



University
of Windsor

COMP 8347- Internet Applications/ Distributed Systems

Project

EdGenius-Empowering Minds, Empowering Lives

Submitted to:

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Submitted by:

Group - 5

Team Members	Student Id
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1. Introduction:

Motivation and Idea:

EdGenius is an online learning platform developed using Django, Python and PyCharm. The motivation behind developing this project is to contribute towards the online learning of students and for better management of courses by the instructors so that online learning becomes a smooth and fun process. Knowledge sharing on an online learning platform can have a really positive impact on learners. The idea is to provide a platform where users can access educational resources, courses, tutorials, and other learning materials to acquire new skills and learn from anywhere. We wanted to facilitate self-paced learning, allowing users to study at their own convenience and from the comfort of their own devices. Our biggest motivation for this project was to build a real-world application which helps students to learn and make a contribution in shaping their future. Developing a website from scratch helped us to put in our creativity to work and even there were instances where we went out of the box to make it more creative and come up with a satisfying designing of the website. It helped us improve our problem solving skills during the development process as there were points where we encountered various challenges and obstacles. Improving problem solving skills helped us to overcome those problems and a step ahead towards being a proficient developer.

Features:

The primary features of the platform that we build are:

1. **Course Builder:** Instructors have the access to create and manage courses by uploading course materials, lessons, learning objectives, view and upload grades, and manage attendance.
2. **Membership Options:** Our platform offers 3 membership options named as Gold, Silver, Bronze with different levels of access to courses and services.
3. **Payment Gateway:** After selecting respective membership options students can securely pay for the services they opt using payment method through secure payment gateway.
4. **Design and Colour schema:** Our platform would offer a user friendly environment to the user.

2.Team Members

Team Members Contribution:-

Member's Name	Tasks Worked on
Vishva Deliwala	Login/Signup Page, Password Reset functionality, Session, Cookies, User models
Khondoker Aminuzzaman	Taking Attendance, Providing Grades, View attendance and Grades.
Shivam Sunil Bhosale	Instructor Course Builder, Student Course Viewer, and Individual Course Pages
Himanshu Rao	Membership Options
Aryan Gaur	Payment Gateway

3. Overview of the Project

Tech Stack:

During the development of this platform we used the following technologies:

- Python
- Django
- HTML, CSS, JavaScript, Bootstrap,

For the IDE, we choose to work with

- PyCharm

4. Project Implementation:

Project Phase:

The Online Learning Platform was developed through series of well-organized steps as follows:

1. Project Initiation: In the initial phase, the project aim, features and team member roles were defined. We created a github repository for version control and to collaborate.
2. Setting up database: Django models were configured and the database schema was designed for the management of data.
3. Frontend Implementation: The HTML pages were designed and developed using HTML and CSS to ensure user friendly interface.
4. Backend Implementation: In this stage we implemented the backend logic such as creating functions and classes for the login, signup pages, forgot password functionality, courses and student role management, user authentication and payment gateway.
5. Testing and Validating: In this phase, we ensured and verified the proper working of our platform and tackled the issue faced during the implementation phase.

Functions:

Our Platform includes various functionalities which are as follows:

- Homepage:

