

CYSE 270: Linux System for Cybersecurity

Lab 8 – Shell Scripting

Niaya Fuller

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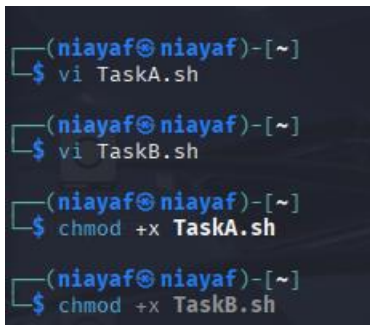
(Total 100 Points)

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**



```
(niayaf@niayaf)-[~]
└─$ vi TaskA.sh

(niayaf@niayaf)-[~]
└─$ vi TaskB.sh

(niayaf@niayaf)-[~]
└─$ chmod +x TaskA.sh

(niayaf@niayaf)-[~]
└─$ chmod +x TaskB.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**”.

(Your script should result into the output similar to this sample screenshot after executing as shown below)

```
#!/bin/bash
read -p "Input a number." userinput
if [ "$userinput" -gt 10 ];
then
    echo "Input number is greater than 10."
else
    echo "Input number is less than 10."
fi
```

```
(niayaf@niayaf)-[~]
└─$ ./TaskA.sh
Input a number.9
Input number is less than 10.
```

```
(niayaf@niayaf)-[~]
└─$ ./TaskA.sh
Input a number.12
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**)

```
#!/bin/bash
read -p "Enter a filename: " filename
if [ -f "$filename" ];
then
    echo "It is a regular file, and the file exists. Contents: "
    cat "$filename"
elif [ -d "$filename" ];
then
    echo "Directory exists."
else
    echo "File does not exist. Creating file."
    touch "$filename"
    echo "Niaya Fuller" > "$filename"
    echo "File created. Contents: "
    cat "$filename"
fi
```

```
(niayaf@niayaf)-[~]
└─$ ./TaskB.sh
Enter a filename: testing
It is a regular file, and the file exists. Contents:
im a test file!
```

```
(niayaf@niayaf)-[~]
└─$ ./TaskB.sh
Enter a filename: hello
File does not exist. Creating file.
File created. Contents:
Niaya Fuller
```

```
(niayaf@niayaf)-[~]
└─$ ./TaskB.sh
Enter a filename: Documents
Directory exists.
```