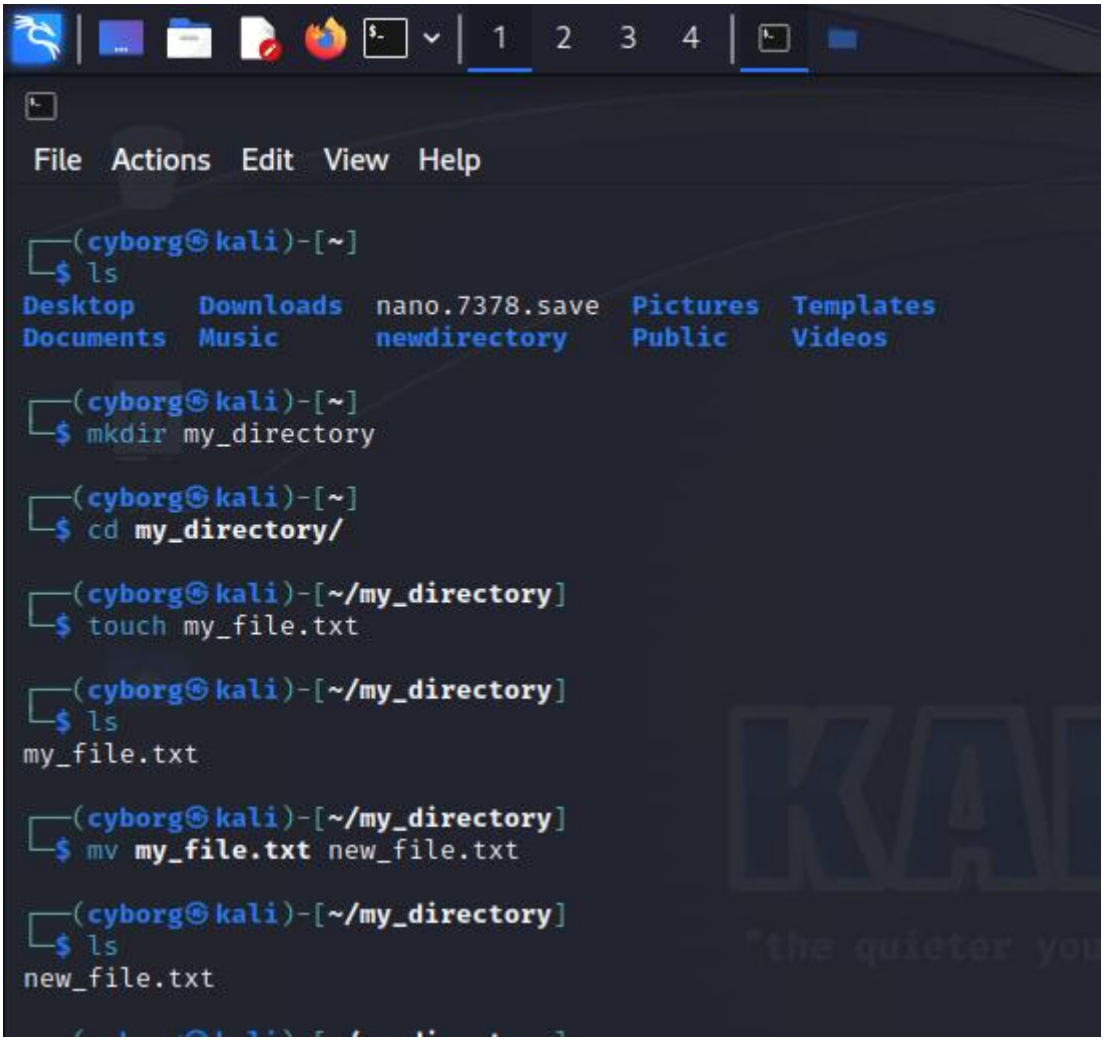
Archisman Das
20BCE2229

Assignment: Bash Shell Basics

Task 1: File and Directory Manipulation



1. **Create a directory called "my_directory".**
   mkdir my_directory

2. **Navigate into the "my_directory".**
   cd my_directory/

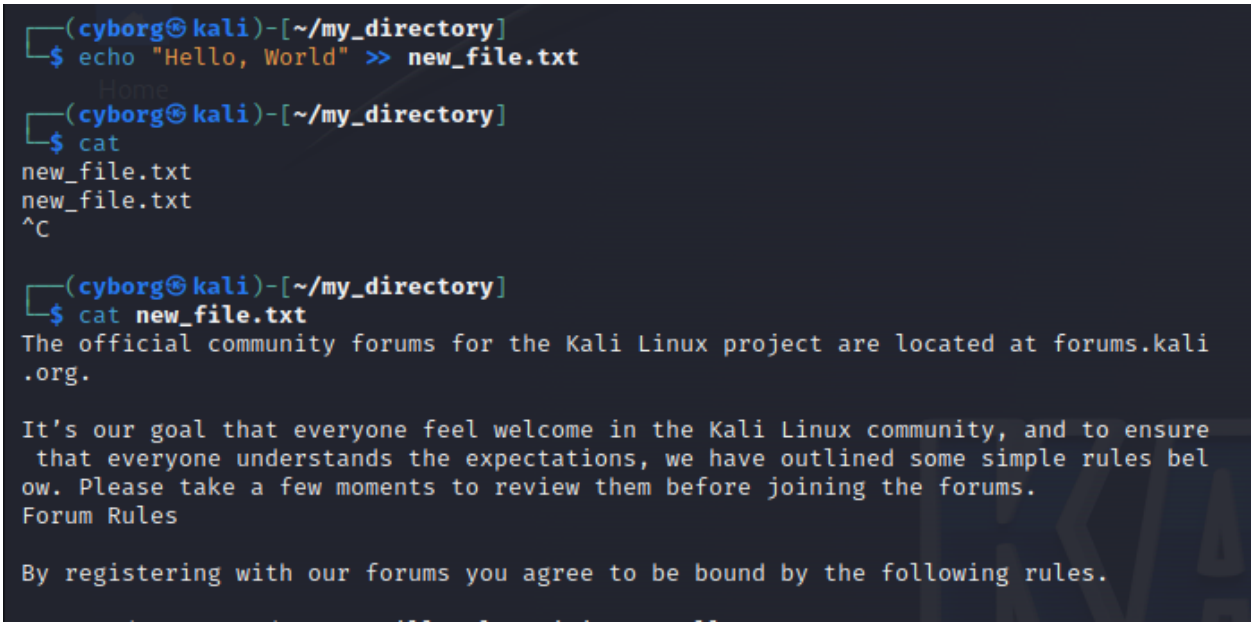
3. **Create an empty file called "my_file.txt".**
   touch my_file.txt

4. **List all the files and directories in the current directory.**
   ls

5. **Rename "my_file.txt" to "new_file.txt".**
   mv my_file.txt new_file.txt

6. **Display the content of "new_file.txt" using a pager tool of your choice.**
   more new_file.txt

7. **Append the text "Hello, World!" to "new_file.txt".**
   Echo “Hello, World!” >> new_file.txt
   This append the result of echo into the file new_file.txt



```
    If ANY member has an issue with the content of ANY post within the forums, use
the “REPORT THIS POST” button - This is the red triangle icon when using the defaul
t forum theme (or the asterisk icon when using the Blackfire Razor forum theme) fou
nd in the top right corner of each post.
    Breaking the forum rules may incur infractions ranging from loss of posting pri
vileges to a temporary or permanent ban, at the sole discretion of the forum staff.
    These rules are subject to alteration and/or addition. You are responsible for
staying aware of any changes.
Hello, World

┌──(cyborg㉿kali)-[~/my_directory]
└─$
```

8. **Create a new directory called "backup" within "my_directory".**
   mkdir backup

