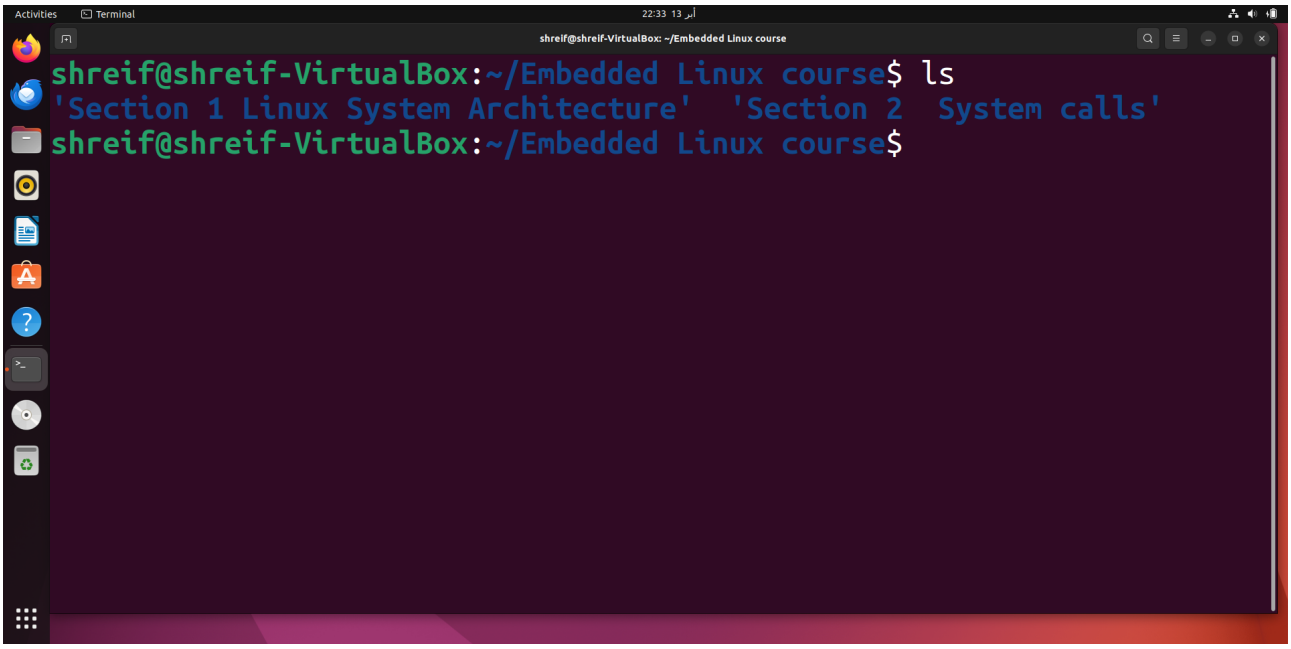
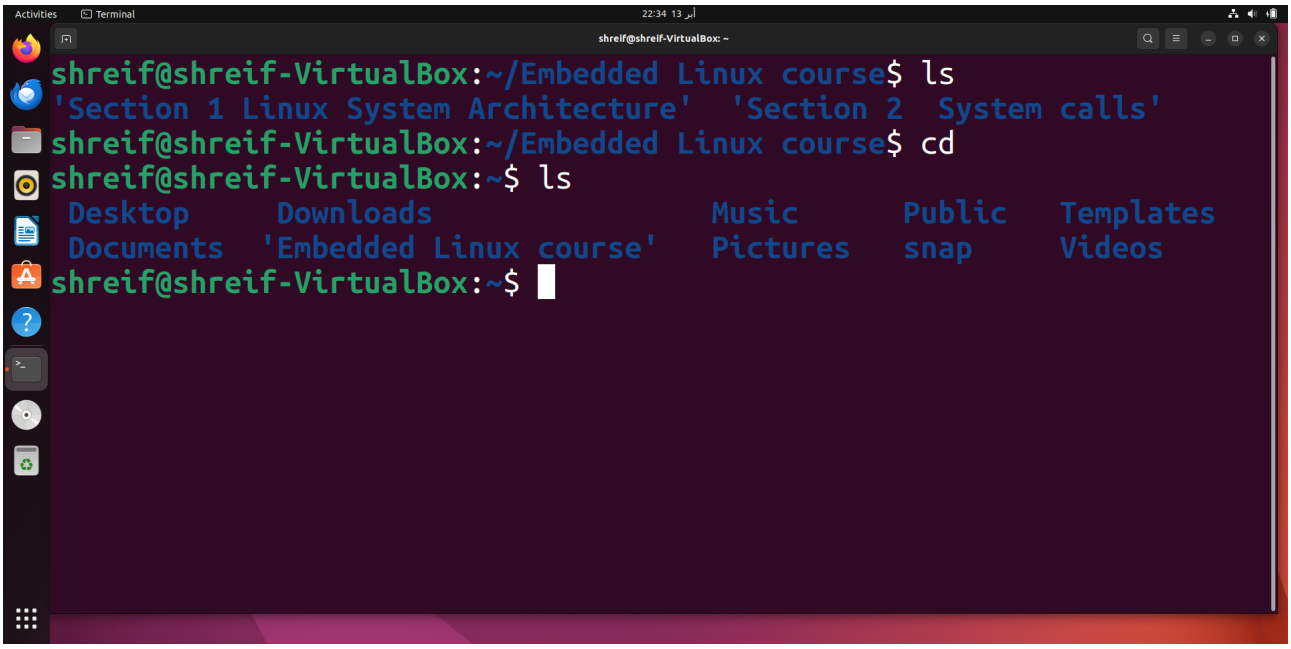
commands-fs

Exercise 1: Basic Navigation

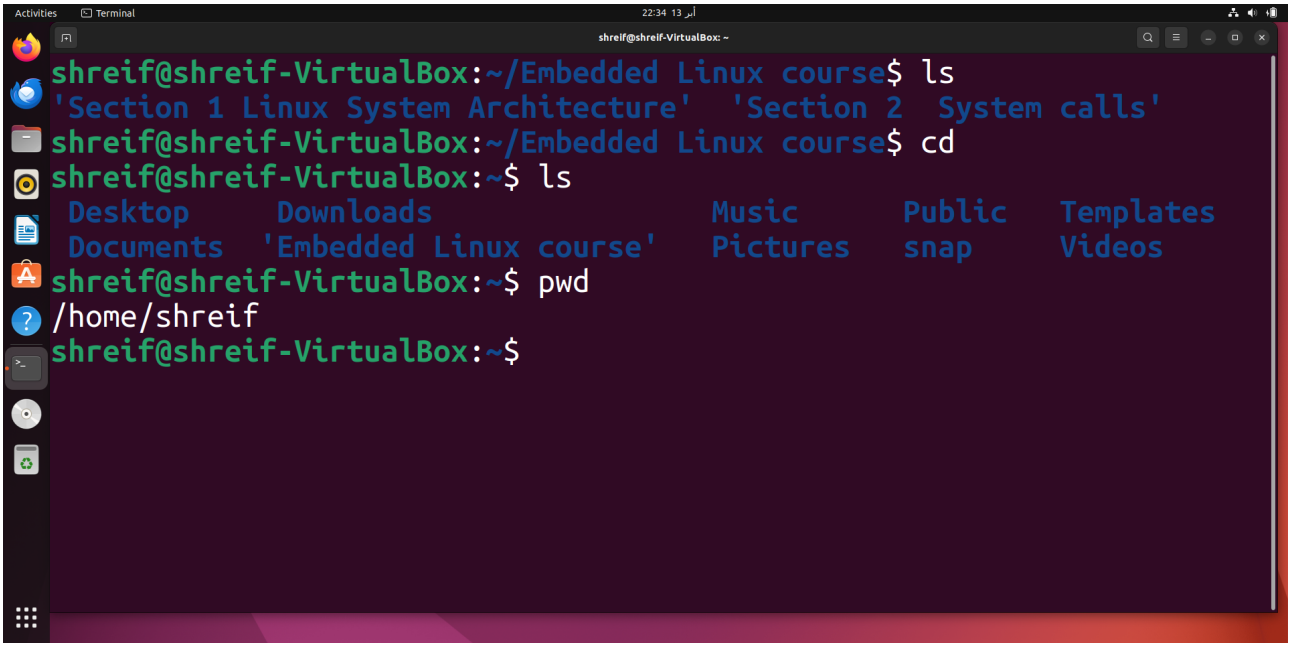
- **Use ls to list all files and directories in the current directory.



- **Use cd to navigate to a specific directory.

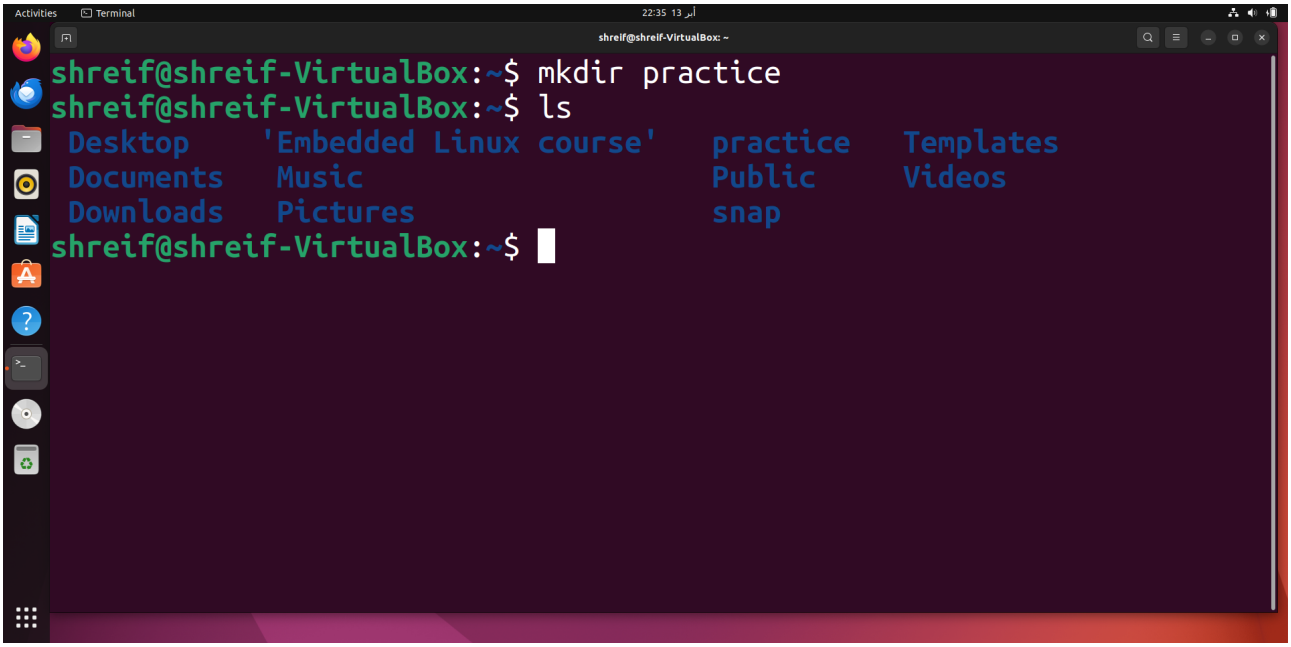


- **Use pwd to print the current working directory.

