



PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

B. Tech (CSE) – 5th Semester – Aug-Dec 2023

## **UE21CS351A – Database Management Systems**

### **PROJECT REPORT**

### **INTERNSHIP PORTAL**

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## **1. Introduction:**

The Internship Portal is a comprehensive platform designed to facilitate the management of internships for students, managers, and administrators. The system aims to streamline the internship application process, enhance communication between students and managers, and provide administrators with tools to oversee and manage the overall internship program.

### **1.1 Objectives and Goals:**

- Efficient Application Management:
  - Enable students to submit internship applications with essential details.
  - Provide managers with an interface to review and evaluate student applications.
  - Allow administrators to monitor and manage the overall internship application process.
- Enhanced Communication:
  - Facilitate communication between students, managers, and administrators.
  - Automate email notifications to managers upon successful student application submission.
- Comprehensive Database Management:
  - Maintain a robust database schema to store student, manager, internship, and application details.
  - Implement triggers and functions to automate updates and calculations within the database.

## 2. Project Scope:

### 2.1 Modules:

- Home Module (home.py):
  - Responsible for handling the initial interactions with the Internship Portal.
  - Allows users to select their role (Admin, Manager, Student) and navigate to specific modules.
- Admin Module (admin.py):
  - Provides administrators with a dashboard to view and manage internship applications.
  - Allows administrators to approve or disapprove applications and view detailed information about students and internships.
- Manager Module (manager.py):
  - Enables managers to submit reviews for students based on predefined criteria.
  - Implements functionalities for managers to assess students' performance during internships.
- Main Module (main.py):
  - Serves as the main control module, facilitating user role selection and navigation to specific modules.

### 2.2 Database Module:

#### Database Schema:

- Defines tables such as Student, Admin, Company, Manager, Internship, Manager\_Review, Application and more.
- Utilizes foreign key relationships for data integrity.
- Implements triggers and functions to automate updates and calculations.

### **3. Technologies Used:**

#### **3.1 Programming Languages:**

- Python
- SQL

#### **3.2 Libraries and frameworks:**

- Streamlit
- MySQL Connector
- Pandas
- SMTP Lib (for email functionality)

#### **3.3 Database System:**

- MySQL

### **4. Code Overview:**

#### **4.1 Home Module (home.py):**

- Handles the initial user interaction and role selection.
- Establishes a connection to the MySQL database.
- Navigates to specific modules based on user roles.

#### **4.2 Admin Module(admin.py):**

- Displays confirmed internship applications.
- Sends manager login information via email.
- Allows administrators to approve or disapprove applications.

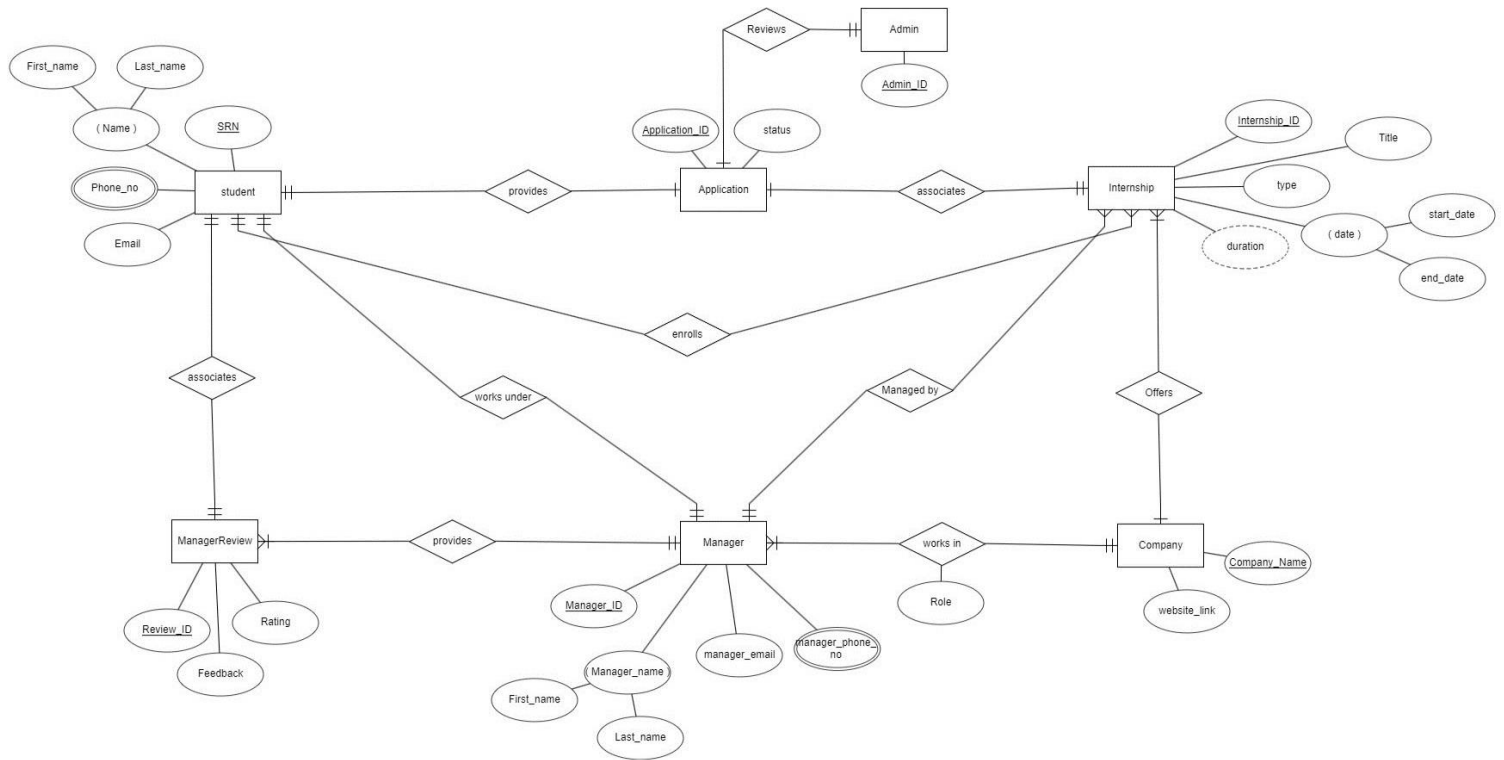
#### **4.3 Manager Module(manager.py):**

- Collects manager reviews for students.
- Implements a function to check manager credentials.

