```
---> 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 information
10. Exit
----------------------------------------------------------
```

```
        ----------------------------------------------
        Enter your choice to perform the task: 77
        ----------------------------------------------
[ERROR] wrong choice
-------------------------------
```

```
            ----------------------------------------
        Enter your choice to perform the task: 3
            ----------------------------------------
[ERROR] not exist database students
---------------------------


            ----------------------------------------
        Enter your choice to perform the task: 4
            ----------------------------------------
[ERROR] not exist database students
---------------------------


            ----------------------------------------
        Enter your choice to perform the task: 5
            ----------------------------------------
[ERROR] not exist database students
---------------------------


            ----------------------------------------
        Enter your choice to perform the task: 6
            ----------------------------------------
[ERROR] not exist database students
---------------------------


            ----------------------------------------
        Enter your choice to perform the task: 7
            ----------------------------------------
[ERROR] not exist database students
---------------------------


            ----------------------------------------
        Enter your choice to perform the task: 8
            ----------------------------------------
[ERROR] not exist database students
---------------------------


            ----------------------------------------
        Enter your choice to perform the task: 9
            ----------------------------------------
[ERROR] not exist database students
---------------------------
```

```
        ----------------------------------------------
        Enter your choice to perform the task: 2
        ----------------------------------------------
Add the students from file
----------------------------
[INFO]  roll number 1 saved successfully
[ERROR] roll number 1 is already taken
[INFO]  roll number 1 saved successfully
[INFO]  roll number 1 saved successfully
[INFO]  student details is add successfully
----------------------------
[INFO]  the total number of student is 3
[INFO]  you can add up to 50 students
[INFO]  you can add 47 students
----------------------------
```

```
          ---------------------------------------------
          Enter your choice to perform the task: 9
          ---------------------------------------------
display database students
------------------------------
student first name  : Marco
student last name    : Magdy
student roll number : 1
the GPA is : 3.5
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
------------------------------
student first name  : Bolis
student last name    : Karam
student roll number : 3
the GPA is : 3.5
the course id is 45
the course id is 21
the course id is 55
the course id is 18
the course id is 46
------------------------------
student first name  : Kerolos
student last name    : Gamal
student roll number : 4
the GPA is : 3.5
the course id is 45
the course id is 55
the course id is 18
the course id is 46
the course id is 1
------------------------------
```

```
        --------------------------------------------
        Enter your choice to perform the task: 1
        --------------------------------------------
Add the students details
----------------------------
Enter the roll number : 51
[ERROR] The number rolled must be less than or equal to
        the size of the database's roll numbers [50]


        --------------------------------------------
        Enter your choice to perform the task: 1
        --------------------------------------------
Add the students details
----------------------------
Enter the roll number : 1
[ERROR] roll number 1 is already taken
----------------------------


        --------------------------------------------
        Enter your choice to perform the task: 1
        --------------------------------------------
Add the students details
----------------------------
Enter the roll number : 2
Enter the first name of student :mohamed
Enter the last name of student :salah
Enter the GPA you obtained : 3.1
Enter the course id of each course
course 1 id : 11
course 2 id : 55
course 3 id : 99
course 4 id : 18
course 5 id : 47
[INFO]  student details is add successfully
----------------------------
[INFO]  the total number of student is 4
[INFO]  you can add up to 50 students
[INFO]  you can add 46 students
----------------------------
```

```
        -----------------------------------------
        Enter your choice to perform the task: 3
        -----------------------------------------
-----------------------------
Enter the roll number of the student :60
-----------------------------
[ERROR] The number rolled must be less than or equal to
        the size of the database's roll numbers [50]


        -----------------------------------------
        Enter your choice to perform the task: 3
        -----------------------------------------
-----------------------------
Enter the roll number of the student :50
-----------------------------
[ERROR] roll number 50 not found
-----------------------------


        -----------------------------------------
        Enter your choice to perform the task: 3
