



**LINUX LABORATORY-LECTURE-1211-
ENCS3130**



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Section: 3

- **User interface:**

```
Hello, welcome to Amany & Hadeel student recording system
-----
please chose one from below:
        1-I'm an admin
        2-I'm a user
        3-End the program
-----
```


- **Admin options:**

```
1
Welcome to the admin page
-----
Menu
1-Add a new record file to the system
2-Add a new semester to the student record
3-update the student record
4-Student statistics
5-Global statistics
6-Searching
7-return to login
-----
```


- **Student options:**

```
2
Welcome to the student page
-----
Menu
1-Student statistics
2-Global statistics
3-return to login
-----
```

- **Admin options starting with the first option:**

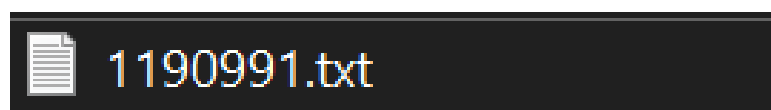
When enter a student id exist in the system, message error will show as below 

```
1
Could you please enter the student id: 1190728
Try entering another number
Welcome to the admin page
-----
Menu
1-Add a new record file to the system
2-Add a new semester to the student record
3-update the student record
4-Student statistics
5-Global statistics
6-Searching
7-return to login
-----
```

While when entering a non-exist id then 

```
1
Could you please enter the student id: 1190991
The file has been added successfully
Welcome to the admin page
-----
Menu
1-Add a new record file to the system
2-Add a new semester to the student record
3-update the student record
4-Student statistics
5-Global statistics
6-Searching
7-return to login
-----
```

Result:



○ Admin options → second option:

```
2
Could you please enter the student id: 1190991
Could you please enter the year you want?:
note you should know: please enter the year followed by '-' like:(2020-2021 :)2020-2021
year is valid ..
Could you please enter the number of the semester: 1
the courses file consist the following:
['ENGC1000', 'ENGC1001', 'ENGC1002', 'ENGC1201', 'ENGC1202', 'ENGC1400', 'ENGC2201 ', 'ENGC2202 ', 'ENGC2400', 'ENGC2201 ', 'ENGC2202 ', 'ENGC2203
Could you please enter the course name or if you want to exit enter '0': ENGC1002
Could you please enter the grade: 86
Could you please enter the course name or if you want to exit enter '0': ENGC2202
the course you entered does not exist! try enter from above.
Could you please enter the course name or if you want to exit enter '0': ENGC1400
Could you please enter the grade: 78
Could you please enter the course name or if you want to exit enter '0': ENGC2201
Could you please enter the grade: 69
Could you please enter the course name or if you want to exit enter '0': ENGC2203
Could you please enter the grade: 83
Could you please enter the course name or if you want to exit enter '0': 0
The data added to file successfully
Welcome to the admin page
-----
```

Result:



1190991.txt - Notepad

File Edit Format View Help

2020-2021/1 ; ENGC1002 86, ENGC1400 78, ENGC2201 69, ENGC2203 83

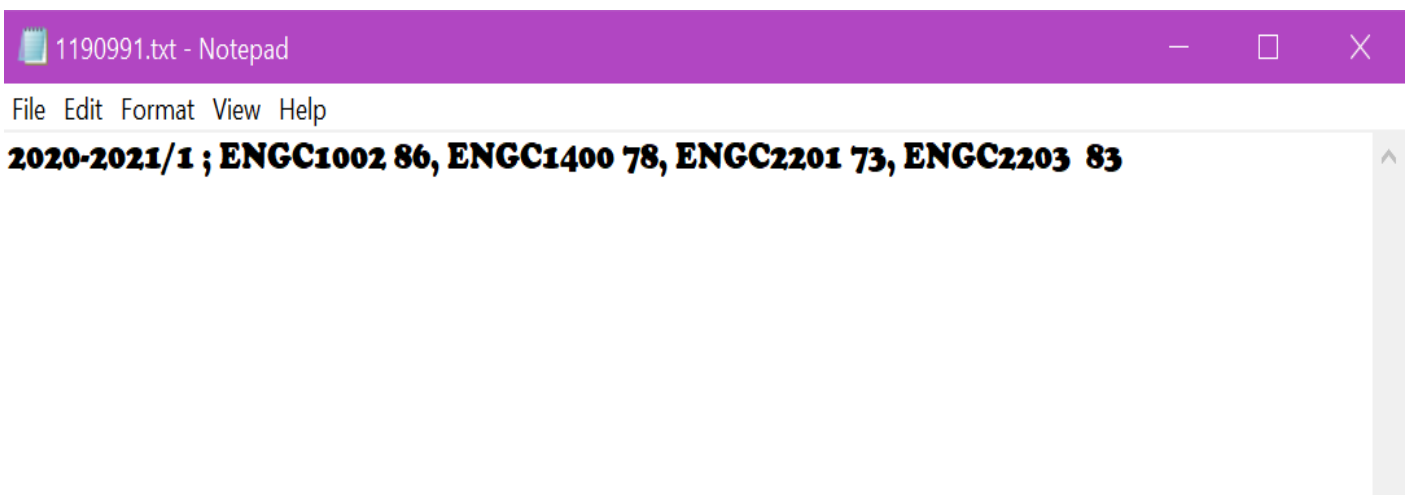
But when entering an id does not exist in the system

```
2
Could you please enter the student id: 1190888
ERROR!, the id is not in the system, try entering another number
Welcome to the admin page
-----
```

