Test 2

Q1.
Ans:
Sticky bit : it controls the unwanted deletions of a file or directory . it is applied to give the other users permission
Eg : chmod o+t /directory

SUID (Set User ID): When set on a file, it allows the file to be executed with the permissions of the file owner instead of the user executing it. Example: `passwd` command.

SGID (Set Group ID): When set on a file, it allows the file to be executed with the permissions of the group. When set on a directory, new files inherit the directory's group. Sticky Bit: Applied to directories to prevent users from deleting files owned by others. Common in `/tmp`.

Commands:

chmod u+s filename # Set SUID
chmod g+s filename # Set SGID
Chmod o+t directory # Set Sticky Bit
ls -l # Check permissions

Q2.
Ans:

(A) The permission -rwSr--r-- represented in octal expression will be? `-rwSr--r--` is `4644` in octal. S is applied using SUID bcoz it is applied on the owner and small s represents SUID is applied and capital S represents it is not applied .

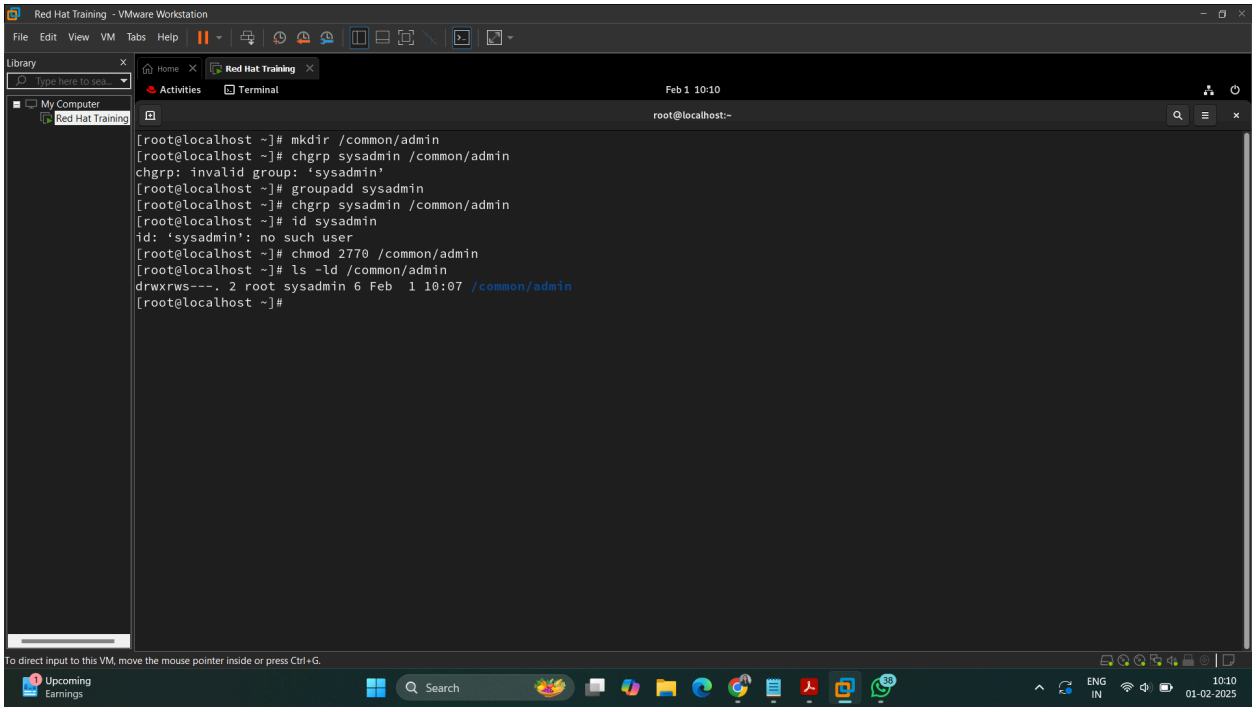
(B) Difference between 't' and 'T' in Sticky Bit?

- `t` means the directory has executable permission for others.
- `T` means no executable permission for others.

