Mastering Embedded System Online Diploma

https://www.learn-in-depth.com

First Term (Final Project 2)

Eng. Mohamed Alaa Al-Din Ibrahim Mohamed

My Profile: <learn-in-depth.com/online-diploma/mohamed.alaa.work.1@gmail.com>

Project Link: <github/Mastering_Embedded_System_Diploma/first_term_project2>

CONTENTS

OPTIONS MENU

```
Choose the task that you want to perform
1. Add the student details from text file
2. Add the student details manually
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 student details by roll number
8. Update the student details by roll number
9. Show all students
10. Exit
Enter your choice number:
```

STUDENT_ADD_FILE()

```
Students_list.txt                    ×

1     1 Mohamed Alaa 3.5 7 8 9 4 6
2     2 Ahmed Ashraf 3.9 4 2 3 8 9
3     4 Ramy Medhat 4 12 5 8 9 17
4     2 Samy Ibrahim 2.5 4 7 2 3 6
```

```
Enter your choice number: 1
Roll number 1 is saved successfully
Roll number 2 is saved successfully
Roll number 4 is saved successfully
[Error] roll number 2 is already taken
----------------------------------------
```

```
*****The student details are*****
Roll number: 1
First name: Mohamed
Last name: Alaa
GPA: 3.5
course 1 ID: 7
course 2 ID: 8
course 3 ID: 9
course 4 ID: 4
course 5 ID: 6
----------------------------------------
*****The student details are*****
Roll number: 2
First name: Ahmed
Last name: Ashraf
GPA: 3.9
course 1 ID: 4
course 2 ID: 2
course 3 ID: 3
course 4 ID: 8
course 5 ID: 9
----------------------------------------
*****The student details are*****
Roll number: 4
First name: Ramy
Last name: Medhat
GPA: 4.0
course 1 ID: 12
course 2 ID: 5
course 3 ID: 8
course 4 ID: 9
course 5 ID: 17
----------------------------------------
Choose the task that you want to perform
1. Add the student details from text file
```

STUDENT_ADD_MANUALLY()

```
10. Exit
Enter your choice number: 2
Enter the roll number: 1
[Error] roll number 1 is already taken
------------------------------------------------------------
```

```
10. Exit
Enter your choice number: 2
Enter the roll number: 3
Enter the first name of the student: Kareem
Enter the last name of the student: Gamal
Enter the GPA obtained: 3.2
Course 1 ID: 6
Course 2 ID: 1
Course 3 ID: 4
Course 4 ID: 8
Course 5 ID: 3
Roll number 3 is saved successfully
------------------------------------------------------------
Choose the task that you want to perform
```

```
course 4 ID: 9
course 5 ID: 17
------------------------------------------------------------
*****The student details are*****
Roll number: 3
First name: Kareem
Last name: Gamal
GPA: 3.2
course 1 ID: 6
course 2 ID: 1
course 3 ID: 4
course 4 ID: 8
course 5 ID: 3
------------------------------------------------------------
Choose the task that you want to perform
```

```
The total number of the students is 4
You can add up to 50 students
You can add 46 more students
------------------------------------------------------------
```

STUDENT_FIND_BY_ROLL()

```
Enter your choice number: 3
Enter the roll number of the student: 2
*****The student details are*****
Roll number: 2
First name: Ahmed
Last name: Ashraf
GPA: 3.9
course 1 ID: 4
course 2 ID: 2
course 3 ID: 3
course 4 ID: 8
course 5 ID: 9
-------------------------------------------------
Choose the task that you want to perform
```

```
Enter your choice number: 3
Enter the roll number of the student: 5
No student has this roll number
-------------------------------------------------
```

STUDENT_FIND_BY_FN()

```
Choose the task that you want to perform
1. Add the student details from text file
2. Add the student details manually
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 student details by roll number
8. Update the student details by roll number
9. Show all students
10. Exit
Enter your choice number: 2
Enter the roll number: 5
Enter the first name of the student: Ahmed
Enter the last name of the student: Mohamed
Enter the GPA obtained: 1.5
Course 1 ID: 10
Course 2 ID: 3
Course 3 ID: 9
Course 4 ID: 8
Course 5 ID: 5
Roll number 5 is saved successfully
```

```
Enter your choice number: 4
Enter the first name of the student: Ahmed
*****The student details are*****
Roll number: 2
First name: Ahmed
Last name: Ashraf
GPA: 3.9
course 1 ID: 4
course 2 ID: 2
course 3 ID: 3
course 4 ID: 8
course 5 ID: 9
----------------------------------------------
*****The student details are*****
Roll number: 5
First name: Ahmed
Last name: Mohamed
GPA: 1.5
course 1 ID: 10
course 2 ID: 3
course 3 ID: 9
course 4 ID: 8
course 5 ID: 5
----------------------------------------------
Choose the task that you want to perform
```

```
Enter your choice number: 4
Enter the first name of the student: Mahmoud
No student has this first name
----------------------------------------------
```

