CS 509 - PG SOFTWARE LAB
Lab Assignment 3
Weightage: 3%
Submission Deadline: 7-Mar-2021 23:55pm

Question 1:
For each of the following tasks, write a "single command" which will perform the task. Note that you may need to pipe the output of command to another one to get things into a "single command"

1. Print all the details (output of ls -l) of the top 5 largest files in the "/usr/include" directory (Hint: check the manual page of ls command)
2. Find the number of ".h" files in the "/usr/include" directory of your system. You **should** search the directories inside "/usr/include" recursively.

Question 2:
Create a sample directory. In that directory create the following files. No content is required, just empty files with the name convention as described. You can use touch commands to create these empty files.

(a) Few files with names like "CaseNew1.c" "CaseNew2.c" …. "CaseNew9.c"
(b) Few files with names like "Case1.c" "Case2.c" "Case3.c" .... "Case9.c"

1. Write a command to copy all the files which start with "CaseNew" into another directory called "new" located on your desktop. You would first have to create this new directory on your Desktop using a separate command.
2. Write a command to copy all the files which start with "Case" (i.e., Case1.c, Case2.c, Case3.c,..., Case9.c etc.) into another directory called "old" located on your desktop. You would first have to create this "old" directory on your Desktop using a separate command. Note that you should not copy the files in the series "CaseNew.." for this part of the question.

Hint: For this question you may have to write regular expressions inside Find. Also you may need to use the "-exec" option with find.

Question 3:
Consider the csv file uploaded along with the assignment. This file contains information about the football players. Each record contains the following fields: (a) Name, (b) Height (in cm), (c) Team, (d) Position, (e) Age. In the following question, you are required to write a (bash) shell script.

A. Write a script which does the following. Reads a file name "Buckets.txt" (would be given as input) from the current directory. Entries in this file are in the following format

170 175
176 180
181 185
…..

Following this, your script should loop through the rows of the csv file (uploaded with the assignment) and bucket them according to the given buckets. Copy the player name and his team into the appropriate bucket. While deciding on the bucket, check the height of the player. For e.g., if the height of the player is 170, then he would be put in the bucket corresponding to 170--175. Finally, your script should print the contents of all the buckets appropriately. Your script can create intermediate files as needed. But they should be automatically deleted at the last step of the script.