Q3.

ans:

Q3.Ans:


Red Hat Training - VMware Workstation
File Edit View VM Tabs Help
Library
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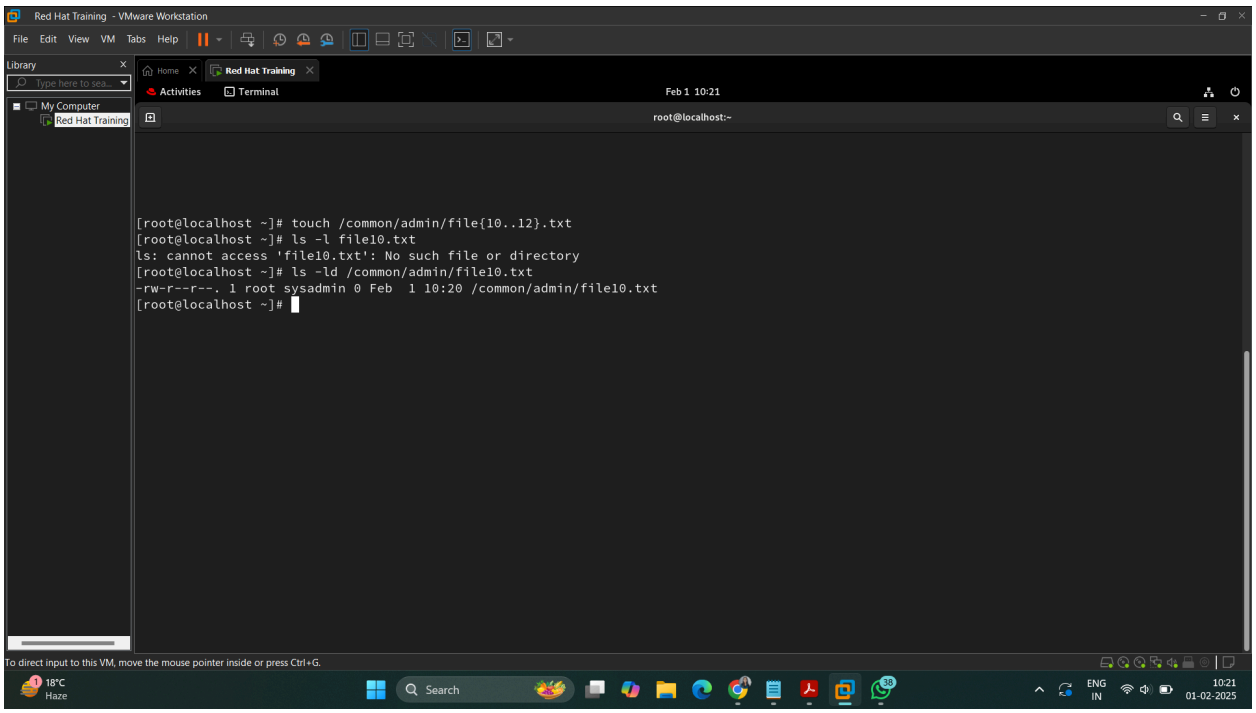
Terminal
Feb 1 10:10
root@localhost:~
[root@localhost ~]# mkdir /common/admin
[root@localhost ~]# chgrp sysadmin /common/admin
chgrp: invalid group: ‘sysadmin’
[root@localhost ~]# groupadd sysadmin
[root@localhost ~]# chgrp sysadmin /common/admin
[root@localhost ~]# id sysadmin
id: ‘sysadmin’: no such user
[root@localhost ~]# chmod 2770 /common/admin
[root@localhost ~]# ls -ld /common/admin
drwxrws---. 2 root sysadmin 6 Feb 1 10:07 /common/admin
[root@localhost ~]#
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.
Upcoming
Earnings
Search
ENG
IN
10:10
01-02-2025


