Assignment 1

CPSC 4810

20th May 2019

Due Date – 26th May 2019 (11.30 PM)

Max Marks – 30 (Weightage out of 100 is 10%)

Note: The solution will be a pdf file with all the screenshots of the code with the solution as well as all the command run during the execution of the code. Only one file containing all the screenshots and solution should be uploaded.

1. Use the flightdelays.csv file from your class to solve the following questions. You must write a bash shell script for each question. **[10 Marks]**

   a) Take the original file (*flightdelays.csv*) and print:
   the Arrival Delay (column name: *ArrDelay*) data for the flights that depart (column name: *Origin*) from San Francisco Airport (parameter name: *SFO*). Print only the first 3 of those into a new file called: first3sfo.csv. Must use pipe to do this. Use csvlook to display the result.

   b) List out the top 3 destination airports (by the number of arriving planes)! Show the count of arriving planes with the destination airport codes. Use csvlook toolkit to display the result.

2. Repeat the above Q1, part a) and b), but now you will have to write the script in python environment (in the command line only, do not use jupyter notebook). Use

   #!/usr/bin/env python3 instead of #!/usr/bin/env bash

   Make sure you know you know which python version is installed in your Ubuntu environment. You will also have to install have to install numpy and pandas before using data frames to get the solution. **[10 Marks]**

3. Install and create a Git repo through command line. Do not use GUI. Push your scripts created in Q1 and Q2 to your repo in Git. Now pull your scripts from your Git account back to command line. Make changes (add your name to be printed at the end of each script) and commit those changes back to the Git account. Follow the following tutorials to achieve your goals in this question. **[10 Marks]**

   https://towardsdatascience.com/getting-started-with-git-and-github-6fcd0f2d4ac6
   https://medium.freecodecamp.org/what-is-git-and-how-to-use-it-c341b049ae61