and organized in a structural manner. In a word, it is a very useful and simple platform for storing, searching, accessing and manipulating information together in one place for the teachers and students of Jahangirnagar University.

Contents

Chapter 1
Introduction

1.1 Project Overview

Project overview mainly indicates what does the project performs and their short details in a glance. Project overview of our project is given below -

1.1.1 Main Features At A Glance

The main features of our project are –

- ✓ Storing all data and records in MySQL database.
- ✓ Registration panel for both teacher and former students.
- ✓ Emergency message receiving from student and notifying it to the teacher via text message.
- ✓ Student, teacher and admin login.
- ✓ Searching any student (first name, batch, skills, blood group, department) or teacher(first name, designation, research interest, department) by specific categories in classroom and search groups and peoples by name in social media section.
- ✓ Edit own profile (profile photo, cover photo, name etc.).
- ✓ Send friend request and accept or deny friend requests of other users.
- ✓ User profile containing posts, photos, videos uploaded by user, details about user etc.
- ✓ Timeline containing friends shared contents.
- ✓ Like, comment on other users posts, get notifications on other friends activities on users posts.
- ✓ Creates groups with others members who are listed as user's friends and share posts and media files in that group.
- ✓ Chat with individuals and also create group chats with specified friends.
- ✓ Create course for students.
- ✓ Various admin panel work (Request approval of member registration, Payment verification, Notice update).
- ✓ User dashboard containing classroom, view & update own data, searching teacher/students.
- ✓ Upload and access materials in course by categories (auto specified books, slides, videos).
- ✓ Exam/Assignment management and grading.
- ✓ Course progress tracking.

1.2 Project Purpose

Project purpose mainly indicates why the project is build. Here, we have divides this sections in two sub sections and they are given below -

1.2.1 Motivations

The main motivation of the project is to build a Social Media & e-Learning platform for **Jahangirnagar University** and connect the students and teachers. Communication is important part of life and sometimes being connected to everyone is hard because every time the details of person we are looking for is not found. In other hands, study management can be very easy and organized when it is online based and it is very convenient for both teachers and students to take the benefit of it. So, we have realized these importance and build this project to make the communication and study management for the students and teachers much easier. Another important motivation of this project building was to implement what we have learnt in our semester and use it in a way that everyone will enjoy the benefit.

1.2.2 Objectives

The main objectives of developing this program are-

- Implement the HTML, CSS, Javascript, JQuery, PHP, MySQL and DBMS that we have learnt in this semester and make a real life based project to see how it help people.
- Practice various languages that helps us to build a complete website.
- Create a communication & study platform which serves multipurpose benefits.

Chapter 2
Literature Review of Web Development Languages

Web development is the work involved in developing a website for the Internet (World Wide Web) or an intranet (a private network) [1]. Web development can refer to creating a simple single static page of plain text, and it can also refer to complex web applications. Web development commonly refers to carious fields like Web engineering, Web design, Web content development, client-side/server-side scripting, Web server and network security configuration, and e-commerce development [2].

2.1 HTML

HTML(The HyperText Markup Language) is the standard markup language for digital documents which are designed to be so that displayed in a web browser [3]. It can be used with technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browser receives HTML documents from a web server and transfers the documents into multimedia web pages. HTML expresses the structure of a web page. It is the skeleton or blueprint of the webpage [3]. HTML elements are the building blocks of HTML pages. With HTML images, videos, and other objects such as interactive forms may be embedded into the rendered web page[3].

Some important tags of HTML is given below-

<!DOCTYPE>: All HTML documents must start with a <!DOCTYPE> declaration [3].

Syntax of doctype -

<!DOCTYPE html>

<html>: The <html> tag expresses the root or container of an HTML document. It is the container for all other HTML elements [3].

Syntax of html tag-

<html>

<!-- Write every content here -->

</html>

<head>: The <head> element is a container for metadata (data about data) and is placed between the <html> tag and the <body> tag [3].

Syntax of head tag -

<head>

<!-- Write metadata tags(title, stylesheet linking etc.) here -->

</head>

<body>: The <body> tag defines the document's body. The <body> element contains all the contents of an HTML document, such as headings, paragraphs, images, hyperlinks, tables, lists, etc [3].

Syntax of body tag -

<body>

<!-- Write container tags(p, img, video, div etc.) here -->

</body>

** :** The tag defines a paragraph. Browsers automatically add a single blank line before and after each element [3].

Syntax of p tag-

 content

<form>: The <form> tag is used to create an HTML form for user input [3]. The <form> element can contain one or more of the following form elements:

- <input> - creates input field based on various user inputs [3].
- <textarea> - creates a feasible text area which allows whitespaces and newline [3].
- <button> - creates a button of various types(submit, normal etc.) [3].
- <select>- used to create a drop-down list [3].
- <option> - it expresses options in a select field [3].
- <optgroup> - used to group related options in a select element [3].
- <fieldset> - used to group related elements in a form [3].
- <label> - indicates a label for several elements(email, text, radio button, select etc.) [3].
- <output> - express the result of a calculation [3].

<button>: Defines a clickable button. Inside a <button> element we can put tags like <b>,
, <img>, etc. That is not possible with a button constructed with the <input> element [3].

Syntax of button tag –

<button type="button">Click here</button>

<img>: The <img> tag is used to integrate an image in an HTML page [3]. The <img> tag has two required attributes:

1. src - Specifies the path to the image

2. alt - indicates the alternate text for the image, if the image can't be displayed

Syntax of img tag –

<img src="path" alt="alternate text" width="desired" height="desired">

<video>: Integrate video content in a web page [3].

Syntax of video tag -

<video width="desired" height="desired" controls>

  <source src="path" type="video/format">

</video>

<a>: The <a> tag defines an hyperlinks for going to a specific place on same or different web page [3].

Syntax of a tag-

click here!

** :** Indicates a specific division or a specific section in an HTML document.It is easily styled by using the class or id attribute [3].

Syntax of div tag –

Content

2.2 CSS

CSS or Cascading Style Sheets is a style sheet language used for expressing the presentation or layout of a web document written in a markup language like **HTML**. CSS is a important technology of the **WWW**.The name cascading comes from the specified priority scheme to determine which style rule applies if more than one rule matches a particular element. This cascading priority scheme is predictable [4].

The CSS Box Model: In CSS, the term "box model" is used when layout is designed. The CSS box model is a box that wraps around every HTML element [5].

Explanation of the different parts:

- **Content** - The content of the box, where text and images appear
- **Padding** - Clears an area around the content. The padding is transparent
- **Border** - A border that goes around the padding and content
- **Margin** - Clears an area outside the border. The margin is transparent

text-align: The text-align property indicates the specific horizontal alignment of text in an element [4].

Syntax -

text-align: left|right|center|justify|initial|inherit;

background-color: The background-color property determines the background color of an element. The background of an element is the total size of the element, including padding and border (but not the margin) [4].

Syntax -

background-color: color|transparent|initial|inherit;

color : The color property specifies the color of text [4].

Syntax -

color: color|initial|inherit;

display: The display property determines the display behavior of an element [4].

font-style : The font-style property determines the font style for a text [4].

Syntax –

font-style: normal|italic|oblique|initial|inherit;

font-size : The font-size property sets the size of a font [4].

Syntax -

font-size:medium|xx-small|x-small|small|large|x-large|xx-large|smaller|larger|length|initial|inherit;

overflow : The overflow property indicates what should happen if content overflows an element's box [4].

Syntax -

overflow: visible|hidden|clip|scroll|auto|initial|inherit;

position : The position property determines the type of positioning method used for an element [4]. Syntax-

position: static|absolute|fixed|relative|sticky|initial|inherit;

z-index : The z-index property specifies the stack order of an element. An element with greater stack order is always in front of an element with a lower stack order [4].

Syntax -

z-index: auto|number|initial|inherit;

2.3 JavaScript

JavaScript or JS, is a programming language that is one of the core technologies of the WWW.Over 97% of websites use JS on the client side for web page behavior, often containing third-party libraries. All major web browsers have a dedicated JavaScript engine to execute the code on users devices [6].

JavaScript is a high-level, **just-in-time(JIT)** compiled language that stick to the ECMAScript standard. It has dynamic typing, prototype-based **OOP**, and first-class functions. It is multi-paradigm, supporting event-driven, functional, and imperative programming styles. It has APIs(Application Programming Interface) for working with text, dates, standard data structures, and the **Document Object Model (DOM) [6].**

Document Object Model : The Document Object Model (DOM) is the data representation of the objects that create the structure and content of a document on the web [5].

Finding HTML elements-

- **document.getElementById(id)-**Find an element by element id
- **document.getElementsByTagName(name)-**Find elements by tag name
- **document.getElementsByClassName(name)-**Find elements by class name

Changing HTML Elements-

- **element.innerHTML = new html content** - Change the inner HTML of an element
- **element.attribute = new value**- Change the attribute value of an HTML element
- **element.style.property = new style**- Change the style of an HTML element

addEventListener(): The addEventListener() method attaches an event handler to the specified element [5].

Syntax -

element.addEventListener(event, function, useCapture);

querySelector(): The querySelector() method returns the first element that matches a CSS selector [5].

Syntax -

document.querySelector(CSS selectors)

querySelectorAll() : The querySelectorAll() method returns all elements as a nodelist that matches a CSS selector(s) [5].

Syntax -

document.querySelectorAll(CSS selectors)

2.3.1 AJAX

AJAX is the full form of **Asynchronous JavaScript And XML**. It is not a programming language [7].

AJAX just uses a combination of:

- A browser built-in **XMLHttpRequest** object (to request data from a web server)
- JavaScript and HTML DOM (to display or use the data)

AJAX is a misleading name. AJAX applications might use XML to transport data, but it is equally common to transport data as plain text or JSON text [7].

2.4 JQuery

JQuery was created in to handle Browser Incompatibilities and to simplify HTML DOM Manipulation, Event Handling, Animations, and Ajax. The jQuery syntax is easy for selecting HTML elements and performing some action on the element(s) [8].

Basic syntax is: **$(selector).action()**

- A $ sign to define/access jQuery
- A (selector) to "query (or find)" HTML elements
- A jQuery action() to be performed on the element(s)

Example -

```
$(document).ready(function(){
  // jQuery methods go here...
});
```

Finding HTML Element by Id- Returns element with specific id [8].

Syntax – variable_name = $("#idname ");

Finding HTML Elements by Tag Name- Return all selected tag name elements [8].

Syntax – var_name = $("p");

Finding HTML Elements by Class Name- Return all elements with specified class name [8].

Syntax - Var_name = $(".class_name ");

Finding HTML Elements by CSS Selectors- Return a list of all selected elements with class name [8].

Syntax- var_name = $("tag_name.Class_name ");

2.5 PHP

PHP is a general-purpose server side scripting language for web development. PHP originally stood for **Personal Home Page** ,but it now stands for **Hypertext Preprocessor** [9].

PHP code is usually processed on a web server by a PHP interpreter. On a web server, the result of the interpreted and executed PHP code – which may be any type of data, such as generated HTML or binary image data – would form the whole or part of an HTTP response. Various web template systems, web content management systems, and web frameworks exist which can be integrated to facilitate the generation of that response [9].

Some most used function in PHP-

mysqli_connect function: The PHP mysqli_connect function is used to connect to a MySQL database server [9].

Syntax -

```
<?php;

$con_var= mysqli_connect($db_server_name, $db_user_name, $db_password);

?>
```

mysqli_query function: The mysqli_query function is used to execute MySQL queries [9].

Syntax -

```
<?php

$query=mysqli_query($con_var,$query) ;

?>
```

mysqli_num_rows function: The mysqli_num_rows function is used to get the number of rows returned from a select query [9].

Syntax -

```
<?php

mysqli_num_rows($result);

?>
```

mysqli_fetch_assoc function: mysqli_fetch_assoc() function fetches a result row as an associative array [9].

Syntax-

<? php

$num= mysqli_fetch_assoc($result);

?>

mysqli_close function: The mysqli_close function is used to close an open database connection [9].

Syntax-

<?php

mysqli_close($con_var);

?>

explode: The explode() function breaks a string into an array [9].

Syntax -

explode(separator,string,limit);

md5: The md5() function calculates the MD5 hash of a string.The md5() function uses the RSA Data Security, Inc. MD5 Message-Digest Algorithm [9].

Syntax -

md5(string,raw);

[N.B: raw is optional .its value can be true or false.]

Session: A session is a way to store information (in variables) to be used across multiple pages. A session is started with the session_start() function. Session variables are set with the PHP global variable: $_SESSION [9].

$_POST: It is a PHP super global variable which is used to collect form data after submitting an HTML form with method="post". $_POST is also widely used to pass variables [9].

isset: The isset() function checks whether a variable is set, which means that it has to be declared and is not NULL [9].

Syntax –

isset(variable, ...);

2.6 MySQL

It is a open source database management system which is very popular. It is created by **Oracle Corporation**[10]. MySQL is based on an operating system which implements a relational database in a computer, user managing, network access and helps with testing database and backups [10].

Some simple syntaxes related to MySQL operations is given below in Figure 2.1-

Queries	Syntax
SELECT	SELECT column1, column2, ...FROM table_name;
INSERT INTO	INSERT INTO table_name (column1, column2, column3, ...)VALUES (value1, value2, value3, ...);
DELETE FROM	DELETE FROM table_name WHERE condition;
UPDATE	UPDATE table_name SET column1 = value1, column2 = value2, ...WHERE condition;
INNER JOIN	SELECT columns FROM table1 INNER JOIN table2 ON table1.column = table2.column;
LEFT JOIN	SELECT columns FROM table1 LEFT JOIN table2 ON table1.column = table2.column;
RIGHT JOIN	SELECT columns FROM table1 RIGHT JOIN table2 ON table1.column = table2.column;
NATURAL JOIN	SELECT column_names FROM table_name1 NATURAL JOIN table_name2;
GROUP BY	SELECT column_name(s) FROM table_name WHERE condition GROUP BY column_name(s);

Figure 2.1. MySQL operations.

Chapter 3
Methodology

3.1 Database Models

Database Models are associated with creating database for the project. For the process of database creation we have used MySQL database and created the entities in form of tables. The derived schema of our used database is elaborated in **3.1.1 section.**

3.1.1 Schema

Schema here demonstrates the conceptual model of database in form of table needed to create the project. The schemas of used entities are givenbelow –

Admin(admin_id,password)

Books(book ,m_id)

Course(c_id ,credit ,cname ,semester , cstatus ,u_id)

Dept(dept_id ,dept_name ,facult_name)

Enroll(u_id ,c_id)

Exam(etime ,edate ,file,grade ,e_id,e_details ,e_title,c_id)

Grouppost(gpid ,pdate ,ptime ,pdetails ,likecount ,commentcnt ,memberid ,gid)

Gropupost_comments(comid ,comtime ,comdate ,comdetails ,gpid ,memeberid)

Grouppost_likes(lid ,ltime,ldate ,gpid ,memberid)

Grouppost_photos(photosid ,location ,gpid)

Grouppost_videos(videosid ,location ,gpid)

Grouprequests(rqfrom ,rqto)

Groups(gid ,gname ,about ,dp)

Group_member(memberid ,mute ,gid)

Group_message(gid ,msg_id ,msg_from ,msg ,sendtime)

Grp_members(gid ,u_id)

Messages(msg_id ,msg_to ,msg_from ,msg ,msg_time)

Notices(notice_id ,headline ,description,date ,noticefile ,admin_id)

Notifications(no_id ,type ,sender ,senderentity ,ndate ,ntime ,isseen ,u_id)

Payment(t_id ,amount ,pdate ,semester ,pstatus ,u_id ,admin_id)

Posts(p_id, post ,date,c_id)

Records(vedio ,m_id)

Request(rqfrom ,rqto)

Seen(u_id ,seen)

Slides(slide ,m_id)

Student(u_id ,skills ,hall ,cg ,semester ,batch ,dept_id ,

Study_material(m_id ,u_id ,c_id)

Takes_part(u_id,e_id ,sgrade ,ftime,fdate date,file)

Teacher(u_id ,rinterest ,designation ,dept_id)

Temp(t_id ,karconvo ,u_id_to ,seen)

User(u_id ,email ,fname ,lname ,password ,district ,house_no ,thana ,phone ,bg ,status ,id_type ,gender ,dob ,dp ,id_image ,ustat ,token ,admin_id)

Userpost(p_id ,pdate,ptime,pdetails ,likecount ,commentcnt ,u_id)

Userpost_comments(comid,comtime ,comdate ,comdetails ,p_id ,u_id)

Userpost_likes(lid ,ltime ,ldate ,pid ,u_id)

Userpost_photos(photosid ,location,pid)

Userpost_vedios(videosid ,location,pid)

User_friends(friendfrom ,friendto)

User_groups(gname ,cover ,gid ,about ,member ,u_id)

[N.B: format **Table_name**(attributes)]

3.2 Flowchart

User Registration: This is one of the most important interface of a project because it shows the process where anyone can start their journey with the platform by getting registered. As shown in **Figure 3.1** based on giving correct data and email verification user registration is being completed.

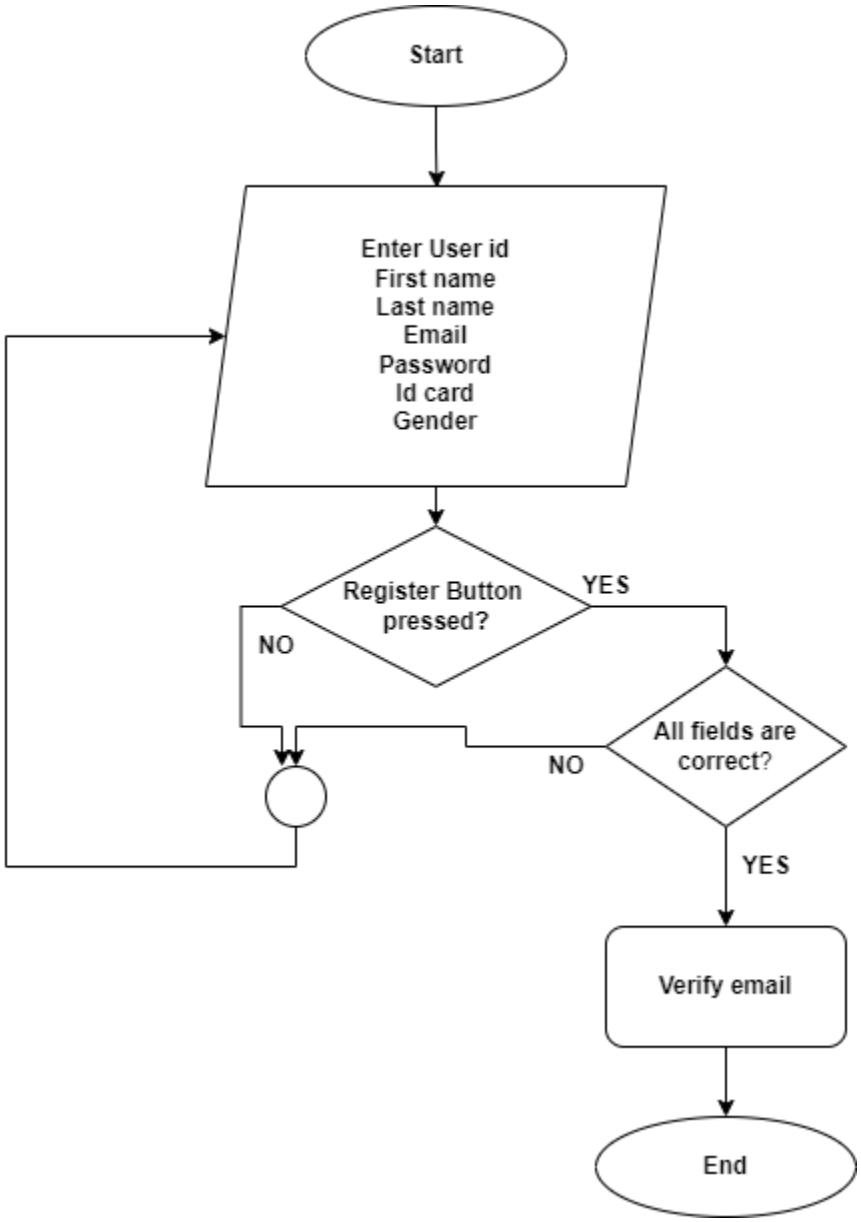

Figure 3.1 Flowchart of Registration process.

User profile: User profile is the most crucial page after user login. As demonstrated in **Figure 3.2**. A user can view his own profile, search other users, find friends, go to groups, visit timeline, view notification, go to classroom and finally logout.

