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CIS-1450-NET01

ASSIGNMENT

Question
Write a shell script program and called it *reception*. Make sure you have a comment section (program documentation) with your name, the name of this script, and the purpose of the program at the top of your scripting. Always include program documentation whenever you write a shell script. Your program should do the following when executed:

1. Ask the user to enter first and last name and greet the user.
2. Display the OS release and its Linux flavor.
3. Display the record log of your past login times (your id only).
4. Display the server IP address only.
5. Display how long the server has been up and running.
6. Tell the user "Good bye" and display the current date and time.

Make sure your script has read and execute permissions. When you are done compiling, debugging, running, and testing your program, do the following:

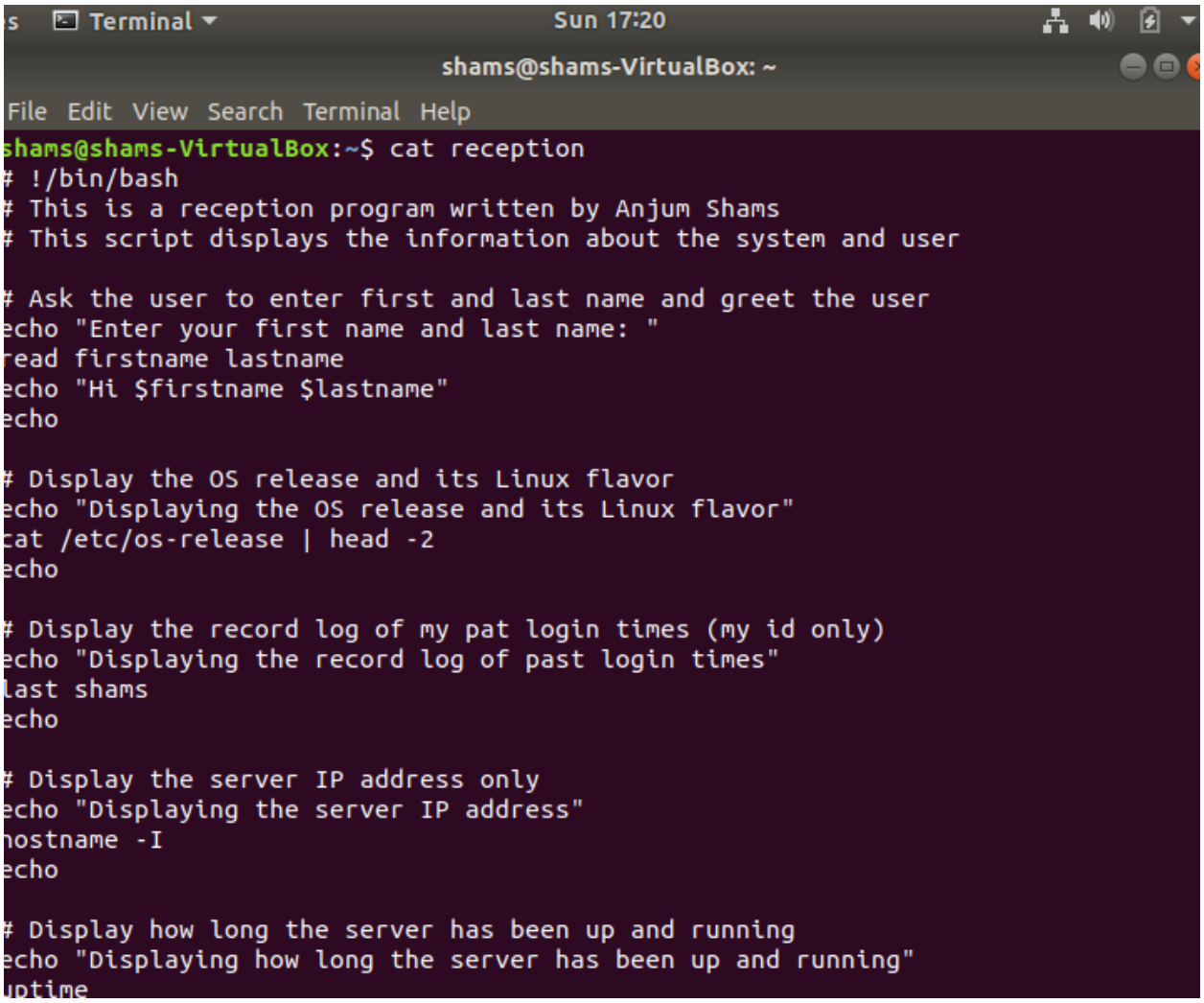
a. Create a directory called *submit* in your home directory; *mkdir submit*
b. Change directory *submit* to permission 700; *chmod 700 submit*
c. Copy your shell script into the new directory.

```
shamsa@cisll-1:~$ cat reception
# !/bin/bash
# This is a reception program written by Anjum Shams
# This script displays the information about the system and user.


# Ask the user to enter first and last name and greet the user
echo "Enter your first name and last name: "
read firstname lastname
echo "Hi $firstname $lastname"
echo

# Display the OS release and its Linux flavor
echo "Displaying the OS release and its Linux flavor"
cat /etc/os-release | head -2
echo

# Display the record log of my past login times (my id only)
echo "Displaying the record log of past login times"
last shamsa
echo

# Display the server IP address only
echo "Displaying the server IP address"
hostname -I
echo
```