- Admin options → third option:

```
3
Could you please enter the student id: 1190991
The student id is already in the system!
The file is exist ...
Please enter the course you want to change its mark: ENGC2201
please enter the new mark: 73
update successfully
Welcome to the admin page
-----
Menu
1-Add a new record file to the system
2-Add a new semester to the student record
3-update the student record
4-Student statistics
5-Global statistics
6-Searching
7-return to login
-----
```

Result:



- Admin options → fourth option:

Let us try another student who have the following data

```
1190728.txt - Notepad
File Edit Format View Help
2020-2021/2 ; ENCS3130 90, ENCS3310 80, ENCS3390 85, ENCS4110 90
2020-2021/1 ; ENCS5141 89, ENCS3320 97, ENCS3330 89, ENCS4370 90
2020-2021/3 ; ENCS4110 90
3033-3034/1 ; ENGC1202 98
```

```
4
Could you please enter the student id: 1190728
The student id is already in the system!
Student statistics :
* The number of taken hours : 30
* The remaining courses : ['ENG1000', 'ENG1001', 'ENG1002', 'ENG1201', 'ENG1400', 'ENG2201 ', 'ENG2202 ', 'ENG2400', 'ENG2201 ', 'ENG2
* Average per semester :
- The average of the first semester : 92.6
- The average of the second semester : 86.25
- The average of the summer semester : 90.0
* Overall average : 89.8
```

Another student:

```
1190451.txt - Notepad
File Edit Format View Help
2020-2021/1 ; ENCS3130 90, ENCS3310 80, ENCS3390 85, ENCS4110 95
2020-2021/2 ; ENCS2360 75, ENCS3320 97, ENCS3330 89, ENCS4370 65
2020-2021/3 ; ENCS4210 68, ENCS4320 99, ENCS4380 84, ENCS4310 88
```

```
4
Could you please enter the student id: 1190451
The student id is already in the system!
Student statistics :
* The number of taken hours : 33
* The remaining courses : ['ENG1000', 'ENG1001', 'ENG1002', 'ENG1201', 'ENG1202', 'ENG1400', 'ENG2201 ', 'ENG2202 ', 'ENG2400', 'ENG22
* Average per semester :
- The average of the first semester : 87.5
- The average of the second semester : 81.5
- The average of the summer semester : 84.75
* Overall average : 84.58333333333333
```

- Admin options → fifth option:

5

The student id is already in the system!

Global statistics :

* The number of taken hours : 63

* Average per semester :

