

~(OPERATING SYSTEM)~

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Lab 3: Linux Basic Commands (Part 2)

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Q1. Which option of the **uname** command shows the kernel version?

```
nawal@Ubuntu24:~/file1.txt$ uname -r  
6.8.0-44-generic
```

Q2. Which file stores the permanent **hostname** in most Linux distributions?

```
nawal@Ubuntu24:~/file1.txt$ cat /etc/hostname  
Ubuntu24
```

Q3. Write date command and display date in the following format: **Monday, September 9, 2024 02:42:07 PM**

```
nawal@Ubuntu24:~/file1.txt$ date +"%A, %B %-d, %Y %I:%M:%S %p"  
Sunday, October 13, 2024 03:42:08 AM
```

Q4. Write date command and display date in the following format: **2024-09-09 14:42:07**

```
nawal@Ubuntu24:~/file1.txt$ date +"%Y-%m-%d %H:%M:%S"  
2024-10-13 03:44:21
```

Q5. How can you display a calendar for **October 2024** using the **cal** command?

```
nawal@Ubuntu24:~/file1.txt$ cal 10 2024  
      October 2024  
Su Mo Tu We Th Fr Sa  
      1  2  3  4  5  
  6  7  8  9 10 11 12  
13 14 15 16 17 18 19  
20 21 22 23 24 25 26  
27 28 29 30 31
```

Q6. How do you sort processes by memory usage in the **top** command?

```
nawal@Ubuntu24:~/file1.txt$ top
```

top - 03:54:03 up 39 min, 1 user, load average: 1.04, 0.90, 0.81
Tasks: 193 total, 2 running, 191 sleeping, 0 stopped, 0 zombie
%Cpu(s): 43.4 us, 16.7 sy, 0.0 ni, 38.9 id, 0.0 wa, 0.0 hi, 1.1 si, 0.0 st
MiB Mem : 7942.1 total, 6091.7 free, 1140.2 used, 983.9 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 6801.9 avail Mem

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1816	nawal	20	0	3972332	369608	141096	R	111.5	4.5	15:23.65	gnome-shell

Q7. How can you display the process tree with process IDs using **ps**tree?

```
nawal@Ubuntu24:~/file1.txt$ pstree -p
```

```
systemd(1)─ModemManager(800)─{ModemManager}(806)
              │               │{ModemManager}(807)
              │               │{ModemManager}(810)
              └─NetworkManager(734)─{NetworkManager}(759)
                                      │{NetworkManager}(760)
                                      │{NetworkManager}(761)
              └─accounts-daemon(622)─{accounts-daemon}(711)
                                      │{accounts-daemon}(712)
                                      │{accounts-daemon}(718)
              └─avahi-daemon(558)─avahi-daemon(708)
              └─colord(1202)─{colord}(1207)
                           │{colord}(1208)
                           │{colord}(1210)
```

Q8. How would you terminate a process with PID 1234 using the **kill** command?

```
nawal@Ubuntu24:~$ kill -9 4572
```

Q9. How would you run the **sleep 60** command in the background?

```
nawal@Ubuntu24:~$ sleep 60 &
[2] 3252
```

Q10. How do you start a command with a **nice** value of 10?

```
nawal@Ubuntu24:~$ nice -n 10
```

Q11. How do you search for files larger than 100MB using the find command?

```
nawal@Ubuntu24:~$ find . -type f -size +100M
```

Q12. How do you search for a directory named **shared documents** owned by user **chishti** ?

```
nawal@Ubuntu24:~$ find . -type d -iname "share documents" -user chishti  
find: 'chishti' is not the name of a known user
```