

Linux Class -2

- I have created techie user and provided moreover I also provided sudo access and then switched to techie

```
vboxuser@ubuntu:~/Desktop$ sudo useradd techie
[sudo] password for vboxuser:
Sorry, try again.
[sudo] password for vboxuser:
vboxuser@ubuntu:~/Desktop$ ls
Arjuman Arjumand Class d1 Devops word
vboxuser@ubuntu:~/Desktop$ passwd techie
passwd: You may not view or modify password information for techie.
vboxuser@ubuntu:~/Desktop$ sudo passwd techie
sudo: passwd: command not found
vboxuser@ubuntu:~/Desktop$ sudo passwd techie
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
Sorry, passwords do not match.
New password:
BAD PASSWORD: The password fails the dictionary check - it is too simplistic/systematic
Retype new password:
Sorry, passwords do not match.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
Sorry, passwords do not match.
passwd: Have exhausted maximum number of retries for service
passwd: password unchanged
vboxuser@ubuntu:~/Desktop$ sudo passwd techie
New password:
Retype new password:
passwd: password updated successfully
vboxuser@ubuntu:~/Desktop$ find/.name sudoers
bash: find/.name: No such file or directory
```

- While providing switching to techie I have faced an issue because the user was created without home directory option. Then I have created home directory, change ownership and given access then switch to techie using su command.

```
Sorry, passwords do not match.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
Sorry, passwords do not match.
passwd: Have exhausted maximum number of retries for service
passwd: password unchanged
vboxuser@ubuntu:~/Desktop$ sudo passwd techie
New password:
Retype new password:
passwd: password updated successfully
vboxuser@ubuntu:~/Desktop$ find/.name sudoers
bash: find/.name: No such file or directory
vboxuser@ubuntu:~/Desktop$ sudo visudo
visudo: /etc/sudoers.tmp unchanged
vboxuser@ubuntu:~/Desktop$ sudo visudo
vboxuser@ubuntu:~/Desktop$ su -techie
su: invalid option -- 't'
Try 'su --help' for more information.
vboxuser@ubuntu:~/Desktop$ su - techie
Password:
su: warning: cannot change directory to /home/techie: No such file or directory
$ exit
vboxuser@ubuntu:~/Desktop$ sudo mkdir /home/techie
vboxuser@ubuntu:~/Desktop$ techie:techie/home/techie
bash: techie:techie/home/techie: No such file or directory
vboxuser@ubuntu:~/Desktop$ sudo chown techie /home/techie
vboxuser@ubuntu:~/Desktop$ sudo chmod 755/home/techie
sudo: chmod: command not found
vboxuser@ubuntu:~/Desktop$ su - techie
Password:
```

- Created new file called AArr copied f
- Copied file from called world to home using cp command, the move to vboxer using mv command then deleted using rm -rf command
- Used ll, ls pwd, ltr, vi, commands
- Renamed file world to word

```
vboxuser@ubuntu:~$ cat world
hello team
vboxuser@ubuntu:~$ cp world /home/
cp: cannot create regular file '/home/world': Permission denied
vboxuser@ubuntu:~$ sudo cp world /home/
[sudo] password for vboxuser:
vboxuser@ubuntu:~$ ls
AArr Desktop Documents Downloads hello Music Pictures Public snap Templates Videos world
vboxuser@ubuntu:~$ cd ..
vboxuser@ubuntu:/home$ ls
techie vboxuser world
vboxuser@ubuntu:/home$ mv -rf world /home/vboxuser
mv: invalid option -- 'r'
Try 'mv --help' for more information.
vboxuser@ubuntu:/home$ mv world /home/vboxuser
mv: cannot move 'world' to '/home/vboxuser/world': Permission denied
vboxuser@ubuntu:/home$ sudo mv world /home/vboxuser/
vboxuser@ubuntu:/home$ ls
techie vboxuser
vboxuser@ubuntu:/home$ cd vboxuser
vboxuser@ubuntu:~$ ls
AArr Desktop Documents Downloads hello Music Pictures Public snap Templates Videos world
vboxuser@ubuntu:~$ mv world word
vboxuser@ubuntu:~$ ls
AArr Desktop Documents Downloads hello Music Pictures Public snap Templates Videos word
vboxuser@ubuntu:~$ rm -rf word
vboxuser@ubuntu:~$ ls
AArr Desktop Documents Downloads hello Music Pictures Public snap Templates Videos
vboxuser@ubuntu:~$ ll
```

