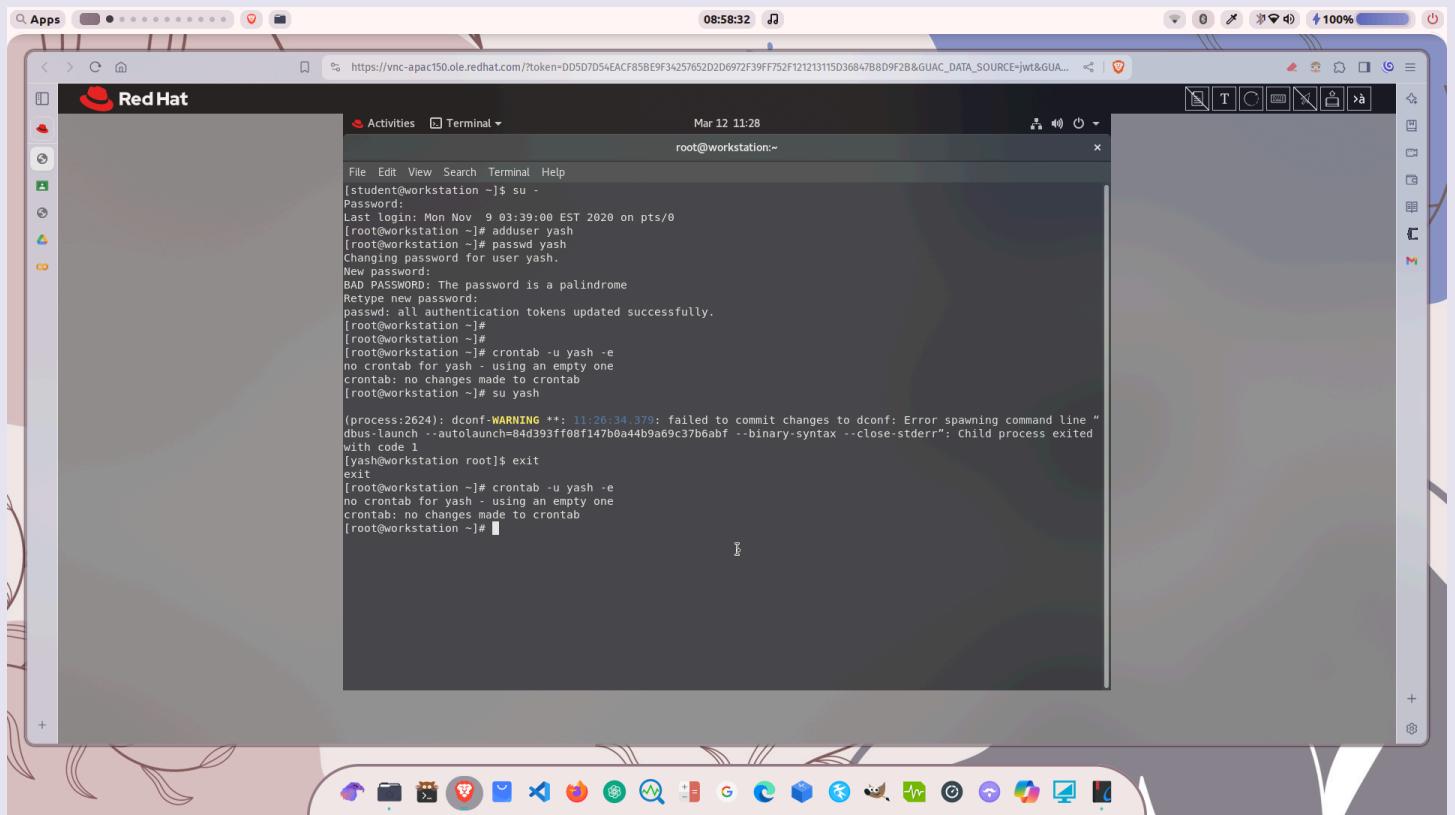


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Tasks and practical :

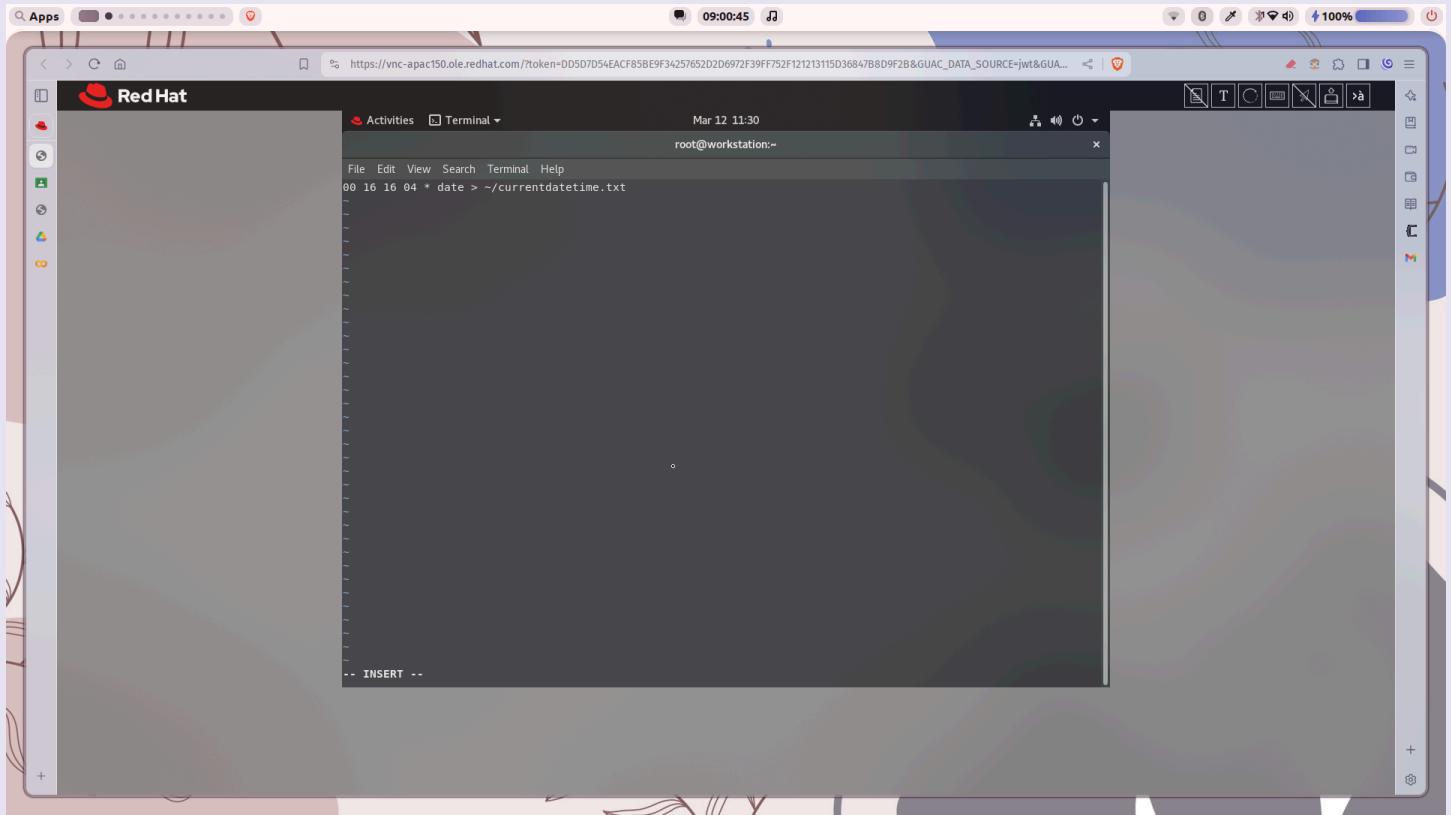
Task 1: Create a user of your name and schedule a job to create a file which have the current date and time stored in it. The job should be executed on a specific date and time (you can specify the date and time as per your convenience)



The screenshot shows a Red Hat Linux desktop environment. A terminal window is open, displaying the following command history:

```
[student@workstation ~]$ su -
Password:
Last login: Mon Nov  9 03:39:00 EST 2020 on pts/0
[root@workstation ~]# adduser yash
[root@workstation ~]# passwd yash
Changing password for user yash.
New password:
BAD PASSWORD: The password is a palindrome
Retype new password:
passwd: all authentication tokens updated successfully.
[root@workstation ~]#
[root@workstation ~]# crontab -u yash -e
no crontab for yash - using an empty one
crontab: no changes made to crontab
[root@workstation ~]# su yash
(process:2624): dconf-WARNING **: 11:26:34.379: failed to commit changes to dconf: Error spawning command line "dbus-launch --autolaunch=84d393ff08f147b0a44b9a69c37b6abf --binary-syntax --close-stderr": Child process exited with code 1
exit
[root@workstation root]$ exit
[yash@workstation root]$
```

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Commands :

- adduser yash (to create user)
- passwd yash (to assign password to user)
- crontab -u yash -e (open or create crontab file for user specified by -u)

Syntax of crontab entry :

----- command

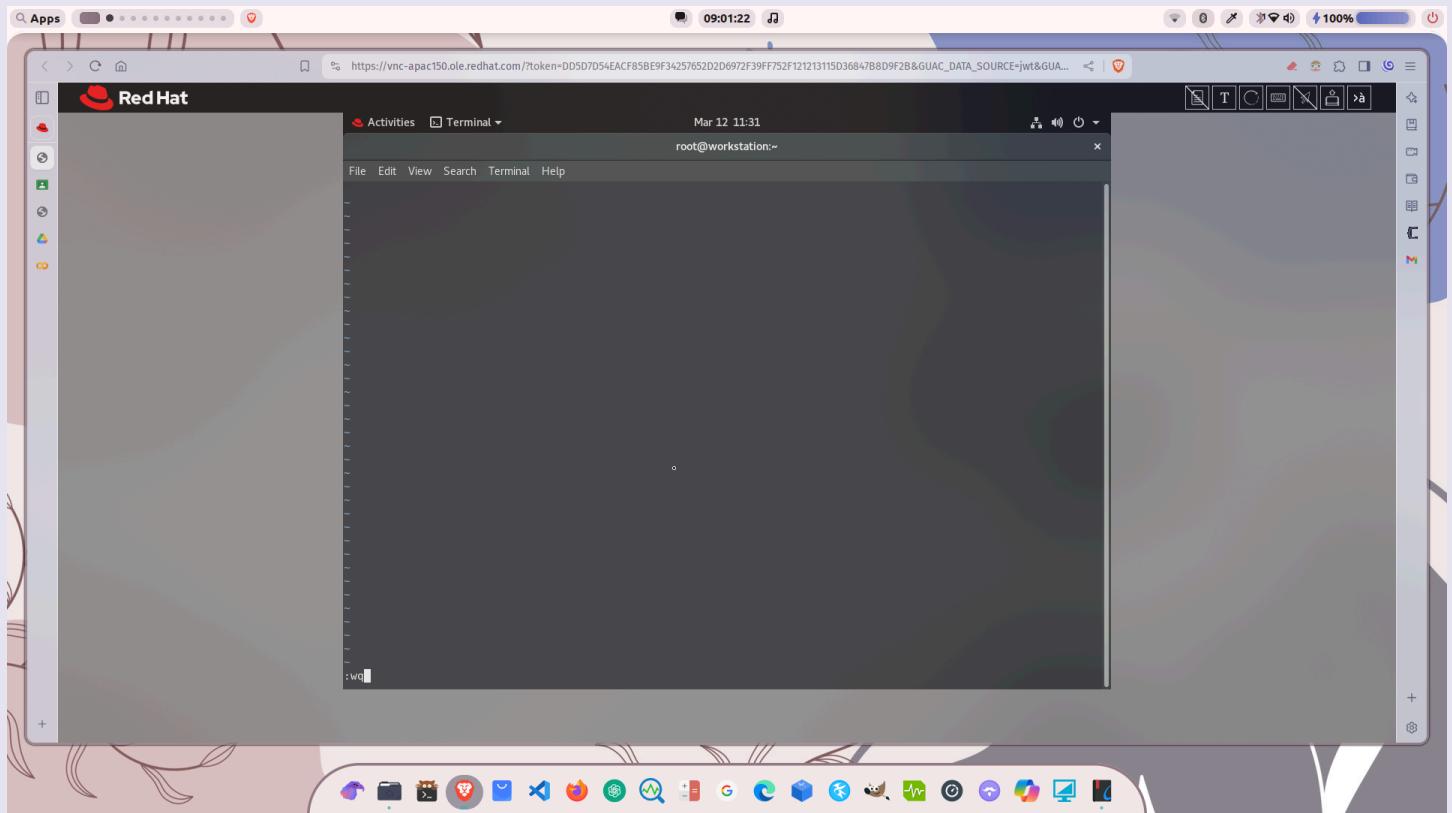
where first 5 char represents minutes, hours, date, month, day (0 to 6) respectively and * indicates every minute, hour or so, while */x represents every x units execute the command

