ASSIGNMENT – 2

TEAM MEMBERS:

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PROJRCT REG NO: SBAP0007919.

Bash Shell Basics

Task 1: File and Directory Manipulation

1. Create a directory called "my_directory".
2. Navigate into the "my_directory".
3. Create an empty file called "my_file.txt".
4. List all the files and directories in the current directory.
5. Rename "my_file.txt" to "new_file.txt".
6. Display the content of "new_file.txt" using a pager tool of your choice.
7. Append the text "Hello, World!" to "new_file.txt".
8. Create a new directory called "backup" within "my_directory".
9. Move "new_file.txt" to the "backup" directory.
10. Verify that "new_file.txt" is now located in the "backup" directory.
11. Delete the "backup" directory and all its contents.

COMMANDS

```
┌──(chiranjibi㉿kali)-[~]
└─$ mkdir my_directory

┌──(chiranjibi㉿kali)-[~]
└─$ cd my_directory

┌──(chiranjibi㉿kali)-[~/my_directory]
└─$ touch my_file.txt

┌──(chiranjibi㉿kali)-[~/my_directory]
└─$ ls
my_file.txt

┌──(chiranjibi㉿kali)-[~/my_directory]
└─$ mv my_file.txt new_file.txt

┌──(chiranjibi㉿kali)-[~/my_directory]
└─$ echo "hello, world!" >> new_file.txt
```

```
┌──(chiranjibi㉿kali)-[~]
└─$ mkdir backup

┌──(chiranjibi㉿kali)-[~]
└─$ mv new_file.txt backup/
mv: cannot stat 'new_file.txt': No such file or directory

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

┌──(chiranjibi㉿kali)-[~]
└─$ rm -r backup

┌──(chiranjibi㉿kali)-[~]
└─$
```

Task 2: Permissions and Scripting

- Create a new file called "my_script.sh".
- Edit "my_script.sh" using a text editor of your choice and add the following lines:

bash

#!/bin/bash echo

"Welcome to my script!" echo

"Today's date is $(date)."

Save and exit the file.

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

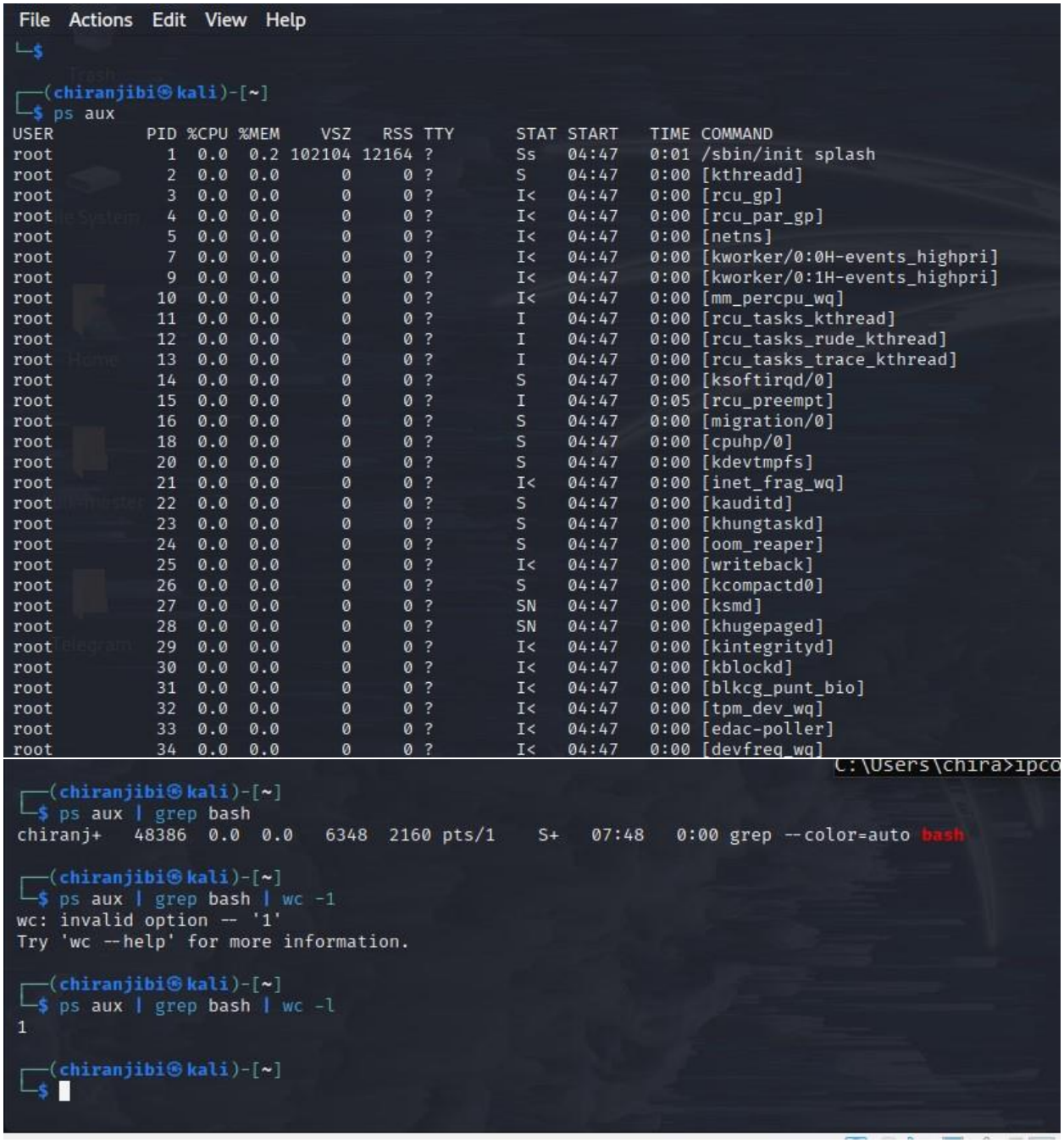
```
┌──(chiranjibi㉿kali)-[~]
└─$ touch my_script.sh

┌──(chiranjibi㉿kali)-[~]
└─$ less new_file.txt
new_file.txt: No such file or directory

┌──(chiranjibi㉿kali)-[~]
└─$ nano my_script.sh

┌──(chiranjibi㉿kali)-[~]
└─$ chmod +x my_script.sh

┌──(chiranjibi㉿kali)-[~]
└─$ ./my_script.sh
./my_script.sh: 1: welcome: not found
./my_script.sh: 3: Syntax error: Unterminated quoted string

┌──(chiranjibi㉿kali)-[~]
└─$ nano my_script.sh

┌──(chiranjibi㉿kali)-[~]
└─$ ./my_script.sh
```