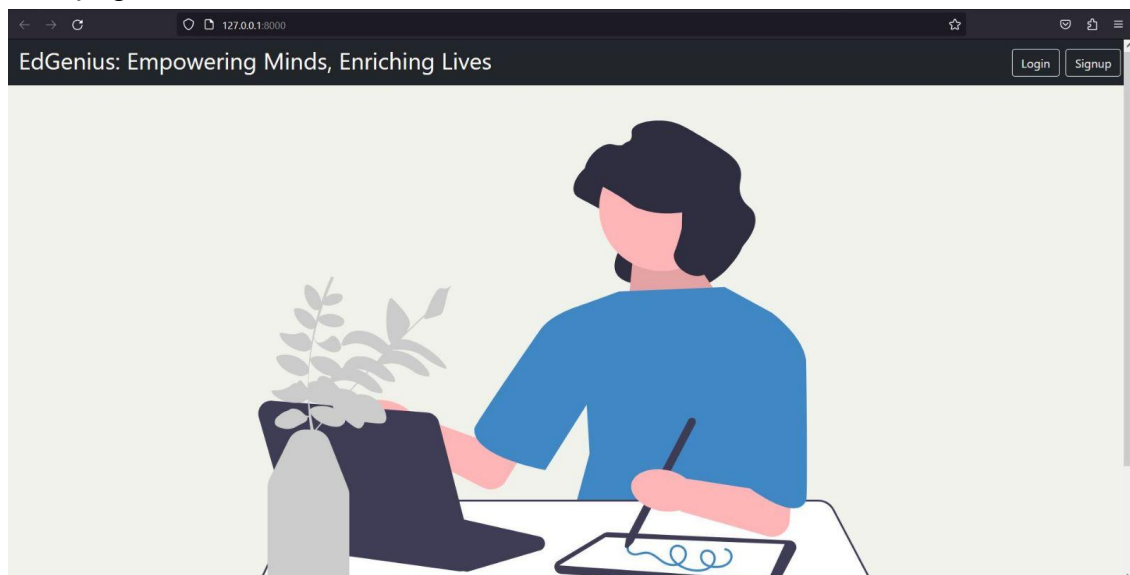


Fig 1: Landing page

- Login/ Sign up feature with reset password option:
For existing users, when they hit on login button they will be directed to the page as shown in the screenshot below

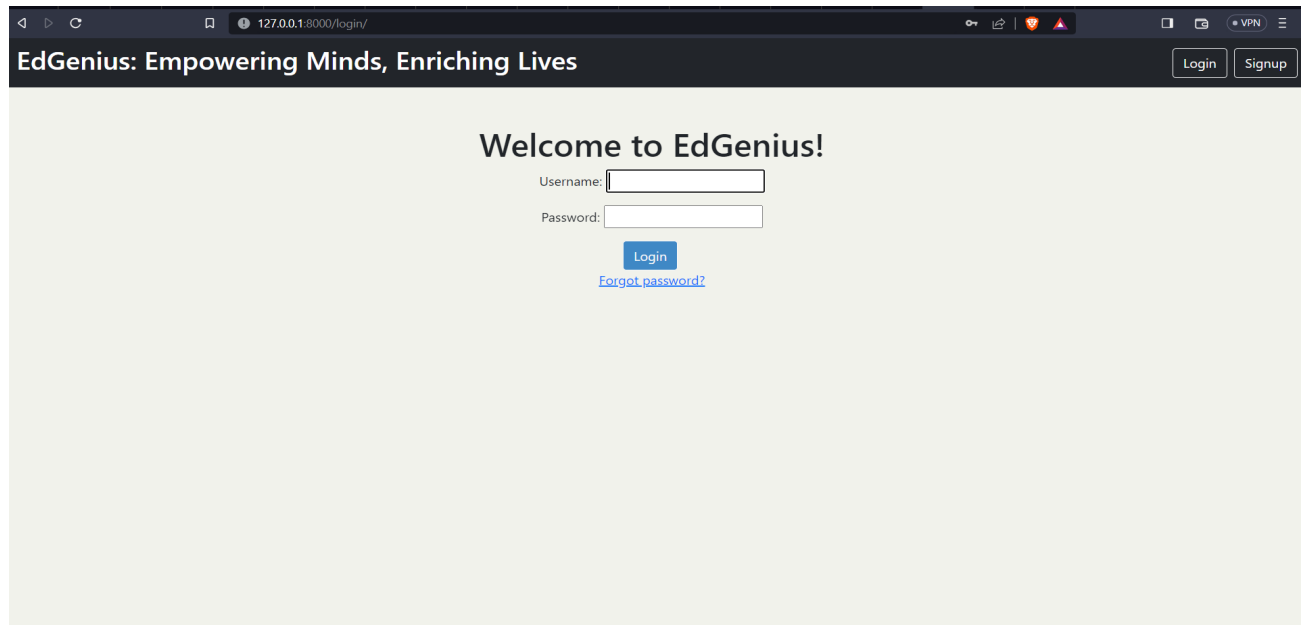


Fig 2: Login Page

If the user forgets his/her password the page as displayed below will pop up which basically asks the user for the registered email id and sends a verification code using which the user can reset the password

