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CYSE 270: Linux System for Cybersecurity
Lab 8 – Shell Scripting

Please refer to the slides for **week 8 - Shell scripting** and write shell scripts to complete the following tasks. **Submit the screenshot for the script and its output, both.**

NOTE: Please replace the name of the script with the name you used for the script. In the sample screenshot, I have used those names to create my script.

Step-1: Use vi or nano editor to write your script (Ex, **vi YourScriptName.sh**) for the following tasks.

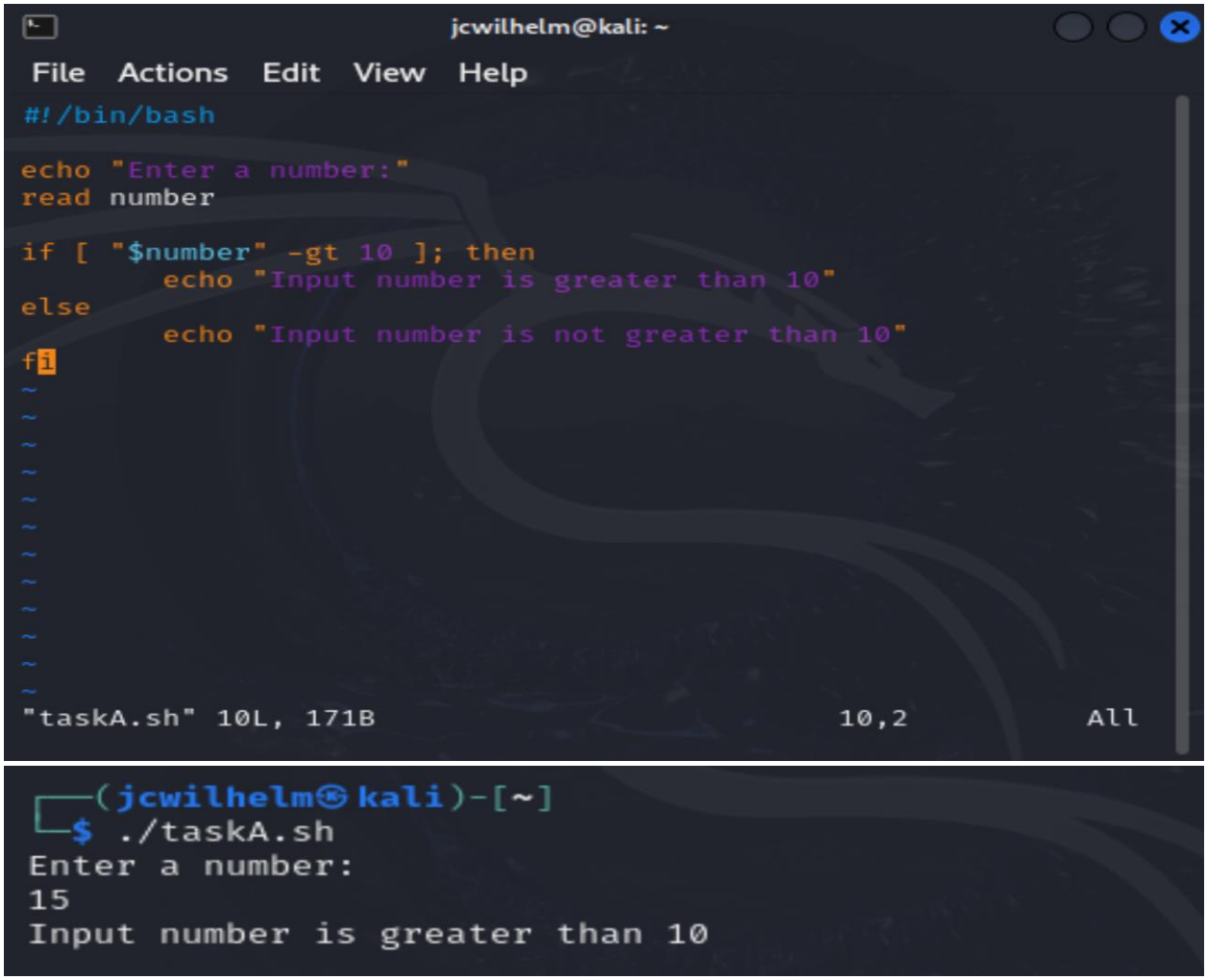
Step-2: After saving the script, **save and exit out of the editor** and make the script executable by adding execute permission (**chmod +x YourScriptName.sh**)

