

STUDENT INFORMATION MANAGEMENT SYSTEM

Mastering Embedded System Online Diploma

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First Term (Second project)

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FUNCTIONS:

- 1: Add the student details from file text
- 2: Add the student details manually
- 3: Find the student details by roll number
- 4: Find the student details by his first name
- 5: Find the student details by course id
- 6: Delete the student details by roll number
- 7: Update the student details by roll number
- 8: Find the total number of students
- 9: Show all information of students
- 10: To exit

WELCOME

```
=====
===== Welcome to the student management system =====
=====
```

Choose one from the following options

- 1: Add the student details from file text
- 2: Add the student details manually
- 3: Find the student details by roll number
- 4: Find the student details by his first name
- 5: Find the student details by course id
- 6: Delete the student details by roll number
- 7: Update the student details by roll number
- 8: Find the total number of students
- 9: Show all information of students
- 10: To exit

Enter option number

1: Add the student details from file text :

Added five students from file text (ID - First name - Last name - GPA - The courses ID)

No errors so will record the five student with no problems.

```
1
=====
[INFO]---> The details of Abdallah Ahmed added successfully
[INFO]---> The details of ali osman added successfully
[INFO]---> The details of Hassan Mohammed added successfully
[INFO]---> The details of Osama Ali added successfully
[INFO]---> The details of May Hassan added successfully
=====
[INFO]---> The total number of students : 5
[INFO]---> You can add up to 50 Students
[INFO]---> You can add 45 more students
Press 9 to show the all information
=====
[INFO] --> The all students recorded successfully without problems
=====
```

```
◀▶ Add_data_file.txt
1 10 Abdallah Ahmed 132.5 1 2 3 4 5
2 20 ali osman 165.3 2 3 4 5 6
3 30 Hassan Mohammed 160.3 9 8 7 6 5
4 40 Osama Ali 185.9 1 2 6 8 5
5 55 May Hassan 152 2 5 6 8 7
6
```

1: Add the student details from file text

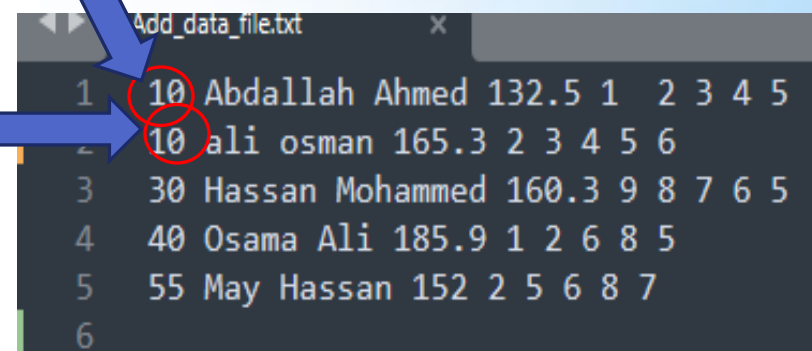
If the file contain a repeat roll number , the students who has this roll number will not recorded.

In this case the file contain five students but only four of them have been recorded

Because one of these students has a similar roll number (Ali Osman).

And finally the system will tell you the number of error .

```
Enter option number:
1
=====
[INFO]---> The details of Abdallah Ahmed added successfully
[ERORR] --> Roll Number 10 is already taken
[INFO] --> Student record failed
[INFO]---> The details of Hassan Mohammed added successfully
[INFO]---> The details of Osama Ali added successfully
[INFO]---> The details of May Hassan added successfully
=====
[INFO]---> The total number of students : 4
[INFO]---> You can add up to 50 Students
[INFO]---> You can add 46 more students
Press 9 to show the all information
=====
[ATTENTION] --> The number of error is 1
```



Roll Number	Name	Score	Age	Gender	Address
10	Abdallah Ahmed	132.5	1	2	3 4 5
10	ali osman	165.3	2	3	4 5 6
30	Hassan Mohammed	160.3	9	8	7 6 5
40	Osama Ali	185.9	1	2	6 8 5
55	May Hassan	152	2	5	6 8 7

