

# Project Report

## Software Engineering



**Course: CSE327**

**Section: 6**

**Faculty: Sarnali Basak (SLB)**

**Submission Date: 10<sup>th</sup> June 2023**

### Group Information:

Group Members:

Member Name	ID Number
Md. Nafiz Al Mahmud	2012241042
Asif Rahman	2012691042
Mia Mahmudul Hoque Shaon	2014314042
MD Nazmul Islam Srabon	2021227042

### Project Information:

**Project Name:** জীবন যুদ্ধ , an E-Learning Platform

**GitHub Link:** <https://github.com/asifrahman18/cse327Project>

## Updates Based on Faculty's Suggestions

No.	Faculty Suggestion	Updates	Additional Info	Page No
1	Add <b>buttons</b> in place of input boxes	Completed		16, 19, 23, 24, 26, 28, 29. 32, 33, 34
2	Add a <b>reject button</b> for admin during teacher verification	Completed	When the admin rejects any verification application, that teacher account gets deleted from the database. However, the teacher will be able to apply again	16
3	Add a <b>list of enrolled students</b> for teacher to see	Completed		20, 23, 24
4	Add a <b>remove student</b> button for teacher for their courses	Completed		24
5	Add <b>upload assignment</b> option for teacher	Completed	Teachers can select the type of material like lecture or assignment before uploading	21
6	Add <b>view assignment</b> option for student	Completed	Students can see the type of material from course profile and view assignment from there	29
7	Add user <b>registration time</b>	Not Completed		
8	Add student <b>enrollment time</b>	Not Completed		

We were suggested to make some updates to our project. The above table contains the list of those changes. We tried to do all the tasks but we couldn't finish a couple of them. In the above table, we have mentioned the updates which we completed along with the ones which we couldn't.

## Introduction:

Our project is a web-based E-learning platform called জীবন যুদ্ধ. It is designed to meet the needs of educational institutions, teachers, and students alike. Whether you are a teacher, or a student, our platform offers a range of features to streamline the management and learning process.

There are three types of users: Admin, Teacher, and Student.

For teachers, our website provides tools for creating and organizing courses, and managing assignments and assessments. Teachers can easily track student enrollment.

Students benefit from a user-friendly interface where they can access their course materials and assignments. Our website fosters a dynamic and interactive learning environment, enabling students to engage with course content and enhance their educational experience.

Admin have access to a comprehensive users list, allowing them to monitor the enrollment of students and the creation of courses of teachers.

## Vision Statement:

জীবন যুদ্ধ is an online web application for students and teachers who want a simple but effective education platform. Unlike currently available platforms, জীবন যুদ্ধ is a free platform. It will provide a simple, intuitive interface that will also make sure that the teachers are verified and make study much more comfortable.

## **Features:**

### **Student:**

- Registration and login
- Enroll and Drop
- View materials of enrolled course
- Edit profile

### **Teacher:**

- Registration and login
- Upload course material
- View Course list
- View all Student of their respective course
- Remove a particular student from a course
- Edit Profile

### **Admin:**

- Login
- Verify teachers (reject/accept)
- Remove user (teacher, student)
- Remove Course
- Manage the whole system

## **Major Functional Requirements:**

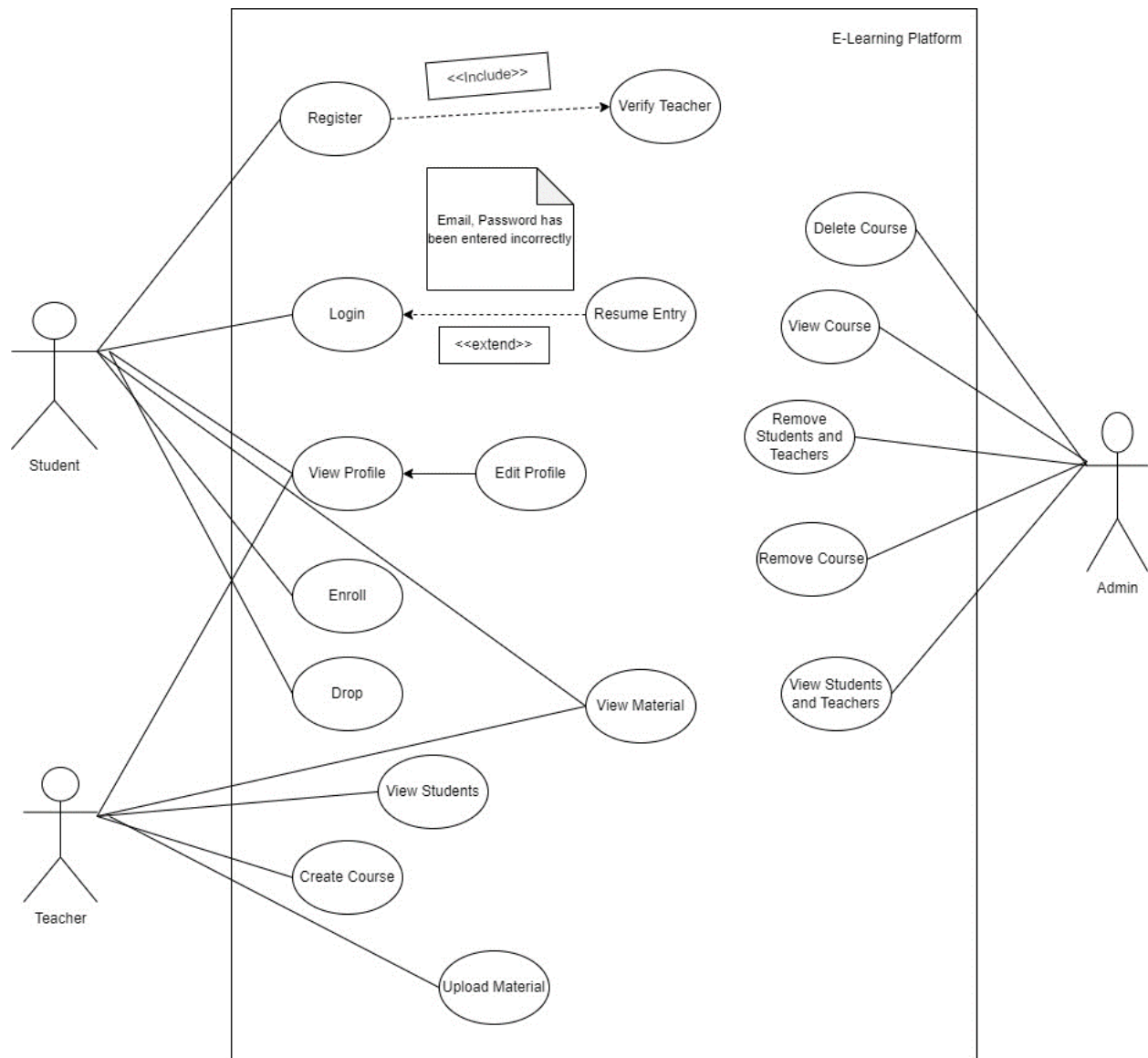
1. Students must register to enroll
2. Teachers must complete the verification process to register
3. The student must be able to search for courses
4. The system must allow the students to see the teacher's profile.
5. Teachers should be able to publish their course materials
6. The system must allow the admin to remove students and teachers account. Also irrelevant courses.

## **Non-Functional Requirements:**

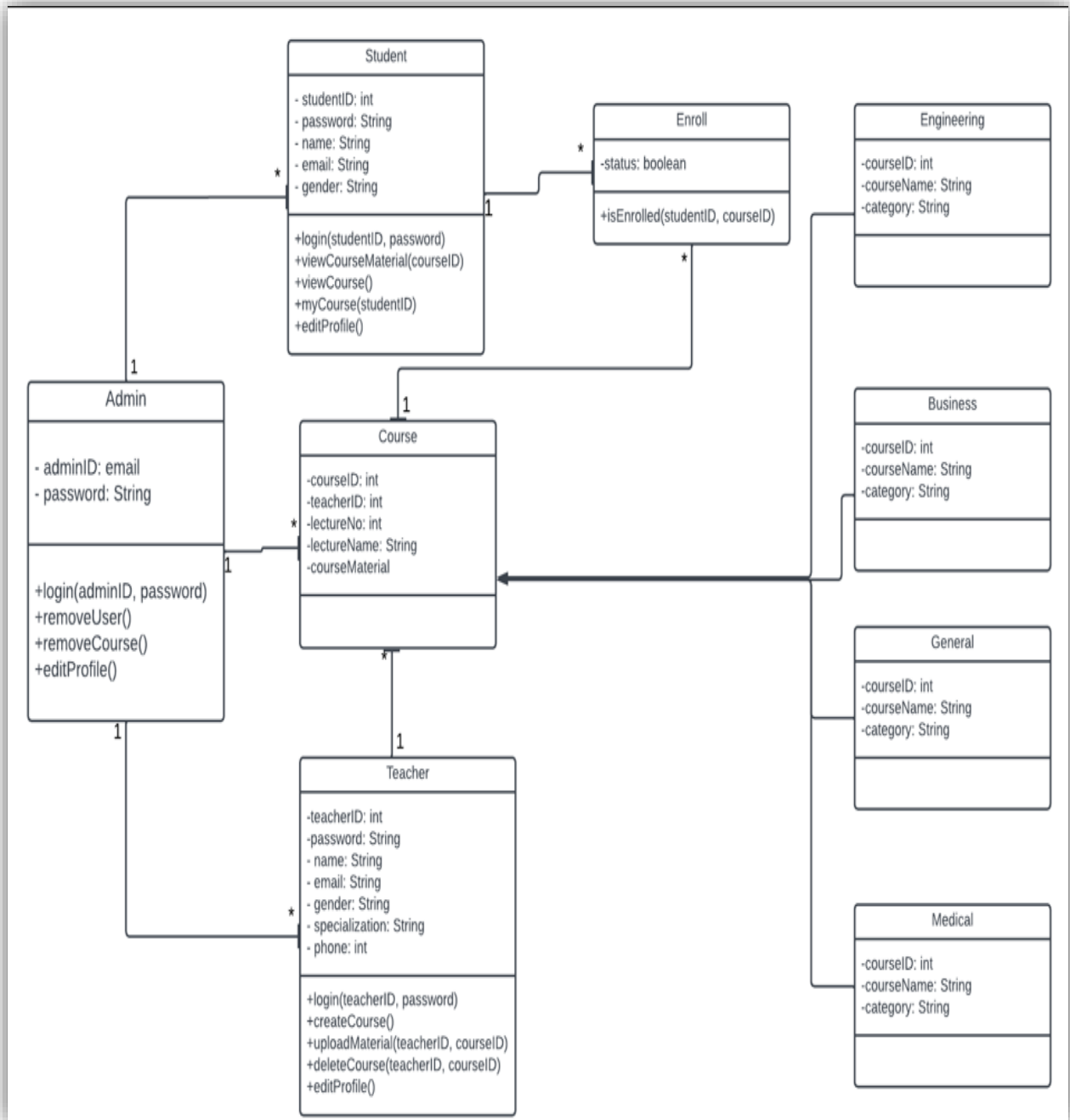
1. The users can request to remember their passwords.
2. Forgetful users can reset their password.
3. The website will keep track of the total number of teachers, students and courses. Also, display the count in the homepage.
4. Students can also search for courses by category from their respective profile page.

