

```
kiit@Ketan-Kumar-Sureka:~/new_dir
kiit@Ketan-Kumar-Sureka:~$ ls
20.1.c      Documents      arraymarks.c  elementsum.c  matrixtranspose.c  perfect.c      stringconc.c
20.2       Downloads     arrayname.c   elementsunfixedpos.c  matrixtranspose.c.save  pointer1.c     stringcopy.c
20.2.c     Music         arraynos.c    examq1.c      menu1.c            pointera.c     sumarrayparrow.c
20.22.c    Pictures      arraypositive.c  examq2.c      new_dir             pointerfactorial.c  sumavg.c
22.3.c     Public        arraysearch.c   filrarr.c     new_directory        power.c        swap.c
22.3.c.save  Salaryavg.c   callocfun1.c    fs.c          nnn.c.save          prime3to100.c    temp.c
25larg.c    Templates     calloclarg.c    fwrt.c        nnn.c.save.1        primefuncn.c     thinclient_drives
25leap.c    Videos       caseupper.c     gcd2.c        numbers.c            prod.c          tot.c
25min2.c    a.c           century.c.save   gcd3.c        odd.c                prog1.c         triangle.c
25min4.c    afafdjfb.c    chntimes.c      largest.c     pallindrome.c       program        try.c
25oddeven.c  armstrong.c.save  coorna          leapf.c       pass.c              q5.c           ubbbu
25timehhmm.c  armstrong.c.save.1  corrspeyear.c  leapyear.c    pattern1.c          recfact.c       ubu
25timehhmm.c.save  arrarduplicate.c  countdig.c      mallfun1.c    pattern2.c          recfibonacci.c  vehicle.c
31431dc.c    arrarreadisplay.c  cric.c          marixoddmaindiagonal.c  pattern3.c        recpower.c      wsb.c
7.18.c       arrat2dlastrowsum.c  crickavg.c.save  matrixadd.c   pattern4.c          recsumdig.c
'=0?b[i]++:b[i]'  arrayadd.c         data.txt         matrixmultiplyij.c  pattern5.c          refcallsample.c
'entimes.c'      arrayduplicate2.c   dispcont.c       matrixmultiplyscalar.c  pendulum.c         selectionsor.c
Desktop        arrayduplicate2.c.save  dynsum2d.c      matrixsymmetric.c    percentage.c        strfreq.c

kiit@Ketan-Kumar-Sureka:~$ ls -R
.:
20.1.c      Documents      arraymarks.c  elementsum.c  matrixtranspose.c  perfect.c      stringconc.c
20.2       Downloads     arrayname.c   elementsunfixedpos.c  matrixtranspose.c.save  pointer1.c     stringcopy.c
20.2.c     Music         arraynos.c    examq1.c      menu1.c            pointera.c     sumarrayparrow.c
20.22.c    Pictures      arraypositive.c  examq2.c      new_dir             pointerfactorial.c  sumavg.c
22.3.c     Public        arraysearch.c   filrarr.c     new_directory        power.c        swap.c
22.3.c.save  Salaryavg.c   callocfun1.c    fs.c          nnn.c.save          prime3to100.c    temp.c
25larg.c    Templates     calloclarg.c    fwrt.c        nnn.c.save.1        primefuncn.c     thinclient_drives
25leap.c    Videos       caseupper.c     gcd2.c        numbers.c            prod.c          tot.c
25min2.c    a.c           century.c.save   gcd3.c        odd.c                prog1.c         triangle.c
25min4.c    afafdjfb.c    chntimes.c      largest.c     pallindrome.c       program        try.c
25oddeven.c  armstrong.c.save  coorna          leapf.c       pass.c              q5.c           ubbbu
25timehhmm.c  armstrong.c.save.1  corrspeyear.c  leapyear.c    pattern1.c          recfact.c       ubu
25timehhmm.c.save  arrarduplicate.c  countdig.c      mallfun1.c    pattern2.c          recfibonacci.c  vehicle.c
31431dc.c    arrarreadisplay.c  cric.c          marixoddmaindiagonal.c  pattern3.c        recpower.c      wsb.c
7.18.c       arrat2dlastrowsum.c  crickavg.c.save  matrixadd.c   pattern4.c          recsumdig.c
'=0?b[i]++:b[i]'  arrayadd.c         data.txt         matrixmultiplyij.c  pattern5.c          refcallsample.c
'entimes.c'      arrayduplicate2.c   dispcont.c       matrixmultiplyscalar.c  pendulum.c         selectionsor.c
Desktop        arrayduplicate2.c.save  dynsum2d.c      matrixsymmetric.c    percentage.c        strfreq.c
```

```
./program:  
17q1.c 17q2.c 17q3.c 17q4.c 18q1.c 18q2.c 18q3.c 18q4.c 18q4.c.save 18q5.c a.out prg1.c
```

```
./thinclient_drives:
```

```
./ubbbu:
```

```
kiit@Ketan-Kumar-Sureka:~$ mkdir new_dir  
mkdir: cannot create directory 'new_dir': File exists
```

```
kiit@Ketan-Kumar-Sureka:~$ cd new_dir
```

```
-bash: cd: too many arguments
```

```
kiit@Ketan-Kumar-Sureka:~$ cd new_dir
```

```
kiit@Ketan-Kumar-Sureka:~/new_dir$ history
```

```
353 gcc primefuncn.c  
354 nano primefuncn.c  
355 gcc primefuncn.c  
356 nano primefuncn.c  
357 gcc primefuncn.c  
358 nano primefuncn.c  
359 gcc primefuncn.c  
360 nano primefuncn.c  
361 gcc primefuncn.c  
362 nano primefuncn.c  
363 gcc primefuncn.c  
364 ./a.out  
365 nano primefuncn.c  
366 gcc primefuncn.c  
367 ./a.out  
368 nano caseupper.c  
369 gcc caseupper.c  
370 nano caseupper.c  
371 gcc caseupper.c  
372 nano caseupper.c  
373 gcc caseupper.c  
374 ./a.out  
375 ./a.out  
376 ./a.out K  
377 nano caseupper.c  
378 gcc caseupper.c  
379 nano caseupper.c
```

```
1317 ls
1318 end
1319 close
1320 clear
1321 end
1322 newclose
1323 new end
1324 clear
1325 ls
1326 ls -R
1327 mkdir new_dir
1328 cd new_dir
1329 touch ex_file ex2 ex3
1330 ls
1331 cat >ex2.txt
1332 rm exe3
1333 rm ex3
1334 ls
1335 cp example_file ex2.txt
1336 cp ex2.txt
1337 tail ex2.txt
1338 cat ex2.txt
1339 tac ex2.txt
1340 ls
1341 rm ex2
1342 history
1343 clear
1344 /
1345 sudo apt-get update
1346 sudo apt-get install packagename
1347 ls
1348 ls -R
1349 mkdir new_dir
1350 cd new_dir
1351 cd new_dir
1352 history
kiit@Ketan-Kumar-Sureka:~/new_dir$
```

