

## Home Screen:

```
[suryareddy@MacBook-Air Lab1 % python3 checkmygrade_app.py
```

```
===== CheckMyGrade Application =====
```

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

```
Enter your choice: █
```

## Registering New User:

```
Enter your choice: 2
```

```
Enter new user ID (email): surya.reddy@sjsu.edu
```

```
Enter password: Travel52
```

```
Enter role (student/professor/admin): student
```

```
User registered successfully.
```

```
===== CheckMyGrade Application =====
```

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

```
Enter your choice: █
```

## Updated Login details + Encrypted password in Login.csv:

login

User_id	Password	Role
<u>surya.reddy@sjsu.edu</u>	Wudyho85	student
<u>surya.reddy@sjsu.edu</u>	Wudyho85	student

### Logging in as registered user:

```
Enter your choice: 1
Enter user ID (email): surya.reddy@sjsu.edu
Enter password: Travel52
Login successful.
Login successful. Role: student
```

==== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

```
Enter your choice: █
```

### Adding student

```
Enter your choice: 3
Student email: david.john@sjsu.edu
First name: David
Last name: John
Course ID: DATA200
Grade (A/B/C etc.): B
Marks: 85
Student added.
```

==== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

```
Enter your choice: █
```

## Updated student.csv

student

Email_address	First name	Last name	Course_id	grades	Marks
sam@mycsu.edu	Sam	Carpenter	DATA200	A	96.0
surya.reddy@sjsu.edu	Surya	Reddy	DATA200	A	90.0
david.john@sjsu.edu	David	John	DATA200	B	85

## Searching for student (Search time displayed)

```
Enter your choice: 4
Enter student email to search: david.john@sjsu.edu
Search time: 0.000256 seconds
Student found: Student(email=david.john@sjsu.edu, first_name=David, last_name=John, course_id=DATA200, grades=B, marks=85)
```

===== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

Enter your choice: █

## Sorting Students by First Name:

```
Enter your choice: 5
Students sorted by first name.
```

===== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

Enter your choice: █

## Deleting student:

```
Enter your choice: 6
Enter student email to delete: david.john@sjsu.edu
Student deleted.
```

==== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

```
Enter your choice: █
```

**Updated student.csv:**

student

Email_address	First name	Last name	Course.id	grades	Marks
<u>sam@mycsu.edu</u>	Sam	Carpenter	DATA200	A	96.0
<u>surya.reddy@sjsu.edu</u>	Surya	Reddy	DATA200	A	90.0

**Calculating Average Marks for a Course (96+90/2 = 93):**

```
Enter your choice: 7
Enter course ID to compute average: DATA200
Average marks for course DATA200: 93.00
```

==== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

```
Enter your choice: █
```

### Adding Professor:

Enter your choice: 8

=== Add New Professor ===

Enter Professor Email Address: ronald.mak@sjsu.edu

Enter Professor Name: Ronald Mak

Enter Rank: professor

Enter Course ID: DATA201

New professor added successfully.

===== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

Enter your choice: █

### Updated professor.csv:

professor

Professor_id	Professor Name	Rank	Course.id
<u>paramdeep.saini@sjsu.edu</u>	Param Saini	professor	DATA200
<u>neil.armstrong@sjsu.edu</u>	Neil Degrasse Tyson	Astronaut	SPACE100
<u>ronald.mak@sjsu.edu</u>	Ronald Mak	professor	DATA201

### Searching professor:

Enter your choice: 10  
Enter professor ID or email to search: ronald.mak@sjsu.edu  
Professor found: Professor(ID=ronald.mak@sjsu.edu, Name=Ronald Mak, Rank=professor, CourseID=DATA201)

===== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

Enter your choice: █

### Deleting Professor:

Enter your choice: 9

=== Delete Professor ===

Enter the Professor's Email (Professor\_id) to delete: ronald.mak@sjsu.edu  
Professor with identifier ronald.mak@sjsu.edu deleted.

===== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

Enter your choice: █

### Updated professor.csv:

professor

Professor_id	Professor Name	Rank	Course.id
<u>paramdeep.saini@sjsu.edu</u>	Param Saini	professor	DATA200
<u>neil.armstrong@sjsu.edu</u>	Neil Degrasse Tyson	Astronaut	SPACE100

### Modify Professor:

Enter your choice: 11  
Enter professor ID or email to modify: neil.armstrong@sjsu.edu  
Enter new details (leave blank to skip):  
New Name: Neil Armstrong  
New Email:  
New Rank:  
New Course ID:  
Professor modified successfully.

==== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

Enter your choice: █

**Updated name in professor.csv:**

professor

Professor_id	Professor Name	Rank	Course.id
<u>paramdeep.saini@sjsu.edu</u>	Param Saini	professor	DATA200
<u>neil.armstrong@sjsu.edu</u>	Neil Armstrong	Astronaut	SPACE100

**Creating course:**

```

Enter your choice: 12

=== Add New Course ===
Enter course ID: DATA201
Enter course name: Database Systems
Enter course credits: How to create and format databases
New course added successfully.

===== CheckMyGrade Application =====
1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit
Enter your choice: █

```

### Updated course.csv:

course

Course.id	Course_name	Description
DATA200	Data Science	Provides insight about DS and Python
SPACE100	Astrophysics	Provides insight about space
DATA201	Database Systems	How to create and format databases

### Searching course:

```

Enter your choice: 14
Enter Course ID to search: SPACE100
Course found: Course(course_id=SPACE100, course_name=Astrophysics , credits=Provides insight about space)

```

```

===== CheckMyGrade Application =====
1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit
Enter your choice: █

```

### Deleting course:



Enter your choice: 13

=== Delete Course ===

Enter the Course ID to delete: SPACE100

Course with ID SPACE100 deleted.

===== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

Enter your choice: █

### Changing user password:

Enter your choice: 15

Enter user ID (email) to change password: surya.reddy@sjsu.edu

Enter new password: ilovepython123

Password changed successfully.

Password changed successfully.

===== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

Enter your choice: █

### Logging out:

Enter your choice: 16  
Enter user ID (email) to logout: surya.reddy@sjsu.edu  
Logout successful.  
User logged out successfully.

==== CheckMyGrade Application =====

1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

Enter your choice: █

#### **Logging in with new password:**

Enter your choice: 1  
Enter user ID (email): surya.reddy@sjsu.edu  
Enter password: ilovepython123  
Login successful.  
Login successful. Role: student

==== CheckMyGrade Application =====

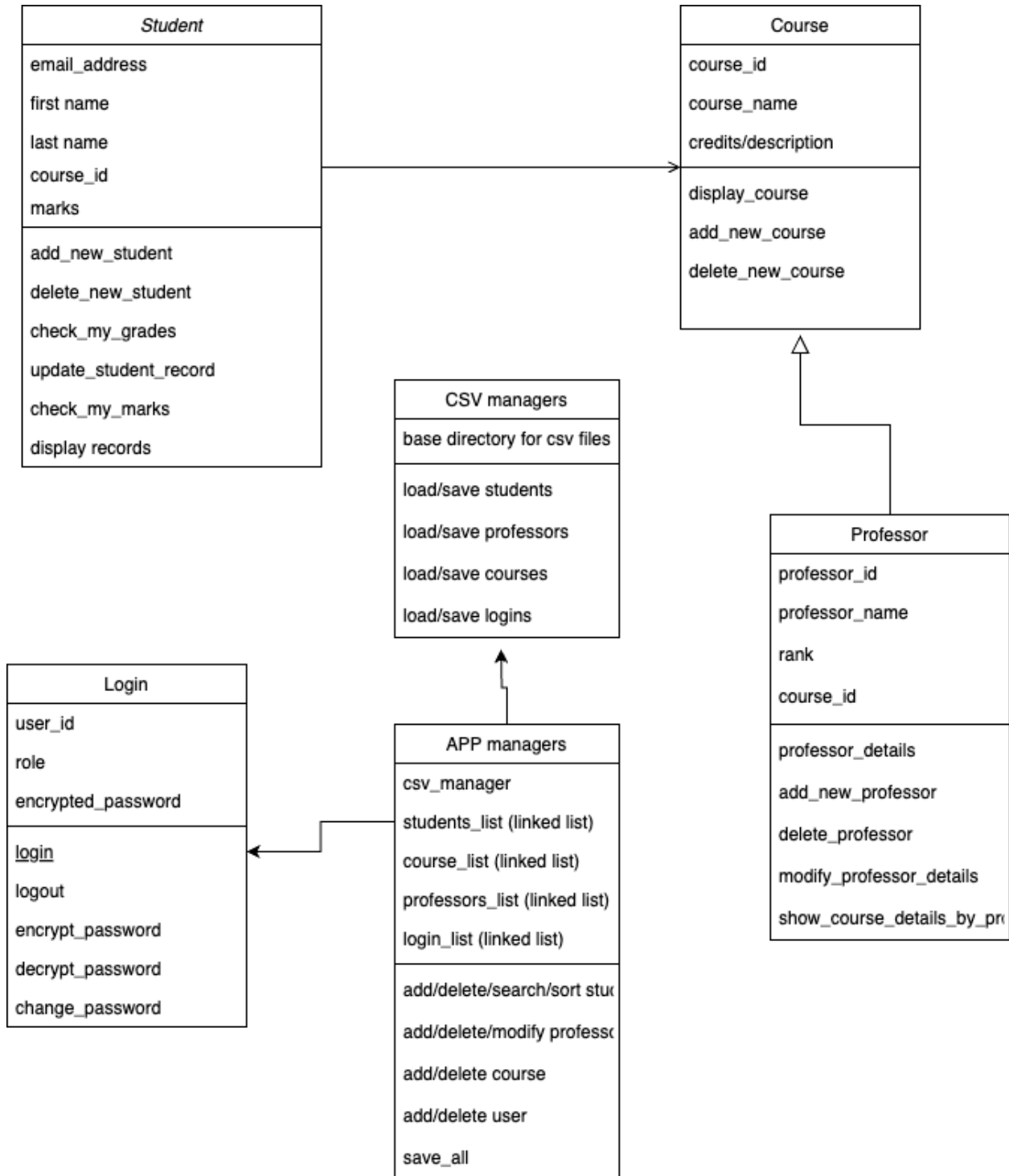
1. Login
2. Register New User
3. Add Student
4. Search Student
5. Sort Students by First Name
6. Delete Student
7. Course Average Marks
8. Add Professor
9. Delete Professor
10. Search Professor
11. Modify Professor
12. Add Course
13. Delete Course
14. Search Course
15. Change User Password
16. Logout User
17. Exit

Enter your choice: █

#### **Exiting Application:**

Enter your choice: 17  
 Exiting application.  
 suryareddy@MacBook-Air Lab1 %

Diagram:



**Github URL link:**

<https://github.com/suryasreddy/DATA200>