Red Hat Training - VMware Workstation
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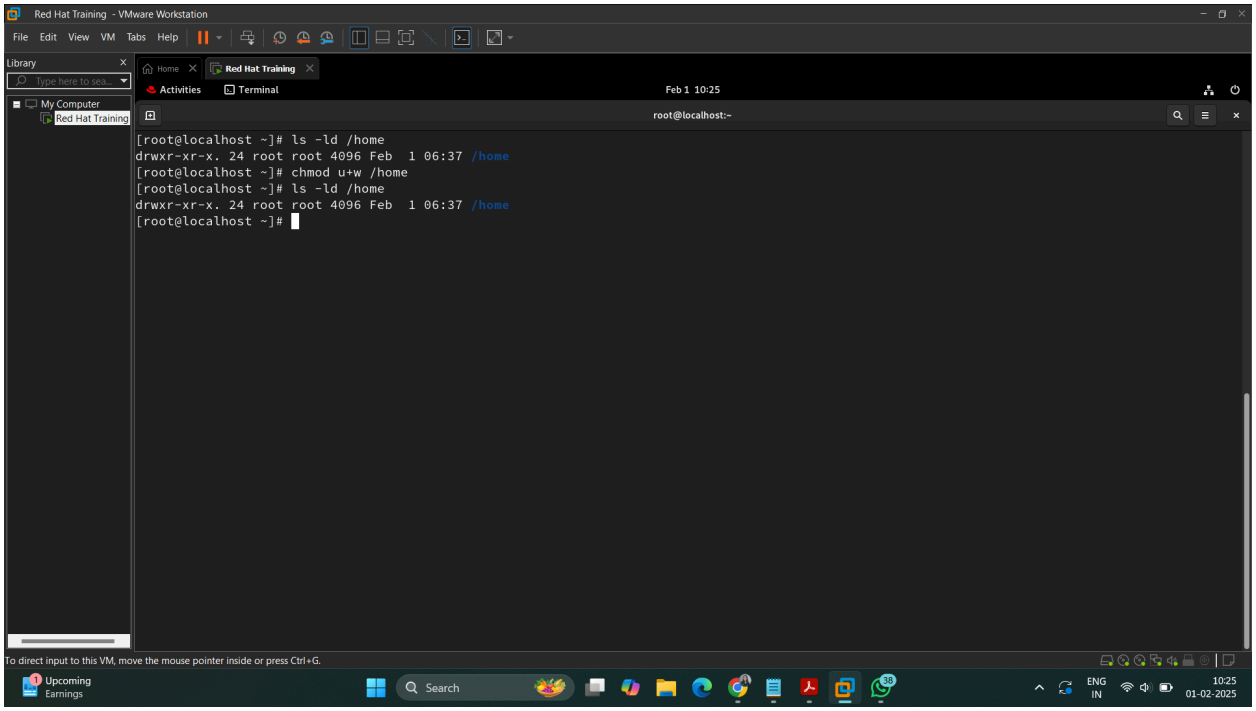
Terminal
Feb 1 10:21
root@localhost:~
[root@localhost ~]# touch /common/admin/file{10..12}.txt
[root@localhost ~]# ls -l file10.txt
ls: cannot access 'file10.txt': No such file or directory
[root@localhost ~]# ls -ld /common/admin/file10.txt
-rw-r--r--. 1 root sysadmin 0 Feb 1 10:20 /common/admin/file10.txt
[root@localhost ~]#
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.
18°C
Haze
Search
ENG
IN
10:21
01-02-2025

Q4.
Ans:

- The issue is due to insufficient write permissions on the parent directory.
- The user must have write and execute permissions on the directory.



Q5.

Ans:

- Default ACL: Sets permissions for future files in a directory.
- Recursive ACL: Applies permissions to all existing files.