kiit@Ketan-Kumar-Sureka:~/new_dir\$ dd

^Z

[1]+ Stopped dd

kiit@Ketan-Kumar-Sureka:~/new_dir\$ chown --help

Usage: chown [OPTION]... [OWNER]][:[GROUP]] FILE...

or: chown [OPTION]... --reference=RFILE FILE...

Change the owner and/or group of each FILE to OWNER and/or GROUP.

With --reference, change the owner and group of each FILE to those of RFILE.

- c, --changes like verbose but report only when a change is made
- f, --silent, --quiet suppress most error messages
- v, --verbose output a diagnostic for every file processed
 - dereference affect the referent of each symbolic link (this is the default), rather than the symbolic link itself
- h, --no-dereference affect symbolic links instead of any referenced file (useful only on systems that can change the ownership of a symlink)
 - from=CURRENT_OWNER:CURRENT_GROUP change the owner and/or group of each file only if its current owner and/or group match those specified here. Either may be omitted, in which case a match is not required for the omitted attribute
- no-preserve-root do not treat '/' specially (the default)
- preserve-root fail to operate recursively on '/'
- reference=RFILE use RFILE's owner and group rather than specifying OWNER:GROUP values
- R, --recursive operate on files and directories recursively

The following options modify how a hierarchy is traversed when the -R option is also specified. If more than one is specified, only the final one takes effect.

