Student Database Management System with OracleDB

This Student Database Management System is designed for administrators to manage student details, courses, and departments effectively. The software is built with Python, utilizing Tkinter for the user interface and OracleDB for backend database management.

Key Features

Admin Login

- A login screen prompts for username and password.
- Authentication is performed by querying the OracleDB database.
- On successful login, the admin is redirected to the Admin Dashboard.

Admin Dashboard

The dashboard includes the following functionalities:

1. View Students
    - Displays a list of all students with details:
        - Student ID
        - Name
        - Assigned Course
        - Department
        - Contact Info
    - Data is fetched dynamically from the OracleDB database.

2. Add Student
    - A form allows the admin to input:
        - Name
        - Student ID
        - Assigned Course ID
        - Department ID
        - Contact Info
    - Inserts the data into the OracleDB database.
3. Remove Student
    - Deletes a student's record using their Student ID.
4. View Courses
    - Lists all courses with details like:

        - Course ID
        - Course Name
    - Retrieves data from the Courses table in OracleDB.
5. View Departments
    - Displays all departments with:
        - Department ID
        - Department Na.
6. Edit Records
    - Updates existing student, course, or department details in the OracleDB database.

How to Access This Software?

1. Install Python: Download and install Python from Python Downloads.
2. Clone the Repository: Clone this repository or download the ZIP file provided.
3. Install Tkinter:
    - If using an IDE like Visual Studio Code, ensure Tkinter is installed.
    - If using IDLE, Tkinter comes pre-installed with Python.
4. Run the Application: Open the Python script and run it to start the Student Database Management System. Follow the steps provided in the GUI for navigation and functionality.

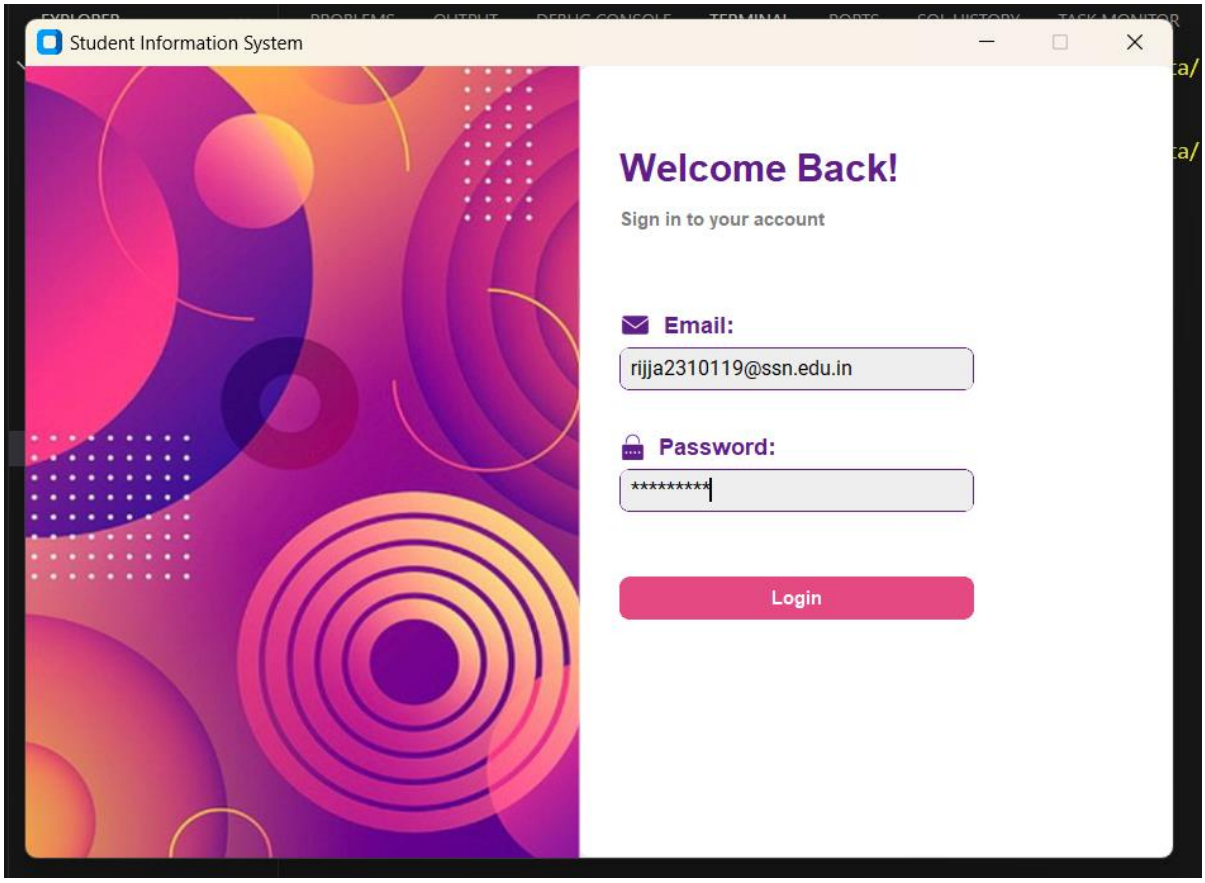
Feel free to explore the screenshots and accompanying documentation in the repository for more detailed instructions and an overview of the application's layout.