Here,

00 16 16 04 * date > ~/currentdatetime.txt

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Task 2: Demonstrate how to remove a Scheduled job



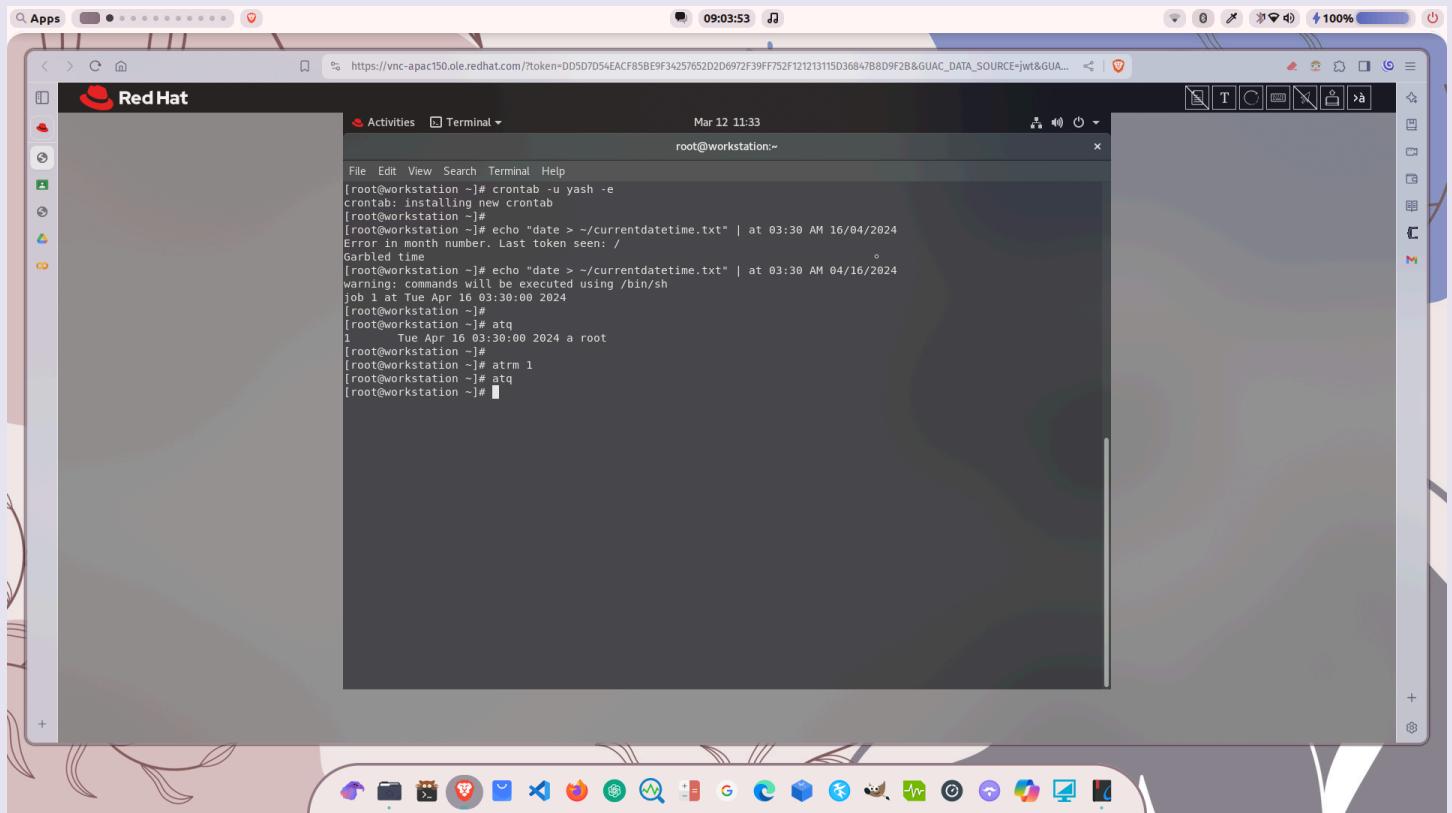
Remove entry from crontab file via opening with ***crontab -u user -e***

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Commands :

- **echo “date > ~/currentdatetime.txt” | at 03:30 AM 04/16/2024** (to schedule job using ‘at’ where time and date in mm/dd/yyyy format is specified)
- **atq** (to list the jobs)
- **atrm 1** (to remove job with jobID 1)

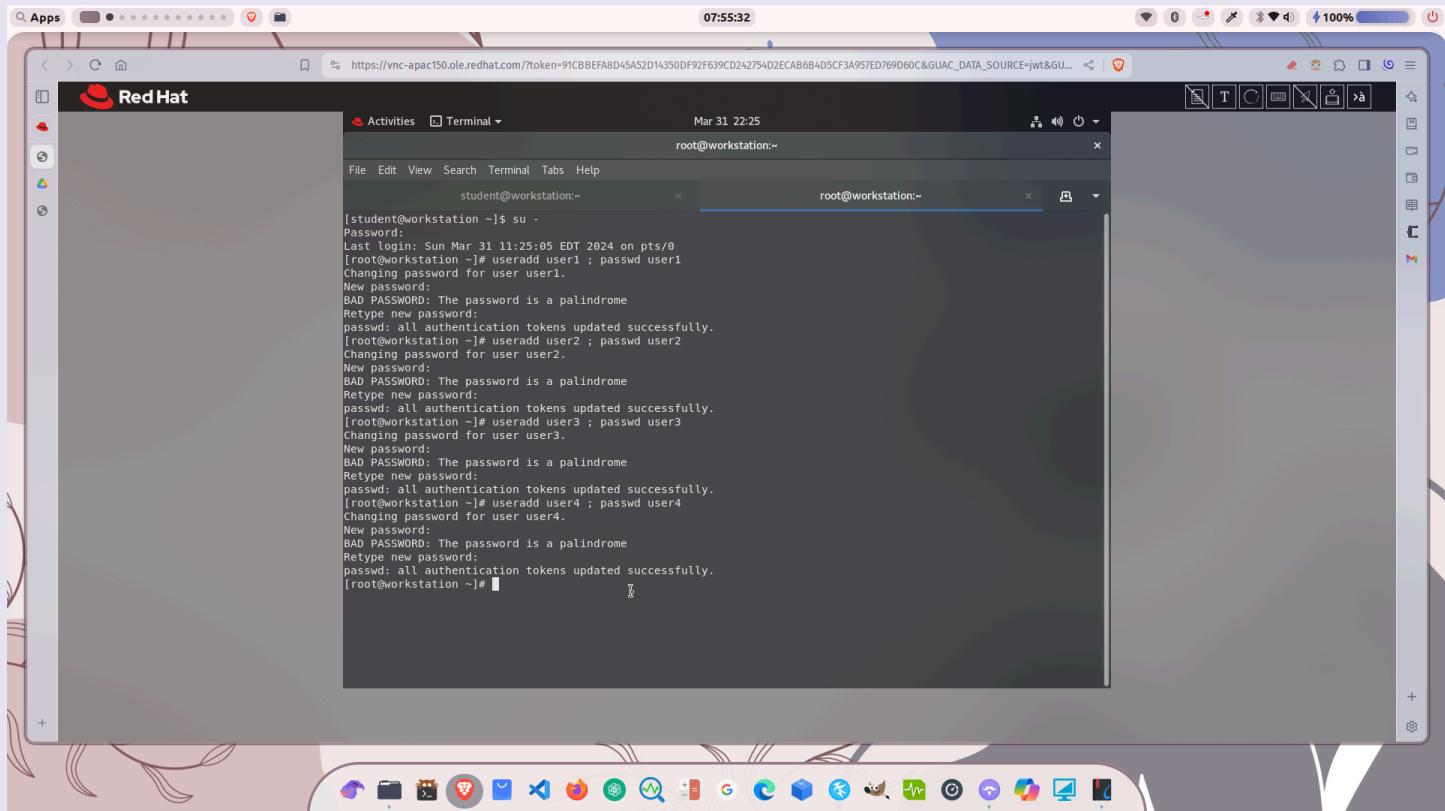
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Task 3: Do the configuration in such a way that only user1 and user2 is able to schedule the job, while user3 and user4 should not be able to schedule any job.



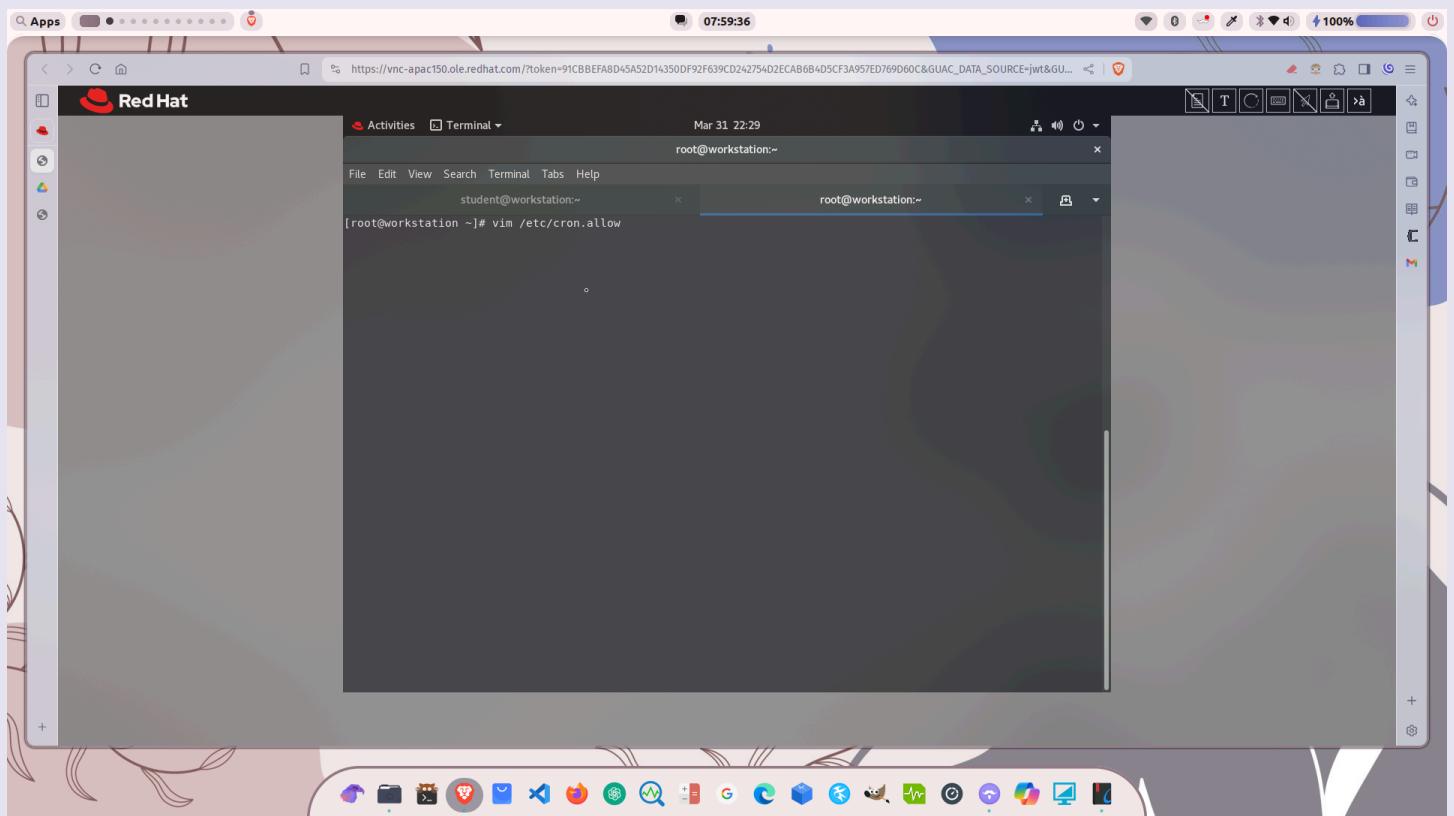
The screenshot shows a Red Hat Linux desktop environment. In the center, there are two terminal windows. The left window is titled 'student@workstation:~' and shows the password prompt for user1. The right window is titled 'root@workstation:~' and shows the password prompts for users user1, user2, user3, and user4. The user1 password is a palindrome, while others are not. The desktop background features a pink floral pattern. The system tray at the bottom includes icons for file manager, terminal, and various system services.

```
[student@workstation ~]$ su
Password:
Last login: Sun Mar 31 11:25:05 EDT 2024 on pts/0
[root@workstation ~]# useradd user1 ; passwd user1
Changing password for user user1.
New password:
BAD PASSWORD: The password is a palindrome
Retype new password:
passwd: all authentication tokens updated successfully.
[root@workstation ~]# useradd user2 ; passwd user2
Changing password for user user2.
New password:
BAD PASSWORD: The password is a palindrome
Retype new password:
passwd: all authentication tokens updated successfully.
[root@workstation ~]# useradd user3 ; passwd user3
Changing password for user user3.
New password:
BAD PASSWORD: The password is a palindrome
Retype new password:
passwd: all authentication tokens updated successfully.
[root@workstation ~]# useradd user4 ; passwd user4
Changing password for user user4.
New password:
BAD PASSWORD: The password is a palindrome
Retype new password:
passwd: all authentication tokens updated successfully.
[root@workstation ~]#
```