## Diagrams:

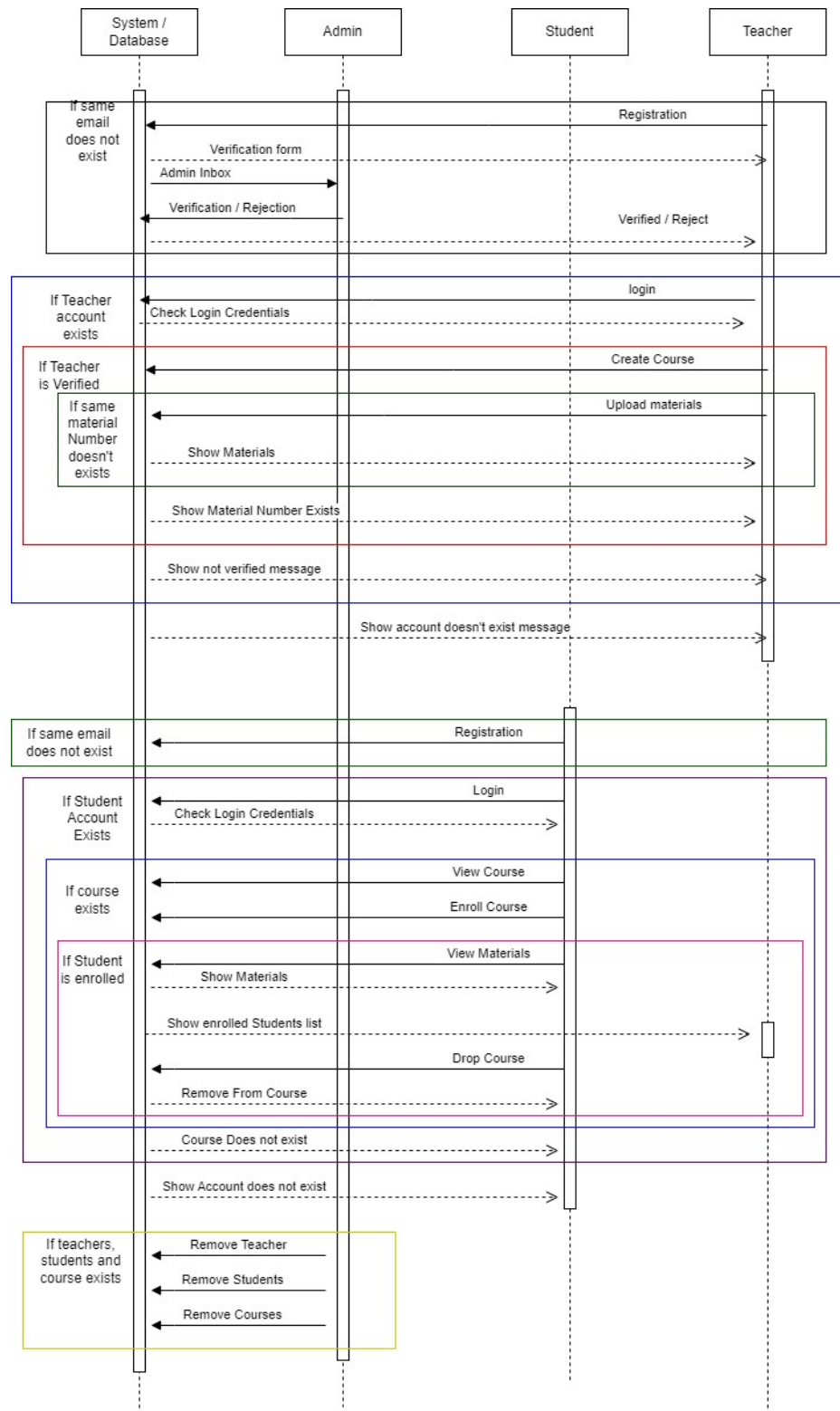
### 1. Use Case Diagram:



## 2. UML Diagram:



### 3. Sequence Diagram:





## Use Cases:

Name:	Registration
Description:	Users have to register for the very first time before login
Actors:	Teacher, Student
Type:	Primary
Preconditions:	Null
Main Flow:	
<ol style="list-style-type: none"><li>1. Go to the website</li><li>2. Click the register button</li><li>3. The system will take the user to the register page</li></ol>	
Alternative Flows:	
<ol style="list-style-type: none"><li>1. If the user enters invalid information, an error message will be prompted</li><li>2. If there is already an existing user with the same email, a message will be prompted</li></ol>	

Name:	Verification
Description:	Teachers have to be verified before registering
Actors:	Admin, Teacher
Type:	Primary
Preconditions:	Registration
Main Flow:	
<ol style="list-style-type: none"><li>1. Go to the website</li><li>2. Click register as teacher</li><li>3. The system will take the user to the verification form</li></ol>	
Alternative Flows:	
<ol style="list-style-type: none"><li>1. If the user clicks register as student, the system will not show the verification form</li></ol>	

Name:	Login
Description:	Users can login into the system
Actors:	Student, Teacher, Admin
Type:	Primary
Preconditions:	Registration
Main Flow:	
<ol style="list-style-type: none"><li>1. Go to the website</li><li>2. Click on Login</li><li>3. Enter login information</li></ol>	
Alternative Flows:	
<ol style="list-style-type: none"><li>1. If the form is not filled up properly, an error message will be shown</li></ol>	



Name:	Edit profile
Description:	Users can edit their profile to update information
Actors:	Admin, Teacher, Student
Type:	Secondary
Preconditions:	Login
Main Flow: [Login use case]	
3. Go to profile	
4. Click edit profile	
5. Fill up the form	
6. Click update	
Alternative Flows:	
1. If the form contains invalid information, error message will be shown	



Name:	View Course
Description:	Students can see the list of offered course lists
Actors:	Student
Type:	Primary
Preconditions:	Login
Main Flow: [Login use case]	
4. Click on Courses button	
5. The system will display the list of courses to the user	
Alternative Flows:	
1. The user can also see courses by categories from their profile	

Name:	Enroll
Description:	Students can enroll into their desired courses form the offered course list
Actors:	Student
Type:	Primary
Preconditions:	Login
Main Flow: [View course use case]	
6. Enter course ID	
7. Click on enroll	
Alternative Flows:	
1. The system will also show details of the course	

Name:	Drop course
Description:	Students can drop any enrolled course
Actors:	Students
Type:	Secondary
Preconditions:	Enroll
Main Flow: [Enroll use case]	
<ol style="list-style-type: none"> <li>Click on my course</li> <li>Enter course ID of the course</li> <li>Click on drop button</li> </ol>	
Alternative Flows:	
<ol style="list-style-type: none"> <li>Student have to enroll before dropping any course</li> </ol>	

Name:	Create Course
Description:	Teachers can create their course
Actors:	Teacher
Type:	Primary
Preconditions:	Login, Verification
Main Flow: [Login use case]	
<ol style="list-style-type: none"> <li>Click on create course</li> <li>Fill up the form with course information</li> </ol>	
Alternative Flows:	
<ol style="list-style-type: none"> <li>Teachers cannot create a course before they are verified</li> </ol>	

Name:	Upload Course Materials
Description:	Teachers can upload their course materials
Actors:	Teacher
Type:	Secondary
Preconditions:	Create course
Main Flow: [Create course use case]	
<ol style="list-style-type: none"> <li>Go to the course</li> <li>Click on upload materials</li> </ol>	
Alternative Flows:	
<ol style="list-style-type: none"> <li>A teacher has to create the course first before uploading any content</li> </ol>	

Name:	Delete Course
Description:	Teachers can delete their course
Actors:	Teacher
Type:	Secondary
Preconditions:	Create course
Main Flow:	
<ol style="list-style-type: none"> <li>1. Go to the course</li> <li>2. Enter course code of the course</li> <li>3. Click on delete course</li> </ol>	
Alternative Flows:	
<ol style="list-style-type: none"> <li>1. Deleting the course will also delete the contents</li> </ol>	

Name:	View Users
Description:	Admin can see the list of all teachers, students and course
Actors:	Admin
Type:	Primary
Preconditions:	Login
Main Flow: [Login use case]	
<ol style="list-style-type: none"> <li>4. Go to profile</li> <li>5. Select Students/Teachers/Course</li> </ol>	
Alternative Flows:	
<ol style="list-style-type: none"> <li>1. If the website has no teacher/student/course, the list will be empty</li> </ol>	

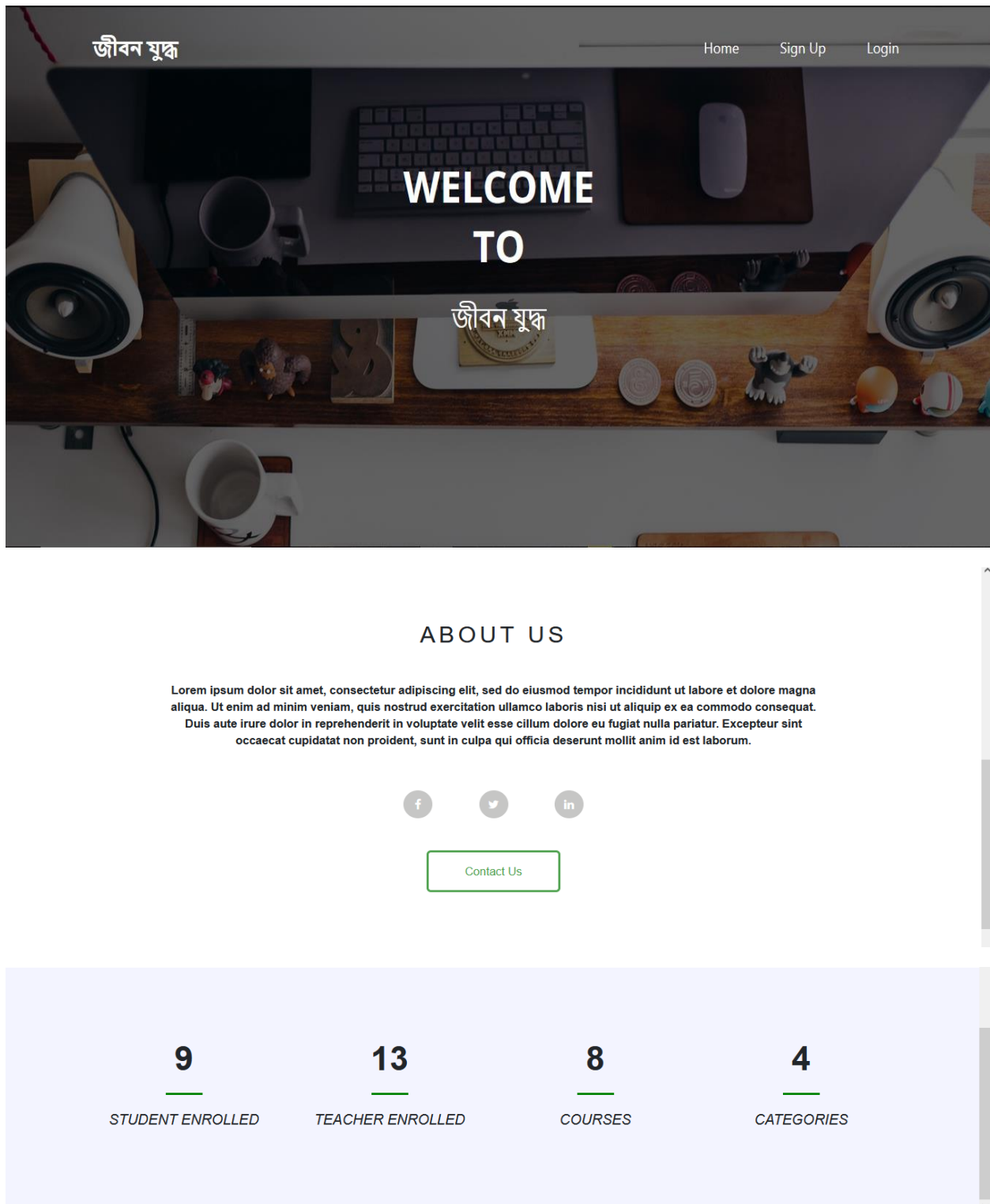
Name:	Remove user
Description:	Admin can remove any unwanted user
Actors:	Admin
Type:	Primary
Preconditions:	Login
Main Flow: [View Users use case]	
<ol style="list-style-type: none"> <li>6. Click on teacher/students</li> <li>7. Enter teacher ID/Student ID</li> <li>8. Click on remove user</li> </ol>	
Alternative Flows:	
<ol style="list-style-type: none"> <li>1. If the site has no teacher/student, the list will be empty</li> </ol>	

