



Department of Electrical & Computer Engineering

First Semester, 2021/2022 ENCS313

Linux Laboratory

Python Project – Students Records Management System

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The menu screen shot for options :

```
welcome to our student recording system
-----
please chose Admin or user
    1-Admin
    2-User
    3-End the program
-----
1
    welcome to Admin page
-----
    please chose frome the menu
        1-Add new record to the system
        2-Add new semester to the student record
        3-update student record
        4-Student statistics
        5-Global statistics
        6-Searching
        7-return to login
```

```
welcome to our student recording system
-----
please chose Admin or user
    1-Admin
    2-User
    3-End the program
-----
2
    welcome to user page
-----
    please enter your number
1191636
    please chosse from the menu
        1-my statistics
        2-global statistics
        3-back to menu
-----
```

Admin options:

- Add new record to the system :

Here , I entered a student id that exist in record system already .

```
welcome to Admin page
-----
please chose frome the menu
  1-Add new record to the system
  2-Add new semester to the student recor
  3-update student record
  4-Student statistics
  5-Global statistics
  6-Searching
  7-return to login
-----
1
please enter the student id
1191636
error...the student already in the system
```

Below , I entered a student id that not exist

welcome to Admin page

please chose frome the menu

- 1-Add new record to the system
- 2-Add new semester to the student record
- 3-update student record
- 4-Student statistics
- 5-Global statistics
- 6-Searching
- 7-return to login

1

please enter the student id

1200120

- *add new semester to the student record :*

```
1
welcome to Admin page
-----
please chose frome the menu
1-Add new record to the system
2-Add new semester to the student record
3-update student record
4-Student statistics
5-Global statistics
6-Searching
7-return to login
-----

2
please enter the student id :
1197867
Please enter the year (it should in form x-x) .
2020-2021
Please enter the semester number ( '1' means the first semester , '2' means the second semseter , '3' means the Summer semester ) :
1
['ENCs2340', 'ENEE2307', 'ENCs2110', 'ENCs2380', 'ENEE2304', 'ENEE2312', 'ENCs3130', 'ENCs3310', 'ENCs3390', 'ENCs4110', 'ENEE2360', 'ENEE3309', 'ENCs3320', 'ENCs3330', 'ENCs3340']
Please enter the course or -1 to exit
encs2340
please enter the grade
94
Please enter the course or -1 to exit
-1
```

The result shown in file :

main.py × 1197867.txt ×	
1	2020-2021/1 ; ENCS2340 94
2	

- Another add record semester and shown the result in Id student file :

2

please enter the student id :

1197867

Please enter the year (it should in form x-x) .

2021-2022

Please enter the semester number ('1' means the first semester , '2' means the second semseter , '3' means the Summer semester) :

2

['ENCS2340', 'ENEE2307', 'ENCS2110', 'ENCS2380', 'ENEE2304', 'ENEE2312', 'ENCS3130', 'ENCS3310', 'ENCS3390', 'ENCS4110', 'ENEE2360', 'ENEE3309', 'ENCS3320', 'ENCS3330', 'ENCS3340',

Please enter the course or -1 to exit

encs2380

please enter the grade

95

Please enter the course or -1 to exit

-1

main.py × 1197867.txt ×	
1	2020-2021/1 ; <u>ENCS2340</u> 94
2	2021-2022/2 ; <u>ENCS2380</u> 95
3	

- update student record :

3

please enter the student id :