Commands :

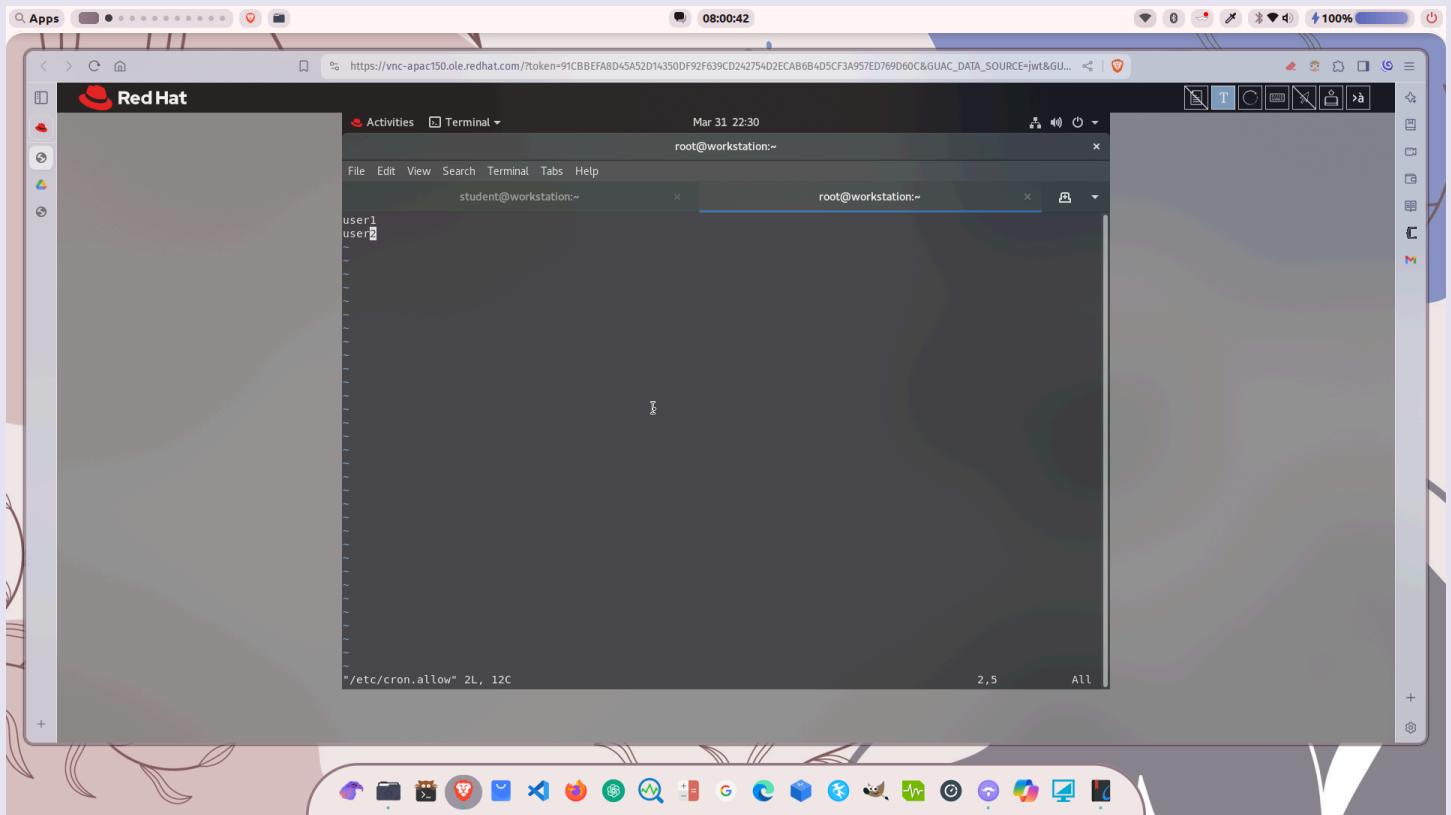
- **useradd username**
- **passwd username**

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Command : **vim /etc/cron.allow** (where username allowed to use cron is specified)

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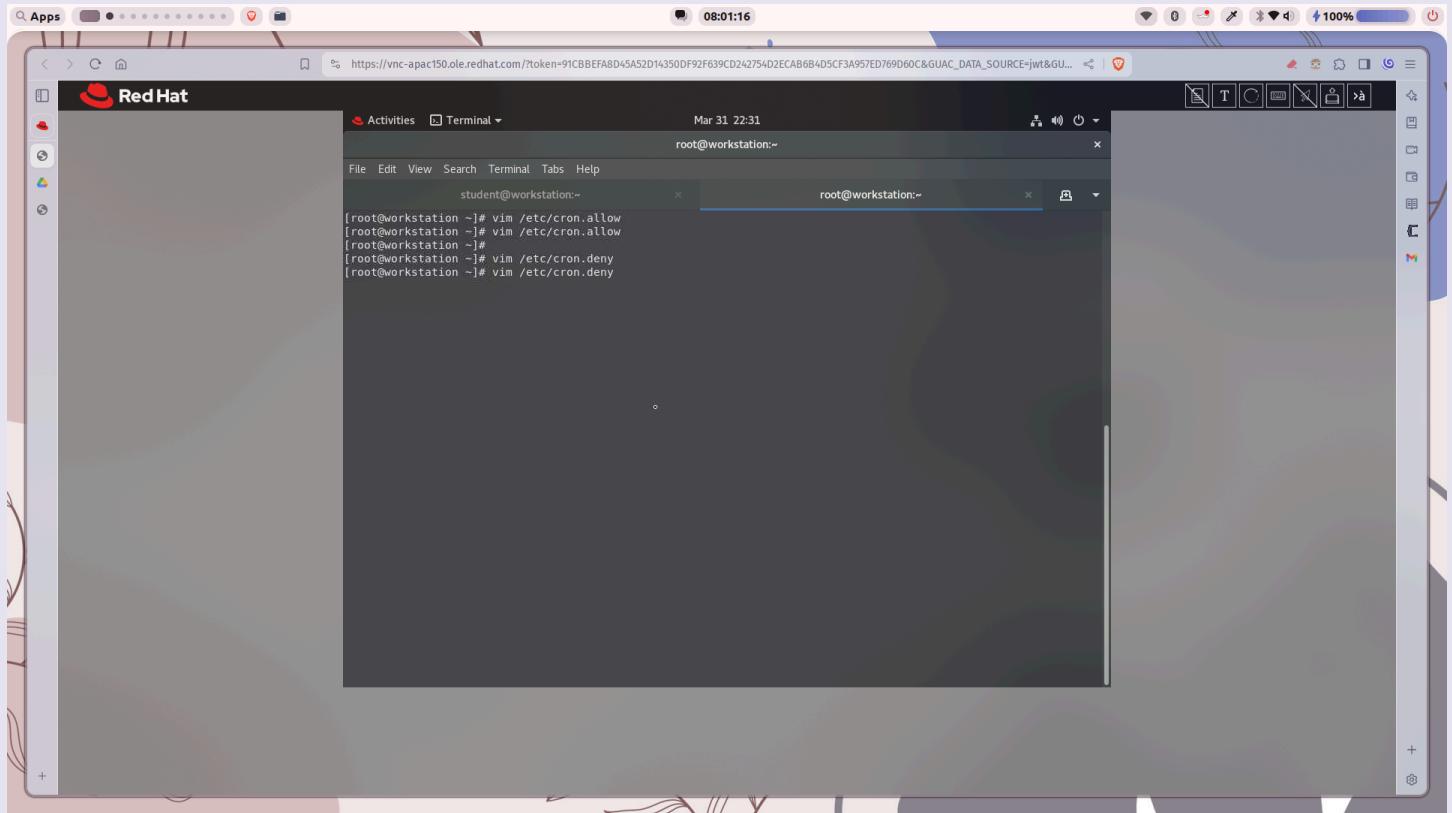


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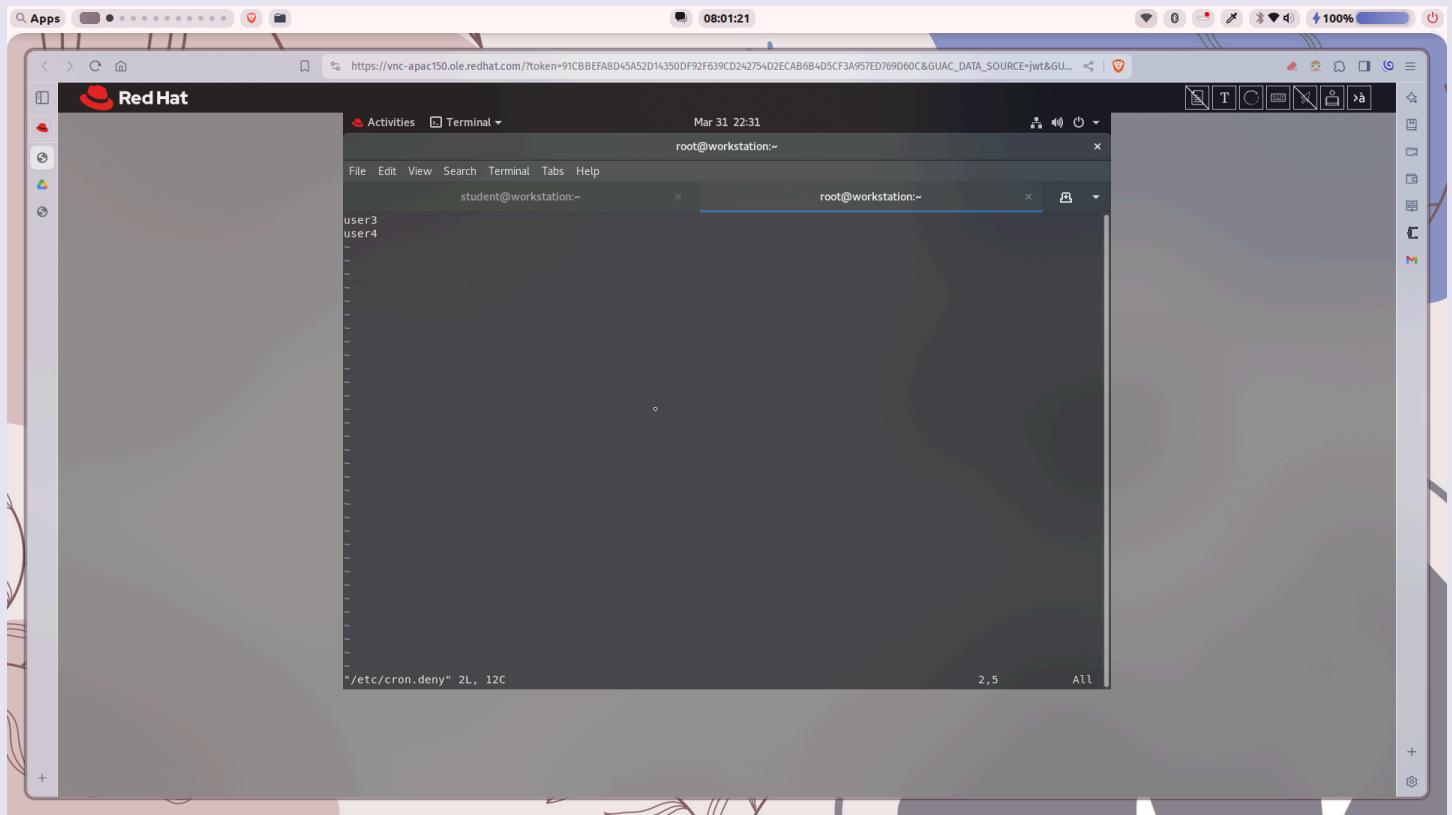
Command : **vim /etc/cron.deny** (where users with no access to cron is specified)