1: Add the student details from file text

If the student has non valid ID course , the details of student will recorded except this ID .
The five students recorded successfully but in name (Osama Ali) the ID course 88 didn't record.

```
Enter option number:
1
=====
[INFO]---> The details of Abdallah Ahmed added successfully
[INFO]---> The details of ali osman added successfully
[INFO]---> The details of Hassan Mohammed added successfully
[Warning] --> There is no course with id 88
[INFO] ---> The ID course not recorded
[INFO]---> The details of Osama Ali added successfully
[INFO]---> The details of May Hassan added successfully
=====
[INFO]---> The total number of students : 5
[INFO]---> You can add up to 50 Students
[INFO]---> You can add 45 more students
Press 9 to show the all information
=====
[ATTENTION] --> The number of error is 1
```


```
Add_data_file.txt
1 10 Abdallah Ahmed 132.5 1 2 3 4 5
2 20 ali osman 165.3 2 3 4 5 6
3 30 Hassan Mohammed 160.3 9 8 7 6 5
4 40 Osama Ali 185.9 1 2 6 88 5
5 55 May Hassan 152 2 5 6 8 7
6
7
```

2: Add the student details manually

In this function you will enter the information of students manually .

Here no errors so the record done without any problems.

```
2
=====
Enter the first name : Abdallah
Enter the last name : Abotaleb
Enter the roll number : 15
Enter the GPA : 123.6
Enter the course ID for each course :
course 1 id :1
course 2 id :2
course 3 id :3
course 4 id :4
course 5 id :5
=====
[INFO] --> Add student done successfully
[INFO]---> The total number of students : 6
[INFO]---> You can add up to 50 Students
[INFO]---> You can add 44 more students
Press 9 to show the all information
=====
```



2: Add the student details manually

When you entered roll number already taken by another student will cause error

The student record will failed .

2

=====

Enter the first name : Osama

Enter the last name : Ahmed

Enter the roll number : 152

|

=====

[ERROR] -> Roll number 152 is already taken

[INFO] --> Student record failed

=====



2: Add the student details manually

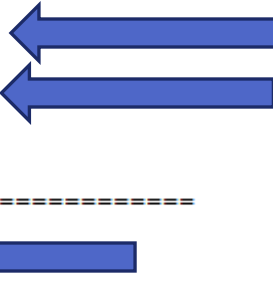
Every time will you entered non valid ID course the system will not accept that

And will ask you to enter a valid one.

Every record will done successfully accept the repeat roll number .

2

```
=====
Enter the first name : Ali
Enter the last name : Omar
Enter the roll number : 16
Enter the GPA : 123.6
Enter the course ID for each course :
course 1 id :1
course 2 id :2
course 3 id :3
course 4 id :44
      [ERROR] --> There is no course with id 44
course 4 id :66
      [ERROR] --> There is no course with id 66
course 4 id :5
course 5 id :9
=====
[INFO] --> Add student done successfully
[INFO]---> The total number of students : 7
[INFO]---> You can add up to 50 Students
[INFO]---> You can add 43 more students
Press 9 to show the all information
```



3: Find the student details by roll number


While you entered the roll number :

Printing details of this roll number if exist.

Error if the roll number not exist.

```
3
=====
Enter the roll number of student 10
|=====
Student first name --> Abdallah
Student Last  name --> Ahmed
Student Roll number--> 10
Student GPA        --> 132.50
The course ID is   --> 1
The course ID is   --> 2
The course ID is   --> 3
The course ID is   --> 4
The course ID is   --> 5
=====
```

```
3
=====
Enter the roll number of student 19
[ERROR] --> Roll number 19 not found
```



4: Find the student details by his first name


While you entered the name of the student :

Printing details of this name if exist.