Step-3: Run your script using **./YourScriptName.sh**

Task A (Correct script (25 points) + result/output after executing the script (25 points)- Conditional Statement

Write a shell script using nano or vi editor (eg, vi scriptname.sh) like below, that performs the following task:

1. Add the **Shebang** (#!/bin/bash) as the first line in your script.
2. **Read** a number using **read** function
3. Using **if statement**, check if the input number is greater than 10, then print the message "**Input number is greater than 10**".
4. If the number is not greater than 10, then print the message, "**Input number is not greater than 10"**.


jcwilhelm@kali: ~
File Actions Edit View Help
#!/bin/bash
echo "Enter a number:"
read number
if ["$number" -gt 10]; then
echo "Input number is greater than 10"
else
echo "Input number is not greater than 10"
fi
"taskA.sh" 10L, 171B 10,2 All
(jcwilhelm㉿kali)-[~]
$ ./taskA.sh
Enter a number:
15
Input number is greater than 10

Task B (Correct script (25 points) + result/output after executing the script (25 points) - Shell Script to Create a new file

Write a shell script using nano or vi editor (eg, nano scriptname.sh) like below, that performs the following task:

1. Add the **Shebang** (#!/bin/bash) as the first line in your script.

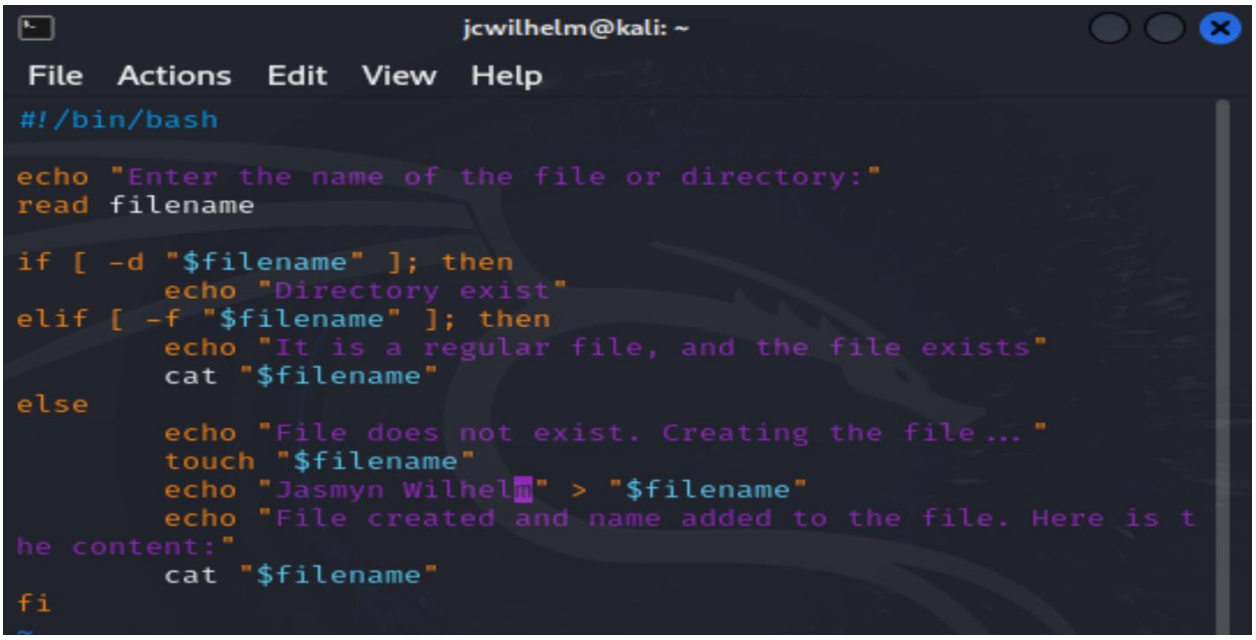
2. **Reads** the **name** of the file to check for a filename that exists.

