Embedded Project

Student information management system

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Introduction:

A Student Information Management System (SIMS) is a software application designed to efficiently manage and organize information related to students in an educational institution. The system typically includes features for storing, retrieving, and manipulating data about students, faculty, courses, grades, and other relevant information. SIMS aims to streamline administrative processes, enhance communication, and provide valuable insights for educational institutions.

```
Welcome to the Student Management System
------------------------
Choose the task that you want to perform
------------------------
1. Add the student details manually
2. Add the student details from text file
3. Find the student details by roll number
4. Find the student details by first name
5. Find the student details by course ID
6. Find the total number of students
7. Delete the students details by roll number
8. Update the students details by roll number
9. Show all intofrmation
10. Exit
------------------------

Enter your choice to perform the task:
```

1) Add the Student Details manually

```
Enter your choice to perform the task:
1
-----------------------
Add the students details

Enter the Roll Number: 1

Enter the First Name of student: Loay

Enter the Last Name of student: Tamer

Enter the GPA you obtained: 3.0

Enter the course ID of each course

Course 1 ID: 1

Course 2 ID: 2

Course 3 ID: 3

Course 4 ID: 4

Course 5 ID: 5

[INFO] Student details are added successfully
-----------------------
[INFO] You can add up to 50 students
[INFO] You can add 49 more students
-----------------------
```

2) Add the Student Details From Text File

```
Enter your choice to perform the task:
2

[ERRPR] Roll Number 1 is already taken

[ERRPR] Roll Number 1 is already taken

[INFO] Student details are added successfully
-----------------------
[INFO] You can add up to 50 students
[INFO] You can add 48 more students

[INFO] Student details are added successfully
-----------------------
[INFO] You can add up to 50 students
[INFO] You can add 47 more students
-----------------------
```

3) Find the Student Details by Roll Number

```
Enter your choice to perform the task:
3

Enter the Roll Number of the student: 1
The students details are:

The first name is Loay
The last name is Tamer
The GPA is 3.00
The course ID of each course is
Course 1 ID: 1
Course 2 ID: 2
Course 3 ID: 3
Course 4 ID: 4
Course 5 ID: 5
-----------------------
Choose the task that you want to perform
```

4) Find the Student Details by First Name

```
Enter your choice to perform the task:
4

Enter the First Name of the student: Loay
The students details are:

The first name is Loay
The last name is Tamer
The GPA is 3.00
The course ID of each course is
Course 1 ID: 1
Course 2 ID: 2
Course 3 ID: 3
Course 4 ID: 4
Course 5 ID: 5
------------------------
```

5) Find the Student Details by Course Id

```
Enter your choice to perform the task:
5

Enter the Course ID: 1
The students details are:

The first name is Loay
The last name is Tamer
The GPA is 3.00
The course ID of each course is
Course 1 ID: 1
Course 2 ID: 2
Course 3 ID: 3
Course 4 ID: 4
Course 5 ID: 5
The students details are:

The first name is Kerolos
The last name is Gamal
The GPA is 3.50
The course ID of each course is
Course 1 ID: 45
Course 2 ID: 55
Course 3 ID: 18
Course 4 ID: 46
Course 5 ID: 1
------------------------
Choose the task that you want to perform
```

6) Find the Total number of Students

```
Enter your choice to perform the task:
6
[INFO] The total number of students is 3
[INFO] You can add up to 50 students
[INFO] You can add 47 more students
-----------------------
Choose the task that you want to perform
```

7) Delete the Students Details by Roll Number

```
Enter your choice to perform the task:
7

Enter the Roll Number that you want to delete: 1
[INFO] The Roll Number was removed successfully
-----------------------
```

8) Update the Students Details by Roll Number

```
Enter your choice to perform the task:
8

Enter the Roll Number to update the entry: 3

1. First Name
2. Last Name
3. Roll Number
4. GPA
5. Courses
1

Enter the new First Name: Ahmed
```

9) Show all information

```
The students details are:

The first name is Loay
The last name is Tamer
The roll number is 1
The GPA is 3.00
The course ID of each course is
Course 1 ID: 1
Course 2 ID: 2
Course 3 ID: 3
Course 4 ID: 4
Course 5 ID: 5

The students details are:

The first name is Ahmed
The last name is Karam
The roll number is 3
The GPA is 3.50
The course ID of each course is
Course 1 ID: 45
Course 2 ID: 21
Course 3 ID: 55
Course 4 ID: 18
Course 5 ID: 46
```