- H if a command line argument is a symbolic link to a directory, traverse it
- L traverse every symbolic link to a directory encountered
- P do not traverse any symbolic links (default)
- help display this help and exit


```

1344 /
1345 sudo apt-get update
1346 sudo apt-get install packagename
1347 ls
1348 ls -R
1349 mkdir new_dir
1350 cd new_dir
1351 cd new_dir
1352 history

```

```
kiit@Ketan-Kumar-Sureka:~/new_dir$ ss
```

Netid	State	Recv-Q	Send-Q	Local Address:Port	Peer Address:Port	Process
v_str	ESTAB	0	0	*:2590550062	2:50000	
v_str	ESTAB	0	0	*:2590550063	2:50000	
v_str	ESTAB	0	0	*:2590550064	2:50000	
v_str	ESTAB	0	0	*:2590550065	2:50001	
v_str	ESTAB	0	0	*:2590550066	2:50000	
v_str	ESTAB	0	0	*:2590550068	2:50000	
v_str	ESTAB	0	0	*:2590550069	2:50001	
v_str	ESTAB	0	0	*:2590550070	2:50001	
v_str	ESTAB	0	0	*:2590550080	2:1080410363	
v_str	ESTAB	0	0	*:2590550081	2:1080410367	
v_str	ESTAB	0	0	*:2590550081	2:1080410366	
v_str	ESTAB	0	0	*:2590550081	2:1080410365	
v_str	ESTAB	0	0	*:2590550081	2:1080410364	

```
kiit@Ketan-Kumar-Sureka:~/new_dir$ dd
```

```
^Z
```

```
[1]+  Stopped                  dd
```

```
kiit@Ketan-Kumar-Sureka:~/new_dir$ chown --help
```

```
Usage: chown [OPTION]... [OWNER]][:[GROUP]] FILE...
```

```
or: chown [OPTION]... --reference=RFILE FILE...
```

```
Change the owner and/or group of each FILE to OWNER and/or GROUP.
```

```
With --reference, change the owner and group of each FILE to those of RFILE.
```

```

-c, --changes      like verbose but report only when a change is made
-f, --silent, --quiet suppress most error messages
-v, --verbose      output a diagnostic for every file processed
                   --dereference      affect the referent of each symbolic link (this is
                   the default), rather than the symbolic link itself
-h, --no-dereference affect symbolic links instead of any referenced file
                   (useful only on systems that can change the