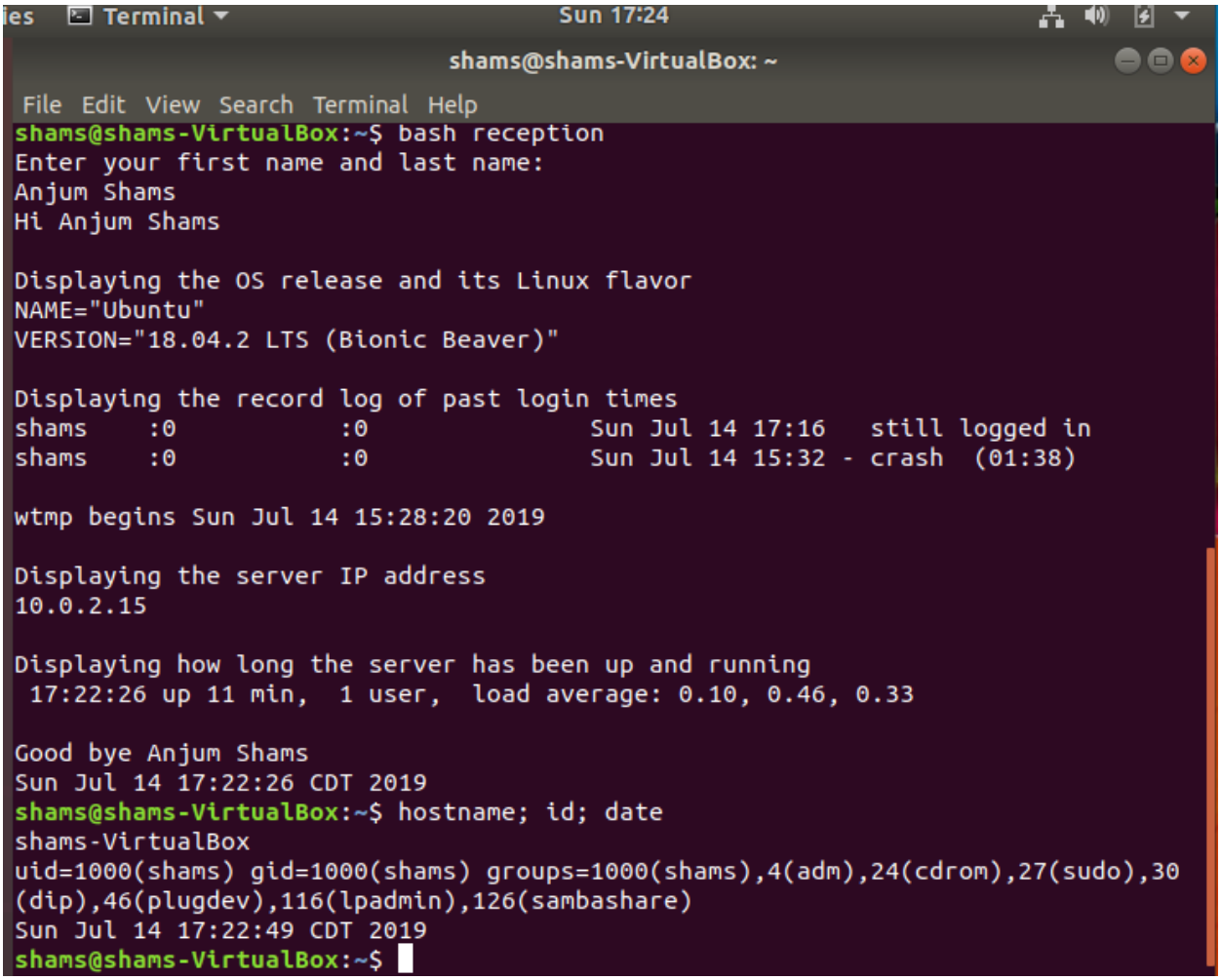
```
# Display the server IP address only
echo "Displaying the server IP address"
hostname -I
echo

# Display how long the server has been up and running
echo "Displaying how long the server has been up and running"
uptime
echo

# Tell the user "Good bye" and display current date and time
echo "Good bye $firstname $lastname"
date


exit 0




shamsa@cisll-1:~$ hostname; id; date
cisll-1
uid=2822(shamsa) gid=2822(shamsa) groups=2822(shamsa)
Sun Jul 14 17:02:49 CDT 2019
shamsa@cisll-1:~$
```

```
shamsa@cisll-1:~$ reception
Enter your first name and last name:
Anjum Shams
Hi Anjum Shams

Displaying the OS release and its Linux flavor
NAME="Ubuntu"
VERSION="16.04.5 LTS (Xenial Xerus)"

Displaying the record log of past login times
shamsa   pts/5        71.239.127.145   Sun Jul 14 17:01   still logged in
shamsa   pts/5        71.239.127.145   Sun Jul 14 14:07 - 16:46  (02:39)
shamsa   pts/5        71.239.127.145   Sun Jul  7 22:37 - 23:39  (01:02)
shamsa   pts/0        71.239.127.145   Sun Jul  7 19:30 - 20:13  (00:43)
shamsa   pts/2        71.239.127.145   Sun Jul  7 18:20 - 18:40  (00:20)
shamsa   pts/5        71.239.127.145   Sun Jul  7 14:32 - 17:44  (03:11)
shamsa   pts/1        71.239.127.145   Sun Jul  7 13:31 - 16:05  (02:34)

wtmp begins Mon Jul  1 06:29:30 2019

Displaying the server IP address
10.11.2.37

Displaying how long the server has been up and running
 17:06:25 up 84 days, 22:57,  7 users,  load average: 0.00, 0.00, 0.00

Good bye Anjum Shams
Sun Jul 14 17:06:25 CDT 2019
shamsa@cisll-1:~$ hostname; id; date
cisll-1
uid=2822(shamsa) gid=2822(shamsa) groups=2822(shamsa)
Sun Jul 14 17:06:51 CDT 2019
shamsa@cisll-1:~$
```

