Lab 12 – The Final Chapter of the Final Frontier of the Final Lab of the etc. etc.

SUBMIT original code in Python to solve the problem below.

Please be aware that copying and pasting code from any other source other than code you have explicitly written on your own is considered plagiarism. If you receive help, that is fine (document help in the comments of your code) however you need to write your own code, name your own variables, and comment your own code. Students turning in the exact same work as another student will all be given zeros. Plagiarism is not tolerated, and students found to be plagiarizing will be given a zero and reported to the University with the possibility of termination of the class and degree program.

For this lab, you will write a program that analyzes grades. The file <code>grades.txt</code> (located below this lab in D2L) contains a list of student grades from an arbitrary number of sections.

Each line contains the student ID number, the section number, and the final letter grade received, separated by a single tab. Your program should open this file and calculate the average score for each distinct section, keeping in mind that each file contains an unspecified number of sections.

Note: You may assume this file will always be in the same folder as your python file.

You can convert each letter grade to a number using the following table:

- A == 100
- B == 89
- C == 79
- D == 74
- F == 69

Remember, each section needs to have its own separate average.

Example Output:

Section 1 average: 81.943 Section 2 average: 81.803 Section 3 average: 82.108 Section 4 average: 82.093 Section 5 average: 82.61

You do not need to round or truncate your output. Save your program as Lab12.py and upload just your source file to the appropriate dropbox in GradeScope, **NOT D2L!**

REMEMBER

• Include the comment heading at the top of your code.

```
o # Program Name: Lab1.py (use the name the program is
    saved as)
o # Course: IT1114/Section XXX
o # Student Name: John Doe
o # Assignment Number: Lab#
o # Due Date: xx/xx/ 20XX
o # Purpose: What does the program do (in a few
    sentences)?
o # List specific resources used to complete the
    assignment.
```

Place comments within your code explaining the programming segments