Above image I have used CP, ls, mv, rm -rf commands

```
B
Hello world
vboxuser@ubuntu:~$ uptime
13:25:08 up 1 day, 46 min, 1 user, load average: 0.07, 0.03, 0.08
vboxuser@ubuntu:~$ pwd
/home/vboxuser
vboxuser@ubuntu:~$ ls
AArr AArr_link cat Desktop Documents Downloads hello hello.tar Music Pictures Public snap Templates Videos
vboxuser@ubuntu:~$ join AArr cat > merged
vboxuser@ubuntu:~$ ls
AArr cat Documents hello merged Pictures snap Videos
AArr_link Desktop Downloads hello.tar Music Public Templates
vboxuser@ubuntu:~$ grep 'a' cat
Baa
Ba
Ba
vboxuser@ubuntu:~$ echo "z" >>cat
vboxuser@ubuntu:~$ cat cat
A
Ad
```

In above image I have used time, grep, echo, cat commands to append and check alphabets.

Below image ive used vi, head,teal commands

```
vboxuser@ubuntu:~$ pwd  
/home/vboxuser  
vboxuser@ubuntu:~$ ls  
AArr AArr_link cat Desktop Documents Downloads hello hello.tar Musi  
vboxuser@ubuntu:~$ cat hello  
vboxuser@ubuntu:~$ cat cat  
Hello world  
vboxuser@ubuntu:~$ top -3 cat  
top: invalid option -- '3'  
vboxuser@ubuntu:~$ head -3 cat  
Hello world  
vboxuser@ubuntu:~$ vi cat  
vboxuser@ubuntu:~$ head -3 cat  
A  
Ad  
Ac  
vboxuser@ubuntu:~$ tail cat  
Ad  
Ac  
Ab  
Baa  
Ba  
Ba  
B  
B  
B  
Hello world  
vboxuser@ubuntu:~$
```

```
vboxuser@ubuntu:/home$  
vboxuser@ubuntu:/home$ ls  
techie vboxuser  
vboxuser@ubuntu:/home$ cd vboxuser  
vboxuser@ubuntu:~$ date  
Wed Oct 29 12:28:14 PM UTC 2025  
vboxuser@ubuntu:~$ ls  
AArr Desktop Documents Downloads hello Music Pictures Public snap Templates Video  
vboxuser@ubuntu:~$ chmod 777 hello  
vboxuser@ubuntu:~$ ls  
AAArr Desktop Documents Downloads hello Music Pictures Public snap Templates Video  
vboxuser@ubuntu:~$ ll  
total 96  
drwxr-x--- 16 vboxuser vboxuser 4096 Oct 29 12:15 ./  
drwxr-xr-x  4 root    root    4096 Oct 29 12:14 ../  
-rw-rw-r--  1 vboxuser vboxuser     0 Oct 29 11:25 AAarr  
-rw-rw-r--  1 vboxuser vboxuser   12 Jul  9 12:40 .Arjumandd  
-rw-----  1 vboxuser vboxuser 12288 Jul  9 11:59 .Arjumand.swp  
-rw-----  1 vboxuser vboxuser   614 Oct 29 10:25 .bash_history  
-rw-r--r--  1 vboxuser vboxuser  220 Mar 31 2024 .bash_logout  
-rw-r--r--  1 vboxuser vboxuser 3771 Mar 31 2024 .bashrc  
drwx----- 10 vboxuser vboxuser 4096 Jul  9 09:59 .cache/  
drwx----- 12 vboxuser vboxuser 4096 Jul  9 12:36 .config/  
drwxr-xr-x 10 vboxuser vboxuser 4096 Oct 29 11:01 Desktop/  
drwxr-xr-x  2 vboxuser vboxuser 4096 Jul  9 09:54 Documents/  
drwxr-xr-x  2 vboxuser vboxuser 4096 Jul  9 09:54 Downloads/  
drwx-----  2 vboxuser vboxuser 4096 Jul  9 10:24 .gnupg/  
-rwxrwxrwx  1 vboxuser vboxuser     0 Jul  9 12:42 hello*  
drwx-----  4 vboxuser vboxuser 4096 Jul  9 09:54 .local/  
drwxr-xr-x  2 vboxuser vboxuser 4096 Jul  9 09:54 Music/  
drwxr-xr-x  2 vboxuser vboxuser 4096 Jul  9 09:54 Pictures/
```

```
135 cp AArr /home/Desktop/Arjuman/
136 pwd
137 cd vboxuser
138 cd ..
139 pwd
140 cd ..
141 pwd
142 cd home
143 cd vboxuser
144 ls
145 cat world
146 cp world /home/
147 sudo cp world /home/
148 ls
149 cd ..
150 ls
151 mv -rf world /home/vboxuser
152 mv world /home/vboxuser
153 sudo mv world /home/vboxuser/
154 ls
155 cd vboxuser
156 ls
157 mv world word
158 ls
159 rm -rf word
160 ls
161 ll
162 history
```