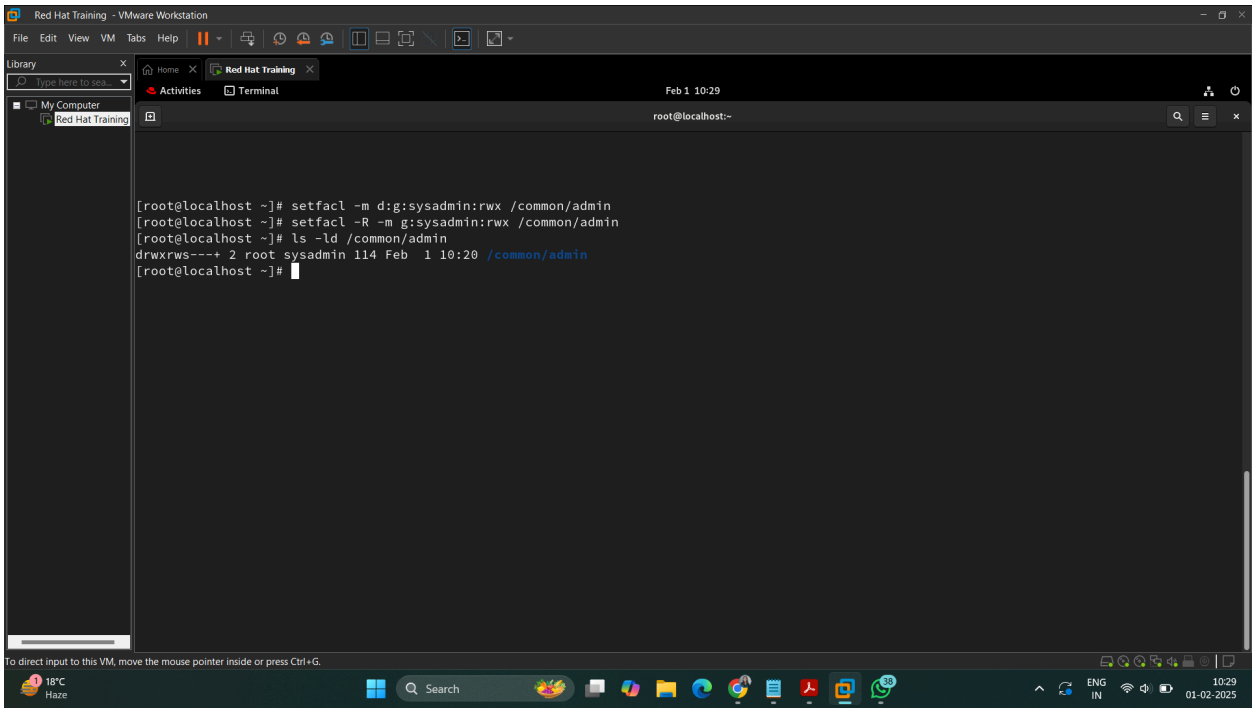
-R is for recursively

-m is for modify

And both the commands are

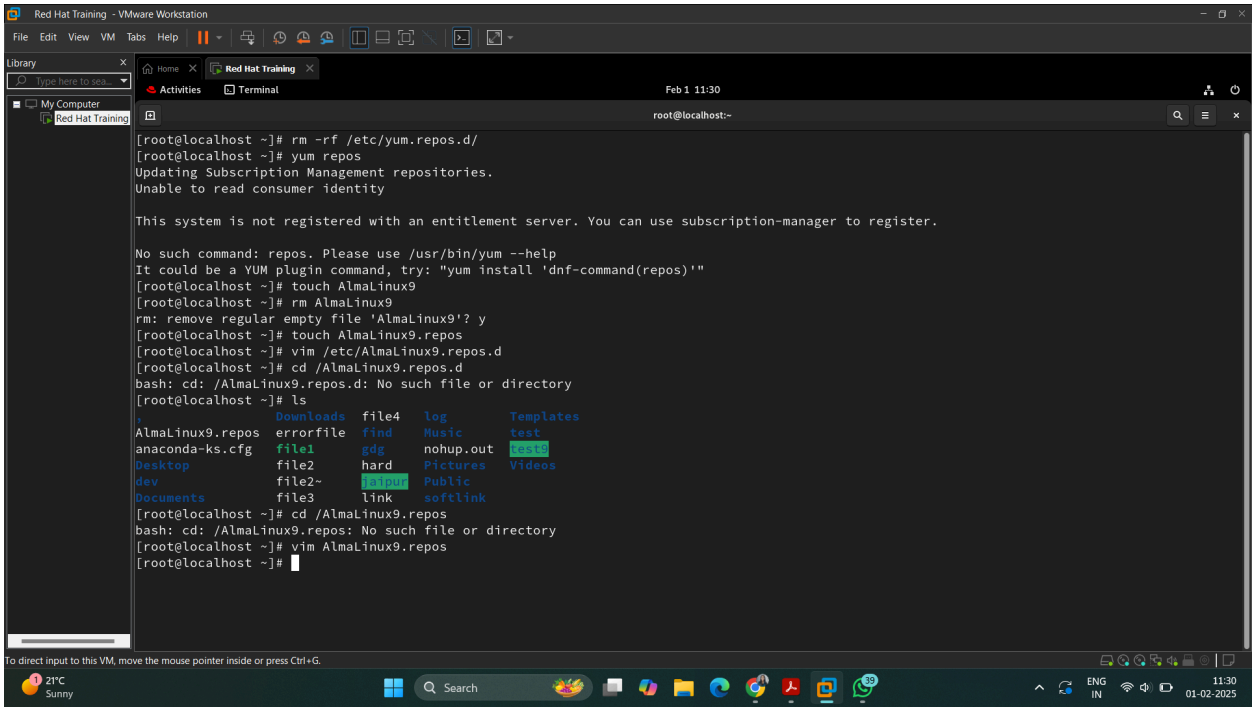
setfacl -m d:g:sysadmin:rwx /common/admin # Default ACL

setfacl -R -m g:sysadmin:rwx /common/admin # Recursive ACL



Q6.

Ans:



Q7.
Ans: (A) List all installed RPM packages:
rpm -qa

(B) Get details about an installed package:

rpm -qi package-name

(C) List configuration files of `coreutils`:

rpm -qc coreutils

Q8.
Ans: (A) Install bind & bind-utils using yum:
yum install -y bind bind-utils

(B) Start & Enable named.service:

systemctl start named
systemctl enable named

Q9.
Ans: `rpm`: Installs `.rpm` packages but does not resolve dependencies.
To install a package in rpm we write rpm -i

- `yum`: Older package manager, and resolve dependencies replaced by `dnf`. To install a package in yum we need to write yum -install
- `dnf`: Newer package manager, resolves dependencies better it is more faster and secure than yum . dnf is same sa yum but more faster

Q10.