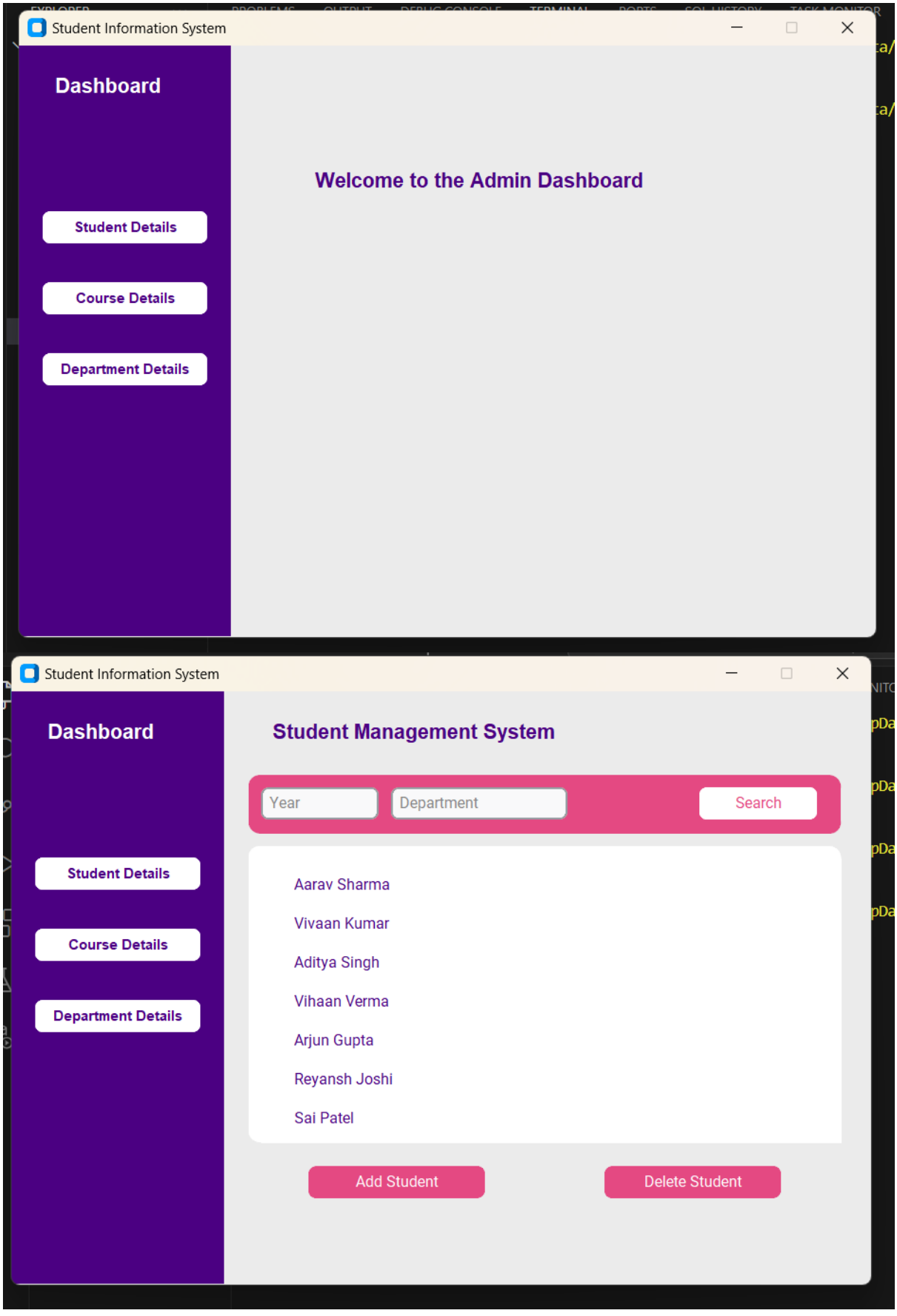
Setup Instructions - Install OracleDB

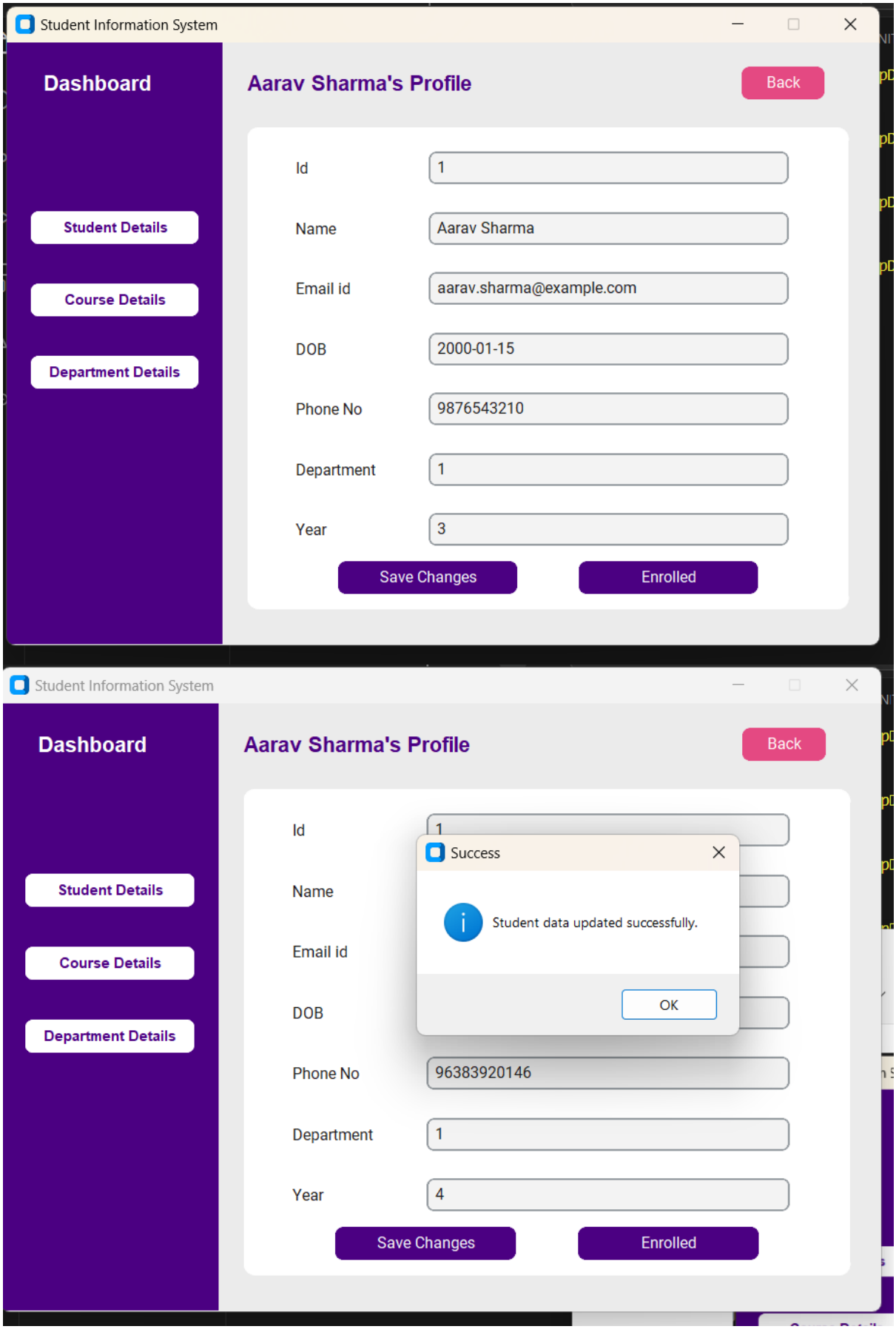
    - Install Oracle Database and set up a schema for the application.
2. Install Python and Required Libraries
    - Install Python from Python Downloads.
    - Install the required library for OracleDB:

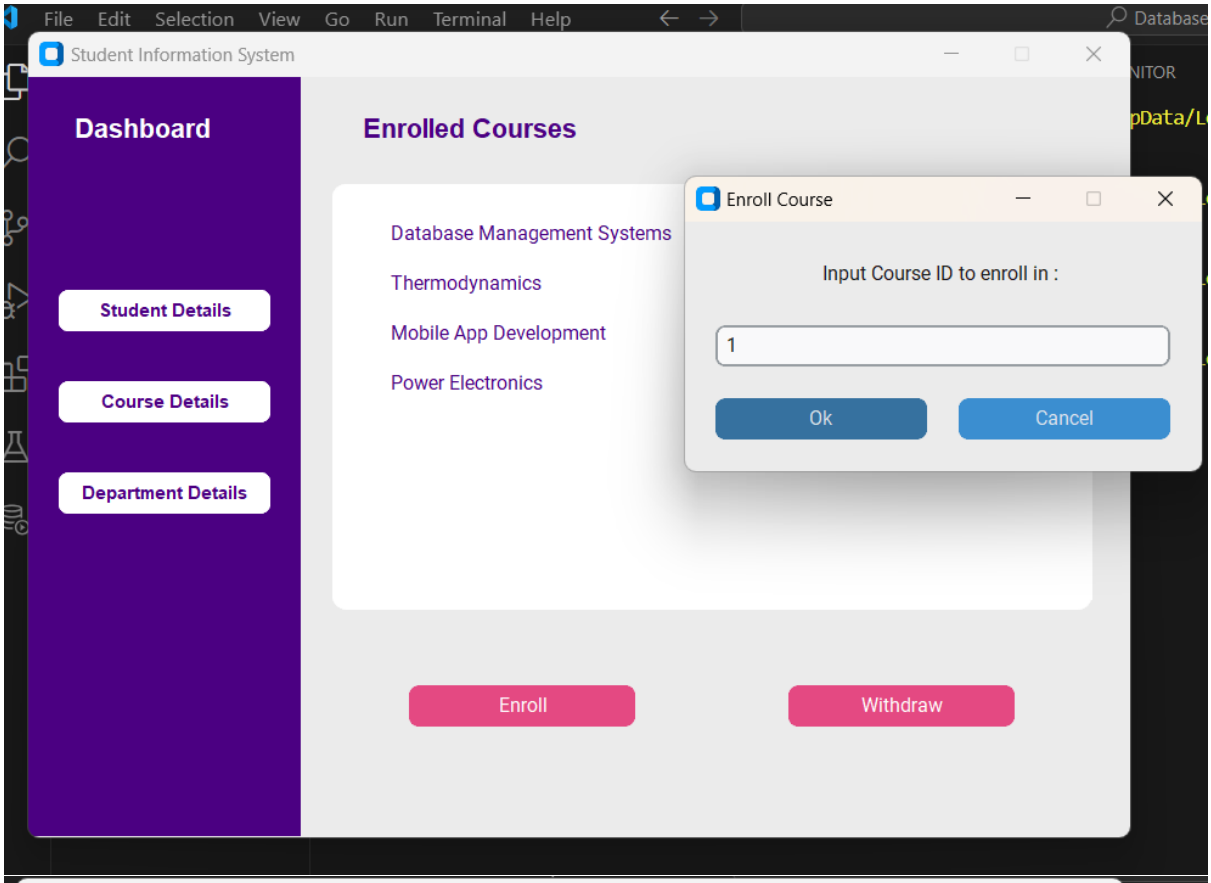
      bash
      Copy code
      pip install oracledb