Various commands I have used so far.

```
AArr Desktop Documents Downloads hello Music Pictures Public snap Templates Videos
vboxuser@ubuntu:~$ ln -s /home/vboxuser/AArr /home/vboxuser/AArr_link
vboxuser@ubuntu:~$ ls -1
AArr
AArr_link
Desktop
Documents
Downloads
hello
Music
Pictures
Public
snap
Templates
Videos
vboxuser@ubuntu:~$
```

Created soft link to AArr using in -s command

```
vboxuser@ubuntu:/home$ 
vboxuser@ubuntu:/home$ ls
techie vboxuser
vboxuser@ubuntu:/home$ cd vboxuser
vboxuser@ubuntu:~$ date
Wed Oct 29 12:28:14 PM UTC 2025
vboxuser@ubuntu:~$ ls
AArr Desktop Documents Downloads hello Music Pictures Public snap Templates Video
vboxuser@ubuntu:~$ chmod 777 hello
vboxuser@ubuntu:~$ ls
AAArr Desktop Documents Downloads hello Music Pictures Public snap Templates Video
vboxuser@ubuntu:~$ ll
total 96
drwxr-x--- 16 vboxuser vboxuser 4096 Oct 29 12:15 .
drwxr-xr-x  4 root    root    4096 Oct 29 12:14 ..
-rw-rw-r--  1 vboxuser vboxuser   0 Oct 29 11:25 AAarr
-rw-rw-r--  1 vboxuser vboxuser  12 Jul  9 12:40 .Arjumandd
-rw-----  1 vboxuser vboxuser 12288 Jul  9 11:59 .Arjumand.swp
-rw-----  1 vboxuser vboxuser  614 Oct 29 10:25 .bash_history
-rw-r--r--  1 vboxuser vboxuser  220 Mar 31 2024 .bash_logout
-rw-r--r--  1 vboxuser vboxuser 3771 Mar 31 2024 .bashrc
drwx----- 10 vboxuser vboxuser 4096 Jul  9 09:59 .cache/
drwx----- 12 vboxuser vboxuser 4096 Jul  9 12:36 .config/
drwxr-xr-x 10 vboxuser vboxuser 4096 Oct 29 11:01 Desktop/
drwxr-xr-x  2 vboxuser vboxuser 4096 Jul  9 09:54 Documents/
drwxr-xr-x  2 vboxuser vboxuser 4096 Jul  9 09:54 Downloads/
drwx-----  2 vboxuser vboxuser 4096 Jul  9 10:24 .gnupg/
-rwxrwxrwx  1 vboxuser vboxuser   0 Jul  9 12:42 hello*
drwx-----  4 vboxuser vboxuser 4096 Jul  9 09:54 .local/
drwxr-xr-x  2 vboxuser vboxuser 4096 Jul  9 09:54 Music/
drwxr-xr-x  2 vboxuser vboxuser 4096 Jul  9 09:54 Pictures/
```