-The average of the first semester for all students : 90.33333333333333

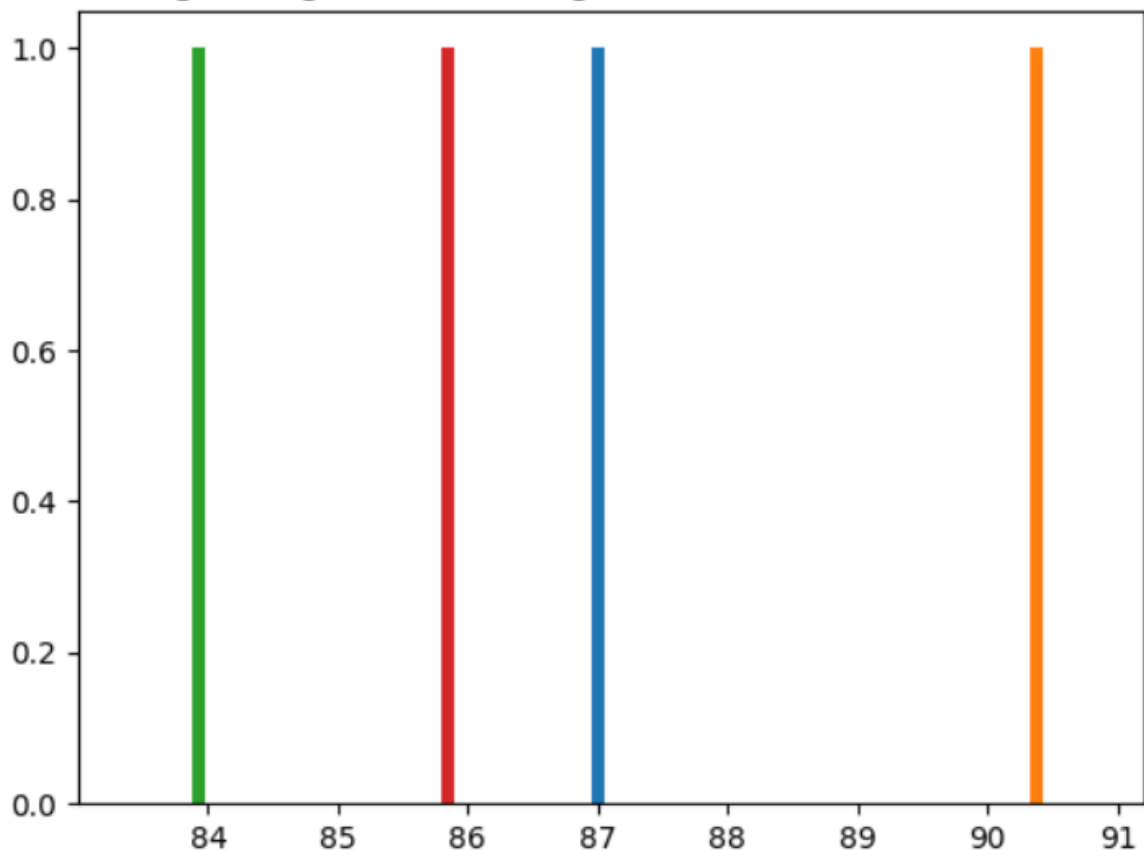
-The average of the second semester for all students: 83.875

-The average of the summer semester for all students : 85.8

* Overall average for all semesters : 86.95454545454545

For the graph:

plot for the distribution of student grades
blue:allavg, orange:semester1, green:semester2 and red:semester3



○ Admin options → sixth option:

```
6
Could you please enter what you want to search?
1) Average
2) Taken hours
3) Return to menu
1
Could you please enter the average you want me to search? :) 40
Hello again!,chose from below what to compare :
1) grater than
2) less than
3) equal
1
This student with this number 1190451 got an average higher than the required average in the first semester
This student with this number 1190451 got an average higher than the required average in the second semester
This student with this number 1190451 got an average higher than the required average in the summer semester
This student with this number 1190728 got an average higher than the required average in the first semester
This student with this number 1190728 got an average higher than the required average in the second semester
This student with this number 1190728 got an average higher than the required average in the summer semester
Could you please enter what you want to search?
1) Average
2) Taken hours
3) Return to menu
```

Here I chose to search about the average and grater than 40. Same for other options.

Let's see the taken hours:

```
6
Could you please enter what you want to search?
1) Average
2) Taken hours
3) Return to menu
2
Could you please enter the hours you want me to search? :) 70
Hello again!,chose from below what to compare :
1) grater than
2) less than
3) equal
2
This student with this number 1190451 got an houres less than the required hour average
This student with this number 1190728 got an houres less than the required hour average
Could you please enter what you want to search?
1) Average
2) Taken hours
3) Return to menu
3
```