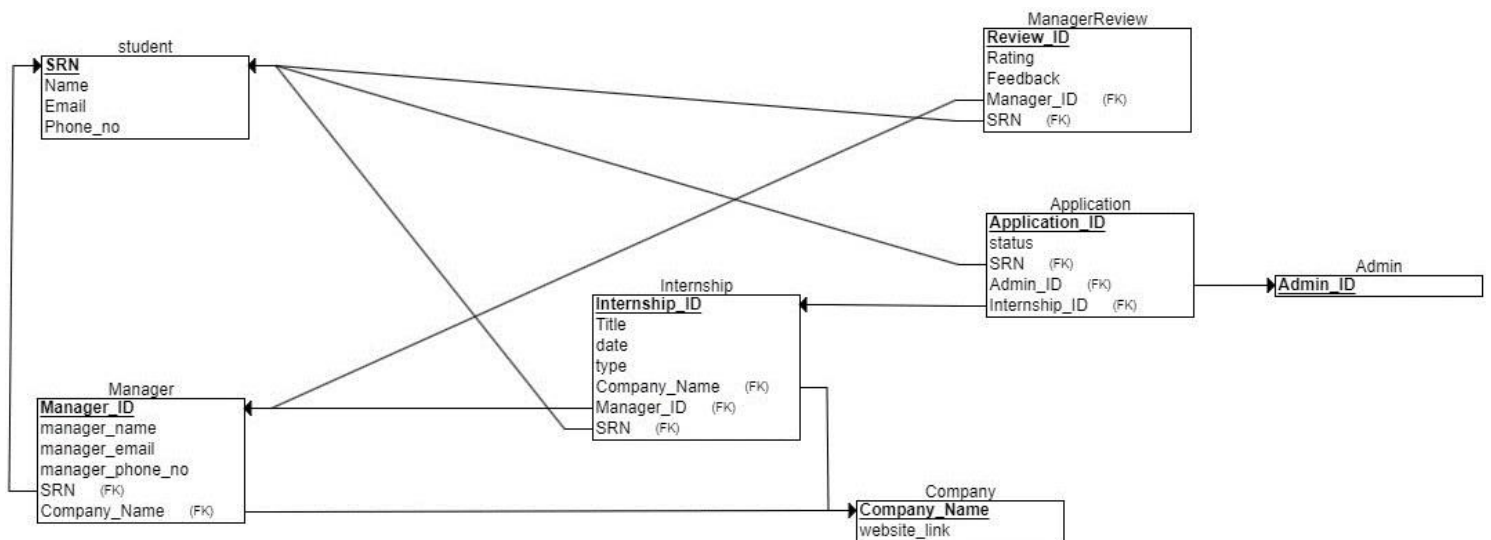
#### **4.4 Main Module(main.py):**

- Controls the main flow of the application.
- Allows users to select their role and navigate to specific modules.
- Implements functions to check admin and manager credentials.

## 5. ER Diagram:



## 6. Relation schema:



## 7.Queries

```
CREATE TABLE Student(  
SRN varchar(12) primary key,  
Name varchar(255),  
Phone_no varchar(10),  
Email varchar(255)  
);  
  
CREATE TABLE Admin (  
    Admin_ID INT PRIMARY KEY  
);  
  
DELIMITER //  
  
CREATE FUNCTION GetTotalDurationForStudent(student_srn VARCHAR(12))  
RETURNS INT  
DETERMINISTIC  
BEGIN  
    DECLARE total_duration INT;  
  
    SELECT SUM(Duration) INTO total_duration  
    FROM Internship  
    WHERE SRN = student_srn;  
  
    RETURN total_duration;  
END;  
  
//  
  
DELIMITER ;  
  
CREATE TABLE Company (  
    company_name VARCHAR(255) PRIMARY KEY,  
    website_link VARCHAR(255)  
);  
  
CREATE TABLE Manager (  
    manager_ID INT PRIMARY KEY,  
    manager_phone_no VARCHAR(10),  
    manager_name VARCHAR(255),  
    manager_email VARCHAR(255),  
    company_name VARCHAR(255),  
    FOREIGN KEY (company_name) REFERENCES Company(company_name)  
);
```

```

CREATE TABLE Internship (
    Internship_ID INT PRIMARY KEY AUTO_INCREMENT,
    Title VARCHAR(255),
    start_date DATE,
    end_date DATE,
    Duration INT,
    Type VARCHAR(255),
    company_name VARCHAR(255), -- Foreign Key reference to Company
    manager_ID INT, -- Foreign Key reference to Manager
    SRN VARCHAR(12),
    FOREIGN KEY (company_name) REFERENCES Company(company_name),
    FOREIGN KEY (manager_ID) REFERENCES Manager(manager_ID),
    FOREIGN KEY (SRN) REFERENCES Student(SRN)
);

```

```

create table manager_srn_map
(
    manager_id INT,
    SRN varchar(12),
    FOREIGN KEY (manager_ID) REFERENCES Manager(manager_ID),
    FOREIGN KEY (SRN) REFERENCES Student(SRN)
);

```

```

CREATE TABLE Manager_Review (
    Review_ID INT PRIMARY KEY auto_increment,
    Rating INT,
    Feedback VARCHAR(255),
    manager_ID INT,
    SRN VARCHAR(12),
    FOREIGN KEY (manager_ID) REFERENCES Manager(manager_ID),
    FOREIGN KEY (SRN) REFERENCES Student(SRN)
);