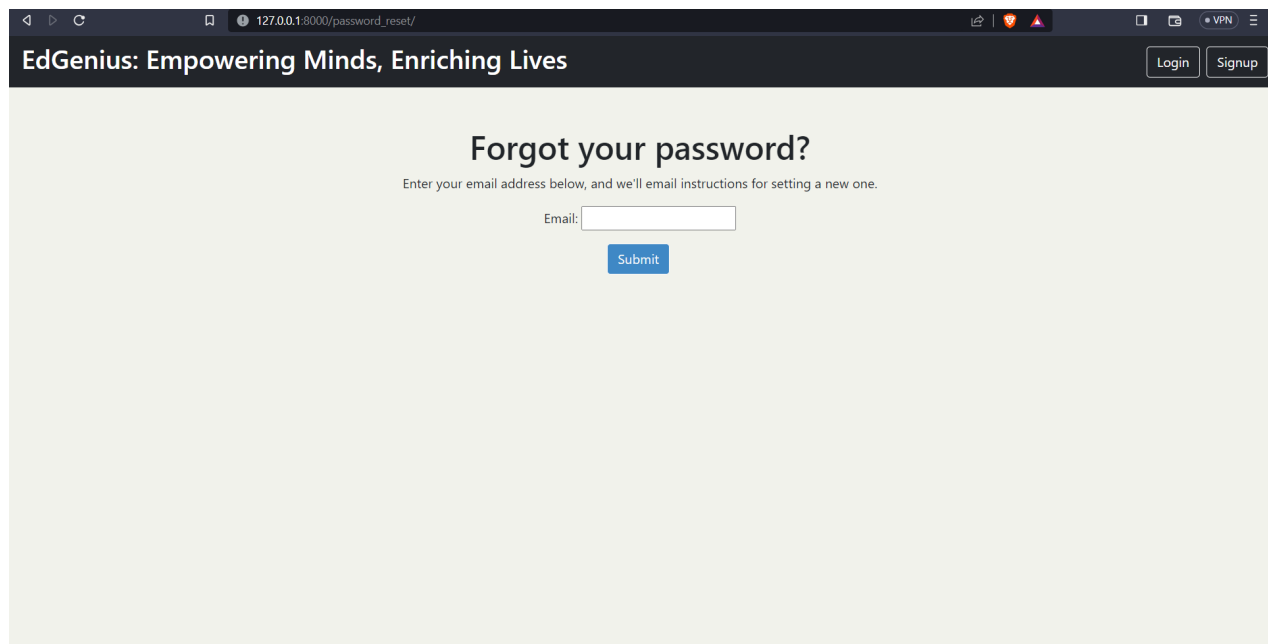


Fig 3: Forgot Password Page

For non- existing and new users a sign-up page will pop up as shown below where user can sign up and proceed for choosing membership options

EdGenius: Empowering Minds, Enriching Lives

127.0.0.1:8000/signup/

Login Signup

SignUp here!

Username: Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only.

Password:

- Your password can't be too similar to your other personal information.
- Your password must contain at least 8 characters.
- Your password can't be a commonly used password.
- Your password can't be entirely numeric.

Password confirmation: Enter the same password as before, for verification.

