

aakashgangwar — aakash@ubuntu: ~ — multipass shell ubuntu — 89x47

```
[aakash@ubuntu:~$ passwd
Changing password for aakash.
[Current password:
[New password:
[Retype new password:
You must choose a longer password.
[New password:
[Retype new password:
passwd: password updated successfully
[aakash@ubuntu:~$ adduser useradd
fatal: Only root may add a user or group to the system.
[aakash@ubuntu:~$ who
ubuntu pts/0 2025-10-22 21:59 (192.168.2.1)
[aakash@ubuntu:~$ whoami
aakash
aakash@ubuntu:~$ ]
```

used whoami to show the current user, who to show logged in user and passwd to change password

```
[ubuntu@ubuntu:~/Desktop$ df -h
Filesystem      Size  Used Avail Use% Mounted on
tmpfs          391M   1.2M  390M  1% /run
efivarsfs       256K   15K  242K  6% /sys/firmware/efi/efivars
/dev/sda1        29G   2.0G  27G  8% /
tmpfs           2.0G     0  2.0G  0% /dev/shm
tmpfs           5.0M     0  5.0M  0% /run/lock
/dev/sda16       891M   58M  771M  7% /boot
[used df -h to show disk space and du
/dev/sda15       98M   6.4M  92M  7% /boot/efi
tmpfs          391M   12K  391M  1% /run/user/1000
[used du -h to show directory size and used
[ubuntu@ubuntu:~/Desktop$ du -h
28K .
[ubuntu@ubuntu:~/Desktop$ mount
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,relatime)
proc on /proc type proc (rw,nosuid,nodev,noexec,relatime)
udev on /dev type devtmpfs (rw,nosuid,_relatime,size=1962416k,nr_inodes=490604,mode=755,inode64)
devpts on /dev/pts type devpts (rw,nosuid,noexec,relatime,gid=5,mode=620,ptmxmode=000)
tmpfs on /run type tmpfs (rw,nosuid,nodev,noexec,relatime,size=399604k,mode=756,inode64)
efivars on /sys/firmware/efi/efivars type efivars (rw,nosuid,nodev,noexec,relatime)
/dev/sda1 on / type ext4 (rw,relatime,discard,errors=remount-ro,commit=30)
securityfs on /sys/kernel/security type securityfs (rw,nosuid,nodev,noexec,relatime)
tmpfs on /dev/shm type tmpfs (rw,nosuid,nodev,inode64)
tmpfs on /run/lock type tmpfs (rw,nosuid,nodev,noexec,relatime,size=5120k,inode64)
cgroup2 on /sys/fs/cgroup type cgroup2 (rw,nosuid,nodev,noexec,relatime,nsdelegate,memory_recursiveprot)
pstree on /sys/fs/pstree type pstree (rw,nosuid,nodev,noexec,relatime)
bpf on /sys/fs/bpf type bpf (rw,nosuid,nodev,noexec,relatime,mode=700)
systemd-1 on /proc/sys/fs/binfmt_misc type autofs (rw,relatime,fd=32,pgrp=1,timeout=0,minproto=5,maxproto=5,direct,pipe_ino=2229)
hugepages on /dev/hugepages type hugepages (rw,nosuid,nodev,relatime,pagesize=2M)
mqqueue on /dev/mqueue type mqqueue (rw,nosuid,nodev,noexec,relatime)
debugfs on /sys/kernel/debug type debugfs (rw,nosuid,nodev,noexec,relatime)
traces on /sys/kernel/tracing type traces (rw,nosuid,nodev,noexec,relatime)
fusectl on /sys/fs/fuse/connections type fusectl (rw,nosuid,nodev,noexec,relatime)
configfs on /sys/kernel/config type configfs (rw,nosuid,nodev,noexec,relatime)
/dev/sda16 on /boot type ext4 (rw,relatime)
/dev/sda15 on /boot/efi type vfat (rw,relatime,fmask=0077,dmask=0077,codepage=437,iocharset=iso8859-1,shortname=mixed,errors=remount-ro)
binfmt_misc on /proc/sys/fs/binfmt_misc type binfmt_misc (rw,nosuid,nodev,noexec,relatime)
tmpfs on /run/user/1000 type tmpfs (rw,nosuid,nodev,relatime,size=399600k,nr_inodes=99900
,mode=700,uid=1000,gid=1000,inode64)
[ubuntu@ubuntu:~/Desktop$ ]
```

```
[ubuntu@ubuntu:~/Desktop$ ping google.com
PING google.com (142.251.43.142) 56(84) bytes of data.
64 bytes from bkk03s01-in-f14.1e100.net (142.251.43.142): icmp_seq=1 ttl=116 time=13.0 ms
64 bytes from bkk03s01-in-f14.1e100.net (142.251.43.142): icmp_seq=2 ttl=116 time=11.9 ms
64 bytes from bkk03s01-in-f14.1e100.net (142.251.43.142): icmp_seq=3 ttl=116 time=13.5 ms
64 bytes from bkk03s01-in-f14.1e100.net (142.251.43.142): icmp_seq=4 ttl=116 time=11.7 ms
64 bytes from bkk03s01-in-f14.1e100.net (142.251.43.142): icmp_seq=5 ttl=116 time=12.9 ms
64 bytes from bkk03s01-in-f14.1e100.net (142.251.43.142): icmp_seq=6 ttl=116 time=12.3 ms
64 bytes from bkk03s01-in-f14.1e100.net (142.251.43.142): icmp_seq=7 ttl=116 time=11.0 ms
^C
--- google.com ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6218ms
rtt min/avg/max/mdev = 10.996/12.340/13.549/0.803 ms
```