```

```

CREATE TABLE Application (
    Application_ID INT PRIMARY KEY auto_increment,
    application_status VARCHAR(255) DEFAULT 'pending',
    SRN VARCHAR(255),
    Admin_ID INT,
    manager_review_status VARCHAR(255) DEFAULT 'pending',
    FOREIGN KEY (SRN) REFERENCES Student(SRN),
    FOREIGN KEY (Admin_ID) REFERENCES Admin(Admin_ID)
);
use mini_project;

```

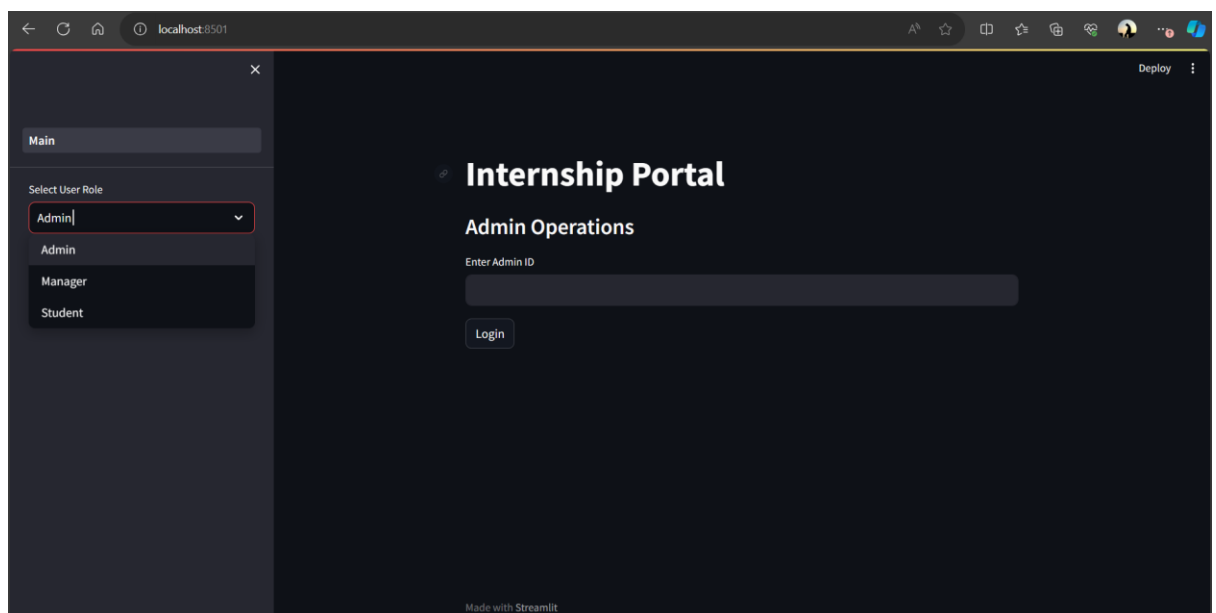


```
-- Delete all entries from child tables first

DELIMITER //
CREATE TRIGGER after_manager_review_insert
AFTER INSERT ON Manager_Review
FOR EACH ROW
BEGIN
    -- Update manager_review_status to 'completed' in Application table
    UPDATE Application
    SET manager_review_status = 'completed'
    WHERE SRN = NEW.SRN;
END;
//
DELIMITER ;
```

## 8.Output

Upon launching the Streamlit application, users are directed to the start page where they are presented with the option to choose their roles, including Admin, Manager, or Student.



Student:

localhost:8501

Deploy

Main

Select User Role

Student

Internship Portal

Student Operations

Enter your Name

Ritunjay Rao

Enter your SRN

PES1ug490

Enter your Phone Number

6360873076

Enter your Email Address

ritunjay.rao12@gmail.com

Submit

localhost:8501/?page=application

Deploy

Main

Select User Role

Student

Internship Portal

Student Application

Upload PDF Form of the Application

Drag and drop file here

Limit 200MB per file

Browse files

Internship.pdf

0.7MB

Enter your internship title

DBMS MINI PROJECT - INTERNSHIP PORTAL

Choose your internship type

☒ On Campus Paid

☐ On Campus Unpaid

☐ Off Campus Paid

☐ Off Campus Unpaid

Enter Company Name (if On Campus internship, enter the college name)

PES

localhost:8501/?page=application

Deploy

Main

Select User Role

Student

☐ Off Campus Paid  
☐ Off Campus Unpaid

Enter Company Name (if On Campus internship, enter the college name)

PES

Enter the company website link

https://pes.edu/

Enter Start Date

2023/09/07

Enter End Date

2023/11/23

Submit

Submitted successfully. Duration: 77 days

Next

Back

localhost:8501/?page=manager\_info

Deploy

Main

Select User Role

Student

# Internship Portal

## Manager Information

Enter your Manager Name

Rishabh TA

Enter your Manager Phone Number

9894949841

Enter your Manager Email Address

rishabh2812@gmail.com

Submit

Submitted successfully! Thank you for filling out for application

Back

Manager :

localhost:8501/Manager

Deploy

Main  
Manager  
Admin

Manager Operations

Enter Student SRN

pes1ug490

Confidence (1-5)

145

Proactive approach for Continuous improvement (1-5)

155

Ability to learn fast (1-5)

145

Skill set maturity (1-5)

155

Delivery of work as per commitment (1-5)

155

localhost:8501/Manager

Deploy

Main  
Manager  
Admin

Quality of documentation (1-5)

145

Oral and Written Communication (1-5)

155

Coordination with your team (1-5)

145

Initiative to support and build rapport (1-5)