```

```
kiit@Ketan-Kumar-Sureka: ~/new_dir
drvfs on /mnt/p type 9p (rw,noatime,dirsync,aname=drvfs;path=P:\;uid=1000;gid=1000;symlinkroot=/mnt/,mmap,access=client,msize=262144,trans=virtio)
kiit@Ketan-Kumar-Sureka:~/new_dir$ whoami
kiit
kiit@Ketan-Kumar-Sureka:~/new_dir$ fdisk
fdisk: bad usage
Try 'fdisk --help' for more information.
kiit@Ketan-Kumar-Sureka:~/new_dir$ nohup
nohup: missing operand
Try 'nohup --help' for more information.
kiit@Ketan-Kumar-Sureka:~/new_dir$ xargs

^Z
[2]+  Stopped                  xargs
kiit@Ketan-Kumar-Sureka:~/new_dir$ chroot
chroot: missing operand
Try 'chroot --help' for more information.
kiit@Ketan-Kumar-Sureka:~/new_dir$ chroot --help
Usage: chroot [OPTION] NEWROOT [COMMAND [ARG]...]
       or: chroot OPTION
Run COMMAND with root directory set to NEWROOT.

--groups=G_LIST      specify supplementary groups as g1,g2,..,gN
--userspec=USER:GROUP specify user and group (ID or name) to use
--skip-chdir         do not change working directory to '/'
--help              display this help and exit
--version            output version information and exit

If no command is given, run "$SHELL" -i' (default: '/bin/sh -i').

GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Report chroot translation bugs to <https://translationproject.org/team/>
Full documentation at: <https://www.gnu.org/software/coreutils/chroot>
or available locally via: info '(coreutils) chroot invocation'
kiit@Ketan-Kumar-Sureka:~/new_dir$ dmesg
[  0.000000] Linux version 5.10.16.3-microsoft-standard-WSL2 (oe-user@oe-host) (x86_64-msft-linux-gcc (GCC) 9.3.0, GNU ld (GNU Binutils) 2.34.0.20200220) #1 SMP Fri Apr 2
22:23:49 UTC 2021
[  0.000000] Command line: initrd=\initrd.img panic=-1 nr_cpus=16 swiotlb=force pty.legacy_count=0
[  0.000000] KERNEL supported cpus:
[  0.000000] Intel GenuineIntel
```

```
8      ../dbus/session-bus
```

```
12     ../dbus
```

```
93816  .
```

```
kiit@Ketan-Kumar-Sureka:~$ fsck
```

```
fsck from util-linux 2.34
```

```
fsck.ext4: Unable to resolve 'LABEL=cloudimg-rootfs'
```

```
kiit@Ketan-Kumar-Sureka:~$ bzip
```

```
Command 'bzip' not found, but there are 21 similar ones.
```

```
kiit@Ketan-Kumar-Sureka:~$ bizip2
```

```
Command 'bizip2' not found, did you mean:
```

```
command 'bzip2' from deb bzip2 (1.0.8-2)
```

```
Try: sudo apt install <deb name>
```

```
kiit@Ketan-Kumar-Sureka:~$ bzip2
```

```
bzip2: I won't write compressed data to a terminal.
```

```
bzip2: For help, type: 'bzip2 --help'.
```

```
kiit@Ketan-Kumar-Sureka:~$ echo $user
```

```
kiit@Ketan-Kumar-Sureka:~$ echo user
```

```
user
```

```
kiit@Ketan-Kumar-Sureka:~$ ucho home
```

```
Command 'ucho' not found, did you mean:
```

```
command 'ucto' from deb ucto (0.14-2build2)
```

```
command 'echo' from deb coreutils (8.30-3ubuntu2)
```

```
Try: sudo apt install <deb name>
```

```
kiit@Ketan-Kumar-Sureka:~$ echo home
```

```
home
```

```
kiit@Ketan-Kumar-Sureka:~$ echo $home
```

```
kiit@Ketan-Kumar-Sureka:~$ echo $USER
```

```
kiit
```



```
kiit@Ketan-Kumar-Sureka: ~/new_dir
Report chown translation bugs to <https://translationproject.org/team/>
Full documentation at: <https://www.gnu.org/software/coreutils/chown>
or available locally via: info '(coreutils) chown invocation'
kiit@Ketan-Kumar-Sureka:~/new_dir$ kill
kill: usage: kill [-s sigspec | -n signum | -sigspec] pid | jobspec ... or kill -l [sigspec]
kiit@Ketan-Kumar-Sureka:~/new_dir$ mount
/dev/sdb on / type ext4 (rw,relatime,discard,errors=remount-ro,data=ordered)
none on /mnt/wsl type tmpfs (rw,relatime)
tools on /init type 9p (ro,relatime,dirsync,aname=tools;fmask=022,loose,access=client,msize=65536,trans=fd,rfd=7,wfd=7)