3. Check whether the given input is a directory or regular file.

4. If the input is a directory and exists, then display the message "**Directory exists**".

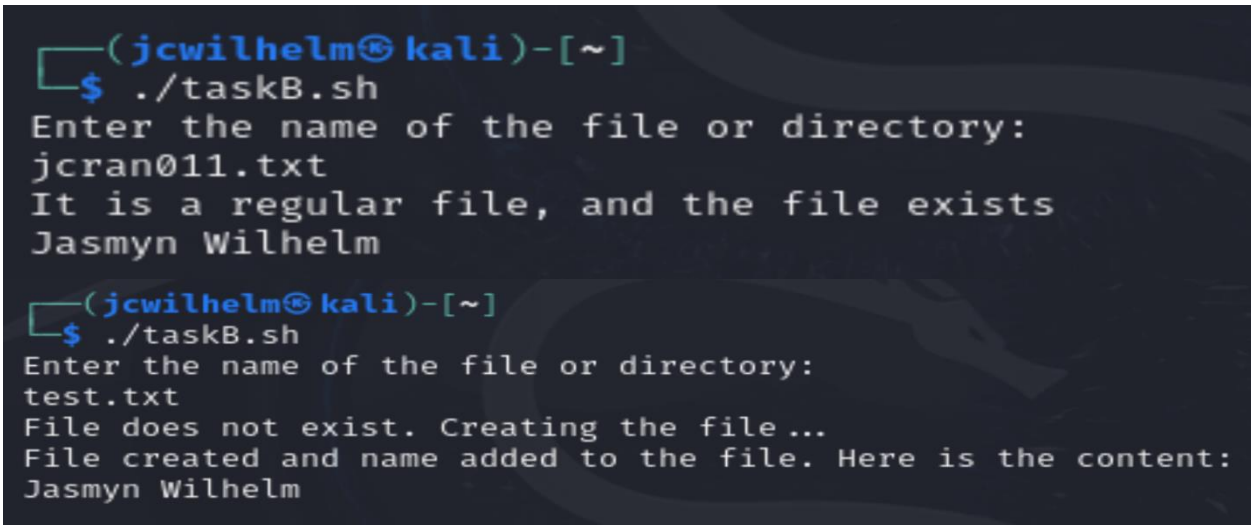
5. If the input is a regular file, then display the message "**It is a regular file, and the file exists**" and display the contents of the file.

6. **If the given input name in step-1 doesn't exist**, then create the new file with the given name in step-1.



(Extra credit: 10 points) Add your name to the file (using redirection operator '>') and display the contents for the newly created file.