# Implementation:

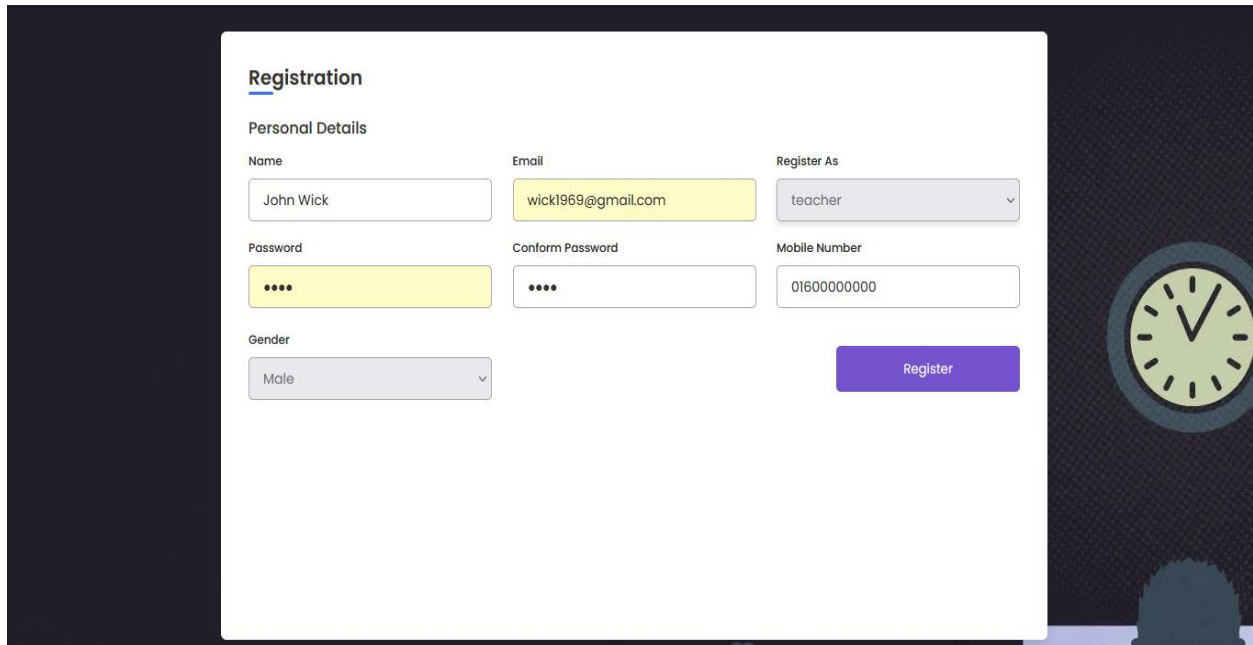
## 1. Database

Table ▲	Action	Rows ⓘ	Type	Collation	Size	Overhead
<input type="checkbox"/> admin	★ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> business	★ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> course	★ Browse Structure Search Insert Empty Drop	8	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> engineering	★ Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> enrolls	★ Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> general	★ Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> medical	★ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> pdf_file	★ Browse Structure Search Insert Empty Drop	9	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> student	★ Browse Structure Search Insert Empty Drop	9	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> teacher	★ Browse Structure Search Insert Empty Drop	14	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> verification	★ Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_general_ci	16.0 KiB	-
11 tables	Sum	50	InnoDB	utf8mb4_general_ci	176.0 KiB	0 B

## 2. Interface



## Home Page



The registration form is titled "Registration" and is set against a dark background with a clock illustration on the right. It contains several input fields: "Name" (John Wick), "Email" (wick1969@gmail.com), "Register As" (teacher), "Password" (masked with dots), "Conform Password" (masked with dots), "Mobile Number" (01600000000), and "Gender" (Male). A purple "Register" button is located at the bottom right of the form area.

**Registration**

Personal Details

Name: John Wick

Email: wick1969@gmail.com

Register As: teacher

Password: ....

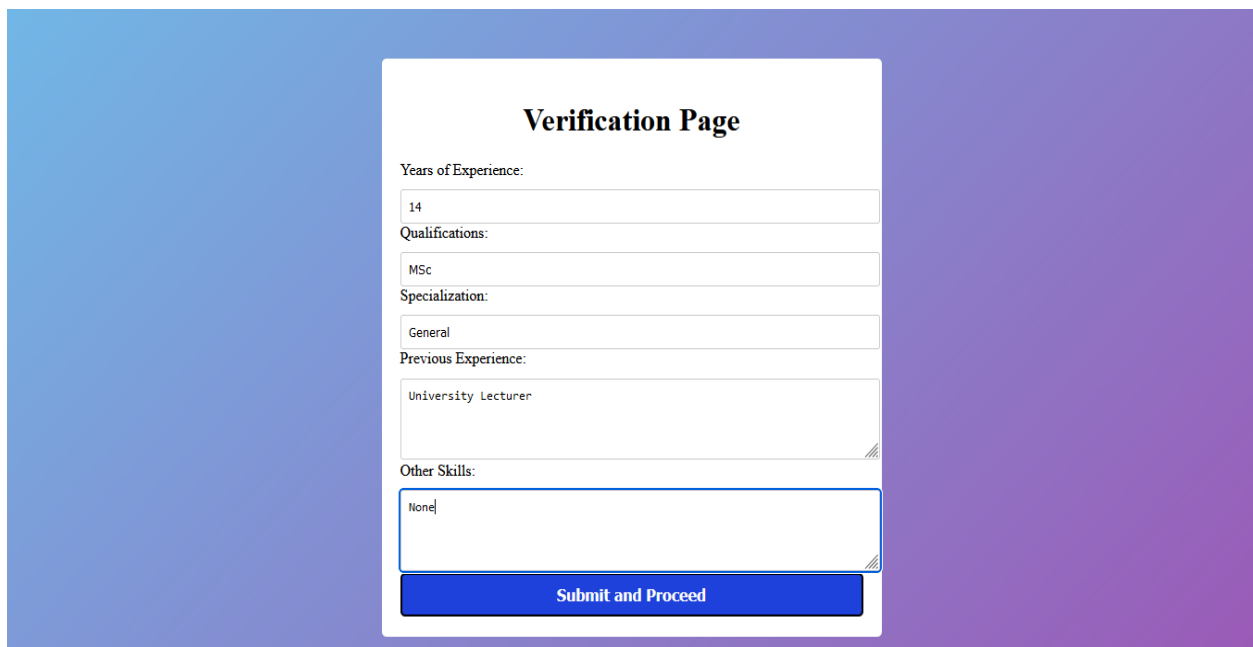
Conform Password: ....

Mobile Number: 01600000000

Gender: Male

Register

**Registration Page (Teacher)**



The verification form is titled "Verification Page" and is set against a blue-to-purple gradient background. It contains several input fields: "Years of Experience:" (14), "Qualifications:" (MSc), "Specialization:" (General), "Previous Experience:" (University Lecturer), and "Other Skills:" (None). A blue "Submit and Proceed" button is located at the bottom of the form area.