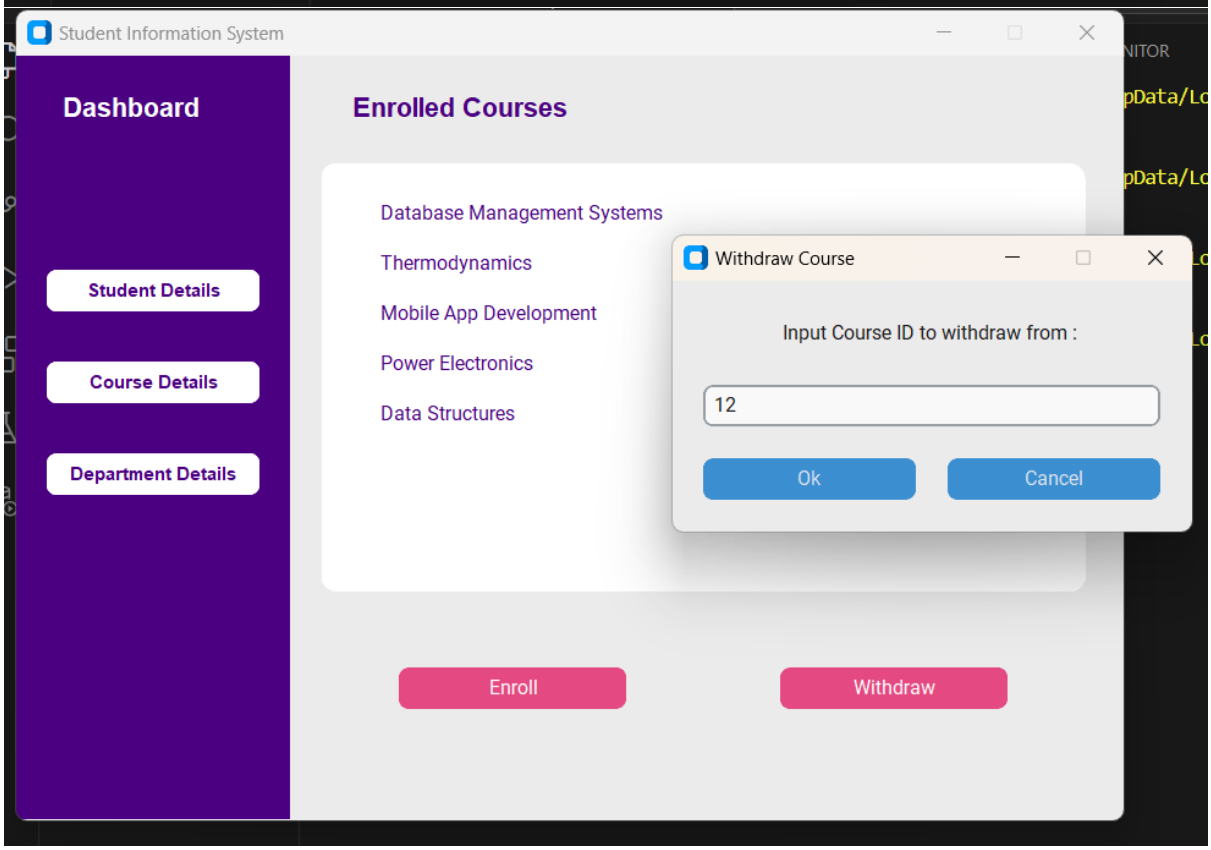
3. Configure Database Connection Update the database connection string in the Python code.
4. Run the Application Launch the Python script and use the admin credentials to access the dashboard.

