# CSC3320 System Level Programming Lab Assignment 6 - Part 1 - In-Lab

**Purpose**: Learn how to correct a shell script and write more complicated shell scripts.

#### Part 1:

In order to finish the tasks in this lab, you must connect to snowball server to copy my checkError.sh

\$cp /home/yye10/public/checkError.sh checkError.sh In Lab 5, you may have tried the shell script **checkError.sh** in part 3. However, there are **four** errors on **four** different lines in that shell

script. Please correct all the four errors by writing down the line number, the error and the correction as below:

**Line #: Error: Correction:** 

Line #: 1

**Error:** 1/bin/bash: No such file or directory

**Correction:** this error was indicating me to line one which was /\* Check Error Script \*/. So to resolve this error I added "#" in the beginning of the "/\*" so that it gets commented out.

**Line #: 18** 

Error: ls mail \$1@student.gsu.edu <Result

**Correction:** delete the command "ls" so that the mail utility works properly.

Line #: 24

**Error:** warning: here-document at line 9 delimited by end-of-file (wanted 'END') **Correction:** This error was pointing towards the command "-ENDHERE". I deleted the "-" and "HERE" to help in ending the contents of the result file.

Line #: 24

**Error:** echo "The regex [^a]\*ce can match the string(s):" > Result grep '^[^a]\*ce\$' <<END>>

**Correction:** to resolve this error I deleted the first leading "^" sign, so that it helps catch anything that contains "ce" at the end

Here is the screenshot attached of the email received once the program runs after clearing the errors.



Note: please use cat -n to check the line numbers.

```
/* Check
Error
Script */
echo "Try
to find
out some

errors!!!"
```

```
# Seach for the words which can be matched by regex
[^a]*ce # And save the output to file "Result"
echo "The regex [^a]*ce can match the string(s):" > Result
grep '^[^a]*ce$' << END >> Result lance
ace
brace
decide
piece
```

#### -ENDHERE

```
# Check the existence of file "Result"
# Send the content in "Result" to your emailbox
# $1 is replaced by your campusID
ls mail $1@student.gsu.edu < Result
# $1 is replaced by your campusID
echo "The result has been sent to ${1}@student.gsu.edu" echo
"Congratulations! You have corrected all the errors!"</pre>
```

1

## Hints:

• Following is a sample of the output once all the errors are corrected \$ ./checkError.sh ylong4

```
Try to find out some errors!!!

checkError.sh Result

The result has been sent to ylong4@student.gsu.edu

Congratulations! You have corrected all the errors!
```

- You would also receive an email sent from your snowball account once all the errors are corrected.
- You may need to use **CTRL-C** to terminate the execution of the command, especially for the script file with errors.

## Part 2:

Write a single shell script **hello.sh** which can finish the list of tasks as below:

- 2. Contain a comment section with your name, and email address.
- 3. Print the date.
- **4.** Print the number of directories in /home .
- 5. Print the value of variables PATH, USER and SHELL.

- 6. Print your disk usage (df).
- 7. Print Please, could you loan me \$25.00?
- 8. Print if x = 2, x \* x = 4, x / 2 = 1
- 9. List all the .sh files with c at the beginning of the file name in current working directory.
- 10. Tell the user **Good bye** and the current hour (see manual page of **date** command refer to the webpage at <a href="http://www.thegeekstuff.com/2013/05/date-commandexamples">http://www.thegeekstuff.com/2013/05/date-commandexamples</a>)

Include the content of **hello.sh** in your answer sheet. Besides, please also upload **hello.sh** as a separated file.

Upload your answer sheet to the folder named "Lab 6\_P1" of the dropbox in the iCollege system. Name your file in the format of Lab6\_P1\_FirstnameLastname.pdf/doc

#### Hints:

- When printing out strings using echo, to escape the special meaning of the meta character, please use back slash \ before the meta-character.
- To share files between remote server and the host machine, we can use **FileZilla A FREE FTP**. The link to download this application is <a href="https://filezilla project.org/download.php">https://filezilla project.org/download.php</a>

```
🏫 aparnamandapaka — Ssh amandapaka2@snowball.cs.gsu.edu — 175×54
    -bash-4.2$ vi hello.sh
   -hash-4.2$
 [-bash-4.2$ ./hello.sh
Welcome to the Computer Science Society!
 Date is: Thu Sep 30 22:00:10 EDT 2021
   Printing # of directories in home is:
 path is: /usr/local/bin:/usr/bin:/usr/local/sbin:/usr/sbin
user is: amandapaka2@gsuad.gsu.edu
shell is: /bin/bash
Printing the disk usage:
 Filesystem IK-blocks Used Available Use% Mounted on devtmpfs 3992456 0 3992456 0% /dev tmpfs 4004476 8 4004468 1% /dev/shm tmpfs 4004476 420408 3584068 11% /run tmpfs 4004476 0 4004476 0% /sys/fs/cgroup /dev/mapper/centos-root 36678148 3548940 33129208 10% / /dev/sdb1 131979268 52481236 72770816 42% /home /dev/sda1 1038336 193352 844984 19% /boot tmpfs 800896 0 800896 0% /run/user/3312914231 tmpfs 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 800896 0 
 332789895 tmpfs 800896 0 800896 0% /run/user/3327696836 tmpfs 800896 0% /run/user/33276895 tmpfs 800896 0 800896 0% /run/user/33276896 0 800896 0% /run/user/33276961 tmpfs 800896 0 800896 0% /run/user/33276961 tmpfs 800896 0 800896 0% /run/user/33276961 tmpfs 800896 0% /run/user/3
800896 0% /run/user/332733207 tmpfs 800896 0 800896 0% /run/user/33271397 tmpfs 800896 0 800896 0% /run/user/33273200 tmpfs 800896 0 800896 0% /run/user/33273320 tmpfs 800896 0 800896 0% /run/user/332743209 tmpfs 800896 0 800896 0% /run/user/332743209 tmpfs 800896 0 800896 0% /run/user/332743209 tmpfs 800896 0 800896 0% /run/user/332743205 tmpfs 800896 0 800896 0% /run/user/332743205 tmpfs 800896 0 800896 0% /run/user/332745427
 Please, could your loan me $25.00? if x=2, x*x=4, x/2=1 .sh files with c in the beginning:
checkError.sh
 Good Bye
current hour is= 22
[-bash-4.2$
    -bash-4.2$
  -bash-4.2$
-bash-4.2$
  -bash-4.2$
    -hash-4.2$
   -bash-4.2$
-bash-4.2$
   -bash-4.2$
   -bash-4.2$
-bash-4.2$
   -bash-4.2$
  -bash-4.2$
   -bash-4.2$
-bash-4.2$
   -bash-4.2$
  -bash-4.2$
-bash-4.2$
   -bash-4.2$
   -bash-4.2$
  -bash-4.2$
-bash-4.2$
   -hash-4.2$
  -bash-4.2$
-bash-4.2$
   -bash-4.2$
```

```
**S/bin/bash

**Che "Welcome to the Computer Science Society!"

**Bly name is Aparas Mendapaka and my enail is amandapaka2@student.gsu.edu

**Che "Oate Sirs" (date)

**Che "Oate Sirs" (date)

**Che "Stars" (same)

**Che
```