MAKEUP

BA4318 Data Processing with Python

Fall 2018 Midterm Exam

5.12.2018

Start: 13:00 / End 14:30

Develop a Python program with the following objective.

Check the number of times a time series goes **over** a limit. This has many applications such as sounding an alarm if a suspicious activity becomes frequent, warning parents if a baby's temperature goes above 38 degrees etc.

Notes:

- You will be supplied a tab separated multi column file, and the last column will have the data to watch. Your program should adapt to the fact that the number of columns is not known. There will be a number of test files supplied with the program as well.
- Your program should ask for user input as to get the "limit".

Your program should have the following features:

1. One function to read from the file which is expected to be in the same folder as your program. This function should read each line and parse it into columns and then fill a list with the data set.
   a. Values in other columns may include spaces (but not tabs) you should be careful to **parse using only tabs as separators.**
   b. Note that the columns for numbers may use "," as decimal point. In that case You should make sure you can convert these into floats. If you have problem with that, you may **try replacing "," with "." character before the conversion.**
2. One function to process the list you created. This function should count the number of times the limit has been passed and return the count.
3. Appropriate output which is prepared out of the functions but in the main program body.

Notes:

1. Name you program file as midtermmakeup.py
2. Write your name and student number as a comment in the first line of your program.
3. When you are done. Upload it into the ODTUCLASS upload area. Because ODTUCLASS differ
4. This exam is open book including digital resources such as the course Github. But you will be monitored and you should use your digital resources properly. i.e. not cheat.

Good Luck!