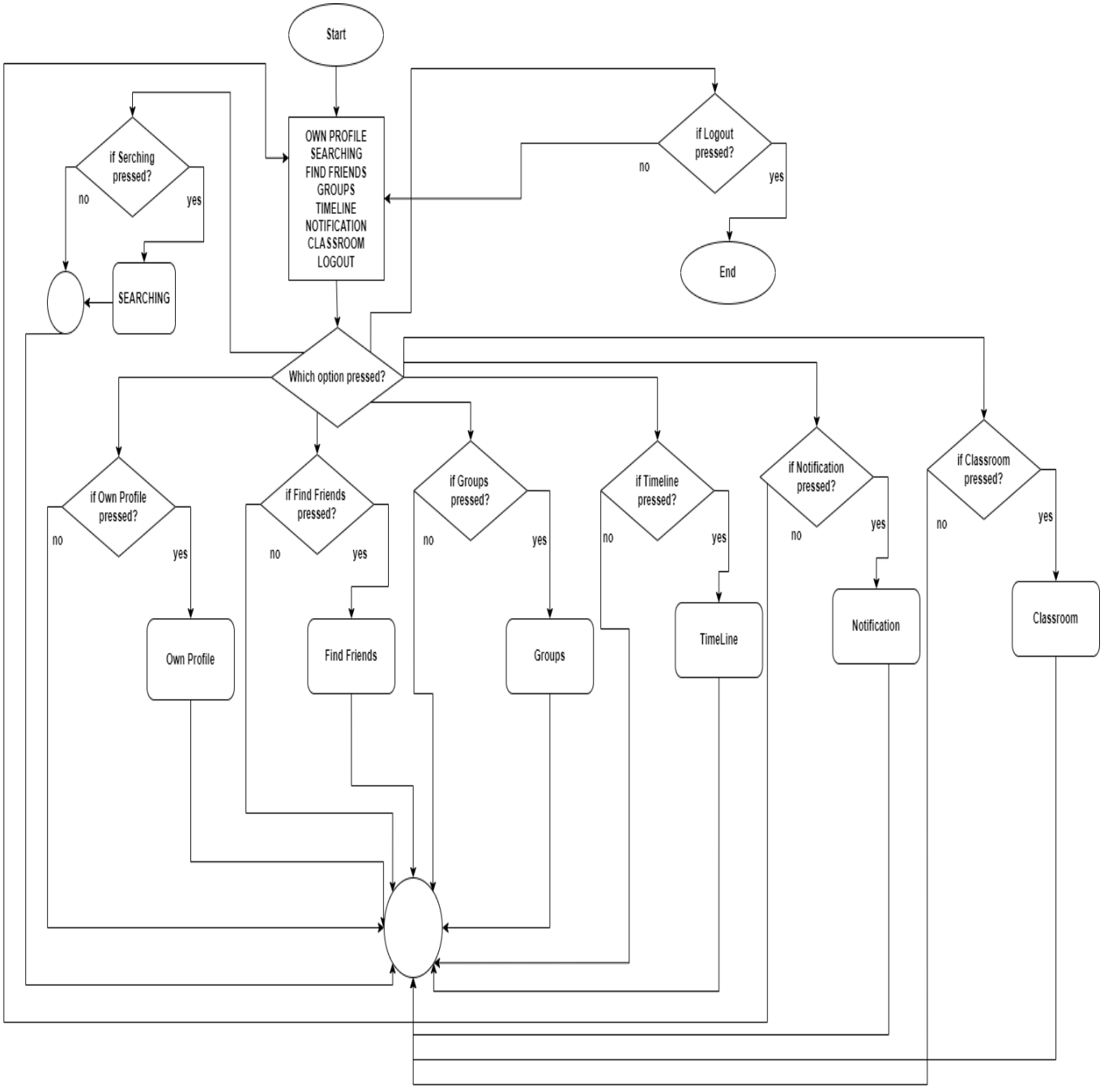

Figure 3.2. Flowchart of User profile that illustrates the different processes based on option selected by user.

Own Profile: Own profile is the page where various user panel works will take place. As demonstrated in **Figure.3.3**, user can edit profile, see all friends, view photos, videos, upload posts, photos & videos etc. at any time.

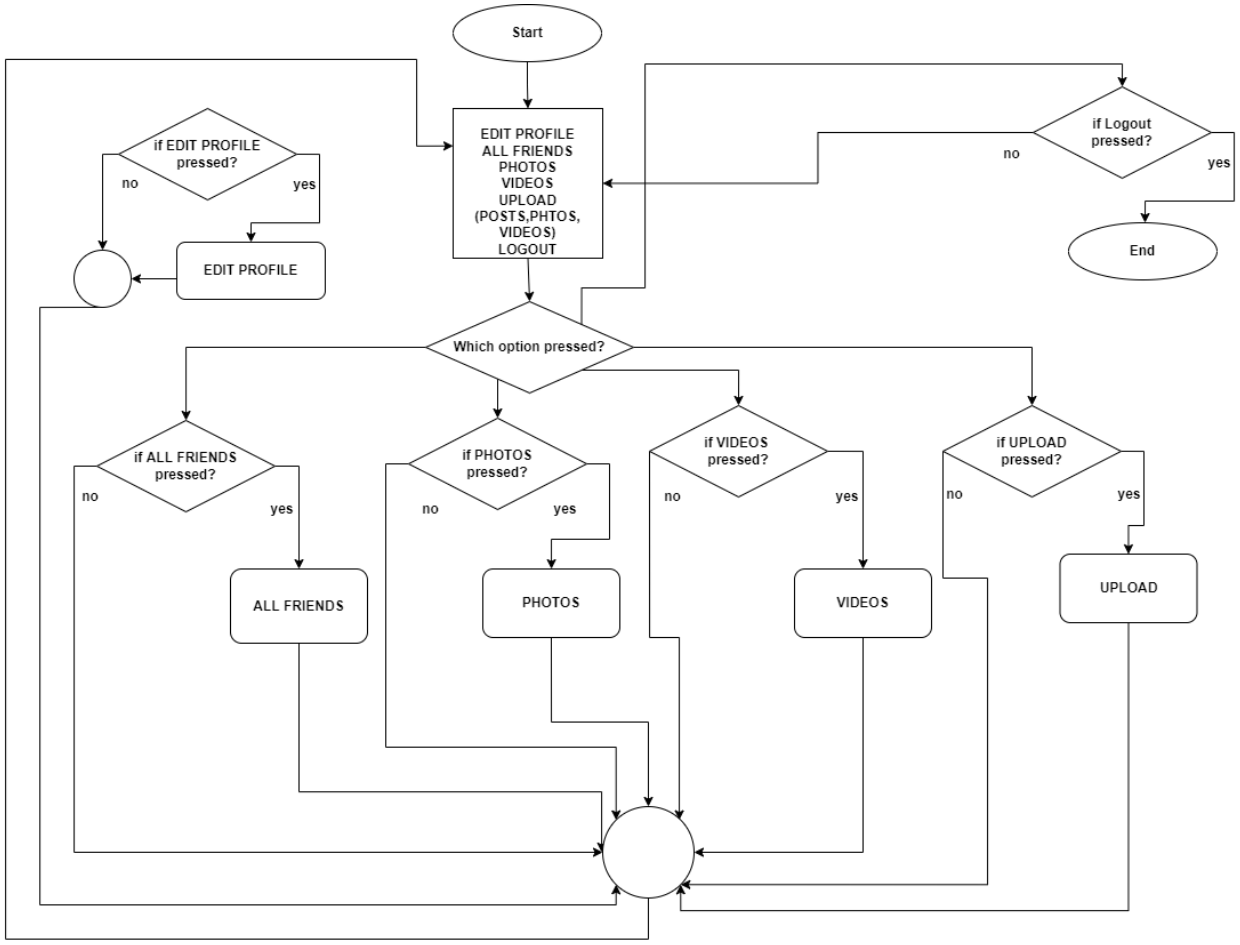

Figure 3.3 Flowchart of Own profile process.

Edit Profile: Edit profile is the page where user can update his own information & details. As demonstrated in **Figure.3.4** user can edit profile by entering fields he want to update and press update button to complete the process.

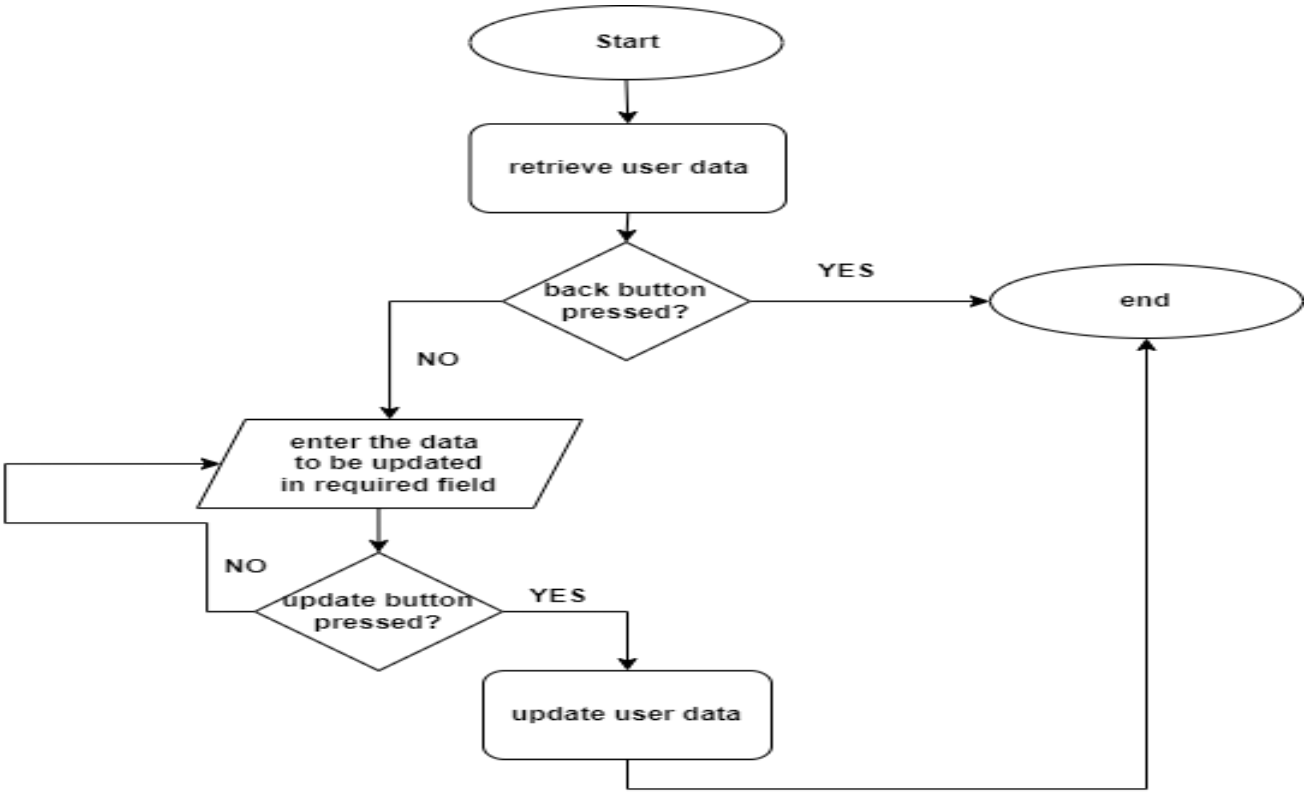

Figure 3.4 Flowchart of edit profile process.

Timeline: Timeline is the page where user can view, like, comment on friends posts. As demonstrated in **Figure.3.5**, this process is illustrated.

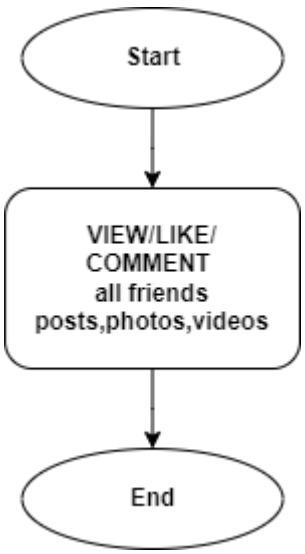

Figure 3.5 Flowchart of timeline process.

Chatting: Any user can chat with their friends individually or in groups(multiple friends at a time). As demonstrated in **Figure. 3.6** user can do both individual chat and group chat according to their choice.

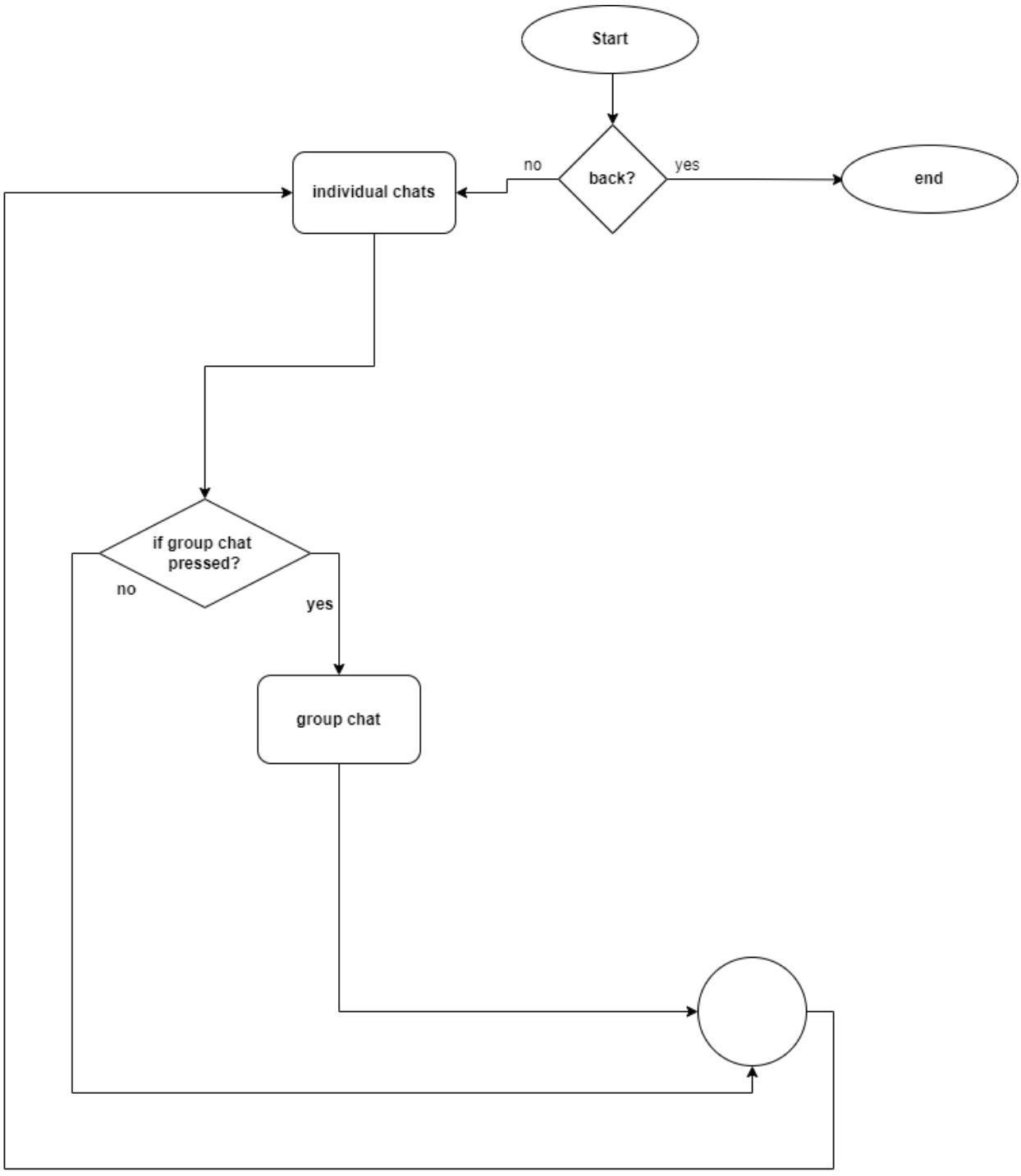

Figure 3.6. Flowchart of chatting process.

Groups: Groups is the page where various user panel works of grouping will take place. As demonstrated in **Figure.3.7**, user manage groups that they have created, view & perform activities in groups they are in , create new groups and join suggested groups.

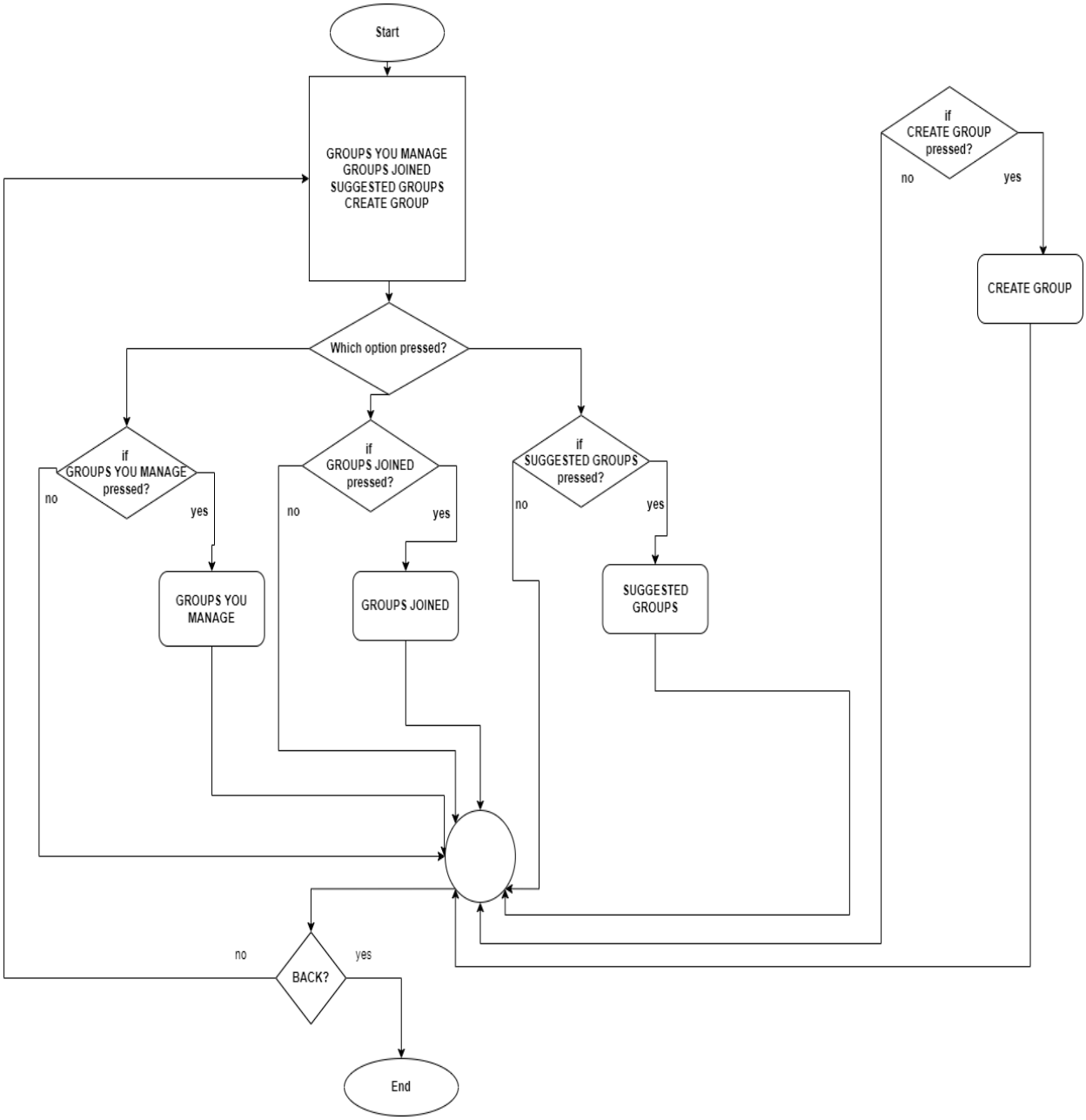

Figure 3.7 Flowchart of groups process.

User Login: login process is very much required if anyone wants to dive in their account in order to perform different tasks. The **Figure 3.8**, demonstrates the process how user can log in into their accounts using their valid credentials.