used ping and curl to check  
ping of a page and using  
curl to fetch a URL and  
copy to a local file

```
[ubuntu@ubuntu:~/Desktop$ touch index.html
[ubuntu@ubuntu:~/Desktop$ curl linked.com
[Redirecting...ubuntu@ubuntu:~/Desktop$ curl -o index.html linked.com
% Total    % Received % Xferd  Average Speed   Time     Time      Time  Current
          Dload  Upload   Total Spent    Left Speed
100      14      0      14      0       0  208      0 --::-- --::-- --::--  212
[ubuntu@ubuntu:~/Desktop$ cat index.html
[Redirecting...ubuntu@ubuntu:~/Desktop$ ^C
ubuntu@ubuntu:~/Desktop$
```

```
[ubuntu@ubuntu:~/Desktop$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 10
00
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: enp0s1: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group defau
lt qlen 1000
    link/ether 52:54:00:64:4f:f7 brd ff:ff:ff:ff:ff:ff
    inet 192.168.2.2/24 metric 100 brd 192.168.2.255 scope global dynamic enp0s1
        valid_lft 2221sec preferred_lft 2221sec
    inet6 fd8c:8f4b:7206:1175:5054:ff:fe64:4ff7/64 scope global dynamic mngtmpaddr nopref
ixroute
        valid_lft 2591904sec preferred_lft 604704sec
    inet6 fe80::5054:ff:fe64:4ff7/64 scope link
        valid_lft forever preferred_lft forever
```

ip addr for network  
interface and IP  
address

used htop its just interactive process viewer									
Main	I/O	PID	USER	PRI	NI	VIRT	RES	SHR	S
274	root	19	-1	58488	10888	9844 S	0.0	0.3	0:01.48
327	root	RT	0	283M	26368	7424 S	0.0	0.7	0:00.18
338	root	20	0	283M	26368	7424 S	0.0	0.7	0:00.00
339	root	RT	0	283M	26368	7424 S	0.0	0.7	0:00.00
340	root	RT	0	283M	26368	7424 S	0.0	0.7	0:00.00
341	root	RT	0	283M	26368	7424 S	0.0	0.7	0:00.00
342	root	RT	0	283M	26368	7424 S	0.0	0.7	0:01.11
343	root	RT	0	283M	26368	7424 S	0.0	0.7	0:00.00
348	root	20	0	26012	7552	4480 S	0.0	0.2	0:00.13
475	systemd-re	20	0	21496	12160	9984 S	0.0	0.3	0:00.14
481	systemd-ti	20	0	98768	7168	6272 S	0.0	0.2	0:00.28
501	systemd-ti	20	0	98768	7168	6272 S	0.0	0.2	0:00.00
642	systemd-me	20	0	18784	8576	7552 S	0.0	0.2	0:00.26
757	root	20	0	7148	2304	2176 S	0.0	0.1	0:00.17
758	messagebus	20	0	9336	4736	3840 S	0.0	0.1	0:00.20
763	polkitd	20	0	301M	7424	6528 S	0.0	0.2	0:00.02
770	root	20	0	17904	7808	6784 S	0.0	0.2	0:00.12
778	root	20	0	461M	12544	10496 S	0.0	0.3	0:00.08
785	root	20	0	461M	12544	10496 S	0.0	0.3	0:00.46
786	root	20	0	461M	12544	10496 S	0.0	0.3	0:00.00
788	root	20	0	461M	12544	10496 S	0.0	0.3	0:00.01
837	root	20	0	5720	1792	1664 S	0.0	0.0	0:00.00
852	polkitd	20	0	301M	7424	6528 S	0.0	0.2	0:00.61
853	polkitd	20	0	301M	7424	6528 S	0.0	0.2	0:00.00
857	polkitd	20	0	301M	7424	6528 S	0.0	0.2	0:00.01
861	root	20	0	108M	22144	12800 S	0.0	0.6	0:00.04
875	syslog	20	0	217M	4992	3712 S	0.0	0.1	0:00.01
889	root	20	0	461M	12544	10496 S	0.0	0.3	0:00.00
900	root	20	0	389M	11904	9856 S	0.0	0.3	0:00.03
901	root	20	0	5676	1536	1536 S	0.0	0.0	0:00.00
903	root	20	0	461M	12544	10496 S	0.0	0.3	0:00.00
911	syslog	20	0	217M	4992	3712 S	0.0	0.1	0:00.03
912	syslog	20	0	217M	4992	3712 S	0.0	0.1	0:00.00
913	syslog	20	0	217M	4992	3712 S	0.0	0.1	0:00.02
919	root	20	0	389M	11904	9856 S	0.0	0.3	0:00.00
921	root	20	0	389M	11904	9856 S	0.0	0.3	0:00.00
923	root	20	0	389M	11904	9856 S	0.0	0.3	0:00.00
928	root	20	0	108M	22144	12800 S	0.0	0.6	0:00.00
									/usr/bin/python3

