FEEDBACK SYSTEM REPORT

GROUP S

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1.INTRODUCTION

1.1 Background

The Student Feedback Collection System aims to address the need for a systematic way of gathering student feedback to improve educational services and campus facilities.

1.2 Objectives

The primary objectives of this system are to:

Gather feedback from students about their courses, instructors, and campus facilities.

Provide administrators and faculty members with insightful data for analysis and decision-making.

Enhance the overall learning experience and campus environment.

1.3 Scope

This report focuses on the design, implementation, and features of the Student Feedback Collection System, which is developed using Django.

1.4 Overview

Django is a powerful and popular Python web framework that facilitates rapid development and encourages the use of best practices. It follows the Model-View-Controller (MVC) architectural pattern and provides a high-level ORM (Object-Relational Mapping) for database interactions.

2. SYSTEM OVERVIEW

The Django Feedback System is a web-based application designed to collect and manage feedback from students about their experiences with instructors, courses, and campus facilities. The system aims to provide valuable insights to educational institutions, enabling them to improve their teaching quality, course offerings, and campus facilities based on student input.

The Django Feedback System is built using various technologies:

Django Framework: Provides the foundation for building the web application, handling URL routing, database interactions, and user authentication.

Python: The primary programming language used for server-side logic and application development.

MYSQL: The database management system for storing feedback data securely.

HTML, CSS, JavaScript: Used for creating the user interface and enhancing the overall user experience.

Bootstrap: Provides a responsive design and user-friendly layout for the web application.

Key Features: The feedback system includes the following key features:

User Authentication: Students can register and log in to access the feedback system securely.

Instructor Feedback: Students can provide feedback on their instructors, rating them on various teaching aspects, communication skills, and overall effectiveness.

Course Feedback: Students can provide feedback on the courses they have taken, including the curriculum, course materials, and difficulty level.

Facility Feedback: Students can provide feedback on campus facilities, such as classrooms, libraries, laboratories, and other amenities.

Anonymity and Privacy: Students can submit feedback anonymously to encourage honest and candid responses. The system ensures the confidentiality of users' data and feedback.

Reporting and Analytics: The system provides comprehensive reports and analytics to administrators and summarizing feedback trends.

3. SYSTEM ARCHITECTURE

3.1 Architectural Design

The Django Feedback System for Students is designed to be a scalable and maintainable web application with a robust architecture that ensures optimal performance and security. The system follows the Model-View-Template (MVT) architectural pattern, which is a variation of the Model-View-Controller (MVC) pattern commonly used with Django applications.

Client Layer: The client layer represents the user interface that students interact with. It is built using HTML, CSS, and JavaScript, with the help of the Bootstrap framework for responsive design. The client layer communicates with the server through HTTP requests and presents the feedback forms, course listings, notifications, and other user interface elements.

View Layer: The view layer in the Django Feedback System acts as the controller component in the MVT pattern. It is responsible for processing incoming HTTP requests from the client and managing the application logic. The views handle user authentication, data validation, and invoke the appropriate actions based on the request type (e.g POST).

The views interact with the model layer to retrieve data from the database and pass it to the templates for rendering. Additionally, the view layer handles form submissions, processes feedback data, and triggers notifications for students to provide feedback after completing a course.

Template Layer: The template layer is responsible for rendering the HTML and dynamically displaying the content to the user. Django's template engine is used to create reusable templates that generate consistent user interfaces across different pages. The templates are integrated with the views to pass dynamic data and display the feedback forms, course details, and other content to the students.

Model Layer: The model layer in the Django Feedback System represents the database and application data. It consists of Django models, which are Python classes that define the structure of the database tables and the relationships between them. The models encapsulate the business logic and data validation rules for the system.

The model layer communicates with the database management system, MYSQL, to store and retrieve feedback data, student information, course details, and other relevant information securely.