**Verification Page**

Years of Experience:  
14

Qualifications:  
MSc

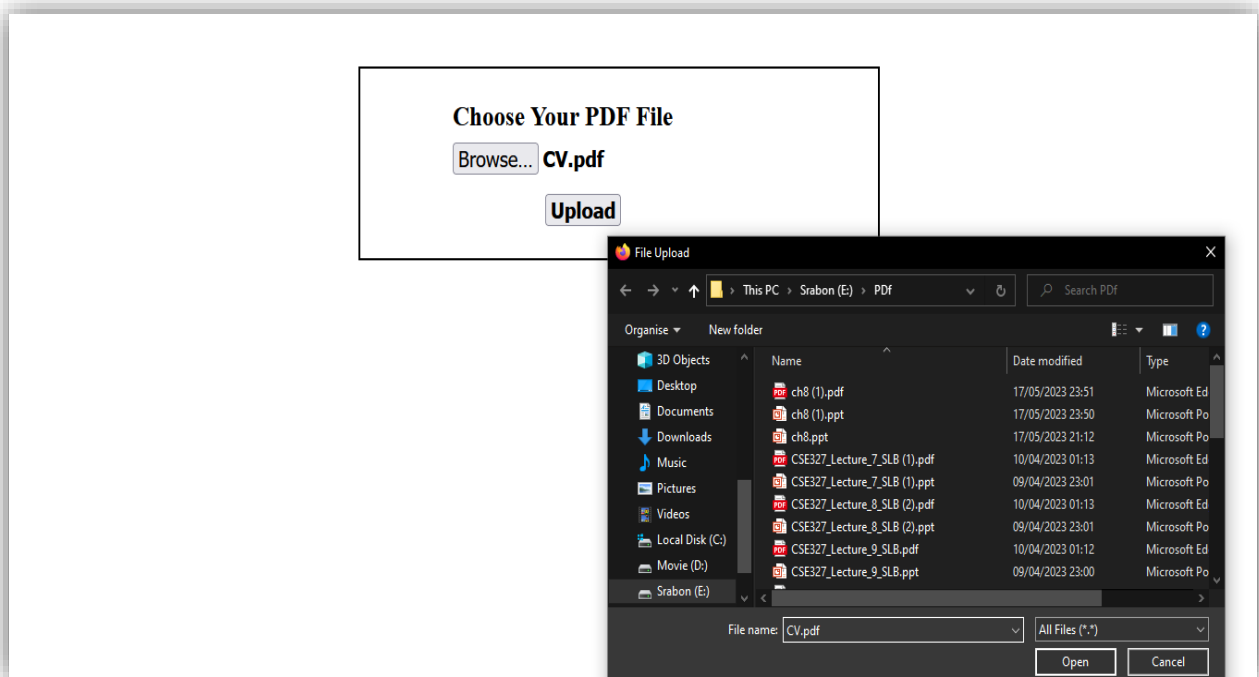
Specialization:  
General

Previous Experience:  
University Lecturer

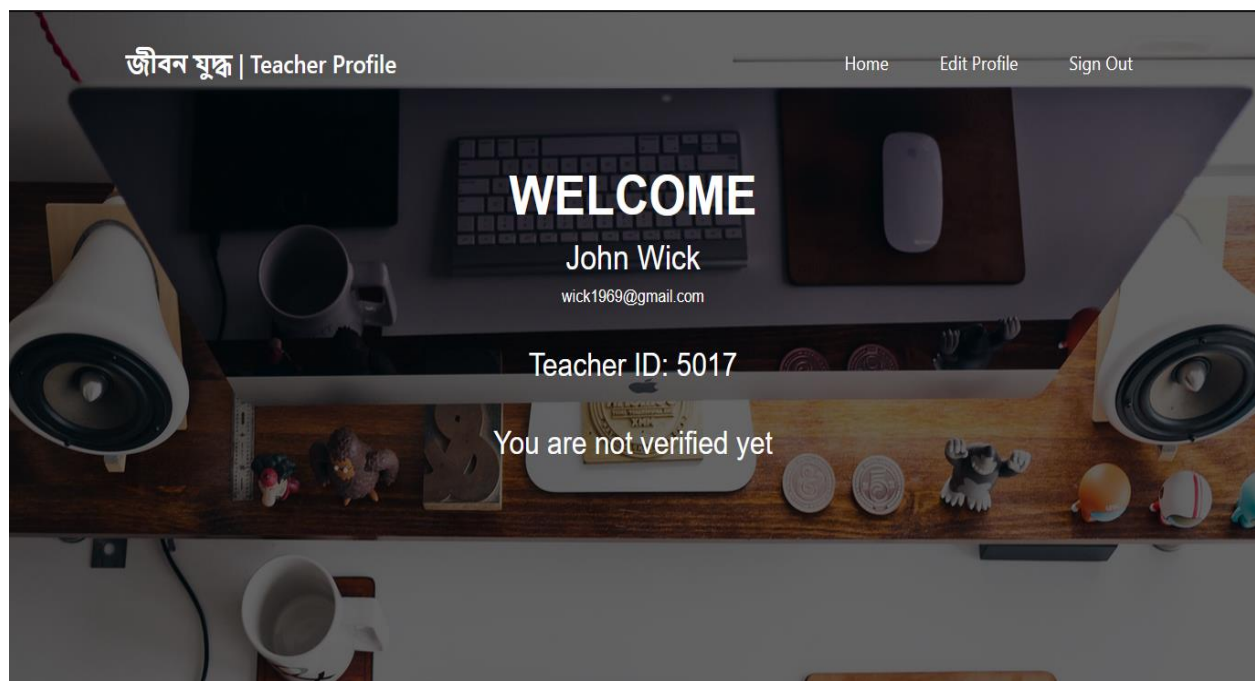
Other Skills:  
None

Submit and Proceed

**Teacher's Verification Page**



## Upload Teacher's Verification Document

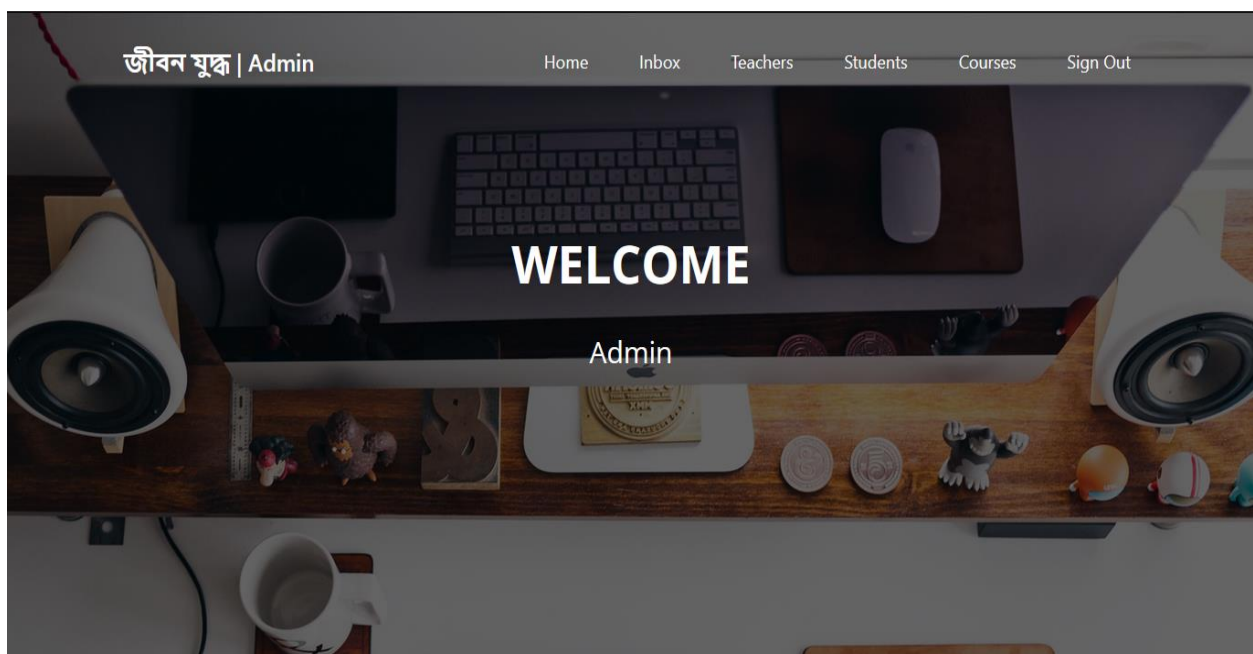


## Teacher's Profile (pre-verification)





## Login Page, for all users (Student, Teacher & Admin)



## Admin Profile

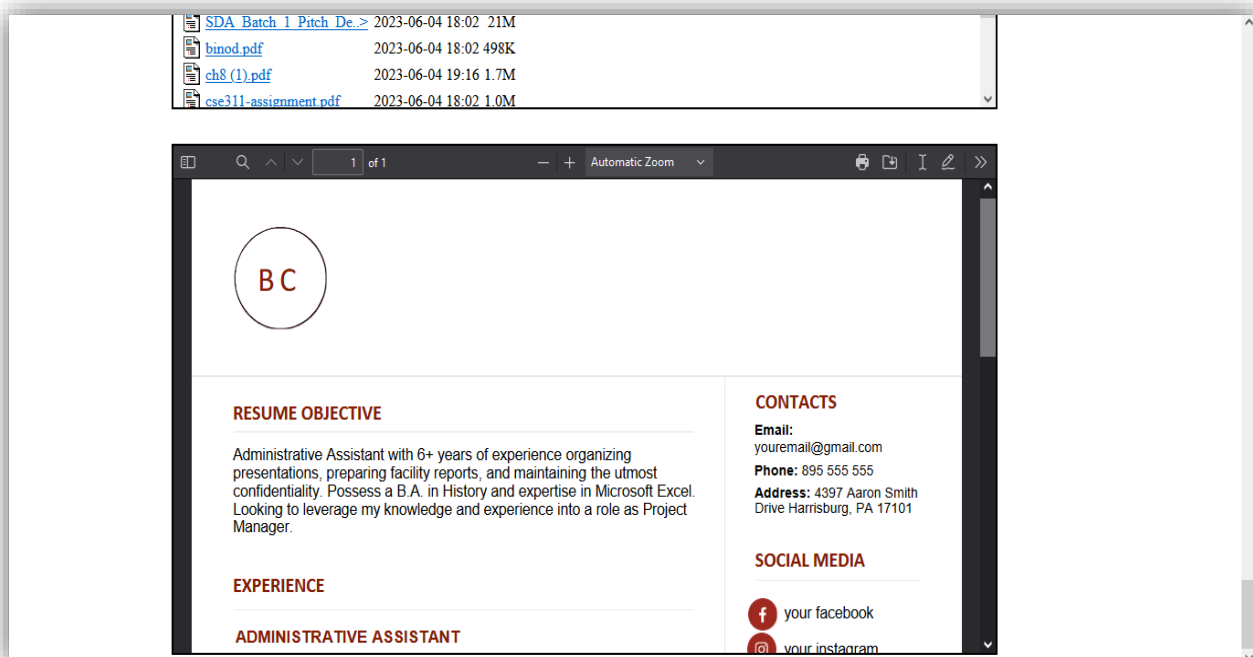
Home    Inbox    Logout					
<b>Inbox</b> <b>Admin   Inbox</b> <a href="#">View All Documents</a>					
Email	Experience	Qualification	Specialization	Previous Experience	Other Skills
mail	15	HSC	English	None	None
mail					
nasir@hossain.com	1	none	OS	a lot	a lot
nafiz2025@gmail.com					
lol@gmail.com	8	7	8	7	7
wick1969@gmail.com	14	MSc	General	University Lecturer	None

## Admin inbox (before)

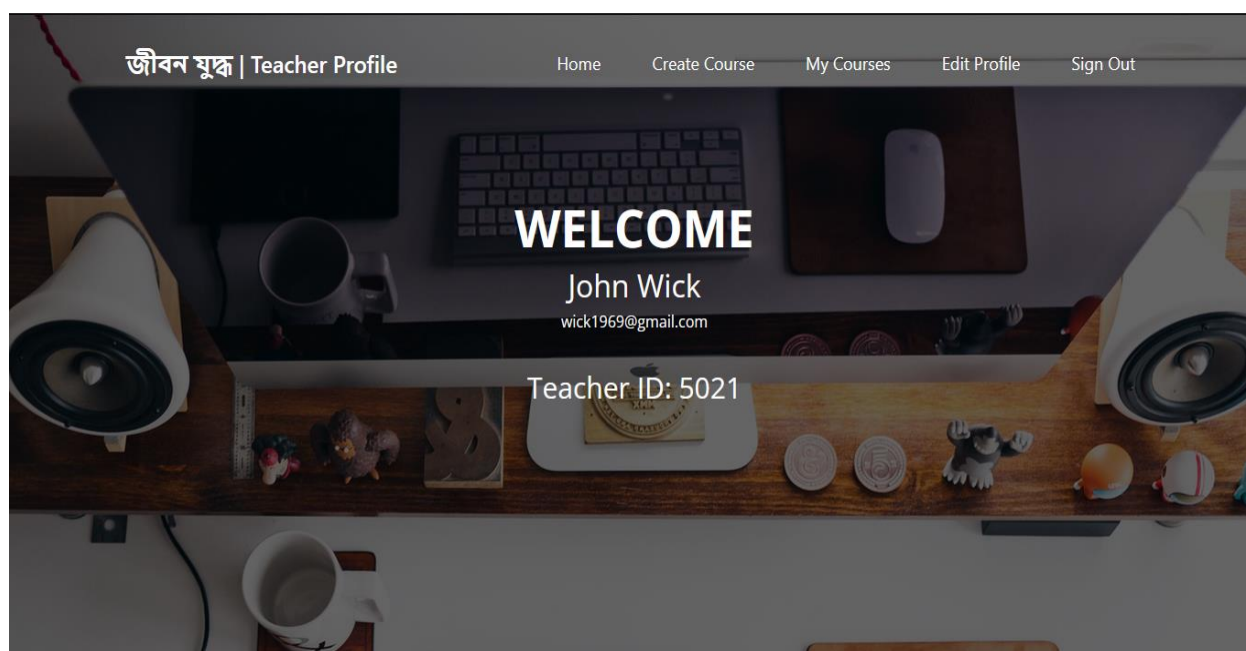
Home    Inbox    Logout								
<b>Inbox</b> <b>Admin   Inbox</b> <a href="#">View All Documents</a>								
Email Address	Experience	Qualification	Specialization	Experience	Other Skills	View Document		
teacher.est@gmail.co	1	BSC	Chemistry	None	Programming	<a href="#">VIEW DOCUMENT</a>	<a href="#">REJECT</a>	<a href="#">VERIFY</a>
wick1969@gmail.com	14	MSc	General	University Lecturer	None	<a href="#">VIEW DOCUMENT</a>	<a href="#">REJECT</a>	<a href="#">VERIFY</a>

## Admin Inbox (Update 1, 2)

Here, if the admin clicks on **view Document**, he/she would be able to view individual documents. Whereas, if he/she clicks **View All Documents** then he/she would view the entire document page.