none on /dev type devtmpfs (rw,nosuid,relatime,size=3905944k,nr_inodes=976486,mode=755)
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,noatime)
proc on /proc type proc (rw,nosuid,nodev,noexec,noatime)
devpts on /dev/pts type devpts (rw,nosuid,noexec,noatime,gid=5,mode=620,ptmxmode=000)
none on /run type tmpfs (rw,nosuid,noexec,noatime,mode=755)
none on /run/lock type tmpfs (rw,nosuid,nodev,noexec,noatime)
none on /run/shm type tmpfs (rw,nosuid,nodev,noatime)
none on /run/user type tmpfs (rw,nosuid,nodev,noexec,noatime,mode=755)
binfmt_misc on /proc/sys/fs/binfmt_misc type binfmt_misc (rw,relatime)
tmpfs on /sys/fs/cgroup type tmpfs (rw,nosuid,nodev,noexec,relatime,mode=755)
cgroup2 on /sys/fs/cgroup/unified type cgroup2 (rw,nosuid,nodev,noexec,relatime,nsdelegate)
cgroup on /sys/fs/cgroup/cpuset type cgroup (rw,nosuid,nodev,noexec,relatime,cpuset)
cgroup on /sys/fs/cgroup/cpu type cgroup (rw,nosuid,nodev,noexec,relatime,cpu)
cgroup on /sys/fs/cgroup/cpuacct type cgroup (rw,nosuid,nodev,noexec,relatime,cpuacct)
cgroup on /sys/fs/cgroup/blkio type cgroup (rw,nosuid,nodev,noexec,relatime,blkio)
cgroup on /sys/fs/cgroup/memory type cgroup (rw,nosuid,nodev,noexec,relatime,memory)
cgroup on /sys/fs/cgroup/devices type cgroup (rw,nosuid,nodev,noexec,relatime,devices)
cgroup on /sys/fs/cgroup/freezer type cgroup (rw,nosuid,nodev,noexec,relatime,freezer)
cgroup on /sys/fs/cgroup/net_cls type cgroup (rw,nosuid,nodev,noexec,relatime,net_cls)
cgroup on /sys/fs/cgroup/perf_event type cgroup (rw,nosuid,nodev,noexec,relatime,perf_event)
cgroup on /sys/fs/cgroup/net_prio type cgroup (rw,nosuid,nodev,noexec,relatime,net_prio)
cgroup on /sys/fs/cgroup/hugetlb type cgroup (rw,nosuid,nodev,noexec,relatime,hugetlb)
cgroup on /sys/fs/cgroup/pids type cgroup (rw,nosuid,nodev,noexec,relatime,pids)
cgroup on /sys/fs/cgroup/rdma type cgroup (rw,nosuid,nodev,noexec,relatime,rdma)
drivers on /usr/lib/wsl/drivers type 9p (ro,nosuid,nodev,noatime,dirsync,aname=drivers;fmask=222;dmask=222,mmap,access=client,msize=65536,trans=fd,rfd=4,wfd=4)
lib on /usr/lib/wsl/lib type 9p (ro,nosuid,nodev,noatime,dirsync,aname=lib;fmask=222;dmask=222,mmap,access=client,msize=65536,trans=fd,rfd=4,wfd=4)
drvfs on /mnt/c type 9p (rw,noatime,dirsync,aname=drvfs;path=C:\;uid=1000;gid=1000;symlinkroot=/mnt/,mmap,access=client,msize=262144,trans=virtio)
drvfs on /mnt/k type 9p (rw,noatime,dirsync,aname=drvfs;path=K:\;uid=1000;gid=1000;symlinkroot=/mnt/,mmap,access=client,msize=262144,trans=virtio)
drvfs on /mnt/p type 9p (rw,noatime,dirsync,aname=drvfs;path=P:\;uid=1000;gid=1000;symlinkroot=/mnt/,mmap,access=client,msize=262144,trans=virtio)
kiit@Ketan-Kumar-Sureka:~/new_dir$
```



```
kiit@Ketan-Kumar-Sureka:~$ du
4      ./Documents
4      ./landscape
4      ./Downloads
4      ./cache/gvfs
4      ./cache/evolution/tasks/trash
8      ./cache/evolution/tasks
4      ./cache/evolution/memos/trash
8      ./cache/evolution/memos
4      ./cache/evolution/sources/trash
8      ./cache/evolution/sources
4      ./cache/evolution/addressbook/trash
8      ./cache/evolution/addressbook
4      ./cache/evolution/calendar/trash
8      ./cache/evolution/calendar
4      ./cache/evolution/mail/trash
8      ./cache/evolution/mail
52     ./cache/evolution
8      ./cache/dconf
4      ./cache/mesa_shader_cache
360    ./cache/gstreamer-1.0
12     ./cache/fontconfig
4      ./cache/sessions
4      ./cache/mozilla/firefox/qwb2gj1l.default
34620  ./cache/mozilla/firefox/zkh0x1a6.default-release/cache2/entries
4      ./cache/mozilla/firefox/zkh0x1a6.default-release/cache2/doomed
34736  ./cache/mozilla/firefox/zkh0x1a6.default-release/cache2
15040  ./cache/mozilla/firefox/zkh0x1a6.default-release/startupCache
