CIS 5357
Computing for Data Analytics
Fall 2020
Programming Assignment # 2
(To be done by each student individually)
(10 points)
Due Date: By 11:59 pm on Friday, September 11, 2020

Introduction:

You are asked to design a program to determine letter grade for students enrolled in a class. The letter grade is determined on the basis of the average score the student has earned in four exams. You will Anaconda distribution of Python 3.8.x and Jupyter Notebook to complete this assignment.

The instructor expects individual effort on this assignment. This assignment is NOT a group project. Collaboration of any type is not sanctioned and will be treated per the Academic Dishonesty policy as stated in the course syllabus. Each submission will be closely examined for plagiarism.

Specifications:

1. Define the number of exams as a constant and set its value to 4.
2. The program should next request student's name and score for each of the four exams. Each score must be between 0 and 100. It may not necessarily be an integer value. In other words, exam score value of type 80.5 or 70.7 is a possibility.
3. Accumulate each exam score as it is collected into a total score variable
4. Compute the average score by dividing the total score by the number of exams.
5. Remember, that average score cannot less than zero or greater than 100.00. If this happens for a student being processed because the user entered scores greater than 100, your program should display a message of "Invalid Data Entry" and set the letter grade to "Letter grade cannot be determined." See the example out shown later.
6. Determine the letter grade to be assigned by using the following criteria:

If the average score is		Assign letter grade
Greater than or Equal to	Less Than	
0.00	60.00	F
60.00	68.00	D
68.00	78.00	C
78.00	88.00	B
88.00	100.00	A

7. Print student's name, score for each exam, average score of all four exams, and letter grade assigned in the following format. Use of output formatting via "F-String" formatting is required so that the values are correctly formatted to two decimal places, and numeric values are properly aligned on decimal point. Use the data shown here for two students to test your program.

Student Name:	Janet Moore
Exam Number 1:	80.00
Exam Number 2:	81.00
Exam Number 3:	82.50
Exam Number 4:	81.17
Average Score:	81.17
Letter Grade Assigned:	B

Student Name:	Mark Hamill
Exam Number 1:	120
Exam Number 2:	120
Exam Number 3:	120
Exam Number 4:	120
Average Score:	120
	Invalid data entry.
Letter Grade Assigned:	Letter grade cannot be determined

Submission Requirements for Jupyter Notebook

1. The Jupyter notebook containing your python program should be named using the format **YourFirst&LastName-Assignment-2 e.g. MayurMehta-Assignment-2.**
2. Include your first and last name as heading level 2 in the very first cell of the notebook. In the same cell, include the creation date of the assignment using level 3 heading style.
3. In the second cell of the notebook, include a level 3 heading for Program Name (e.g. Grade Determination) and Use level 4 heading to state the objective of the program
4. Use appropriate comments to document each segment of the program – input, process, output
5. Save the source code for the entire program in its own single cell within the same jupyter notebook.
6. Execute the program using test data provided earlier in the specifications so that the output of the program is displayed below program.
7. Upload your program into the Assignments section of Canvas ***BEFORE*** 11:59 pm on Friday, September 11, 2020 using the following process:
    a. Log into canvas and access course site
    b. Click on the Assignments section in the course navigation menu.
    c. Click on Assignment 1 link
    d. Click on 'Submit Assignment' button on the right side of the Assignment 1 page
    e. Choose the file to submit from your disk, check the original work statement and then click on Submit/Upload.