## View Document Page, for admin



## Teacher's Profile (post-verification)

Create Course

Course Name:

Software Engineering

Category

Engineering

Course Description:

and design phases through the construction of actual software. Topics include management of programming teams, programming methodologies, debugging aids, documentation, evaluation and measurement of software, verification and testing techniques, and the problems of maintenance, modification, and portability.

Create Course

Create Course Page

জীবন যুদ্ধ | Course List

[Home](#)
[Teachers](#)
[Students](#)
[Sign Out](#)

Course ID	Course Name	Category	Description
3010	Software Engineering	Engineering	Follows the software life cycle – from requirement, specification, and design phases through the construction of actual software. Topics include management of programming teams, programming methodology

Edit a course?

Enter Course ID

3010

Enter

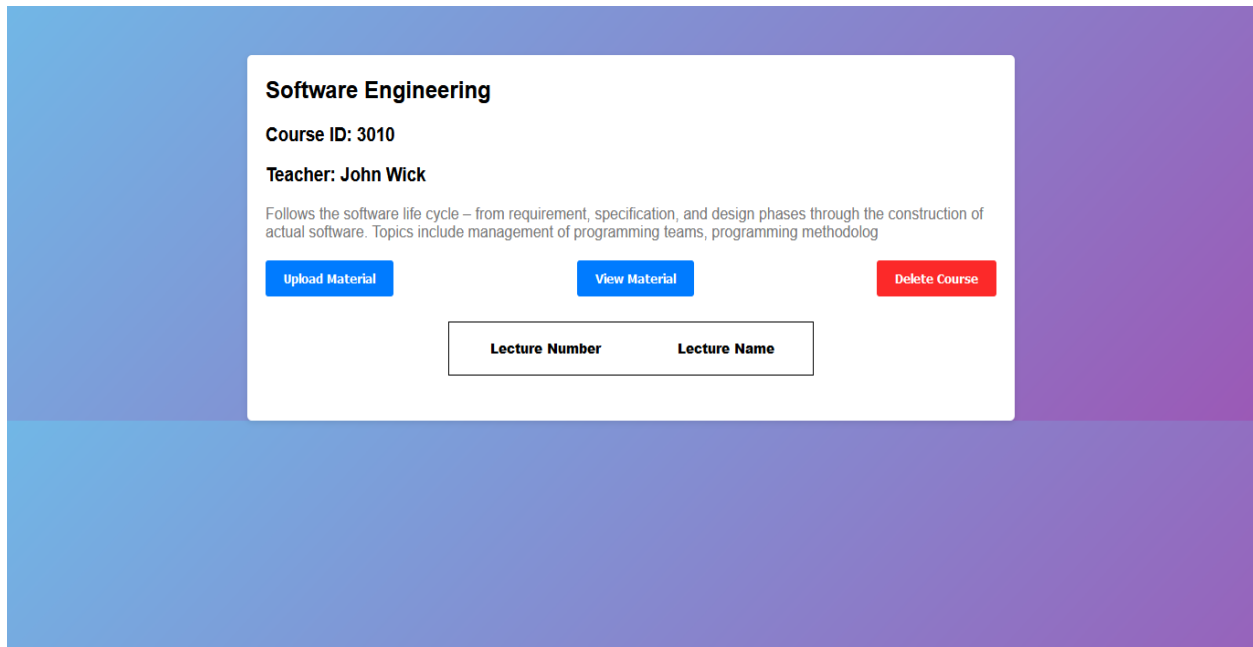
## My Courses Page, for Teacher (Before)

জীবন যুদ্ধ | Course List

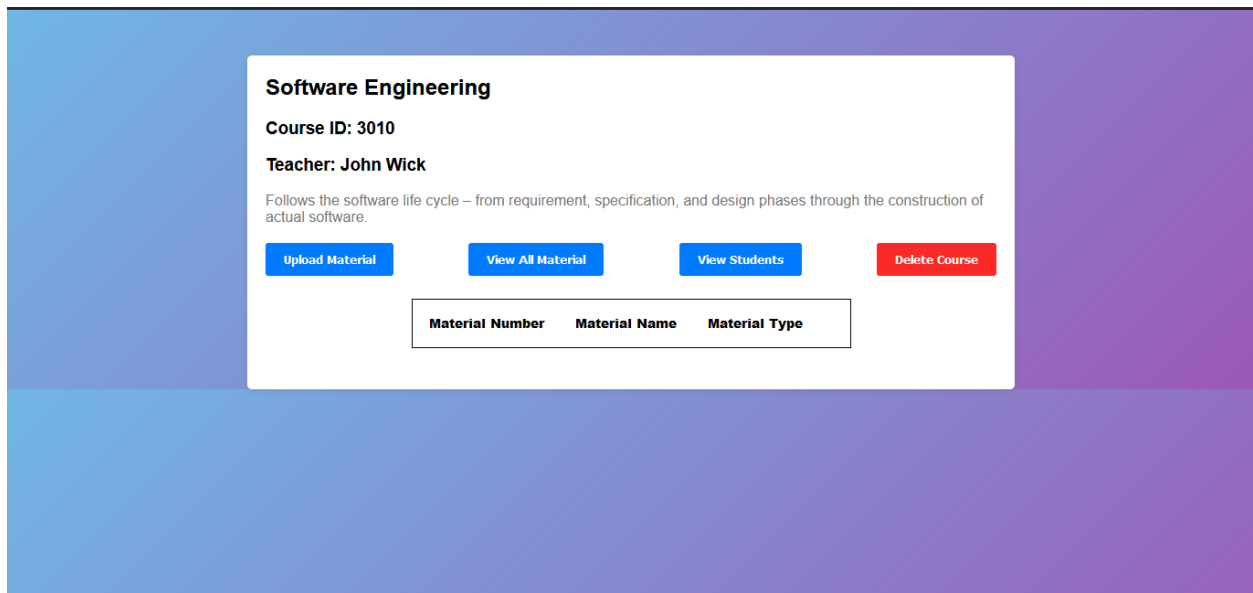
[Home](#)
[Sign Out](#)

Course ID	Course Name	Category	Description	
3010	Software Engineering	Engineering	Follows the software life cycle – from requirement, specification, and design phases through the construction of actual software.	<a href="#">VIEW</a>

## My Courses Page, for Teacher (Update 1)



## View Course, for Teacher (Before)



## View Course, for Teacher (Update 3)



The screenshot shows a web form titled "Upload Material" centered on a purple-to-blue gradient background. The form is white with a thin border. It contains the following fields: "Course Name: Software Engineering", "Course ID: 3010", "Lecture Number:" followed by a dropdown menu showing "1", and "Lecture Name" followed by a text input field containing "Introduction to Software Engineering". At the bottom is a blue button labeled "Proceed to upload".

**Upload Material**

Course Name: Software Engineering  
Course ID: 3010  
Lecture Number:  
1  
Lecture Name  
Introduction to Software Engineering  
Proceed to upload

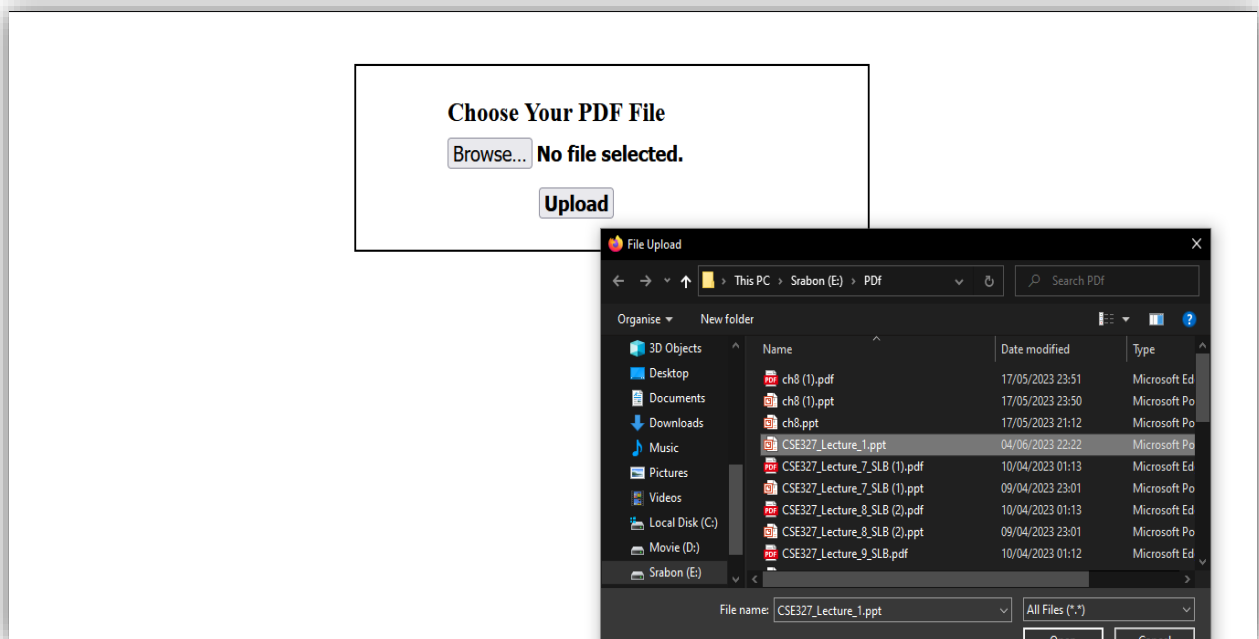
**Upload Material, for Teacher (Before)**

The screenshot shows the updated version of the "Upload Material" form. It now includes an additional field, "Material Type", with a dropdown menu showing "assignment". The "Lecture Name" field now contains "Assignment 1". The button at the bottom is light blue and labeled "Proceed to upload".

**Upload Material**

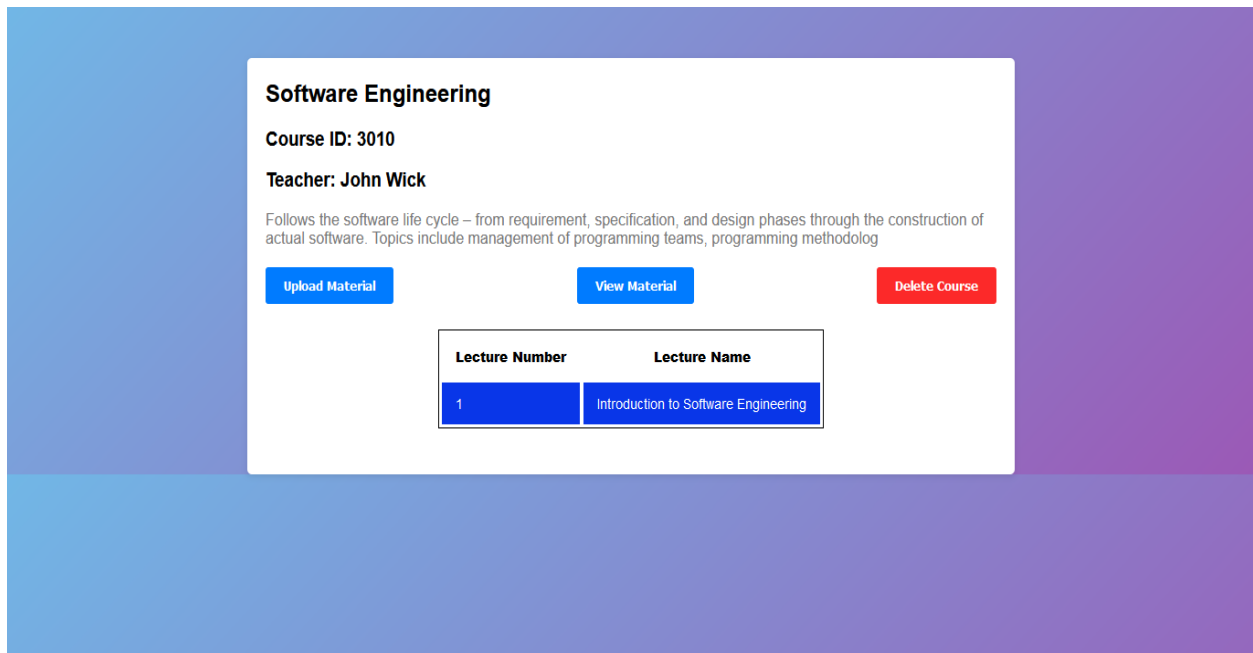
Course Name: Software Engineering  
Course ID: 3010  
Material Type  
assignment  
Material Number  
1  
Lecture Name  
Assignment 1  
Proceed to upload