12     ./cache/mozilla/firefox/zkh0x1a6.default-release/settings/main/ms-language-packs
16     ./cache/mozilla/firefox/zkh0x1a6.default-release/settings/main
20     ./cache/mozilla/firefox/zkh0x1a6.default-release/settings
4      ./cache/mozilla/firefox/zkh0x1a6.default-release/thumbnails
9856   ./cache/mozilla/firefox/zkh0x1a6.default-release/safebrowsing/google4
11932  ./cache/mozilla/firefox/zkh0x1a6.default-release/safebrowsing
61768  ./cache/mozilla/firefox/zkh0x1a6.default-release
61776  ./cache/mozilla/firefox
61780  ./cache/mozilla
62228  ./cache
4      ./Templates
4      ./Desktop
```

```

kiit@Ketan-Kumar-Sureka: ~
kiit
kiit@Ketan-Kumar-Sureka:~$ echo $HOME
/home/kiit
kiit@Ketan-Kumar-Sureka:~$ echo $PATH
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/usr/lib/wsl/lib:/mnt/c/Program Files (x86)/VMware/VMware Workstation/bin/;/mnt/c/o
racle/app/oracle/product/11.2.0/server/bin:/mnt/c/Program Files/Common Files/Oracle/Java/javapath:/mnt/c/WINDOWS/system32:/mnt/c/WINDOWS:/mnt/c/WINDOWS/System32/Wbem:/mnt
/c/WINDOWS/System32/WindowsPowerShell/v1.0/;/mnt/c/WINDOWS/System32/OpenSSH/;/mnt/c/Program Files/dotnet/;/mnt/c/Users/KIIT/AppData/Local/Programs/Python/Python310/Scripts/
:/mnt/c/Users/KIIT/AppData/Local/Programs/Python/Python310/;/mnt/c/Users/KIIT/AppData/Local/Microsoft/WindowsApps:/mnt/c/Users/KIIT/AppData/Local/Programs/Microsoft VS Code
/bin:/mnt/c/MinGW/bin:/mnt/c/Program Files/Multipass/bin:/snap/bin
kiit@Ketan-Kumar-Sureka:~$ uname -a
Linux Ketan-Kumar-Sureka 5.10.16.3-microsoft-standard-WSL2 #1 SMP Fri Apr 2 22:23:49 UTC 2021 x86_64 x86_64 x86_64 GNU/Linux
kiit@Ketan-Kumar-Sureka:~$ uname -s
Linux
kiit@Ketan-Kumar-Sureka:~$ uname -v
#1 SMP Fri Apr 2 22:23:49 UTC 2021
kiit@Ketan-Kumar-Sureka:~$ sudo -apt uninstall finger
usage: sudo -h | -K | -k | -V
usage: sudo -v [-AknS] [-g group] [-h host] [-p prompt] [-u user]
usage: sudo -l [-AknS] [-g group] [-h host] [-p prompt] [-U user] [-u user] [command]
usage: sudo [-AbEHknPS] [-r role] [-t type] [-C num] [-g group] [-h host] [-p prompt] [-T timeout] [-u user] [VAR=value] [-i|-s] [<command>]
usage: sudo -e [-AknS] [-r role] [-t type] [-C num] [-g group] [-h host] [-p prompt] [-T timeout] [-u user] file ...
kiit@Ketan-Kumar-Sureka:~$ free
              total        used        free      shared  buff/cache   available
Mem:      7816052      123592      7599136           68       93324      7514680
Swap:      2097152           0      2097152
kiit@Ketan-Kumar-Sureka:~$ groups kiit
kiit : kiit adm dialout cdrom floppy sudo audio dip video plugdev netdev
kiit@Ketan-Kumar-Sureka:~$ w
22:58:33 up 46 min, 0 users, load average: 0.00, 0.00, 0.00
USER      TTY      FROM            LOGIN@   IDLE   JCPU   PCPU WHAT
kiit@Ketan-Kumar-Sureka:~$ ls
20.1.c      Documents      arraymarks.c    elementsum.c    matrixtranspose.c  perfect.c      stringconc.c
20.2      Downloads      arrayname.c      elementsunfixedpos.c  matrixtranspose.c.save  pointer1.c    stringcopy.c
20.2.c     Music          arraynos.c       examq1.c        menu1.c            pointera.c    sumarrayparrow.c
20.22.c    Pictures       arraypositive.c   examq2.c        new_dir            pointerfactorial.c  sumavg.c
22.3.c     Public        arraysearch.c     filnarr.c       new_directory      power.c       swap.c
22.3.c.save  Salaryavg.c    calloclfun1.c    fs.c            nnn.c.save         prime3to100.c    temp.c
25larg.c    Templates     calloclarg.c     fwrt.c          nnn.c.save.1       primefuncn.c    thinclient_drives
25leap.c    Videos       caseupper.c      gcd2.c          numbers.c          prod.c         tot.c
25min2.c    a.c           century.c.save    gcd3.c          odd.c              prog1.c        triangle.c