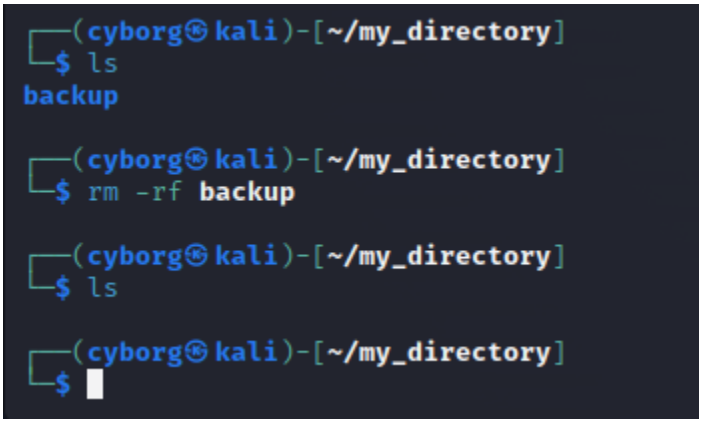
```
┌──(cyborg㉿kali)-[~/my_directory]
└─$ mkdir backup

┌──(cyborg㉿kali)-[~/my_directory]
└─$ ls
backup  new_file.txt

┌──(cyborg㉿kali)-[~/my_directory]
└─$
```

9. **Move "new_file.txt" to the "backup" directory.**
   mv new_file.txt backup

```
┌──(cyborg㉿kali)-[~/my_directory]
└─$ mv new_file.txt backup

┌──(cyborg㉿kali)-[~/my_directory]
└─$ ls
backup

┌──(cyborg㉿kali)-[~/my_directory]
└─$ cd backup/

┌──(cyborg㉿kali)-[~/my_directory/backup]
└─$ ls
new_file.txt

┌──(cyborg㉿kali)-[~/my_directory/backup]
└─$
```

10. **Verify that "new_file.txt" is now located in the "backup" directory.**
    It is verified from the above picture through “ls” command.

11. **Delete the "backup" directory and all its contents.**
    rm -rf backup



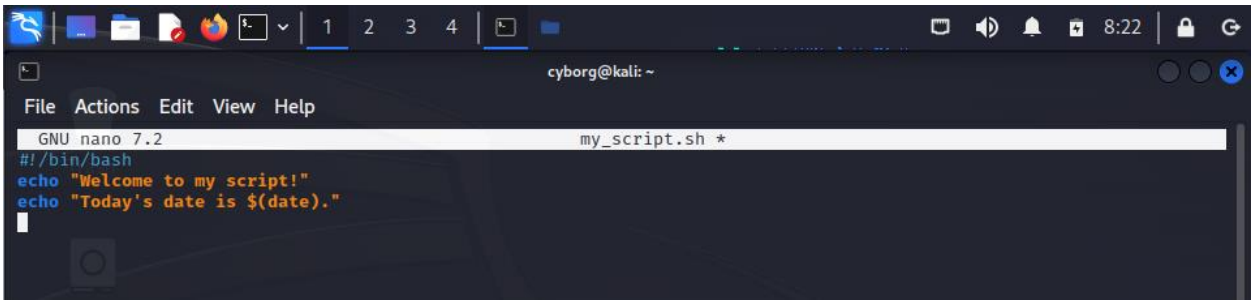
    This removes all the contents and subdirectories and files of backup.

Task 2: Permissions and Scripting

- **Create a new file called "my_script.sh".**
  touch my_script.sh

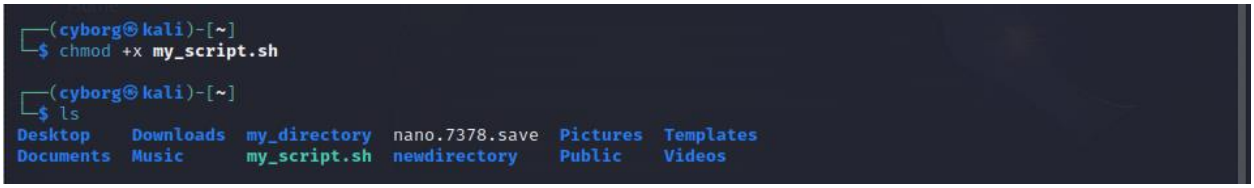
- **Edit "my_script.sh" using a text editor of your choice and add the following lines:**

#!/bin/bash
echo "Welcome to my script!"
echo "Today's date is $(date)."
Save and exit the file.