7. Save and exit the editor and remember to make the script executable using the command **chmod +x scriptname.sh**)

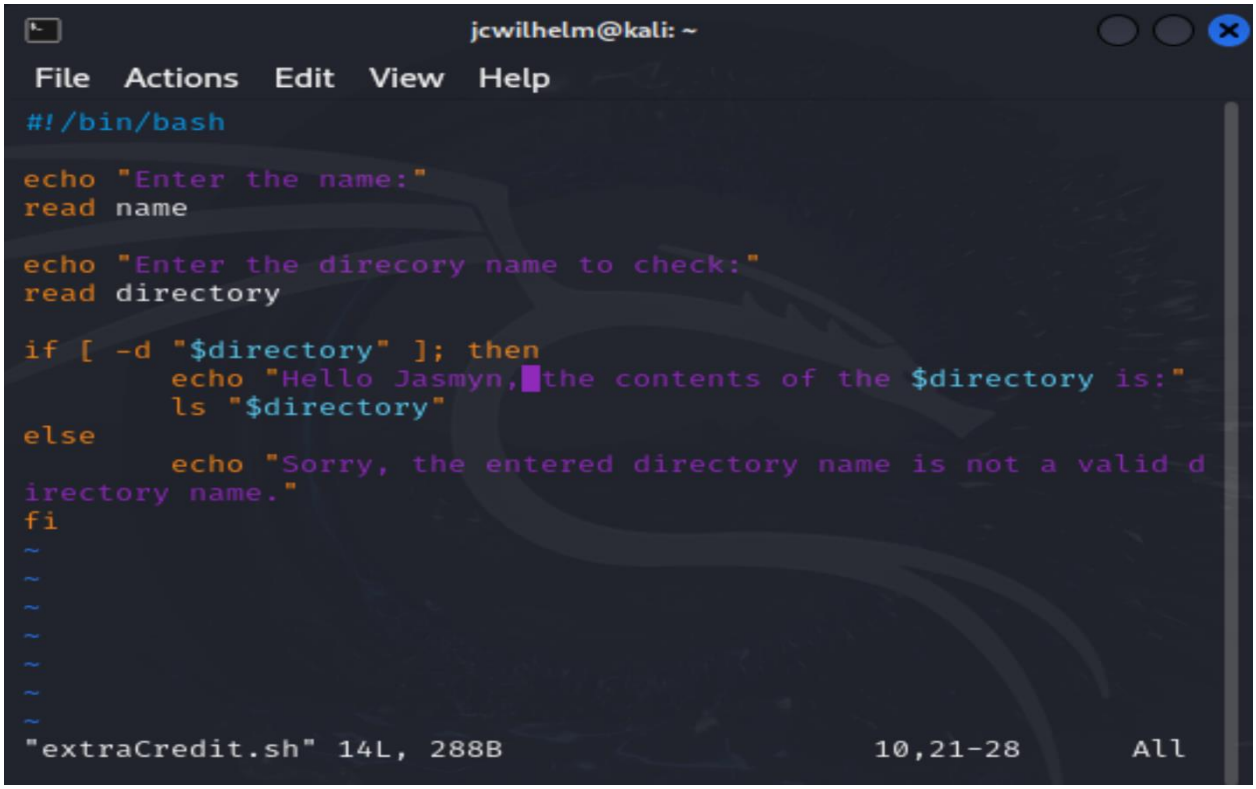


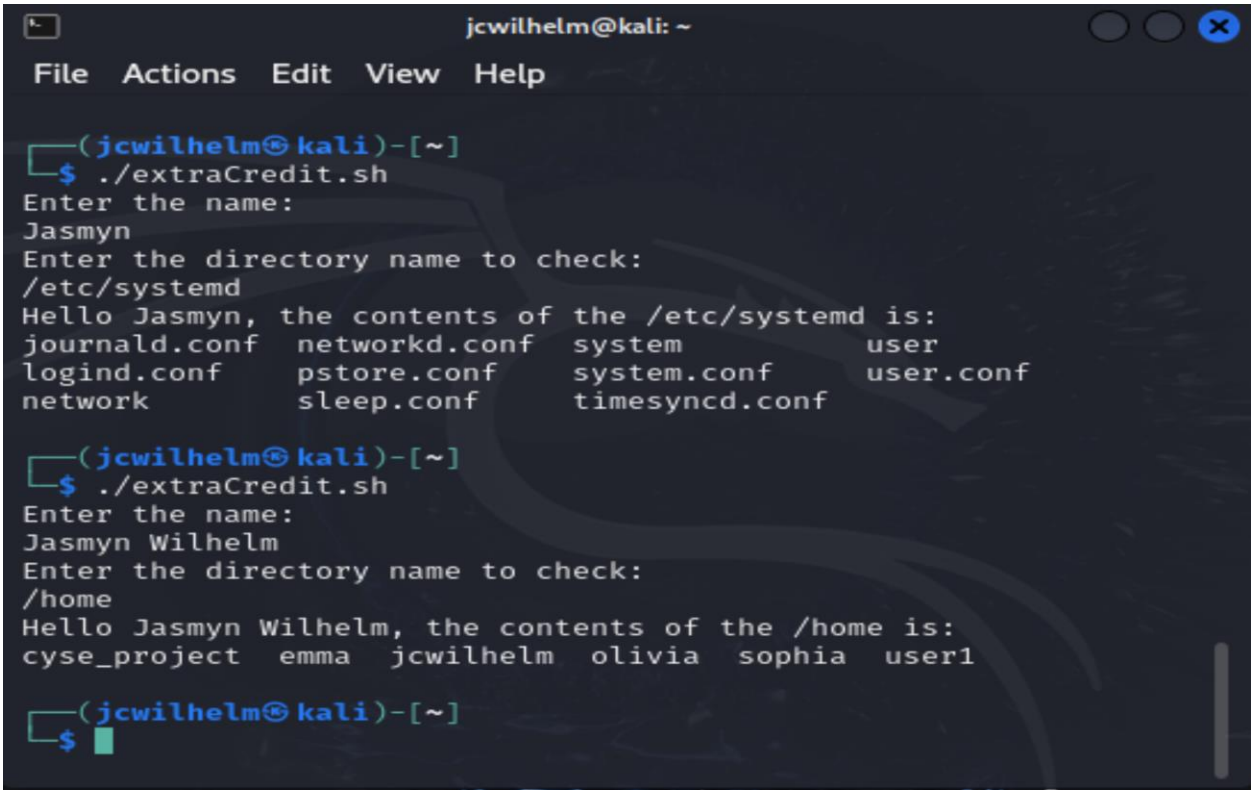
Extra Credit (15 points)- Check Directory