```

```
kiit@Ketan-Kumar-Sureka: ~  
'=0?b[i]++;b[i]'
```

arrayadd.c	data.txt	matrixmultiply.c	pattern5.c	refcallsample.c
'=ntimes.c'	arrayduplicate2.c	dispcnt.c	matrixmultiplyscalar.c	pendulum.c
Desktop	arrayduplicate2.c.save	dynsum2d.c	matrixsymmetric.c	percentage.c
				selectionsort.c
				strfreq.c

```
kiit@Ketan-Kumar-Sureka:~$ shutdown +1  
System has not been booted with systemd as init system (PID 1). Can't operate.  
Failed to connect to bus: Host is down  
kiit@Ketan-Kumar-Sureka:~$ pwd -p  
-bash: pwd: -p: invalid option  
pwd: usage: pwd [-LP]  
kiit@Ketan-Kumar-Sureka:~$ pwd -P  
/home/kiit  
kiit@Ketan-Kumar-Sureka:~$ ps -e  
PID TTY          TIME CMD  
  1 ?            00:00:00 init  
200 ?            00:00:00 init  
201 ?            00:00:00 init  
202 pts/0        00:00:00 bash  
252 pts/0        00:00:00 ps  
kiit@Ketan-Kumar-Sureka:~$ declare var  
kiit@Ketan-Kumar-Sureka:~$ var=kiit  
kiit@Ketan-Kumar-Sureka:~$ declare -p  
declare -- BASH="/bin/bash"  
declare -r BASHOPTS="checkwinsize:cmdhist:complete_fullquote:expand_aliases:extglob:extquote:force_ignore:globasciiranges:histappend:interactive_comments:login_shell:progcomp:promptvars:sourcepath"  
declare -i BASHPID  
declare -A BASH_ALIASES=()  
declare -a BASH_ARGC=([0]="0")  
declare -a BASH_ARGV=()  
declare -- BASH_ARGV0  
declare -A BASH_CMDS=()  
declare -- BASH_COMMAND  
declare -a BASH_COMPLETION_VERSIONO=([0]="2" [1]="10")  
declare -a BASH_LINENO=()  
declare -a BASH_SOURCE=()  
declare -- BASH_SUBSHELL  
declare -ar BASH_VERSIONO=([0]="5" [1]="0" [2]="17" [3]="1" [4]="release" [5]="x86_64-pc-linux-gnu")  
declare -- BASH_VERSION="5.0.17(1)-release"  
declare -- COLUMNS="172"  
declare -- COMP_WORDBREAKS  
declare -- DEFAULT_XDG_CONFIG_DIRS="/etc/xdg"
```



```
(?(la)tex|texi|dtx|ins|ltx|dbj)" [lzmore]="!*.@(tlz|lzma)" [portclev]="!*.@(ks|jks|jceks|p12|pfx|bks|ubr|gkr|cer|crt|cert|p7b|pkipath|pem|p10|csr|crl)|cacerts)" [owriter]
="!*.@(sxw|stw|sxl|sgl|doc?([mx])|dot?([mx])|rtf|txt|htm|html|?(f)odt|ott|odm|pdf)" [loimpress]="!*.@(sxi|sti|pps?(x)|ppt?([mx])|pot?([mx])|?(f)odp|otp)" [epiphany]="!*.@(
?([xX])|[sS])|[hH][tT][mM]?([lL]))" [modplugplay]="!*.@(669|abc|am|fs|d|bs|m|dmf|far|it|mdl|m|eo|d|mid?(i)|mt[2m]|oct|okt?(a)|p[st]m|s[3t]m|ult|umx|wav|xm)" [dvi]pd[fd]="!*.@(
?([xX])|[sS])|[hH][tT][mM]?([lL]))" [fbxine]="!*.@(.(mp?(e)|g|MP?(E)|G|wm|av)|WM|AV)|avi|AVI|asf|vob|VOB|bin|dat|divx|DIVX|vcd|ps|pes|fli|flv|FLV|fxm|FXM|viv|rm
|ram|yuv|mov|MOV|qt|QT|web|am|WEB|AM)|mp[234]|MP[234]|m?(p)4[av]|M?(P)4[AV]|mkv|MKV|og[agmvx]|OG[AGMVX]|t[ps]|T[PS]|m2t?(s)|M2T?(S)|mts|MTS|wav|WAV|flac|FLAC|asx|ASX|mng|M
NG|srt|m|eo|d|m|EO|D|s[3t]m|S[3T]M|it|IT|xm|XM)|+([0-9]).@(vdr|VDR)?(.(crdownload|part))" )
```

```
declare -- snap_bin_path="/snap/bin"
```

```
declare -- snap_xdg_path="/var/lib/snapd/desktop"
```

```
declare -- var="kiit"
```