Error if the name not exist.

```
4
=====
Enter the first name of student abdallah
=====
Student first name --> Abdallah
Student Last name --> Ahmed
Student Roll number--> 10
Student GPA --> 132.50
The course ID is --> 1
The course ID is --> 2
The course ID is --> 3
The course ID is --> 4
The course ID is --> 5
=====
```

```
4
=====
Enter the first name of student john
[ERROR] --> First name john not found
```



5: Find the student details by course id

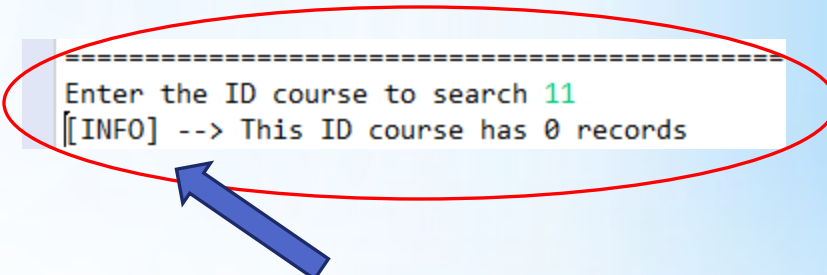
While you entered the ID of the course :

Every student has recorded in this ID will show in the screen with his details and the other courses which he has recorded on it .

And finally the total number of ID records.


If the ID course not found will return an error.

```
=====
Enter the ID course to search 11
[INFO] --> This ID course has 0 records
=====
```




5


```
=====
Enter the ID course to search 2
Student first name --> Ali
Student Last name --> Osman
Student Roll number--> 152
Student GPA --> 126.00
He records also in courses ID : 3 4 5 6
```




```
=====
Student first name --> Osama
Student Last name --> Ahme
Student Roll number--> 16
Student GPA --> 169.00
He records also in courses ID : 1 3 9 8
```




```
=====
Student first name --> Abdallah
Student Last name --> Ahmed
Student Roll number--> 10
Student GPA --> 132.50
He records also in courses ID : 1 3 4 5
```




```
=====
Student first name --> ali
Student Last name --> osman
Student Roll number--> 20
Student GPA --> 165.30
He records also in courses ID : 3 4 5 6
```




```
=====
Student first name --> Osama
Student Last name --> Ali
Student Roll number--> 40
Student GPA --> 185.90
He records also in courses ID : 1 6 8 5
```



```
=====
Student first name --> May
Student Last name --> Hassan
Student Roll number--> 55
Student GPA --> 152.00
He records also in courses ID : 5 6 8 7
```



```
=====
[INFO] --> This ID course has 6 records
=====
```




6: Delete the student details by roll number


If the roll number already exist the Function will show you the information of this roll number and finally delete it.

If the roll number not exist will cause an error .

```
=====
Enter the roll number of student to delete 200
[ERROR] --> Roll number 200 not found
```



```
=====
Enter the roll number of student to delete 10
Student first name --> Abdallah
Student Last name --> Ahmed
Student Roll number--> 10
Student GPA --> 132.50 -----> Deleted successfully
```



7: Update the student details by roll number

After you enter the roll number if it exist that will show the all details of this students to choose your update and if not exist will out without any update .

```
=====
Enter the roll number of student to update 10
[1] --> First name :Abdallah
[2] --> Last name  :Ahmed
[3] --> Roll number: 10
[4] --> GPA        : 132.50
[5] --> Courses ID : 1  2  3  4  5
[6] --> To exit without any update
What is your update , Choose number : 1
Enter the new first name Ali
[INFO] --> The update done successfully
```

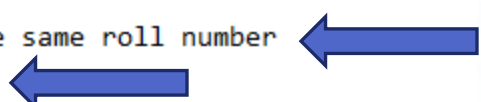
```
7
=====
Enter the roll number of student to update 100
[ERROR] --> Roll number 100 not found
```

```
#####
Student first name --> Ali
Student Last name --> Ahmed
Student Roll number--> 10
Student GPA        --> 132.50
The course ID is   --> 1
The course ID is   --> 2
The course ID is   --> 3
The course ID is   --> 4
The course ID is   --> 5 [
```


7: Update the student details by roll number

In the update of roll number will check first (if the roll number is free or not,
If you enter the same roll number).