155

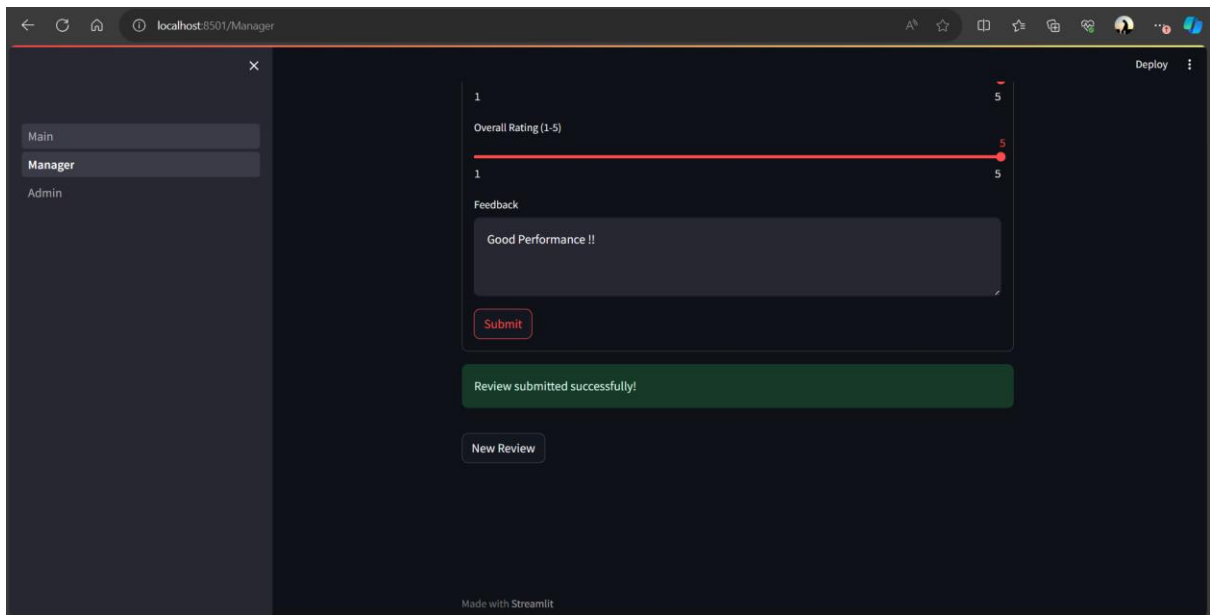
Overall Rating (1-5)

155

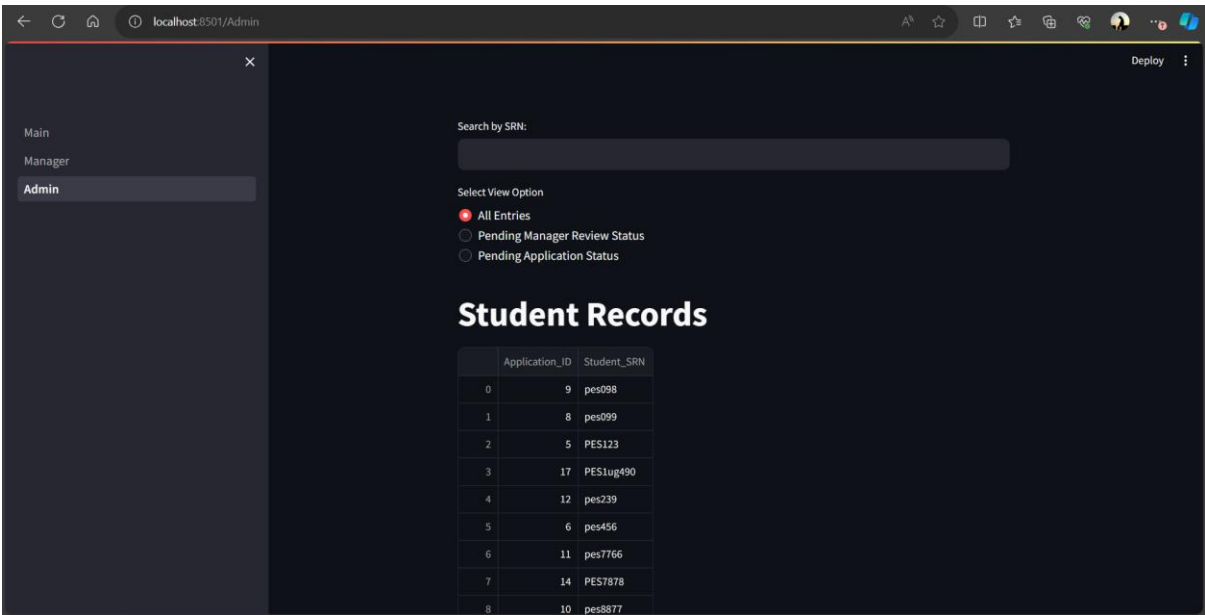
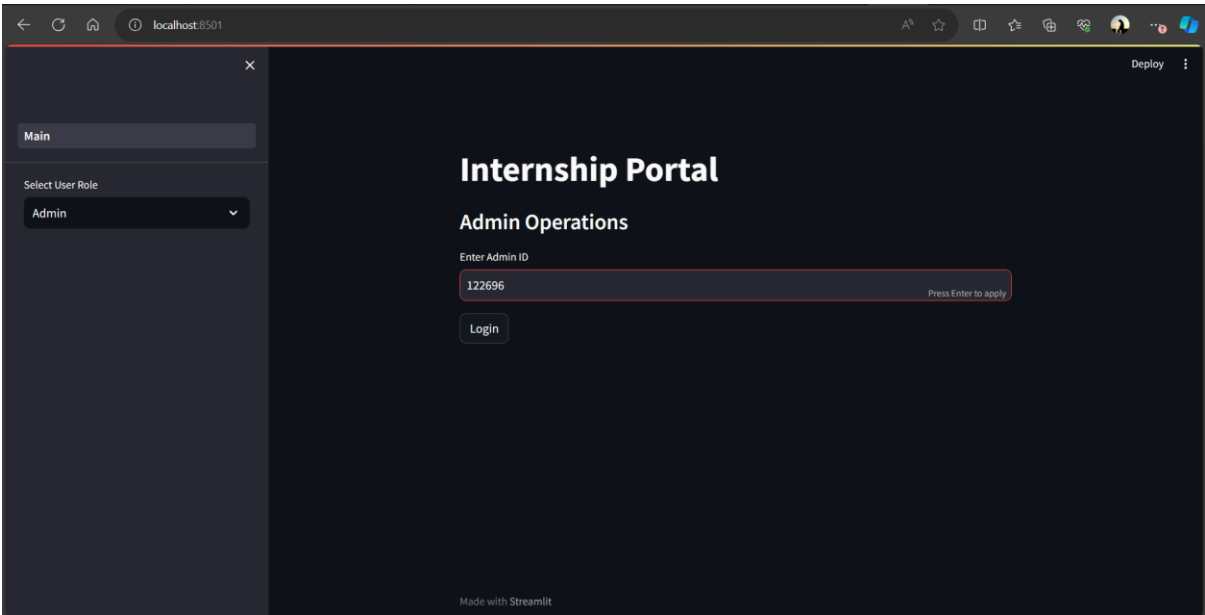
Feedback

Good Performance !!