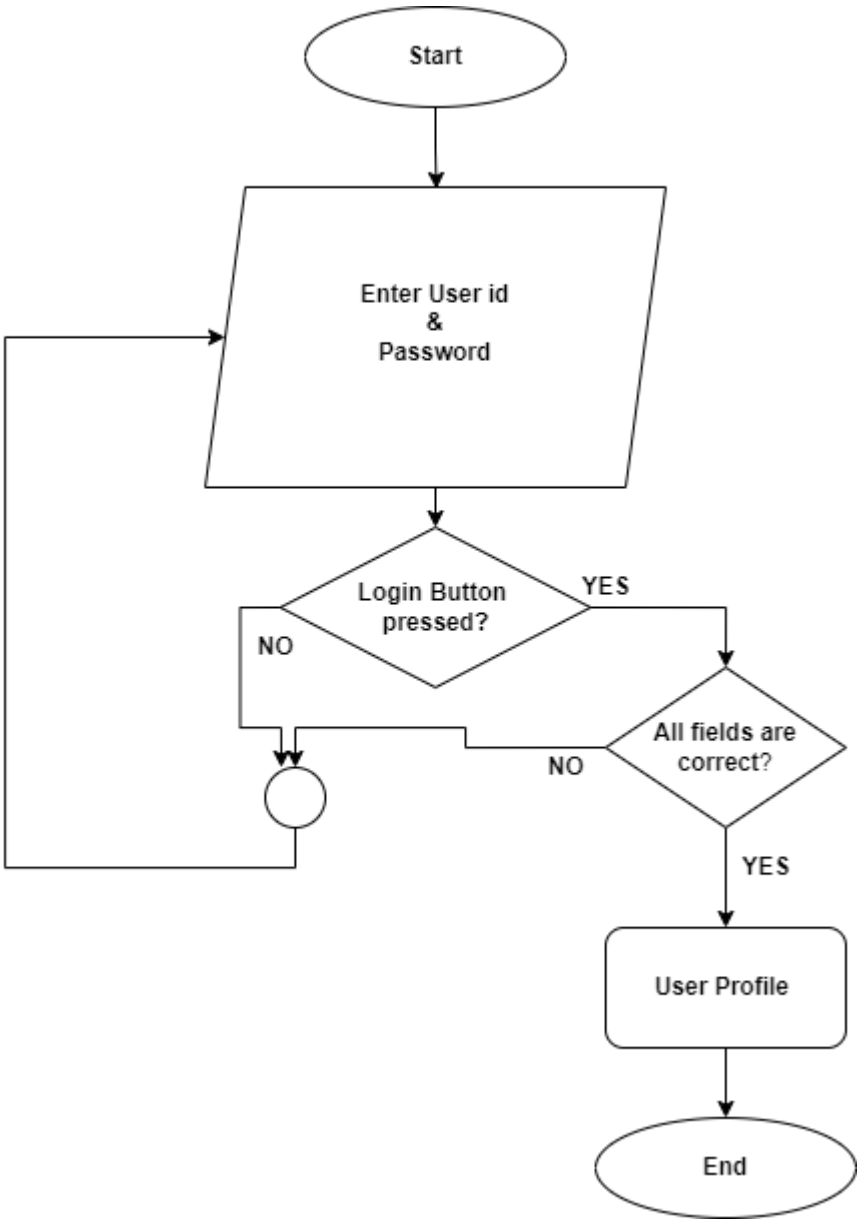

Figure 3.8. Flowchart of user login process.

Searching: users can search any users (teacher or student) by categories & specific search keys. By doing this, they can check out the matched profiles at a glance. It is very important field because any user can find other users with same or different skills or research interest. The **Figure 3.9** demonstrate this process.

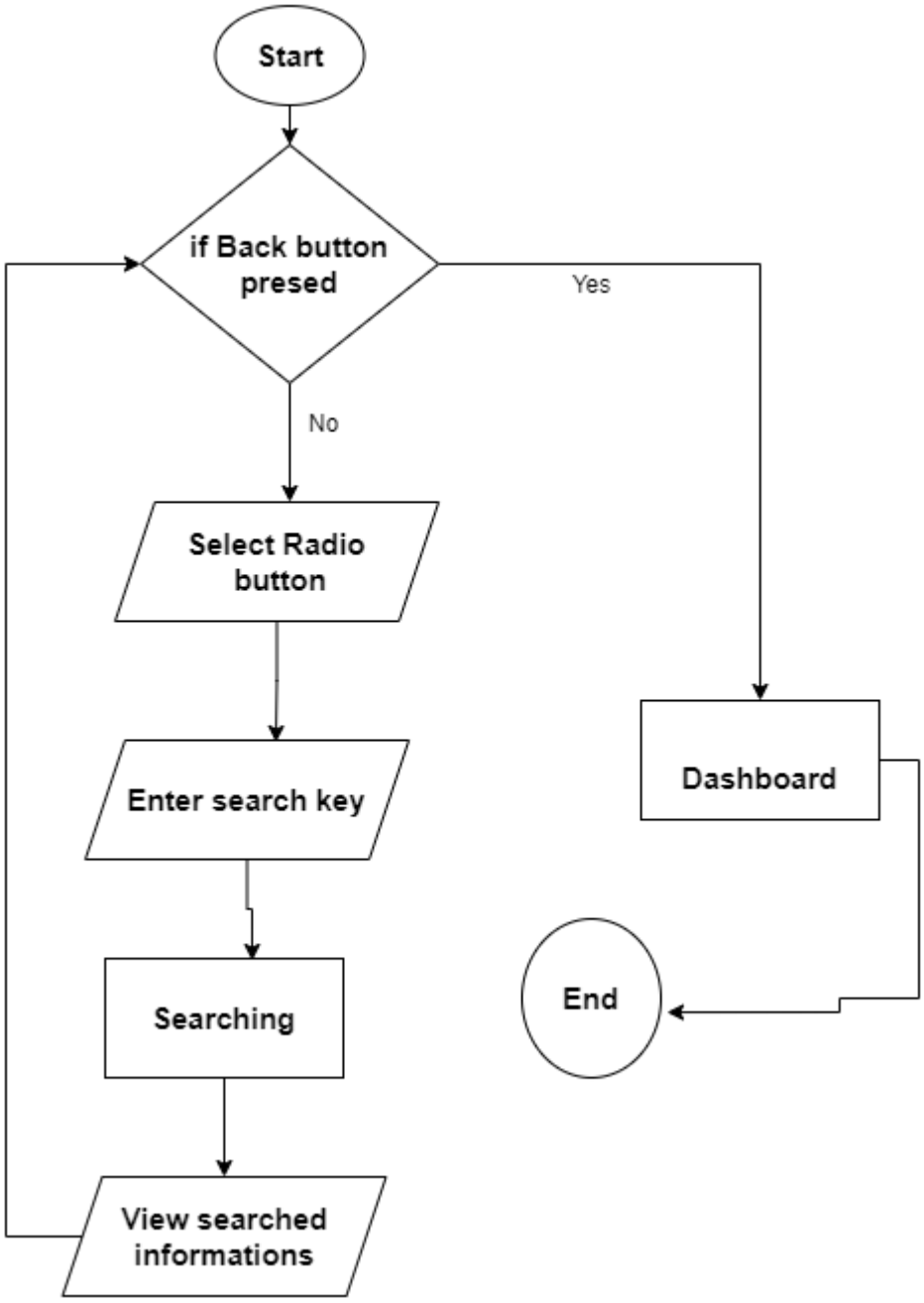

Figure 3.9 Flowchart of searching process where searching any user (teacher or student) by categories & specific search keys.

Classroom Dashboard: Classroom dashboard is the page where user can see classroom menu and his own profile in a glance. As demonstrated in **Figure. 3.10**, user can edit profile, see joined classes and join new classes and they can also search for any student or teacher within the process.

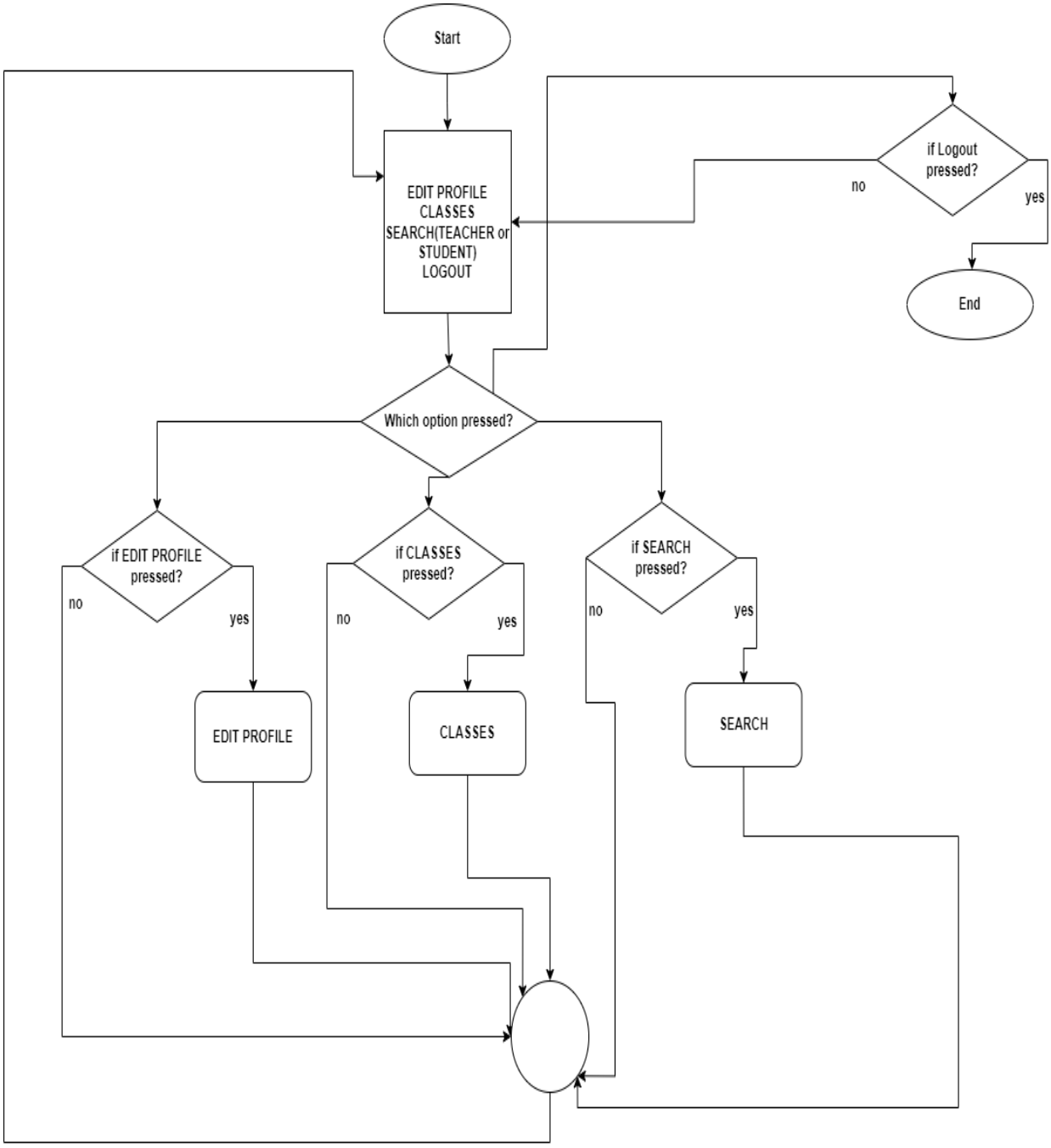

Figure 3.10 Flowchart of classroom dashboard that illustrates the different processes based on option selected by user.

Course(Teacher): This page of Course will popup when the user logged in is a teacher. As demonstrated in **Figure.3.11**, teacher can post/upload content, view books & slides, view & edit videos, create and grade exams, update course progress and logout.

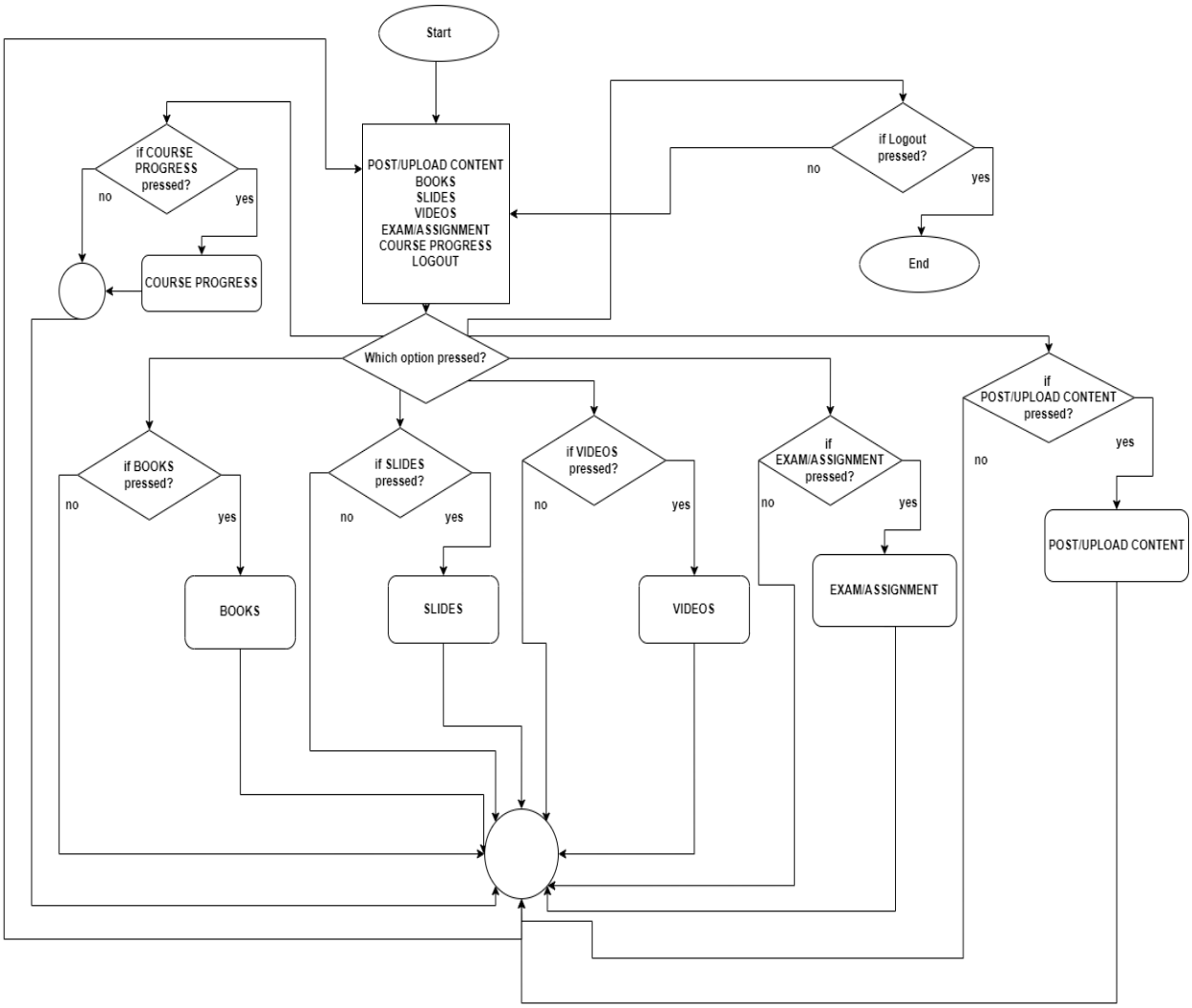

Figure 3.11. Flowchart of course (teacher) that illustrates the different processes based on option selected by teacher.

Course(Student): This page of Course will popup when the user logged in is a student. As demonstrated in **Figure. 3.12**, student can send emergency message to teacher, view and read books, slides & videos, give exams, view course progress and logout.

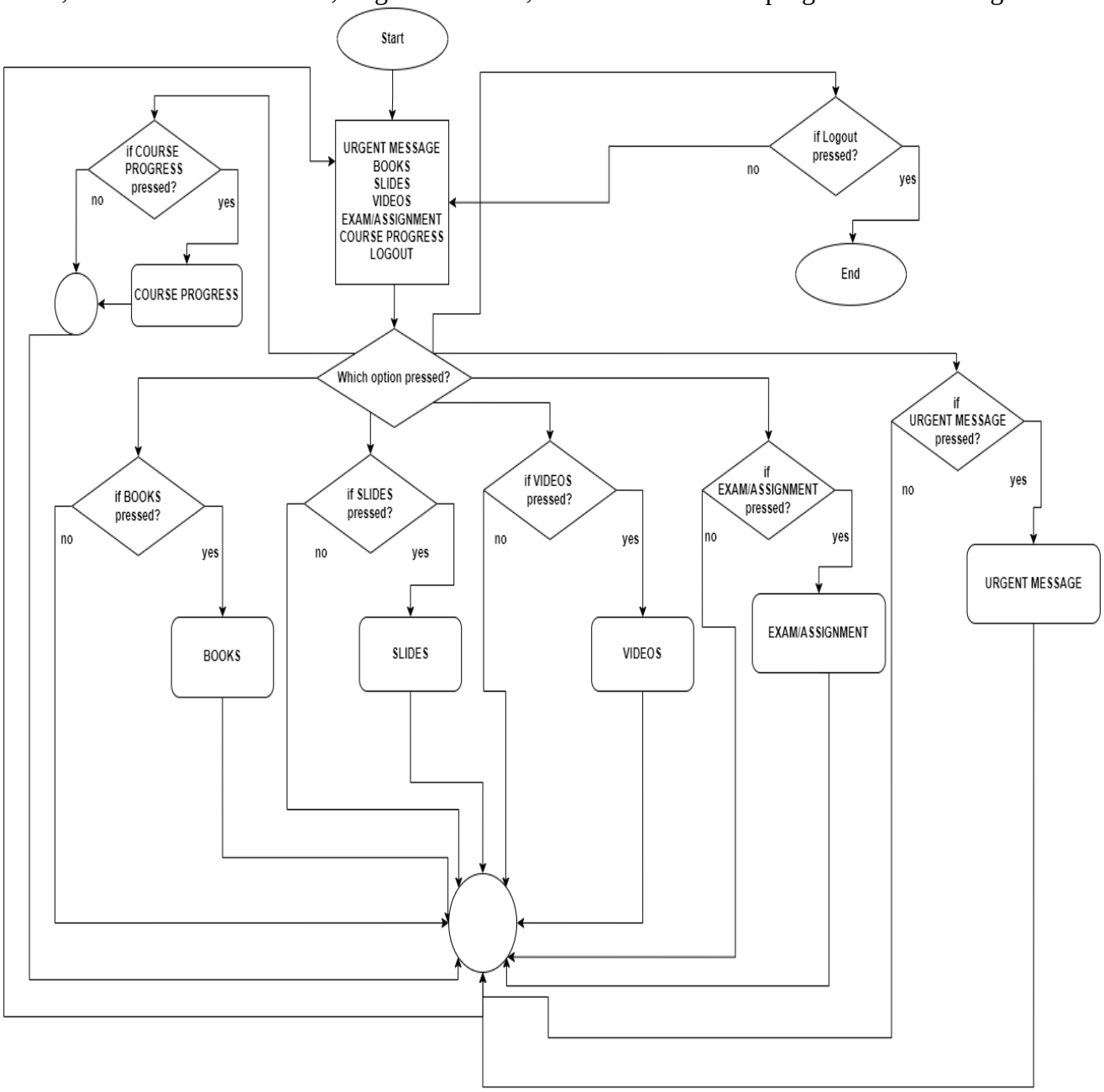

Figure 3.12 Flowchart of course (student) that illustrates the different processes based on option selected by student.

Exam/Assignment: This page of Course section will popup when the user logged in is a teacher. As demonstrated in **Figure. 3.13**, teacher can create exam/assignment and also can grade them.

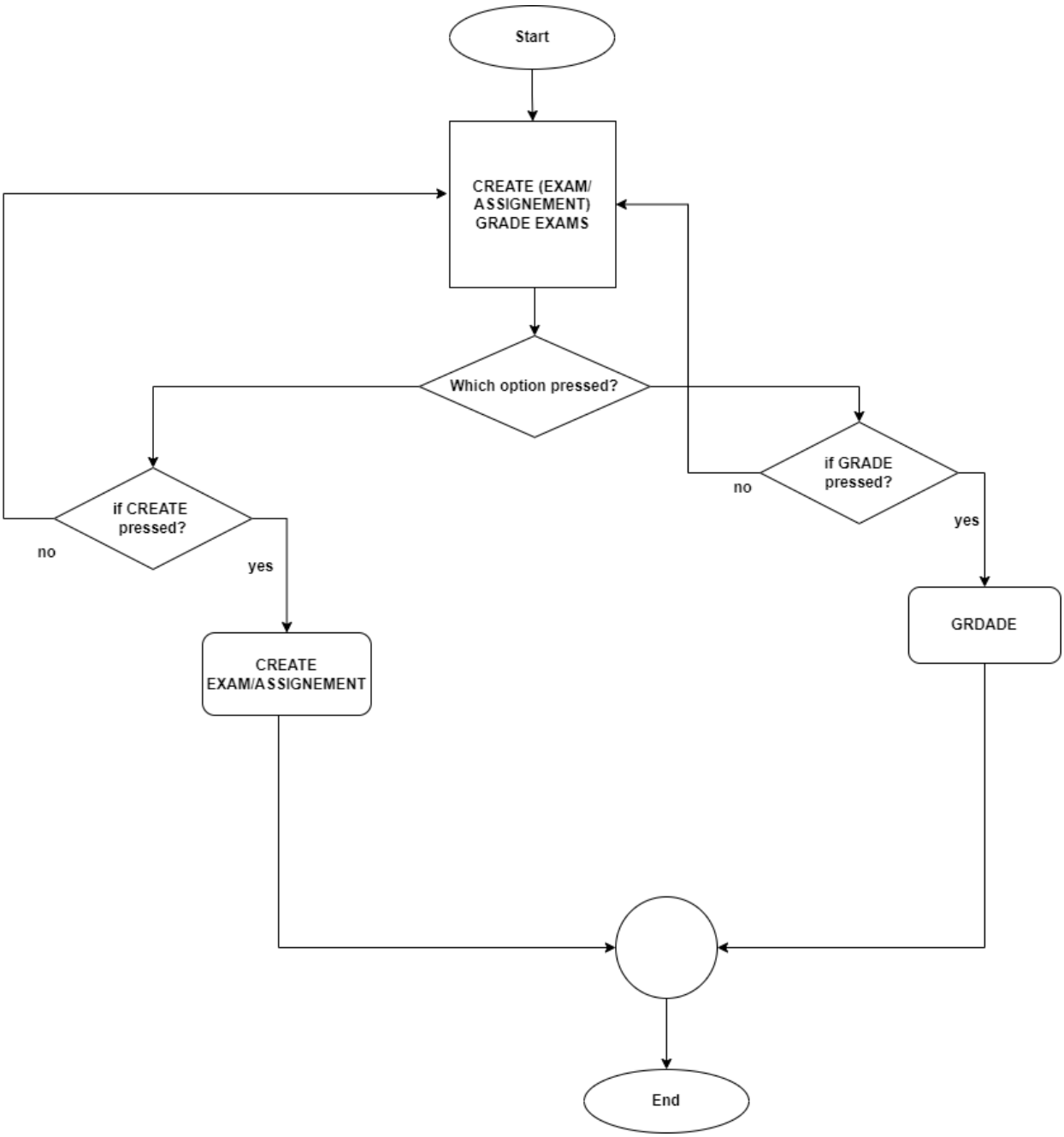

Figure 3.13 Flowchart of exam/assignment (teacher) that illustrates the different processes based on option selected by teacher.