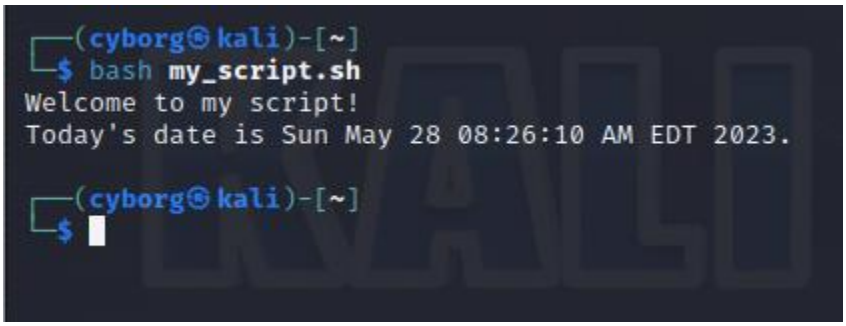
- **Make "my_script.sh" executable.**

chmod +x my_script.sh
This command changes the permission of the file my_script.sh to executable.



- **Run "my_script.sh" and verify that the output matches the expected result.**

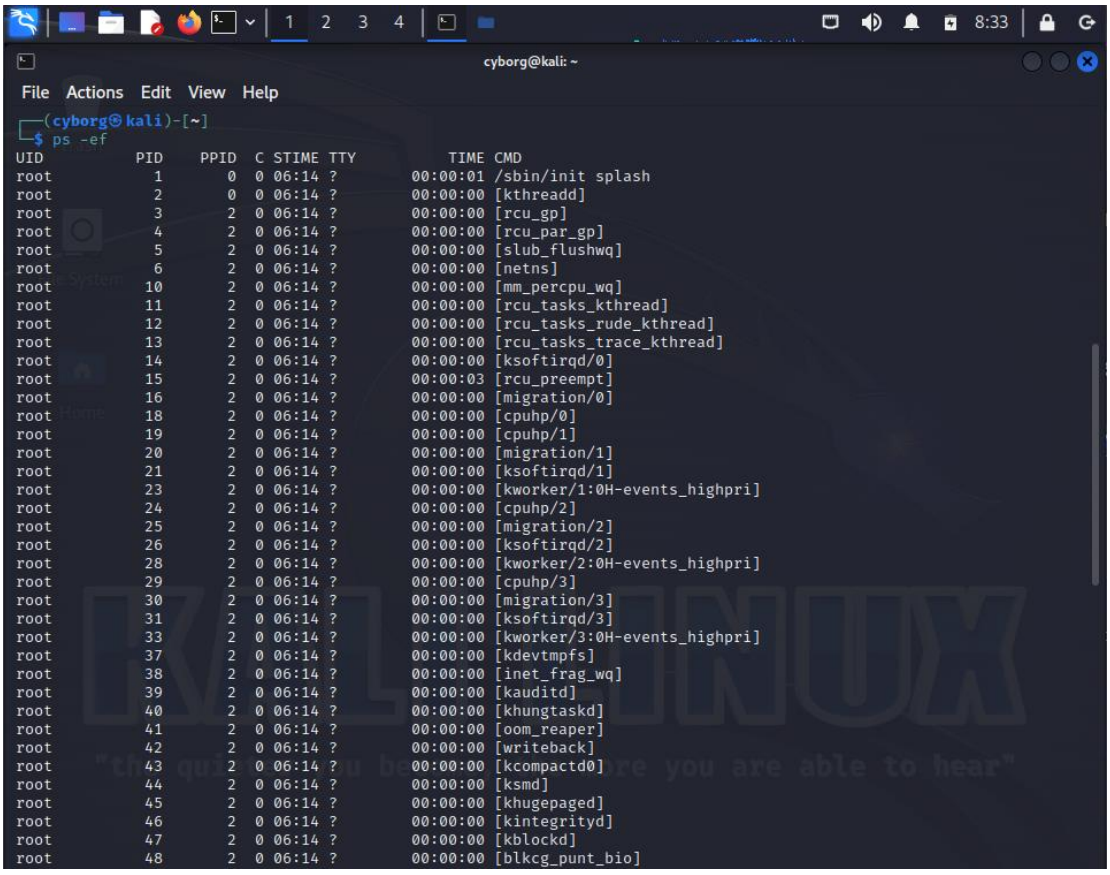
  “bash” or “sh” is used to run the file my_script.sh
  The output matches with the expected result.