Submit



Admin:



localhost:8501/Admin

Deploy

Main

Manager

Admin

Search by SRN:

Select View Option

All Entries

Pending Manager Review Status

Pending Application Status

Pending Manager Review Status:

	Application_ID	Student_SRN
0	6	pes456
1	7	pes996
2	8	pes099
3	9	pes098
4	10	pes8877
5	11	pes7766
6	12	pes239
7	14	PEST878

localhost:8501/Admin

Deploy

Main

Manager

Admin

Search by SRN:

Select View Option

All Entries

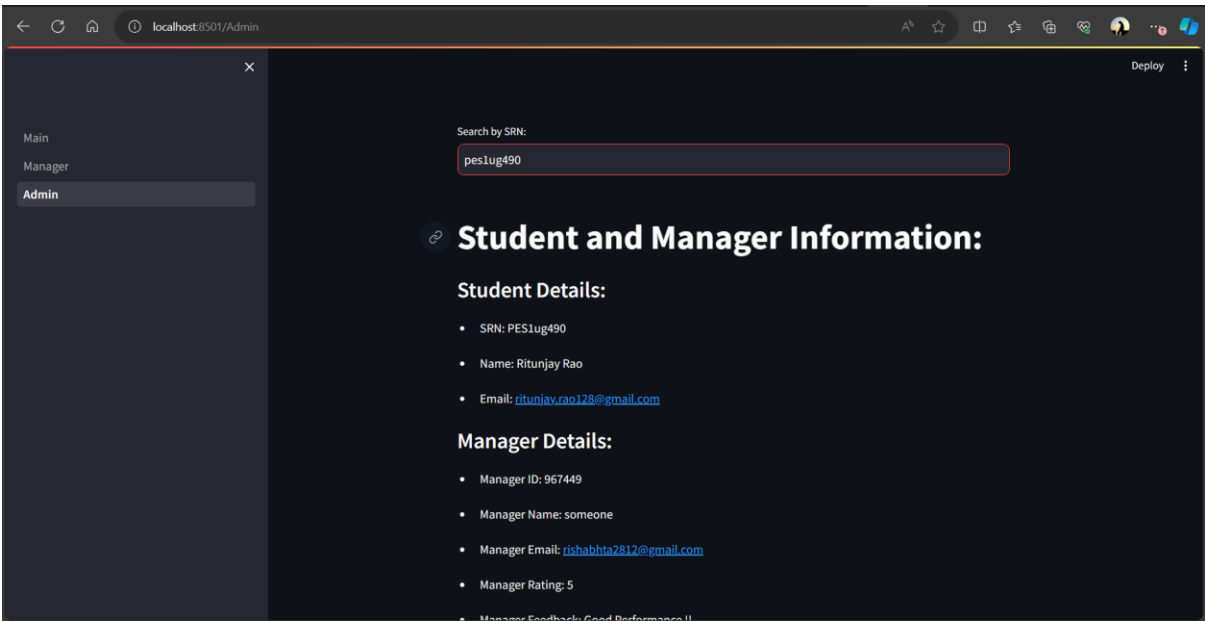
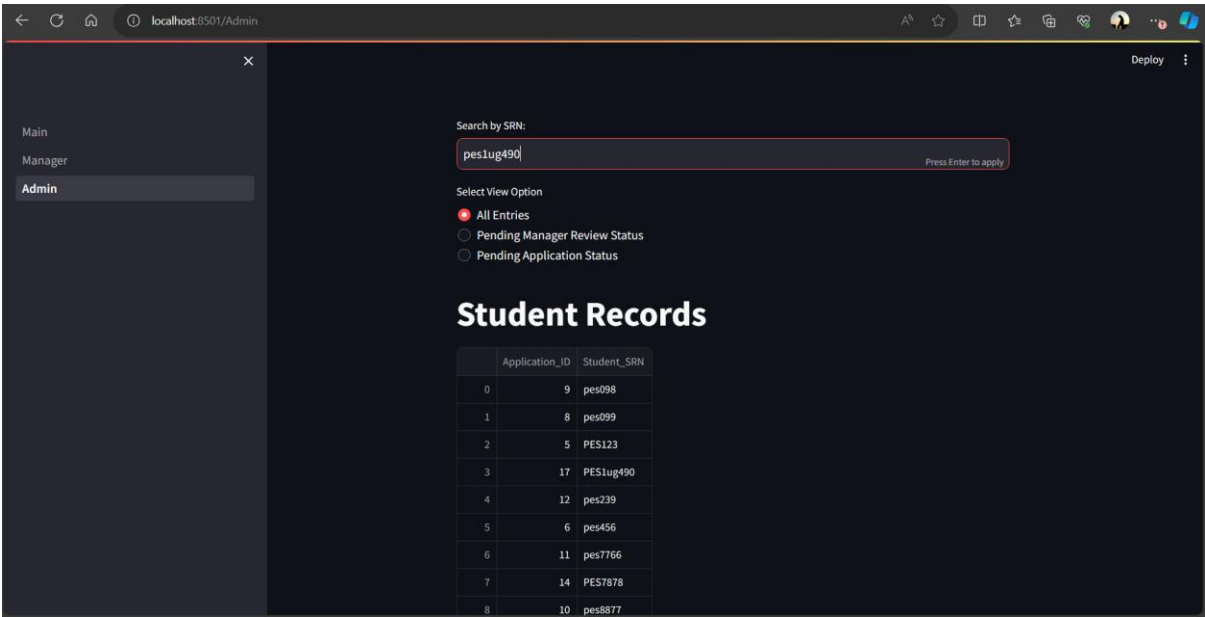
Pending Manager Review Status