5

STUDENT_FIND_BY_COURSE()

```
Enter your choice number: 5
Enter the course ID of the student: 3
*****The student details are*****
Roll number: 2
First name: Ahmed
Last name: Ashraf
GPA: 3.9
course 1 ID: 4
course 2 ID: 2
course 3 ID: 3
course 4 ID: 8
course 5 ID: 9
-------------------------------------------------------
*****The student details are*****
Roll number: 3
First name: Kareem
Last name: Gamal
GPA: 3.2
course 1 ID: 6
course 2 ID: 1
course 3 ID: 4
course 4 ID: 8
course 5 ID: 3
-------------------------------------------------------
*****The student details are*****
Roll number: 5
First name: Ahmed
Last name: Mohamed
GPA: 1.5
course 1 ID: 10
course 2 ID: 3
course 3 ID: 9
course 4 ID: 8
course 5 ID: 5
-------------------------------------------------------
The total number of enrolled students in the course = 3
```

```
Enter your choice number: 5
Enter the course ID of the student: 15
No student is enrolled in this course
-------------------------------------------------------
```

STUDENT_TOTAL()

```
Enter your choice number: 6
The total number of the students is 5
You can add up to 50 students
You can add 45 more students
------------------------------------------------
```

```
*****The student details are*****
Roll number: 1
First name: Mohamed
Last name: Alaa
GPA: 3.5
course 1 ID: 7
course 2 ID: 8
course 3 ID: 9
course 4 ID: 4
course 5 ID: 6
------------------------------------------------
*****The student details are*****
Roll number: 2
First name: Ahmed
Last name: Ashraf
GPA: 3.9
course 1 ID: 4
course 2 ID: 2
course 3 ID: 3
course 4 ID: 8
course 5 ID: 9
------------------------------------------------
*****The student details are*****
Roll number: 4
First name: Ramy
Last name: Medhat
GPA: 4.0
course 1 ID: 12
course 2 ID: 5
course 3 ID: 8
course 4 ID: 9
course 5 ID: 17
------------------------------------------------
*****The student details are*****
Roll number: 3
First name: Kareem
Last name: Gamal
GPA: 3.2
course 1 ID: 6
course 2 ID: 1
course 3 ID: 4
course 4 ID: 8
course 5 ID: 3
------------------------------------------------
*****The student details are*****
Roll number: 5
First name: Ahmed
Last name: Mohamed
GPA: 1.5
course 1 ID: 10
course 2 ID: 3
course 3 ID: 9
course 4 ID: 8
course 5 ID: 5
```

STUDENT_DELETE()

```
9. Show all students
10. Exit
Enter your choice number: 7
Enter the roll number of the student to be deleted: 4
The student with roll number 4 is deleted successfully
-----------------------------------------------------------
```

```
Enter your choice number: 7
Enter the roll number of the student to be deleted: 2
The student with roll number 2 is deleted successfully
-----------------------------------------------------------
```

```
Enter your choice number: 7
Enter the roll number of the student to be deleted: 9
No student has roll number
-----------------------------------------------------------
```

```
*****The student details are*****
Roll number: 1
First name: Mohamed
Last name: Alaa
GPA: 3.5
course 1 ID: 7
course 2 ID: 8
course 3 ID: 9
course 4 ID: 4
course 5 ID: 6
-----------------------------------------
*****The student details are*****
Roll number: 3
First name: Kareem
Last name: Gamal
GPA: 3.2
course 1 ID: 6
course 2 ID: 1
course 3 ID: 4
course 4 ID: 8
course 5 ID: 3
-----------------------------------------
*****The student details are*****
Roll number: 5
First name: Ahmed
Last name: Mohamed
GPA: 1.5
course 1 ID: 10
course 2 ID: 3
course 3 ID: 9
course 4 ID: 8
course 5 ID: 5
-----------------------------------------
Choose the task that you want to perform
```

```
Enter your choice number: 6
The total number of the students is 3
You can add up to 50 students
You can add 47 more students
```

STUDENT_UPDATE()

```
Enter your choice number: 8
Enter the roll number to update the entry: 5
1. First name
2. Last name
3. roll no
4. GPA
5. Courses
1
Enter the new first name: Sara
Updated successfully
```

```
*****The student details are*****
Roll number: 5
First name: Sara
Last name: Mohamed
GPA: 1.5
course 1 ID: 10
course 2 ID: 3
course 3 ID: 9
course 4 ID: 8
course 5 ID: 5
-------------------------------------------------
Choose the task that you want to perform
```

```
Enter your choice number: 8
Enter the roll number to update the entry: 7
No student has this roll number
-------------------------------------------------
```

STUDENT_SHOW_ALL()

```
Enter your choice number: 9
*****The student details are*****
Roll number: 1
First name: Mohamed
Last name: Alaa
GPA: 3.5
course 1 ID: 7
course 2 ID: 8
course 3 ID: 9
course 4 ID: 4
course 5 ID: 6
-------------------------------------------
*****The student details are*****
Roll number: 3
First name: Kareem
Last name: Gamal
GPA: 3.2
course 1 ID: 6
course 2 ID: 1
course 3 ID: 4
course 4 ID: 8
course 5 ID: 3
-------------------------------------------
*****The student details are*****
Roll number: 5
First name: Sara
Last name: Mohamed
GPA: 1.5
course 1 ID: 10
course 2 ID: 3
course 3 ID: 9
course 4 ID: 8
course 5 ID: 5
-------------------------------------------
Choose the task that you want to perform
```