Admin Dashboard: Admin dashboard is the most crucial page after admin login. It is the process where various admin panel works will take place. As demonstrated in **Figure. 3.14**, Admin can approve user requests, verify payment & update notice at any time.

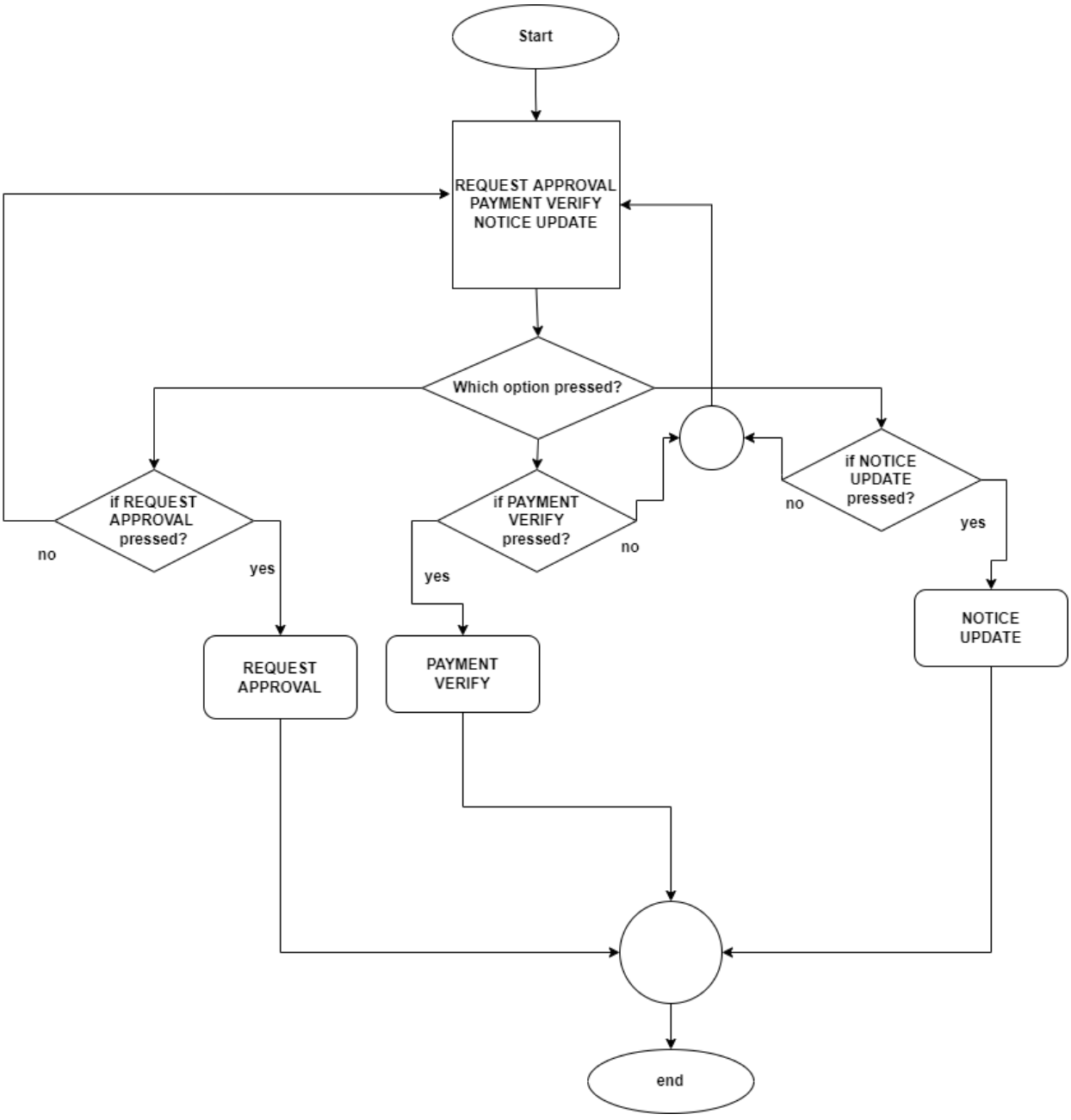

Figure 3.14 Flowchart of Admin Dashboard that illustrates the different processes based on option selected by admin

Request Approval: An admin can check and examine the registered student or teacher request so that outside people can't use the platform. Admin can handle all registration requests and can decide whether to accept or decline it. The **Figure 3.15,** Demonstrate this process how an admin can handle it efficiently.

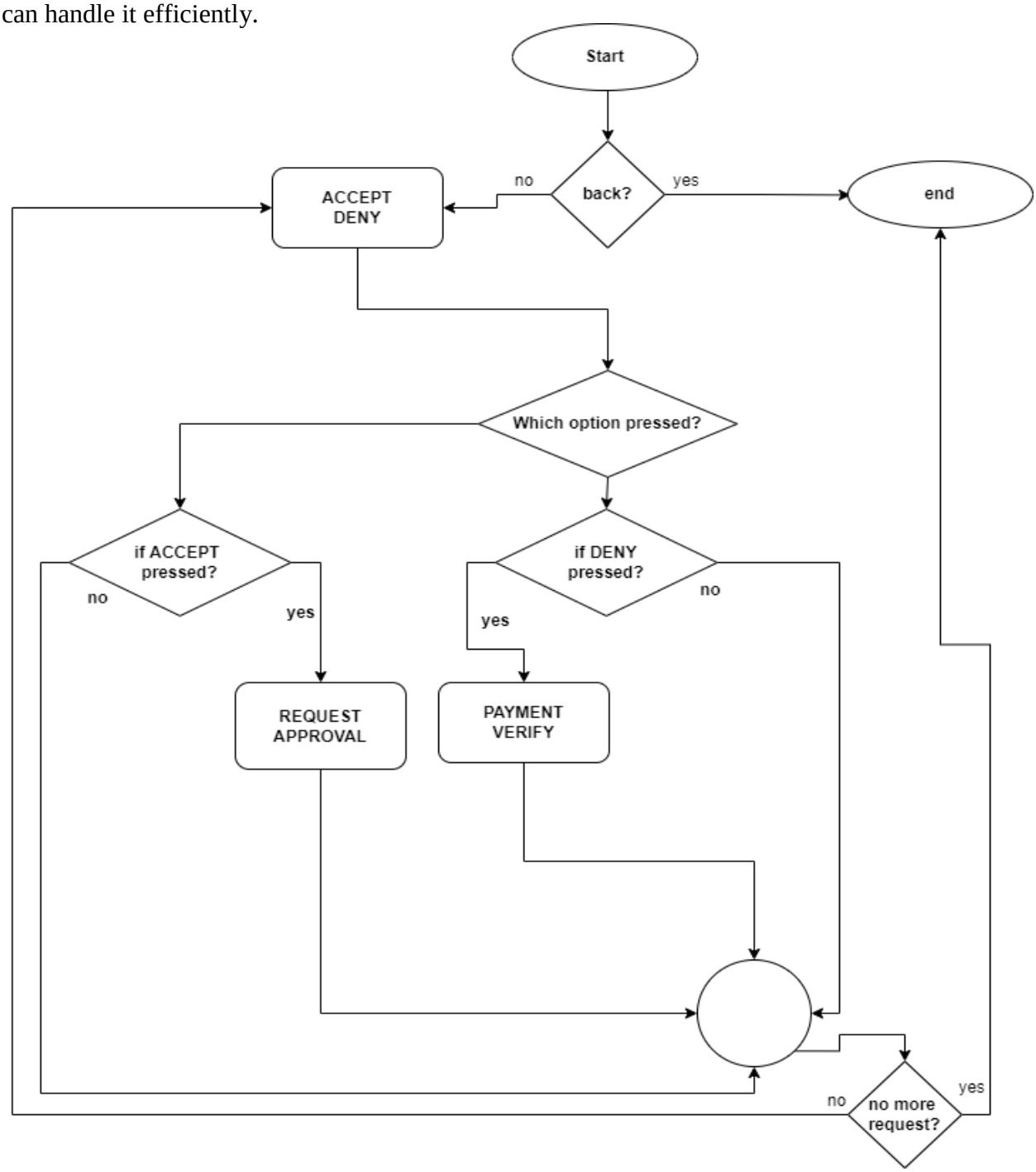

Figure 3.15. Flowchart of user Request Approval process where admin can decide whether to accept of decline user request.

Chapter 4
Experimental Analysis & Result

4.1 Output

Login: user can login using id and password as illustrated in **Figure 4.1.**.

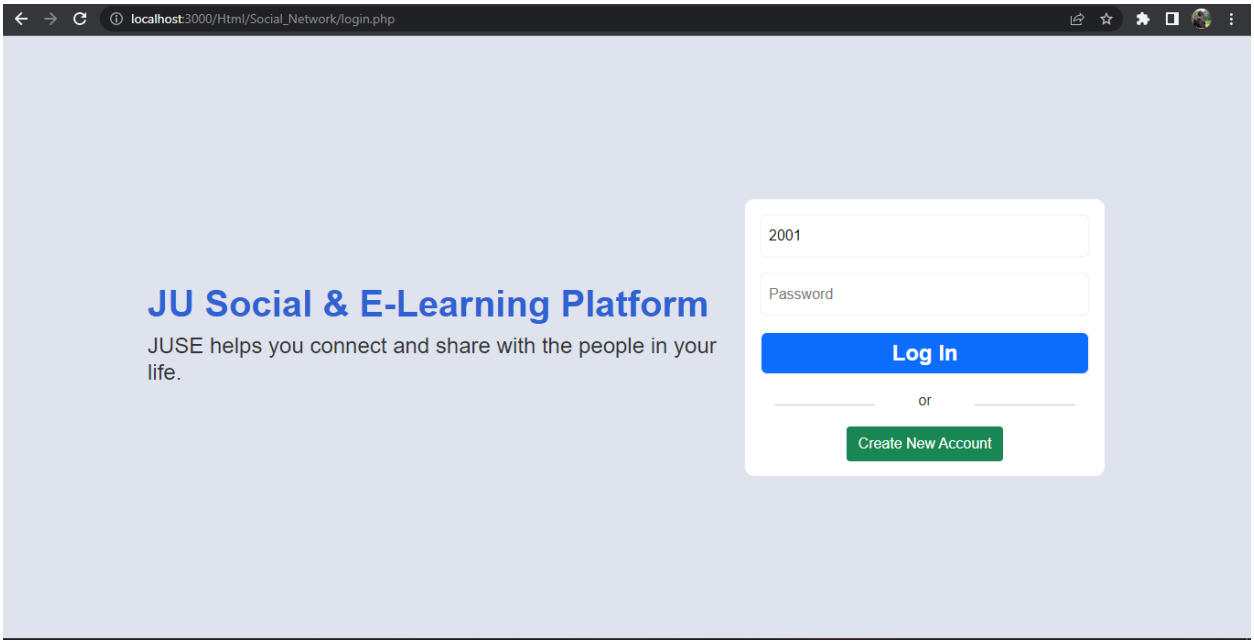

Figure 4.1. User login

Signup: user can sign up by filling these details as illustrated in **Figure 4.2**.

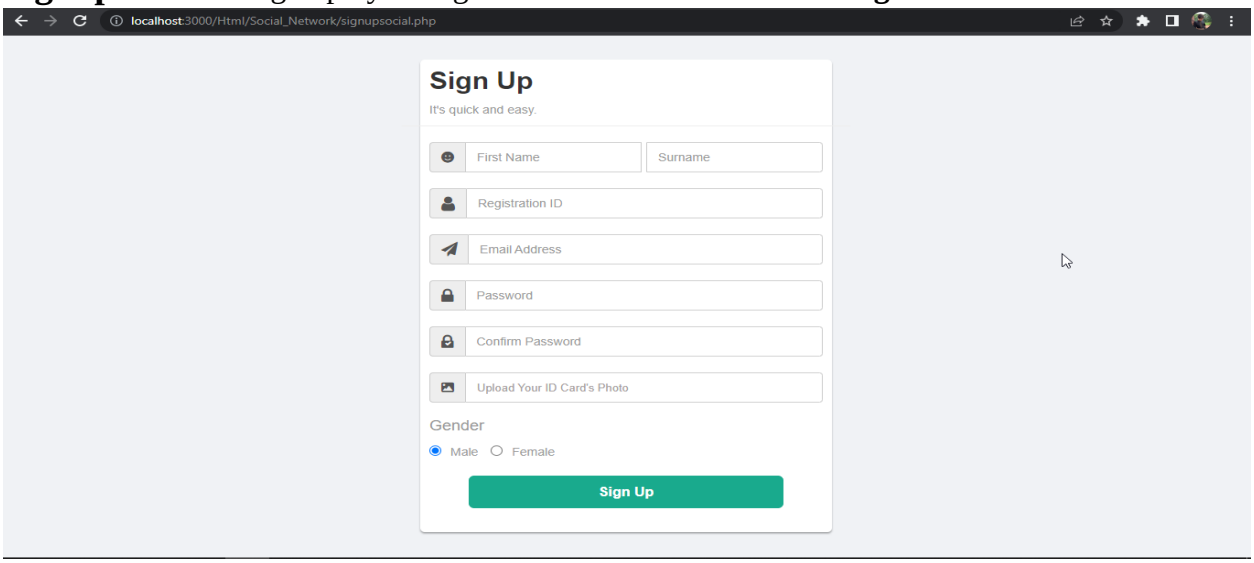

Figure 4.2. User Signup

Email verify: user have to verify their email by clicking in the link send in the email as illustrated in **Figure 4.3.**

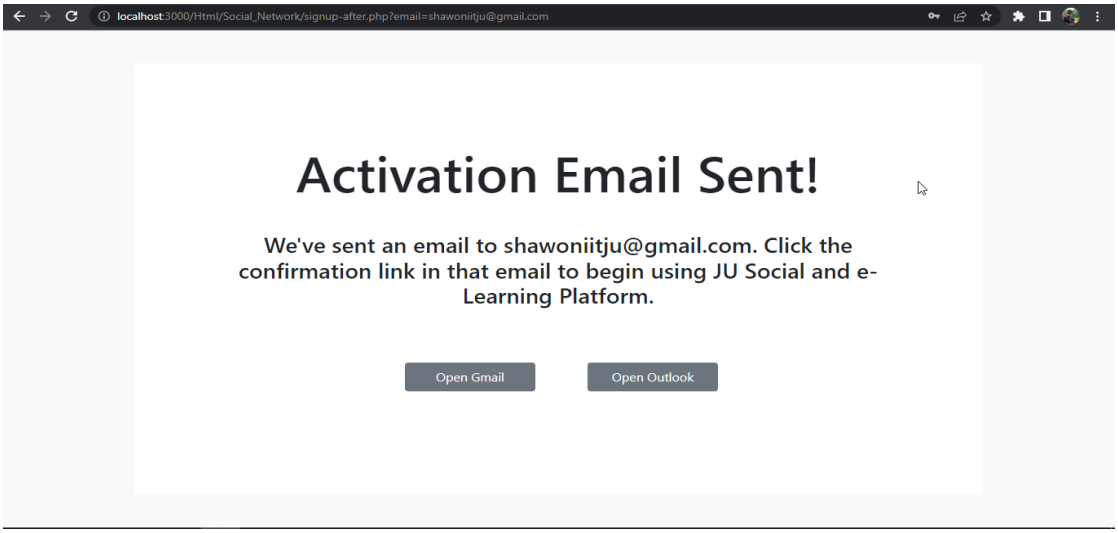

Figure 4.3. Email verify

User profile: user can see his profile after logging in as illustrated in **Figure 4.4**.

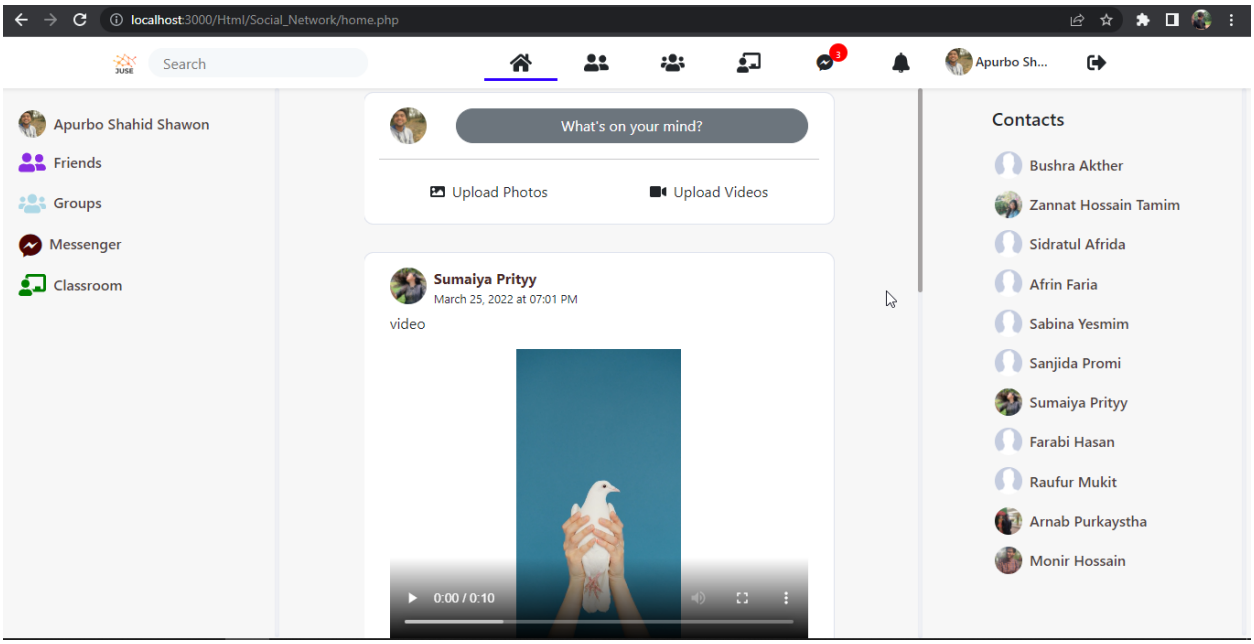

Figure 4.4. User profile

View own profile: user can view his profile as illustrated in **Figure 4.5, 4.6, 4.7, 4.8, 4.9, 4.10**.