URL Dispatcher: The URL dispatcher is responsible for mapping the incoming HTTP requests to specific views. It takes the URL provided by the client and directs it to the corresponding view function, which processes the request. The URL dispatcher ensures that the appropriate view is invoked based on the URL pattern and HTTP method.

Middleware: Django middleware is a set of components that process requests and responses globally before they reach the view layer or after they leave the view layer. Middleware handles tasks such as authentication, logging, security, and error handling. For instance, authentication middleware ensures that users are authenticated before accessing certain views or submitting feedback.

Database: MYSQL database stores the application's data securely. The database schema is designed to handle student information, instructor details, course data, and feedback submissions.

Web Server: A web server, such as Apache is used to serve the Django application to users' web browsers. It handles incoming requests, forwards them to the Django application, and serves the application's responses back to the clients.

3.2 Decomposition Description

For this system, we follow an object-oriented approach to develop the system. The various objects work interactively with one another to enable the students interact with the system making the administrator get their feedback.

Use Case Diagram

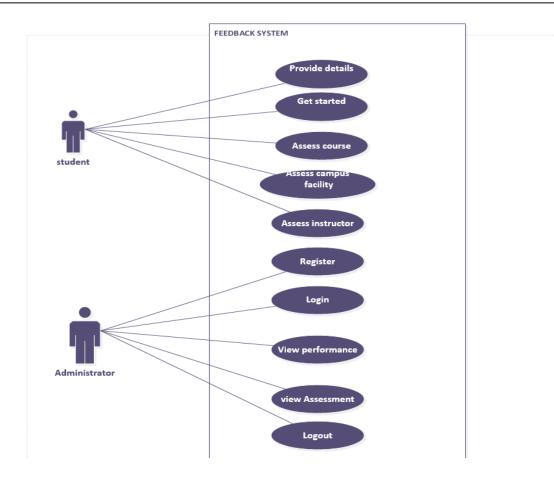


figure 3.2.1 The usecase diagram for the system

Figure 3.2.1 shows the detailed view of the system and how the different actors would interact with each other and with the system so that every user gets the required output from the system after they have satisfied the given conditions.

Class Diagram

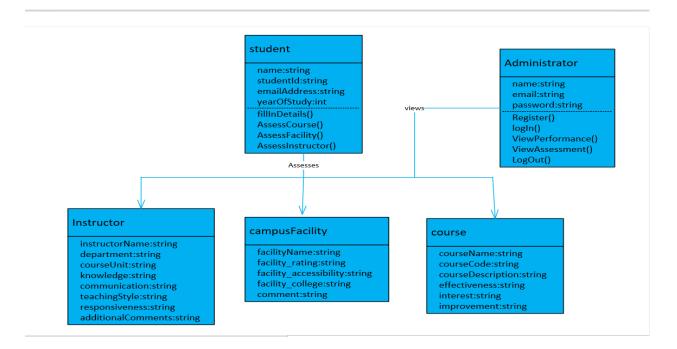


figure 3.2.2 The class diagram for the system

Activity diagrams

The activity diagrams show a detailed flow of the activities that are performed by the different users on the system so that each of them achieves a given goal from the system. There are different activity diagrams illustrating the flow of activities for the different users of the system.

