Fundamentals of Programming for Business

Lab Assignment 3

Due Date: Monday, Mar. 22nd, 2021 by 11:59 pm

Important: *Submit your lab assignment as a single file via Canvas named LastName_FirstName_Lab_LabNumber.zip (e.g., Smith_John_Lab_03.zip). No late submissions will be accepted.*

In this lab assignment, you will write a Python program to calculate the average score for each student in the course. You may assume that all the required information is provided to you as a text file.

Input file:

The input file is named **input.txt** and contains a list of students' names and their test scores. Each line starts with a student name, followed by some test scores which are separated by comma.

Requirements:

After reading the input file, and processing the information, output the average score for each student. At the end, print the total number of students and the class average score into the output file. Also, find the students with the highest and the lowest average scores.

Output file:

The output file must be named **"output.txt"** to contain the following information in the same order received. Add an extra blank line between two records of students:

1) Students' records containing:
   - Student name
   - Average Score

2) Class statistics (print the following information at the bottom of the output file):
   - The total number of students
   - The class average score
   - The student with the highest average score

- The student with the lowest average score

Here is an example of the output file (output.txt):

……

Student 1: John Smith

Average score: 87.4

Student 2: Sara Jones

Average score: 77.6

…

Total number of students: 10

The class average score: 74.55

The student with the highest average score: Daniel Moussa

The student with the lowest average score: Sina Siddiqui

……

Use the input file to test your program only. Do not add the content of the input file into your Python script. I am going to use a different input file to test your program.

Grading:

Each assignment is out of 40 points, graded on:

- Does the code work properly? If doesn't work, describe where you had problems.
- Is the code well commented and readable?
- Did you implement all the required parts?

Submission:

1. For each assignment, create a new directory on your computer, and name it: LastName_FirstName_Lab_LabNumber.zip (Ex: Smith_John_Lab_03.zip).
2. Copy all your Python scripts (the final version of your files) to your directory. You can also add a README.txt that contains information on how to run your code.
3. Zip your folder using the same name as your directory.

4. Go to the Canvas course site. Click the Assignment link for the assignment you wish to submit. You will then see a screen allowing you to submit your assignment.
5. The “Choose File” button allows you to select the file you wish to turn in.
6. Use the Submit button to submit your file for grading.
7. After using Submit, WAIT until you see a confirmation screen showing that your assignment was successfully submitted. If you close the browser window before receiving this confirmation, your submitted file may be corrupted.
8. **No files sent via email will be accepted or considered**. No other submissions, of any form other than that described in this handout, will be accepted or considered.