Sign Up

Fig 4: SignUp Page

- Membership options:
EdGenius provides with three membership options which are Gold, Silver and Bronze priced at 80 CAD, 50 CAD and 30 CAD

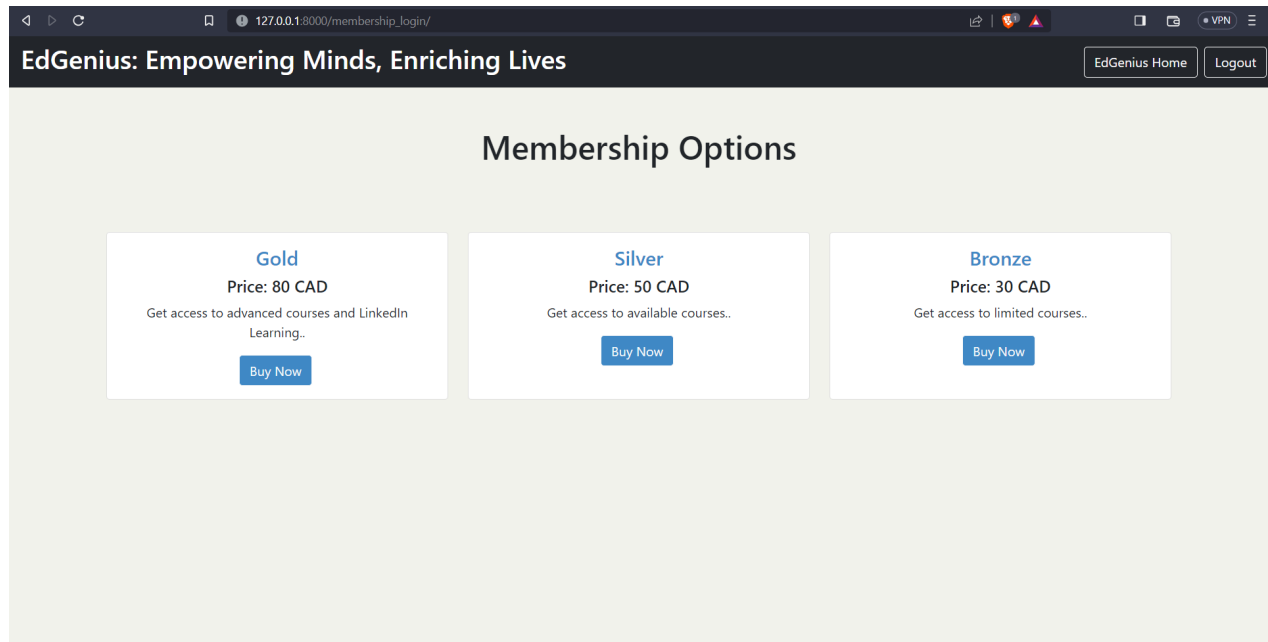


Fig 5: Membership Options

- Payment gateway:
After selecting the membership users can pay through the payment gateway.
Razorpay is the payment gateway which we have used for EdGenius