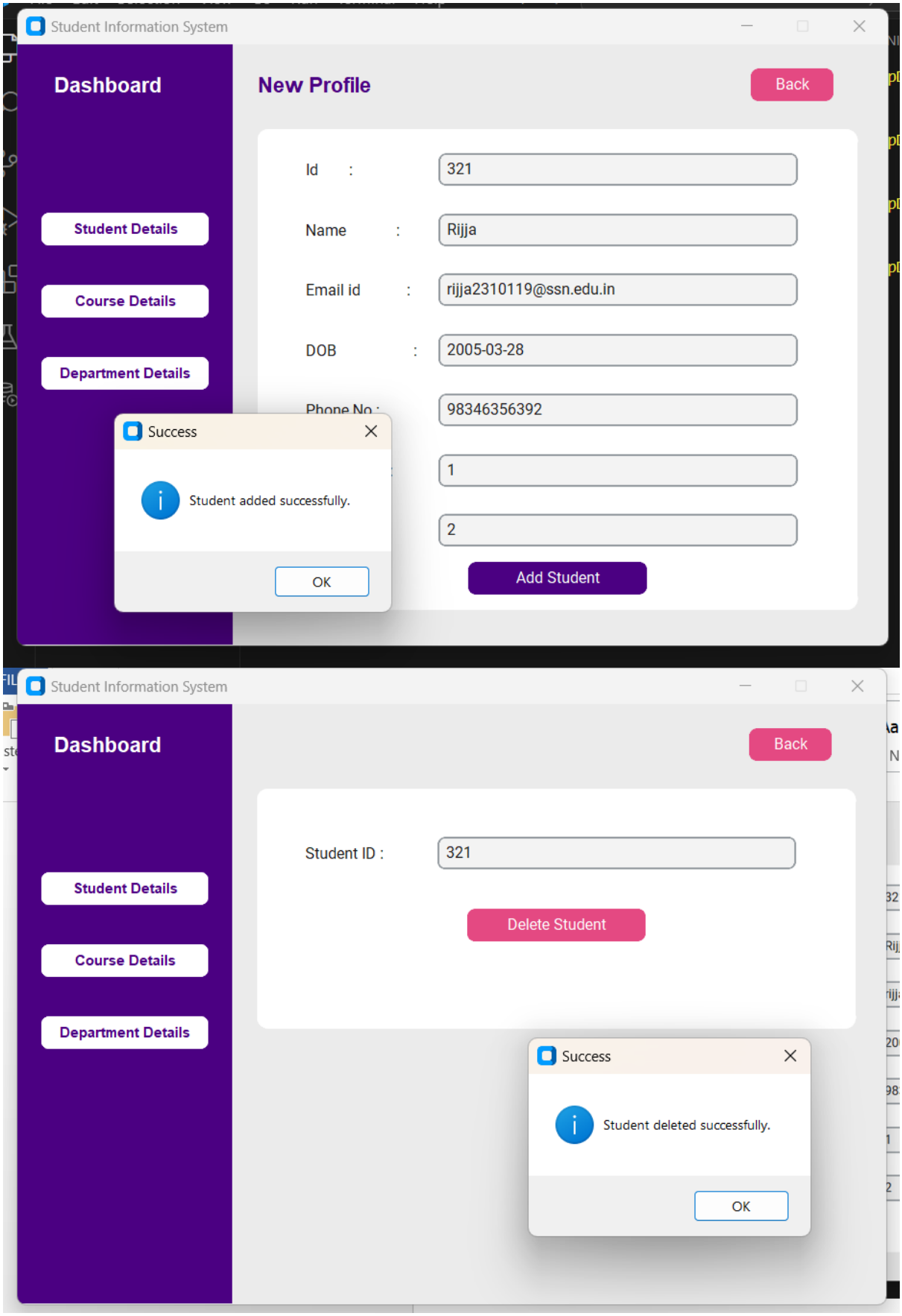


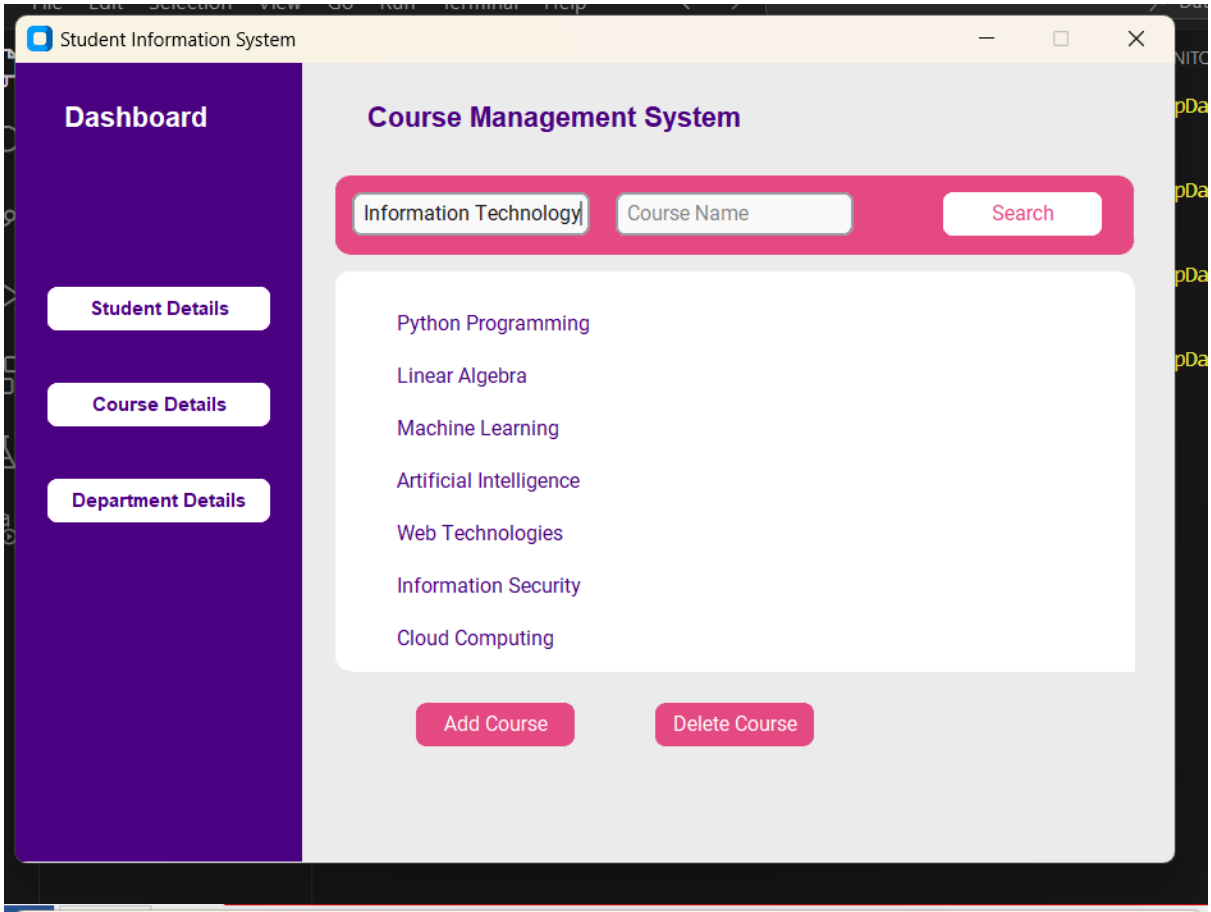

Student Information System
Dashboard
Student Details
Course Details
Department Details
Welcome to the Admin Dashboard
Student Information System
Dashboard
Student Details
Course Details
Department Details
Student Management System
Year
Department
Search
Aarav Sharma
Vivaan Kumar
Aditya Singh
Vihaan Verma
Arjun Gupta
Reyansh Joshi
Sai Patel
Add Student
Delete Student

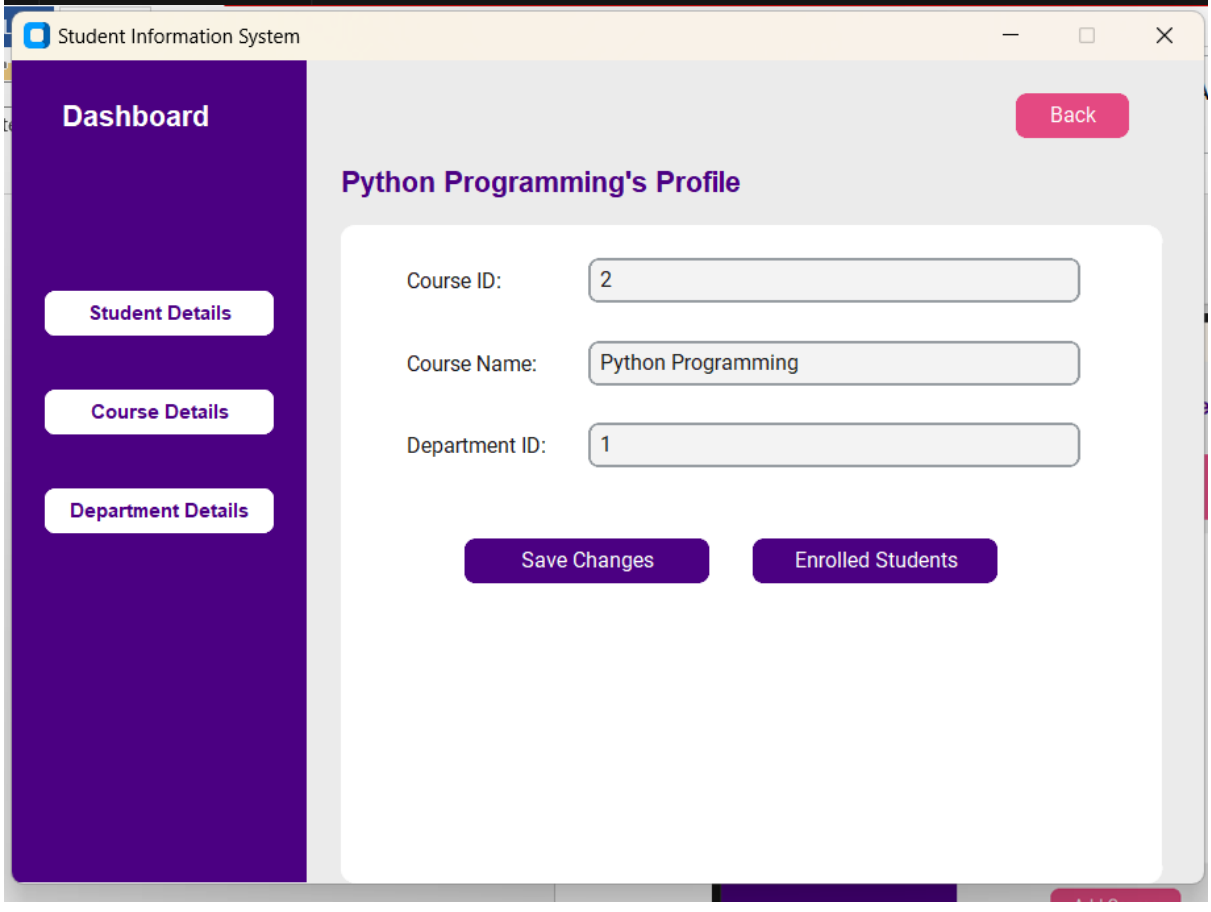

Student Information System
Dashboard
Aarav Sharma's Profile
Back
Student Details
Course Details
Department Details
Id
1
Name
Aarav Sharma
Email id
aarav.sharma@example.com
DOB
2000-01-15
Phone No
9876543210
Department
1
Year
3
Save Changes
Enrolled
Student Information System
Dashboard
Aarav Sharma's Profile
Back
Student Details
Course Details
Department Details
Id
Name
Email id
DOB
Success
Student data updated successfully.
OK
Phone No
96383920146
Department
1
Year
4
Save Changes
Enrolled