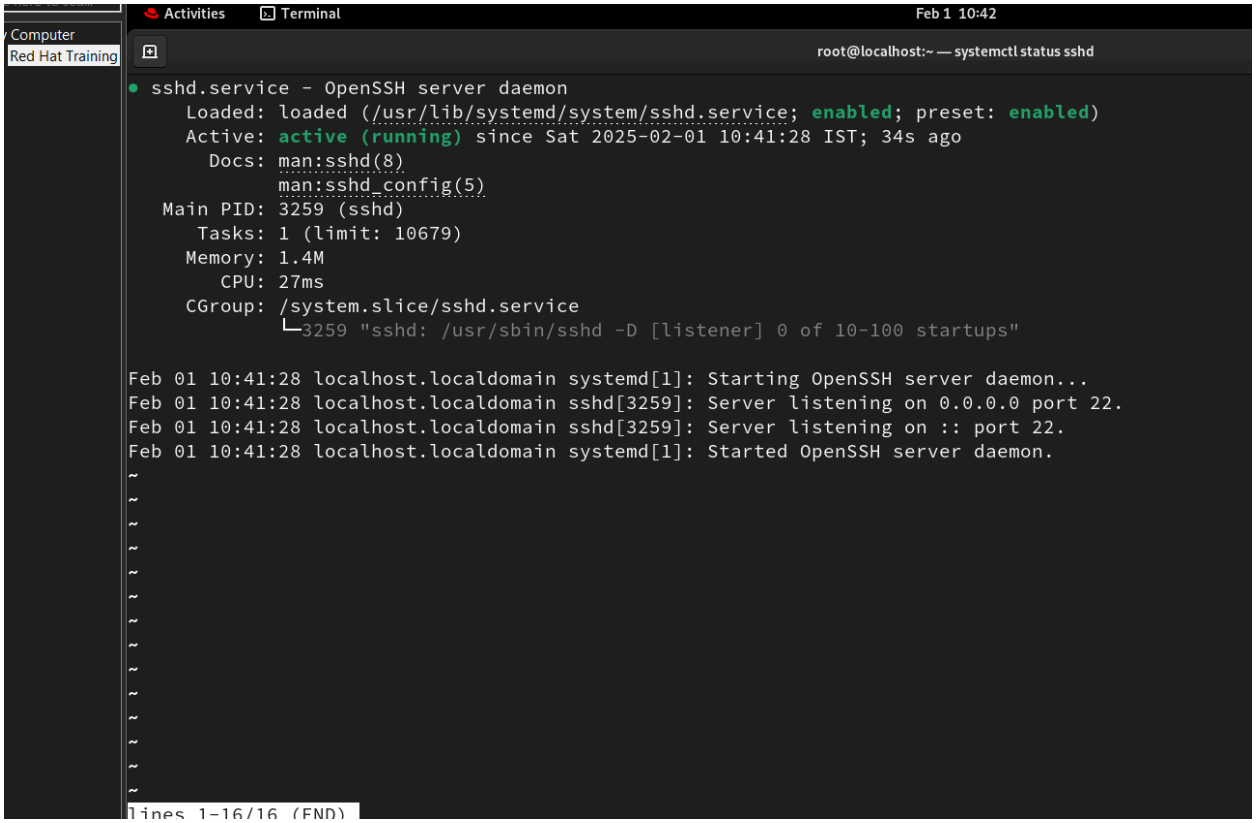
Ans:

(A) Difference between `systemctl stop` and `systemctl disable`:

- `stop`: Stops service temporarily.
- `disable`: Prevents service from starting at boot.

(B) Restart sshd and verify status:

systemctl restart sshd
systemctl status sshd

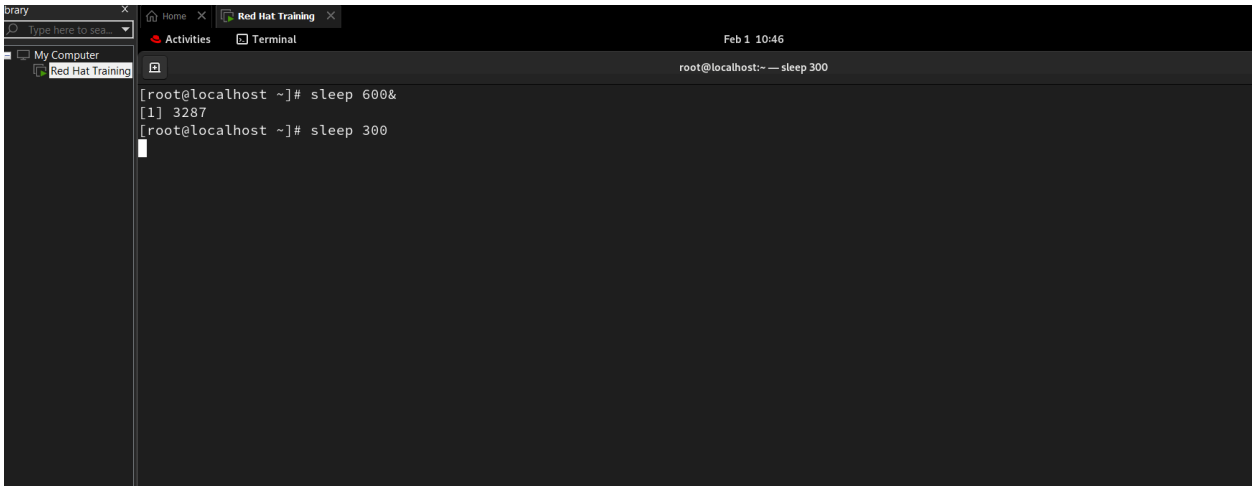


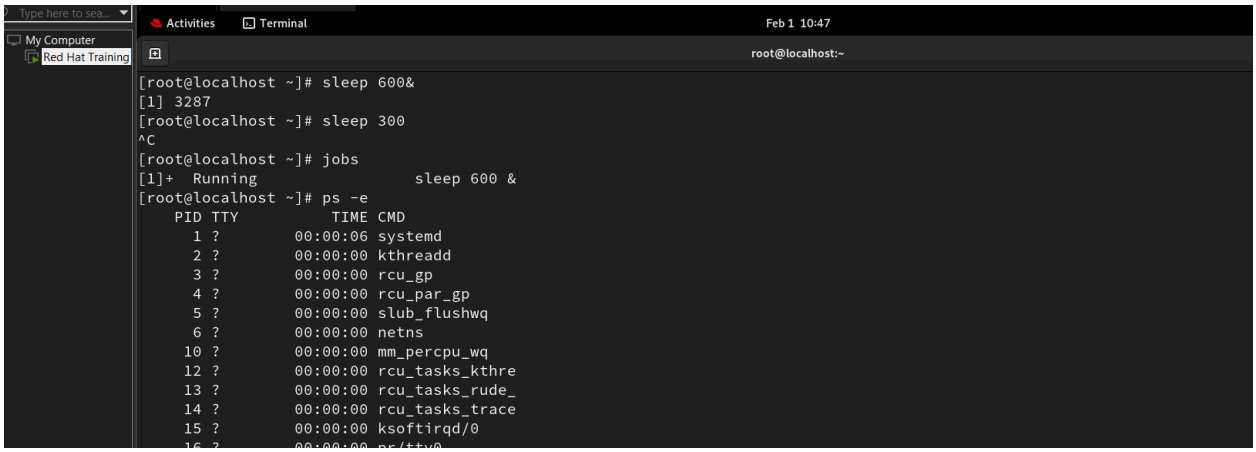
Q11.

Ans:

. What are jobs (Processes)?

- Jobs are tasks running in the background or foreground.
- If we want to run the job in background then add &(symbol) at the end of the process.
- `fg`, `bg`, and `jobs` commands manage them.