Pending Application Status

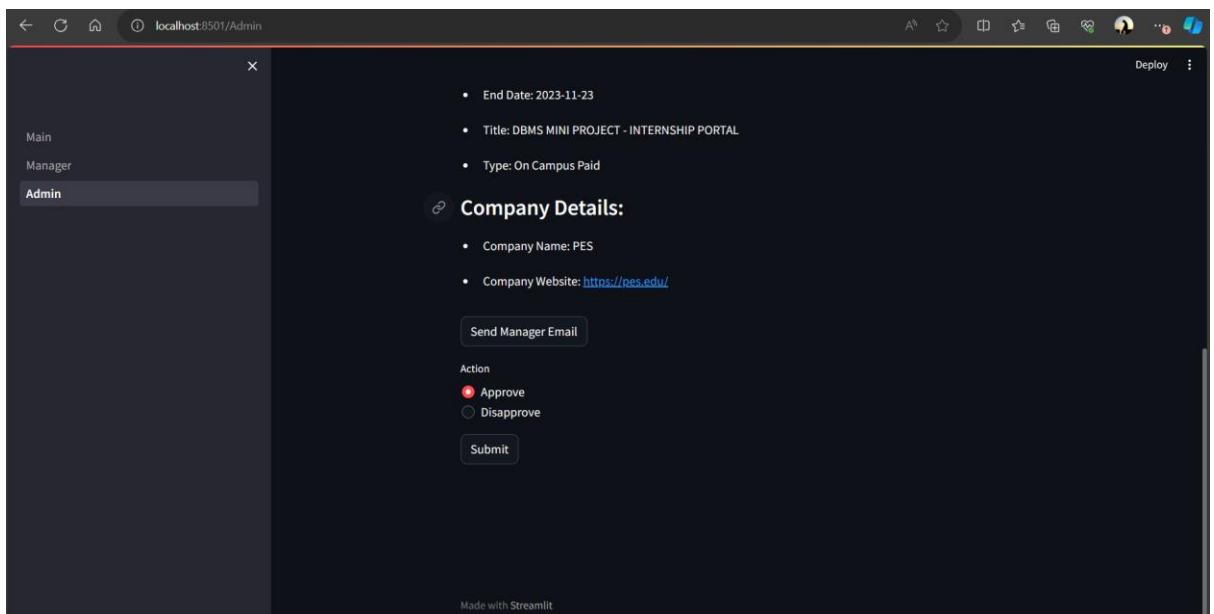
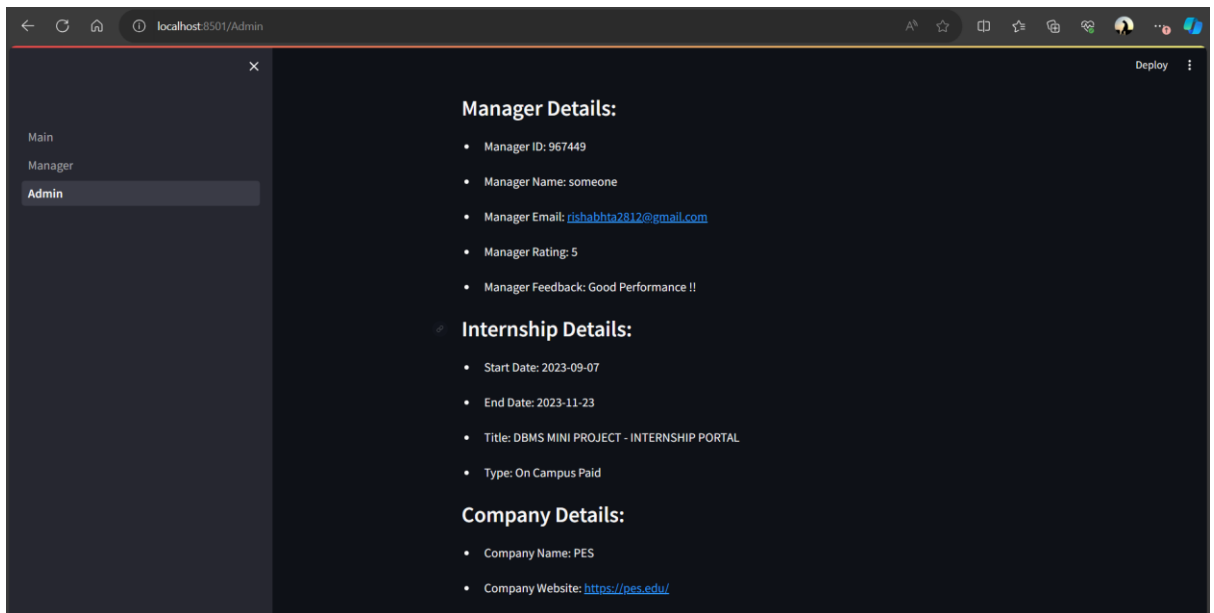
Pending Application Status:

	Application_ID	Student_SRN
0	6	pes456
1	7	pes996
2	8	pes099
3	9	pes098
4	10	pes8877
5	11	pes7766
6	12	pes239
7	14	PEST878
8	17	PESTug490