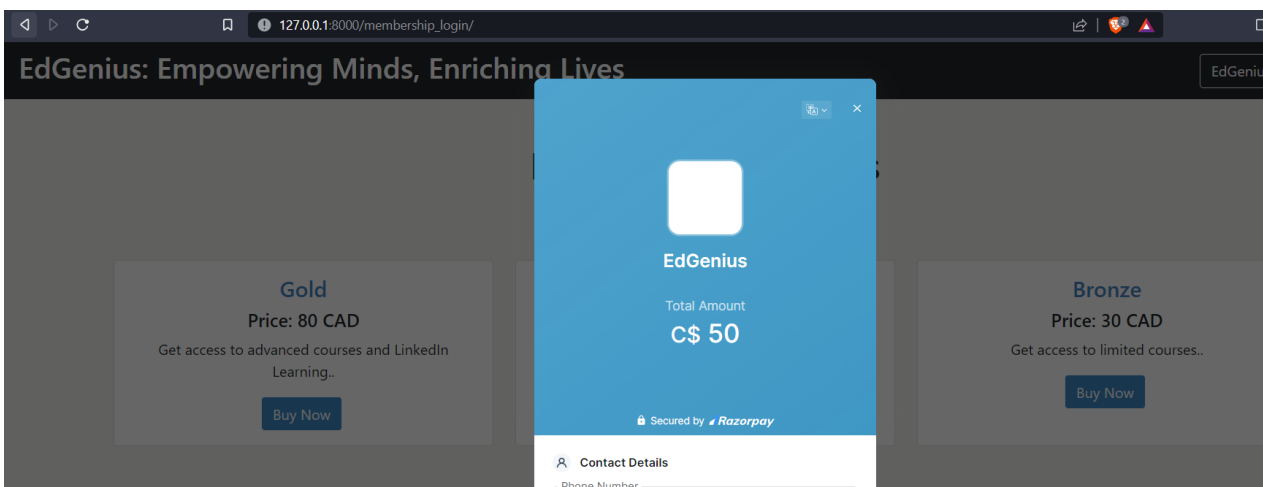


Fig 6: Payment gateway

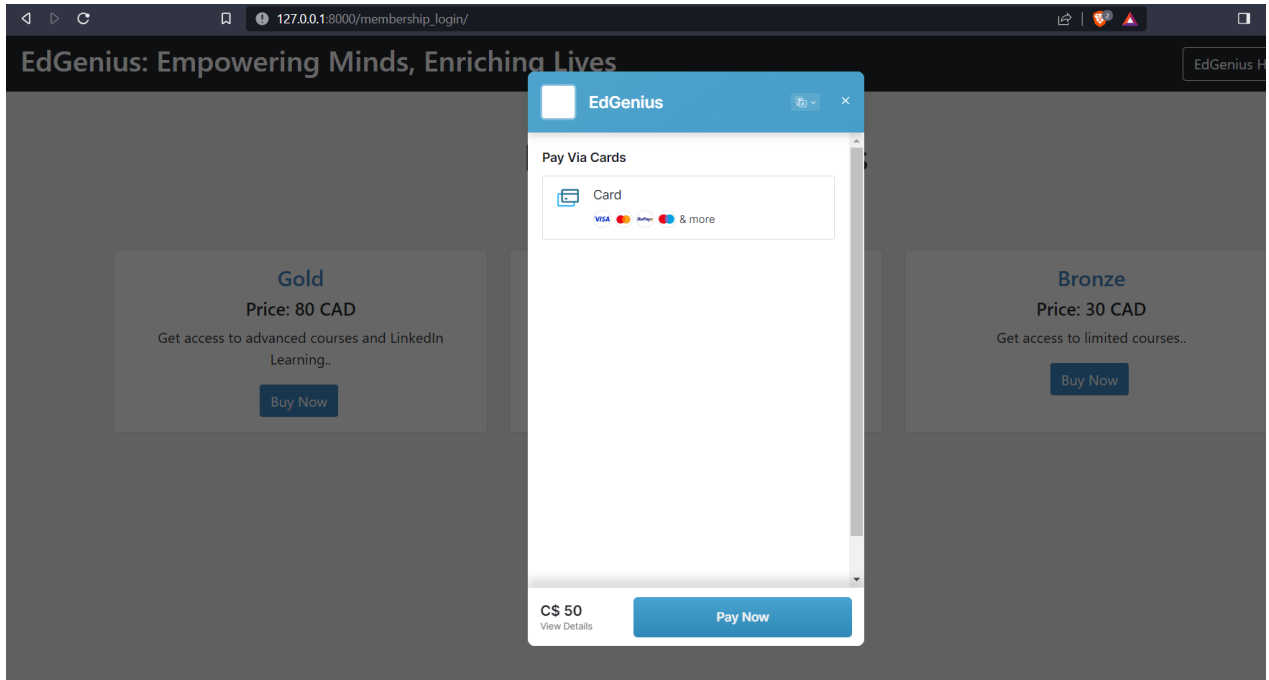


Fig 7: Payment Gateway Page2

- Student Homepage:
Students will be able to see the page which pops up when they login as shown below where they can see all of their courses according to the membership they have bought