**Upload Material, for Teacher (Update 5)**

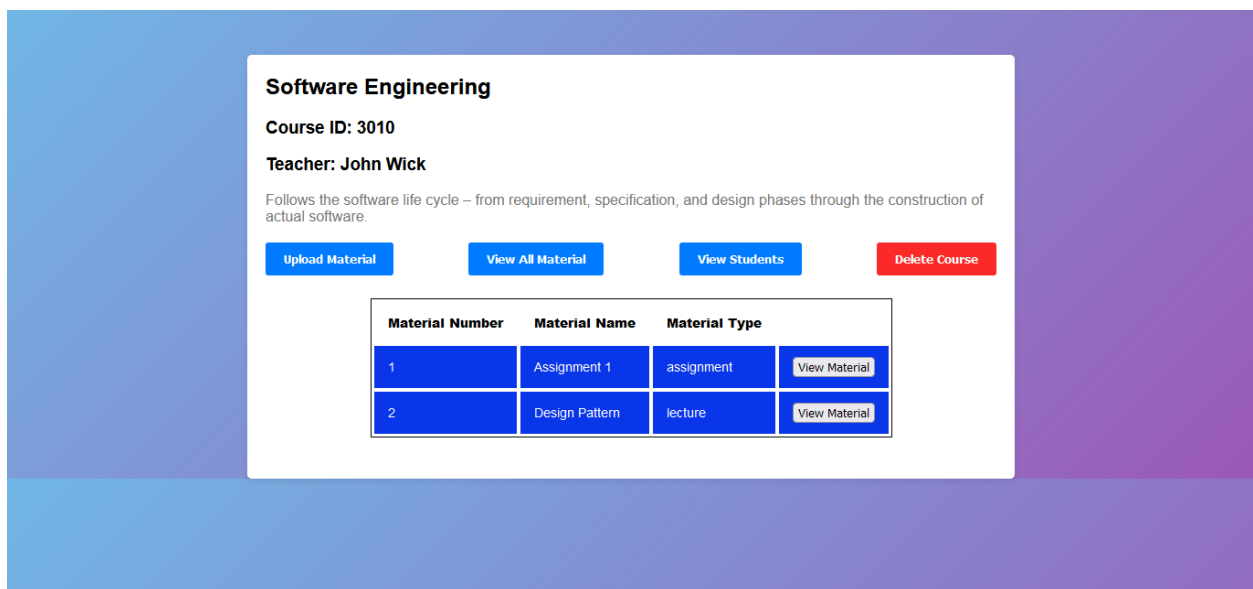


**Choose Material, for Teacher**





## Course Profile Page, for Teacher (Before)



## Course Profile Page, for Teacher (Update 1, 3)

Here, if the Teacher clicks on **view material** he/she would be able to view individual materials. Whereas, if he/she clicks **View all material** then he/she would view the entire material page.

জীবন যুদ্ধ | Student List

Home Sign Out

Student ID	Student Name	Status	
113	Silene Oliveira	enrolled	<a href="#">Remove</a>

## Enrolled Student List, for Teacher (Update 1, 3, 4)

**Registration**

Personal Details

Name: Silene Oliveira

Email: olive123@gmail.com

Register As: student

Password: \*\*\*\*

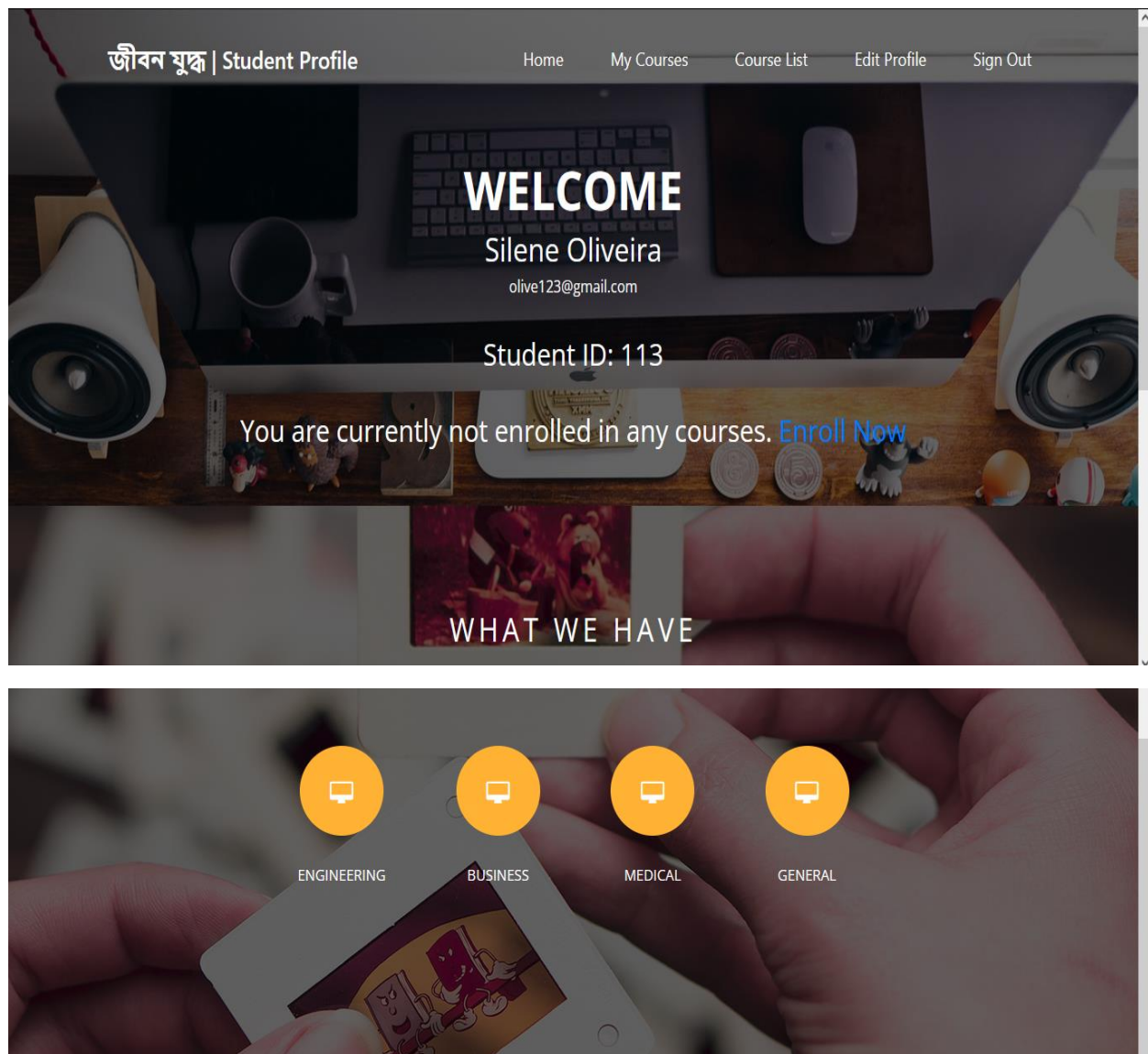
Conform Password: \*\*\*\*

Mobile Number: 01700000000

Gender: Female

[Register](#)

## Student Registration Page



**Student Profile (not enrolled yet)**

জীবন যুদ্ধ | Course List

[Home](#)
[Sign Out](#)

Course ID	Course Name	Category	Description
5002	Biology	Medical	Introduction
5003	Pathology	Medical	Intro
3009	CSE327	Engineering	Follows the software life cycle – from requirement, specification, and design phases through the construction of actual software. Topics include management of programming teams, programming methodology
3010	Software Engineering	Engineering	Follows the software life cycle – from requirement, specification, and design phases through the construction of actual software. Topics include management of programming teams, programming methodology

View course contents?

Enter Course ID

3010

View

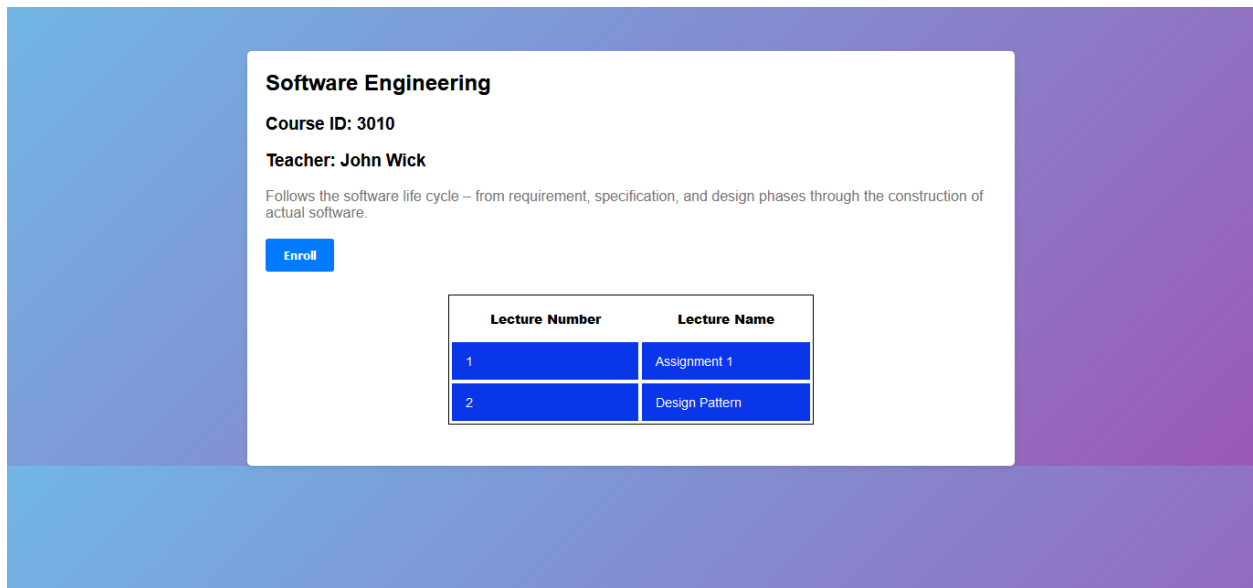
## Course List, for Student (Before)

