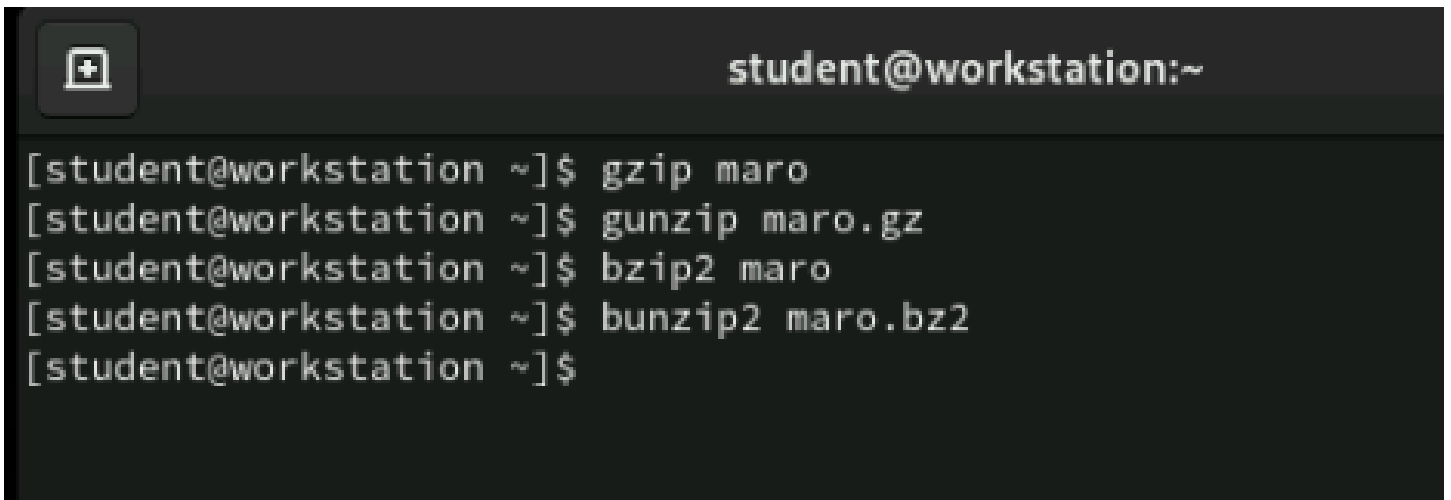


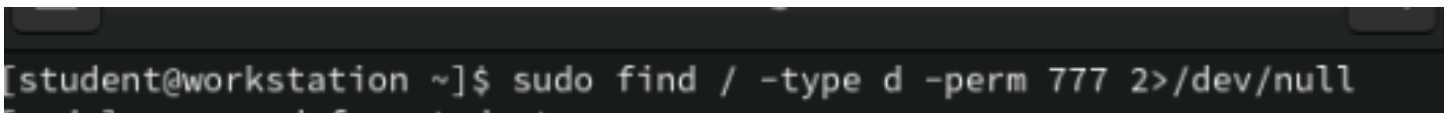
## LAB5

1-Compress a file by gzip, bzip2 commands and decompress it again.



```
student@workstation:~  
[student@workstation ~]$ gzip maro  
[student@workstation ~]$ gunzip maro.gz  
[student@workstation ~]$ bzip2 maro  
[student@workstation ~]$ bunzip2 maro.bz2  
[student@workstation ~]$
```

2-List the directories that have 777 Permissions in the system.



```
[student@workstation ~]$ sudo find / -type d -perm 777 2>/dev/null
```

3-Compress a file by compress, gzip, zip commands and decompress it again. State the differences between compress and gzip commands..

```
[student@workstation ~]$ gzip maro
[student@workstation ~]$ ls -li
total 12
33558865 drwxr-xr-x. 2 student student 6 Mar 7 2024 Desktop
67109225 drwxr-xr-x. 2 student student 6 Mar 7 2024 Documents
41943393 drwxr-xr-x. 2 student student 6 Mar 7 2024 Downloads
 424197 drwxr-xr-x. 2 student student 6 Mar 7 2024 Music
10313446 drwxr-xr-x. 2 student student 6 Mar 7 2024 Pictures
58720596 drwxr-xr-x. 2 student student 6 Mar 7 2024 Public
50332080 drwxr-xr-x. 2 student student 6 Mar 7 2024 Templates
17365941 drwxr-xr-x. 2 student student 6 Mar 7 2024 Videos
46531541 drwxr-xr-x. 2 student student 6 Nov 10 11:35 dir1
 424214 -rw-r--r--. 1 student student 0 Nov 10 11:36 fil2
 424217 -rw-r--r--. 1 student student 26 Nov 10 11:36 file1.gz
 410634 -rw-r--r--. 1 student student 25 Nov 10 12:03 maro.gz
411419 -rw-r--r--. 1 student student 50 Nov 10 11:39 marwan.gz
```

```
[student@workstation ~]$ gunzip maro.gz
```

```
[student@workstation ~]$ zip maro.zip maro
  adding: maro (stored 0%)
[student@workstation ~]$ unzip maro.zip
Archive:  maro.zip
replace maro? [y]es, [n]o, [A]ll, [N]one, [r]ename: y
  extracting: maro
[student@workstation ~]$
```