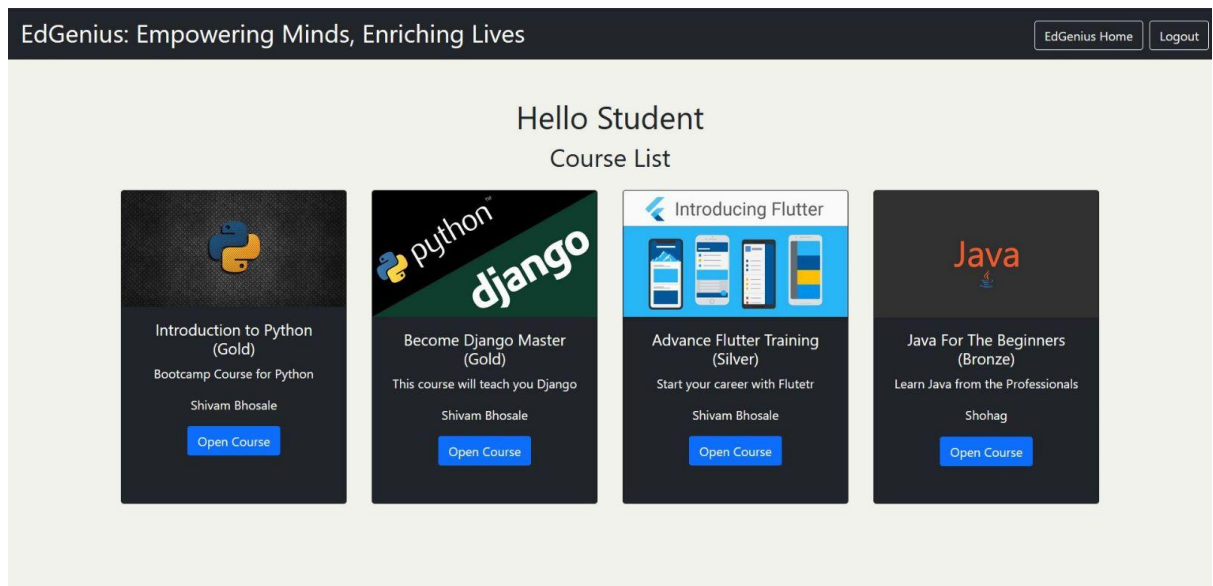


Fig 8: Course Page

Upon selecting a course students can see the page as shown below



Fig 9: Course page

Students can view their grades for a particular course

Course: IADS

My Grades

Student Name: Shivam Bhosale

Grade Item	Grade	Feedbacks
Assignment 1	5/5	Excellent!!
Assignment 2	3.5/10	Pay more attention...or i will punch you in the class

Fig 10: Student Attendance

Students can even view their attendance

Course: IADS

My Attendance

Student Name: Khondoker Aminuzzaman

Date	Attendance
July 20, 2023, midnight	absent

Fig 11: Attendance View page

- Instructor Homepage:
Instructor login provides the professor with few additional functionalities which are being discussed below and the homepage for the instructor is rendered with an addition feature of creating a new course as shown in the screenshot below