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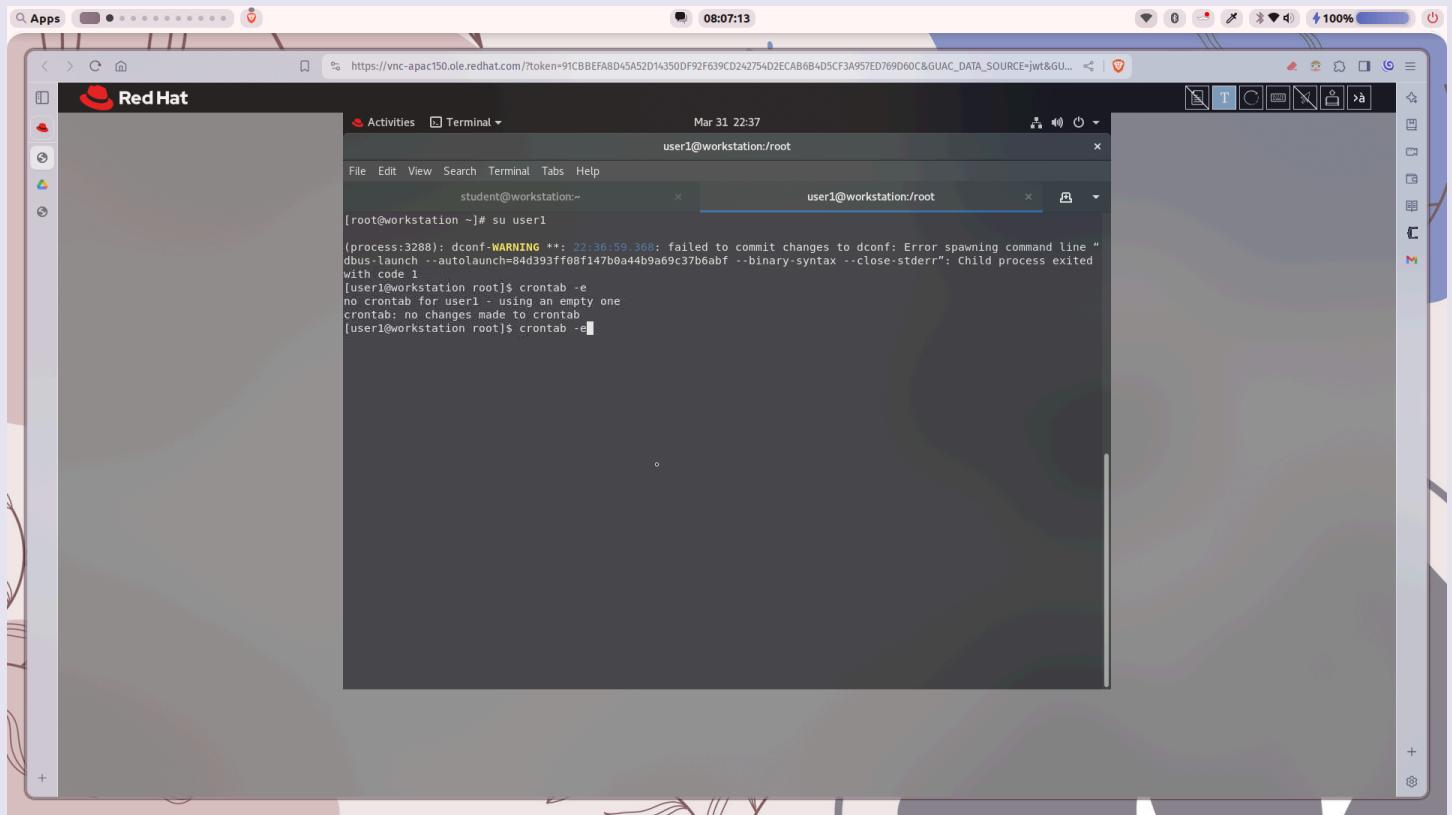


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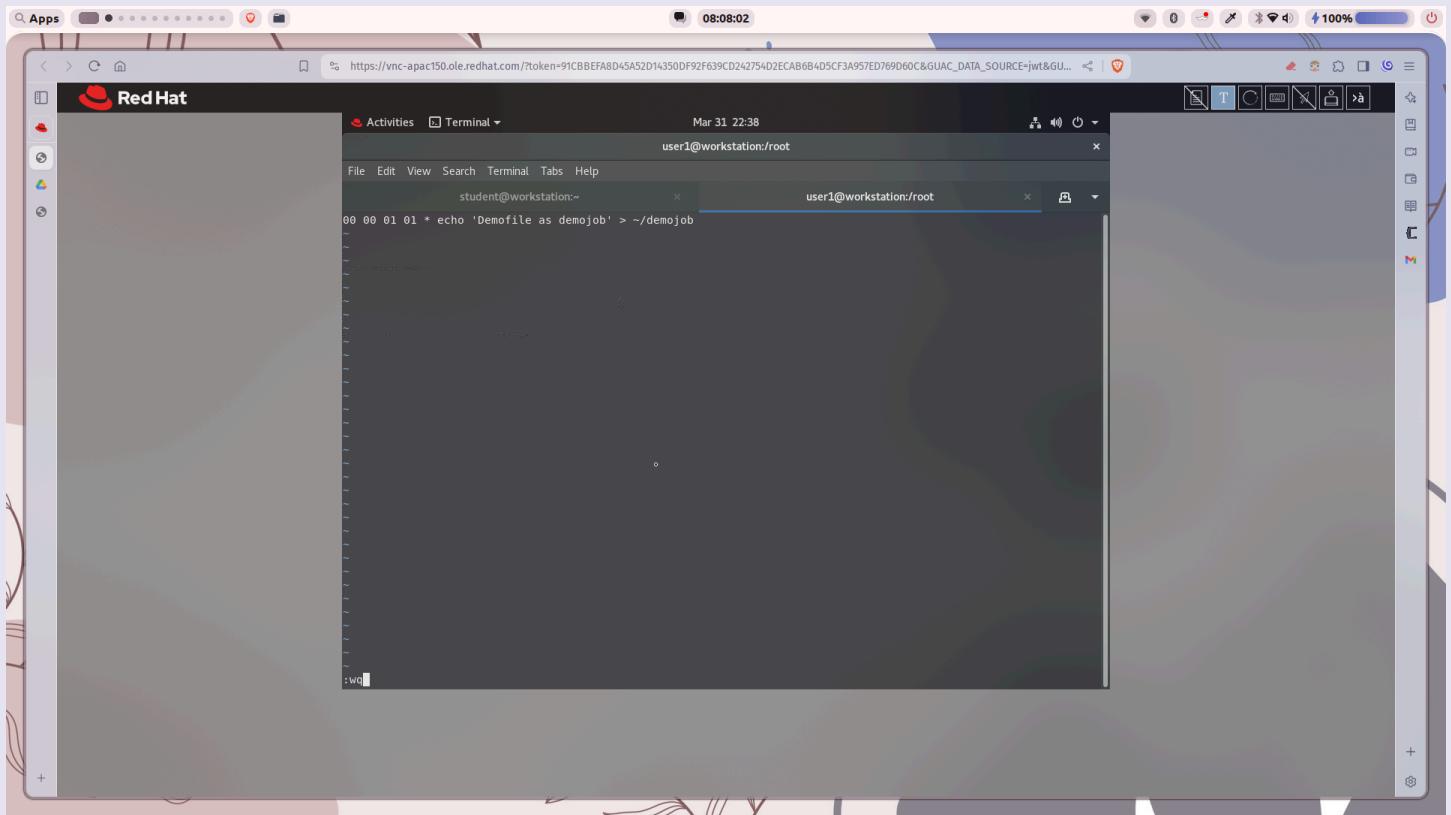
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Checking user1 access and scheduling demo job

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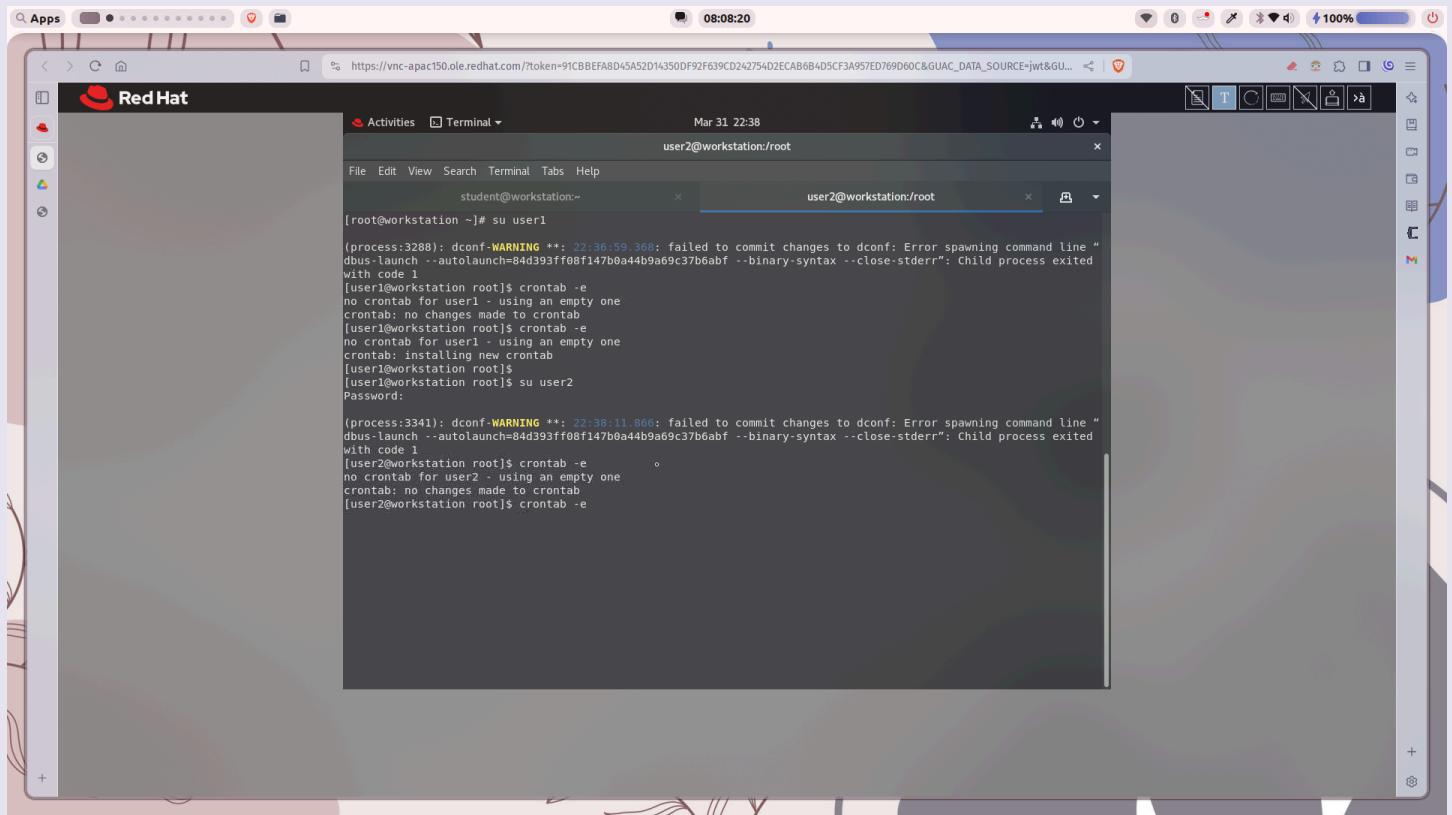


