HOMEWORK 5

Unzip the HW5_files.zip first into your folder and then read the contents.

(A single .PY file maybe submitted if that makes it easier for you to write. Ensure that each HW problem is solved within a contained function. If you have multiple .py files, zip them up before uploading to Wolfware. Happy Coding!)

1. Read the file 'grades.csv'. Write code that finds and displays the 5 student IDs and their corresponding grades who received the lowest grades in the class. Some students have not appeared for the exam, but they are not to be treated as 0. They need to be simply skipped from the computation. (20 points)

2. Open and read the contents of the file – '2_NoofParts_assem.txt'. Perform the following (20 points):
   a) Calculate how many entries are available in that file excluding the header.
   b) Calculate the sum of all parts from each file. Essentially, finding the sum of all values contained in the 2nd column of the file.
   c) Extract the part ID that has the largest associated no. of parts from the entire list.

3. Open the files contained in the .zip file – "3_Jobs_Completed_log.zip". Scan the files for the line that starts with the word string – "Jobs Completed.. ". Extract the number associated with this line and for all instances that this word string appears across all log files, count the total sum across all files within the .zip file. (30points) For example:

   Jobs Completed.. 10 2018-09-04 08:21:28.503153

   Extract the number 10 from this sentence which signifies the total number of jobs completed at the point in time. Find for all instances in which the string - 'Jobs Completed' appears, find the total number of jobs completed by adding the numbers from across the provided log files.

4. Read the file 'grades_2.csv' into an appropriate data structure. 1) Write code that finds and displays the average score of all the students across the three exams. 2) Find the Student ID that scored the maximum in each of the respective exams (output must be 3 values). Exam entries with an empty value can be considered as ZERO. (30points)