NANO

```
File  Actions  Edit  View  Help
  GNU nano 6.3
echo "welcome to my script!"
echo "today's date is $(date)."
```

Task 3: Command Execution and Pipelines

- List all the processes running on your system using the "ps" command.
- Use the "grep" command to filter the processes list and display only the processes with "bash" in their name.
- Use the "wc" command to count the number of lines in the filtered output.


File Actions Edit View Help
└─$
┌──(chiranjibi㉿kali)-[~]
└─$ ps aux
USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND
root 1 0.0 0.2 102104 12164 ? Ss 04:47 0:01 /sbin/init splash
root 2 0.0 0.0 0 0 ? S 04:47 0:00 [kthreadd]
root 3 0.0 0.0 0 0 ? I< 04:47 0:00 [rcu_gp]
root 4 0.0 0.0 0 0 ? I< 04:47 0:00 [rcu_par_gp]
root 5 0.0 0.0 0 0 ? I< 04:47 0:00 [netns]
root 7 0.0 0.0 0 0 ? I< 04:47 0:00 [kworker/0:0H-events_highpri]
root 9 0.0 0.0 0 0 ? I< 04:47 0:00 [kworker/0:1H-events_highpri]
root 10 0.0 0.0 0 0 ? I< 04:47 0:00 [mm_percpu_wq]
root 11 0.0 0.0 0 0 ? I 04:47 0:00 [rcu_tasks_kthread]
root 12 0.0 0.0 0 0 ? I 04:47 0:00 [rcu_tasks_rude_kthread]
root 13 0.0 0.0 0 0 ? I 04:47 0:00 [rcu_tasks_trace_kthread]
root 14 0.0 0.0 0 0 ? S 04:47 0:00 [ksoftirqd/0]
root 15 0.0 0.0 0 0 ? I 04:47 0:05 [rcu_preempt]
root 16 0.0 0.0 0 0 ? S 04:47 0:00 [migration/0]
root 18 0.0 0.0 0 0 ? S 04:47 0:00 [cpuhp/0]
root 20 0.0 0.0 0 0 ? S 04:47 0:00 [kdevtmpfs]
root 21 0.0 0.0 0 0 ? I< 04:47 0:00 [inet_frag_wq]
root 22 0.0 0.0 0 0 ? S 04:47 0:00 [kauditd]
root 23 0.0 0.0 0 0 ? S 04:47 0:00 [khungtaskd]
root 24 0.0 0.0 0 0 ? S 04:47 0:00 [oom_reaper]
root 25 0.0 0.0 0 0 ? I< 04:47 0:00 [writeback]
root 26 0.0 0.0 0 0 ? S 04:47 0:00 [kcompactd0]
root 27 0.0 0.0 0 0 ? SN 04:47 0:00 [ksmd]
root 28 0.0 0.0 0 0 ? SN 04:47 0:00 [khugepaged]
root 29 0.0 0.0 0 0 ? I< 04:47 0:00 [kintegrityd]
root 30 0.0 0.0 0 0 ? I< 04:47 0:00 [kblockd]
root 31 0.0 0.0 0 0 ? I< 04:47 0:00 [blkcg_punt_bio]
root 32 0.0 0.0 0 0 ? I< 04:47 0:00 [tpm_dev_wq]
root 33 0.0 0.0 0 0 ? I< 04:47 0:00 [edac-poller]
root 34 0.0 0.0 0 0 ? I< 04:47 0:00 [devfreq_wq]
C:\Users\chira>ipco
┌──(chiranjibi㉿kali)-[~]
└─$ ps aux | grep bash
chiranj+ 48386 0.0 0.0 6348 2160 pts/1 S+ 07:48 0:00 grep --color=auto bash
┌──(chiranjibi㉿kali)-[~]
└─$ ps aux | grep bash | wc -1
wc: invalid option -- '1'
Try 'wc --help' for more information.
┌──(chiranjibi㉿kali)-[~]
└─$ ps aux | grep bash | wc -l
1
┌──(chiranjibi㉿kali)-[~]
└─$