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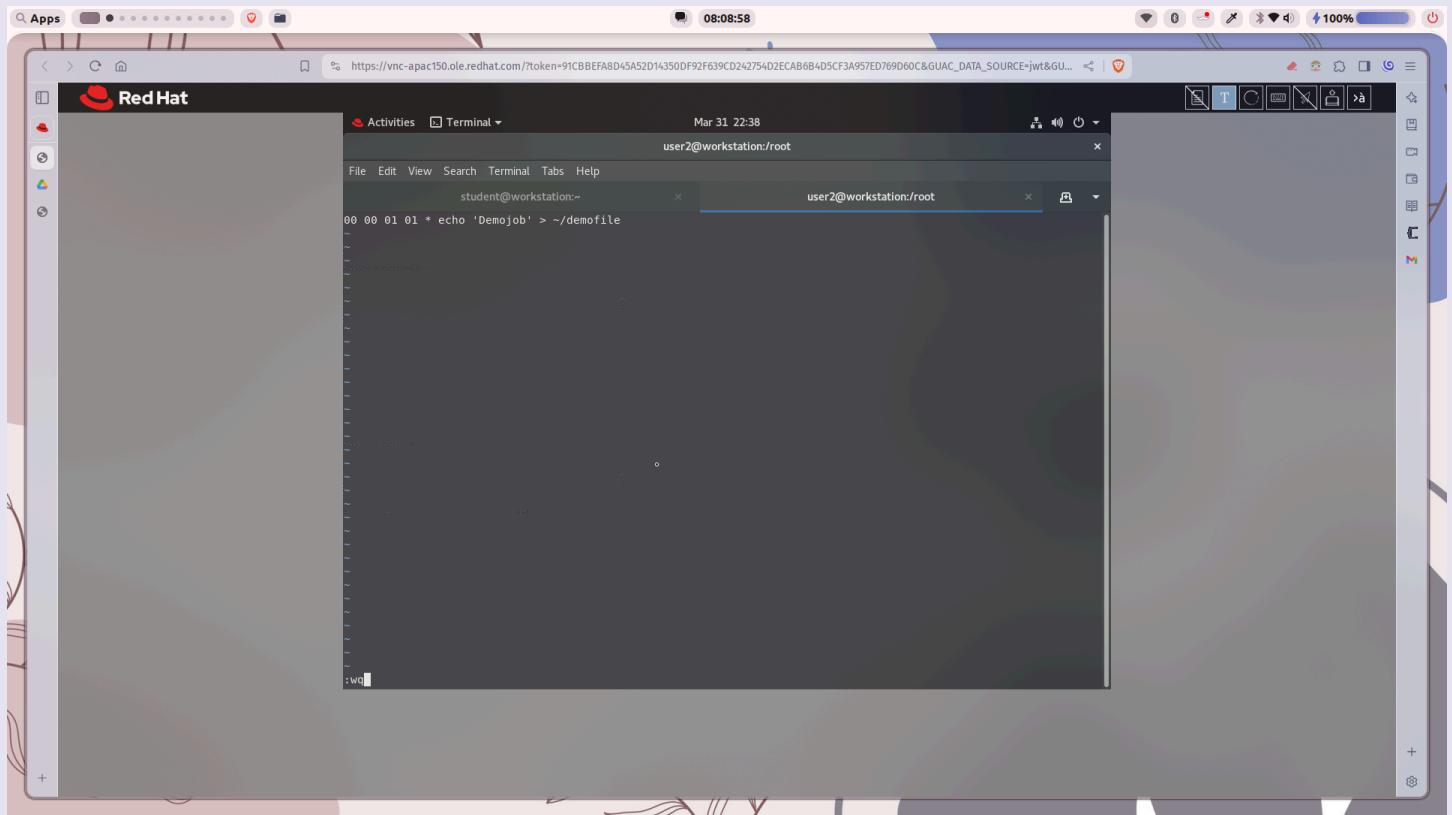
User2 is also able to access crontab

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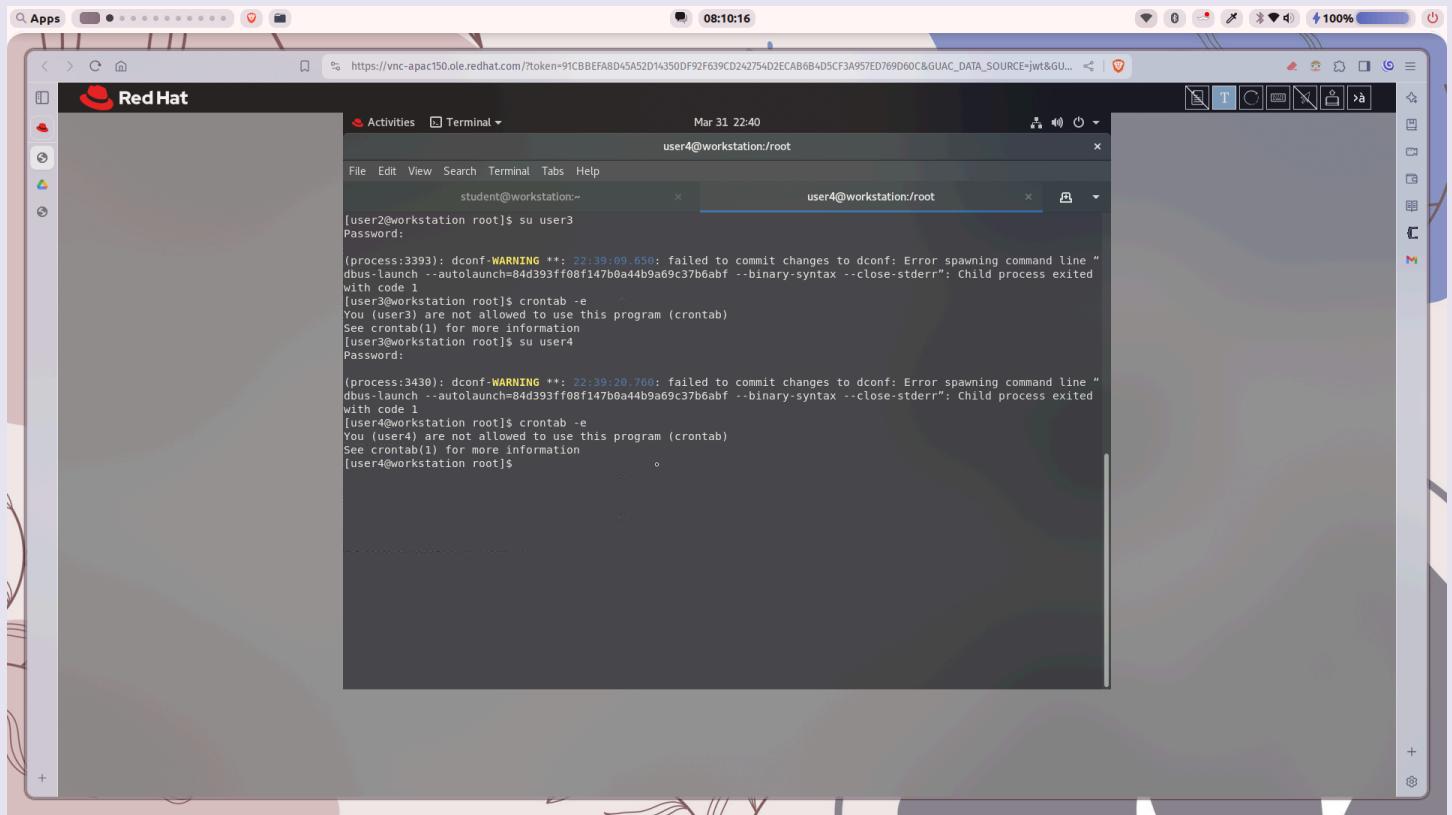


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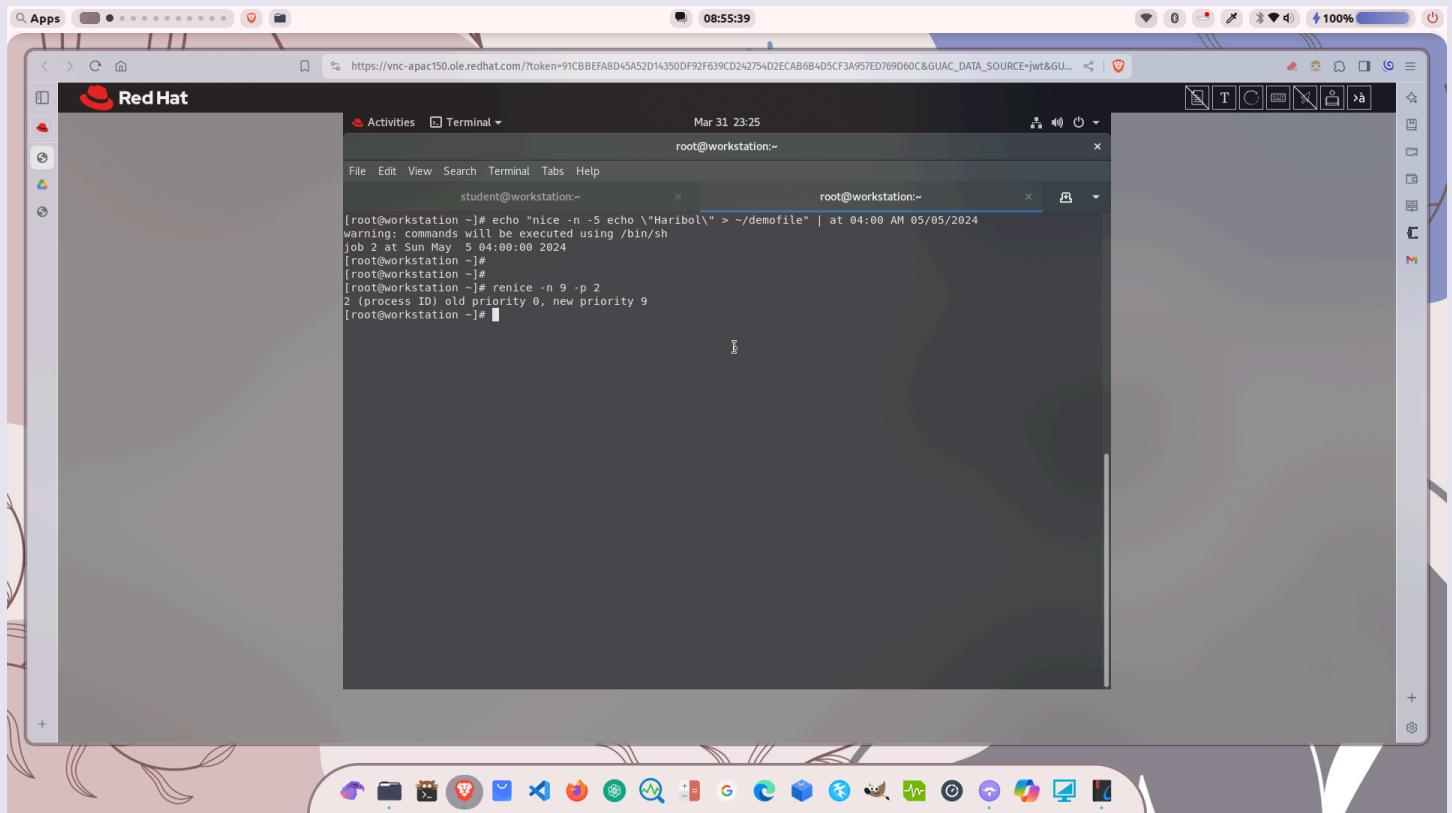


```
[user2@workstation root]$ su user3
Password:
(user:3393): dconf-WARNING **: 22:39:09.650: failed to commit changes to dconf: Error spawning command line "dbus-launch --autolaunch=84d393ff08f147b0a44b9a69c37b6abf --binary-syntax --close-stderr": Child process exited with code 1
[user3@workstation root]$ crontab -e
You (user3) are not allowed to use this program (crontab)
See crontab(1) for more information
[user3@workstation root]$ su user4
Password:
(user:3430): dconf-WARNING **: 22:39:20.760: failed to commit changes to dconf: Error spawning command line "dbus-launch --autolaunch=84d393ff08f147b0a44b9a69c37b6abf --binary-syntax --close-stderr": Child process exited with code 1
[user4@workstation root]$ crontab -e
You (user4) are not allowed to use this program (crontab)
See crontab(1) for more information
[user4@workstation root]$
```

user3 and user4 are not able to access crontab

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Task 4: Specify, how you can change the priority of the job



Commands :

- **echo “nice -n -5 echo ‘Haribol’ > ~/demofile” | at 04:00 AM 05/05/2024**
(to schedule job using nice with priority -5 specified by -n)
- **renice -n 9 -p 2** (to renice, i.e. change priority of job 2 specified by -p to 9 specified by -n)