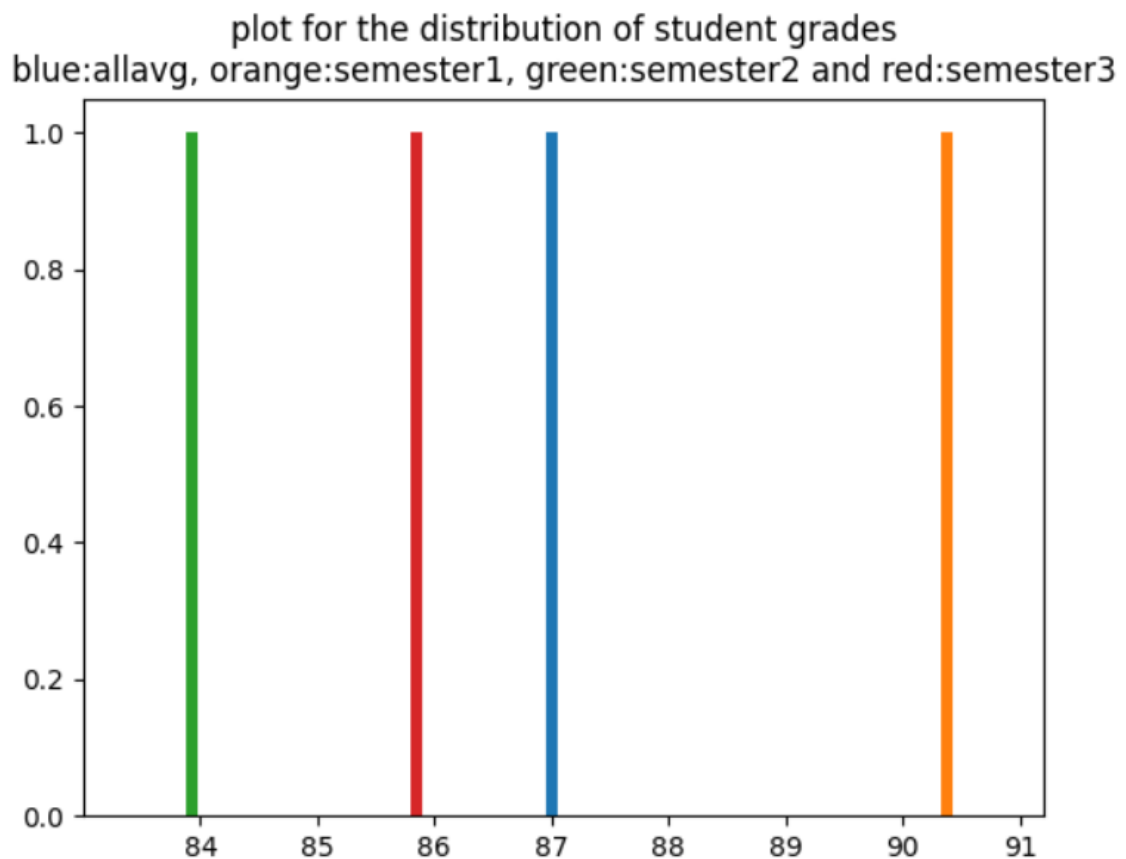

○ Student options → first option:

```
please chose one from below:
    1-I'm an admin
    2-I'm a user
    3-End the program
-----
3
    Welcome to the student page
-----
    Menu
    1-Student statistics
    2-Global statistics
    3-return to login
-----
1
Could you please enter the student id: 1198728
The student id is already in the system!
Student statistics :
* The number of taken hours : 30
* The remaining courses : ['ENGC1000', 'ENGC1001', 'ENGC1002', 'ENGC1201', 'ENGC1400', 'ENGC2201 ', 'ENGC2202 ', 'ENGC2400', 'ENGC2201 ', 'ENGC2
* Average per semester :
  -The average of the first semester : 92.6
  -The average of the second semester : 86.25
  -The average of the summer semester : 90.0
* Overall average : 89.8
```

○ Student options → second option:

```
    Welcome to the student page
-----
    Menu
    1-Student statistics
    2-Global statistics
    3-return to login
-----
2
The student id is already in the system!
Global statistics :
* The number of taken hours : 63
* Average per semester :
  -The average of the first semester for all students : 90.33333333333333
  -The average of the second semester for all students: 83.875
  -The average of the summer semester for all students : 85.8
* Overall average for all semesters : 86.95454545454545
```

And the graph printed before will be printed here too:



return to login page and end the program

```
Welcome to the student page
-----
Menu
1-Student statistics
2-Global statistics
3-return to login
-----

3
Hello, welcome to Amany & Hadeel student recording system
-----
please chose one from below:
    1-I'm an admin
    2-I'm a user
    3-End the program
-----

3

Process finished with exit code 0
```