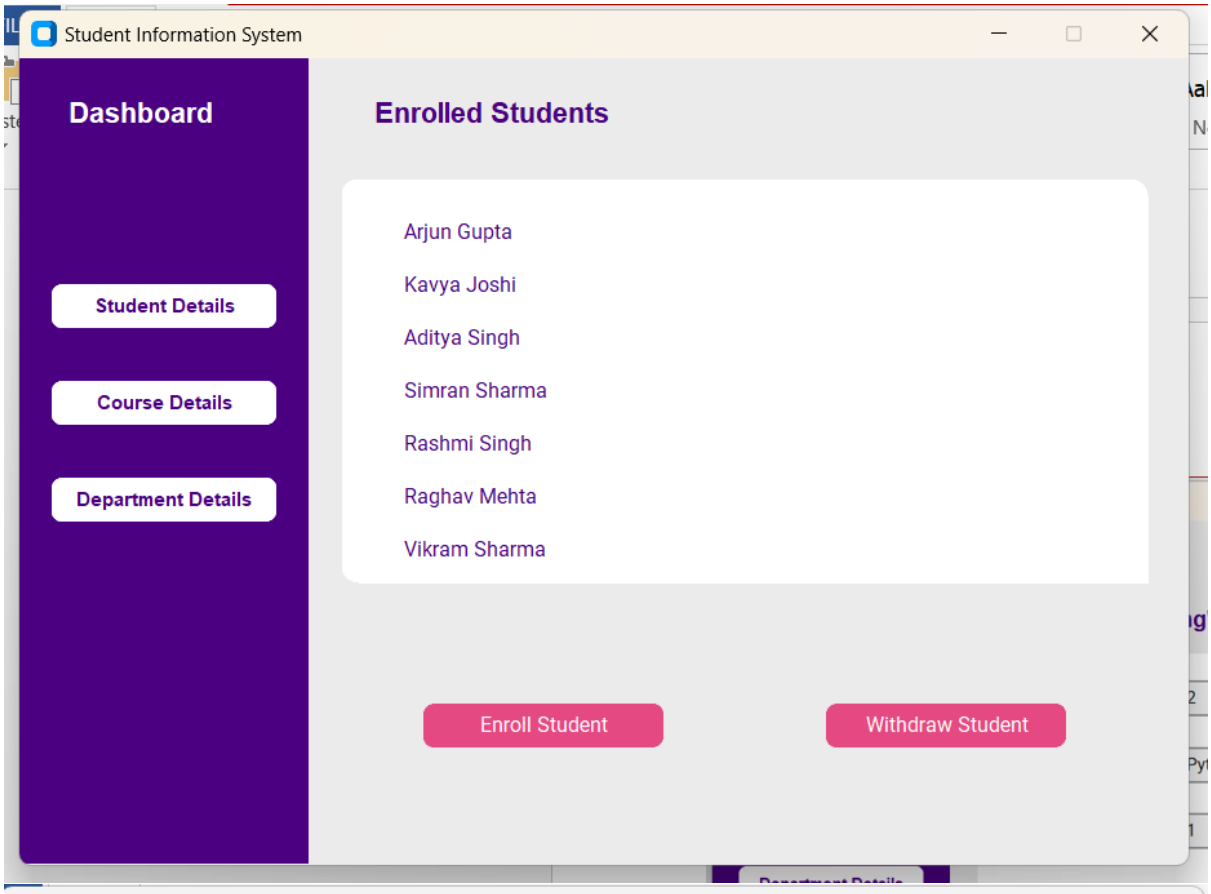

File Edit Selection View Go Run Terminal Help
Database
Student Information System
Dashboard
Student Details
Course Details
Department Details
Enrolled Courses
Database Management Systems
Thermodynamics
Mobile App Development
Power Electronics
Enroll Course
Input Course ID to enroll in :
1
Ok
Cancel
Enroll
Withdraw

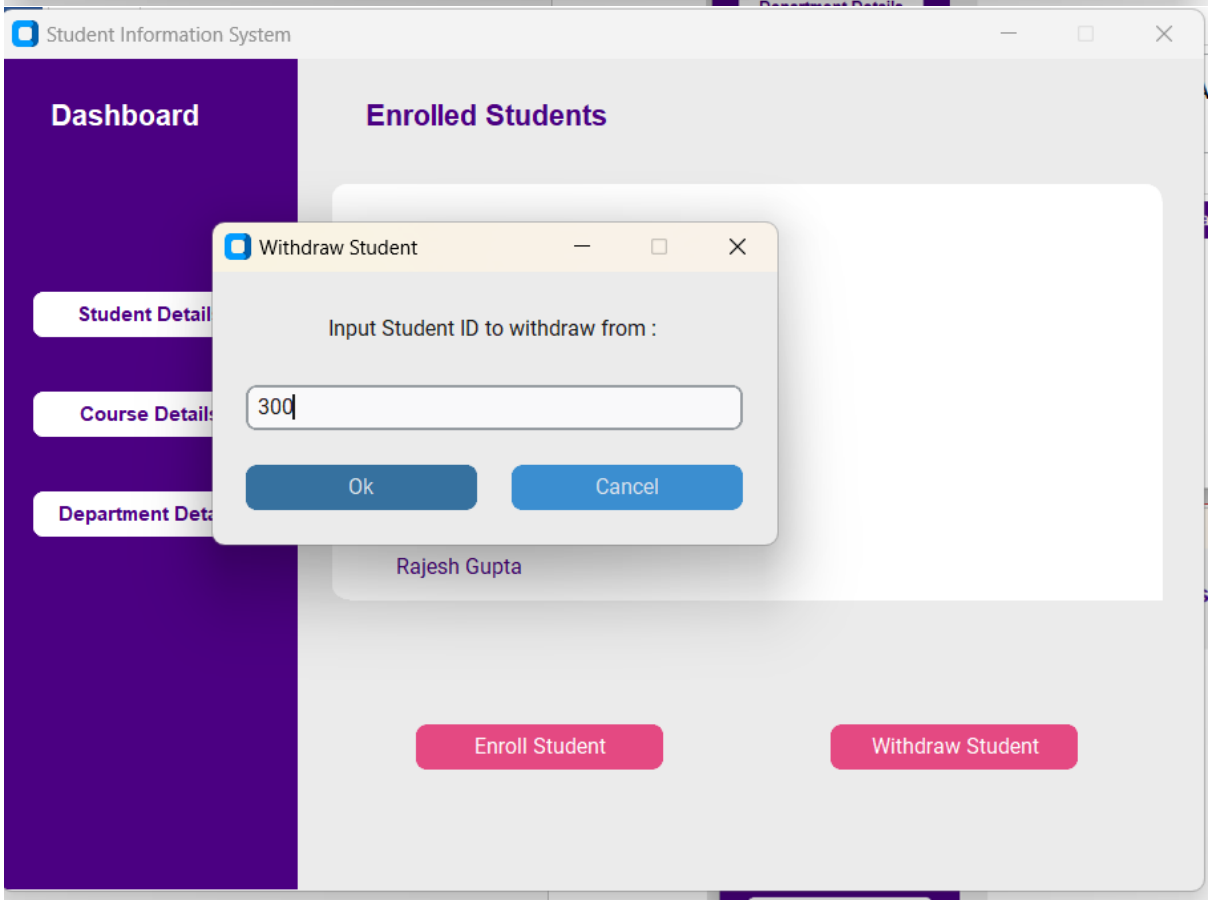

Student Information System
Dashboard
Student Details
Course Details
Department Details
Enrolled Courses
Database Management Systems
Thermodynamics
Mobile App Development
Power Electronics
Data Structures
Withdraw Course
Input Course ID to withdraw from :
12
Ok
Cancel
Enroll
Withdraw