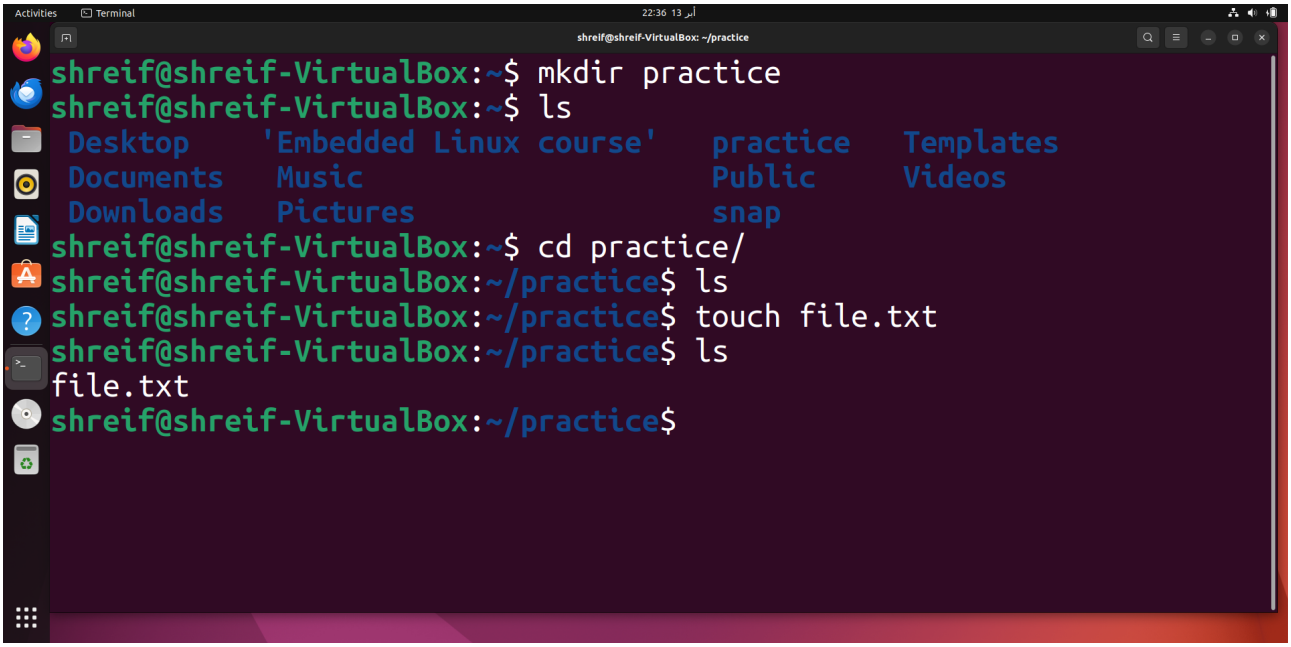


Exercise 2: File and Directory Operations

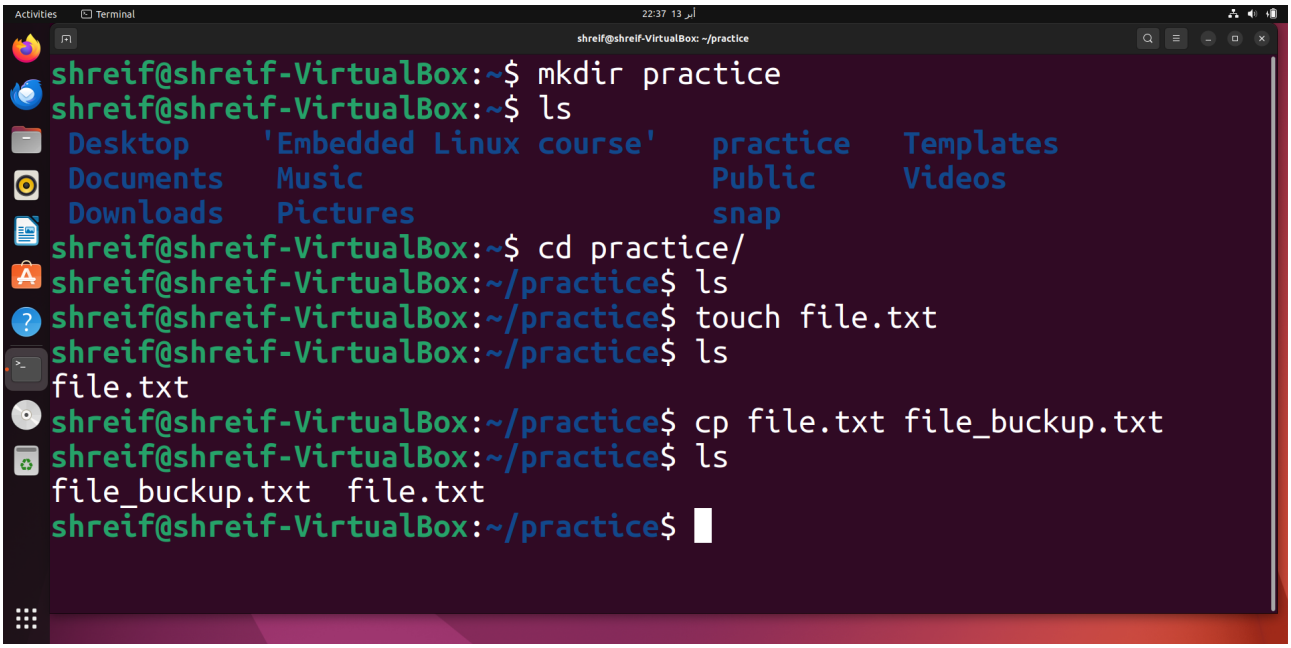
- **Create a directory named "practice" in the current directory using mkdir.



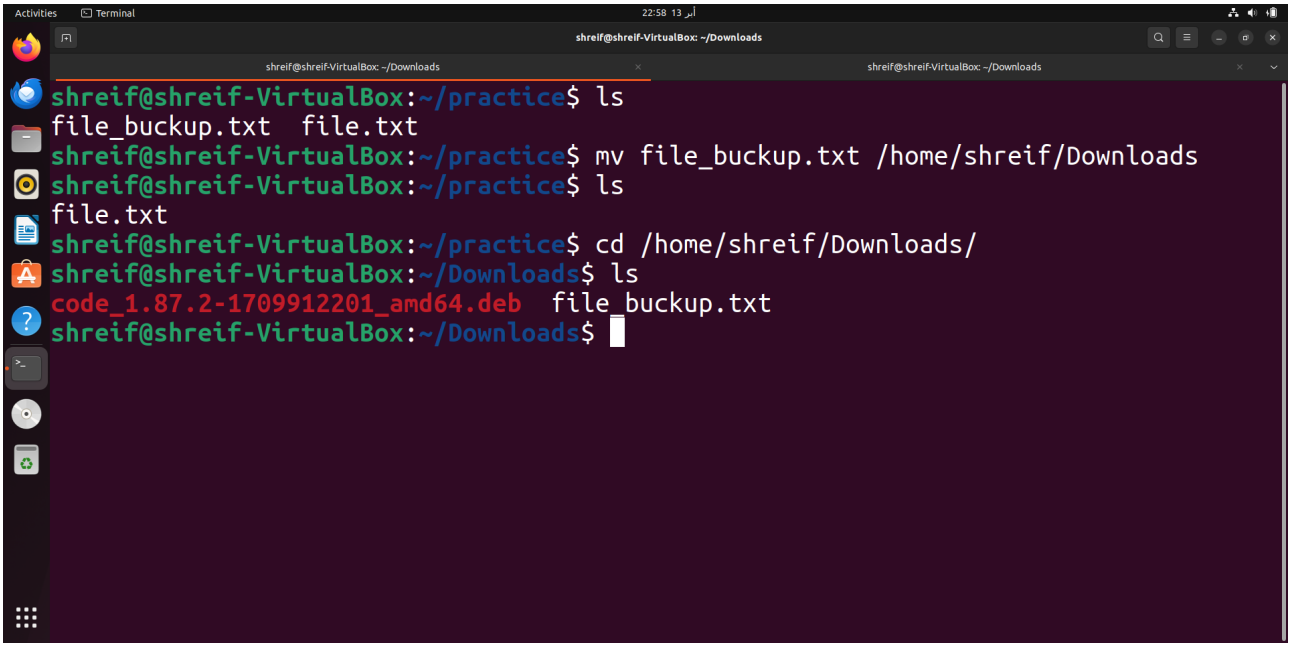
- **Create an empty file named "file.txt" within the "practice" directory using touch.



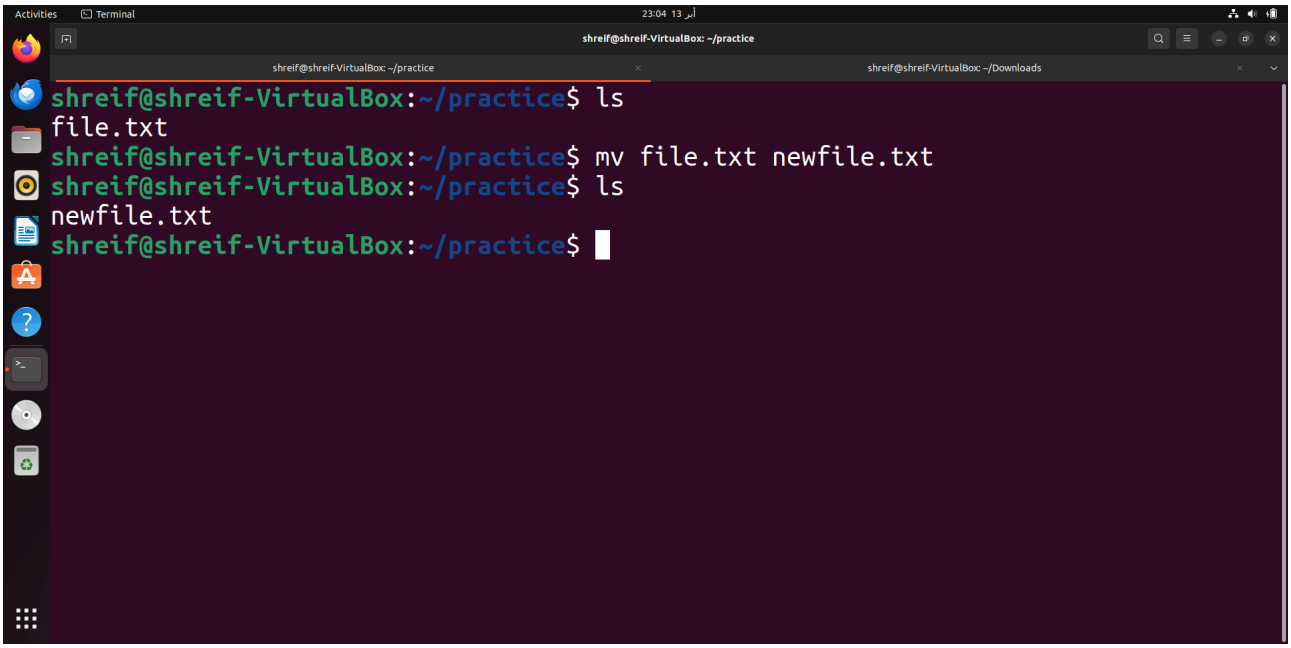
- **Copy "file.txt" to a new file "file_backup.txt" using cp.