Task 3: Command Execution and Pipelines

- **List all the processes running on your system using the "ps" command.**

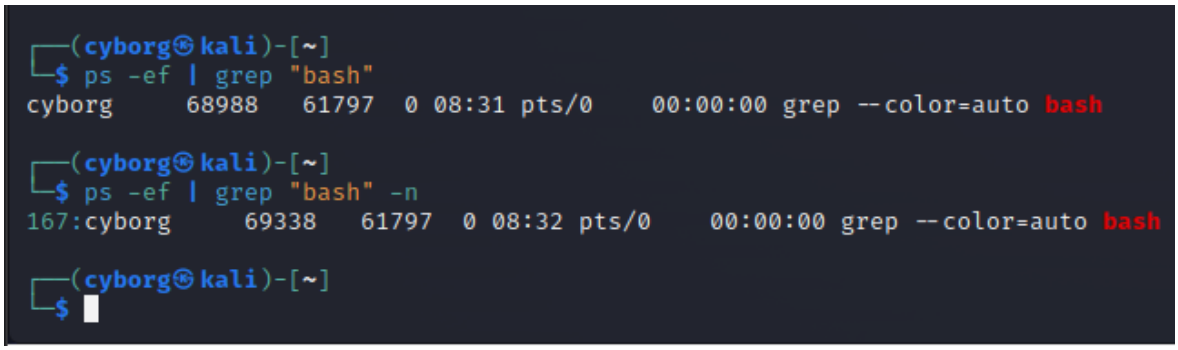
$ ps -ef



This shows all the running processes in the system.

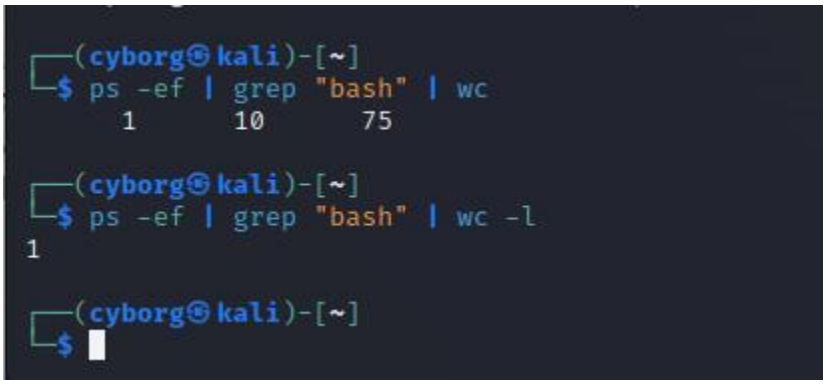
- **Use the "grep" command to filter the processes list and display only the processes with "bash" in their name.**

  $ ps -ef | grep “bash” // The output of the command ps -ef is the input for grep



- **Use the "wc" command to count the number of lines in the filtered output.**

  wc represents the number of lines, number of words and the number of characters/bytes.



Submission:

Provide a document or text file containing the commands used to complete the tasks above, along with any relevant output or screenshots. Include your explanations or observations where necessary.

Submitted By,

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