

```
admin@raspberrypi:~$ ls -l
-rw-r--r-- 1 admin admin 256 Aug 1 11:33 program-2 led on off.py
drwxr-xr-x 2 admin admin 4096 Aug 1 10:18 Public
drwxr-xr-x 2 admin admin 4096 Aug 1 10:18 Templates
drwxr-xr-x 2 admin admin 4096 Aug 1 10:18 Videos
admin@raspberrypi:~$ sudo chown root abc.txt
admin@raspberrypi:~$ ls -l abc.txt
-rw-r--r-- 1 root admin 0 Aug 12 11:10 abc.txt
admin@raspberrypi:~$ sudo chgrp root abc.txt
admin@raspberrypi:~$ ls -l abc.txt
-rw-r--r-- 1 root root 0 Aug 12 11:10 abc.txt
admin@raspberrypi:~$ ifconfig
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    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: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether d8:3a:dd:14:61:a3 brd ff:ff:ff:ff:ff:ff
    inet 172.17.12.6/20 brd 172.17.15.255 scope global dynamic noprefixroute eth0
        valid_lft 5065sec preferred_lft 5065sec
    inet6 fe80::1ff4:82be:99f2:741d/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
3: wlan0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc pfifo_fast state DOWN group default qlen 1000
    link/ether d8:3a:dd:14:61:a5 brd ff:ff:ff:ff:ff:ff
admin@raspberrypi:~$ ping 172.17.12.6
PING 172.17.12.6 (172.17.12.6) 56(84) bytes of data:
64 bytes from 172.17.12.6: icmp_seq=1 ttl=64 time=0.081 ms
64 bytes from 172.17.12.6: icmp_seq=2 ttl=64 time=0.056 ms
64 bytes from 172.17.12.6: icmp_seq=3 ttl=64 time=0.120 ms
64 bytes from 172.17.12.6: icmp_seq=4 ttl=64 time=0.119 ms
64 bytes from 172.17.12.6: icmp_seq=5 ttl=64 time=0.068 ms
^C
--- 172.17.12.6 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4090ms
rtt min/avg/max/mdev = 0.056/0.088/0.120/0.026 ms
admin@raspberrypi:~$ ls -l abc.txt
```

```
admin@raspberrypi:~$ ls
2a.py  2d.py  3c.py  a.txt  Desktop  Downloads  'object detection.py'  'program-2 led on off.py'  Videos
2b.py  3a.py  3d.py  Bookshelf  Desktop  Music  Pictures  Public
2c.py  3b.py  4a,c.py  Documents  Desktop  Music  program-1.py  Templates
admin@raspberrypi:~$ cd /
admin@raspberrypi:/ $ touch a.txt
touch: cannot touch 'a.txt': Permission denied
admin@raspberrypi:/ $ cd /home/admin
admin@raspberrypi:/home/admin $ touch a.txt
admin@raspberrypi:/home/admin $ ls
2a.py  2d.py  3c.py  a.txt  Documents  'object detection.py'  'program-2 led on off.py'  Videos
2b.py  3a.py  3d.py  Bookshelf  Desktop  Music  Pictures  Public
2c.py  3b.py  4a,c.py  Documents  Desktop  Music  program-1.py  Templates
admin@raspberrypi:/home/admin $ mv a.txt /iot
mv: cannot move 'a.txt' to '/iot': Permission denied
admin@raspberrypi:/home/admin $ mv a.txt /home/admin/iot
admin@raspberrypi:/home/admin/iot $ ls
2a.py  2d.py  3c.py  Bookshelf  Downloads  'object detection.py'  'program-2 led on off.py'  Videos
2b.py  3a.py  3d.py  Desktop  Desktop  Music  Pictures  Public
2c.py  3b.py  4a,c.py  Documents  Documents  Music  program-1.py  Templates
admin@raspberrypi:/home/admin/iot $ cd iot
bash: cd: iot: Not a directory
admin@raspberrypi:/home/admin/iot $ cd /home/admin/iot
bash: cd: /home/admin/iot: Not a directory
admin@raspberrypi:/home/admin/iot $ rm iot
admin@raspberrypi:/home/admin/iot $ ls
2a.py  2d.py  3c.py  Bookshelf  Downloads  Pictures  Public
2b.py  3a.py  3d.py  Desktop  Desktop  Music  program-1.py  Templates
2c.py  3b.py  4a,c.py  Documents  Documents  'object detection.py'  'program-2 led on off.py'  Videos
admin@raspberrypi:/home/admin/iot $
```

```
admin@raspberrypi ~$ man ls
NAME
    ls - list directory contents

SYNOPSIS
    ls [OPTION]... [FILE]...

DESCRIPTION
    List information about the FILES (the current directory by default). Sort entries alphabetically if none of -cftuvSUX nor
    --sort is specified.

    Mandatory arguments to long options are mandatory for short options too.

    -a, --all
        do not ignore entries starting with .

    -A, --almost-all
        do not list implied . and ..

    --author
        with -l, print the author of each file

    -b, --escape
        print C-style escapes for nongraphic characters

    --block-size=SIZE
        with -l, scale sizes by SIZE when printing them; e.g., '--block-size=M'; see SIZE format below

    -B, --ignore-backups
        do not list implied entries ending with ~

    -c
        with -lt: sort by, and show, ctime (time of last modification of file status information); with -l: show ctime and
        sort by name; otherwise: sort by ctime, newest first

    -C
        list entries by columns

Manual page ls(1) line 1 (press h for help or q to quit)
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```
admin@raspberrypi ~$ man
What manual page do you want?
For example, try 'man man'.
admin@raspberrypi ~$ man ls
admin@raspberrypi ~$ mkdir iot
admin@raspberrypi ~$ ls
2a.py  2d.py  3c.py  Bookshelf  Downloads  'object detection.py'  'program-2 led on off.py'  Videos
2b.py  3a.py  3d.py  Desktop    iot         Pictures          Public
2c.py  3b.py  4a,c.py Documents  Music       program-1.py      Templates
admin@raspberrypi ~$ rmdir iot
admin@raspberrypi ~$ ls
2a.py  2d.py  3c.py  Bookshelf  Downloads  Pictures          Public
2b.py  3a.py  3d.py  Desktop    Music       program-1.py      Templates
2c.py  3b.py  4a,c.py Documents  'object detection.py'  'program-2 led on off.py'  Videos
admin@raspberrypi ~$ touch abc.txt
admin@raspberrypi ~$ touch abcd.txt
admin@raspberrypi ~$ tar -cvf archive.tar abc.txt abcd.txt
abc.txt
abcd.txt
admin@raspberrypi ~$ ls
2a.py  2d.py  3c.py  abcd.txt  Bookshelf  Downloads  Pictures          Public
2b.py  3a.py  3d.py  abc.txt   Desktop    Music       program-1.py      Templates
2c.py  3b.py  4a,c.py archive.tar Documents  'object detection.py'  'program-2 led on off.py'  Videos
admin@raspberrypi ~$ gzip abcd.txt
admin@raspberrypi ~$ ls
2a.py  2d.py  3c.py  abcd.txt.gz  Bookshelf  Downloads  Pictures          Public
2b.py  3a.py  3d.py  abc.txt      Desktop    Music       program-1.py      Templates
2c.py  3b.py  4a,c.py archive.tar  Documents  'object detection.py'  'program-2 led on off.py'  Videos
admin@raspberrypi ~$ cat abc.txt
name=("Ram:")
print("Hello", name + "!")
admin@raspberrypi ~$ more 3d.py
file_path = ("Enter the file path:")
try:
    with open(file_path,'r') as file:
        line_number = 1
        for line in file:
            words = line.strip().split()
```



```

File Edit Table Help
file_path = (Enter the file path:)
tty:
with open(file_path, 'r') as file:
    line_number = 1
    for line in file:
        words = line.strip().split()
        word_count = len(words)
        print(f"Line {line_number}: {word_count} words")
        line_number += 1
except FileNotFoundError:
    print("Error: File Not found. Please check the file path.")
except Exception as e:
    print(f"An error occurred: {e}")

