

Mastering Embedded System Online Diploma

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First Term (Final Project 2)

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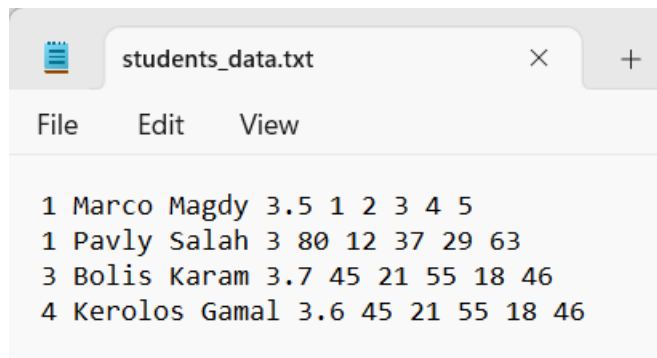
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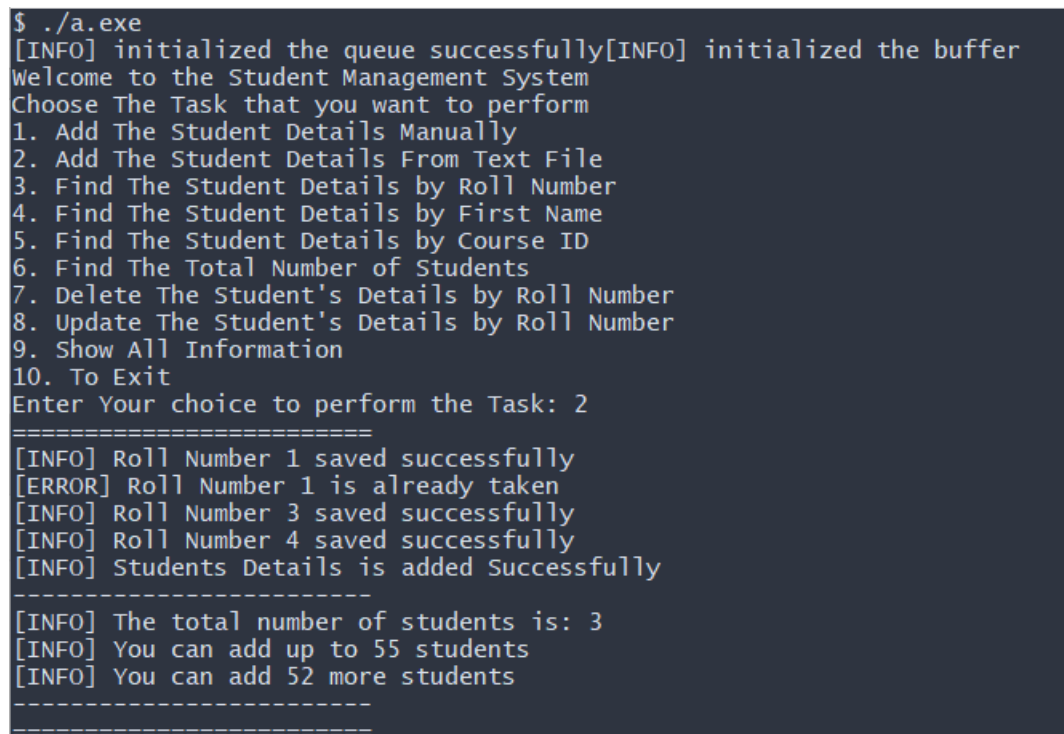
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Codes:

Program's Screenshots:



```
students_data.txt
File Edit View
1 Marco Magdy 3.5 1 2 3 4 5
1 Pavly Salah 3 80 12 37 29 63
3 Bolis Karam 3.7 45 21 55 18 46
4 Kerolos Gamal 3.6 45 21 55 18 46
```



```
$ ./a.exe
[INFO] initialized the queue successfully[INFO] initialized the buffer
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 Student's Details by Roll Number
8. Update The Student's Details by Roll Number
9. Show All Information
10. To Exit
Enter Your choice to perform the Task: 2
=====
[INFO] Roll Number 1 saved successfully
[ERROR] Roll Number 1 is already taken
[INFO] Roll Number 3 saved successfully
[INFO] Roll Number 4 saved successfully
[INFO] Students Details is added Successfully
-----
[INFO] The total number of students is: 3
[INFO] You can add up to 55 students
[INFO] You can add 52 more students
-----
=====
```

```
Enter Your choice to perform the Task: 1
=====
Add The Student's Details
-----
Enter the Roll Number: 2
Enter the first name of the student: Ahmed
Enter the last name of the student: Sameh
Enter The GPA of the student: 3.4
Enter the course ID of each course
Course 1 ID is: 40
Course 2 ID is: 50
Course 3 ID is: 30
Course 4 ID is: 29
Course 5 ID is: 60
-----
[INFO] Added Student successfully
-----
[INFO] The total number of students is: 4
[INFO] You can add up to 55 students
[INFO] You can add 51 more students
-----
```

```
=====
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 Student's Details by Roll Number
8. Update The Student's Details by Roll Number
9. Show All Information
10. To Exit
Enter Your choice to perform the Task: 3
=====
Enter the Roll Number of the student: 4
The student's details are:
The First Name is Kerolos
The Last Name is Gamal
The GPA is 3.60
The course ID of each course
The ID of Course 1 ID is: 45
The ID of Course 2 ID is: 21
The ID of Course 3 ID is: 55
The ID of Course 4 ID is: 18
The ID of Course 5 ID is: 46
-----
```

```
=====
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 Student's Details by Roll Number
8. Update The Student's Details by Roll Number
9. Show All Information
10. To Exit
Enter Your choice to perform the Task: 4
=====
Enter the first name of the student: Ahmed
The student's details are:
The First Name is Ahmed
The Last Name is Sameh
The Roll Number is 2
The GPA is 3.40
The course ID of each course
The ID of Course 1 ID is: 40
The ID of Course 2 ID is: 50
The ID of Course 3 ID is: 30
The ID of Course 4 ID is: 29
The ID of Course 5 ID is: 60
-----
```

```
=====
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 Student's Details by Roll Number
8. Update The Student's Details by Roll Number
9. Show All Information
10. To Exit
Enter Your choice to perform the Task: 5
=====
Enter The course ID: 50
The student's details are:
The First Name is Ahmed
The Last Name is Sameh
The Roll Number is 2
The GPA is 3.40
The course ID of each course
The ID of Course 1 ID is: 40
The ID of Course 2 ID is: 50
The ID of Course 3 ID is: 30
The ID of Course 4 ID is: 29
The ID of Course 5 ID is: 60
-----
```

```
=====
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 Student's Details by Roll Number
8. Update The Student's Details by Roll Number
9. Show All Information
10. To Exit
Enter Your choice to perform the Task: 6
=====
[INFO] The total number of students is: 4
[INFO] You can add up to 55 students
[INFO] You can add 51 more students
-----
```

```
=====
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 Student's Details by Roll Number
8. Update The Student's Details by Roll Number
9. Show All Information
10. To Exit
Enter Your choice to perform the Task: 7
=====
Enter the Roll Number which you want to delete: 2
[INFO] The Roll number was removed successfully
=====
```

```

=====
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 Student's Details by Roll Number
8. Update The Student's Details by Roll Number
9. Show All Information
10. To Exit
Enter Your choice to perform the Task: 8
=====
Enter the roll number to update the entry: 1
1. first name
2. last name
3. roll number
4. GPA
5. courses
4
Enter the new GPA: 3.85
[INFO] UPDATED SUCCESSFULLY.
=====

```

```

=====
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 Student's Details by Roll Number
8. Update The Student's Details by Roll Number
9. Show All Information
10. To Exit
Enter Your choice to perform the Task: 9
=====
The student's details are:
The First Name is Bolis
The Last Name is Karam
The Roll Number is 3
The GPA is 3.70
The course ID of each course
The ID of Course 1 ID is: 45
The ID of Course 2 ID is: 21
The ID of Course 3 ID is: 55
The ID of Course 4 ID is: 18
The ID of Course 5 ID is: 46
-----
The student's details are:
The First Name is Kerolos
The Last Name is Gamal
The Roll Number is 4
The GPA is 3.60
The course ID of each course
The ID of Course 1 ID is: 45

```

```
the Last Name is Gamal
the Roll Number is 4
the GPA is 3.60
the course ID of each course
the ID of Course 1 ID is: 45
the ID of Course 2 ID is: 21
the ID of Course 3 ID is: 55
the ID of Course 4 ID is: 18
the ID of Course 5 ID is: 46
-----
the student's details are:
the First Name is Marco
the Last Name is Magdy
the Roll Number is 1
the GPA is 3.85
the course ID of each course
the ID of Course 1 ID is: 1
the ID of Course 2 ID is: 2
the ID of Course 3 ID is: 3
the ID of Course 4 ID is: 4
the ID of Course 5 ID is: 5
-----
=====
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 Student's Details by Roll Number
8. Update The Student's Details by Roll Number
9. Show All Information
10. To Exit
```