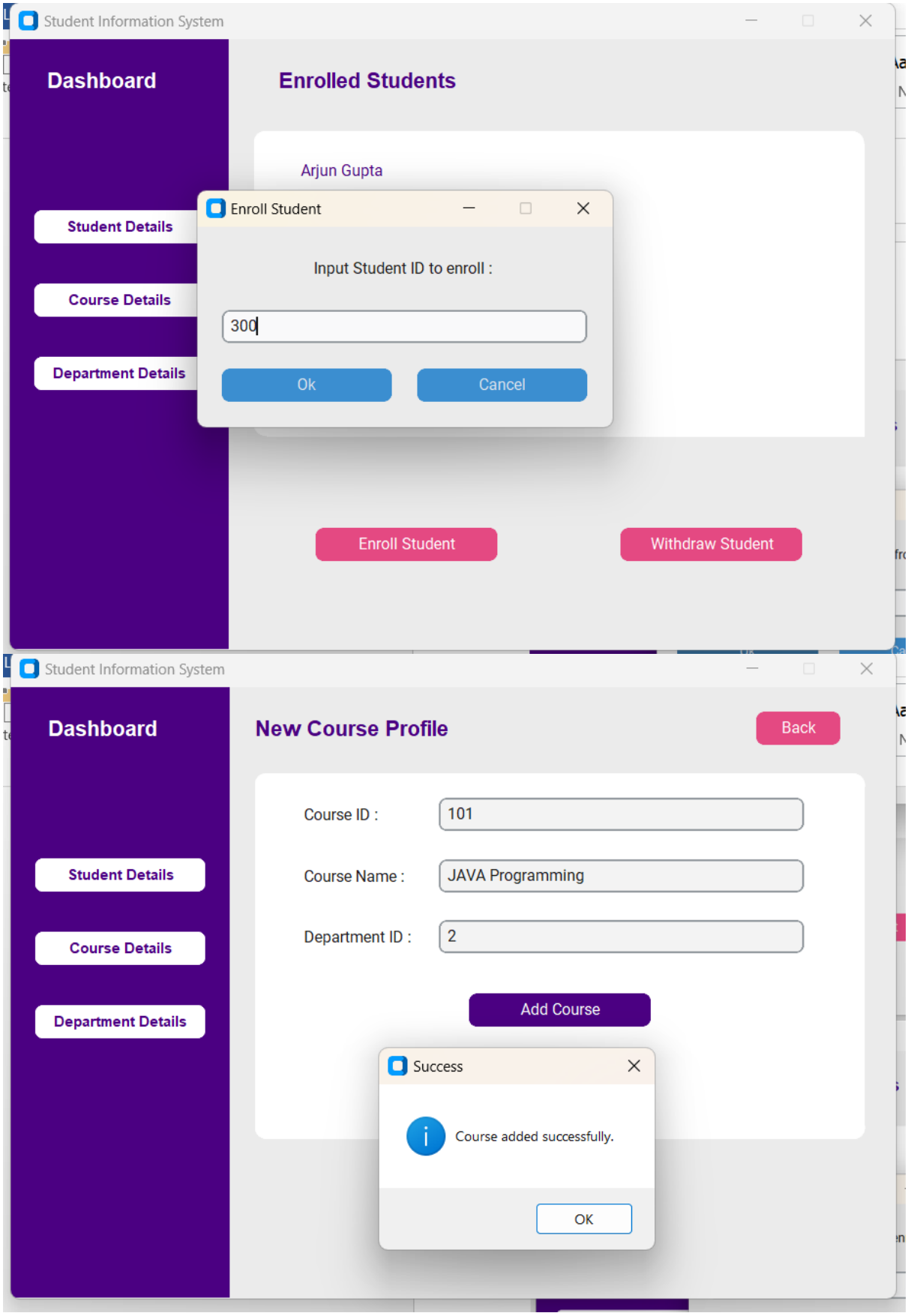

Student Information System
Dashboard
New Profile
Back
Id :
321
Name :
Rijja
Email id :
rijja2310119@ssn.edu.in
DOB :
2005-03-28
Phone No :
98346356392
1
2
Add Student
Student Details
Course Details
Department Details
Success
Student added successfully.
OK
Student Information System
Dashboard
Back
Student ID :
321
Delete Student
Student Details
Course Details
Department Details
Success
Student deleted successfully.
OK

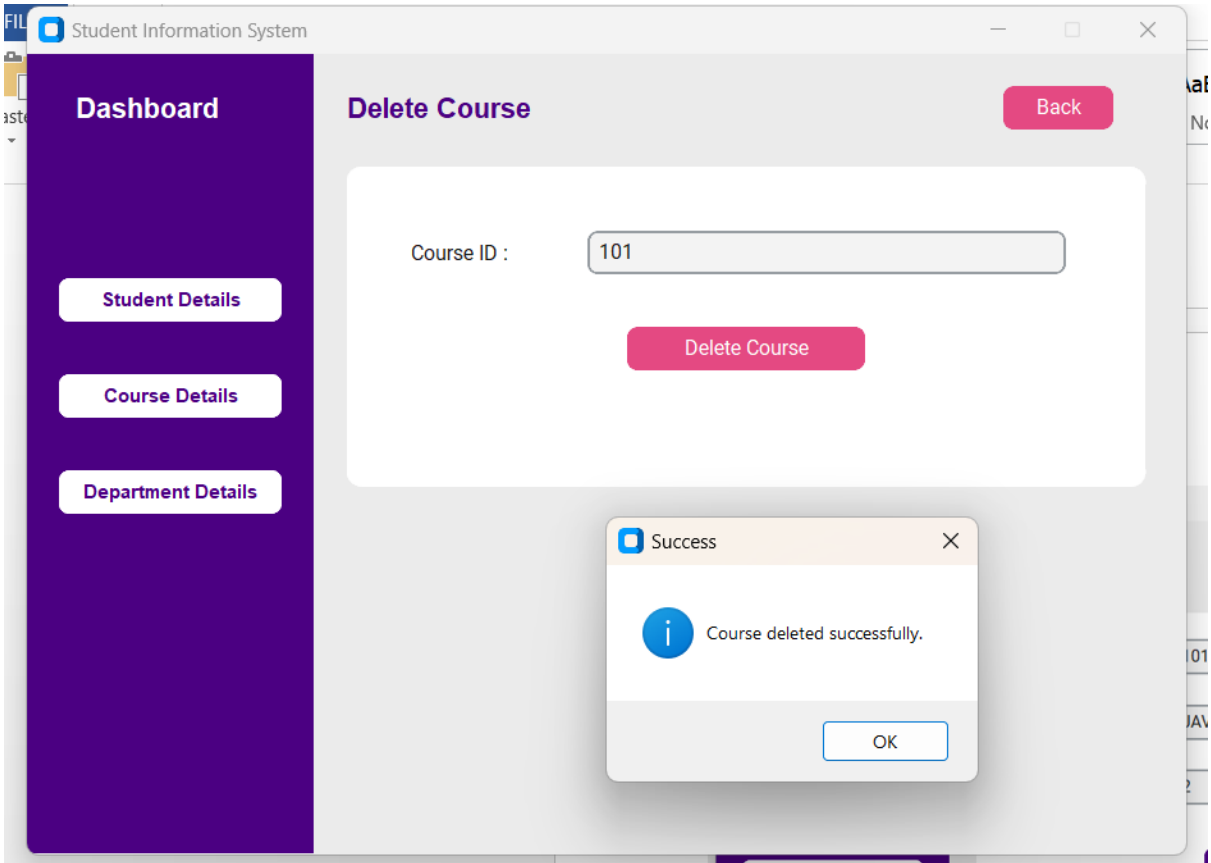

Student Information System
Dashboard
Course Management System
Information Technology
Course Name
Search
Student Details
Course Details
Department Details
Python Programming
Linear Algebra
Machine Learning
Artificial Intelligence
Web Technologies
Information Security
Cloud Computing
Add Course
Delete Course

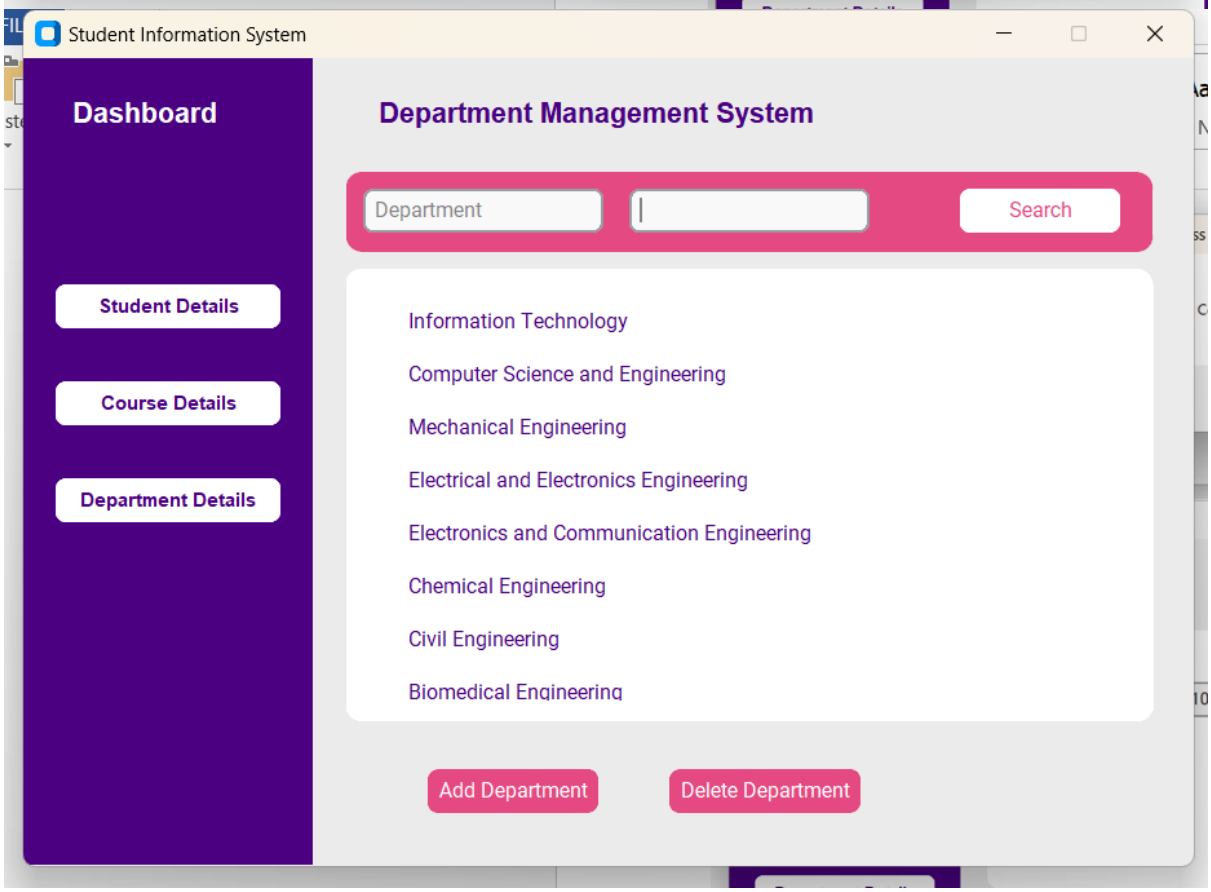

Student Information System
Dashboard
Back
Python Programming's Profile
Course ID:
2
Course Name:
Python Programming
Department ID:
1
Student Details
Course Details
Department Details
Save Changes
Enrolled Students

