

**Faculty of Engineering and Technology**

**Electrical & Computer Engineering Department**

**Linux Lab ENCS3130**

**Project Python**

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# **Idea and Algorithm:**

The idea of this project is to make a somewhat simple Students Records Management System, which gives access for either an admin and a student, to keep track of both of them we made two files, **prof.txt that has admin IDs, and data.txt that has students ID**, as for the courses they are stored in ENCS.txt and lastly each student has his own data file with his ID as its name, **for the admin we will provide six options, 1) add new student, 2) add new semester for a student, 3) Update a student record, 4) student statistics , 5) global statistics, 6) search.**

**And for the student we will provide the forth and fifth option only, a brief summary for the code will be given now:**

1. **Add new student:**

This option is done in option1.py file, as a separate function, we use ‘x’ option in opening files to keep track of them.

m = open(f, "x") # create it and check if its there or not

1. **Add new semester:**

This option is simple, as we just take data and write it to the file, its done in option2.py and to keep track of the format we use the following regex:

pattern1 = '^\d\d\d\d-\d\d\d\d/[1-2]'  
pattern2 = ' EN[C/E][S/E]\d\d\d\d \d\d'

1. **Update a student record:**

In here we update a student record/ grade, to do this we followed the following algorithm

with open("your\_file.txt",'w') as f:  
 for i,line in enumerate(get\_all,1): ## STARTS THE NUMBERING FROM 1 (by default it begins with 0)   
 if i == 2: ## OVERWRITES line:2  
 f.writelines("new line")  
 else:  
 f.writelines(line)

1. **Student statistics:**

In option4.py, this function was done, and to keep track of semester:avg we used dict.

For the admin we use also option4proxy to print the outputs.

1. **Global statistics:**

To get those, we added a new function that keeps track of each student call StudentAll, it will be cleaned and edited routinely, this function has the needed parameters as a global variables, and takes a list of students as an input

1. **Search**

We use the list of student produced by the function StudentAll to do the search.

# **Results:**



