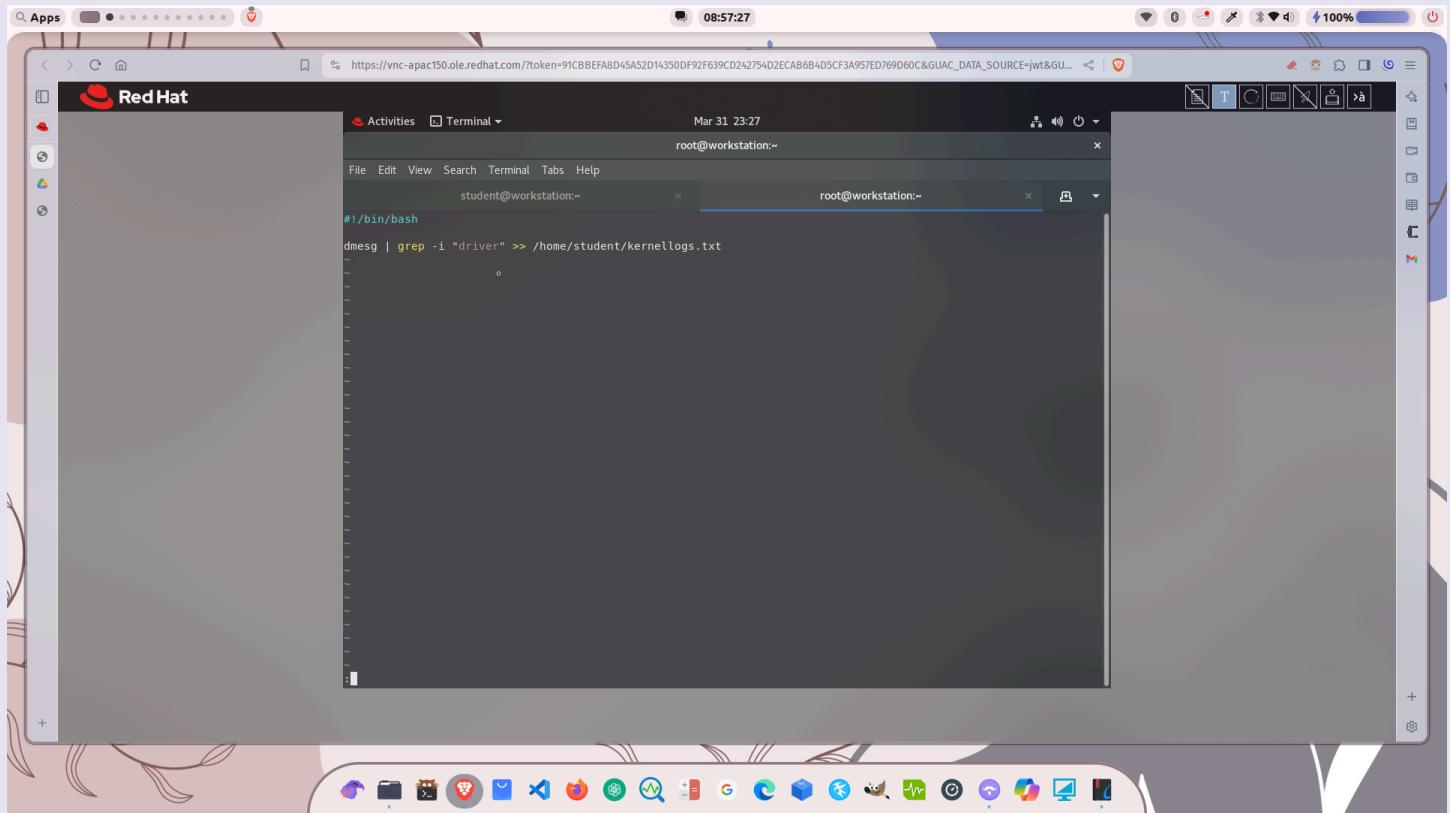
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Task 5: You need to create a script that will store the details about the kernel messages related to drivers in a specific file. And this task should be executed every day at 3 pm.



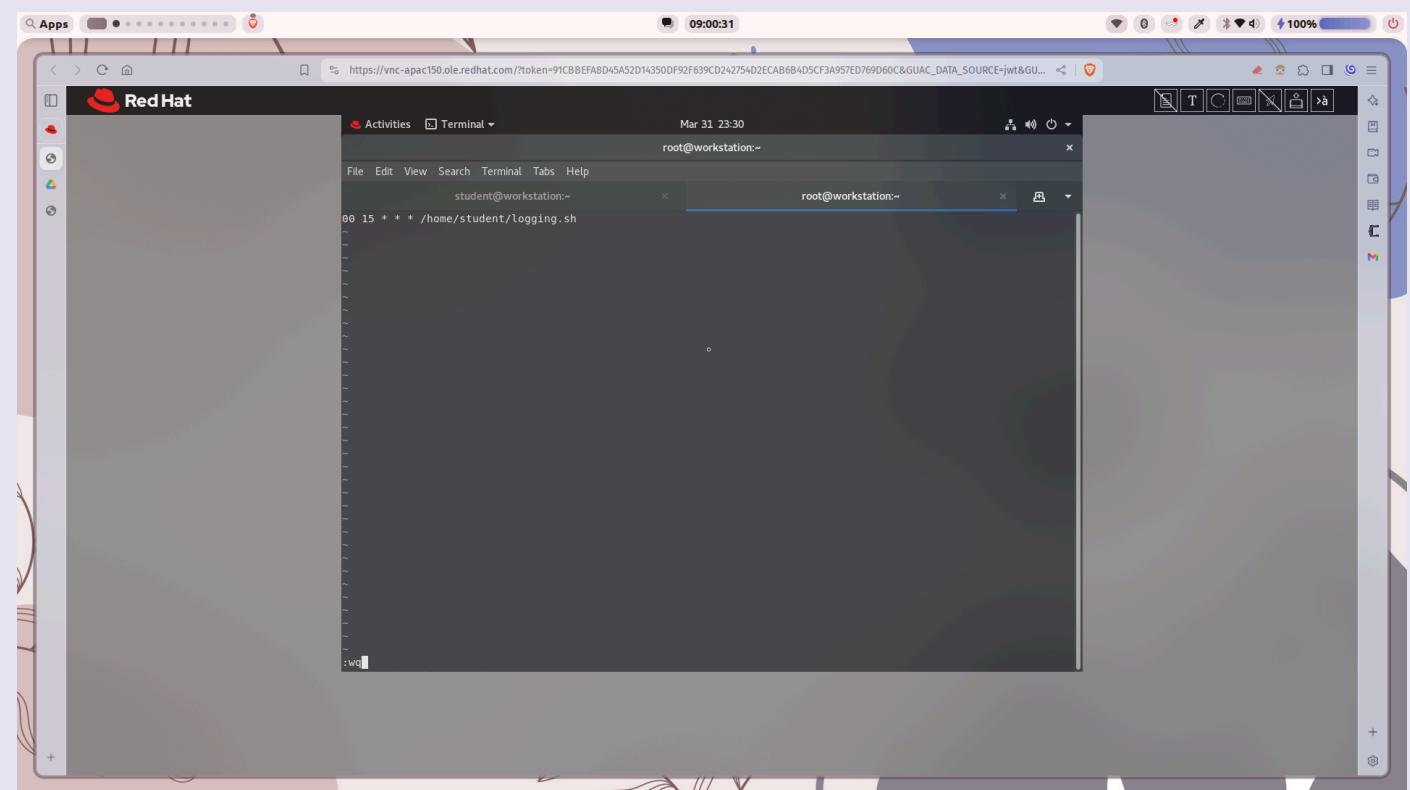
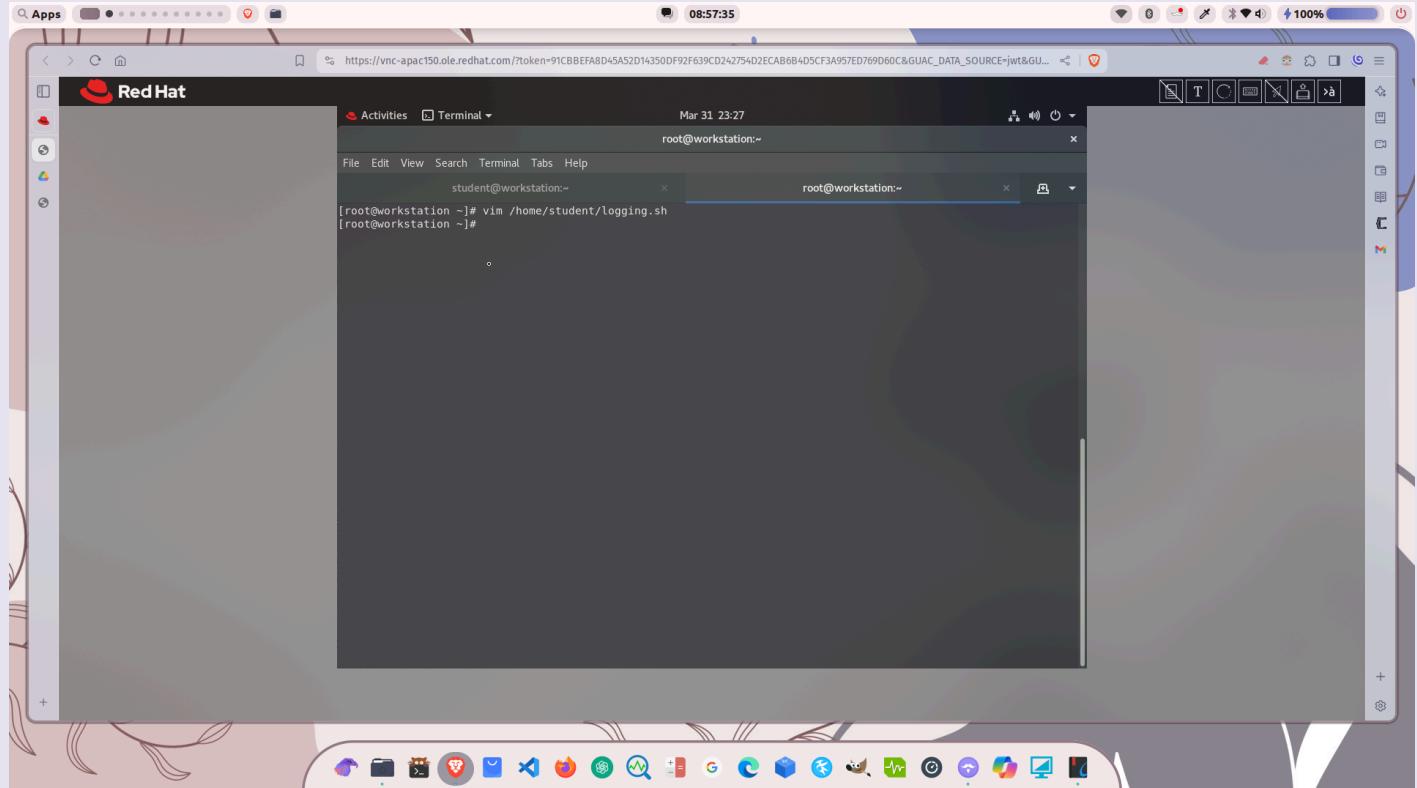
Write script that uses dmesg command and make entry in crontab