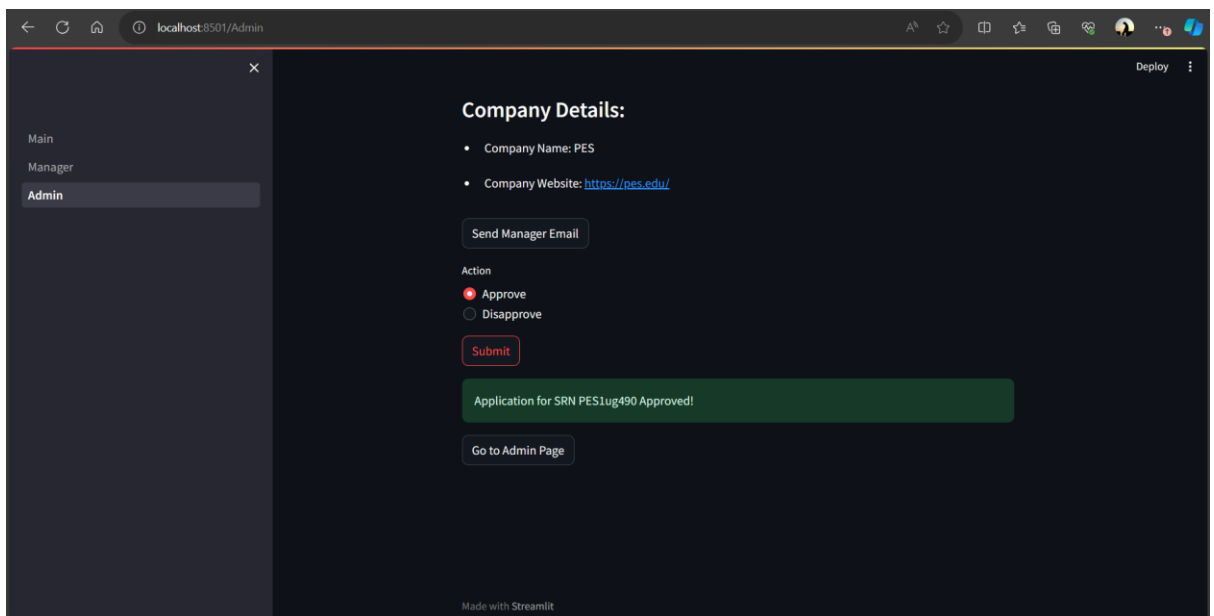
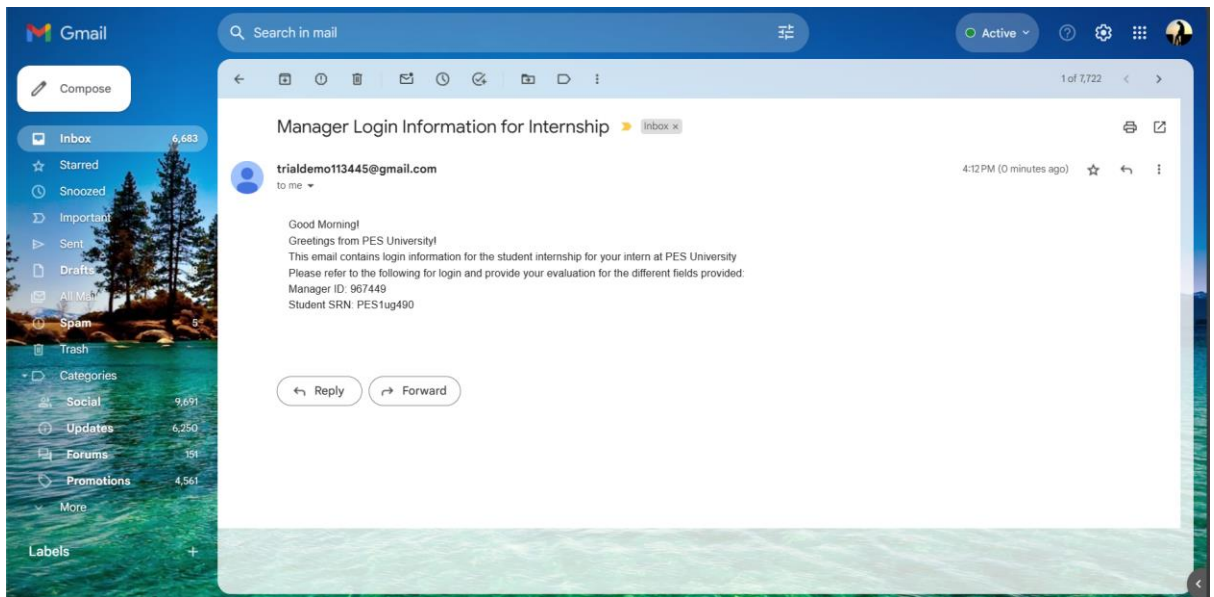
The admin can input the Student Registration Number (SRN) to access and view information about both the student and manager associated with the provided SRN.



