

## **Assessment-2**

### **Title: Bash Shell Basics**

**NAME-SHREYA DOKANIA**

#### **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.

```
(hacker2002@kali)-[~]
$ mkdir mydir

(hacker2002@kali)-[~]
$ cd mydir

(hacker2002@kali)-[~/mydir]
$ touch my_file.txt

(hacker2002@kali)-[~/mydir]
$ ls
my_file.txt

(hacker2002@kali)-[~/mydir]
$ mv my_file.txt new_file.txt

(hacker2002@kali)-[~/mydir]
$ cat new_file.txt

(hacker2002@kali)-[~/mydir]
$ echo 'hello world' >>new_file.txt

(hacker2002@kali)-[~/mydir]
$ cat new_file.txt
hello world

(hacker2002@kali)-[~/mydir]
$ mkdir backup

(hacker2002@kali)-[~/mydir]
$ cd backup
```

```
(hacker2002@kali)-[~/mydir]
$ mv new_file.txt backup/

(hacker2002@kali)-[~/mydir]
$ cd backup

(hacker2002@kali)-[~/mydir/backup]
$ ls
new_file.txt

(hacker2002@kali)-[~/mydir/backup]
$ cd ..

(hacker2002@kali)-[~/mydir]
$ rm -r backup

(hacker2002@kali)-[~/mydir]
$ ls

(hacker2002@kali)-[~/mydir]
$
```

## 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.

```
(hacker2002@kali)-[~]
$ touch my_script.sh

(hacker2002@kali)-[~]
$ nano my_script.sh

(hacker2002@kali)-[~]
$ nano my_script.sh

(hacker2002@kali)-[~]
$ chmod +x my_script.sh

(hacker2002@kali)-[~]
$ ./my_script.sh
Welcome to my script!
Today's date is Sunday 28 May 2023 03:11:16 PM IST.

(hacker2002@kali)-[~]
$
```

### 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.

```
(hacker2002@kali)-[~]  
$ ps -e  
  PID TTY          TIME CMD  
    1 ?           00:00:00 systemd  
    2 ?           00:00:00 kthreadd  
    3 ?           00:00:00 rcu_gp  
    4 ?           00:00:00 rcu_par_gp  
    5 ?           00:00:00 slub_flushwq  
    6 ?           00:00:00 netns  
    8 ?           00:00:00 kworker/0:0H-events_highpri  
   10 ?           00:00:00 mm_percpu_wq  
   11 ?           00:00:00 rcu_tasks_rude_kthread  
   12 ?           00:00:00 rcu_tasks_trace_kthread  
   13 ?           00:00:00 ksoftirqd/0  
   14 ?           00:00:00 rcu_sched  
   15 ?           00:00:00 migration/0  
   17 ?           00:00:00 cpuhp/0  
   18 ?           00:00:00 cpuhp/1  
   19 ?           00:00:00 migration/1  
   20 ?           00:00:00 ksoftirqd/1  
   22 ?           00:00:00 kworker/1:0H-events_highpri  
   23 ?           00:00:00 cpuhp/2  
   24 ?           00:00:00 migration/2  
   25 ?           00:00:00 ksoftirqd/2  
   27 ?           00:00:00 kworker/2:0H-events_highpri  
   28 ?           00:00:00 cpuhp/3  
   29 ?           00:00:00 migration/3  
   30 ?           00:00:00 ksoftirqd/3  
   32 ?           00:00:00 kworker/3:0H-events_highpri  
   34 ?           00:00:00 kdevtmpfs  
   35 ?           00:00:00 inet_frag_wq  
   36 ?           00:00:00 kauditd  
   37 ?           00:00:00 khungtaskd  
   38 ?           00:00:00 oom_reaper  
   40 ?           00:00:00 writeback  
   41 ?           00:00:00 kcompactd0  
   42 ?           00:00:00 ksmd  
   43 ?           00:00:00 khugepaged
```

```
(hacker2002@kali)-[~]  
$ ps -e | grep bash  
  
(hacker2002@kali)-[~]  
$ ps -e | grep bash | wc -l  
0  
  
(hacker2002@kali)-[~]  
$
```