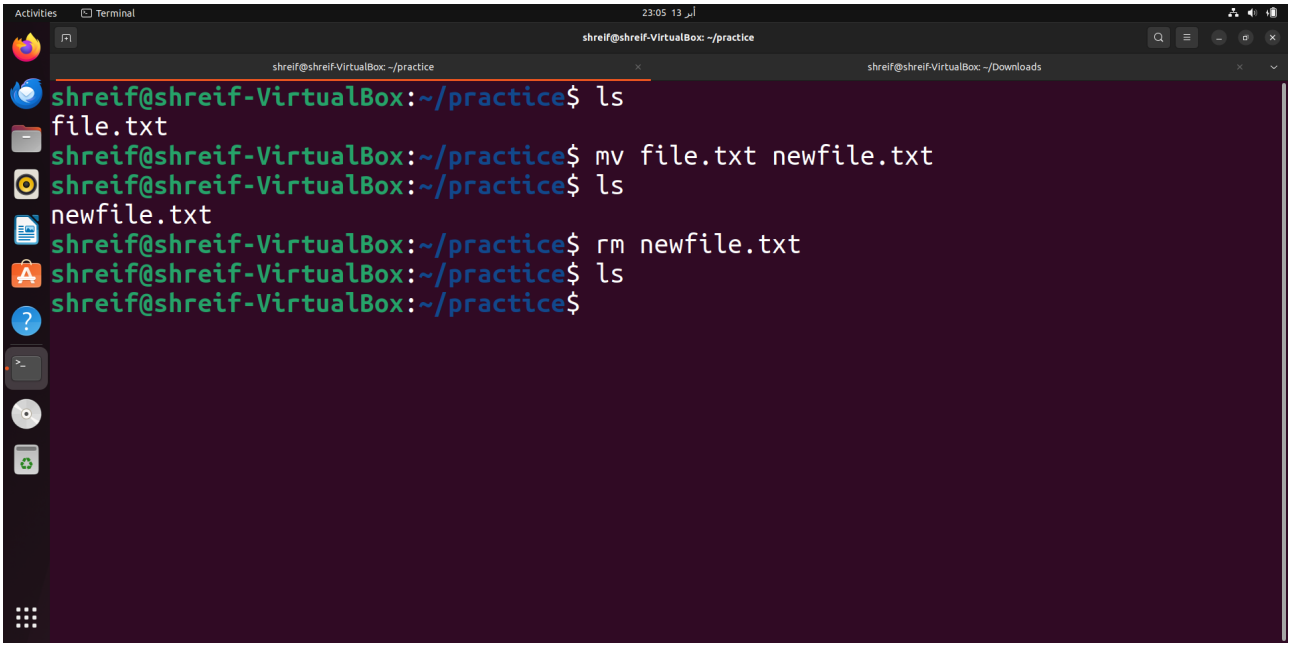
- **Move "file_backup.txt" to another directory using mv.



- **Rename "file.txt" to "new_file.txt" using mv.

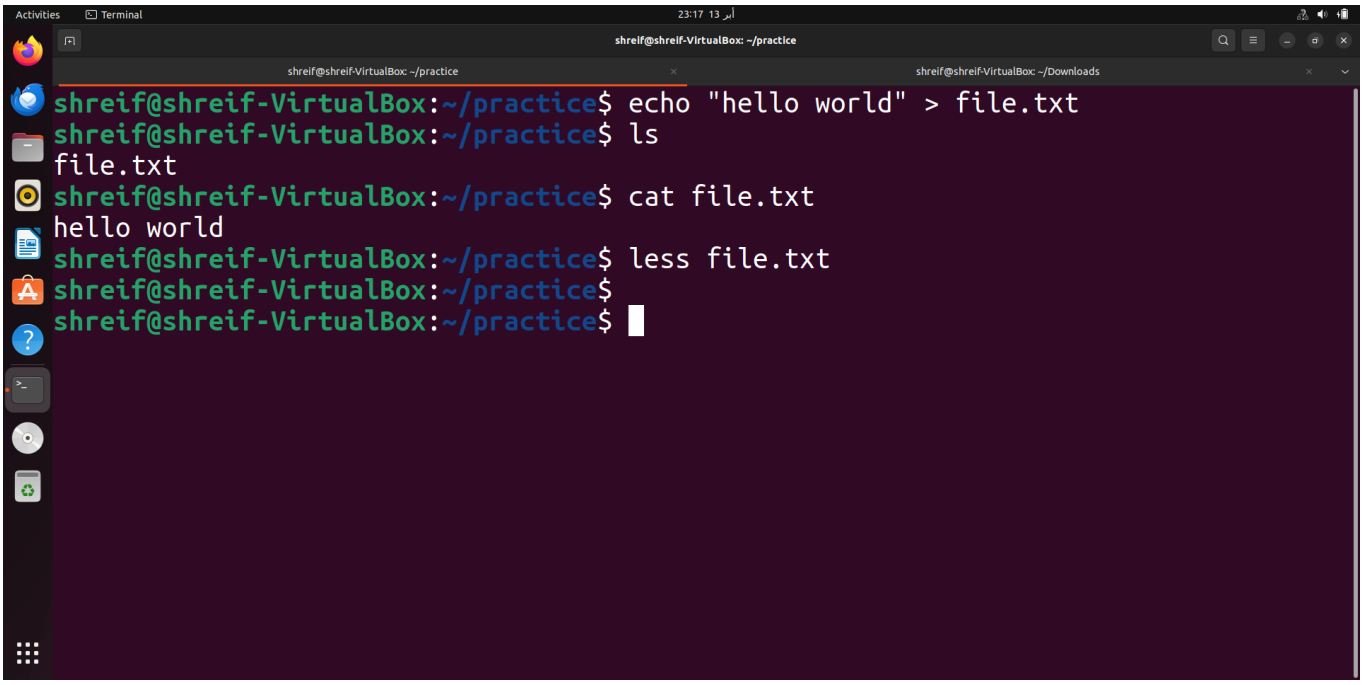


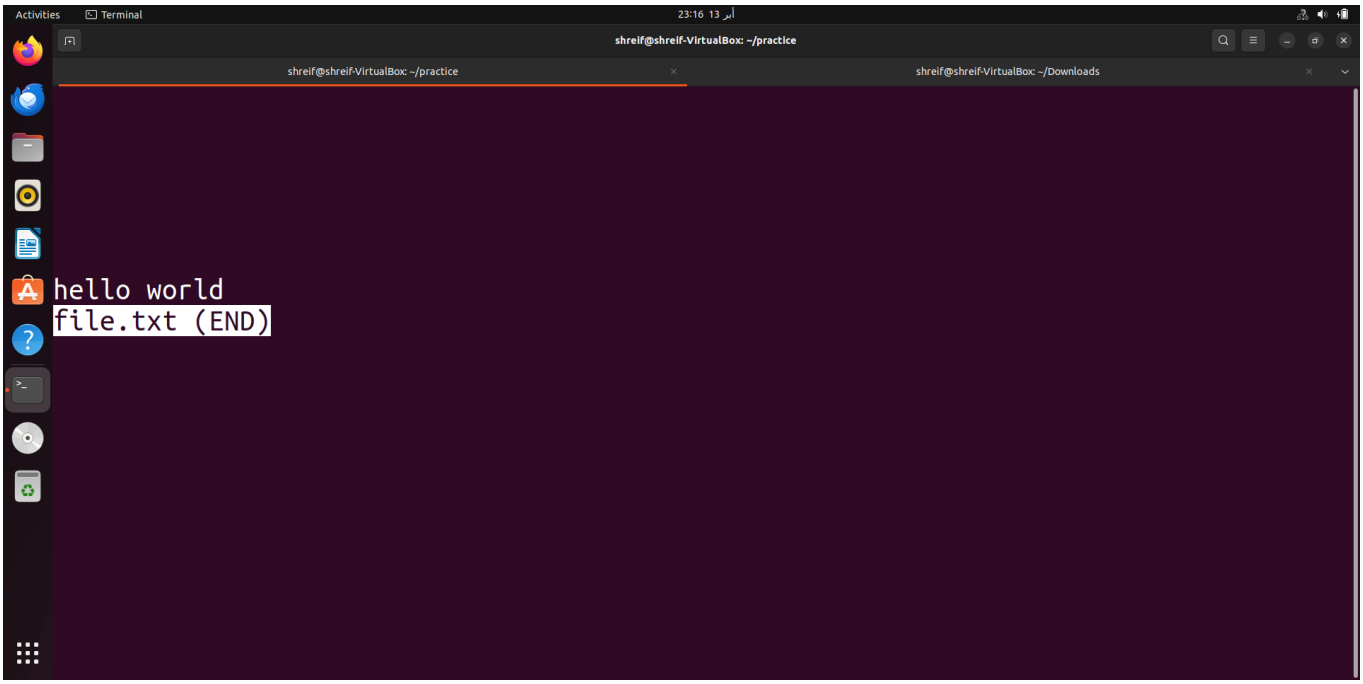
- **Delete the "new_file.txt" using rm.