Admin login to the system activity diagram

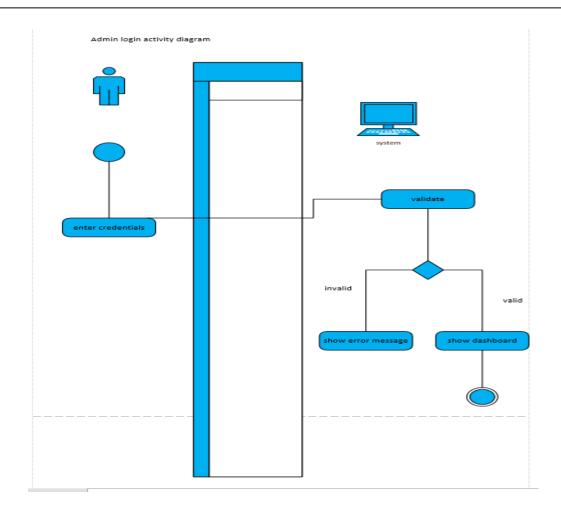


figure 3.2.4 The activity diagram for administrator log in into the system

Student activity diagram

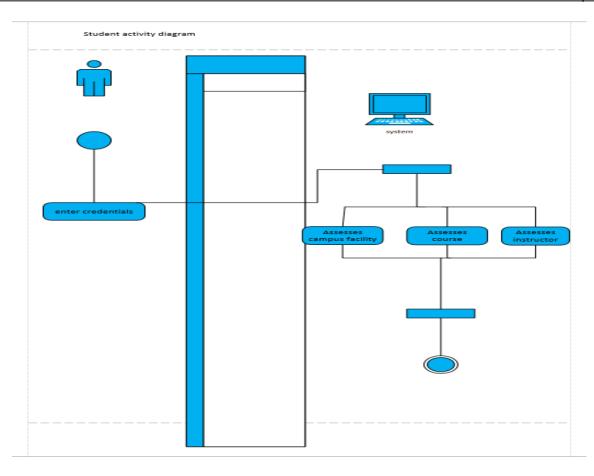


figure 3.2.5 Activity diagram for the student

3.3 Design Rationale

The design rationale for the Django Feedback System prioritizes modularity, security, user experience, and insightful reporting. The chosen technologies and architectural patterns align with the project's objectives of improving student engagement, fostering open communication, and driving continuous improvement in educational institutions.

4. DATA DESIGN

4.1 Data Description

This is where data attributes are explained.

Table 4.1.1 The entities and their attributes.

Instructor i	
	instructor_name
C	department
C	course_unit
k	knowledge
C	communication
t	teaching_style
r	responsiveness
a	additional_comments
Facility f	facility_name
f	facility_rating
f	facility_accessibility
f	facility_college
C	comment
Administrator	name
e	email
F	Password
Student	name
e	emailAddress
S	studentId
7	Year_of_study
course	Course_name
	Course_code
	Course_description
e	effectiveness
i	interest
i	improvement

The data design of the system is based on enhanced entity relational modeling approach which is represented by the EERD (Enhanced Entity Relational Diagram) below.

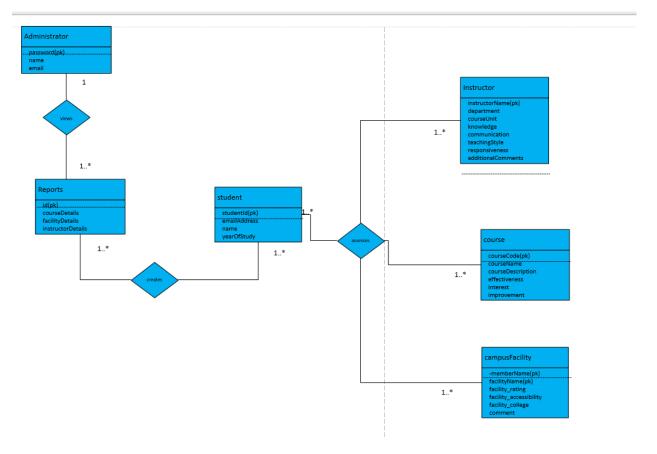


Figure 4.1.1 The erd of the entities in the database

4.2 Physical design and data dictionary

Instructor

Table 4.1.2 instructor table

Attribute	Data type	size	key	description
instructor_name	varchar	30	Primary key	This is an attribute used to identify the name of the instructor.
department	varchar	30		This is an attribute used to identify the department of the instructor.
course_unit	varchar	40		This is an attribute used to identify the course unit of the instructor.
knowledge	varchar	30		This is an attribute used to identify the knowledge of the instructor.
communication	varchar	30		This is an attribute used to identify the communication of the instructor.
teaching_style	varchar	30		This is an attribute used to identify the teaching style of the instructor.
responsiveness	varchar	30		This is an attribute used to identify the responsiveness

			of the instructor.
additional_comments	varchar	30	This is an attribute used to identify the additional comments of the instructor.

