

Learning Objectives

After completing this lab, you will be able to use commands to display:

- System and user information
- User and group identity info
- Information about running processes and system resource usage
- Custom messages
- The current date and time
- The reference manual for a command

1.1. Display the name of the current user

```
/project$ whoami  
theia
```

```
/project$ uname  
Linux
```

-a option prints all the system information.

```
/project$ uname -a  
Linux theia-rajendraabro 6.8.0-88-generic #89-Ubuntu SMP PREEMPT_DYNAMIC Sat Oct 11  
01:02:46 UTC 2025 x86_64 x86_64 x86_64 GNU/Linux
```

This command displays the user id and group id information of the current user.

```
theia@theia-rajendraabro:/home  
/project$ id  
uid=1000(theia) gid=1000(theia) groups=1000(theia),27(sudo),100(users)
```

```
theia@theia-rajendraabro:/home  
/project$ df  
Filesystem 1K-blocks Used Available Use% Mounted on  
overlay     101986876 53595940 43970700 55% /  
tmpfs       65536    0   65536  0% /dev  
/dev/vda2   101986876 53595940 43970700 55% /etc/hosts  
shm         65536    0   65536  0% /dev/shm  
tmpfs       28133024   16 28133008  1% /run/secrets/kubernetes.io/serviceaccount  
tmpfs       15933264    0 15933264  0% /proc/acpi  
tmpfs       15933264    0 15933264  0% /proc/scsi  
tmpfs       15933264    0 15933264  0% /sys/firmware
```

The **df** command is used to display available disk space.

To get available disk space in a "human-readable" format.

```
theia@theia-rajendraabro:/home  
/project$ df -h  
Filesystem  Size Used Avail Use% Mounted on  
overlay     98G 52G 42G 56% /  
tmpfs       64M  0 64M 0% /dev  
/dev/vda2   98G 52G 42G 56% /etc/hosts  
shm         64M  0 64M 0% /dev/shm  
tmpfs       27G 16K 27G 1% /run/secrets/kubernetes.io/serviceaccount  
tmpfs       16G  0 16G 0% /proc/acpi  
tmpfs       16G  0 16G 0% /proc/scsi  
tmpfs       16G  0 16G 0% /sys/firmware
```

The **ps** command lists each process that is currently running and its **PID** (process id).

```
theia@theia-rajendraabro:/home/project$ ps  
PID TTY      TIME CMD  
343 pts/3    00:00:00 bash  
664 pts/3    00:00:00 ps
```

By using the **-e** option, you can display all of the processes running on the system.

```
theia@theia-rajendraabro:/home/project$ ps -e  
PID TTY      TIME CMD  
1 ?    00:00:00 sh  
7 ?    00:00:00 entrypoint.sh  
32 ?   00:00:00 cron  
37 ?   00:00:06 node  
48 ?   00:00:08 node  
90 pts/0  00:00:00 bash
```

```
93 pts/1 00:00:00 bash
316 ? 00:00:02 node
339 pts/2 00:00:00 bash
343 pts/3 00:00:00 bash
553 ? 00:00:00 node
665 pts/3 00:00:00 ps
```

1.6. Get information on the running processes and system resources

The `top` or "table of processes" command provides a dynamic, real-time view of your system.

```
theia@theia-rajendraabro:/home/project$ top
```

```
top - 14:30:58 up 2 days, 3:21, 0 users, load average: 1.39, 0.
Tasks: 13 total, 1 running, 12 sleeping, 0 stopped, 0 zomb
%Cpu(s): 10.2 us, 3.3 sy, 0.8 ni, 85.3 id, 0.1 wa, 0.0 hi, 0.
MiB Mem : 31119.7 total, 13785.5 free, 4459.6 used, 12874.6 b
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 26189.4 a
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM
37	theia	20	0	11.3g	144188	47232	S	0.3	0.5
48	theia	20	0	1527656	68824	42112	S	0.3	0.2
1	theia	20	0	2896	1664	1664	S	0.0	0.0
7	theia	20	0	4368	3328	3072	S	0.0	0.0

q , ctrl + c

```
theia@theia-rajendraabro:/home/project$ top -n 10
```

```
top - 14:31:31 up 2 days, 3:22, 0 users, load average: 1.57, 0.
Tasks: 13 total, 1 running, 12 sleeping, 0 stopped, 0 zomb
top - 14:32:40 up 2 days, 3:23, 0 users, load average: 1.02, 0.
Tasks: 13 total, 1 running, 12 sleeping, 0 stopped, 0 zomb
%Cpu(s): 7.5 us, 2.6 sy, 0.1 ni, 89.5 id, 0.1 wa, 0.0 hi, 0.
MiB Mem : 31119.7 total, 13900.2 free, 4347.0 used, 12872.4 b
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 26302.1 a
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM
48	theia	20	0	1527656	68792	42112	S	0.7	0.2
1	theia	20	0	2896	1664	1664	S	0.0	0.0
7	theia	20	0	4368	3328	3072	S	0.0	0.0

Key	Sorts by
m	Memory Usage
p	CPU Usage
n	Process ID (PID)
t	Running Time

Shift + m

1.7. Display Messages

```
theia@theia-rajendraabro:/home/project$ echo -e "This will be printed \n in two lines"
This will be printed
in two lines
```

Special Character	Effect
\n	Start a new line
\t	Insert a tab

1.8. Display date and time

```
theia@theia-rajendraabro:/home/project$ date
Wed Dec 24 14:40:48 EST 2025
```

The `date` command displays the current date and time.

```
theia@theia-rajendraabro:/home/project$ date "+%D"  
12/24/25
```

Specifier	Explanation
<code>%d</code>	Displays the day of the month (01 to 31)
<code>%h</code>	Displays the abbreviated month name (Jan to Dec)
<code>%m</code>	Displays the month of year (01 to 12)
<code>%Y</code>	Displays the four-digit year
<code>%T</code>	Displays the time in 24 hour format as HH:MM:SS
<code>%H</code>	Displays the hour

The `man` command displays the user manual for any command that you provide as its argument.(`man -k .`)

theia@theia-rajendraabro:/home/project\$ man ls

LS(1) User Commands LS(1)

NAME

ls - list directory contents

SYNOPSIS

ls [OPTION]... [FILE]...

DESCRIPTION

List information about the FILEs (the current directory

Manual page ls(1) line 1 (press h for help or q to quit)