- *Run your shell script program on your own Linux server* and submit the program and the program output to the class blackboard. This output should be a bit different from the one that you have executed on server cis11-1.cod.edu above. Do a screen-capture to copy the program output. Make sure you execute the following three commands (hostname; id; date) as proof of your work.


Terminal
Sun 17:20
shams@shams-VirtualBox: ~
File Edit View Search Terminal Help
shams@shams-VirtualBox:~$ cat reception
!/bin/bash
This is a reception program written by Anjum Shams
This script displays the information about the system and user
Ask the user to enter first and last name and greet the user
echo "Enter your first name and last name: "
read firstname lastname
echo "Hi $firstname $lastname"
echo
Display the OS release and its Linux flavor
echo "Displaying the OS release and its Linux flavor"
cat /etc/os-release | head -2
echo
Display the record log of my pat login times (my id only)
echo "Displaying the record log of past login times"
last shams
echo
Display the server IP address only
echo "Displaying the server IP address"
hostname -I
echo
Display how long the server has been up and running
echo "Displaying how long the server has been up and running"
uptime


echo
Display how long the server has been up and running
echo "Displaying how long the server has been up and running"
uptime
echo
Tell the user "Good bye" and display current date and time
echo "Good bye $firstname $lastname"
date
exit 0
shams@shams-VirtualBox:~$ hostname; id; date
shams-VirtualBox
uid=1000(shams) gid=1000(shams) groups=1000(shams),4(adm),24(cdrom),27(sudo),30
(dip),46(plugdev),116(lpadmin),126(sambashare)
Sun Jul 14 17:19:54 CDT 2019
shams@shams-VirtualBox:~$



I will use your submit directory to test, verify, and run your shell script program.

Question