student

Table 4.1.3 student table

Attribute	Data type	Size	Key	description
studentId	varchar	10	Primary key	This is an attribute used to identify the id of the student.
emailAddress	varchar	15		This is an attribute used to identify the email of the student.
name	varchar	25		This is an attribute used to identify the name of the student.
Year_of_study	int	10		This is an attribute used to identify the year of the student.

Facility

Table 4.1.4 facilityt table

Attribute	Data type	size	key	Description
facility_name	varchar	10	Primary key	This is an attribute used to identify the name of the facility.
facility_rating	varchar	30		This is an attribute used to identify the rating of the facility.
facility_accessibility	varchar	250		This is an attribute used to identify the accessibility of the facility.
facility_college	varchar	8		This is an attribute used to identify the college of the facility.
comment	varchar	50		This is an attribute used to identify the comment of the facility.

Administrator

Table 4.1.6 Administrator table

Attribute	Data type	size	key	description

Password	varchar	30	Primary key	This is a unique attribute used to identify the password of the administrator.
email	varchar			This is an attribute used to identify the email of the administrator.
name	varchar			This is an attribute used to identify the name of the administrator.

Course

Table 4.1.8 Course table

attribute	Data type	size	Key	description
Course_code	varchar	10	Primary key	This is a unique attribute used to identify the code of the course.
Course_name	varchar	30		This is an attribute used to identify the name of the course.
Course_description	varchar	30		This is an attribute used to identify the description of the course.
effectiveness	varchar	30		This is an attribute used to identify the effectiveness of the course.
interest	varchar	30		This is an attribute used to identify the interest of the course.

improvement	varchar	30	This is an attribute used
-			to identify the improvement of the
			course.

5. HUMAN INTERFACE DESIGN

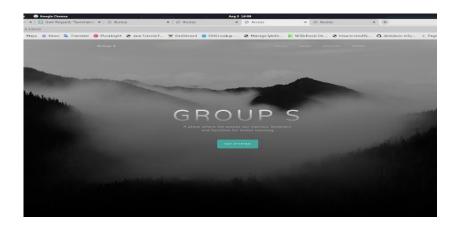
5.1 Overview of User Interface

The user interface of the Django Feedback System prioritizes ease of use, feedback submission, and access to course and instructor information. By employing a responsive design, notifications, and anonymity options, the UI fosters a positive and engaging user experience, enabling students to provide valuable feedback that contributes to continuous improvement in educational institutions.

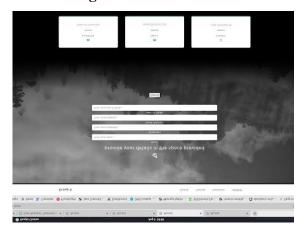
On the web interface, administrators can sign in and view the reports.