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Name - Yash Lakhtariya

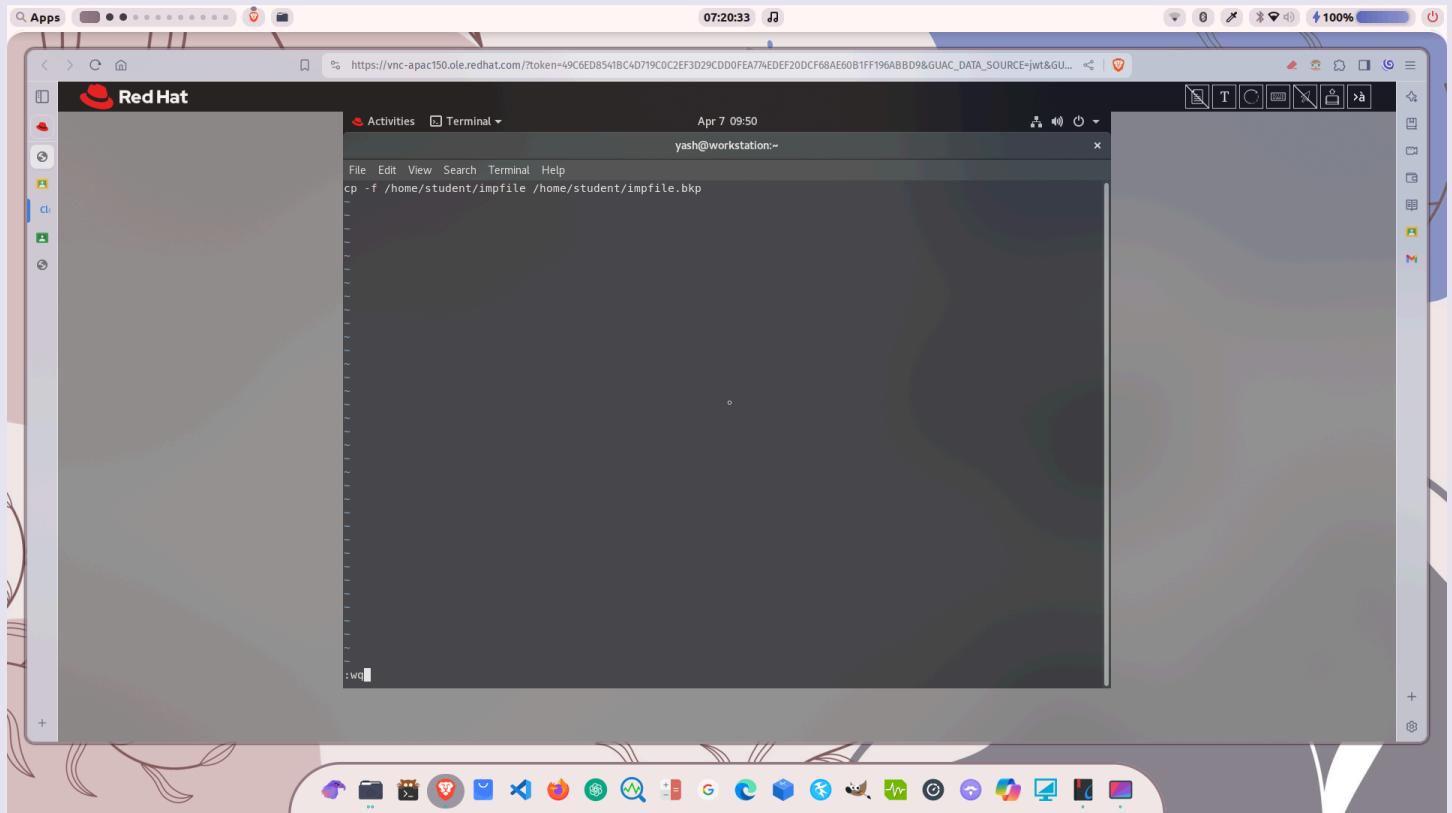
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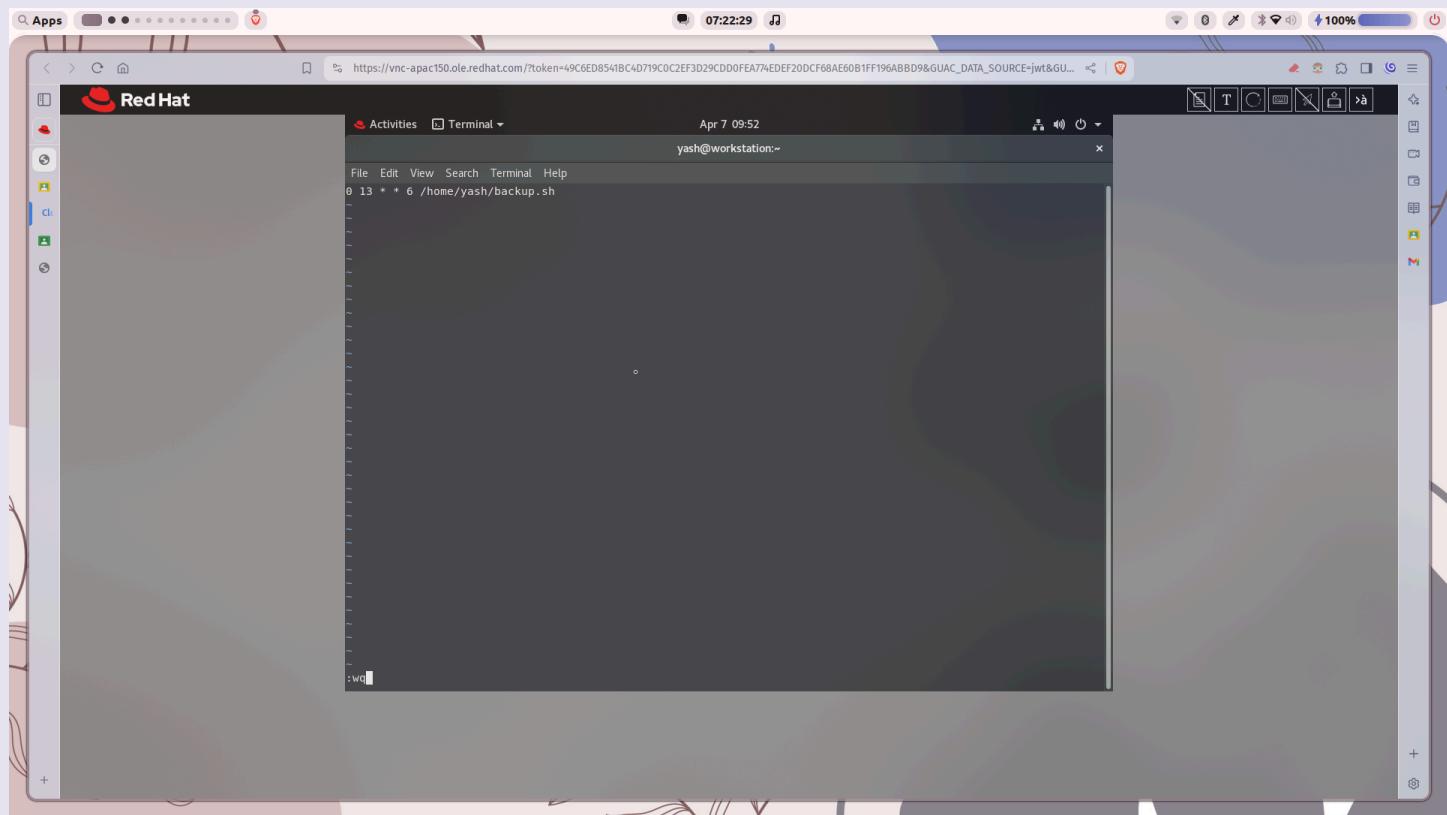
Task 6: Schedule the backup script to run at 1 pm every Saturday

Create a backup script which backs up the important file



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Entry in crontab file :



Name - Yash Lakhtariya

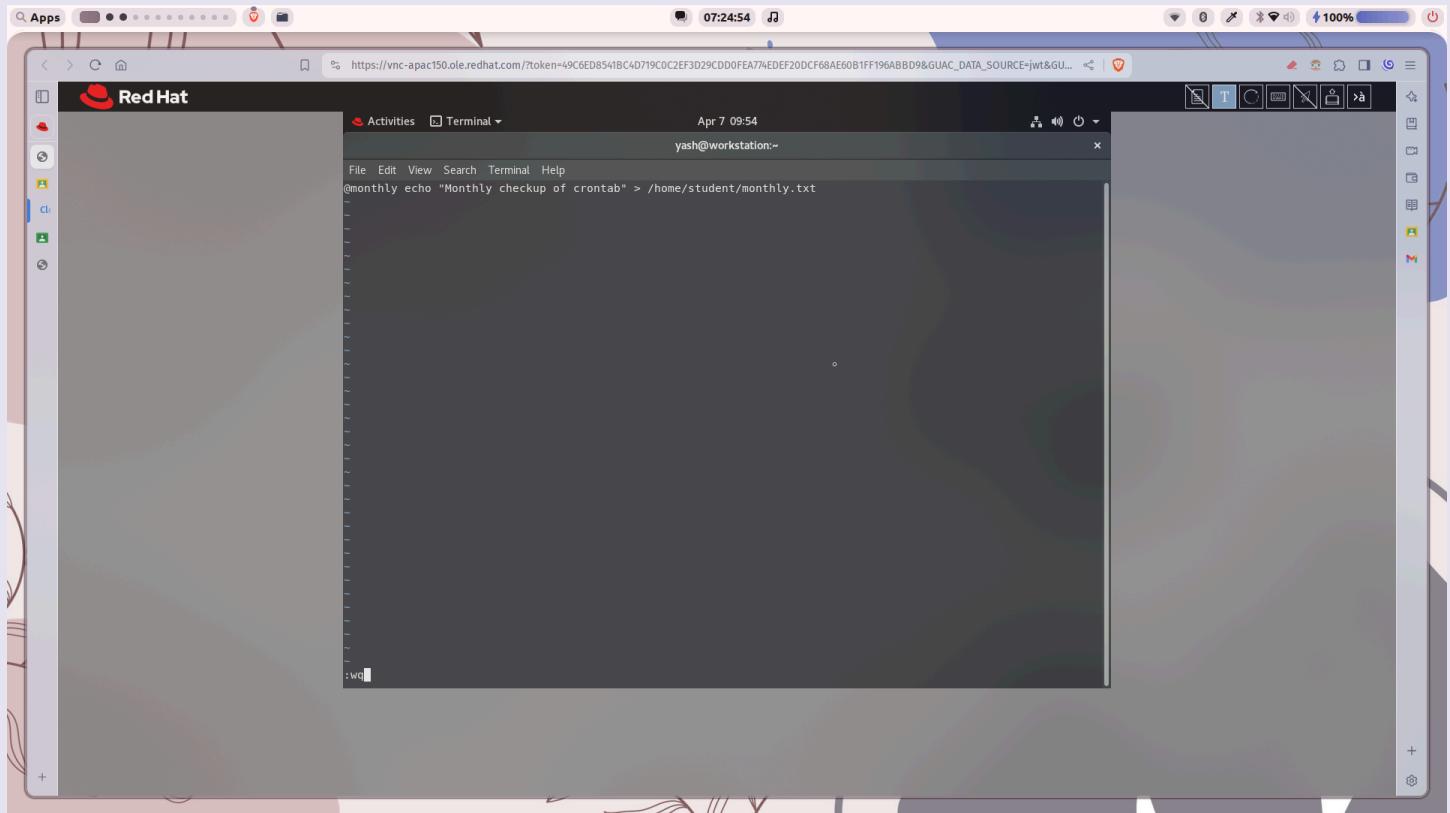
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Task 7: Schedule a job beginning of every month by using @monthly keyword.

