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LAB02

Step 1 created info file and entered the lines

```
stud302@centos-s-1vcpu-2gb-tor1-01:~/labs
#!/bin/bash
if [ $# -lt 0 ] ; then
    echo You must include a filename on the command line.
    exit
fi
echo Beginning to process files.
for i in $@
do
    echo Number of lines in $i
    wc -l $i
    echo Number of words in $i
    wc -w $i
done
~
~
~
~
```

Step2- change the file permission by chmod 755 and the equivalent command in letters will be ***chmod u+rwx g+rxo=rx fileinfo***

```
stud302@centos-s-1vcpu-2gb-tor1-01:~/labs
Microsoft Windows [Version 10.0.19044.2130]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ok>ssh learn.taliaq.com -l stud302
stud302@learn.taliaq.com's password:
Last login: Sat Oct 29 01:12:23 2022 from d209-121-47-2.bchsia.telus.net
[stud302@centos-s-1vcpu-2gb-tor1-01 ~]$ ls
grading
[stud302@centos-s-1vcpu-2gb-tor1-01 ~]$ mkdir labs
[stud302@centos-s-1vcpu-2gb-tor1-01 ~]$ cd labs
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ vi fileinfo
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ chmod 755 fileinfo
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ C
```

Step3-There is no output. The code checks for any command line parameters and if it's less than 0, it would print out the "You must include a filename" statement. We can also use ***$# >*** a where a is any number, or $# -ne 0, where ***ne*** is not equal to some numbe.

LAB02

```
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ chmod 755 fileinfo
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ ./fileinfo
Beginning to process files.
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$
```

Step4- ***./fileinfo /etc/termcap***: file was not found, so no result

```
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ chmod 755 fileinfo
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ ./fileinfo
Beginning to process files.
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$
```

Step5- ***./fileinfo /etc/*conf***:This command print all lines and count of words in file. The only error message found was permission denied.

```
stud302@centos-s-1vcpu-2gb-tor1-01:~/labs
Number of words in /etc/termcap
wc: /etc/termcap: No such file or directory
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ ./fileinfo /etc/*conf
Beginning to process files.
Number of lines in /etc/chrony.conf
38 /etc/chrony.conf
Number of words in /etc/chrony.conf
156 /etc/chrony.conf
Number of lines in /etc/dracut.conf
51 /etc/dracut.conf
Number of words in /etc/dracut.conf
186 /etc/dracut.conf
Number of lines in /etc/e2fsck.conf
3 /etc/e2fsck.conf
Number of words in /etc/e2fsck.conf
18 /etc/e2fsck.conf
Number of lines in /etc/GeoIP.conf
49 /etc/GeoIP.conf
Number of words in /etc/GeoIP.conf
250 /etc/GeoIP.conf
Number of lines in /etc/grub.conf
20 /etc/grub.conf
```

LAB02

PART-2

Step1- At now + 15 minutes the time shown was absolute time

```
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ at now + 15 minutes
at> for i in /etc/*conf
at> do
at> wc -w $i
at> done
at> <EOT>
job 9 at Sat Oct 29 02:07:00 2022
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$
```

Step2- ATQ – the result shows the job number, time, and date when it is going to have happened, and the user on which the job will be executed

```
job 9 at Sat Oct 29 02:07:00 2022
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ atq
9       Sat Oct 29 02:07:00 2022 a stud302
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$
```

Step3-Atrm

```
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ atrm
Usage: at [-V] [-q x] [-f file] [-mMlbv] timespec ...
       at [-V] [-q x] [-f file] [-mMlbv] -t time
       at -c job ...
       atq [-V] [-q x]
       at [ -rd ] job ...
       atrm [-V] job ...
       batch
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$
```

LAB02

PART-3

Step1- ***Vi du_job***

```
stud302@centos-s-1vcpu-2gb-tor1-01:~/labs
30 2 * * * du /home > /tmp/du_output
```

Step2-Dispay the content of the file by using ***Crontab -l.***

```
[stud302@centos-s-1vcpu-2gb-tor1-01 ~]$ crontab -l
30 2 * * * du /home > /tmp/du_output
[stud302@centos-s-1vcpu-2gb-tor1-01 ~]$
```

PART 4-

Step1- this code changes the shell to ***sh*** from ***bash.*** The while loop keeps the shell to sh and reads the user inputs until the user exits voluntarily.

```
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ vi mycat
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ chmod 755 mycat
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ ./mycat
sh-4.2$
sh-4.2$ exit
exit
```

Step2

- Line 1 changes the shell to sh.
- Line 2 prints a statement for the user to input their name.
- Line 3 reads the user input.
- Next lines output what the user input.
- ENDDATA is used for printing multiple lines of text.

```
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ vi mydialog
You have new mail in /var/spool/mail/stud302
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ chmod 755 mydialog
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ ./mydialog
Enter you name (first last): Chhayank Chhayank
Data read: Chhayank Chhayank
Hi, Chhayank Chhayank.
Mr. Chhayank, bye-bye!
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$
```

LAB02

Step3-

- Line 1 changes the shell to sh.
- Line 2 prints the number and the content of the command line arguments supplied.
- Line 3 sets 3 arguments as abc, def, ghi. Next we have a while loop on
- Line 4 which checks if the number of arguments is greater than 0 and if yes, we have the do code (Line 5) which prints
- (Line 6) 3: abc def ghi, which it got from Line 3.
- Line 7 shifts the arguments toone step behind.

```
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ vi myargs
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ chmod 755 myargs
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ ./myargs
sh-4.2$
sh-4.2$ ^C
sh-4.2$ ^C
sh-4.2$
sh-4.2$ ^C
sh-4.2$ exit
+ exit
exit
0:
3: abc def ghi
2: def ghi
1: ghi
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$
```

Step4-

- First we define a main() function.
- In main() function, we define a proc1() function (line 3) which prints "... In proc" statement (line 5)and returns 0 (line 6).
- Next, we print "Calling proc" on line 8 and call the proc1 function (line 9).
- Then we print another statement that indicates we are back to the main function (line 10) and then return 0 (line 11).
- On line 12, we call the main function to start the whole process.

```
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ vi myproc
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ chmod 755 myproc
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$ ./myproc
Calling proc
... In proc
Back to caller
[stud302@centos-s-1vcpu-2gb-tor1-01 labs]$
```