F1Help F2Setup F3Search F4Filter F5Tree F6SortByF7Nice - F8Nice +F9Kill F10Quit

```
[ubuntu@ubuntu:~/Desktop$ zip unzip hello.java
adding: hello.java (deflated 3%)
[ubuntu@ubuntu:~/Desktop$ ps
  PID TTY          TIME CMD
 2414 pts/0    00:00:00 bash
 2874 pts/0    00:00:00 ps
[ubuntu@ubuntu:~/Desktop$ top
top - 22:29:20 up 2:20, 2 users, load average: 0.00, 0.00, 0.00
Tasks: 92 total, 1 running, 91 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.0 us, 0.3 sy, 0.0 ni, 99.7 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3902.4 total, 2965.3 free, 307.5 used, 791.2 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 3594.8 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1846	root	20	0	0	0	0	I	0.3	0.0	0:00.40	kworker/0:1-events
2688	root	20	0	0	0	0	I	0.3	0.0	0:00.03	kworker/u2:3-events
1	root	20	0	22168	12472	8632	S	0.0	0.3	0:01.45	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.00	pool_workqueue_relea
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-rcu_g
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-rcu_p
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-slub_
7	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-netns
9	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H-events
12	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-mm_pe
13	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_kthread
14	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_rude_kthre
15	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_trace_kthi
16	root	20	0	0	0	0	S	0.0	0.0	0:00.13	ksoftirqd/0
17	root	20	0	0	0	0	I	0.0	0.0	0:00.16	rcu_preempt
18	root	rt	0	0	0	0	S	0.0	0.0	0:00.08	migration/0
19	root	-51	0	0	0	0	S	0.0	0.0	0:00.00	idle_inject/0
20	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
21	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
22	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-inet_
23	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kauditd

```
[ubuntu@ubuntu:~/Desktop$ tree
.
└── archive.tar
    └── hello.java

1 directory, 2 files
[ubuntu@ubuntu:~/Desktop$ gzip hello.java
[ubuntu@ubuntu:~/Desktop$ gunzip hello.gz
gunzip: hello.gz: No such file or directory
[ubuntu@ubuntu:~/Desktop$ gunzip hello.java.gz
[ubuntu@ubuntu:~/Desktop$ tree
.
└── archive.tar
    └── hello.java

1 directory, 2 files
[ubuntu@ubuntu:~/Desktop$ zip unzip hello.java
```

used gzip and gunzip to convert to zip file and then unzip

```
[ubuntu@ubuntu:~/Desktop$ tree
.
└── archive.tar
    └── hello.java

1 directory, 2 files
[ubuntu@ubuntu:~/Desktop$ gzip hello.java
[ubuntu@ubuntu:~/Desktop$ gunzip hello.gz
gunzip: hello.gz: No such file or directory
[ubuntu@ubuntu:~/Desktop$ gunzip hello.java.gz
[ubuntu@ubuntu:~/Desktop$ tree
.
└── archive.tar
    └── hello.java