Eg : sleep 600& is running in background

Sleep 300 was running in for ground

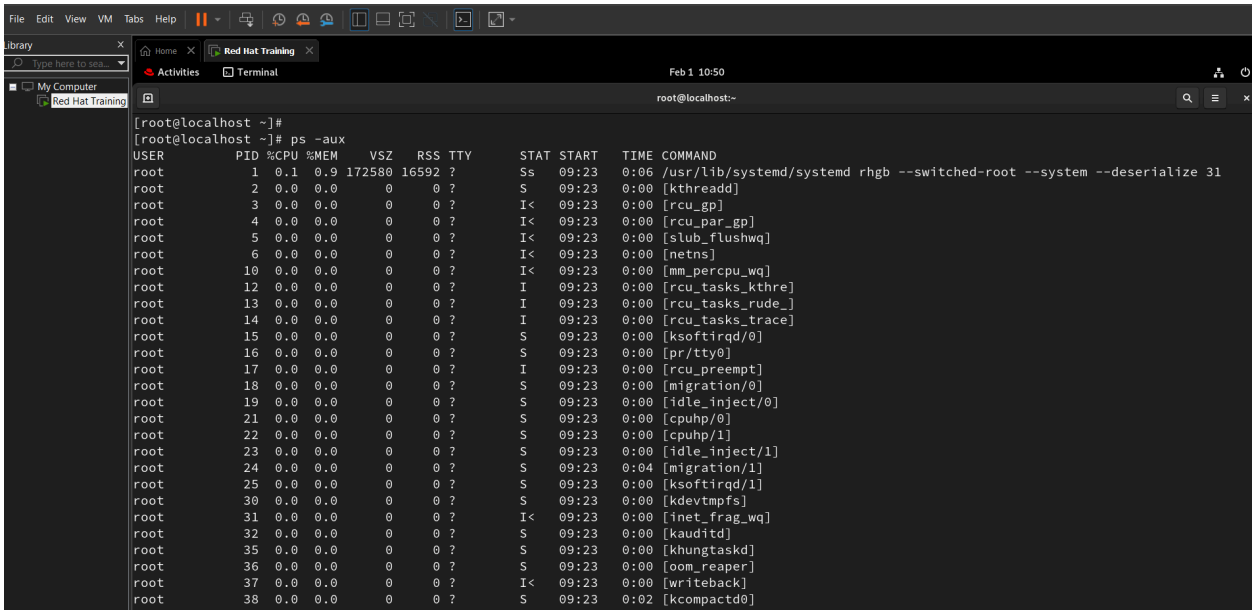
Jobs : this gives the details of the process which are running right now

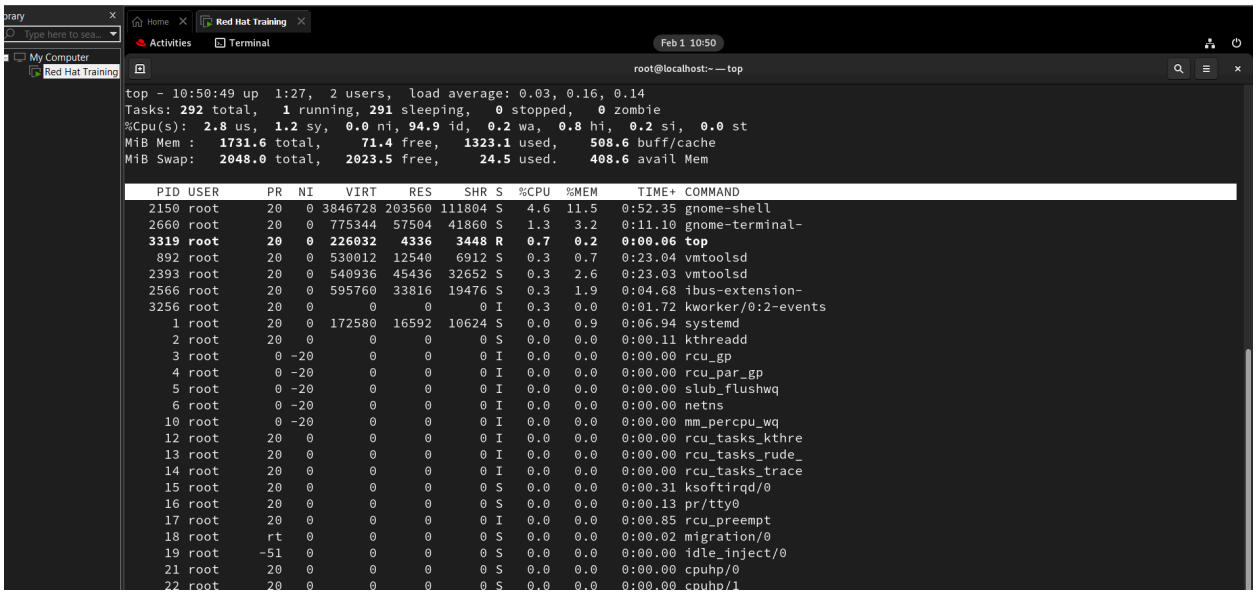
Q12.