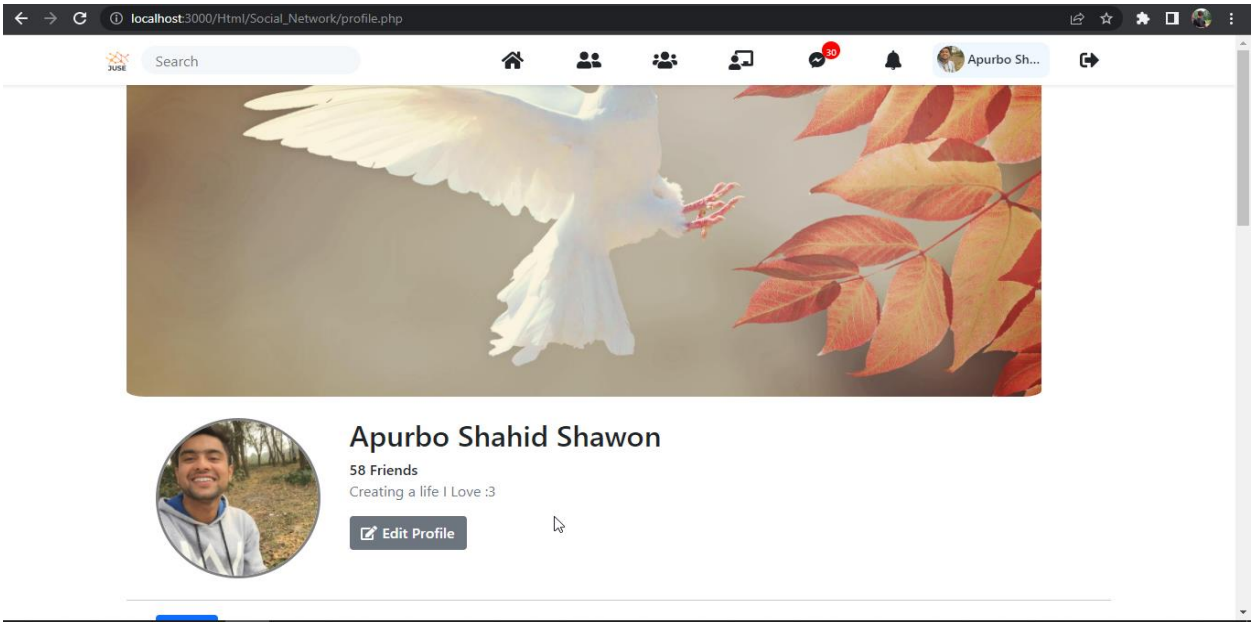

Figure 4.5. Own profile

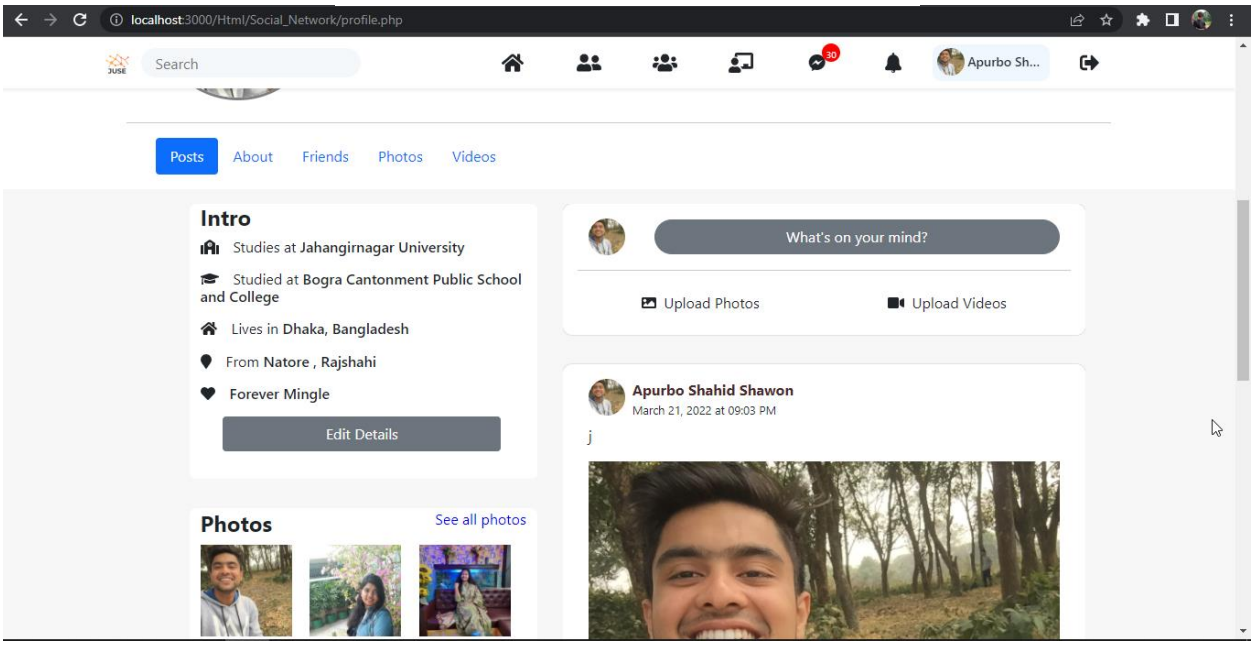

Figure 4.6. Own profile

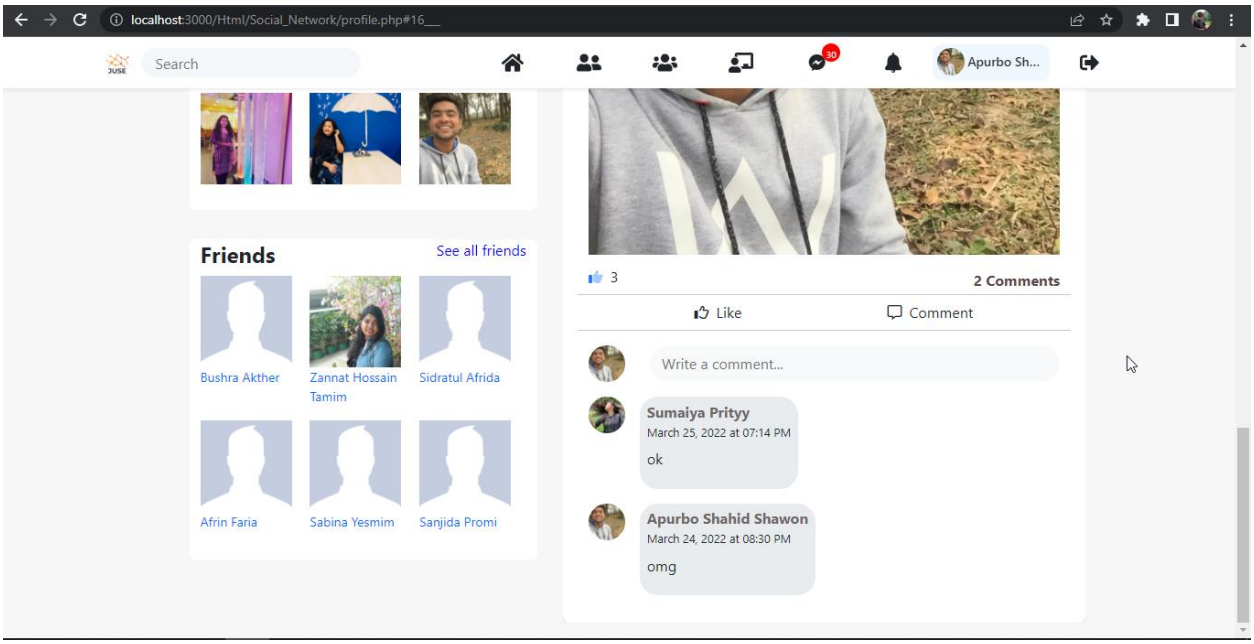

Figure 4.7. Own profile like comment on post.

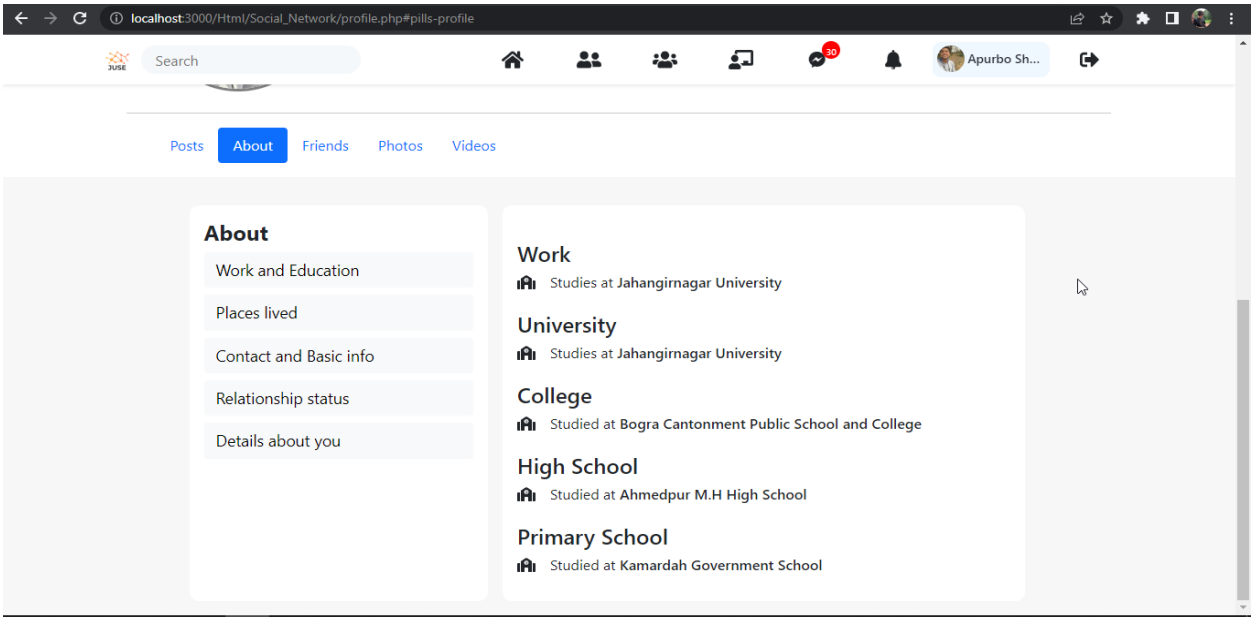

Figure 4.8. Own profile about.

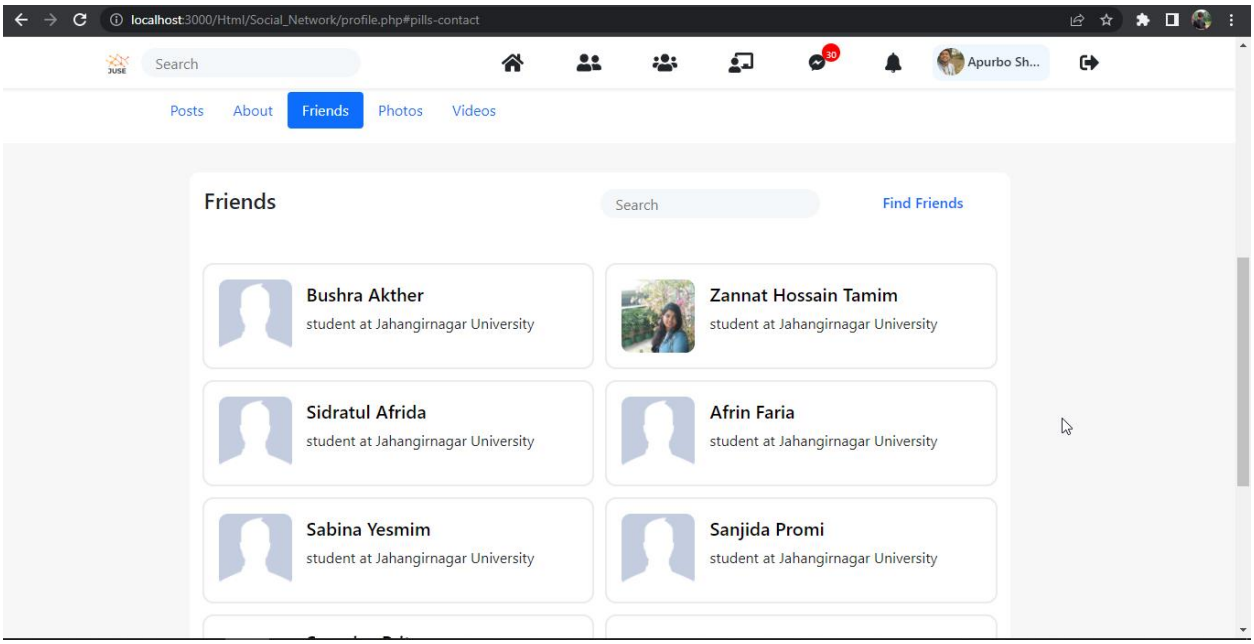

Figure 4.9. Own profile friends.

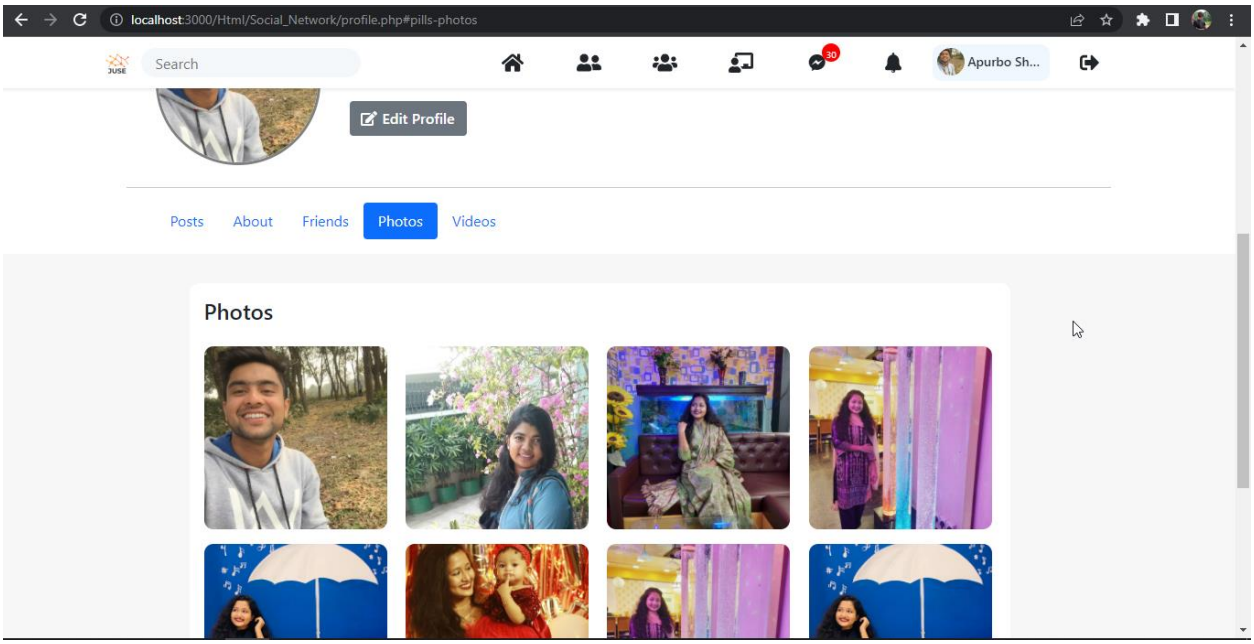

Figure 4.10. Own profile photos.

Notifications : user can view incoming notifications as illustrated in **Figure 4.11**.

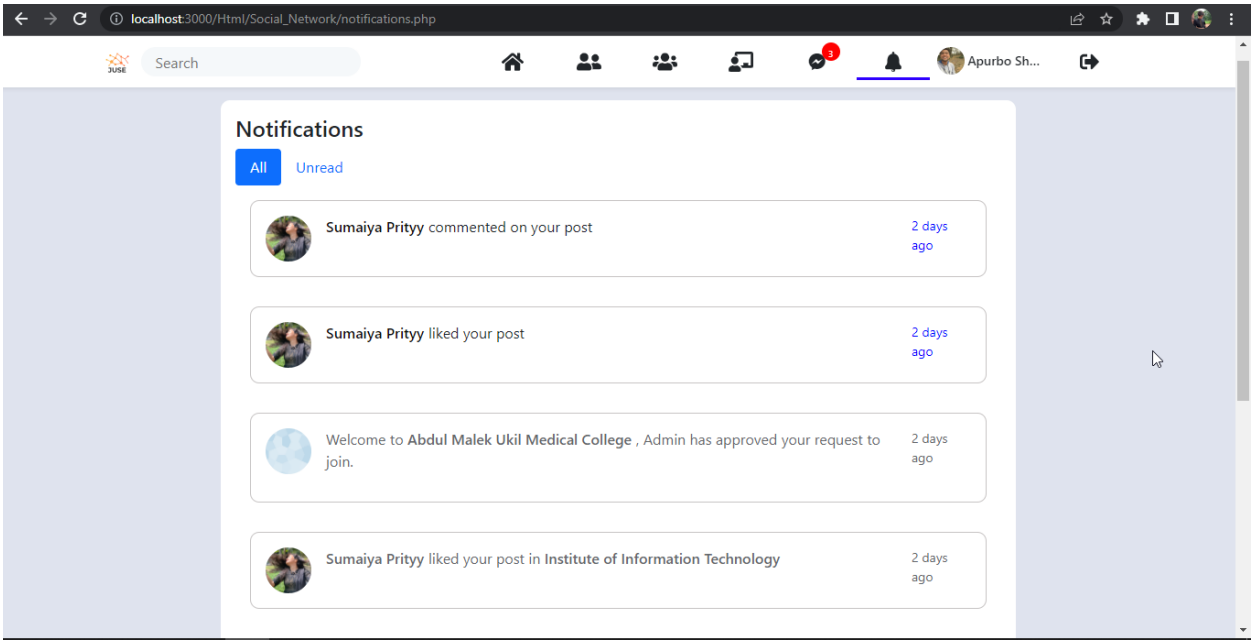

Figure 4.11. Notifications.

Chatting : user can chat individually or in groups as illustrated in **Figure 4.12,13,14,15**.

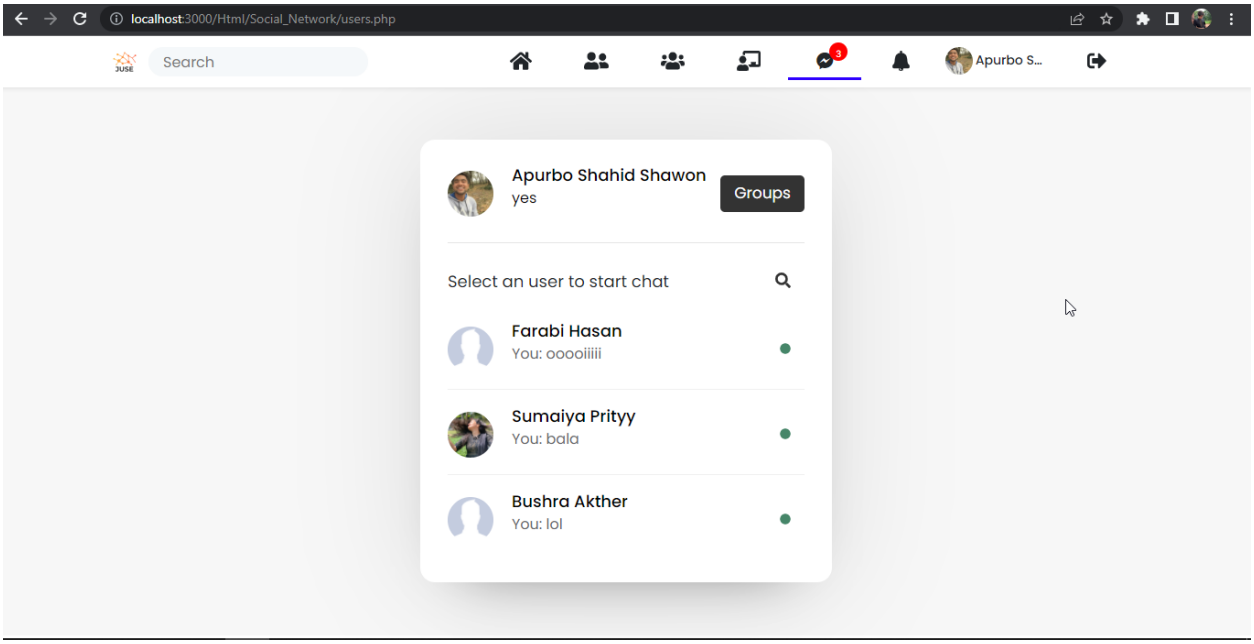

Figure 4.12. Chat list.

