

CSCI 161 Lab Assignment 9

Points 10

Objective:

To work with files in python.

Write a program that reads the student information from a tab separated values (tsv) file. The program then creates a text file that records the course grades of the students. Each row of the tsv file contains the Last Name, First Name, Midterm1 score, Midterm2 score and the Final score of a student. Assume that the number of students is at least 1 and at most 20.

The program performs the following tasks:

1. Read the file name of the tsv file from the user.
2. Open the tsv file and read the student information.
3. Compute the average exam score of each student.
4. Assign a letter grade to each student based on the average exam score in the following scale:
 - a. A : $90 \leq x$
 - b. B : $80 \leq x < 90$
 - c. C : $70 \leq x < 80$
 - d. D : $60 \leq x < 70$
 - e. E : $x < 60$
5. Output the last names, first names, exam scores, and letter grades of the students into a text file named *report.txt*. Output one student per row and separate the values with a tab character.

For example,

If the input program is *Studentinfo.tsv* and the contents of the file *Studentinfo.tsv* are:

```
Barrett Edan 70 45 59
Bradshaw Reagan 96 97 88
Charlton Caius 73 94 80
Mayo Tyrese 88 61 36
Stern Brenda 90 86 45
```

Then, Output file *report.txt* should contain:

```
Barrett Edan 70 45 59 F
Bradshaw Reagan 96 97 88 A
Charlton Caius 73 94 80 B
Mayo Tyrese 88 61 36 D
Stern Brenda 90 86 45 C
```

Sample output:

```
Hi!
Please enter the input (tsv) file: Studentinfo.tsv
the contents of the input file
      Ram Jeeva 84 95 95.1
0 Sanjay Ravi 81 77 66
1 Antony John 82 78 67
Ram      Jeeva 84      95      95      A
Sanjay   Ravi 81      77      66      C
Antony   John 82      78      67      C
PS C:\Users\aydan\Desktop>
```

Instructions:

- Preferred programming environment:
 - OS : Linux (Mint)
 - Interpreter : Python 3 (not Python 2)
 - Editor : gedit or editor of your choice
- The program is saved as a file with .py extension.
- The program should include a comment block at the top with your name, course number and course section, assignment number

For example:

```
# Your name
# CSCI II 161 L01/L02
# Assignment 9
```
- Upload your file as your *lastname_firstname_assignmentnumber.py*

For example:

```
lastname_firstname_9.py
```