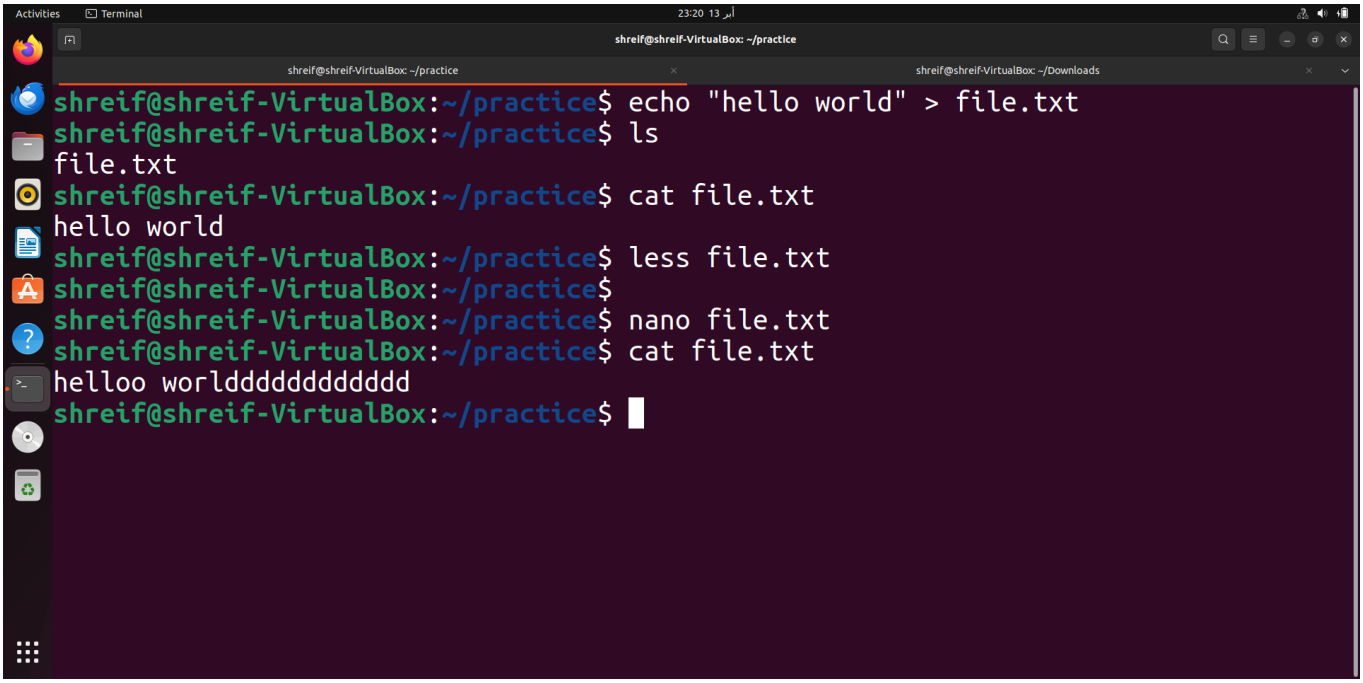


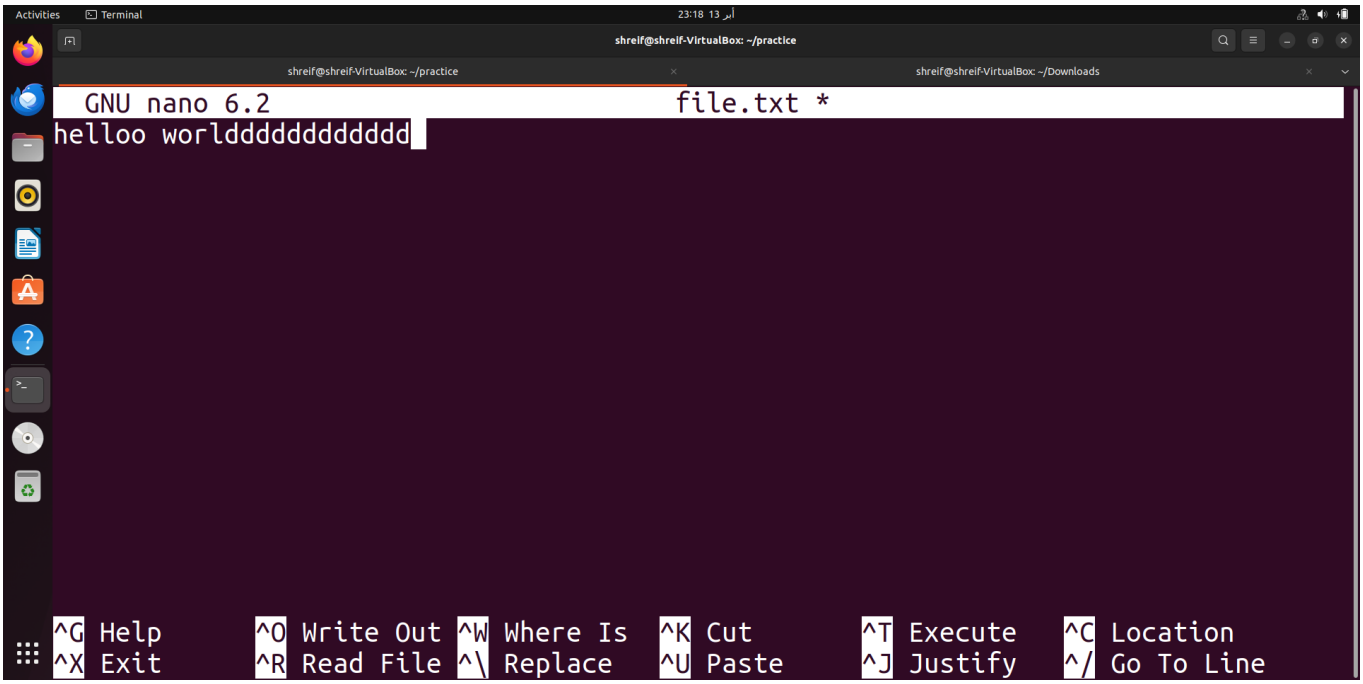
Exercise 3: File Viewing and Editing

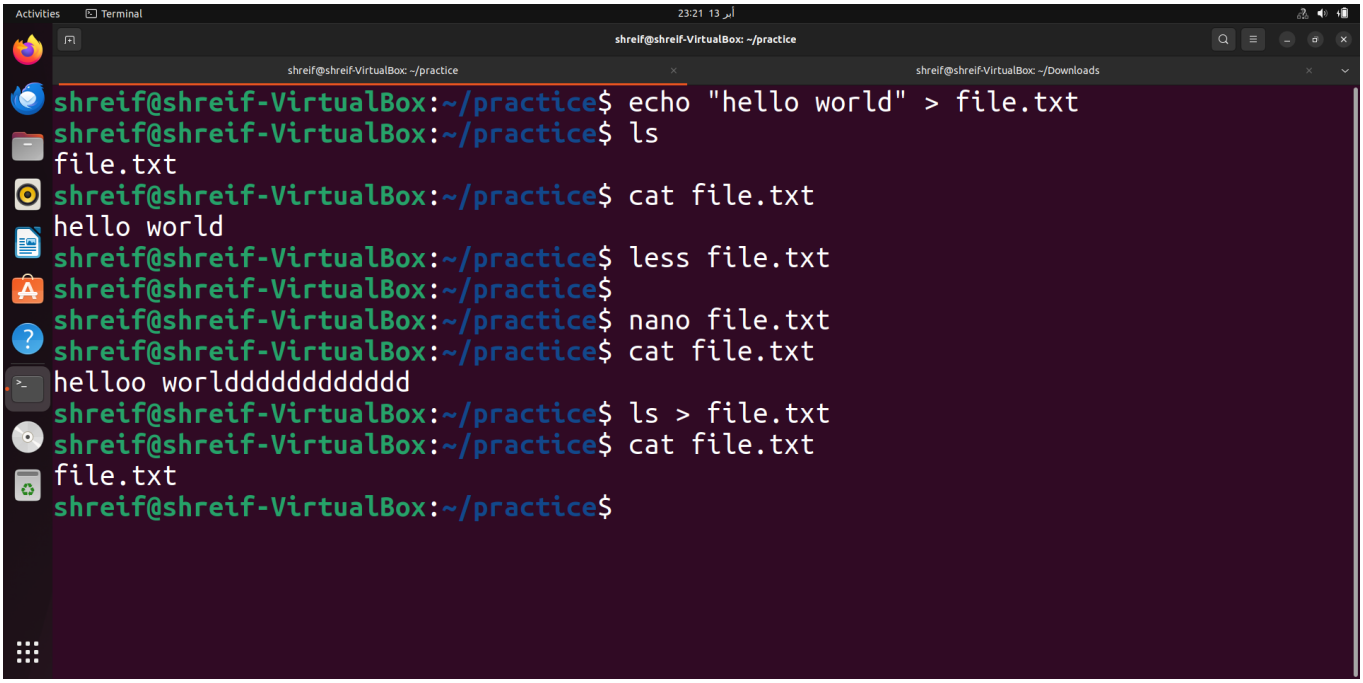
**Create a text file using echo or a text editor like nano. View the contents of the file using cat. View the contents of the file using less. Edit the file using nano or another text editor. Redirect the output of a command (e.g., ls) to a file using >.




Activities
Terminal
23:16 13 أبر
shreif@shreif-VirtualBox: ~/practice
shreif@shreif-VirtualBox: ~/practice
shreif@shreif-VirtualBox: ~/Downloads
hello world
file.txt (END)

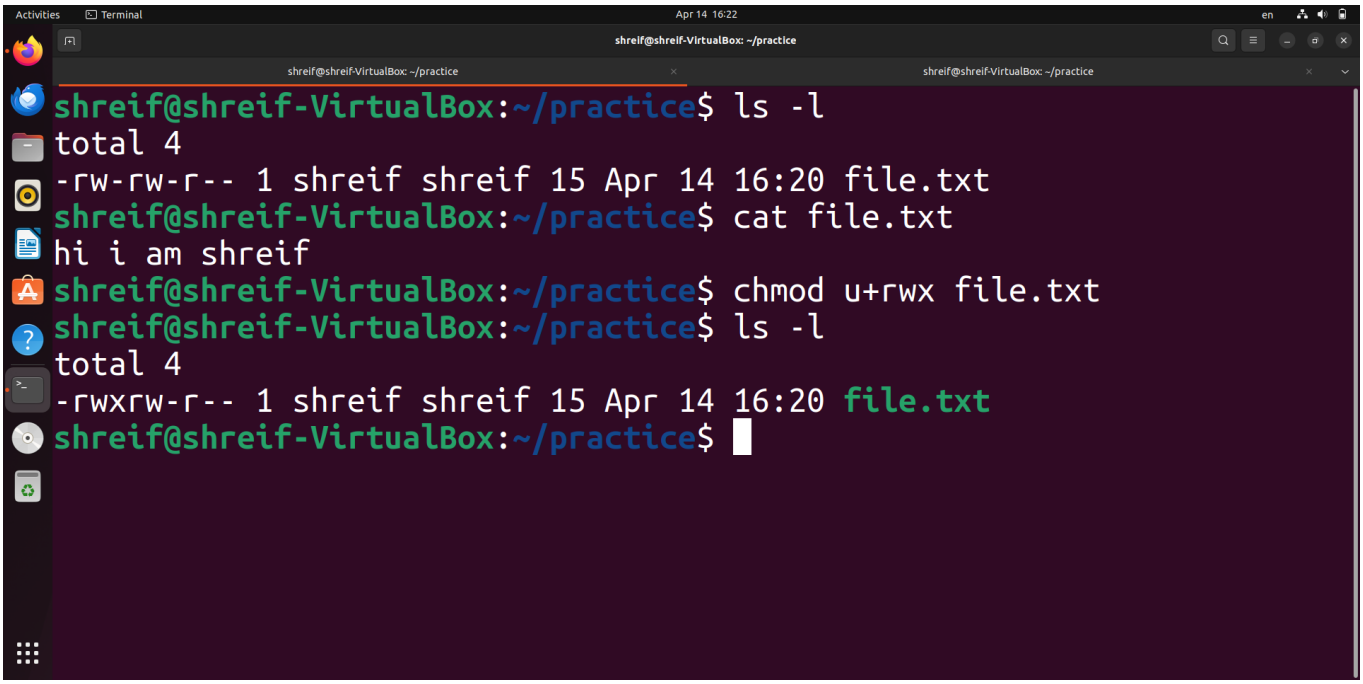

Activities
Terminal
23:20 13 أبر
shreif@shreif-VirtualBox: ~/practice
shreif@shreif-VirtualBox: ~/practice
shreif@shreif-VirtualBox: ~/Downloads
shreif@shreif-VirtualBox:~/practice$ echo "hello world" > file.txt
shreif@shreif-VirtualBox:~/practice$ ls
file.txt
shreif@shreif-VirtualBox:~/practice$ cat file.txt
hello world
shreif@shreif-VirtualBox:~/practice$ less file.txt
shreif@shreif-VirtualBox:~/practice$
shreif@shreif-VirtualBox:~/practice$ nano file.txt
shreif@shreif-VirtualBox:~/practice$ cat file.txt
helloo worlddddddddddd
shreif@shreif-VirtualBox:~/practice$