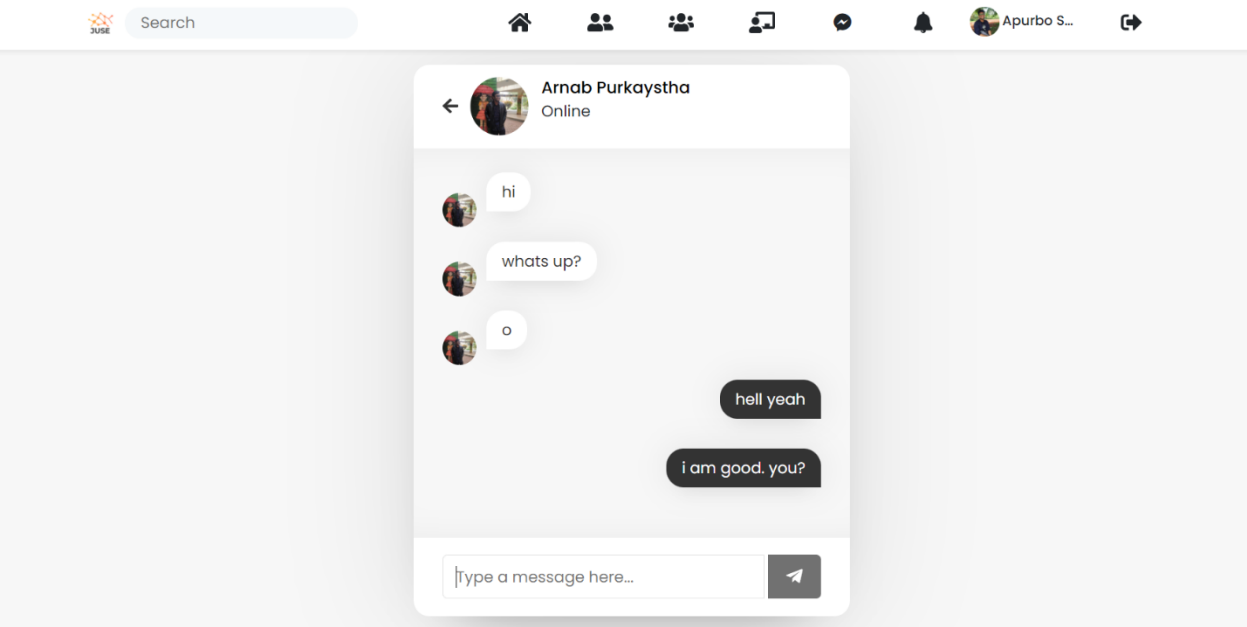

Figure 4.13. Single chat.

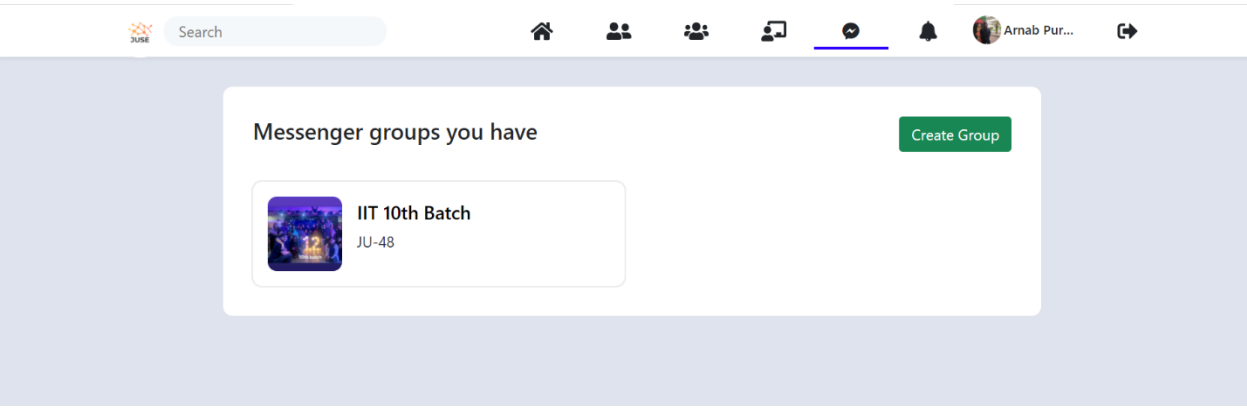

Figure 4.14. Group chat index.

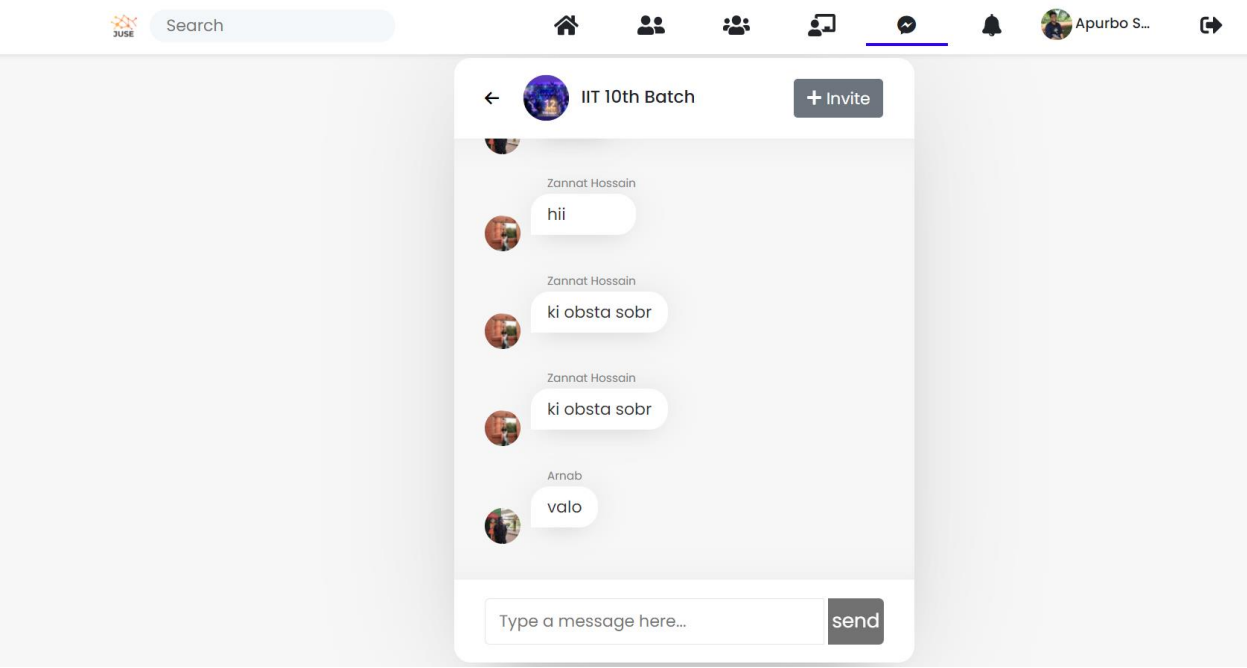

Figure 4.15. Group chat.

Find friends : user can send friend request to make friends as illustrated in **Figure 4.16**.

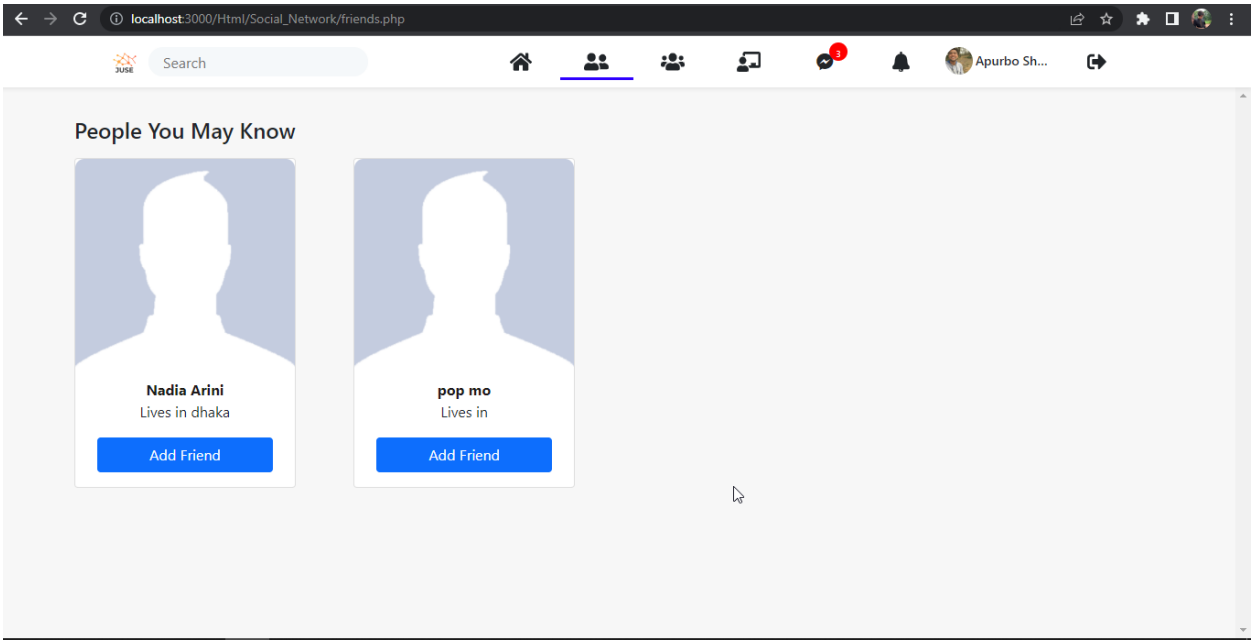

Figure 4.16. Find friends.

Groups : user can access groups they are in and also join new groups as illustrated in **Figure 4.17**.

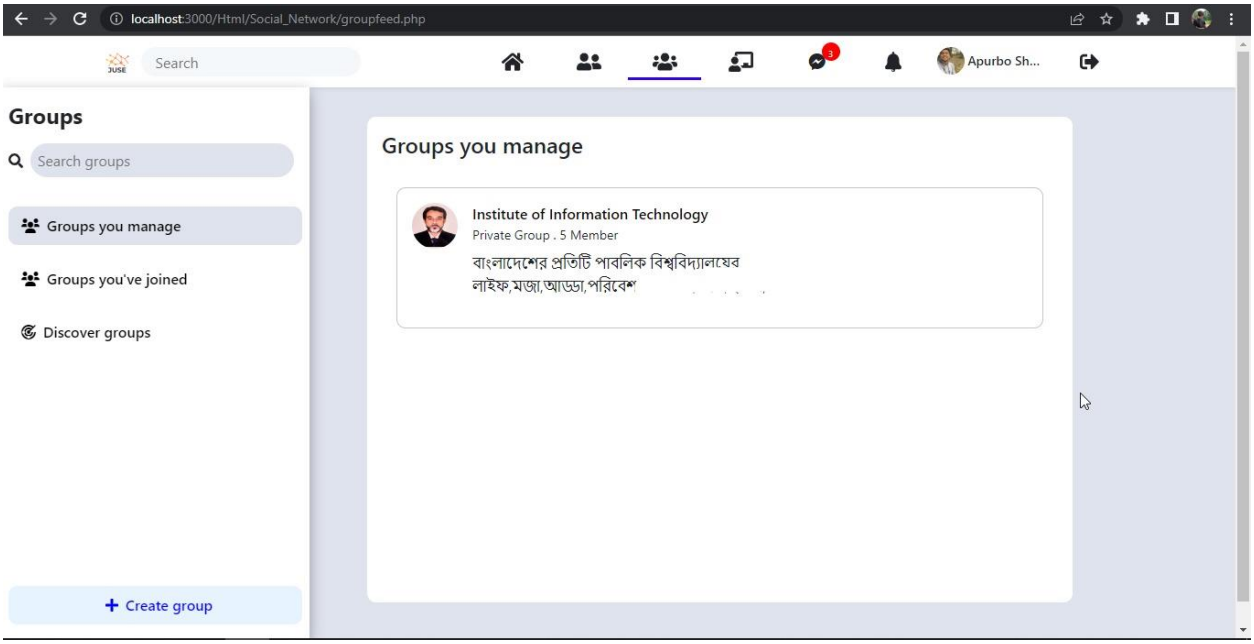

Figure 4.17. Groups.

Create group: user can create new groups as illustrated in **Figure 4.18**.

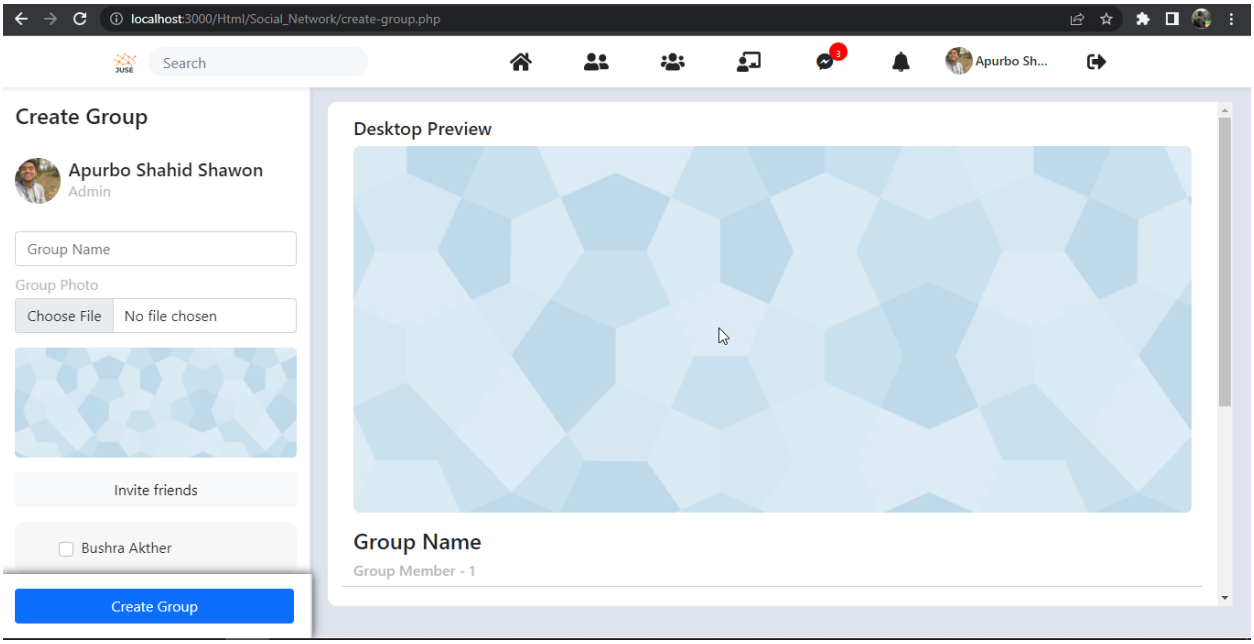

Figure 4.18. Create groups.

Search: user can search their friends and desired groups by name as illustrated in **Figure 4.19**.

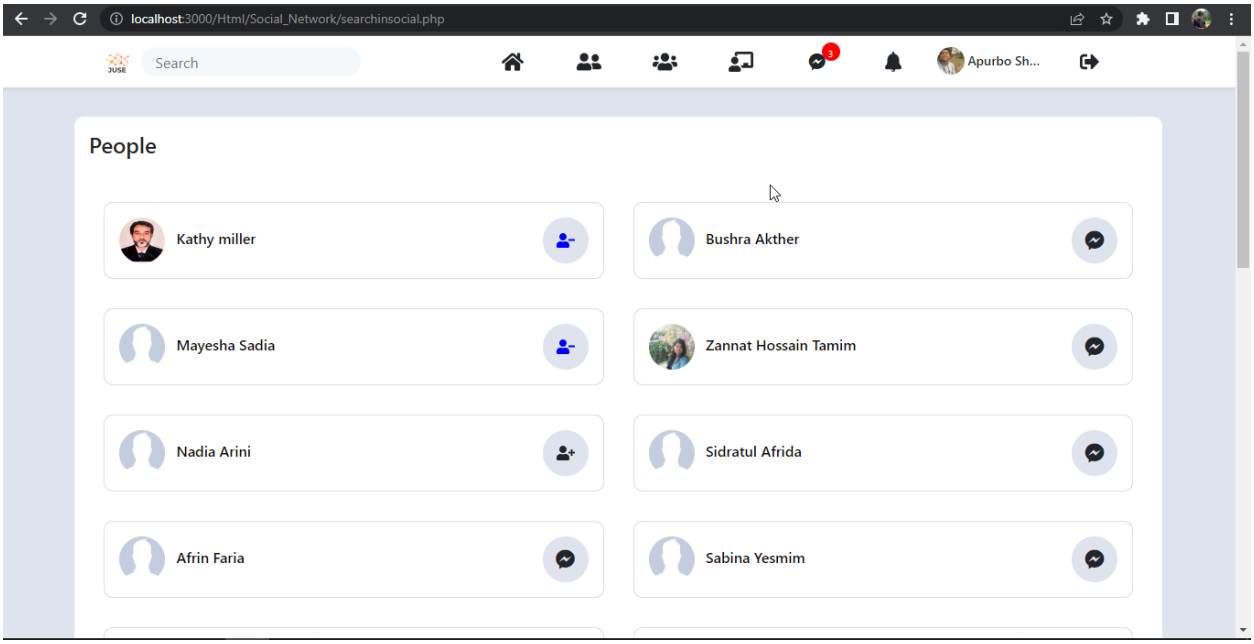

Figure 4.19. Search.

Post: user can post status, photos, videos and friends can like comment on these as illustrated in **Figure 4.20**.

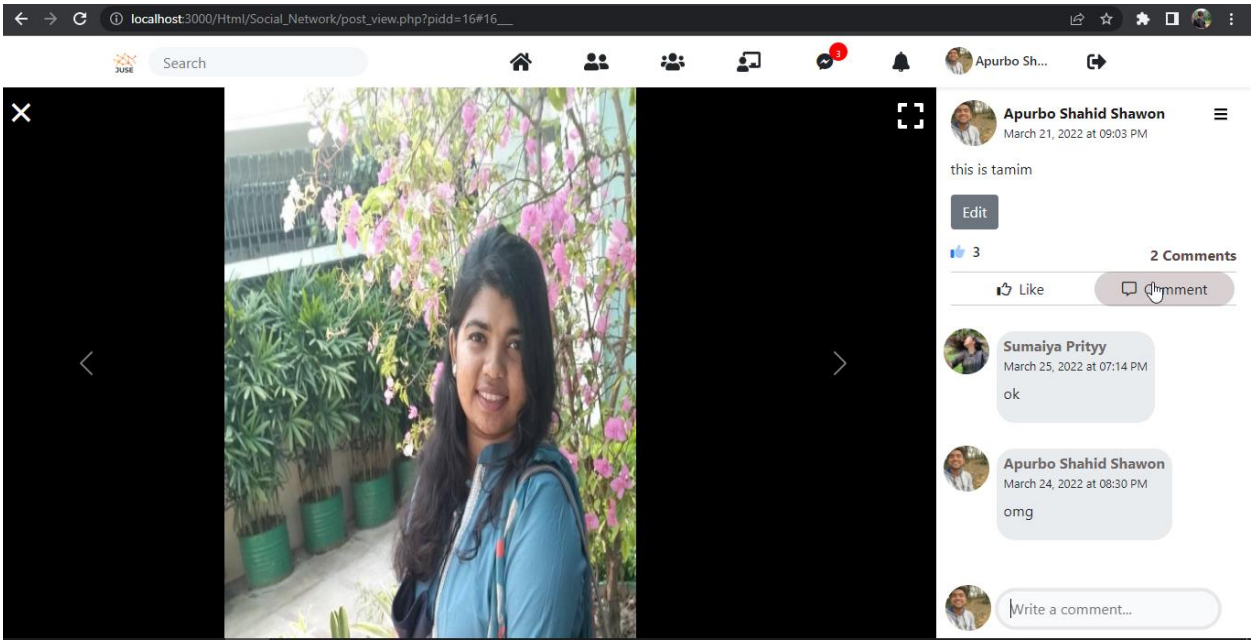

Figure 4.20. Post like comment.

Friends profile: user can go to friends profile as illustrated in **Figure 4.21,4.22**.

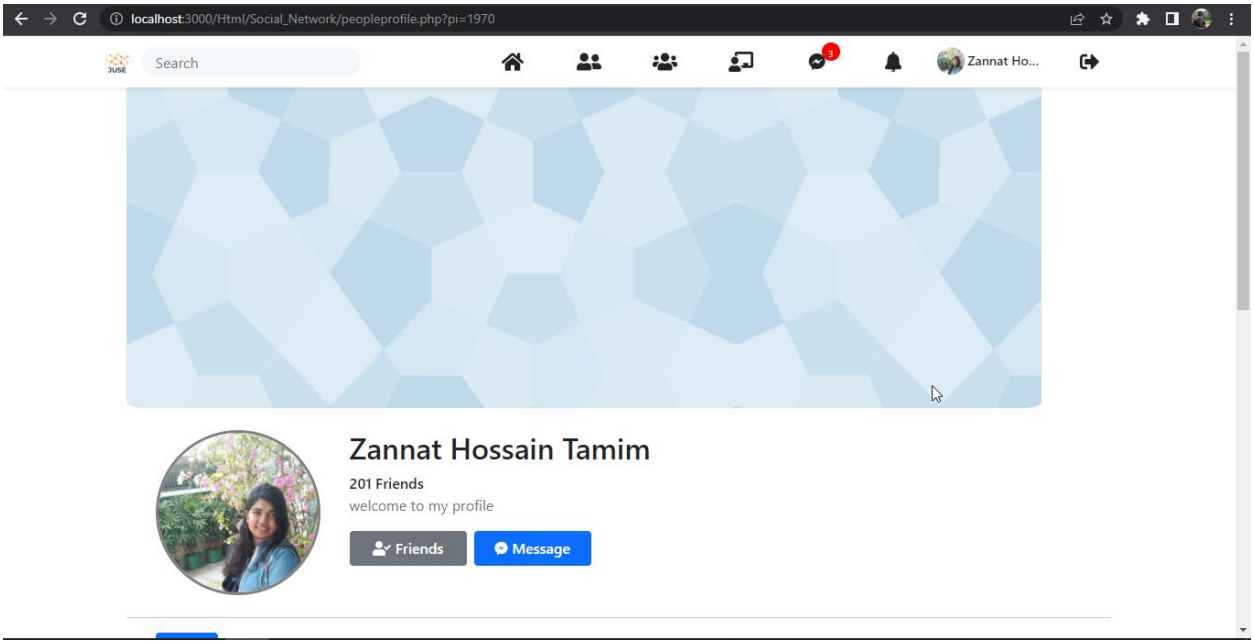

Figure 4.21. Friends profile.