        -----------------------------------------
-----------------------------
Enter the roll number of the student :2
-----------------------------
the student details are :
-----------------------------
the first name is : mohamed
the last  name is : salah
the GPA is : 3.1
id of each course
the course id 11
the course id 55
the course id 99
the course id 18
the course id 47
-----------------------------
[INFO] student details is find successfully
-----------------------------
```

```
          ---------------------------------------------
          Enter your choice to perform the task: 1
          ---------------------------------------------
Add the students details
------------------------------
Enter the roll number : 5
Enter the first name of student :mohamed
Enter the last name of student :elatar
Enter the GPA you obtained : 3.1
Enter the course id of each course
course 1 id : 16
course 2 id : 22
course 3 id : 23
course 4 id : 37
course 5 id : 99
[INFO]  student details is add successfully
------------------------------
[INFO]  the total number of student is 5
[INFO]  you can add up to 50 students
[INFO]  you can add 45 students
------------------------------


          ---------------------------------------------
          Enter your choice to perform the task: 1
          ---------------------------------------------
Add the students details
------------------------------
Enter the roll number : 6
Enter the first name of student :kerolos
Enter the last name of student :karm
Enter the GPA you obtained : 3.5
Enter the course id of each course
course 1 id : 1
course 2 id : 22
course 3 id : 33
course 4 id : 44
course 5 id : 5
[INFO]  student details is add successfully
------------------------------
[INFO]  the total number of student is 6
[INFO]  you can add up to 50 students
[INFO]  you can add 44 students
------------------------------
```

```
          -------------------------------------------
          Enter your choice to perform the task: 4
          -------------------------------------------
Enter the first name of the student :mohamed
---------------------------
the students details are :
---------------------------
the first name is : mohamed
the last  name is : salah
the roll number is 2
the GPA is : 3.1
id of each course
the course id 11
the course id 55
the course id 99
the course id 18
the course id 47
---------------------------
the first name is : mohamed
the last  name is : elatar
the roll number is 5
the GPA is : 3.1
id of each course
the course id 16
the course id 22
the course id 23
the course id 37
the course id 99
---------------------------
```

```
          -------------------------------------------
          Enter your choice to perform the task: 4
          -------------------------------------------
Enter the first name of the student :bolis
---------------------------
the students details are :
---------------------------
the first name is : Bolis
the last  name is : Karam
the roll number is 3
the GPA is : 3.5
id of each course
the course id 45
the course id 21
the course id 55
the course id 18
the course id 46
---------------------------
```

```
          ---------------------------------------------
          Enter your choice to perform the task: 5
          ---------------------------------------------
Enter the course id :18
----------------------------
the students details are :
----------------------------
the first name is : Bolis
the last  name is : Karam
the roll number is 3
the GPA is : 3.5
----------------------------
the first name is : Kerolos
the last  name is : Gamal
the roll number is 4
the GPA is : 3.5
----------------------------
the first name is : mohamed
the last  name is : salah
the roll number is 2
the GPA is : 3.1
----------------------------
[INFO] total number of students enrolled : 3
----------------------------


          ---------------------------------------------
          Enter your choice to perform the task: 5
          ---------------------------------------------
Enter the course id :22
----------------------------
the students details are :
----------------------------
the first name is : mohamed
the last  name is : elatar
the roll number is 5
the GPA is : 3.1
----------------------------
the first name is : kerolos
the last  name is : karm
the roll number is 6
the GPA is : 3.5
----------------------------
[INFO] total number of students enrolled : 2
----------------------------
```

```
        ---------------------------------------------
        Enter your choice to perform the task: 5
        ---------------------------------------------
Enter the course id :20
-----------------------------
the students details are :
-----------------------------
[ERROR] course id 20 not found
-----------------------------
```

```
        ---------------------------------------------
        Enter your choice to perform the task: 6
        ---------------------------------------------
[INFO] the total number of student is 6
[INFO] you can add up to 50 students
[INFO] you can add 44 students
-----------------------------
```

```
            ------------------------------------------------
            Enter your choice to perform the task: 7
            ------------------------------------------------
Enter the roll number which you want to delete :55
-----------------------------
[ERROR] The number rolled must be less than or equal to
            the size of the database's roll numbers [50]


            ------------------------------------------------