The program given below has been thoroughly tested and verified, and no errors were discovered. Your task is to copy/write the program on the server, test/run it, and submit the program and the program output to the class blackboard. Execute the Linux *cat* command to display the program. Do a screen-capture and make sure to include the three commands *hostname; id; date* as proof of your work. Using your own words, please include an explanation of what the program is attempting to do.

```
#!/bin/bash
#
temph=`date | cut -c12-13`

if [ $temph -lt 12 ]
then
    mess="Good Morning $LOGNAME, Have nice day!"
fi

if [ $temph -gt 12 -a $temph -le 16 ]
then
    mess="Good Afternoon $LOGNAME"
fi

if [ $temph -gt 16 -a $temph -le 18 ]
then
    mess="Good Evening $LOGNAME"
fi

echo $mess

exit 0
```

Answer: This script is running the date command and cutting the hour field from it.
If the hour is less than 12, it displays Good morning and have a nice day to the user
If the hour is greater than 12 and less than 16, it displays Good afternoon to the user
If the hour is greater than 16 and less than 18, it displays Good evening to the user.

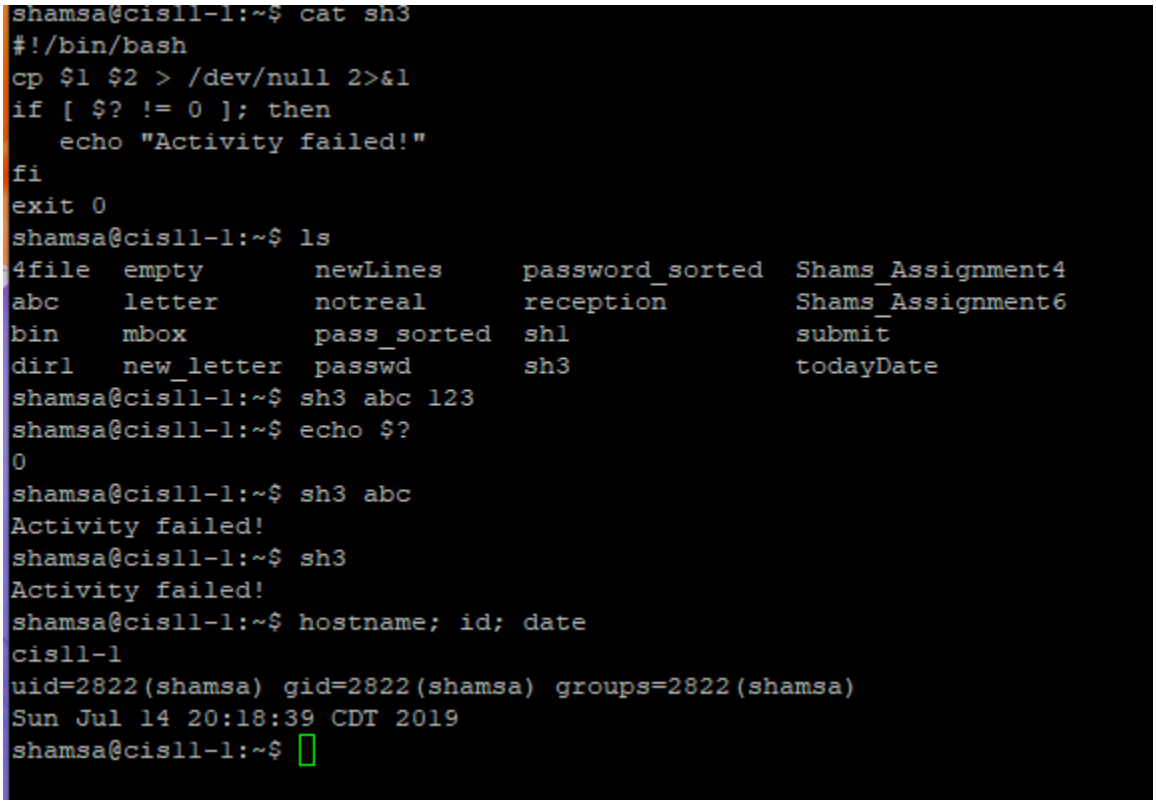
In my screen shot there is no message because the hour was 19 which is greater than 18 and there is no message that corresponds to that time in the script and the script ended successfully.

```
shamsa@cisl1-1:~$ cat sh1
#!/bin/bash
#
temph=`date | cut -c12-13`
if [ $temph -lt 12 ]
then
    mess="Good Morning $LOGNAME, Have nice day!"
fi

if [ $temph -gt 12 -a $temph -le 16 ]
then
    mess="Good Afternoon $LOGNAME"
fi

if [ $temph -gt 16 -a $temph -le 18 ]
then
    mess="Good Evening $LOGNAME"
fi

echo $mess

exit 0
shamsa@cisl1-1:~$ sh1

shamsa@cisl1-1:~$ echo $?
0
shamsa@cisl1-1:~$ hostname; id; date
cisl1-1
uid=2822(shamsa) gid=2822(shamsa) groups=2822(shamsa)
Sun Jul 14 19:54:18 CDT 2019
shamsa@cisl1-1:~$
```