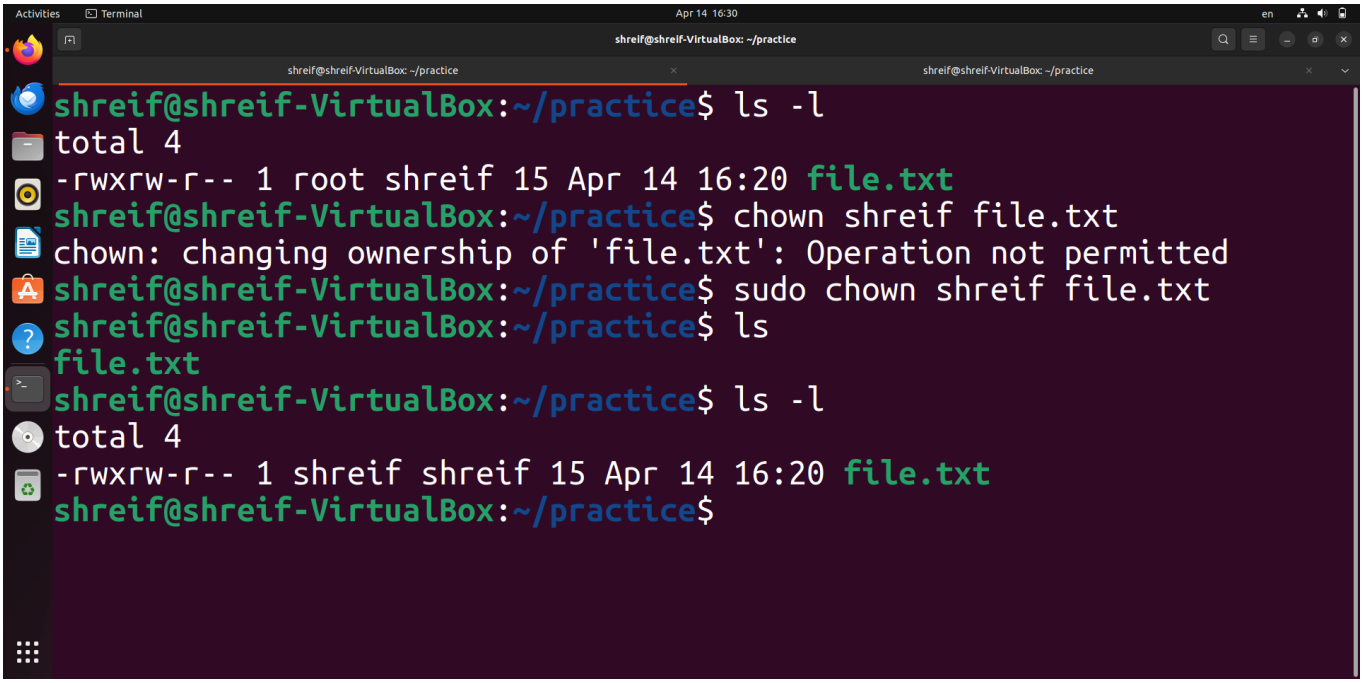




Exercise 4: File Permissions

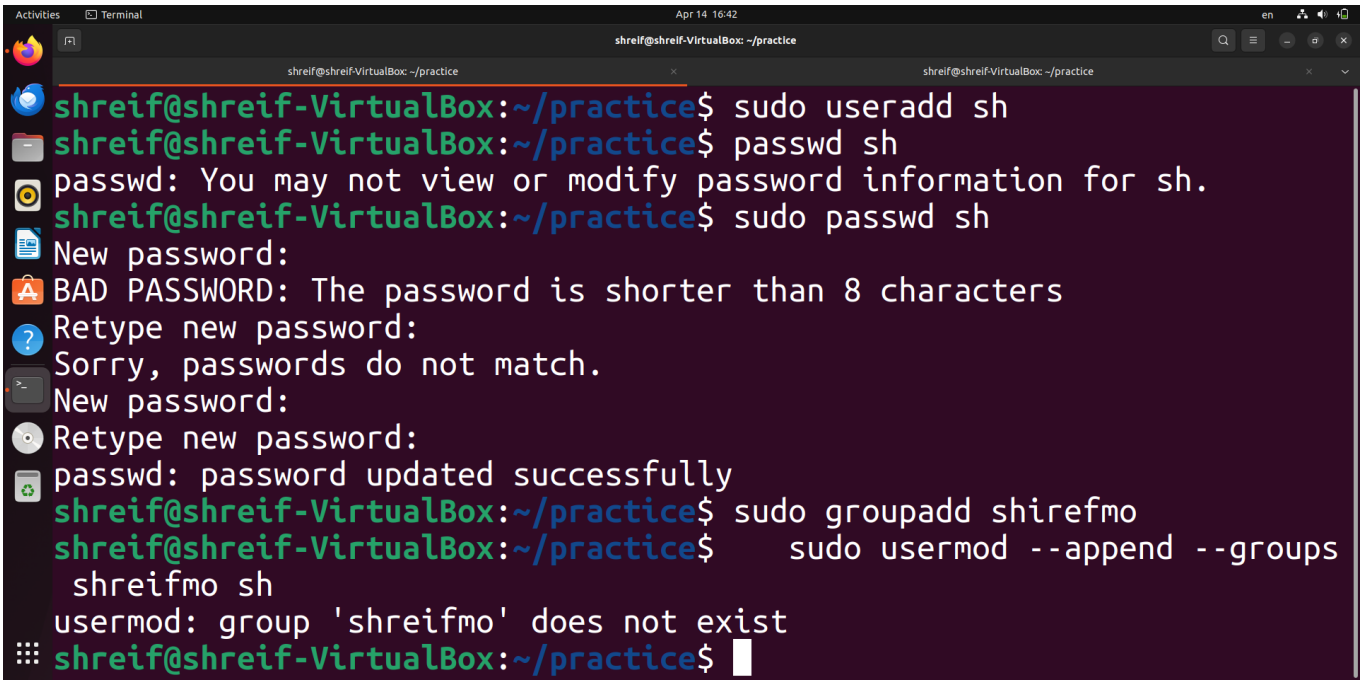
**Create a file and set specific permissions using chmod. Check the permissions of the file using ls -l. Change the owner and group of the file using chown. Verify the changes using ls -l.

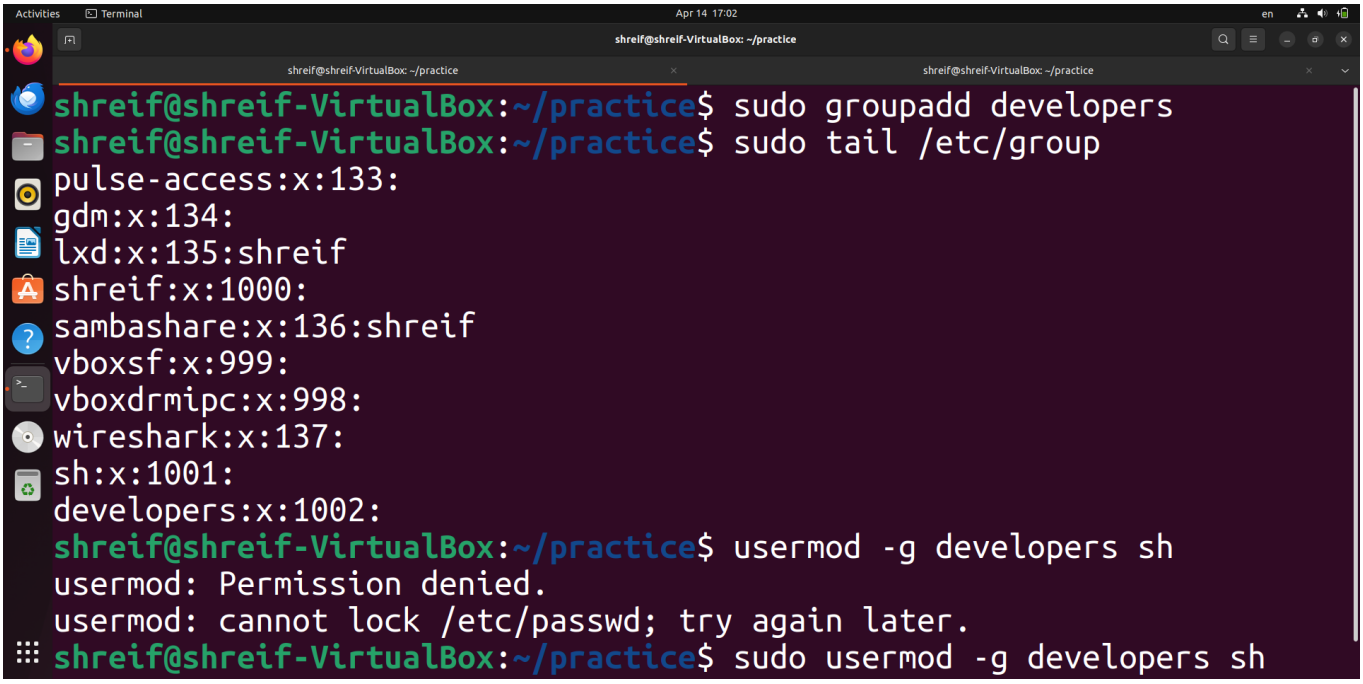


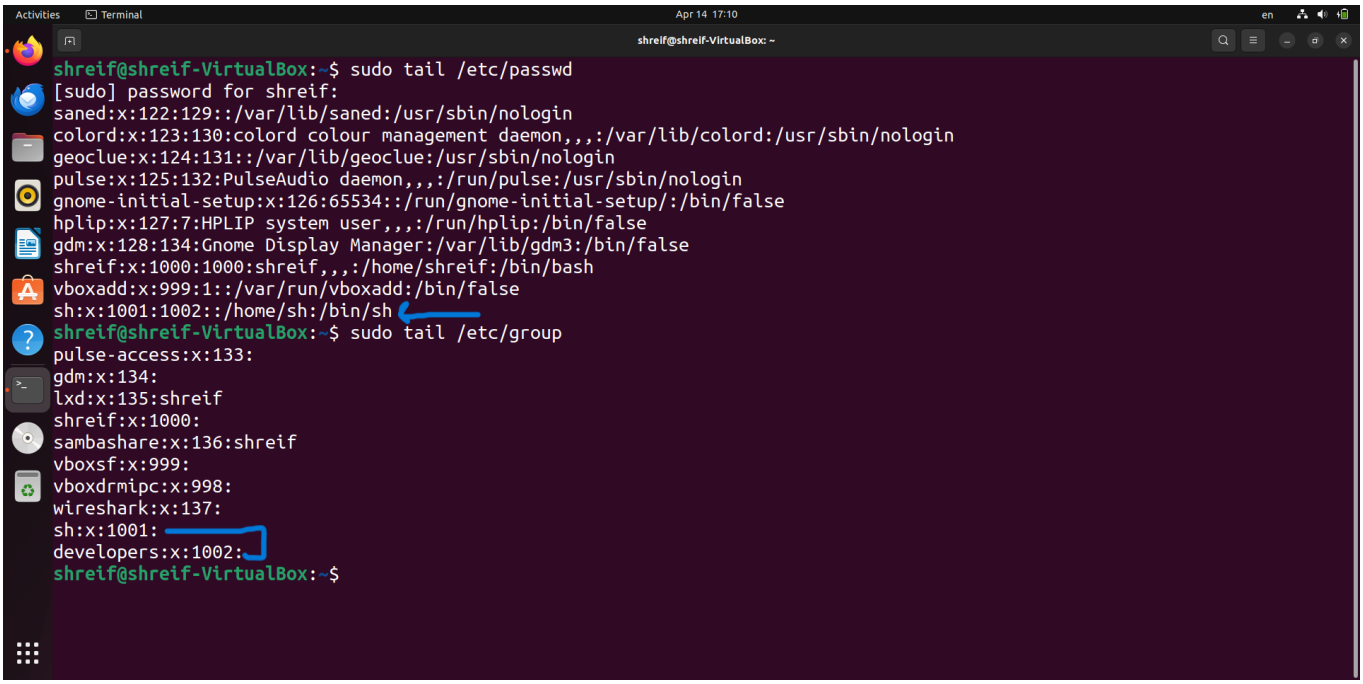


Exercise 5: User and Group Management

**Create a new user using useradd. Set a password for the new user using passwd. Create a new group using groupadd. Add the user to the newly created group using usermod.

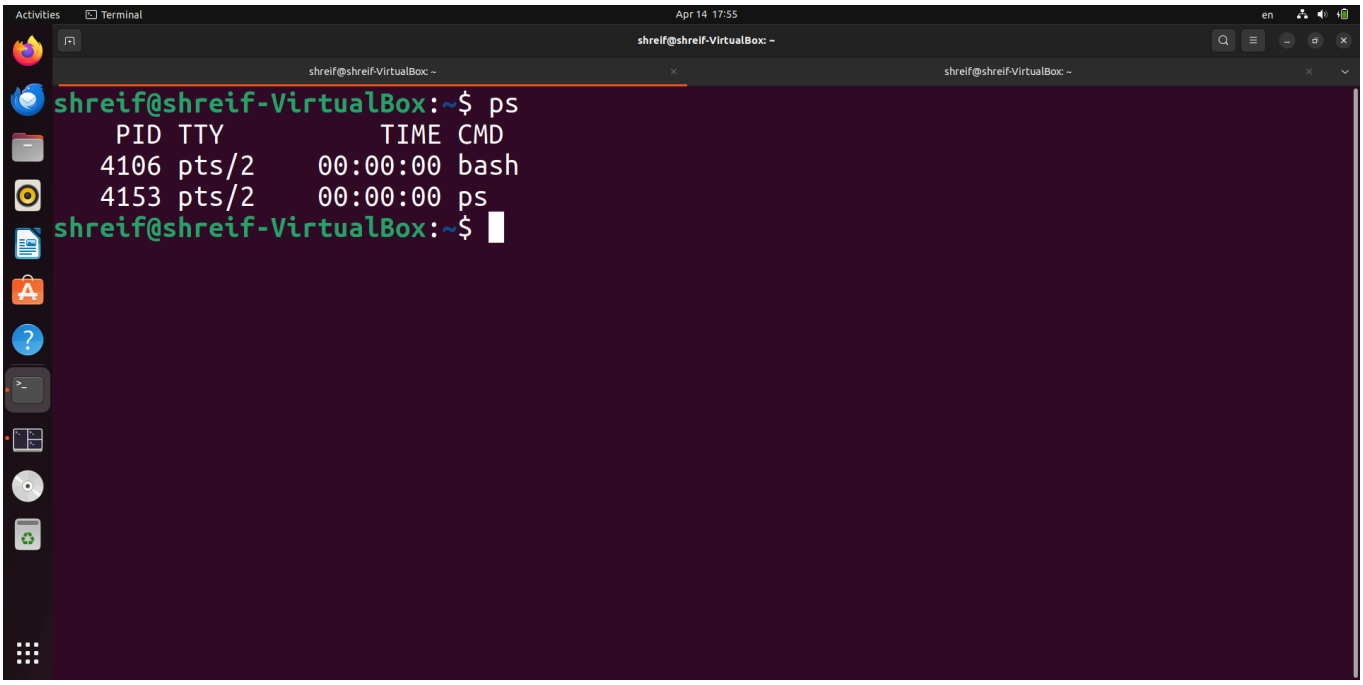

Activities
Terminal
Apr 14 16:42
en
shreif@shreif-VirtualBox: ~/practice
shreif@shreif-VirtualBox: ~/practice
shreif@shreif-VirtualBox: ~/practice
shreif@shreif-VirtualBox:~/practice$ sudo useradd sh
shreif@shreif-VirtualBox:~/practice$ passwd sh
passwd: You may not view or modify password information for sh.
shreif@shreif-VirtualBox:~/practice$ sudo passwd sh
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
Sorry, passwords do not match.
New password:
Retype new password:
passwd: password updated successfully
shreif@shreif-VirtualBox:~/practice$ sudo groupadd shirefmo
shreif@shreif-VirtualBox:~/practice$ sudo usermod --append --groups
shreifmo sh
usermod: group 'shreifmo' does not exist
shreif@shreif-VirtualBox:~/practice$

