

Subject: Operating system concepts using Unix/Linux

LAB ASSIGNMENT 4

1. Display the Date and Time in this format "Today is Monday, March 17, 2025. The time is 02:30 PM."

```
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$ date +"Today is %A, %B %d, %Y. The time is %I:%M %p."
Today is Wednesday, March 19, 2025. The time is 06:30 PM.
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$
```

2. Create a countdown timer using a date that waits for 10 seconds before printing the current time.

```
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$ echo "Waiting for 10 seconds..." && sleep 10 && date
Waiting for 10 seconds...
Wed Mar 19 18:33:07 IST 2025
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$ |
```

3. Show the Calendar with Monday as the First Day.

```
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$ ncal -M
      March 2025
Mo     3 10 17 24 31
Tu     4 11 18 25
We     5 12 19 26
Th     6 13 20 27
Fr     7 14 21 28
Sa     1  8 15 22 29
Su     2  9 16 23 30
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$
```

4. Pings Google 4 times to check connectivity.

```
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$ ping -c 4 google.com
PING google.com (142.250.194.110) 56(84) bytes of data:
64 bytes from del12s04-in-f14.1e100.net (142.250.194.110): icmp_seq=1 ttl=109 time=510 ms
64 bytes from del12s04-in-f14.1e100.net (142.250.194.110): icmp_seq=2 ttl=109 time=102 ms
64 bytes from del12s04-in-f14.1e100.net (142.250.194.110): icmp_seq=3 ttl=109 time=124 ms
64 bytes from del12s04-in-f14.1e100.net (142.250.194.110): icmp_seq=4 ttl=109 time=147 ms

--- google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3027ms
rtt min/avg/max/mdev = 101.573/220.541/510.114/167.938 ms
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$
```

5. Searches for Apache-related processes.

```
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$ ps aux | grep apache
navdip    925  0.0  0.0  8168  724 pts/0    S+   18:42   0:00 grep --color=auto apache
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$
```

6. Find the Date 100 Days from Today

```
navdip@LAPTOP-0N09\ x + v
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$ date -d "+100 days"
Fri Jun 27 18:43:29 IST 2025
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$ |
```

7. Lists all processes for the current user.

```
navdip@LAPTOP-0N09\ x + v
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$ ps -x
  PID TTY          STAT       TIME COMMAND
   588 pts/0        Ss           0:00 -bash
   770 ?            Ss           0:00 /lib/systemd/systemd --user
   772 ?            S            0:00 (sd-pam)
   778 pts/1        S+           0:00 -bash
   937 pts/0        R+           0:00 ps -x
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$
```

8. Write a command to automatically print "Time's up!" after 10 seconds.

```
navdip@LAPTOP-0N09\ x + v
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$ sleep 10 && echo "Time's up!"
Time's up!
navdip@LAPTOP-0N09VP88:/mnt/c/Users/navdip/documents/NAVDIP$ |
```