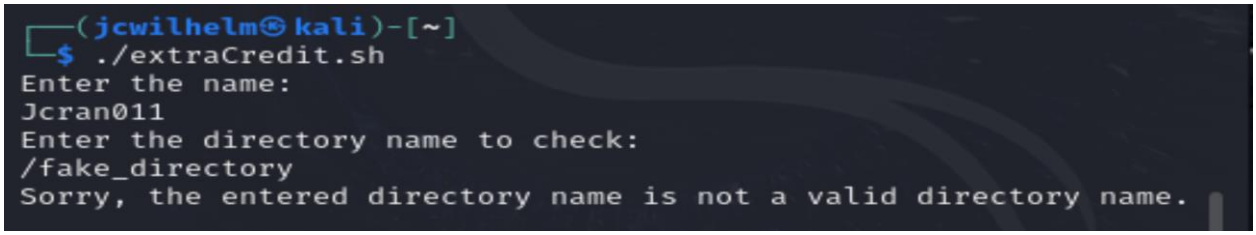
Write a script like below that

1. Reads Two variables- your name and the name of the directory as input.
2. Your script should check for the validity of the given directory name, if the entered filename is a directory, then display its contents
3. If the directory doesn't exist, then print an error message "Sorry, the entered directory name is not a valid directory name."
4. You need to execute your script and test the following directories to test with your script
    - /etc/systemd
    - /home
    - A directory that does not exist

Display the contents for the directories you have entered.




jcwilhelm@kali: ~
File Actions Edit View Help
┌──(jcwilhelm㉿kali)-[~]
└─$ ./extraCredit.sh
Enter the name:
Jasmyn
Enter the directory name to check:
/etc/systemd
Hello Jasmyn, the contents of the /etc/systemd is:
journald.conf networkd.conf system user
logind.conf pstore.conf system.conf user.conf
network sleep.conf timesyncd.conf
┌──(jcwilhelm㉿kali)-[~]
└─$ ./extraCredit.sh
Enter the name:
Jasmyn Wilhelm
Enter the directory name to check:
/home
Hello Jasmyn Wilhelm, the contents of the /home is:
cyse_project emma jcwilhelm olivia sophia user1
┌──(jcwilhelm㉿kali)-[~]
└─$


┌──(jcwilhelm㉿kali)-[~]
└─$ ./extraCredit.sh
Enter the name:
Jcran011
Enter the directory name to check:
/fake_directory
Sorry, the entered directory name is not a valid directory name.