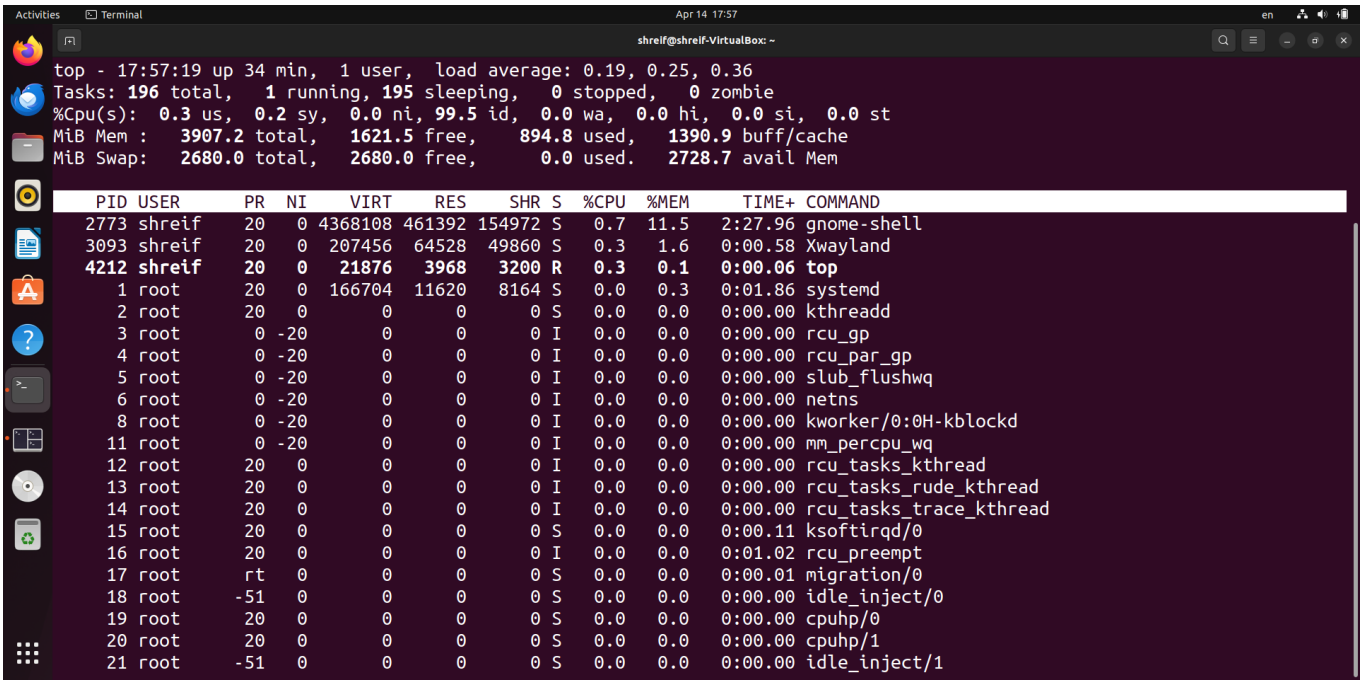

Activities
Terminal
Apr 14 17:02
en
shreif@shreif-VirtualBox: ~/practice
shreif@shreif-VirtualBox: ~/practice
shreif@shreif-VirtualBox: ~/practice
shreif@shreif-VirtualBox:~/practice$ sudo groupadd developers
shreif@shreif-VirtualBox:~/practice$ sudo tail /etc/group
pulse-access:x:133:
gdm:x:134:
lxd:x:135:shreif
shreif:x:1000:
sambashare:x:136:shreif
vboxsf:x:999:
vboxdrmipc:x:998:
wireshark:x:137:
sh:x:1001:
developers:x:1002:
shreif@shreif-VirtualBox:~/practice$ usermod -g developers sh
usermod: Permission denied.
usermod: cannot lock /etc/passwd; try again later.
shreif@shreif-VirtualBox:~/practice$ sudo usermod -g developers sh

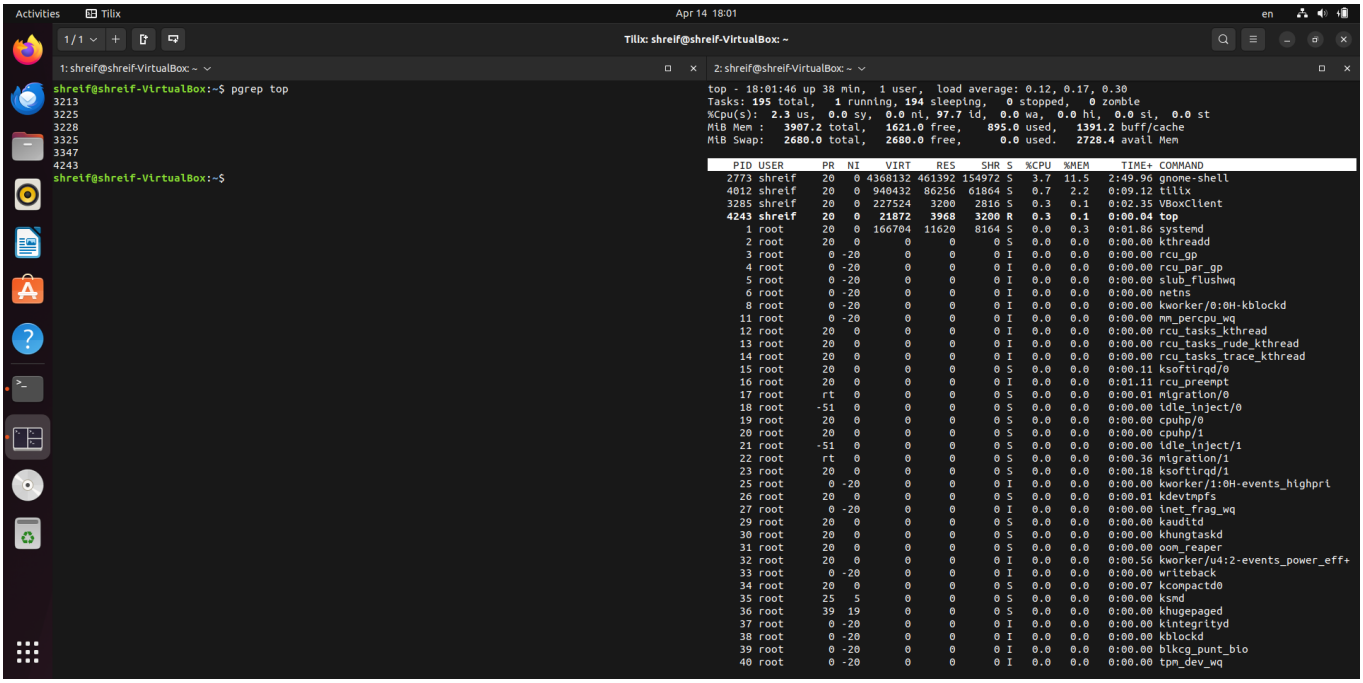


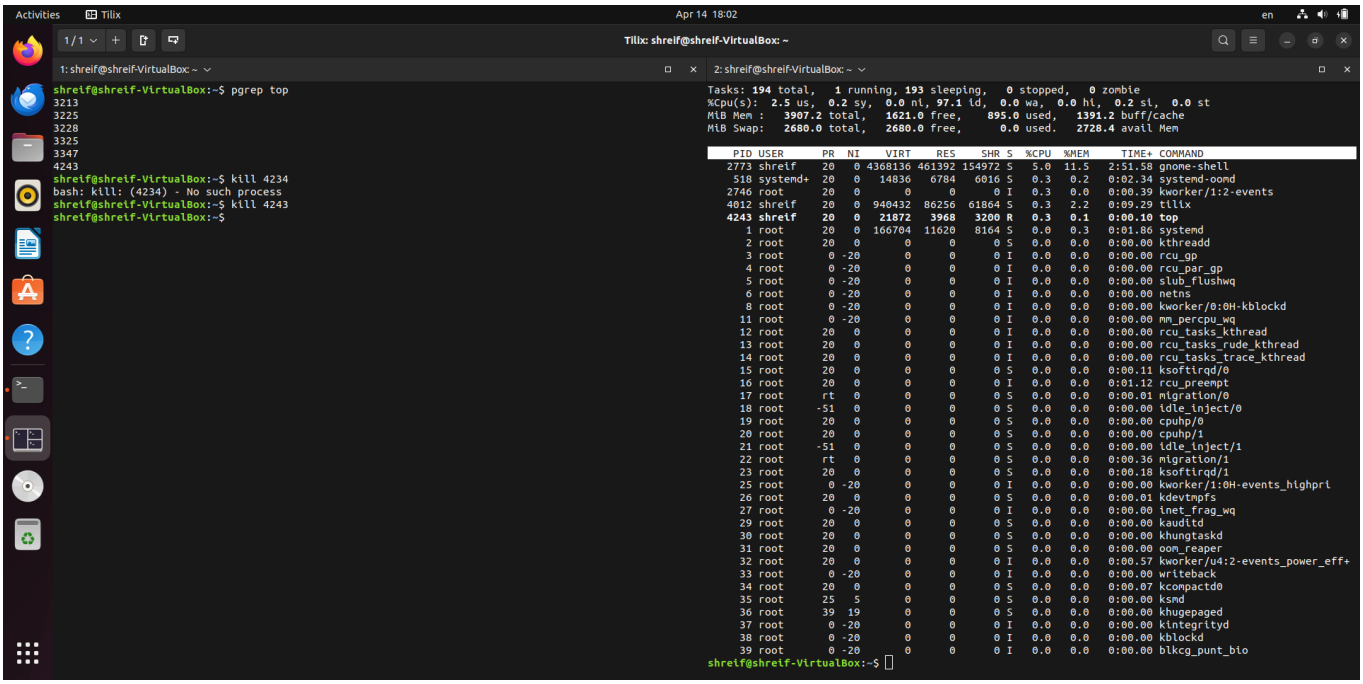
Exercise 6: Process Management

**List all processes using ps. List processes in real-time using top. Find a specific process using pgrep. Terminate a process using kill.