            Enter your choice to perform the task: 7
            ------------------------------------------------
Enter the roll number which you want to delete :30
-----------------------------
[ERROR] this roll number 30 not found
-----------------------------


            ------------------------------------------------
            Enter your choice to perform the task: 7
            ------------------------------------------------
Enter the roll number which you want to delete :4
-----------------------------
[[INFO] the roll number removed successfully
-----------------------------
[INFO] the total number of student is 5
[INFO] you can add up to 50 students
[INFO] you can add 45 students
-----------------------------


            ------------------------------------------------
            Enter your choice to perform the task: 7
            ------------------------------------------------
Enter the roll number which you want to delete :5
-----------------------------
[[INFO] the roll number removed successfully
-----------------------------
[INFO] the total number of student is 4
[INFO] you can add up to 50 students
[INFO] you can add 46 students
-----------------------------
```

```
          ------------------------------------------
          Enter your choice to perform the task: 7
          ------------------------------------------
Enter the roll number which you want to delete :1
----------------------------
[[INFO] the roll number removed successfully
----------------------------
[INFO] the total number of student is 3
[INFO] you can add up to 50 students
[INFO] you can add 47 students
----------------------------
```

```
          ------------------------------------------
          Enter your choice to perform the task: 9
          ------------------------------------------
display database students
----------------------------
student first name  : Bolis
student last name   : Karam
student roll number : 3
the GPA is : 3.5
the course id 1 is 45
the course id 1 is 21
the course id 1 is 55
the course id 1 is 18
the course id 1 is 46
----------------------------
student first name  : mohamed
student last name   : salah
student roll number : 2
the GPA is : 3.1
the course id 2 is 11
the course id 2 is 55
the course id 2 is 99
the course id 2 is 18
the course id 2 is 47
----------------------------
student first name  : kerolos
student last name   : karm
student roll number : 6
the GPA is : 3.5
the course id 3 is 1
the course id 3 is 22
the course id 3 is 33
the course id 3 is 44
the course id 3 is 5
----------------------------
```

```
        ----------------------------------------
        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
----------------------------
Enter option to update :1
----------------------------
Enter new first name :osama
----------------------------
[INFO] update successfully
----------------------------
```

```
        ----------------------------------------------
        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
----------------------------
Enter option to update :4
----------------------------
Enter new GPA :3.9
----------------------------
[INFO] update successfully
----------------------------
```

```
        ---------------------------------------------
        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
---------------------------
Enter option to update :3
---------------------------
Enter new roll :3
[ERROR] the same current roll number 3
---------------------------
Enter new roll :6
[ERROR] roll number 6 is already taken
---------------------------
Enter new roll :20
---------------------------
[INFO] update successfully
---------------------------
```

```
        ---------------------------------------------
        Enter your choice to perform the task: 3
        ---------------------------------------------
---------------------------
Enter the roll number of the student :3
---------------------------
[ERROR] roll number 3 not found
---------------------------


        ---------------------------------------------
        Enter your choice to perform the task: 3
        ---------------------------------------------
---------------------------
Enter the roll number of the student :20
---------------------------
the student details are :
---------------------------
the first name is : osama
the last  name is : Karam
the GPA is : 3.9
id of each course
the course id 45
the course id 21
the course id 55
the course id 18
the course id 46
---------------------------
[INFO] student details is find successfully
---------------------------
```

```
        ---------------------------------------------
        Enter your choice to perform the task: 8
        ---------------------------------------------
Enter the roll number to update the entry :3
-------------------------------
[ERROR] roll 3 not found
-------------------------------


        ---------------------------------------------
        Enter your choice to perform the task: 8
        ---------------------------------------------
Enter the roll number to update the entry :20
-------------------------------
1. first name
2. last name
3. roll number
4. GPA
5. courses
-------------------------------
Enter option to update :3
-------------------------------
Enter new roll :51
[ERROR] The number rolled must be less than or equal to
        the size of the database's roll numbers [50]
-------------------------------
[ERROR] update failed
-------------------------------
```