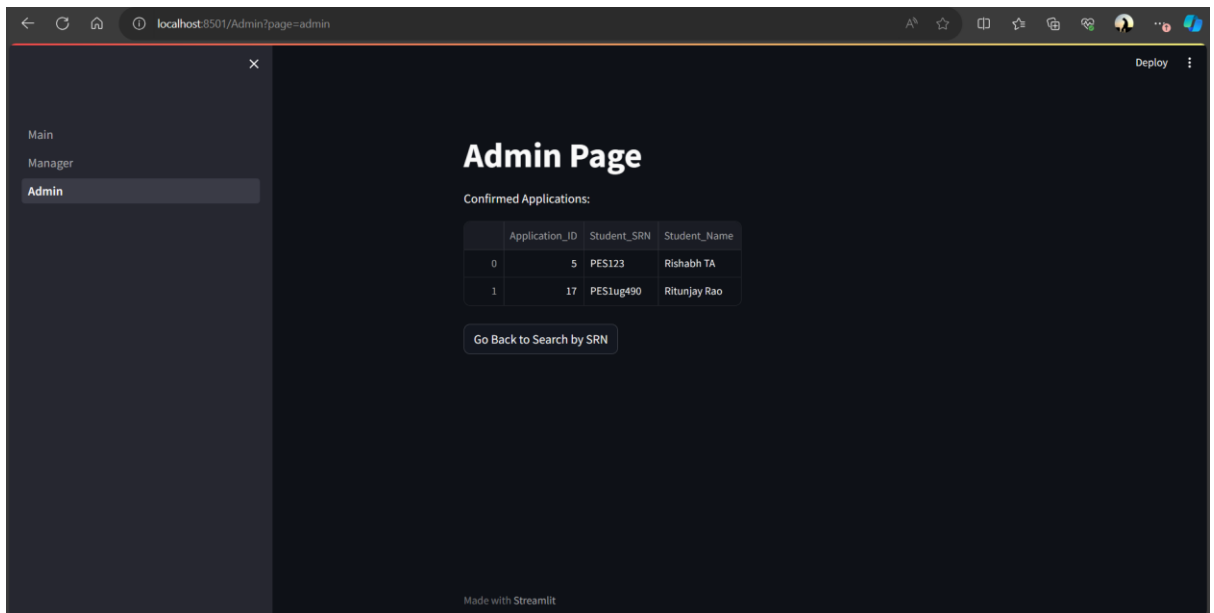




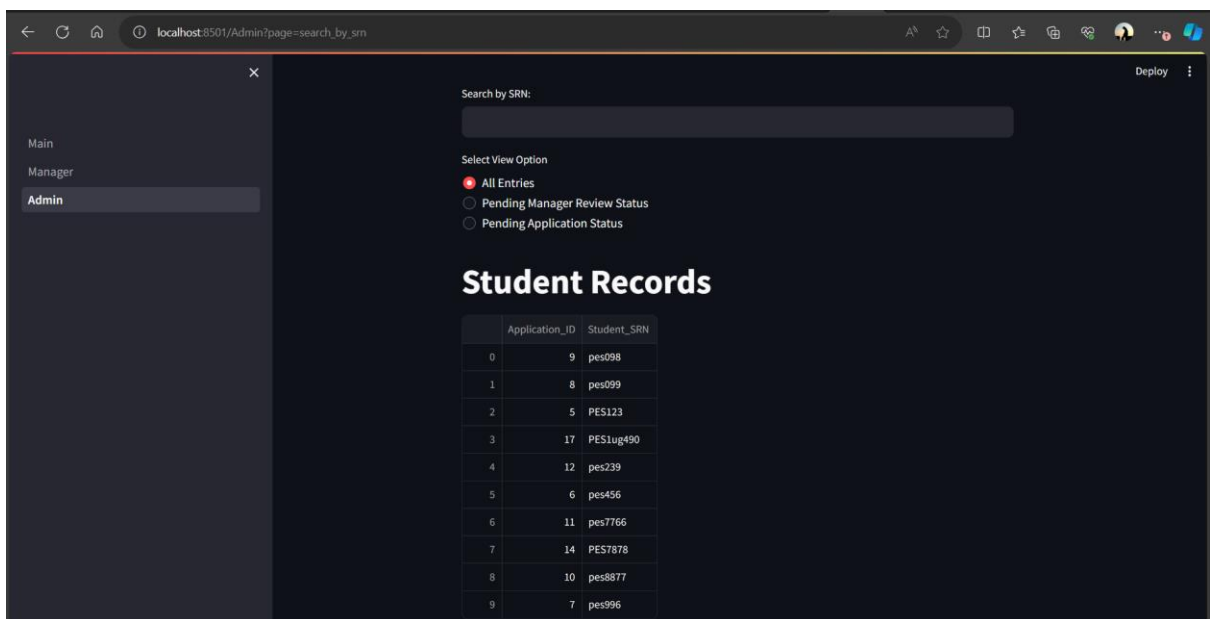
Upon clicking the "Send Manager Email" button, an email containing the manager's ID and the Student Registration Number (SRN) is dispatched to the respective manager.

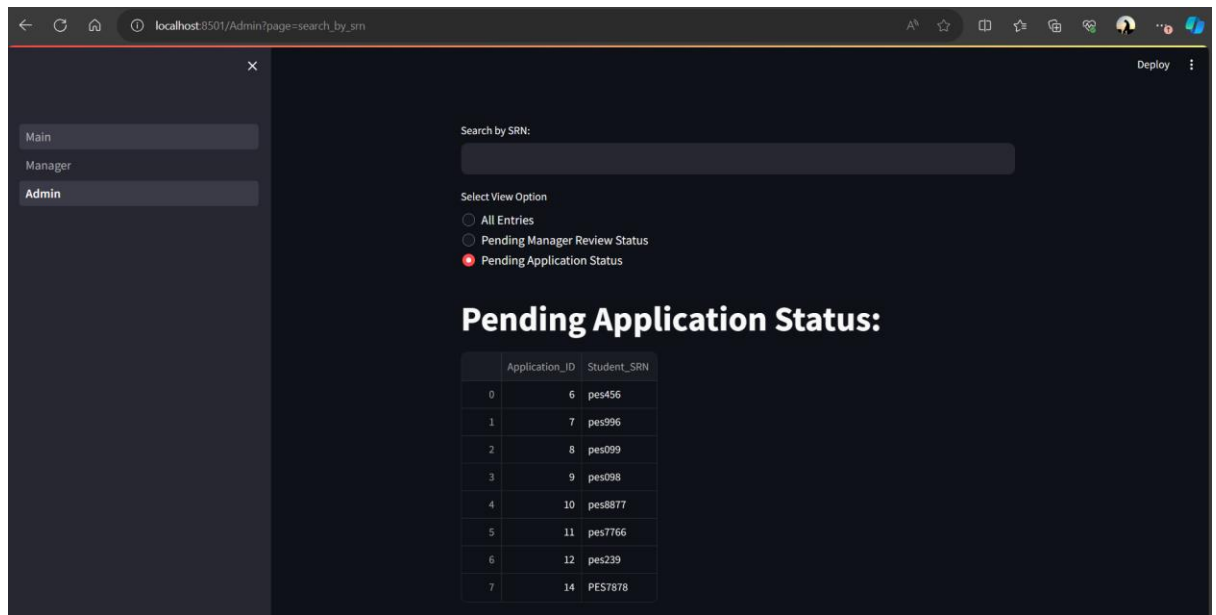


After clicking "Go to admin page," it navigates to the confirmed application page.



After clicking "Go back to search by SRN," the system returns to the admin page, allowing for the approval of other students' applications.





Previously, the SRN "pes1ug490" was visible in the "Pending Application Status." However, after the admin approval, it is no longer displayed in this section.