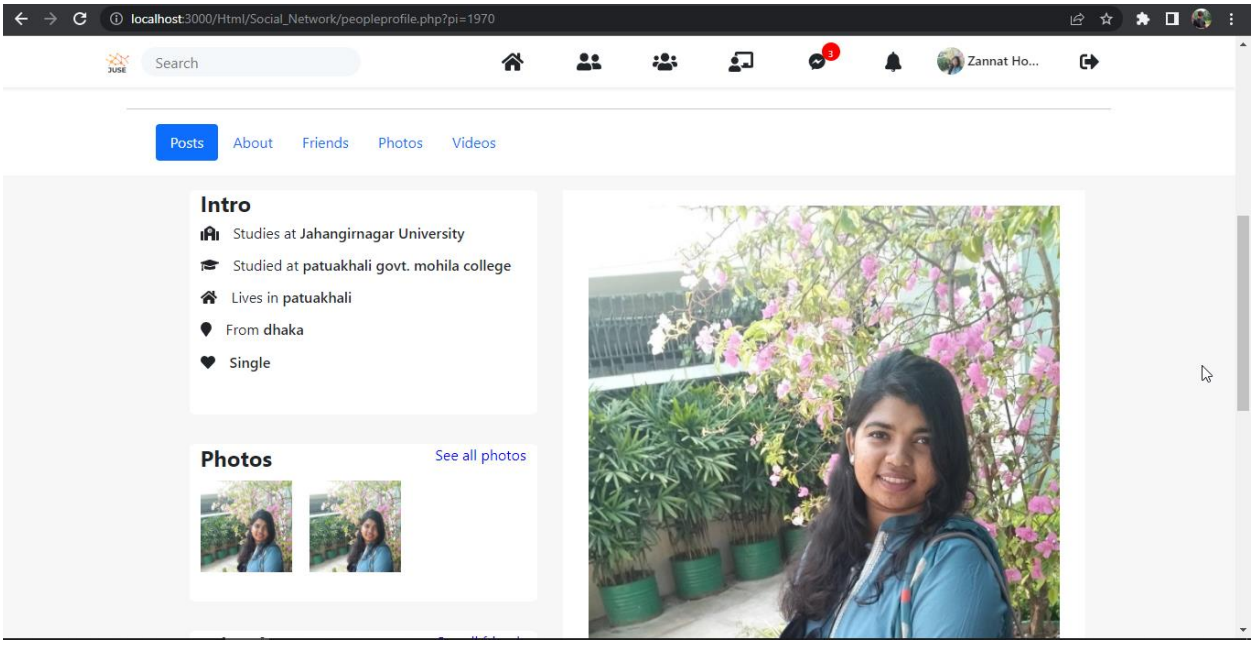

Figure 4.22. Friends profile.

Group: user can visit the groups they have joined as illustrated in **Figure 4.23, 4.24, 4.25**.

Figure 4.23. Group index page.

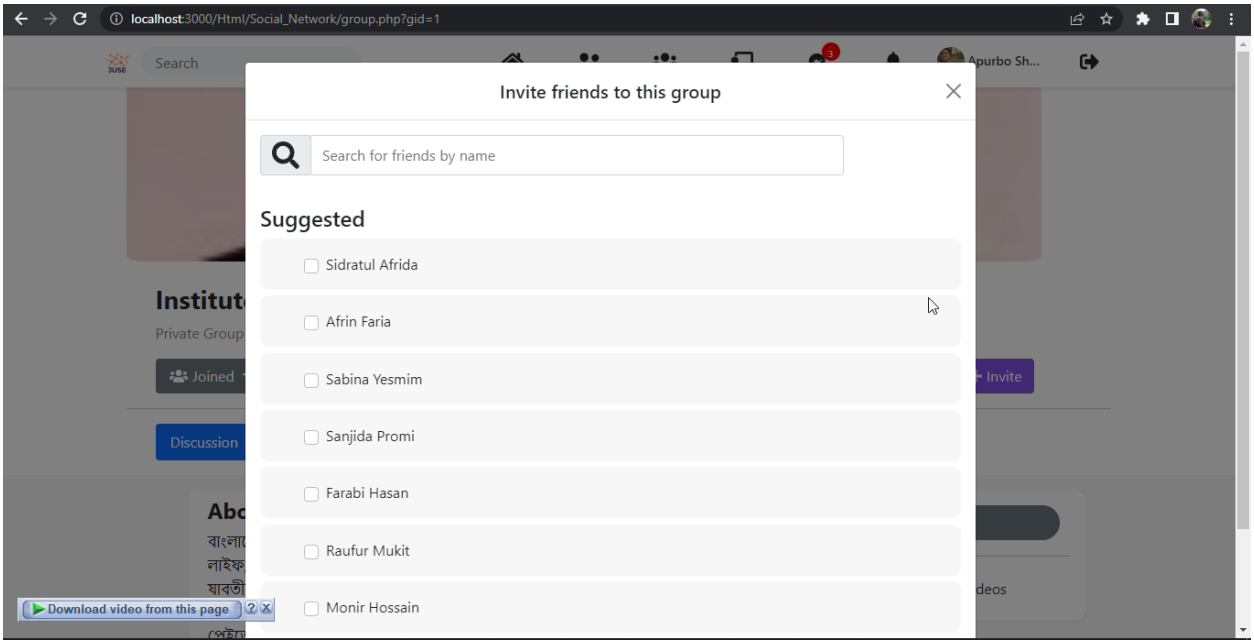

Figure 4.24. Group add member.

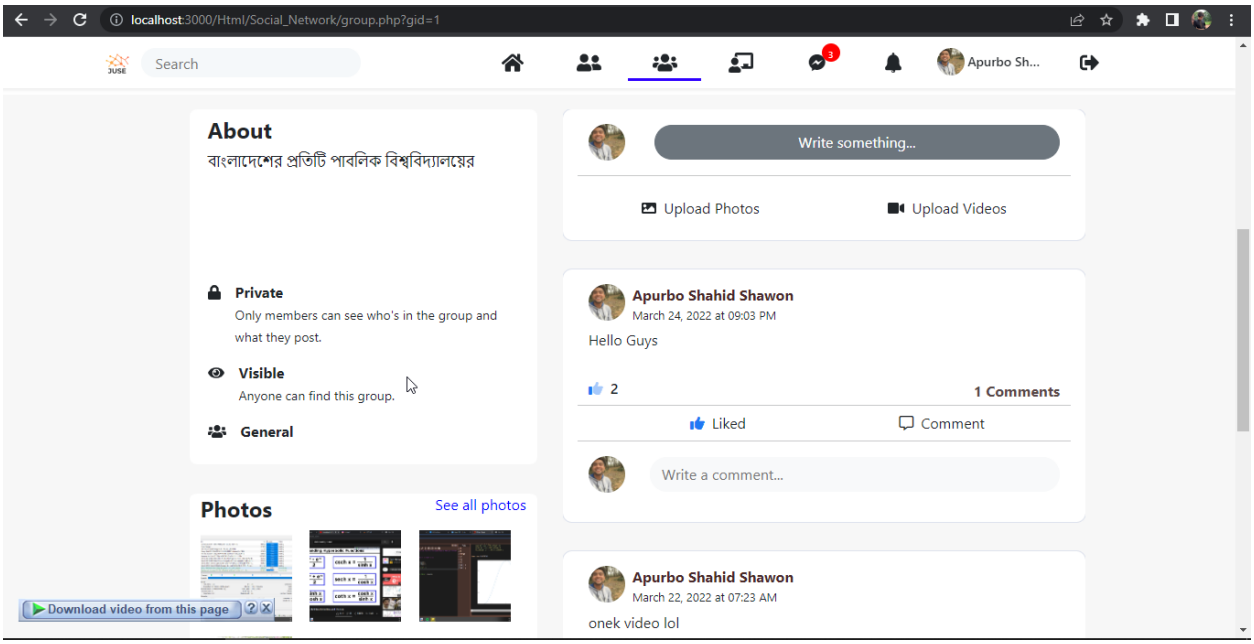

Figure 4.25. Group post upload like comment.

Edit profile: user can update their profile details as illustrated in **Figure 4.26, 4.27**.

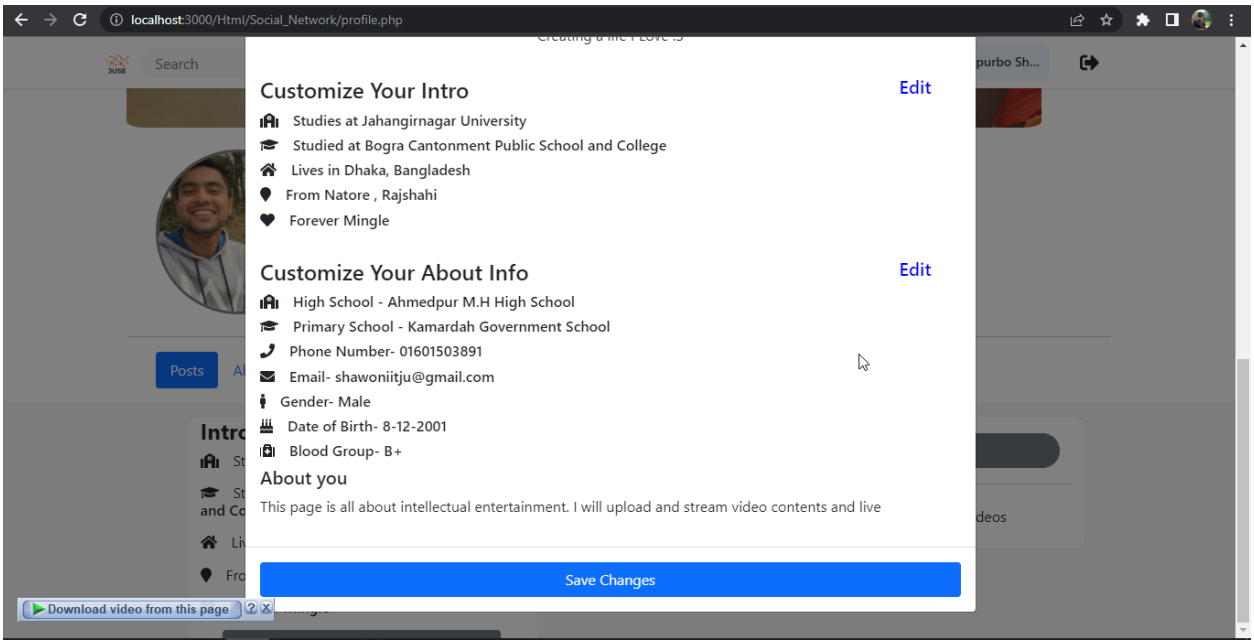

Figure 4.26. Edit profile.

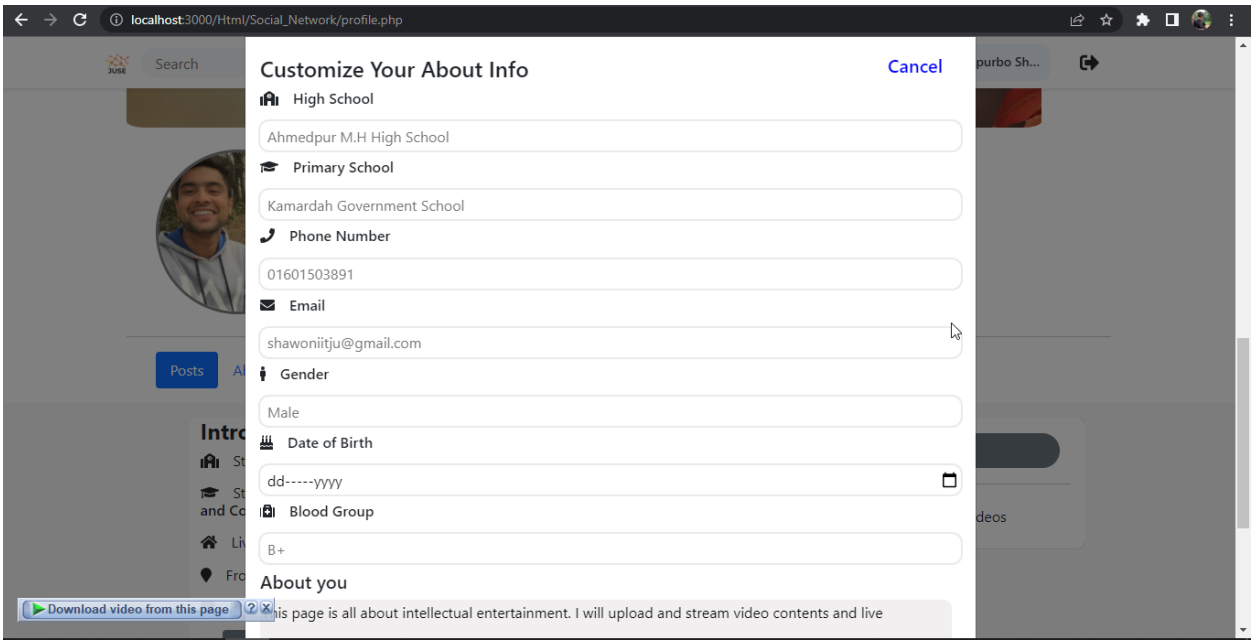

Figure 4.27. Edit profile.

Upload post: user can post status, photos, videos any time as illustrated in **Figure 4.28**.

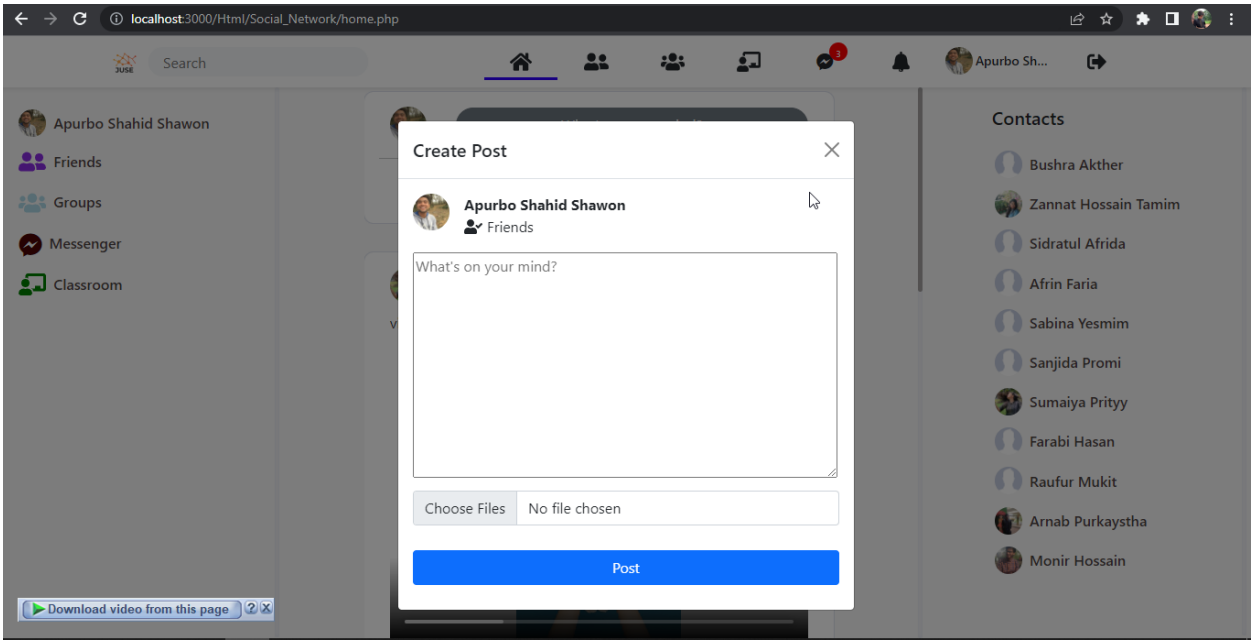

Figure 4.28. Upload post.

Join class: Student can join new classes and also view joined classes as illustrated in **Figure 4.29**.

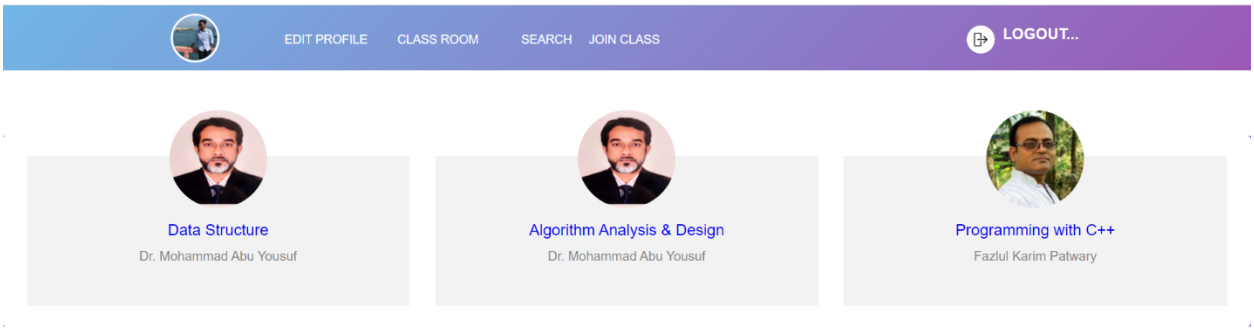

Figure 4.29. Join class

Create class: Teacher can Create new classes and also view created classes as illustrated in **Figure 4.30**.

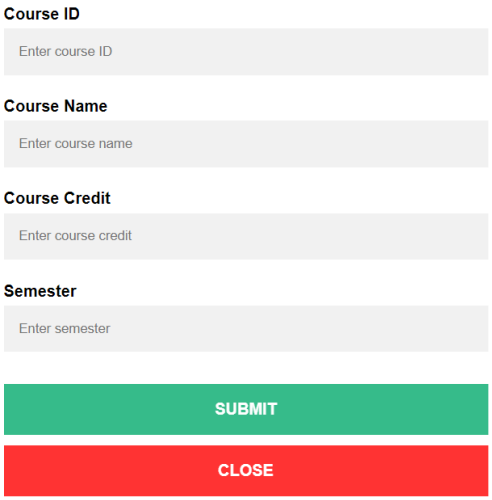

Figure 4.30. Create class

Access course (student): Student can view joined classes all materials, give exams and send message to teacher as illustrated in **Figure 4.31, 4.32, 4.33, 4.34 , 4.35**.