Question
Demonstrate and explain how to run the given script below. Name the script sh3. Using your own words, describe what the program is trying to do. Submit the program and the program output to the class blackboard. Execute the Linux *cat* command to display the program. Do a screen-capture and make sure to include the three commands *hostname; id; date* as proof of your work.

```
#!/bin/bash
cp $1 $2 > /dev/null 2>&1
if [ $? != 0 ]; then
   echo "Activity failed!"
fi
exit 0
```

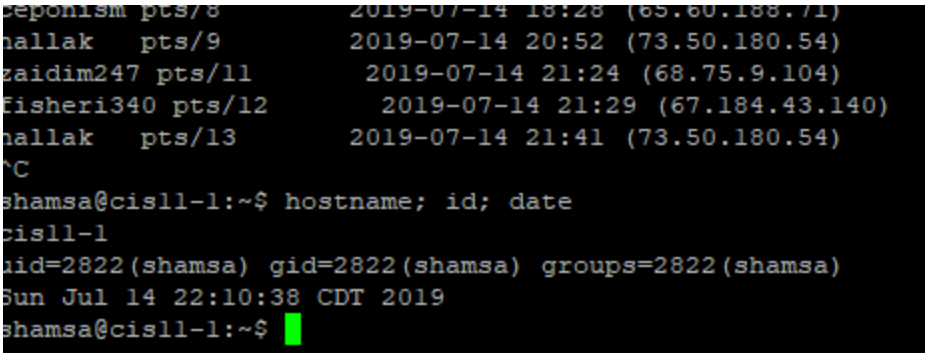
Answer: This script has to be run with two arguments that is two file names. The file to be copied and the name of the new file. If it is run with no arguments or only one argument it displays the message "activity failed". The output of a successful or unsuccessful command is dumped into /dev/null and it is not displayed on the screen.