- I have used date and chmod command in above image
- In below image contain system update usinv g command sudo apt update
- Used commands in below pic searched file using find, compress & decompress using tar, used Top command

```
vboxuser@ubuntu:~$ find . -name "hello"
./hello
vboxuser@ubuntu:~$ cat hello
vboxuser@ubuntu:~$ vi cat
vboxuser@ubuntu:~$ tar -cvf hello.tar hello
hello
vboxuser@ubuntu:~$ tar zcvf hello.tar hello
hello
vboxuser@ubuntu:~$ top
top 13:00:44 up 1 day, 21 min, 1 user, load average: 0.00 0.07 0.08
```

- Set up Apache

```
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /usr/lib/systemd/system/apache-htcacheclean.service.
Processing triggers for ufw (0.36.2-6) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.6) ...
vboxuser@ubuntu:~$ apache2 -v
Server version: Apache/2.4.58 (Ubuntu)
Server built: 2025-08-11T11:10:09
vboxuser@ubuntu:~$
```

```
vboxuser@ubuntu:~$ sudo apt update
[sudo] password for vboxuser:
Get:1 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Hit:2 http://in.archive.ubuntu.com/ubuntu noble InRelease
Get:3 http://in.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [1,270 kB]
Get:5 http://in.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:6 http://in.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [1,548 kB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [211 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [21.5 kB]
Get:9 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [9,008 B]
Get:10 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [2,080 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [470 kB]
Get:12 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:13 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [905 kB]
Get:14 http://in.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [294 kB]
Get:15 http://in.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [175 kB]
Get:16 http://in.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [15.4 kB]
Get:17 http://in.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [2,180 kB]
Get:18 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [203 kB]
Get:19 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [52.2 kB]
Get:20 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [19.4 kB]
Get:21 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208 B]
Get:22 http://in.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [491 kB]
Get:23 http://in.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:24 http://in.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1,498 kB]
Get:25 http://in.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [303 kB]
Get:26 http://in.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [378 kB]
Get:27 http://in.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [31.4 kB]
Get:28 http://in.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]
```

- Below image I have installed git using sudo apt install git command

```
drwx----- 2 vboxuser vboxuser 4096 Jul  9 09:54 .ssh/
-rw-r--r-- 1 vboxuser vboxuser    0 Oct 29 10:21 .sudo_as_admin_successful
drwxr-xr-x  2 vboxuser vboxuser 4096 Jul  9 09:54 Templates/
drwxr-xr-x  2 vboxuser vboxuser 4096 Jul  9 09:54 Videos/
vboxuser@ubuntu:~$ sudo apt update
[sudo] password for vboxuser:
Get:1 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Hit:2 http://in.archive.ubuntu.com/ubuntu noble InRelease
Get:3 http://in.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [1,270 kB]
Get:5 http://in.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:6 http://in.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [1,548 kB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [211 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [21.5 kB]
Get:9 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [9,008 B]
Get:10 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [2,080 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [470 kB]
Get:12 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:13 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [905 kB]
Get:14 http://in.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [294 kB]
Get:15 http://in.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [175 kB]
Get:16 http://in.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [15.4 kB]
Get:17 http://in.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [2,180 kB]
Get:18 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [203 kB]
Get:19 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [52.2 kB]
Get:20 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [19.4 kB]
Get:21 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208 B]
Get:22 http://in.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [491 kB]
Get:23 http://in.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:24 http://in.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1,498 kB]
Get:25 http://in.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [303 kB]
```