1 directory, 2 files
ubuntu@ubuntu:~/Desktop$
```

```
[ubuntu@ubuntu:~/Desktop$ sort hello.java
hello this is a test
nflsnfsdflsd
q
[ubuntu@ubuntu:~/Desktop$ uniq hello.java
hello this is a test
q
nflsnfsdflsd
[ubuntu@ubuntu:~/Desktop$ tar -cvf archive.tar hello.java
hello.java
[ubuntu@ubuntu:~/Desktop$ tar -xvf archive.tar
tar: arhive.tar: Cannot open: No such file or directory
tar: Error is not recoverable: exiting now
[ubuntu@ubuntu:~/Desktop$ tar -xvf arhive.tar hello.java
tar: arhive.tar: Cannot open: No such file or directory
tar: Error is not recoverable: exiting now
[ubuntu@ubuntu:~/Desktop$ tar -xvf archive.tar hello.java
hello.java
```

used commands to create a .tar file and then extract and also used sort and uniq

```
[ubuntu@ubuntu:~/Desktop$ locate hello.java
/home/ubuntu/Desktop/hello.java
[ubuntu@ubuntu:~/Desktop$ wc hello.java
 3 7 36 hello.java
ubuntu@ubuntu:~/Desktop$
```

Used locate to find the path of the file and used wc to count lines, words, byte

```
[ubuntu@ubuntu:~$ tree
.
└── Desktop
    └── hello.java
    └── Folder
2 directories, 2 files
[ubuntu@ubuntu:~$ cd Desktop
[ubuntu@ubuntu:~/Desktop$ chmod 744 hello.java
[ubuntu@ubuntu:~/Desktop$ ls -l
total 4
-rwxr--r-- 1 ubuntu ubuntu 36 Oct 22 21:52 hello.java
[ubuntu@ubuntu:~/Desktop$ sudo chown aakash hello.java
[ubuntu@ubuntu:~/Desktop$ ls -l
total 4
-rwxr--r-- 1 aakash ubuntu 36 Oct 22 21:52 hello.java
[ubuntu@ubuntu:~/Desktop$ cat hello.java
hello this is a test
q
nflsnfsdflsd
[ubuntu@ubuntu:~/Desktop$ grep 'this'

^C
[ubuntu@ubuntu:~/Desktop$ grep 'this' hello.java
hello this is a test
[ubuntu@ubuntu:~/Desktop$ find -hello.java
find: unknown predicate '-hello.java'
[ubuntu@ubuntu:~/Desktop$ find . -name "hello.java"
./hello.java
[ubuntu@ubuntu:~/Desktop$ locate hello.java
Command 'locate' not found, but can be installed with:
sudo apt install plocate
[ubuntu@ubuntu:~/Desktop$ sudo apt install plocate
```

```
[ubuntu@ubuntu:~$ tree
.
└── Desktop
    └── hello.java
    └── Folder
2 directories, 2 files
[ubuntu@ubuntu:~$ cd Desktop
[ubuntu@ubuntu:~/Desktop$ chmod 744 hello.java
[ubuntu@ubuntu:~/Desktop$ ls -l
total 4
-rwxr--r-- 1 ubuntu ubuntu 36 Oct 22 21:52 hello.java
[ubuntu@ubuntu:~/Desktop$ sudo chown aakash hello.java
[ubuntu@ubuntu:~/Desktop$ ls -l
total 4
-rwxr--r-- 1 aakash ubuntu 36 Oct 22 21:52 hello.java
[ubuntu@ubuntu:~/Desktop$ ]
```

```
[ubuntu@ubuntu:~$ tree
.
└── Desktop
    └── Folder

2 directories, 1 file
[ubuntu@ubuntu:~$ cd Desktop
[ubuntu@ubuntu:~/Desktop$ touch hello.java
[ubuntu@ubuntu:~/Desktop$ cat > hello.java
hello this is a test
q
nflsnfsdflsd
[ubuntu@ubuntu:~/Desktop$ head hello.java
hello this is a test
q
nflsnfsdflsd
[ubuntu@ubuntu:~/Desktop$ tail hello.java
hello this is a test
q
nflsnfsdflsd
```

we are writing inside hello.java  
then reading the first few lines  
and then the last few lines

```
[akash@ubuntu:~$ cd Play2
[akash@ubuntu:~/Play2$ less playing.java
```

```
public class hello{
    public static void main(String[] args){
        System.out.println("Hello");
    }
}
```

used less command to see  
within a file

(END)

