**DEVOPS Technical Exercises**

Please find below two technical exercises. Please submit the source code for the following problems, and any other files that you think might be relevant.

**Exercise 1**

A file named "file\_diff.txt" contains the content of the command 'git diff --name-status' , in general the name of the files that have changed in a commit or pull request (add/modify/delete/rename).

The content of the file file\_diff.txt is as follows:

M src/objects/Event.object

A src/objects/Trading\_Event\_\_c.object

R src/objects/ActiveScratchOrg.object

M src/profiles/Admin.profile

D src/reports/CACI\_Imports/All\_Closed.report

The first column denotes the status of their respective files in second column.

The files (e.g. Event.object) in column second literally exists in current directory path i.e. "src/objects" etc.

Write a program or code snippet (any language you prefer) which should read the above "file\_diff.txt" line by line and do following:

- Capture the file name (e.g. Event.object) having status either modified or added (M/A) and write to a file added.txt.

- Capture the file name (e.g. All\_Closed.report) having status either rename or deleted (R/D) and write to a file removed.txt.

- Please note the file names should not include paths.

- Once file names are captured they should be copied/moved from existing paths to the path "deployPackage/added" or "deployPackage/removed" as per their respective status (deployPackage is the parent folder of removed and added folders)

- For example: File names with status M/A and R/D should be copied/moved to "added" and "removed" folder respectively.

This is a real world example of something we actually have in one of our build pipelines.

**Exercise 2**

Please write a program in any language of your choice, based on the requirement below.

Firstly, the script must take 6 consecutive numbers from command line arguments (each number is one argument). Secondly, the script must present to the user, through standard output, the following simple choice menu and operate accordingly in the background with the numbers the user entered previously:

- Perform subtraction and show output on screen comma separated.

- Perform multiplication and store result in a JSON file (i.e. {"InputNumber1": x, "InputNumber2": y, "InputNumber3": a, "InputNumber4": b, "InputNumber5": c, "InputNumber6": d, "Multiplication": X }, where x, y, a, b, c and d are user line arguments and X is the multiplication result)

- Pick randomly a number and show it on screen.

- Print sorted (highest to lowest) array/list numbers.

- Print sorted (lowest to highest) array/list numbers