Ans:

(A) Difference between `ps -aux` and `top`:

- `ps -aux`: Displays a static snapshot of processes.
- `top`: Continuously updates running processes. Its gets updated in every second





(B) Filter processes by memory usage:

Ps -e | grep sleep

Pstree

Top

Pgrep -u username -l

Q13.

ans:

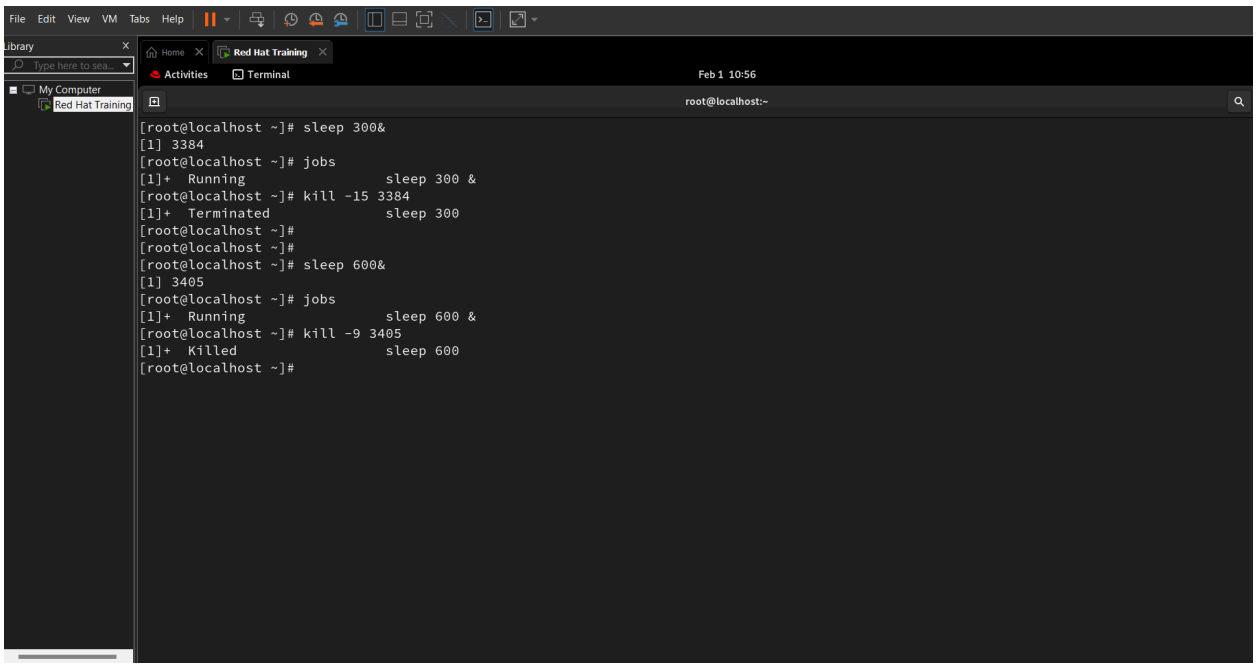
(A) Default signal to terminate a process:

- `KILL -15`

(B) Forcefully terminate a process:

- `KILL -9`

kill -9 PID



Q14.

Ans:

. (A) Shortcut keys to interrupt a process:

- `Ctrl + C`: Interrupt
- `Ctrl + Z`: Suspend

```
[1]+  Killed                  sleep 600
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# sleep 600
^C
[root@localhost ~]# sleep 500
^Z
[1]+  Stopped                 sleep 500
[root@localhost ~]#
```

(B) Display logged-in users:

Who

```
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# who
root     seat0        2025-02-01 09:22 (login screen)
root     tty2         2025-02-01 09:22 (tty2)
[root@localhost ~]# su - kavya
[kavya@localhost ~]$ who
root     seat0        2025-02-01 09:22 (login screen)
root     tty2         2025-02-01 09:22 (tty2)
[kavya@localhost ~]$
```

15.

Ans: (A) What is a zombie process?

- A process that has completed execution but remains in the process table.

(B) Kill all processes by a user:

pkill -u username

```
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Type here to sea...
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Feb 1 11:03
kavya@localhost:~
[root@localhost ~]# su - kavya
[kavya@localhost ~]$ sleep 500&
[1] 3551
[kavya@localhost ~]$ jobs
[1]+  Running                 sleep 500 &
[kavya@localhost ~]$ pkill -u kavya sleep
[1]+  Terminated              sleep 500
[kavya@localhost ~]$ ps -e | grep sleep
```

(C) Kill all processes running in a terminal:

pkill -t pId

```
-bash: kill: (3436) - Operation not permitted
[kavya@localhost ~]$ exit
logout
[root@localhost ~]# ps -e | grep sleep
   3436 pts/0    00:00:00 sleep
[root@localhost ~]# pkill -t 3436
[root@localhost ~]# ps -e | grep sleep
   3436 pts/0    00:00:00 sleep
[root@localhost ~]#
```