

BASH Scripting + Git

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In-Lab Problem Statement:
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Useful tips and Submission guidelines for InLab assignment

1. Solution for each assignment is to be typed into the .sh file already kept inside the corresponding folder.
2. Remember, you need to change the permission of the .sh file before executing it:

`chmod u+x <scriptfile> OR chmod 777 <scriptfile>`
3. Do not change the structure and the names. The automatic checker will give you a “notsubmitted” grade otherwise, if it does not find the names.
4. Remember to follow the exact output formats specified. Extra characters will lead to incorrect evaluation by automatic checker.
5. Inside the script if you use any temporary file, write command to remove it after the operation within that script only.
6. To check your solution run the script test.sh given in corresponding folder.

Submission Guidelines for InLab assignment

Strictly follow the instructions given below:

1. Create a file readme.txt in bash_inlab directory, which contains contribution of each team member and references.
2. Rename the directory bash_inlab to <team_name>.
3. Compress the directory to <team_name>.tar.gz
4. Submit one assignment per team.
5. Put all this on Git - one per user, provide all usernames in the readme file for us to check.

Problem 1:

Write a bash script to take a number N as an argument. Your script 'script1.sh' should be able to calculate the sum of numbers from 1 to N and display the output. Your script output should only be the "sum of numbers from 1 to N" and nothing else.

E.g.: >>./script1.sh
10 >>55

Problem 2:

Write a bash script to take a path as an argument. The script 'script2.sh' should count the number of folders inside the path and display the output('the count'). Your script output should only be the "count of number of folders inside the path" and nothing else.

Hint: Explore commands **grep**, **ls**, **find**, **wc**

E.g.:

If we have a folder "avengers" containing the first five founding members name folders (sample folder provided).

>>./script2.sh avengers/
>>5

Problem 3:

Write a bash script to take a filename as an argument. The file contains a list of names (one per line, sample provided in folder structure). You have to create a bash script 'script3.sh' to create a list of directories with the names given in the file and output the message "created <name>" after it has successfully created each folder.

E.g.: file 'input' contains 3 lines:
satman buperman satman

>>./script3.sh input (script execution sample)

Your script be able to create folders named:

satman/

buperman/

satman/

And output should be:

>>created satman

>>created buperman

>>could not create satman

----- Problem 4: -----

While solving a serial killer murder mystery, Detective Maigret finds a pattern of numbers at every crime scene. He believes that taking the sum and product of the two greatest numbers found amongst the pattern is a key to finding the criminal.

You are his subordinate and he wants you to write a shell script 'script4.sh' which takes a file as input and finds the largest and second largest numbers 'a' and 'b' in the file. You should print

their sum in the first line and product in the next line (and nothing “else”). Help him solve the crime with the hope that you will be promoted!

E.g.

Suppose file "murderMystery" contains 12 30 24 5 6 7 1 2 65 70

>>./script4.sh murderMystery Input : a file "murderMystery" which contains space separated integers

Output :

>>135

>>4550