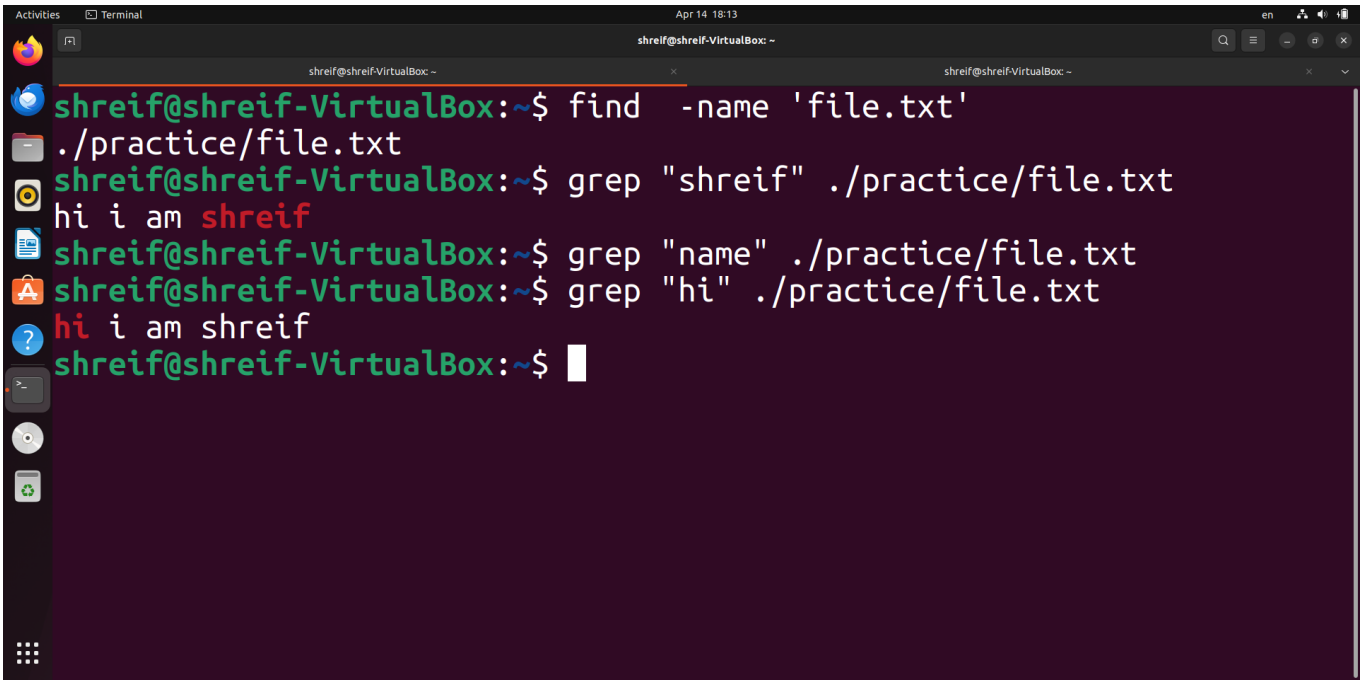

Activities
Terminal
Apr 14 17:57
en
shreif@shreif-VirtualBox: ~
top - 17:57:19 up 34 min, 1 user, load average: 0.19, 0.25, 0.36
Tasks: 196 total, 1 running, 195 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.3 us, 0.2 sy, 0.0 ni, 99.5 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3907.2 total, 1621.5 free, 894.8 used, 1390.9 buff/cache
MiB Swap: 2680.0 total, 2680.0 free, 0.0 used. 2728.7 avail Mem
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2773 shreif 20 0 4368108 461392 154972 S 0.7 11.5 2:27.96 gnome-shell
3093 shreif 20 0 207456 64528 49860 S 0.3 1.6 0:00.58 Xwayland
4212 shreif 20 0 21876 3968 3200 R 0.3 0.1 0:00.06 top
1 root 20 0 166704 11620 8164 S 0.0 0.3 0:01.86 systemd
2 root 20 0 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 rcu_gp
4 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 rcu_par_gp
5 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 slub_flushwq
6 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 netns
8 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/0:0H-kblockd
11 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 mm_percpu_wq
12 root 20 0 0 0 0 I 0.0 0.0 0:00.00 rcu_tasks_kthread
13 root 20 0 0 0 0 I 0.0 0.0 0:00.00 rcu_tasks_rude_kthread
14 root 20 0 0 0 0 I 0.0 0.0 0:00.00 rcu_tasks_trace_kthread
15 root 20 0 0 0 0 S 0.0 0.0 0:00.11 ksoftirqd/0
16 root 20 0 0 0 0 I 0.0 0.0 0:01.02 rcu_preempt
17 root rt 0 0 0 0 S 0.0 0.0 0:00.01 migration/0
18 root -51 0 0 0 0 S 0.0 0.0 0:00.00 idle_inject/0
19 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/0
20 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/1
21 root -51 0 0 0 0 S 0.0 0.0 0:00.00 idle_inject/1


Activities
Tilix
Apr 14 18:01
en
1 / 1
Tilix: shreif@shreif-VirtualBox: ~
1: shreif@shreif-VirtualBox: ~
2: shreif@shreif-VirtualBox: ~
shreif@shreif-VirtualBox:~$ pgrep top
3213
3225
3228
3325
3347
4243
shreif@shreif-VirtualBox:~$
top - 18:01:46 up 38 min, 1 user, load average: 0.12, 0.17, 0.30
Tasks: 195 total, 1 running, 194 sleeping, 0 stopped, 0 zombie
%Cpu(s): 2.3 us, 0.0 sy, 0.0 ni, 97.7 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3907.2 total, 1621.0 free, 895.0 used, 1391.2 buff/cache
MiB Swap: 2680.0 total, 2680.0 free, 0.0 used. 2728.4 avail Mem
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2773 shreif 20 0 4368132 461392 154972 S 3.7 11.5 2:49.96 gnome-shell
4012 shreif 20 0 940432 86256 61864 S 0.7 2.2 0:09.12 tilix
3285 shreif 20 0 227524 3200 2816 S 0.3 0.1 0:02.35 VBoxClient
4243 shreif 20 0 21872 3968 3200 R 0.3 0.1 0:00.04 top
1 root 20 0 166704 11620 8164 S 0.0 0.3 0:01.86 systemd
2 root 20 0 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 rcu_gp
4 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 rcu_par_gp
5 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 slub_flushwq
6 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 netns
8 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/0:0H-kblockd
11 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 mm_percpu_wq
12 root 20 0 0 0 0 I 0.0 0.0 0:00.00 rcu_tasks_kthread
13 root 20 0 0 0 0 I 0.0 0.0 0:00.00 rcu_tasks_rude_kthread
14 root 20 0 0 0 0 I 0.0 0.0 0:00.00 rcu_tasks_trace_kthread
15 root 20 0 0 0 0 S 0.0 0.0 0:00.11 ksoftirqd/0
16 root 20 0 0 0 0 I 0.0 0.0 0:01.11 rcu_preempt
17 root rt 0 0 0 0 S 0.0 0.0 0:00.01 migration/0
18 root -51 0 0 0 0 S 0.0 0.0 0:00.00 idle_inject/0
19 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/0
20 root 20 0 0 0 0 S 0.0 0.0 0:00.00 cpuhp/1
21 root -51 0 0 0 0 S 0.0 0.0 0:00.00 idle_inject/1
22 root rt 0 0 0 0 S 0.0 0.0 0:00.36 migration/1
23 root 20 0 0 0 0 S 0.0 0.0 0:00.18 ksoftirqd/1
25 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker/1:0H-events_highpri
26 root 20 0 0 0 0 S 0.0 0.0 0:00.01 kdevtmpfs
27 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 inet_frag_wq
29 root 20 0 0 0 0 S 0.0 0.0 0:00.00 kauditd
30 root 20 0 0 0 0 S 0.0 0.0 0:00.00 khungtaskd
31 root 20 0 0 0 0 S 0.0 0.0 0:00.00 oom_reaper
32 root 20 0 0 0 0 I 0.0 0.0 0:00.56 kworker/u4:2-events_power_eff+
33 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 writeback
34 root 20 0 0 0 0 S 0.0 0.0 0:00.07 kcompactd0
35 root 25 5 0 0 0 S 0.0 0.0 0:00.00 ksmd
36 root 39 19 0 0 0 S 0.0 0.0 0:00.00 khugepaged
37 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kintegrityd
38 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 kblockd
39 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 blkcg_punt_bio
40 root 0 -20 0 0 0 I 0.0 0.0 0:00.00 tpm_dev_wq