1197867

1197867.txt

please enter the course you want to update

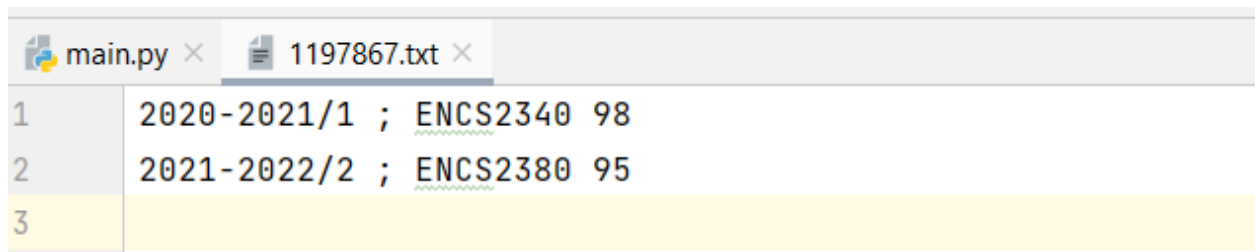
encs2340

please enter the new grade

98

2020-2021/1 {'ENCs2340': '98'}

2021-2022/2 {'ENCs2380': '95'}



```
1 2020-2021/1 ; ENCS2340 98
2 2021-2022/2 ; ENCS2380 95
3
```

If the course is not in record , the program will print an error message .

```
-----
3
please enter the student id :
1197867
1197867.txt
please enter the course you want to update
encs2220
please enter the new grade
80
the course not found please add a valid one
```


- Student statistics

4

please enter the student id :

1197867

1197867.txt

semester : 2020-2021/1 ----> average : 98.00,taken hour : 3

semester : 2021-2022/2 ----> average : 95.00,taken hour : 3

remaining courses ---> ['ENEE2307', 'ENCS2110', 'ENEE2304', 'ENEE2312', 'ENCS3130', 'ENCS3310', 'ENCS3390', 'ENCS4110', 'ENEE2360', 'ENEE3309', 'ENCS3320', 'ENCS3330', 'ENCS3340',

over all avg ---> 96.50

taken hours --->6

remaining courses --->['ENEE2307', 'ENCS2110', 'ENEE2304', 'ENEE2312', 'ENCS3130', 'ENCS3310', 'ENCS3390', 'ENCS4110', 'ENEE2360', 'ENEE3309', 'ENCS3320', 'ENCS3330', 'ENCS3340', 'ENCS4370', 'ENEE2103', 'ENEE4113', 'ENCS4130', 'ENCS4210', 'ENCS4310', 'ENCS4320', 'ENCS4380', 'ENCS4330', 'ENCS4300', 'ENCS5140', 'ENCS5200', 'ENCS5150', 'ENCS5300']

4

please enter the student id :

112020

The student does not have any courses . Please add courses to this student and try again ! .



main.py ×

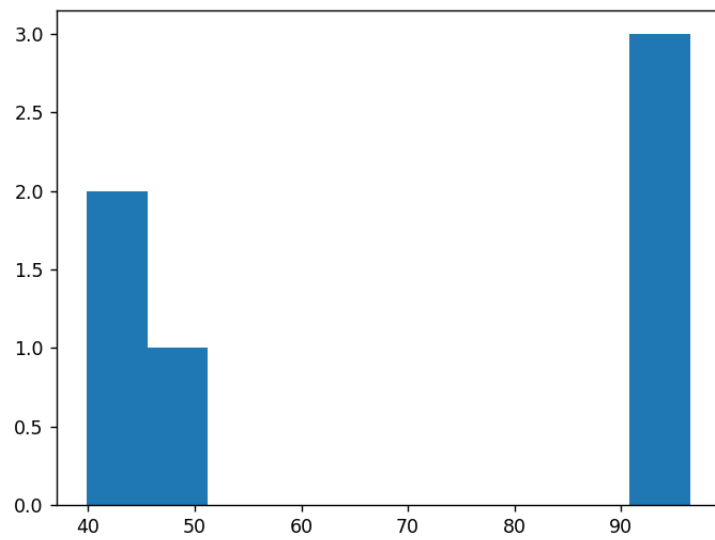


112020.txt ×

1

- Global statistics

+ distribution of grades



-

5

1173239.txt

1173966.txt

1175914.txt

1190119.txt

1191636.txt

1197867.txt

avg for all students ---> {'1173239.txt': 39.875, '1173966.txt': 49.61538461538461, '1175914.txt': 43.708333333333336, '1190119.txt': 95.0, '1191636.txt': 91.0, '1197867.txt': 96.5}