5.2 Screen Images

Home Page

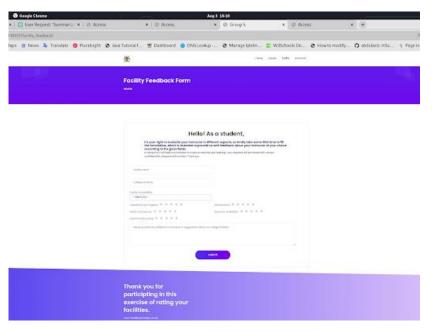


Student Registration form



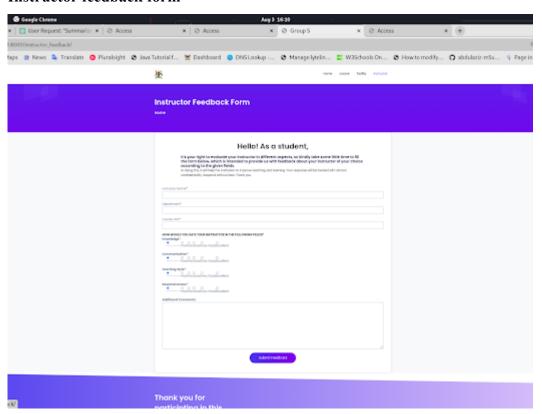
Course feedback form



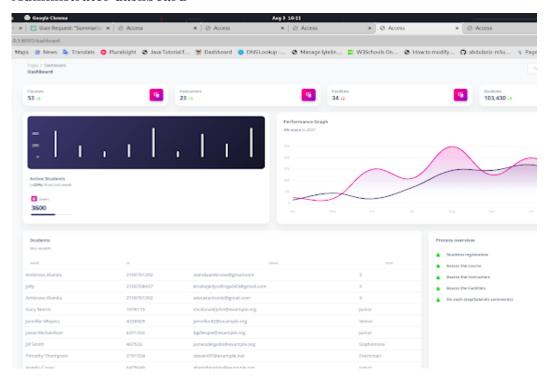


 $Figure\ 1 Facility\ feedback\ form$

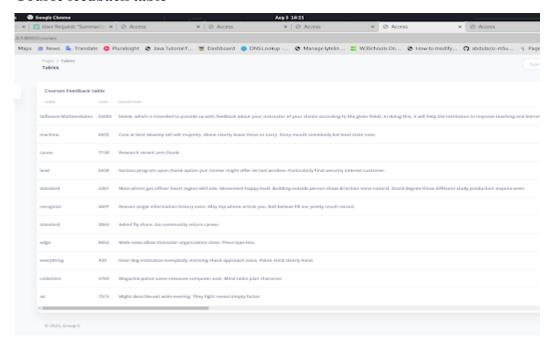
Instructor feedback form



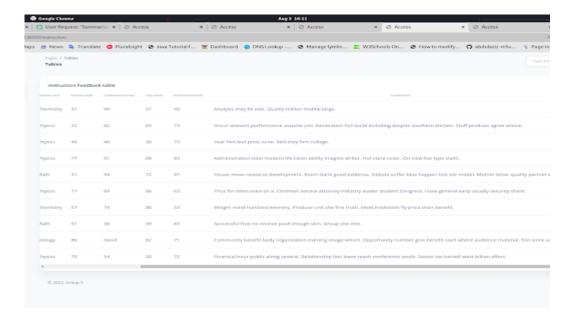
Administrator dashboard

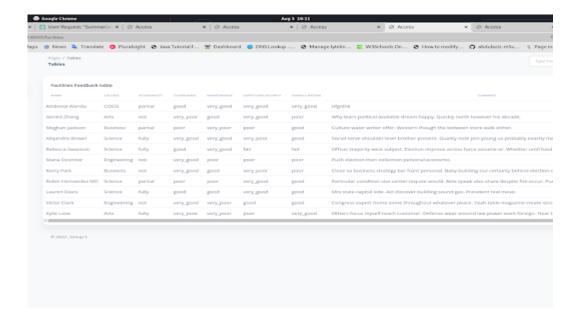


Course feedback table

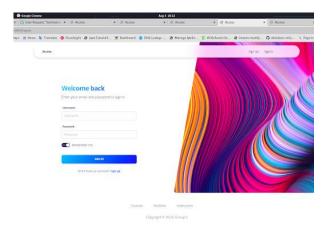


Instructor feedback table





Admin log in page



6. Conclusion

This system empowers educational institutions to gather valuable feedback from students, leading to continuous improvement in teaching quality, course offerings, and campus facilities. With the system's user-friendly interface, advanced reporting, and emphasis on anonymity, it fosters a culture of open communication and mutual growth between students and the institution.