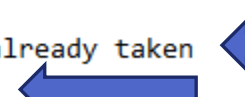
```
=====
Enter the roll number of student to update 10
[1] --> First name :Ali
[2] --> Last name  :Ahmed
[3] --> Roll number: 10
[4] --> GPA        : 132.50
[5] --> Courses ID : 1  2  3  4  5
[6] --> To exit without any update
What is your update , Choose number : 3
Enter new the roll number 10
[ATTENTION] --> You entered the same roll number
[INFO] --> The update failed
=====
```



```
=====
Enter the roll number of student to update 10
[1] --> First name :Ali
[2] --> Last name  :Ahmed
[3] --> Roll number: 10
[4] --> GPA        : 132.50
[5] --> Courses ID : 1  2  3  4  5
[6] --> To exit without any update
What is your update , Choose number : 3
Enter new the roll number 100
[[INFO] --> The update done successfully
=====
```



```
=====
Enter the roll number of student to update 10
[1] --> First name :Ali
[2] --> Last name  :Ahmed
[3] --> Roll number: 10
[4] --> GPA        : 132.50
[5] --> Courses ID : 1  2  3  4  5
[6] --> To exit without any update
What is your update , Choose number : 3
Enter new the roll number 20
[ERROR] -> Roll number 20 is already taken
[INFO] --> The update failed
=====
```



7: Update the student details by roll number

In case update the ID course will check first (if this ID valid or not , if it the same).

```
Enter the roll number of student to update 100
```

```
[1] --> First name :Ali
[2] --> Last name  :Ahmed
[3] --> Roll number: 100
[4] --> GPA        : 132.50
[5] --> Courses ID : 1  2  3  4  5
[6] --> To exit without any update
```

```
What is your update , Choose number : 5
```

```
[1] The course ID is : 1
[2] The course ID is : 2
[3] The course ID is : 3
[4] The course ID is : 4
[5] The course ID is : 5
```

```
Enter the number of course to update :
```

```
3
```

```
Enter the new id course :
```

```
3
```

```
[ATTENTION] --> You entered the same ID course
```

```
What is your update , Choose number : 5
```

```
[1] The course ID is : 1
[2] The course ID is : 2
[3] The course ID is : 3
[4] The course ID is : 4
[5] The course ID is : 5
```

```
Enter the number of course to update :
```

```
3
```

```
Enter the new id course :
```

```
100
```

```
[[ERROR] --> There is no course with id 100
```

```
[INFO] --> The update failed
```

```
What is your update , Choose number : 5
```

```
[1] The course ID is : 1
[2] The course ID is : 2
[3] The course ID is : 3
[4] The course ID is : 4
[5] The course ID is : 5
```

```
Enter the number of course to update :
```

```
3
```

```
Enter the new id course :
```

```
6
```

```
[[INFO] --> The update done successfully
```


8: Find the total number of students

To know how many students you have been recorded and how many free place to record more .

```
8
```

```
|=====
```

```
[INFO]---> The total number of students : 5
```

```
[INFO]---> You can add up to 50 Students
```

```
[INFO]---> You can add 45 more students
```

```
Press 9 to show the all information
```

9: Show all information of students

Show all information of students if the list has records.

```
#####
Student first name --> ali
Student Last name --> osman
Student Roll number--> 20
Student GPA --> 165.30
The course ID is --> 2
The course ID is --> 3
The course ID is --> 4
The course ID is --> 5
The course ID is --> 6
#####
Student first name --> Hassan
Student Last name --> Mohammed
Student Roll number--> 30
Student GPA --> 160.30
The course ID is --> 9
The course ID is --> 8
The course ID is --> 7
The course ID is --> 6
The course ID is --> 5
#####
Student first name --> Osama
Student Last name --> Ali
Student Roll number--> 40
Student GPA --> 185.90
The course ID is --> 1
The course ID is --> 2
The course ID is --> 6
The course ID is --> 8
The course ID is --> 5
#####
Student first name --> May
Student Last name --> Hassan
Student Roll number--> 55
Student GPA --> 152.00
The course ID is --> 2
The course ID is --> 5
The course ID is --> 6
The course ID is --> 8
The course ID is --> 7
#####
===== print elements is finished =====
```

9

[ATTENTION] --> Your list is empty

10: To exit

Press 10 to exit

If you entered Wrong number will print Wrong option

10

```
2: Add the student details manually
3: Find the student details by roll number
4: Find the student details by his first name
5: Find the student details by course id
6: Delete the student details by roll number
7: Update the student details by roll number
8: Find the total number of students
9: Show all information of students
10: To exit
```

Enter option number

12

Wrong option

Choose one from the following options

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email: abdallahahmed17120@gmail.com



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