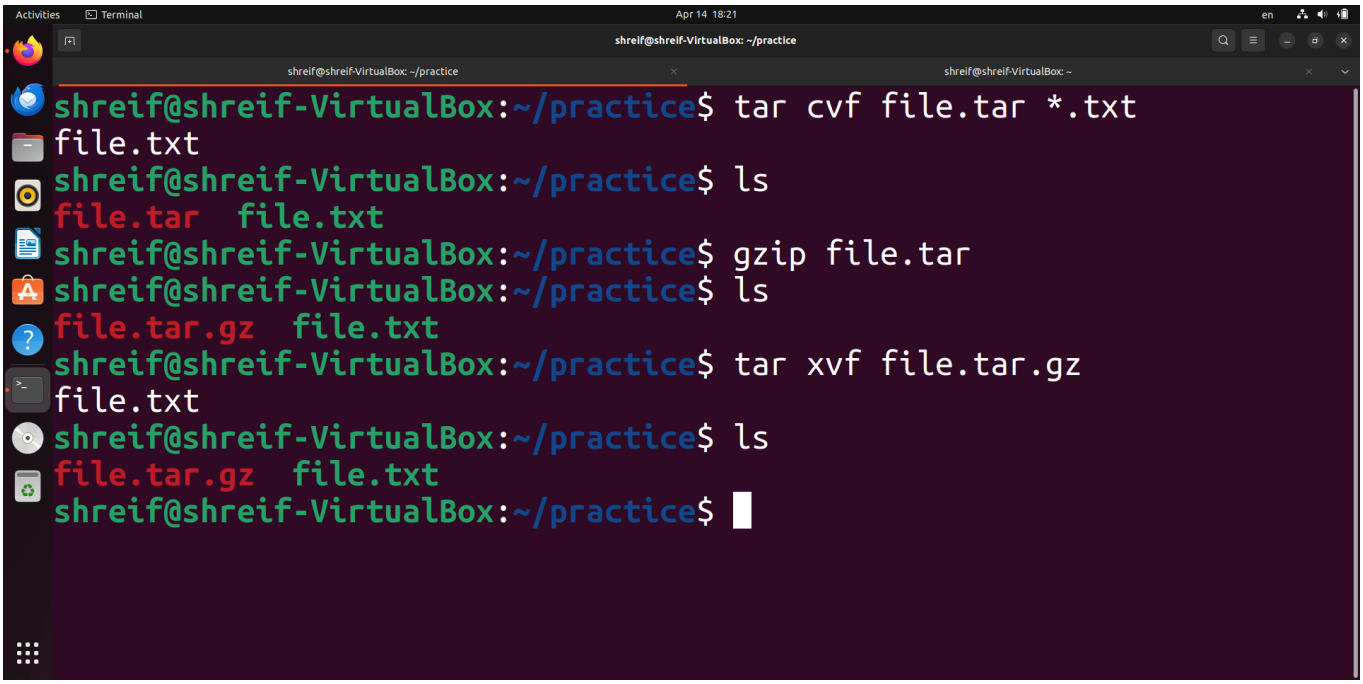
Exercise 7: File Searching

**Use find to search for a specific file or directory. Use grep to search for a specific string in a file.



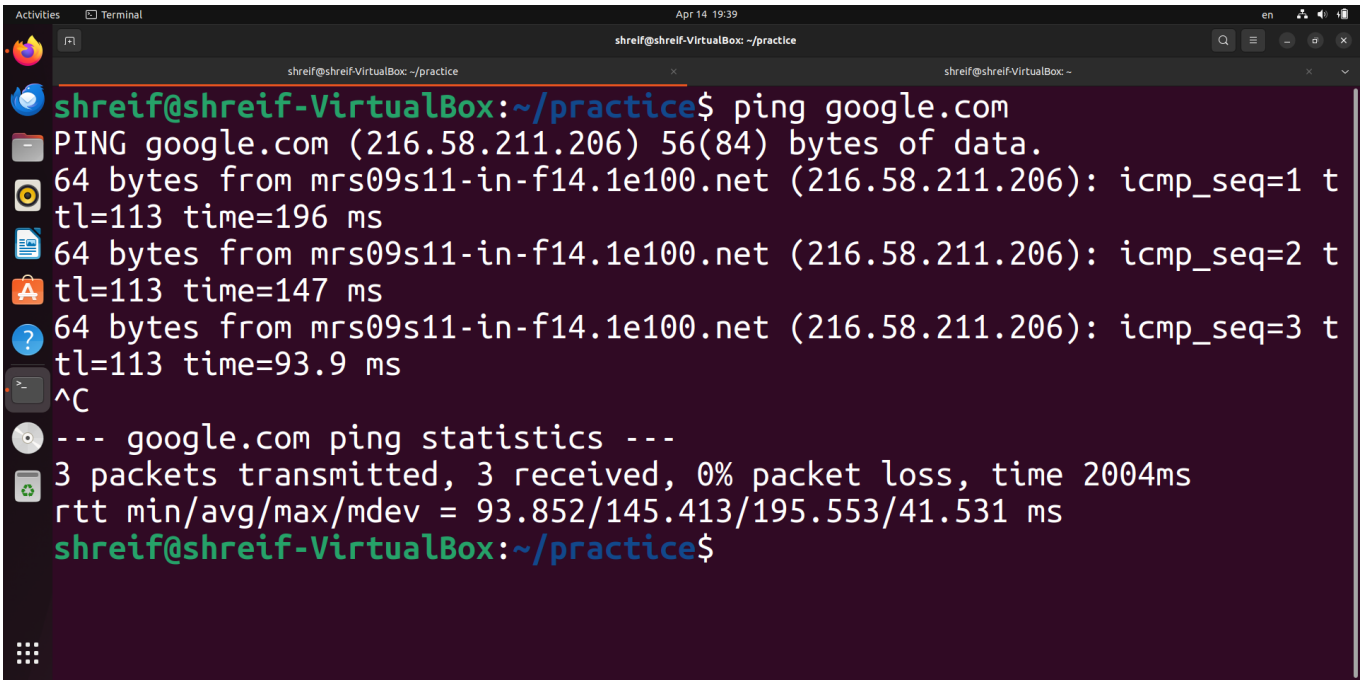
Exercise 8: Archiving and Compression

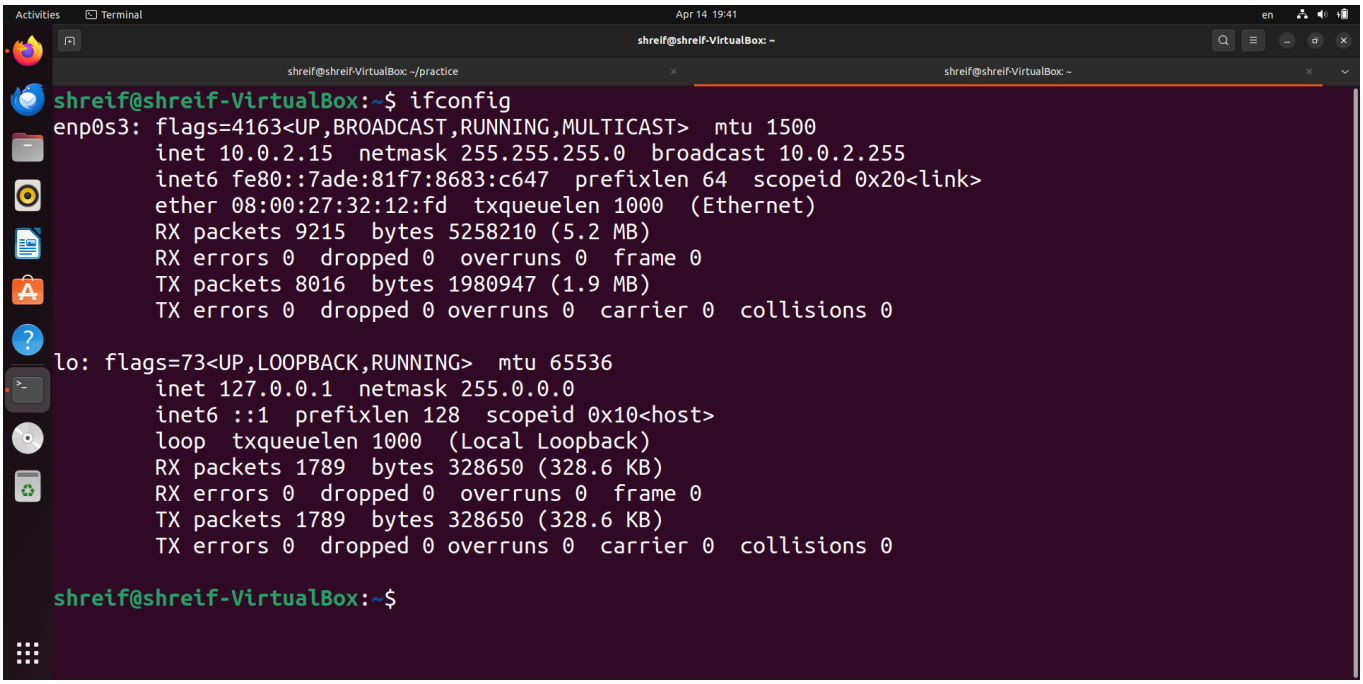
**Create a tar archive of a directory using tar. Compress the tar archive using gzip. Extract the tar archive using tar.

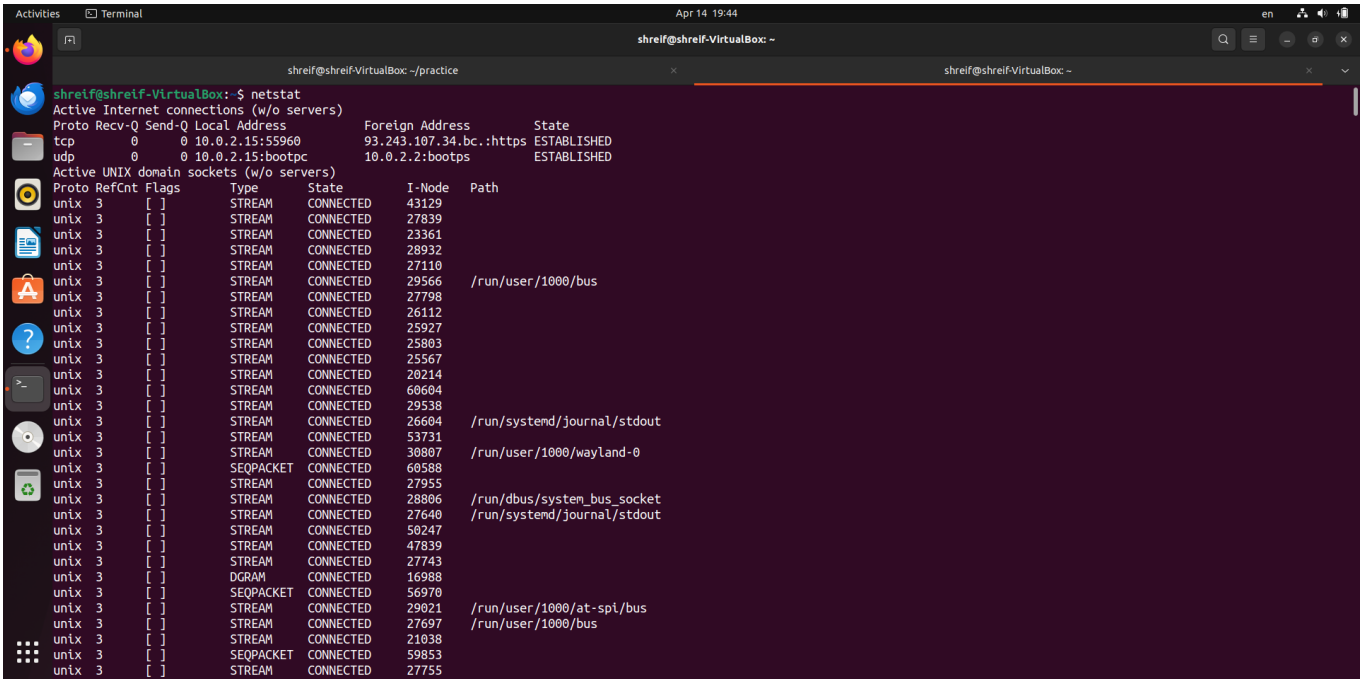


Exercise 9: Networking

**Ping a website or IP address using ping. Check your network interfaces and their configurations using ifconfig or ip. List all open ports using netstat.



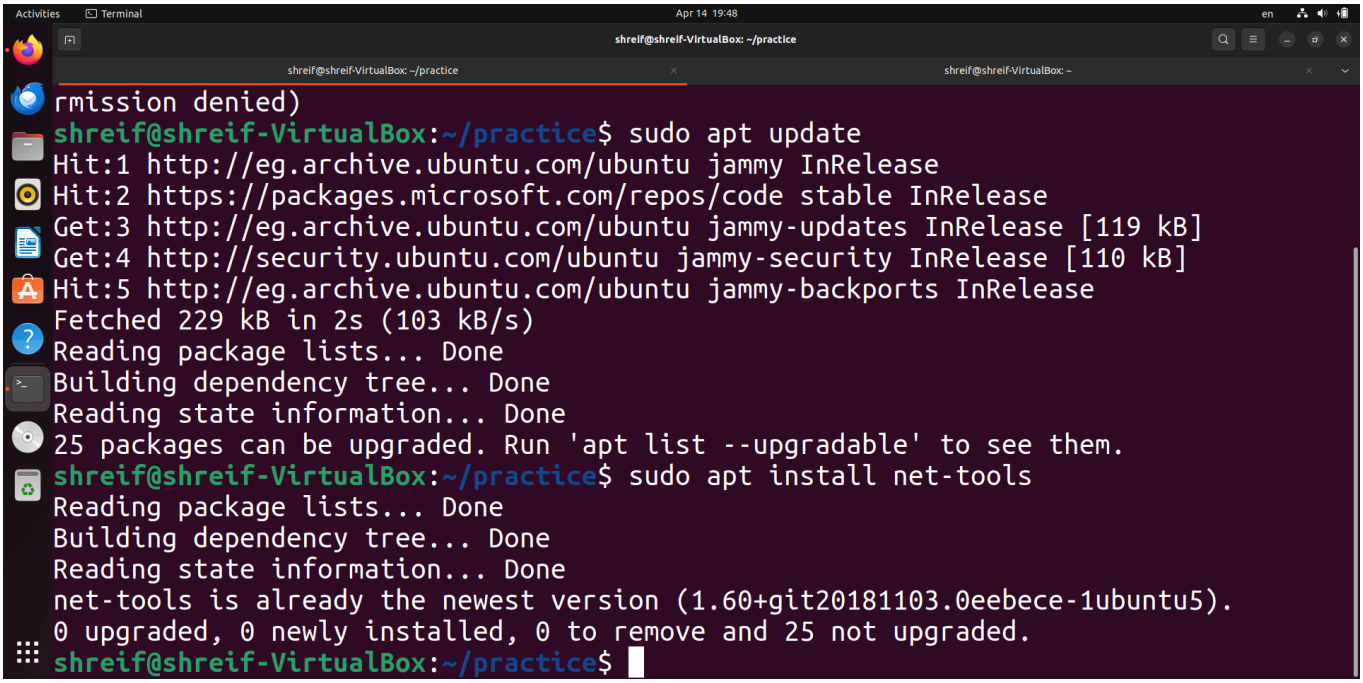




Exercise 10: Package Management

**Update the package list using the package manager (e.g., apt update). Install a package using the package manager (e.g., apt install). Remove a package using the package manager

(e.g., apt remove).



Exercise 12: Text Processing

**Use sed to replace a specific word in a text file. Use awk to extract specific columns from a CSV file. Use grep to find lines in a file that match a specific pattern.