taken courses for all student :

student-----taken courses

1173239.txt ['ENCS4310', 'ENCS5150', 'ENCS3130', 'ENCS5200', 'ENEE2103']

student-----taken courses

1173966.txt ['ENCS4380', 'ENEE2307', 'ENCS5150', 'ENCS3390', 'ENCS5300']

student-----taken courses

1175914.txt ['ENCS3330', 'ENCS4210', 'ENCS5140', 'ENEE2304', 'ENCS4310', 'ENCS3130', 'ENCS5200', 'ENCS4300', 'ENCS2380', 'ENCS4370']

student-----taken courses

1190119.txt ['ENCS2340']

student-----taken courses

1191636.txt ['ENEE2307', 'ENCS3130']

student-----taken courses

1197867.txt ['ENCS2340', 'ENCS2380']

average for all students ---> 69.283

average for taken hours ---> 9.667

The avg for all students below because the screen shot does not show all the results (the area is small).

avg for all students ---> {'1173239.txt': 39.875, '1173966.txt': 49.61538461538461, '1175914.txt': 43.708333333333336, '1190119.txt': 95.0, '1191636.txt': 91.0, '1197867.txt': 96.5} taken hour for all students ---> {'1173239.txt': 8, '1173966.txt': 13, '1175914.txt': 24, '1190119.txt': 3, '1191636.txt': 4, '1197867.txt': 6}

- Searching

please chose the criteria you want to search

- 1-average
- 2-taken hour
- 3-courses
- 4-back to menu

1

please enter the average you search for

98

chose what you want to search :

- 1-less
- 2-grater
- 3-equal

1

the students is : {'1173966.txt', '1191636.txt', '1173239.txt', '1175914.txt', '1190119.txt', '1197867.txt'}

please chose the criteria you want to search

- 1-average
- 2-taken hour
- 3-courses
- 4-back to menu

1

please enter the average you search for

90

chose what you want to search :

- 1-less
- 2-grater
- 3-equal

2

the students is : {'1197867.txt', '1190119.txt', '1191636.txt'}

-
please enter the average you search for

91

chose what you want to search :

1-less

2-grater

3-equal

3

the students is : {'1191636.txt'}

please chose the criteria you want to search

1-average

2-taken hour

3-courses

4-back to menu

3

please enter the course you search for :

encs2340

the students is : {'1197867.txt', '1190119.txt'}

Students' options:

Student statistics:

```
-----
2
welcome to user page
-----

please enter your number
1191636

-----

please choose from the menu
1-my statistics .
2-global statistics .
3-back to menu .
-----

1
1191636.txt
your statistics is :
1- overall avg --> 91.00
2-all taken hours --> 4
3- semester----- taken hours -----avg

2020-2021/1-----4-----91.0
Remaining courses :
['ENCS2340', 'ENCS2110', 'ENCS2380', 'ENEE2304', 'ENEE2312', 'ENCS3310', 'ENCS3390', 'ENCS4110', 'ENEE2360', 'ENEE3309', 'ENCS3320', 'ENCS3330', 'ENCS3340', 'ENCS4370', 'ENEE2103', 'ENEE4113', 'ENCS4130', 'ENCS4210', 'ENCS4310', 'ENCS4320', 'ENCS4380', 'ENCS4330', 'ENCS4300', 'ENCS5140', 'ENCS5200', 'ENCS5150', 'ENCS5300']
```