জীবন যুদ্ধ | Course List

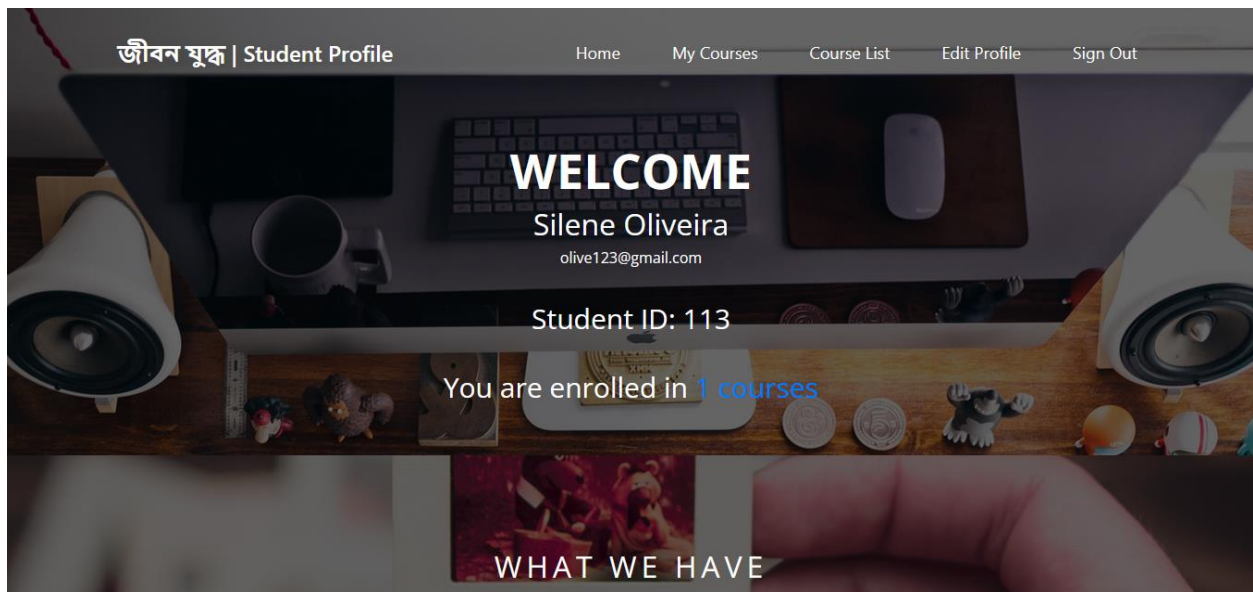
[Home](#)
[Sign Out](#)

Course ID	Course Name	Category	Description	
2004	Test	Business	Test Description	<a href="#">VIEW DETAILS</a>
2004	Test	Business	Test Description	<a href="#">VIEW DETAILS</a>
3008	Database	Engineering	44	<a href="#">VIEW DETAILS</a>
3007	Database	Engineering	DBMS	<a href="#">VIEW DETAILS</a>
3007	Database	Engineering	DBMS	<a href="#">VIEW DETAILS</a>

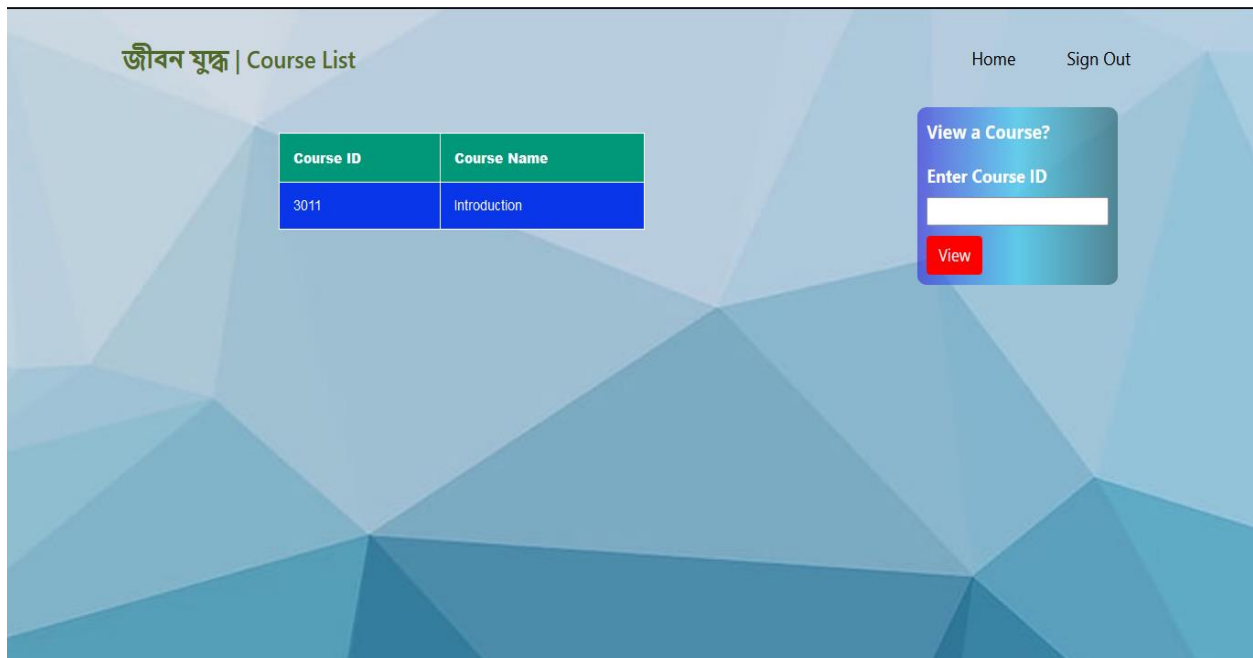
## Course List, for Student (Update 1)



## Enroll Page, for Student



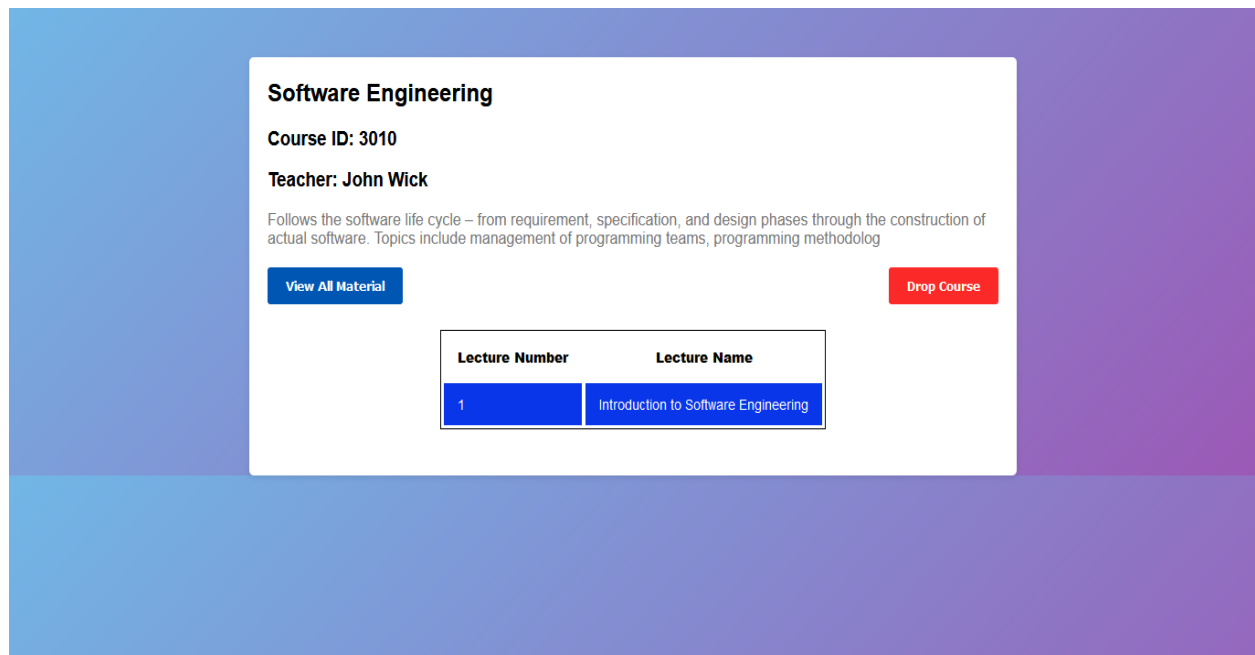
## Student Profile (Post-Enrollment)



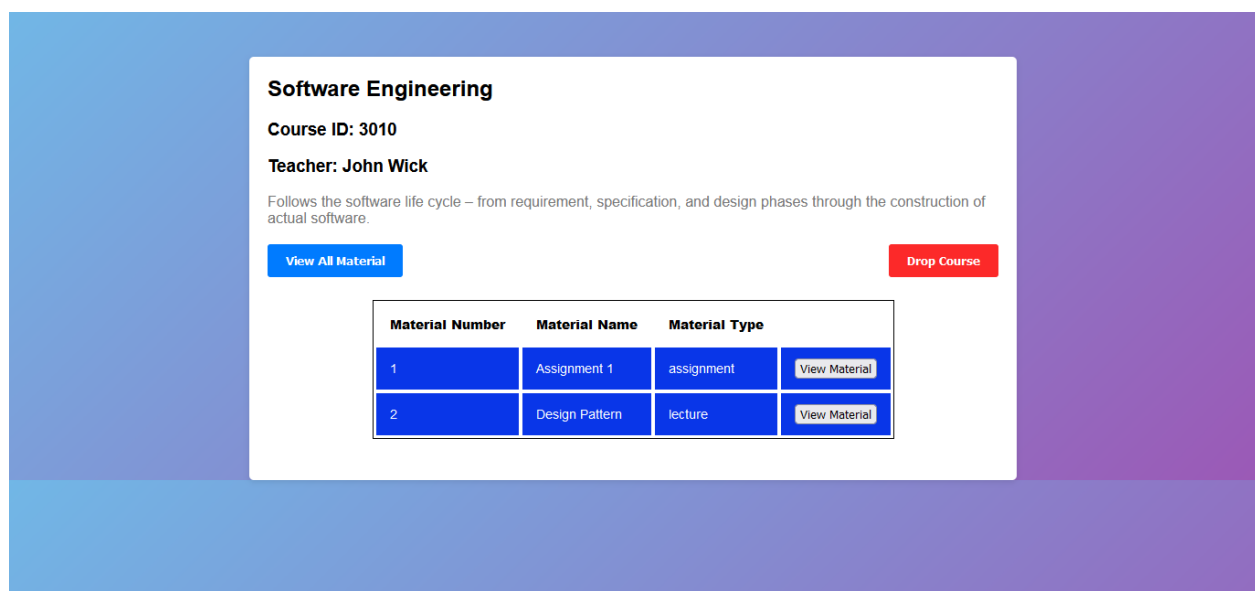
**My Courses Page, for Student (Before)**



**My Courses Page, for Student (Update 1)**

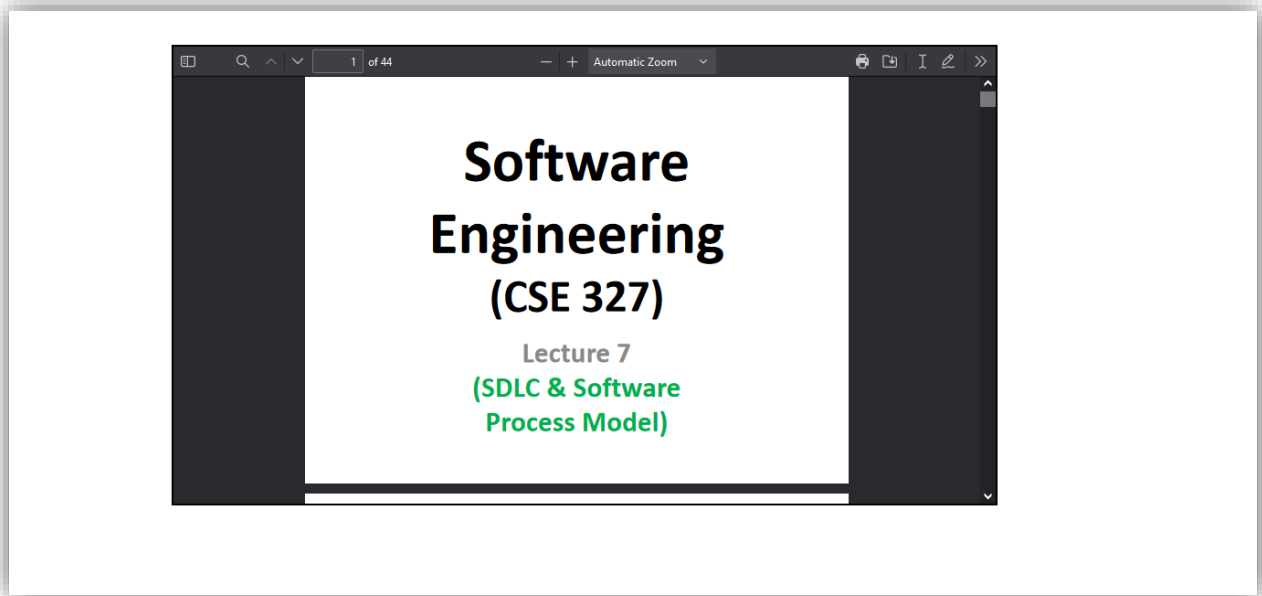


## View Course, for Student (Before)



## View Course, for Student (Updated 1, 6)

Here, if the student clicks on **view material** he/she would be able to view individual materials. Whereas, if he/she clicks **View all material** then he/she would view the entire material page.