Question

Develop a shell script program that displays all users currently on the server for every three minutes. The script will run infinitely until '*Ctl-C*' keys are pressed. Submit your program and a sample of the program output to the class blackboard. Execute a Linux *cat* command to display the program. Please always include the three commands (hostname; id; date) whenever you do a screen-capture as proof of your work.

```
shamsa@cisll-l:~$ cat sh2
#!/bin/bash
# The program checks who is on the system every 3 minutes
#
while [ true ]
do
        who
        sleep 180
        echo
done

exit 0
shamsa@cisll-l:~$ sh2
hearnss  pts/0        2019-07-13 22:59 (73.72.114.137)
shamsa   pts/1        2019-07-14 21:37 (71.239.127.145)
stevenr  pts/2        2019-07-14 19:36 (104.58.208.241)
nallak   pts/3        2019-07-14 21:20 (73.50.180.54)
miguelr  pts/4        2019-07-14 19:00 (67.175.24.192)
shamsa   pts/5        2019-07-14 17:01 (71.239.127.145)
hagermana pts/6        2019-07-14 20:41 (67.184.41.231)
nallak   pts/7        2019-07-14 20:39 (73.50.180.54)
ceponism pts/8        2019-07-14 18:28 (65.60.188.71)
nallak   pts/9        2019-07-14 20:52 (73.50.180.54)
zaidim247 pts/11       2019-07-14 21:24 (68.75.9.104)
fisheri340 pts/12       2019-07-14 21:29 (67.184.43.140)
nallak   pts/13       2019-07-14 21:41 (73.50.180.54)

hearnss  pts/0        2019-07-13 22:59 (73.72.114.137)
shamsa   pts/1        2019-07-14 21:37 (71.239.127.145)
stevenr  pts/2        2019-07-14 19:36 (104.58.208.241)
nallak   pts/3        2019-07-14 21:20 (73.50.180.54)
miguelr  pts/4        2019-07-14 19:00 (67.175.24.192)
shamsa   pts/5        2019-07-14 17:01 (71.239.127.145)
hagermana pts/6        2019-07-14 20:41 (67.184.41.231)
nallak   pts/7        2019-07-14 20:39 (73.50.180.54)
ceponism pts/8        2019-07-14 18:28 (65.60.188.71)
nallak   pts/9        2019-07-14 20:52 (73.50.180.54)
zaidim247 pts/11       2019-07-14 21:24 (68.75.9.104)
fisheri340 pts/12       2019-07-14 21:29 (67.184.43.140)
nallak   pts/13       2019-07-14 21:41 (73.50.180.54)
^C
shamsa@cisll-l:~$ hostname; id; date
```



Question #7

Rewrite your program Assignment #11, question #2. Your script should display the menu shown below. Allow the program to run forever until the user selects option 6. (hint: use loop concept)

1. Ask the user to enter first and last name and greet the user.
2. Display the OS release and its Linux flavor.
3. Display the record log of your past login times (your id only).
4. Display the server IP address only.
5. Display how long the server has been up and running.
6. EXIT Program - Display the message "Good bye"

Enter Selection:

```
shamsa@cisll-l:~$
shamsa@cisll-l:~$ vi shl0
shamsa@cisll-l:~$ chmod 755 shl0
shamsa@cisll-l:~$ shl0
./shl0: line 1: o: command not found
cat shl0
./shl0: line 27: syntax error near unexpected token `"between 1 and 6."'
./shl0: line 27: `echo "between 1 and 6." '
shamsa@cisll-l:~$ cat shl0
o -n "Enter a number between 1 and 6 inclusive > "
read character
case $character in
        1 ) echo "Enter your first name and last name: "
        read firstname lastname
        echo "Hi $firstname $lastname"
        echo
        ;;
        2 ) echo "Displaying the OS release and its Linux flavor"
        cat /etc/os-release | head -2
        echo
        ;;
        3 ) echo "Displaying the record log of past login times"
        last shamsa
        echo
        ;;
        4 ) echo "Displaying the server IP address"
        hostname -I
        echo
        ;;
        5) echo "Displaying how long the server has been up and running"
        uptime
        echo
        ;;
        6) echo "Good Bye"
        ;;
echo "between 1 and 6."
esac
exit 0
shamsa@cisll-l:~$ hostname; date; id
cisll-l
Sun Jul 14 23:56:36 CDT 2019
uid=2822(shamsa) gid=2822(shamsa) groups=2822(shamsa)
shamsa@cisll-l:~$
```