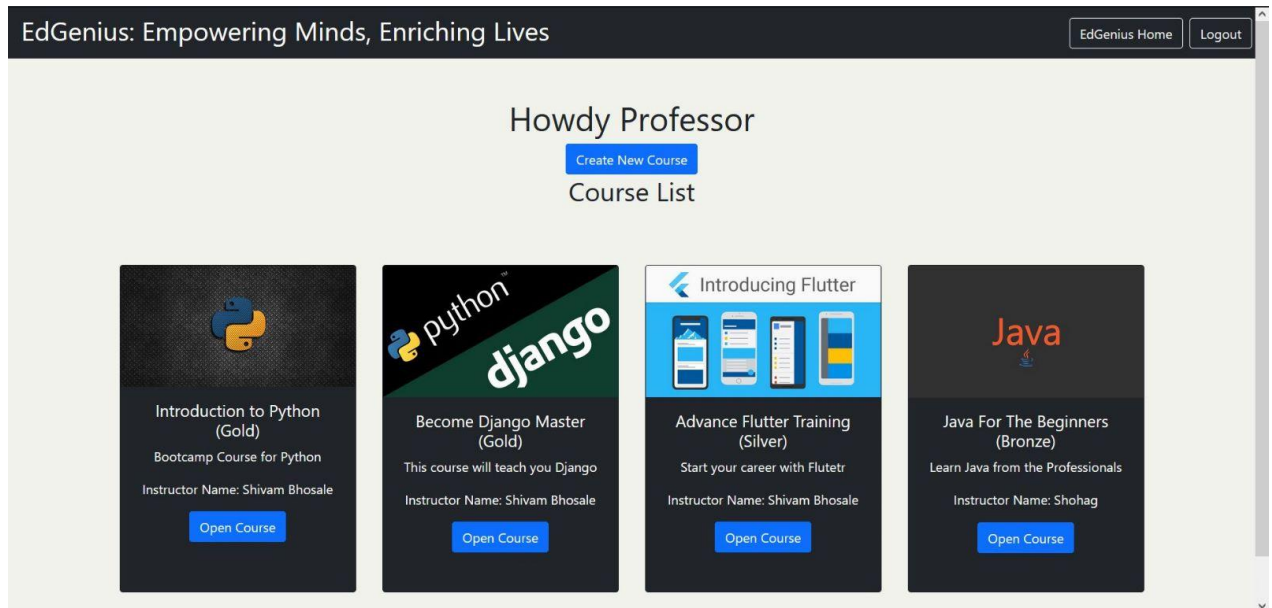


Fig 12: Instructor Course page

Upon clicking on creating a new course the following page renders as shown below where instructor can add course details

The screenshot shows the 'Add Course' page of EdGenius. The header is identical to the previous page. The main content area is titled 'Add Course' and contains a form with the following fields: 'Course Name:', 'Course ID:', 'Description:', 'Course Image:' (with a 'Choose File' button and 'No file chosen' text), 'Course Tag:', and 'Instructor Name:'. Each field is represented by a white input box.

Fig 13: Add course page

Description:

Course Image:
Choose File No file chosen

Course Tag:

Instructor Name:

Course Video URL:

Upload Course Files:

- course_files/Python_Assignments.pdf
- course_files/python.pdf
- course_files/djangobook.pdf

Save Course

Fig 14: Form to update the Course Details

On clicking the open course the instructor is provided with various functionalities as shown below

Add Course Files Take Attendance Show Attendance Input Grades Show Grades

Become Django Master

Python Django Web Framework - Full Course for Beginners

OVER 2 Million VIEWS

django in 4 hours

Watch on YouTube

Course Material

Become Django Master File 1

Fig 15: Shows the Course page

Upon clicking entering grades the instructor can grade the students based on their performance

Grades for IADS Course

Firstname	Lastname	Action
Khondoker	Aminuzzaman	
Shivam	Bhosale	
Alvee	Anwar	

Provide Grades

First Name

Khondoker

Last Name

Aminuzzaman

Email

aminuzz@uwindsor.ca

Grade Item

e.g. Assignment 1 or Test 1

Grades

e.g. 8/10

Feedback

Provide some feedbacks...

Cancel

Update

Fig 16: Updates the Grades for the Student

Upon hitting the view attendance instructors will be able to see the list of enrolled students in that particular course. Then they will be able to take attendance of the students by clicking on that action button.

Attendance for NDS

Student List

Firstname	Lastname	Email	Action
Vishva	Deliwala	vishva@gmail.com	
Khondoker	Aminuzzaman	aminuzz@uwindsor.ca	

Fig 17: Attendance Page

Then they will be able to take attendance of the students by clicking on that action button. Now from the model, the instructor will be able to select whether the student is present or absent and then click the update button to make changes in the database.

Attendance for NDS

Student List

Firstname	Lastname
Vishva	Deliwala
Khondoker	Aminuzzaman

Attendance

First Name

Vishva

Last Name

Deliwala

Email

vishva@gmail.com

Attendance

Present

Cancel

Update

Action
✓
✓

Fig 18: Updates the Attendance for the Student

5. Link of the Platform/ Github Link:

<https://github.com/ShivamBhosale/EdGenius/tree/EdGenius-6-Merged-Code>