```

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File Edit Table Help

admin@raspberrypi:~$ q
bash: q: command not found
admin@raspberrypi:~$ less 2b.py
admin@raspberrypi:~$ ps
  PID TTY          TIME CMD
 2155 pts/0    00:00:00 bash
 2413 pts/0    00:00:00 ps
admin@raspberrypi:~$ sudo mkdir /iot
admin@raspberrypi:~$ ls /
bin boot dev etc home iot lib lost+found media mnt opt proc root run sbin srv sys usr var
admin@raspberrypi:~$ crontab -e
no crontab for admin - using an empty one

Select an editor. To change later, run 'select-editor'.
 1. /bin/nano        <---- easiest
 2. /usr/bin/vim.tiny
 3. /bin/ed

I
Choose 1-3 [1]:
No modification made
admin@raspberrypi:~$ chown abc.txt
chown: missing operand after 'abc.txt'
Try 'chown --help' for more information.
admin@raspberrypi:~$ ls -l
total 100
-rw-r--r-- 1 admin admin  41 Aug  1 11:34 2a.py
-rw-r--r-- 1 admin admin 108 Aug  1 11:35 2b.py
-rw-r--r-- 1 admin admin 201 Aug  1 11:35 2c.py
-rw-r--r-- 1 admin admin 984 Aug  1 11:37 2d.py
-rw-r--r-- 1 admin admin 140 Aug  1 11:37 3a.py
-rw-r--r-- 1 admin admin 324 Aug  1 11:38 3b.py
-rw-r--r-- 1 admin admin  99 Aug  1 11:38 3c.py
-rw-r--r-- 1 admin admin 749 Aug  1 11:39 3d.py
-rw-r--r-- 1 admin admin 258 Aug  1 11:40 4a,c.py

```