```
[akash@ubuntu:~/Play$ tree
.
└── playing.java

1 directory, 1 file
[aakash@ubuntu:~/Play$ cat > playing.java
[public class hello{
[public static void main(String[] args){
[System.out.println("Hello");
}
}
[aakash@ubuntu:~/Play$ cat playing.java
public class hello{
[public static void main(String[] args){
[System.out.println("Hello");
}
}
[aakash@ubuntu:~/Play$ ]
```

Used cat command to write within a file and see what we have written

```
[akash@ubuntu:~$ tree
.
└── Play
    ├── Folder
    │   ├── check2.cpp
    │   ├── hello.java
    │   └── playing.cpp

3 directories, 3 files
[aakash@ubuntu:~$ cd Play
[aakash@ubuntu:~/Play$ touch playing.java
[aakash@ubuntu:~/Play$ tree
.
└── playing.java

1 directory, 1 file
[aakash@ubuntu:~/Play$ ]
```

Created a file inside a Directory

```
[akash@ubuntu:~$ mkdir checking
```

```
[akash@ubuntu:~$ tree
```

```
.
├── Folder
│   ├── check2.cpp
│   ├── hello.java
│   └── playing.cpp
└── Play
    └── checking
```

```
4 directories, 3 files
```

```
[akash@ubuntu:~$ rmdir
```

```
rmdir: missing operand
```

```
Try 'rmdir --help' for more information.
```

```
[akash@ubuntu:~$ rmdir checking
```

```
[akash@ubuntu:~$ tree
```

```
.
├── Folder
│   ├── check2.cpp
│   ├── hello.java
│   └── playing.cpp
└── Play
```

Created and Removed the newly formed  
Directory using mkdir and rmdir

```
[akash@ubuntu:~$ tree
```

```
.
├── Desktop
│   └── new.txt
├── Folder
│   ├── check2.cpp
│   ├── hello.java
│   └── playing.cpp
└── Play
```

Deleted the Desktop Directory using rm -r  
command

```
4 directories, 4 files
```

```
[akash@ubuntu:~$ rm -r Desktop
```

```
[akash@ubuntu:~$ tree
```

```
.
├── Folder
│   ├── check2.cpp
│   ├── hello.java
│   └── playing.cpp
└── Play
```

```
3 directories, 3 files
```

```
aakash@ubuntu:~$ █
```

```
[akash@ubuntu:~$ cd Folder  
[akash@ubuntu:~/Folder$ tree
```

```
.  
└── check.cpp  
└── hello.java  
└── playing.cpp
```

```
1 directory, 3 files
```

```
[akash@ubuntu:~/Folder$ mv check.cpp check2.cpp
```

```
[akash@ubuntu:~/Folder$ tree
```

```
.  
└── check2.cpp  
└── hello.java  
└── playing.cpp
```

```
1 directory, 3 files
```

```
aakash@ubuntu:~/Folder$ █
```

Here we are changing the name of the file inside the Folder Directory

```
[akash@ubuntu:~$ cd Desktop
```

```
[akash@ubuntu:~/Desktop$ cp
```

```
cp: missing file operand
```

```
Try 'cp --help' for more information.
```

```
[akash@ubuntu:~/Desktop$ cp Desktop1
```

```
cp: missing destination file operand after 'Desktop1'
```

```
Try 'cp --help' for more information.
```

```
[akash@ubuntu:~/Desktop$ cp Desktop
```

```
cp: missing destination file operand after 'Desktop'
```

```
Try 'cp --help' for more information.
```

```
[akash@ubuntu:~/Desktop$ cp new.txt new2.txt
```

```
[akash@ubuntu:~/Desktop$ ls
```

```
new.txt new2.txt
```

```
aakash@ubuntu:~/Desktop$ █
```

here we are copying the file new.txt into new2.txt

```
● ● ● └ aakashgangwar — aakash@ubuntu: ~ — multipass shell ubuntu — 79x45
```

```
[akash@ubuntu:~/Desktop$ pwd
```

```
/home/aakash/Desktop
```

```
[akash@ubuntu:~/Desktop$ ls
```

```
new.txt
```

```
[akash@ubuntu:~/Desktop$ cd Folder
```

```
-bash: cd: Folder: No such file or directory
```

```
[akash@ubuntu:~/Desktop$ cd new.txt
```

```
-bash: cd: new.txt: Not a directory
```

```
[akash@ubuntu:~/Desktop$ cd ..
```

```
aakash@ubuntu:~$ █
```

Here we see current directory, then the listed files inside the directory, then using cd .. we see that we move up one directory(root)