In crontab file, @monthly keyword will execute the command every month



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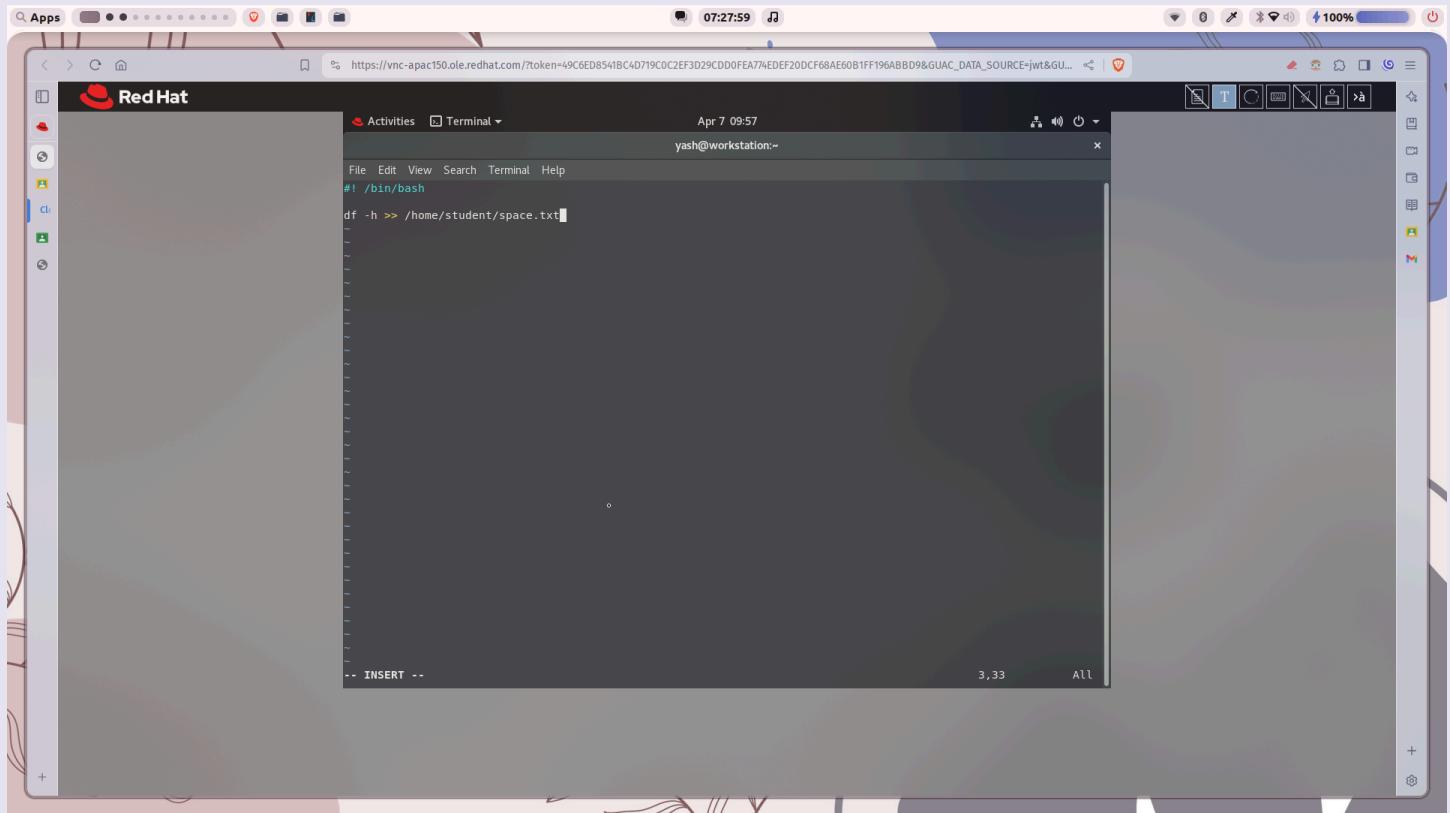
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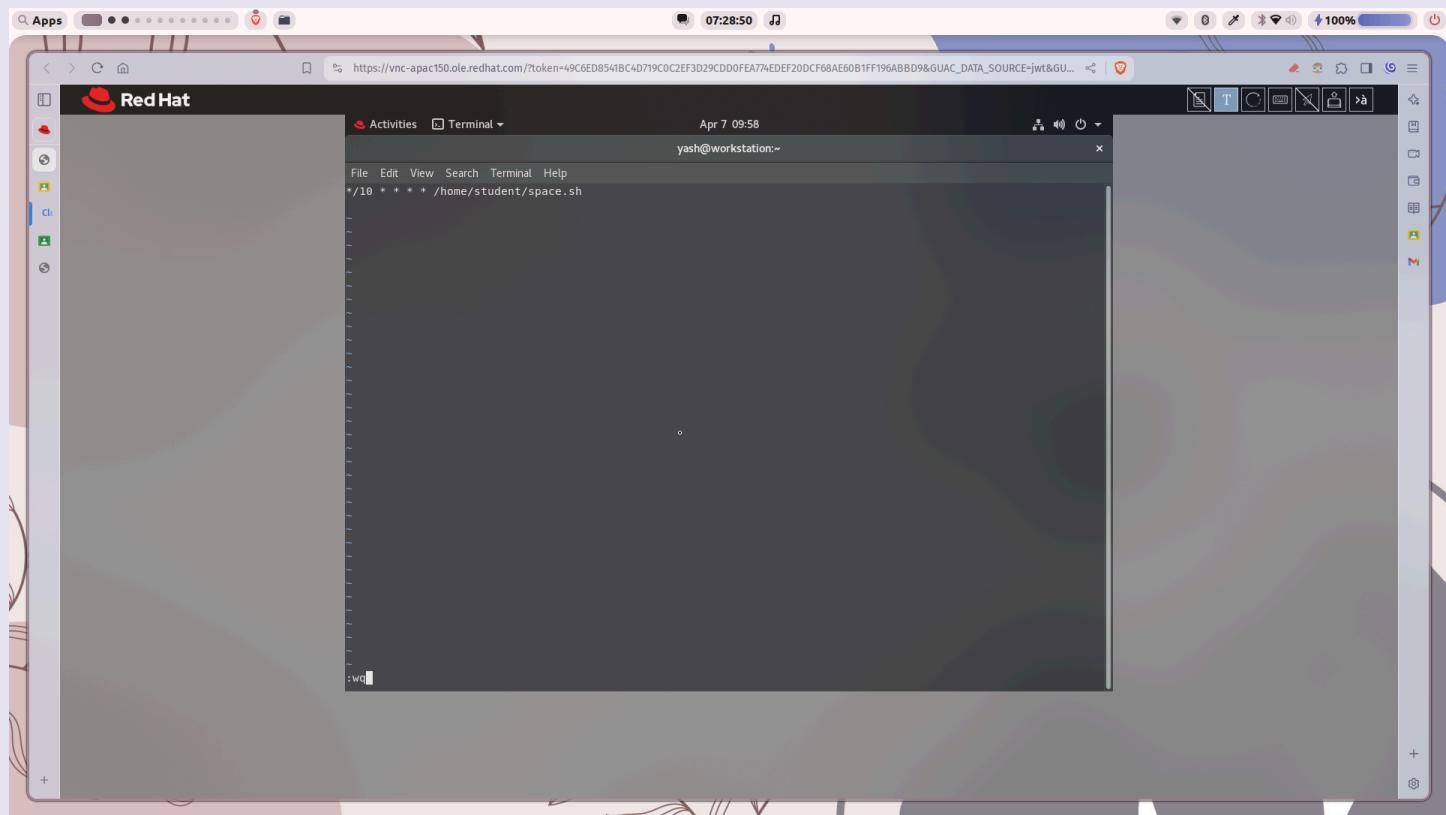
Task 8: Script to check the disk space every 10 minutes.

Create a script space.sh which checks space via df command and pipes output to a file



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Entry in crontab file :



Name - Yash Lakhtariya

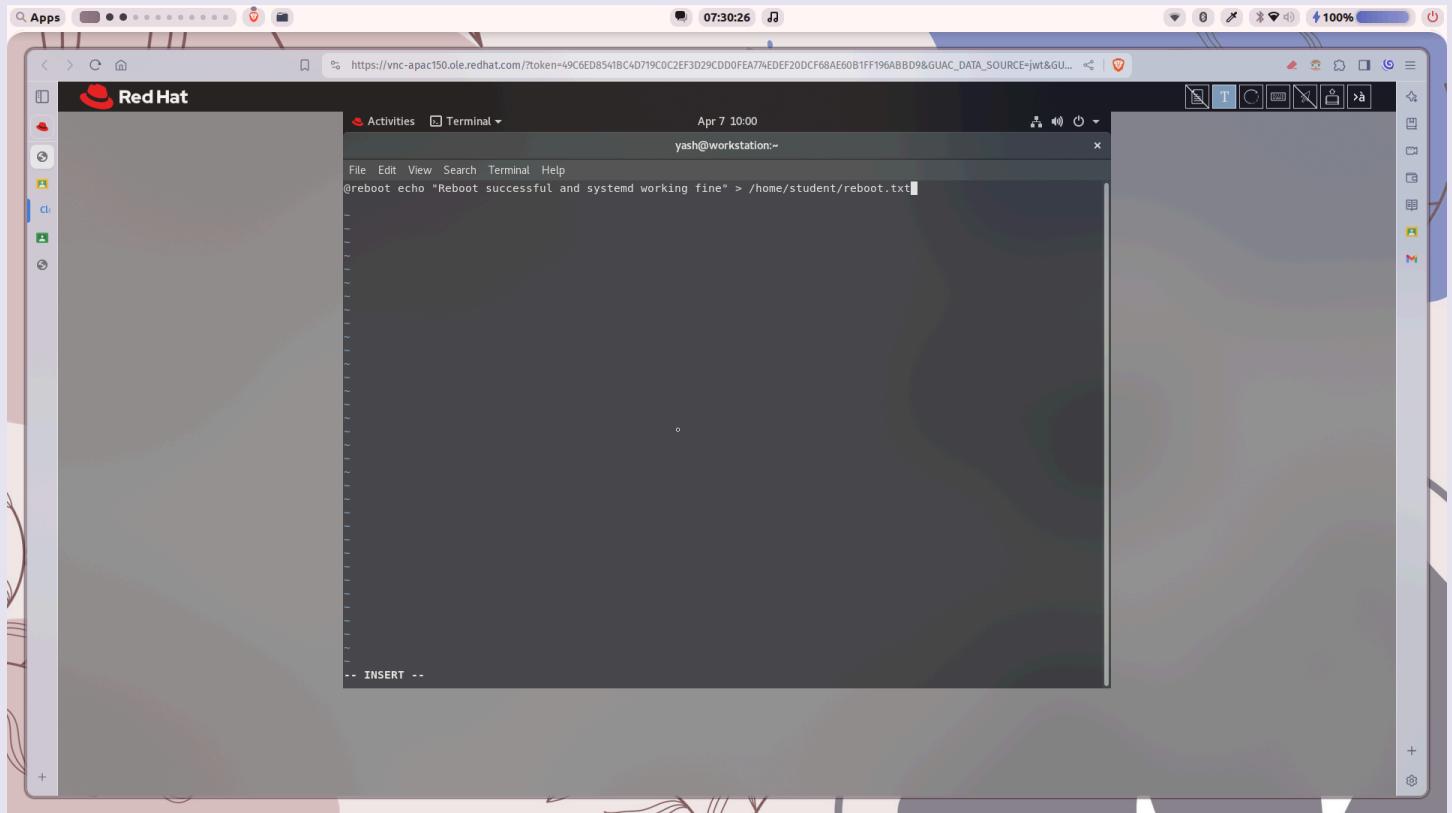
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Task 9: Schedule a job that will be executed after every reboot

This can also be done like previous, but using @reboot keyword



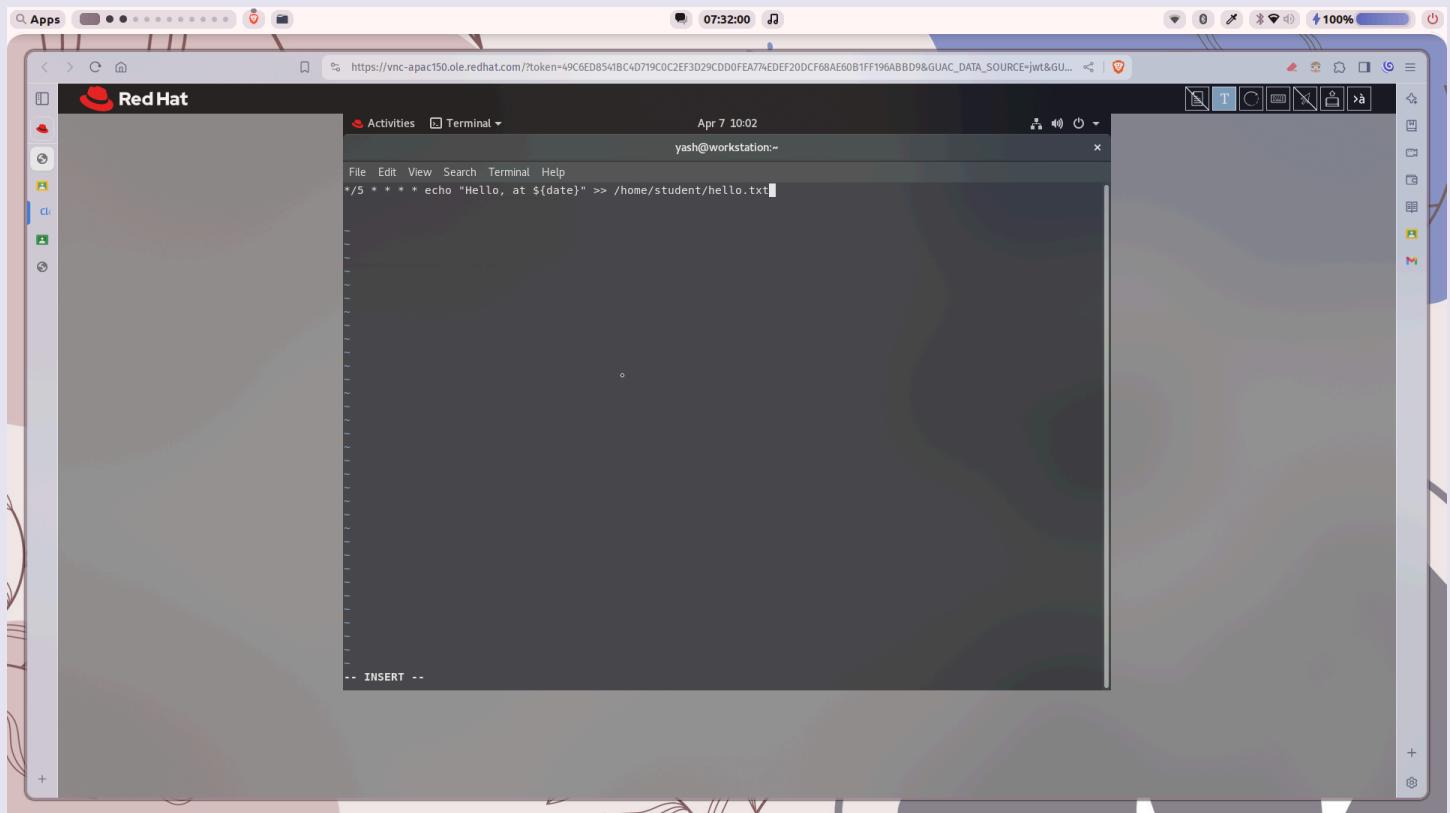
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Task 10: Schedule a job that will display a hello message with the current time after every 5 minutes.



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