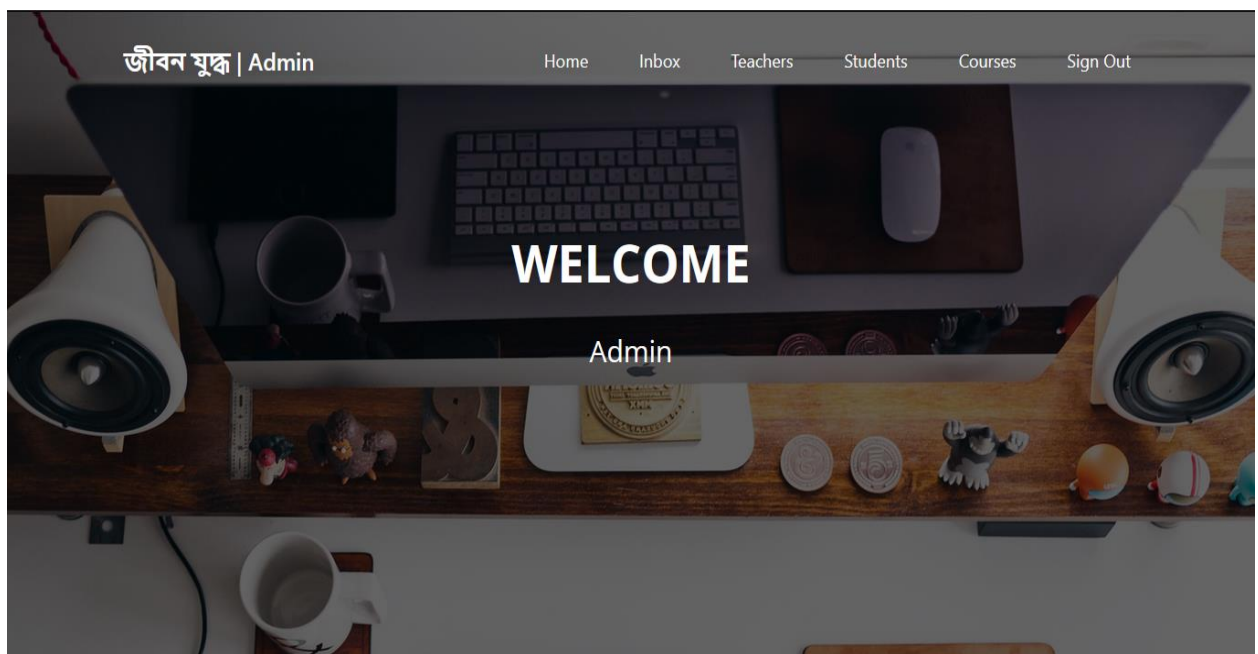


**View Material Page, for Student**

A screenshot of an 'Edit Profile' form. The form is white and centered on a dark background. It contains the following elements: a title 'Edit Profile' with a blue underline; three input fields labeled 'Email', 'New Password', and 'Confirm Password' with values 'olivel23@gmail.com', '\*\*\*\*', and '\*\*\*\*' respectively; a dropdown menu for 'Account Type' with 'student' selected; and a purple 'Reset' button. The background features a dark blue pattern with a clock face and a person's silhouette on the right side.

**Edit Profile Page, for both Student & Teacher**





## Profile Page, for Admin

জীবন যুদ্ধ | Teachers List

[Home](#)
[Teachers](#)
[Students](#)
[Sign Out](#)

Teacher ID	Teacher Name	Email	Status
5000	Mia Mahmudul Hoque Shaon	houque2021@gmail.com	verified
5001	Nazmul Islam Srabon	srabon2022@gmail.com	verified
5002	Asif Rahman	asif2024@gmail.com	verified
5003	Nafiz Ahmed	nafiz2025@gmail.com	verified
5004	jossim	jossim@gmail.com	unverified
5007	nazmul	nazmul@gmail.com	Verified
5012	Nasir	nasir@gmail.com	unverified
5013	Nasir hossain	nasir@hossain.com	unverified
5017	yunus khan	khan123@gmail.com	verified
5018	Kang dong ju	ju123@gmail.com	verified

Remove a teacher?

Enter Teacher ID

5004

Remove

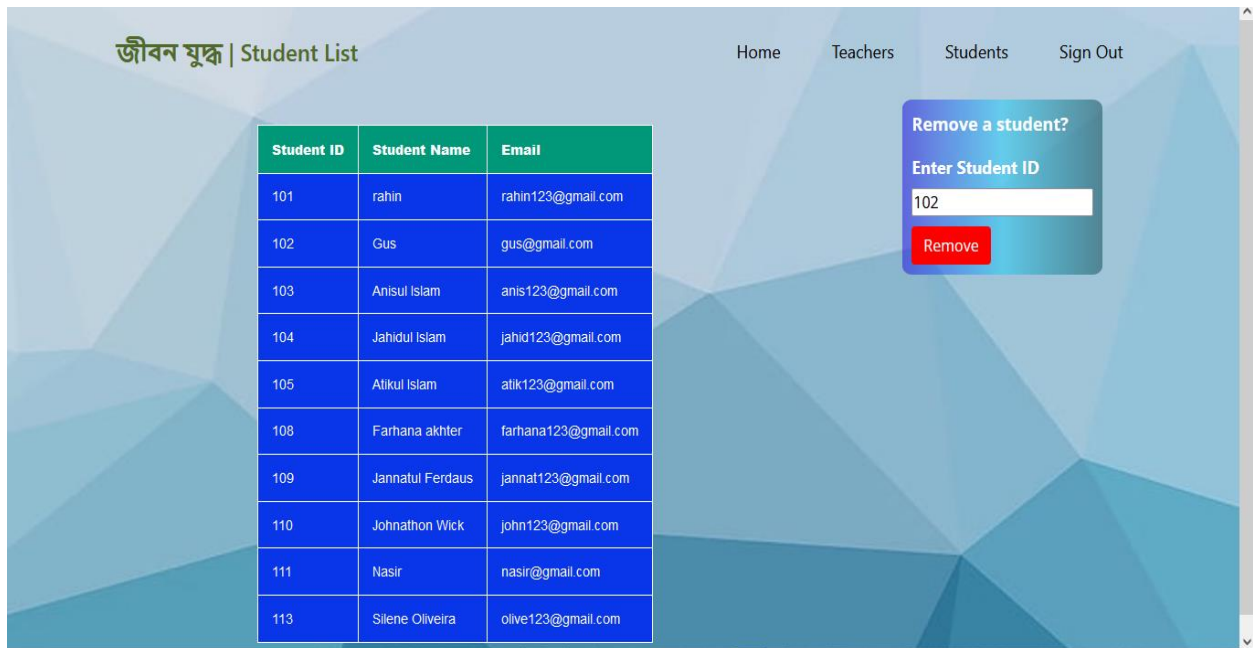
## Teachers List, for Admin (Before)

জীবন যুদ্ধ | Teachers List

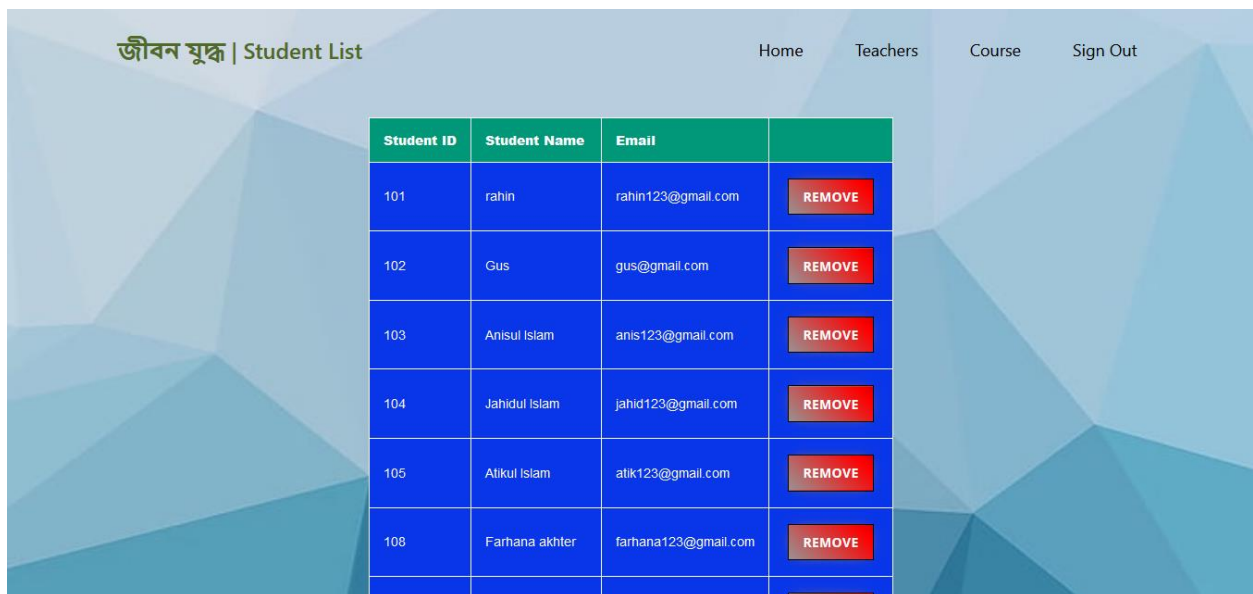
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Teacher ID	Teacher Name	Email	Status	
5000	Mia Mahmudul Hoque Shaon	houque2021@gmail.com	verified	REMOVE
5001	Nazmul Islam Srabon	srabon2022@gmail.com	verified	REMOVE
5002	Asif Rahman	asif2024@gmail.com	verified	REMOVE
5003	Nafiz Ahmed	nafiz2025@gmail.com	verified	REMOVE
5004	jossim	jossim@gmail.com	unverified	REMOVE
5006	jossim	mayor@gmail.com	unverified	REMOVE

## Teacher's List, for Admin (Update 1)



**Student List, for Admin (Before)**



**Student List, for Admin (Update 1)**