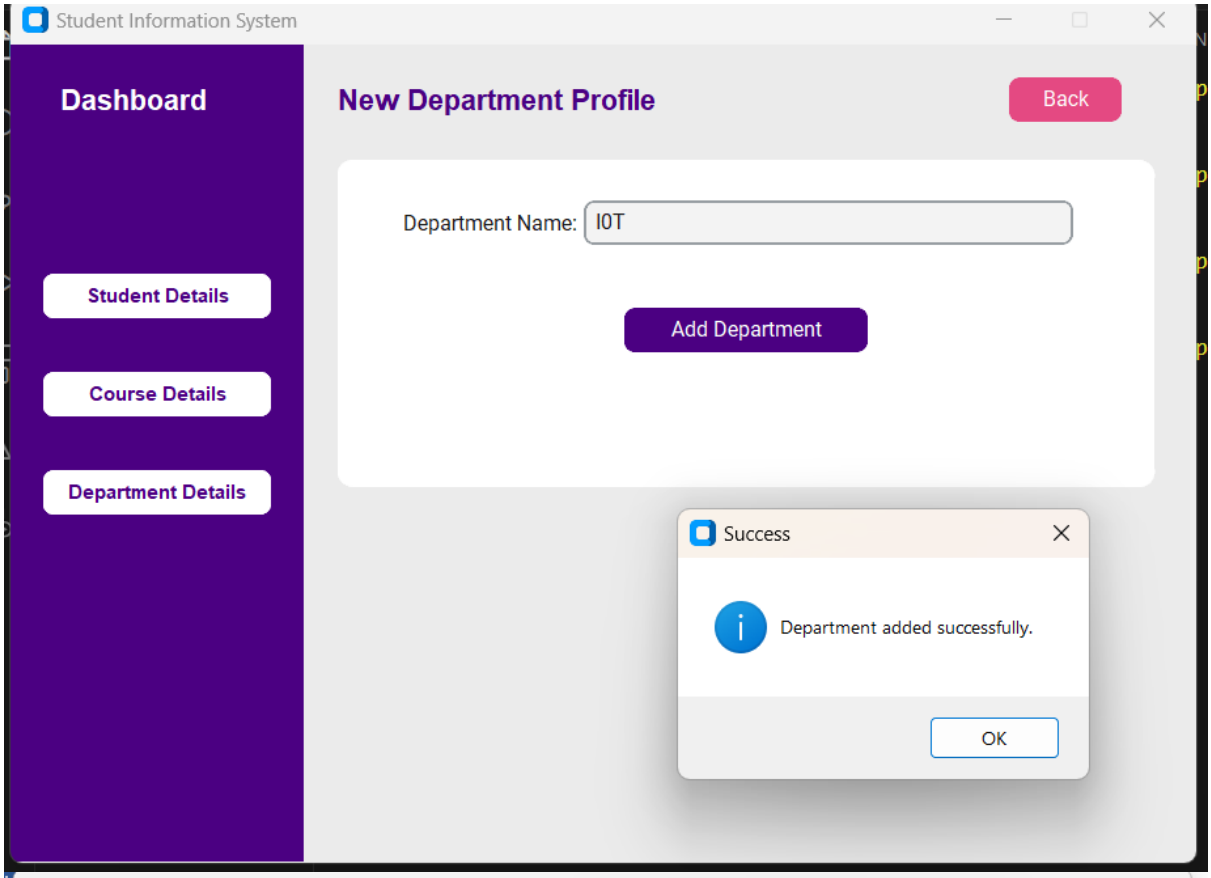

Student Information System
Dashboard
Enrolled Students
Student Details
Course Details
Department Details
Arjun Gupta
Kavya Joshi
Aditya Singh
Simran Sharma
Rashmi Singh
Raghav Mehta
Vikram Sharma
Enroll Student
Withdraw Student

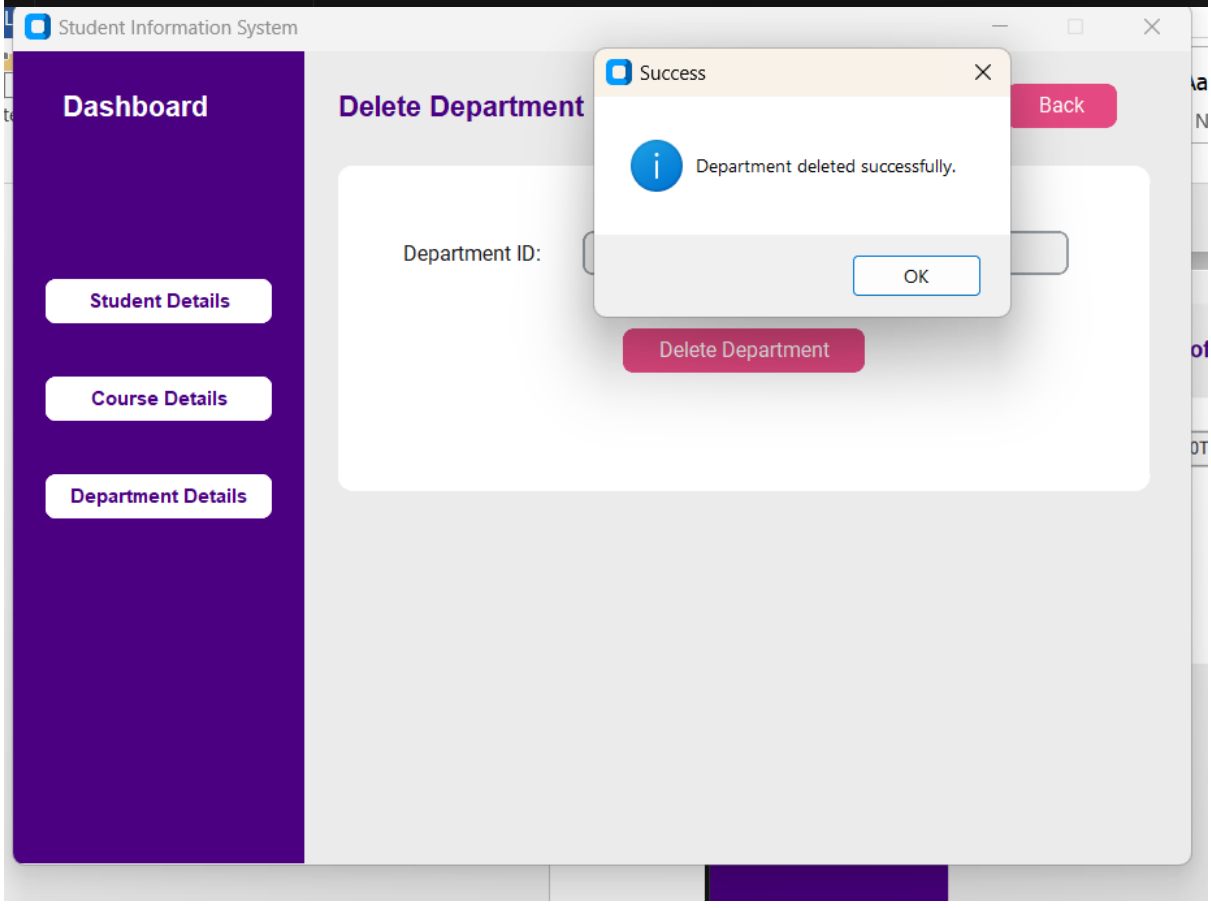

Student Information System
Dashboard
Enrolled Students
Withdraw Student
Input Student ID to withdraw from :
300
Ok
Cancel
Rajesh Gupta
Enroll Student
Withdraw Student