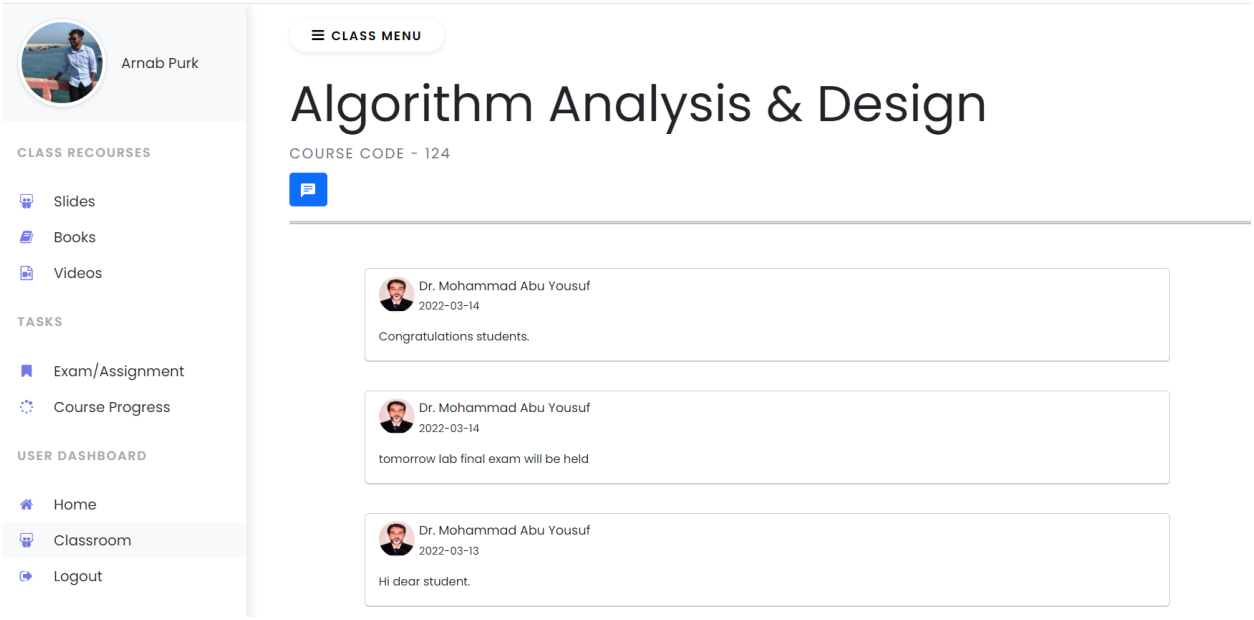

Figure 4.31. Course (student)

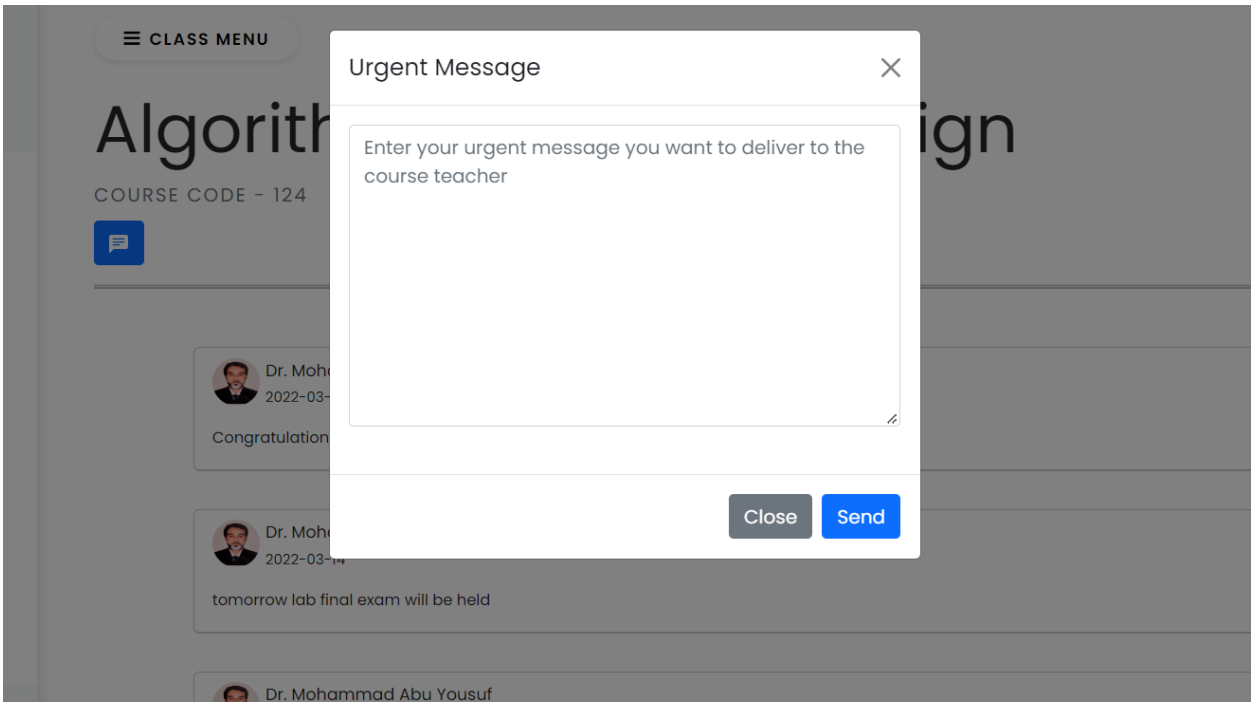

Figure 4.32. Urgent message

Figure 4.33. Slides

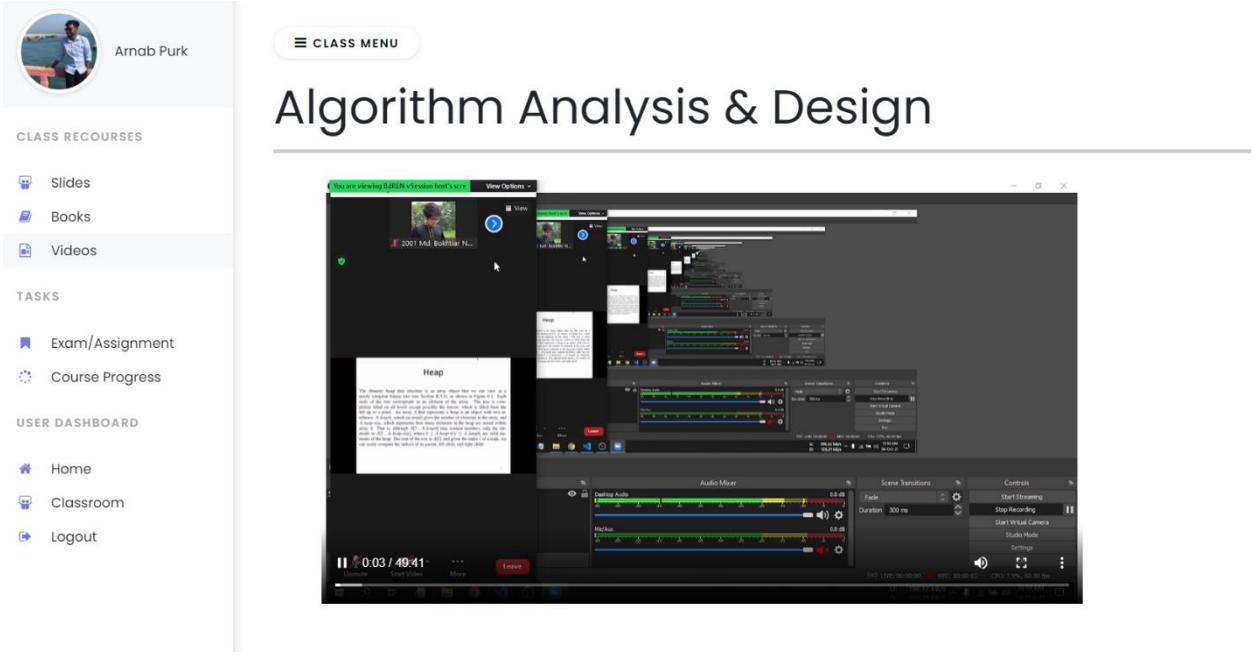

Figure 4.34. Videos

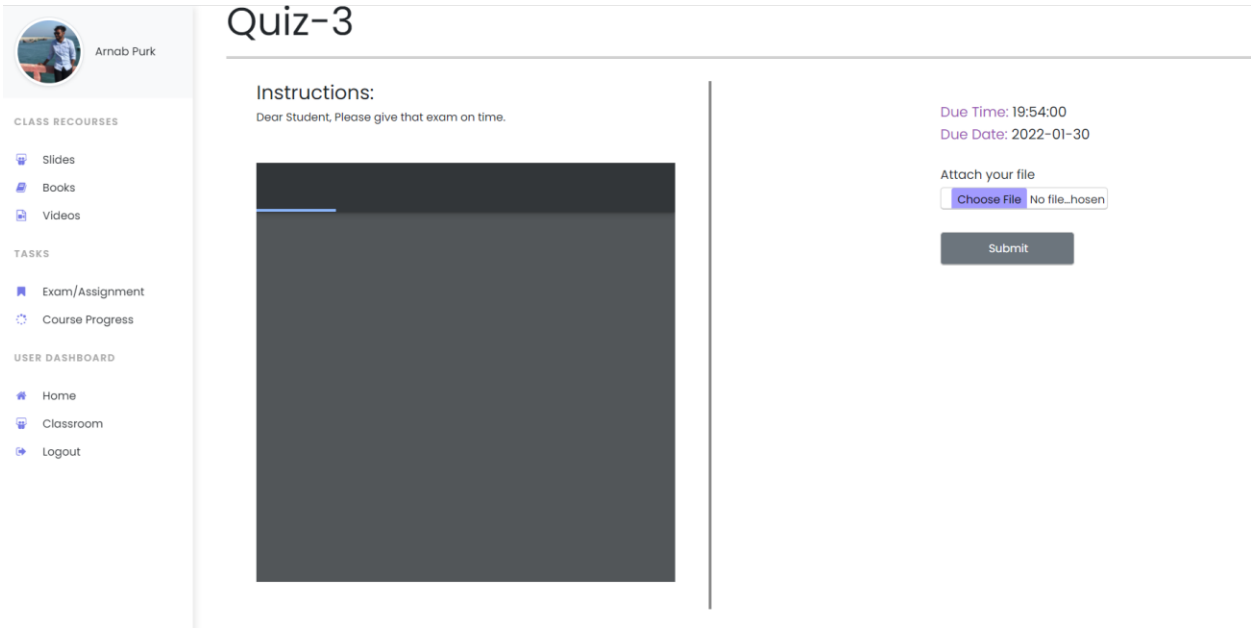

Figure 4.35. Exam/assignment

Access course (Teacher): Teacher can view & manage created classes, all materials, take exams & grade exams and update course progress as illustrated in **Figure 4.36, 4.37, 4.38**.

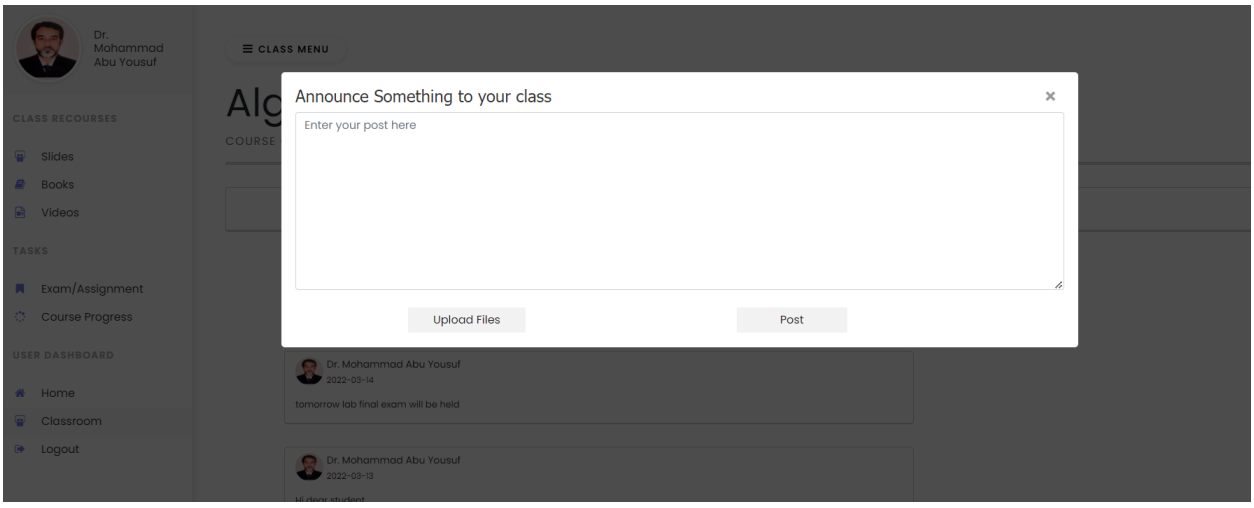

Figure 4.36. Post announcement or materials

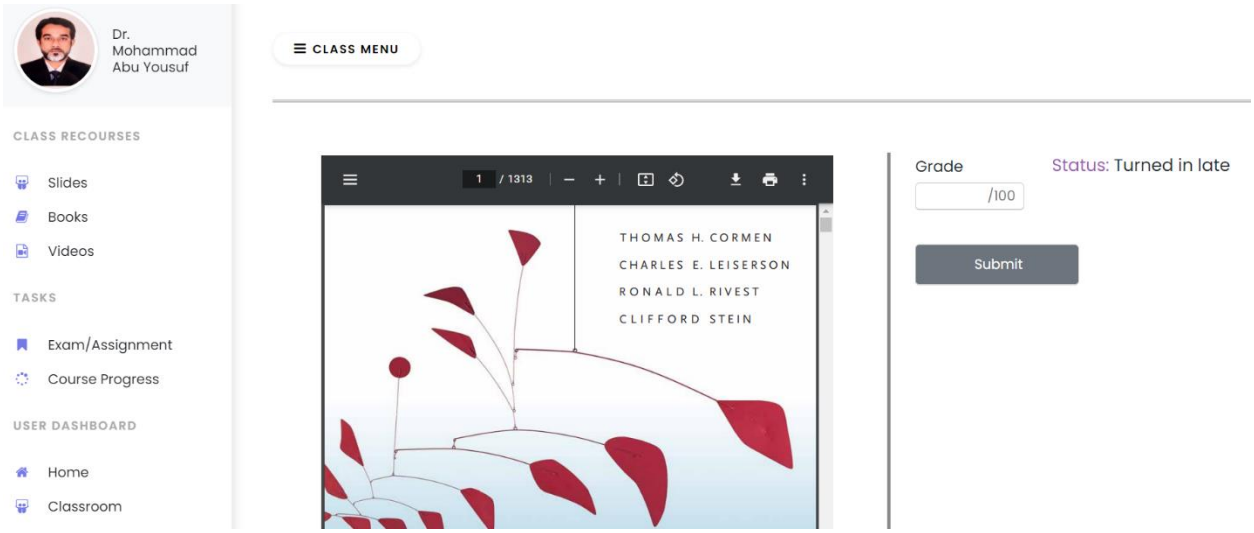

Figure 4.37. Grade exam/assignment

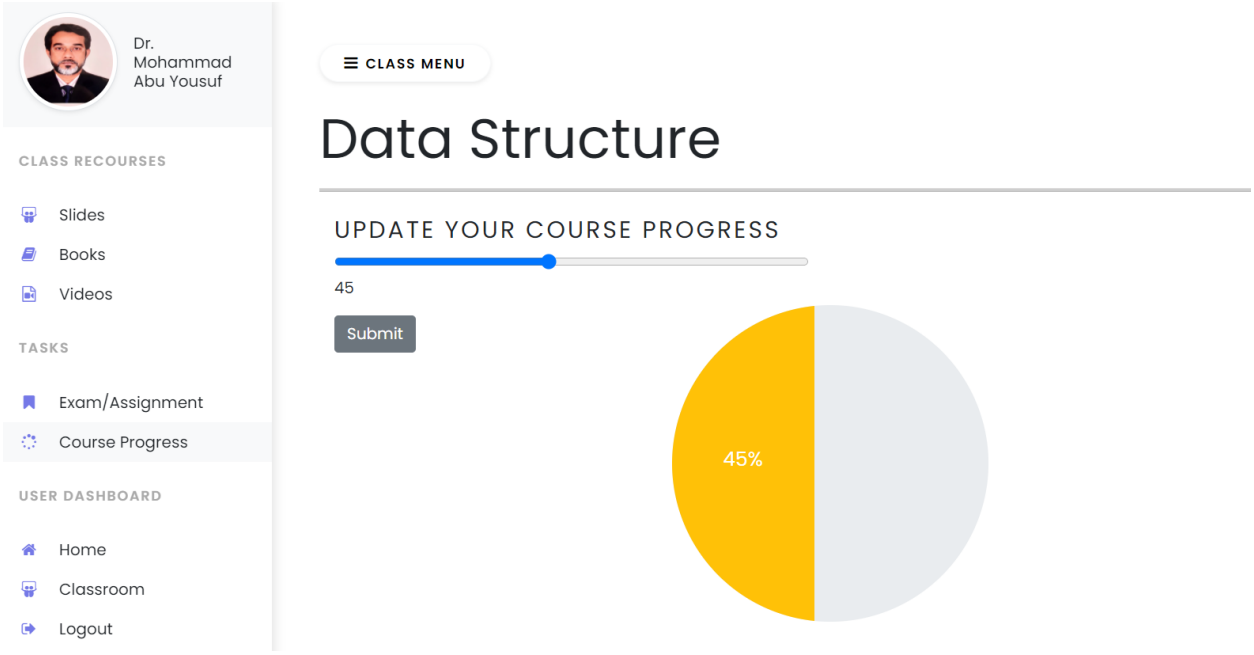

Figure 4.38. Course progress update

Search (Teacher or Student): user can search student and teacher by specific categories as illustrated in **Figure 4.39, 4.40.**

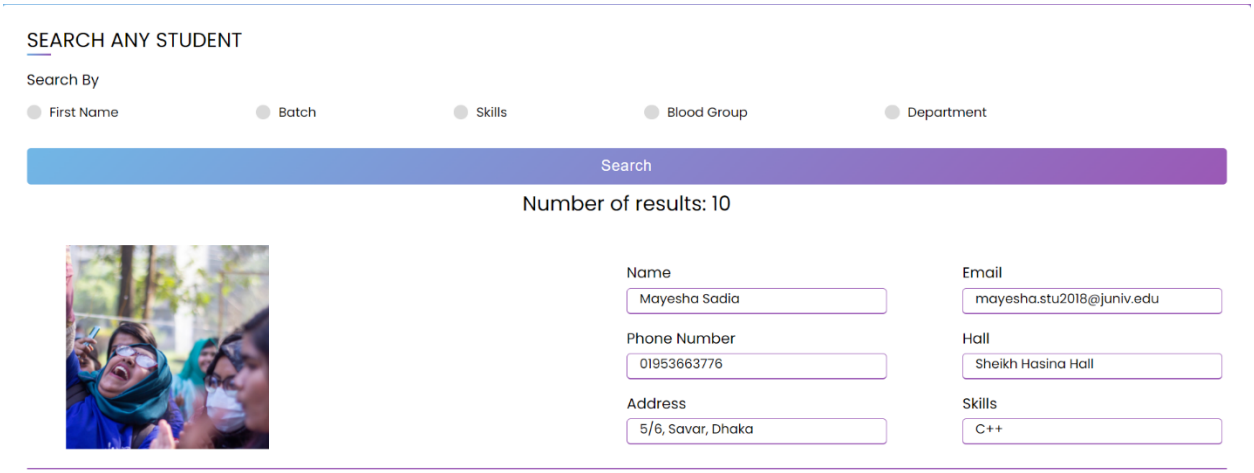

Figure 4.39. Search students

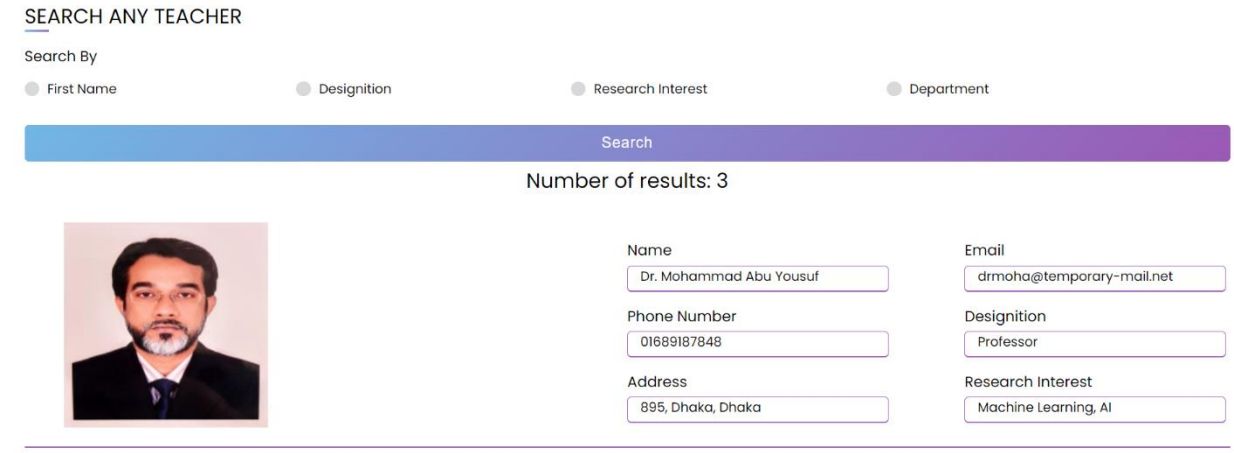

Figure 4.40. Search Teachers

4.2 Source Code

The link to the source code of our project in GitHub repository is attached below-

Click here: https://github.com/ArnabPurk/JU-Social-e-Learning-Platform.git

Chapter 5
Conclusion & Future work

5.1 Conclusion

It is not a very easy task to include every students and teachers under same roof and the purpose of our project was to solve the problem in an easy way. This is one of the main reasons that we have decided to make this project titled " JU Social & e-Learning Platform". This system will help us by easily maintaining communication between students and teachers and also reducing study related complications. Since, in this difficult semester, we have learnt Web Development and Database Management System, so our inspiration was to develop a project based on our learning and gained knowledge.

5.2 Future Work

Our future plan will be:

- ✓ Integrate market place facility in the platform so that users can buy or sell products.
- ✓ Integrate custom privacy post to limit the scope of users who can see the post.
- ✓ Integrate cloud storage facility to guarantee the fast upload and retrieve of media files.
- ✓ Make it more user friendly.
- ✓ Gain feedback on platform by testing with real users and use the feedback to improve the loopholes.

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