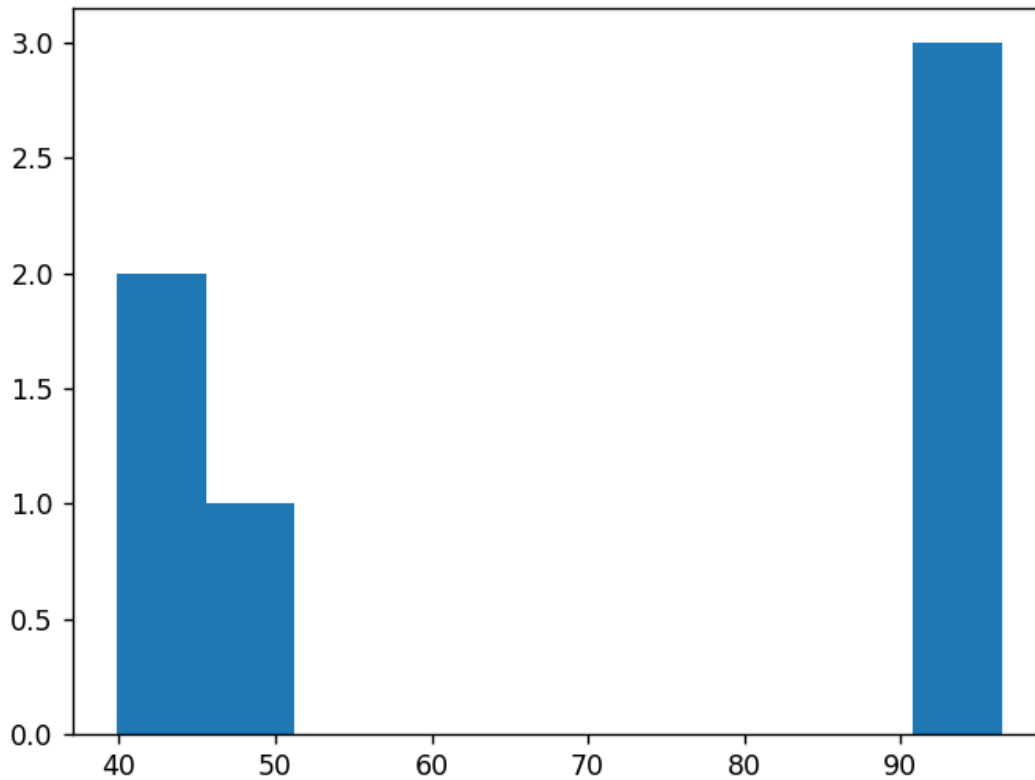
Remaning courses :

```
['ENCS2340', 'ENCS2110', 'ENCS2380', 'ENEE2304', 'ENEE2312', 'ENCS3310', 'ENCS3390', 'ENCS4110', 'ENEE2360', 'ENEE3309', 'ENCS3320', 'ENCS3330', 'ENCS3340', 'ENCS4370', 'ENEE2103', 'ENEE4113', 'ENCS4130', 'ENCS4210', 'ENCS4310', 'ENCS4320', 'ENCS4380', 'ENCS4330', 'ENCS4300', 'ENCS5140', 'ENCS5200', 'ENCS5150', 'ENCS5300']
```

Global statistics:



Figure 1



```

2
1173239.txt
1173966.txt
1175914.txt
1190119.txt
1191636.txt
1197867.txt
avg for all students ---> {'1173239.txt': 39.875, '1173966.txt': 49.61538461538461, '1175914.txt': 43.708333333333336, '1190119.txt': 95.0, '1191636.txt': 91.0, '1197867.txt': 96.5]
taken courses for all student :

student-----taken courses
1173239.txt      ['ENCS4310', 'ENCS5150', 'ENCS3130', 'ENCS5200', 'ENEE2103']
student-----taken courses
1173966.txt      ['ENCS4380', 'ENEE2307', 'ENCS5150', 'ENCS3390', 'ENCS5300']
student-----taken courses
1175914.txt      ['ENCS3330', 'ENCS4210', 'ENCS5140', 'ENEE2304', 'ENCS4310', 'ENCS3130', 'ENCS5200', 'ENCS4300', 'ENCS2380', 'ENCS4370']
student-----taken courses
1190119.txt      ['ENCS2340']
student-----taken courses
1191636.txt      ['ENEE2307', 'ENCS3130']
student-----taken courses
1197867.txt      ['ENCS2340', 'ENCS2380']
average for all students ---> 69.283
average for taken hours ---> 9.667

```

Activate Windows