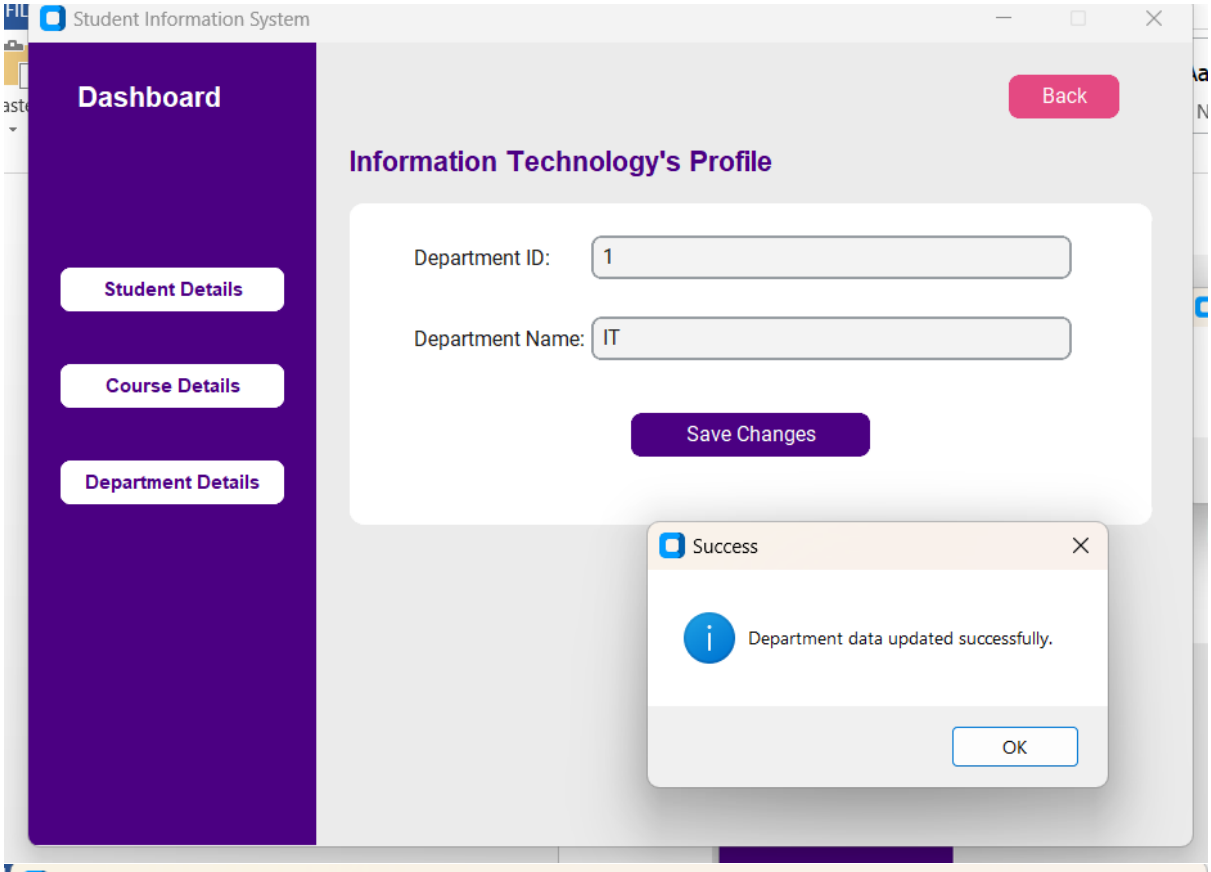

Student Information System
Dashboard
Enrolled Students
Arjun Gupta
Student Details
Course Details
Department Details
Enroll Student
Input Student ID to enroll :
300
Ok
Cancel
Enroll Student
Withdraw Student
Student Information System
Dashboard
New Course Profile
Back
Course ID :
101
Course Name :
JAVA Programming
Department ID :
2
Add Course
Student Details
Course Details
Department Details
Success
Course added successfully.
OK

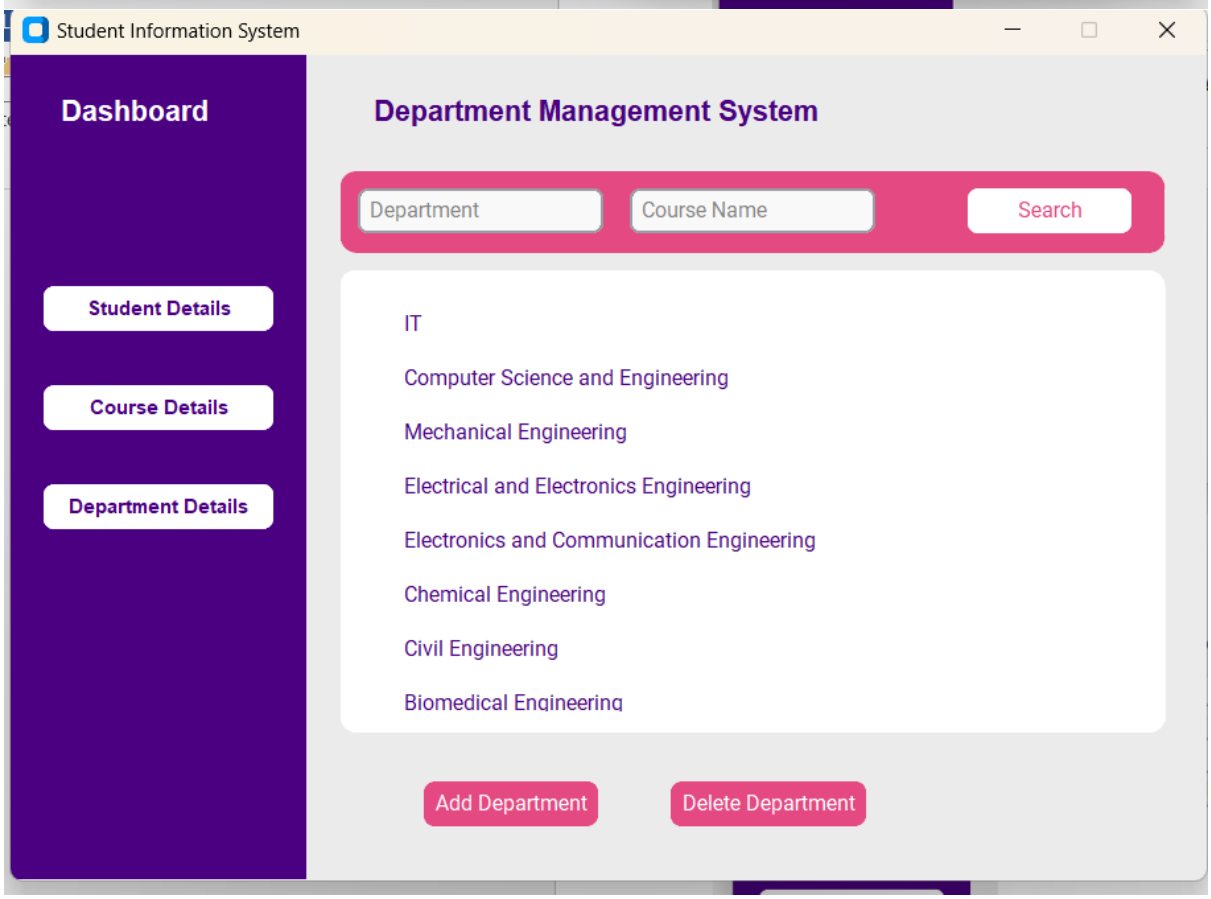

Student Information System
Dashboard
Delete Course
Back
Course ID :
101
Student Details
Course Details
Department Details
Delete Course
Success
Course deleted successfully.
OK


Student Information System
Dashboard
Department Management System
Department
Search
Student Details
Course Details
Department Details
Information Technology
Computer Science and Engineering
Mechanical Engineering
Electrical and Electronics Engineering
Electronics and Communication Engineering
Chemical Engineering
Civil Engineering
Biomedical Engineering
Add Department
Delete Department


Student Information System
Dashboard
New Department Profile
Back
Department Name:
I0T
Student Details
Course Details
Department Details
Add Department
Success
Department added successfully.
OK


Student Information System
Dashboard
Delete Department
Back
Success
Department deleted successfully.
OK
Department ID:
Student Details
Course Details
Department Details
Delete Department


Student Information System
Dashboard
Back
Information Technology's Profile
Student Details
Course Details
Department Details
Department ID:
1
Department Name:
IT
Save Changes
Success
Department data updated successfully.
OK


Student Information System
Dashboard
Department Management System
Student Details
Course Details
Department Details
Department
Course Name
Search
IT
Computer Science and Engineering
Mechanical Engineering
Electrical and Electronics Engineering
Electronics and Communication Engineering
Chemical Engineering
Civil Engineering
Biomedical Engineering
Add Department
Delete Department