4. What is the command used to view the content of a compressed file.

```
[student@workstation ~]$ tar -cvf mydir.tar fil2 maro
fil2
maro
[student@workstation ~]$ tar -tvf mydir.tar
-rw-r--r-- student/student 0 2025-11-10 11:36 fil2
-rw-r--r-- student/student 0 2025-11-10 12:03 maro
```

5. Backup /etc directory using tar utility.

```
[student@workstation ~]$ tar -cvf etc_backup /etc
```

6. Starting from your home directory, find all files that were modified in the last two day.

```
[student@workstation ~]$ find $HOME -type f -mtime -2
```

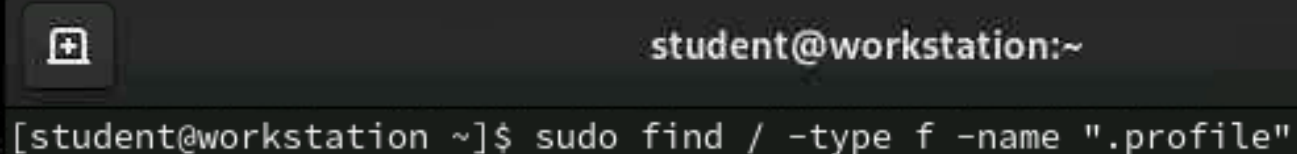
7. Starting from /etc, find files owned by root user.

```
[student@workstation ~]$ sudo find /etc -type f -user root
```

8. Find all directories in your home directory.

```
[student@workstation ~]$ find $HOME -type d
```

9. Write a command to search for all files on the system that, its name is “.profile”.



A terminal window titled "student@workstation:~" showing the command `sudo find / -type f -name ".profile"` being entered at the prompt.

10. Identify the file types of the following: /etc/passwd, /dev/pts/0, /etc, /dev/sda

```
[student@workstation ~]$ file /etc/passwd /dev/pts/0 /etc /dev/sda
/etc/passwd: ASCII text
/dev/pts/0:  character special (136/0)
/etc:       directory
/dev/sda:   character device (8/0)
```

11. List the inode numbers of /, /etc, /etc/hosts.

```
[student@workstation ~]$ ls -li / /etc /etc/hosts
```

12. Copy /etc/passwd to your home directory, use the commands diff and cmp, and Edit in the file you copied, and then use these commands again, and check the output.

```
student@workstation:~  
student@workstation ~]$ cp /etc/passwd $HOME/passwd_copy  
student@workstation ~]$ diff /etc/passwd $HOME/passwd_copy  
student@workstation ~]$ cmp /etc/passwd $HOME/passwd_copy  
student@workstation ~]$ vi passwd_copy  
student@workstation ~]$ diff /etc/passwd $HOME/passwd_copy  
c1  
root:x:0:0:root:/root:/bin/bash  
--  
marwanroot:x:0:0:root:/root:/bin/bash  
student@workstation ~]$ cmp /etc/passwd $HOME/passwd_copy  
etc/passwd /home/student/passwd_copy differ: byte 1, line 1
```

13. Create a symbolic link of /etc/passwd in /boot.

```
student@workstation:~  
[student@workstation ~]$ sudo ln -s /etc/passwd /boot  
[sudo] password for student:  
[student@workstation ~]$
```

14. Create a hard link of /etc/passwd in /boot. Could you? Why?

Failed To Create Hard Link Because /etc/passwd and /boot in different Partition

```
[student@workstation ~]$ sudo ln /etc/passwd /boot  
ln: failed to create hard link '/boot/passwd': File exists  
[student@workstation ~]$
```