Alexandria University
Faculty of Engineering
Computers & Systems Engineering Department

CS-011
Level-0
Lab#2

# Lab 2

## Overview

In this lab we will write how to write a program with complex logic that depends on user inputs. Also we will learn how to deal with users mistakes

## Steps

1. From Windows start menu, Open Python IDLE
2. Go to the File menu and select "New File"
3. Copy the following program to the window

```
S = int(input("Enter your score: "))
if S >= 93:
    print ("Your grade is A")
if S >= 89:
    print ("Your grade is A-")
if S >= 84:
    print ("Your grade is B+")
if S >= 80:
    print ("Your grade is B")
if S >= 76:
    print ("Your grade is B-")
if S >= 73:
    print ("Your grade is C+")
if S >= 70:
    print ("Your grade is C")
if S >= 67:
    print ("Your grade is C-")
if S >= 64:
    print ("Your grade is D+")
if S >= 60:
    print ("Your grade is D")
else:
    print ("Your grade is F")
```

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4. Go to the  File  menu and select "Save", and save the program at the Desktop. Please use your student-id as the name of the file, and use "py" as an extension to the program
5. Go to the  Run  menu and select "Run Module". Your program will run and will ask you to enter your score and it will print your Grade from A to F.

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**Exercise 1:**

- **Does this program work as expected ?**
- **This program should work correctly for a subset of values, what is a value that this program can give a correct answer?**
- **What is the type of error in this program?**
- **Please fix that error, and run the program again**

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**Exercise 2:**

- **In the program instead of entering numbers to the program, try to enter any string values such as HELLO**
- **What is the output of the program?**
- **What is the type of error in this program?**

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6. Modify the program to handle user mistakes such as users who enter negative values as grade
7. Modify the program to handle user mistakes such as users who enter enter string values.
   Hint: use  **try** and **except**
8. Go to the  Run  menu and select "Run Module" to run the program again
9. Make sure your new program is dealing with errors

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**Exercise 3:**

- **In your program enter the value -12 to your program**
- **In your program enter the value 200 to your program**
- **In your program enter the value HELLO to your program**
- **Make sure that you show a proper message in each case**