```
kiit@Ketan-Kumar-Sureka:~$ declare -p
```

```
declare -- BASH="/bin/bash"
```

```
declare -r BASHOPTS="checkwinsize:cmdhist:complete_fullquote:expand_aliases:extglob:extquote:force_ignores:globasciiranges:histappend:interactive_comments:login_shell:prog
```

```
omp:promptvars:sourcpath"
```

```
declare -i BASHPID
```

```
declare -A BASH_ALIASES=()
```

```
declare -a BASH_ARGC=([0]="0")
```

```
declare -a BASH_ARGV=()
```

```
declare -- BASH_ARGV0
```

```
declare -A BASH_CMDS=()
```

```
declare -- BASH_COMMAND
```

```
declare -a BASH_COMPLETION_VERSIONINFO=([0]="2" [1]="10")
```

```
declare -a BASH_LINENO=()
```

```
declare -a BASH_SOURCE=()
```

```
declare -- BASH_SUBSHELL
```

```
declare -ar BASH_VERSIONINFO=([0]="5" [1]="0" [2]="17" [3]="1" [4]="release" [5]="x86_64-pc-linux-gnu")
```

```
declare -- BASH_VERSION="5.0.17(1)-release"
```

```
declare -- COLUMNS="172"
```

```
declare -- COMP_WORDSBREAKS
```

```
declare -- DEFAULT_XDG_CONFIG_DIRS="/etc/xdg"
```

```
declare -- DEFAULT_XDG_DATA_DIRS="/usr/local/share/:/usr/share/"
```

```
declare -a DIRSTACK=()
```

```
declare -- EPOCHREALTIME
```

```
declare -- EPOCHSECONDS
```

```
declare -ir EUID="1000"
```

```
declare -a FUNCNAME
```

```
declare -a GROUPS=()
```

```
declare -i HISTCMD
```

```
declare -- HISTCONTROL="ignoreboth"
```

```
declare -- HISTFILE="/home/kiit/.bash_history"
```

```
declare -- HISTFILESIZE="2000"
```



```
[gm]|o[dt][tspgfc]|od[bm]|ox|epub|apk|aab|ipa|do[ct][xm]|p[op]t[mx]|xl|st|xm|pyz|whl)" [xelatex]="!*.@(?{1a}tex|texi|dtx|ins|ltx|dbj)" [uncompress]="!*.*Z" [xzcat]="!*.*@(?{t}xz|tlz|lzma)" [unzip]="!*.*@{zip}[egjswx]ar|exe|pk3|wsz|zargo|xpi|s|tx|[cdiwl]|sx|gm]|o[dt][tspgfc]|od[bm]|ox|epub|apk|aab|ipa|do[ct][xm]|p[op]t[mx]|xl|st|xm|pyz|whl)" [rvview]="*.*@{ao}|so|so.|(conf|*/|*)|[rs]pm|gif|jp?(e)g|mp3|mp?(e)g|avi|asf|ogg|class)" [ogg123]="!*.*@{og|ag}|m3u|flac|spx)" [lrunzip]="!*.*lrz" [lzugrep]="!*.*@{tlz|lzma}" [slitex]="!*.*@(?{1a}tex|texi|dtx|ins|ltx|dbj)" [vim]="*.*@{ao}|so|so.|(conf|*/|*)|[rs]pm|gif|jp?(e)g|mp3|mp?(e)g|avi|asf|ogg|class)" [ggv]="!*.*@{g|e}ps|?(E)PS|pdf|PDF|?(.gz|.GZ|.bz2|.BZ2|.Z)" [ee]="!*.*@{gif|jp?(e)g|miff|tif?(f)|pn|gm]|p|bpg|m|bmp|xpm|ico|xwd|tga|pcx)" [oomath]="!*.*@{sxm|smf|mml|odf}" [aaxine]="!*.*@{.mp?(e)g|MP?(E)G|wm|av}|WM|AV]|avi|AVI|asf|vob|VOB|bin|dat|divx|DIVX|vcd|ps|pes|fli|flv|FLV|fxm|FXM|viv|rm|ram|yuv|mov|MOV|qt|QT|web|am}|WEB|AM]|mp[234]|MP[234]|m?(p)4|av]|M?(P)4|AV]|mkv|MKV|og|agmv|x}|OG|AGMVX]|t[ps]|T[PS]|m2t?(s)|M2T?(S)|mts|MTS|wav|WAV|flac|FLAC|asx|ASX|mng|MNG|srt|m[eo]d|m[EO]D|s[3t]m|s[3T]M|it|IT|xm|XM)|+{[0-9]}.@(vdr|VDR))?(.(crdownload|part))" [dvipdfmx]="!*.*dvi" [advv]="!*.*dvi" [gunzip]="!*.*@{Z}[GgD]z|t[ag]z)" [makeinfo]="!*.*texi*" [gharbour]="!*.*@{[Pp][Rr][Gg]}[Cc][Ll][Pp]}" [okular]="!*.*@{okular|@?(e|x)ps|?(E|X)PS}|[pf]df|[PF]DF|dvi|DVI|cb[rz]|CB[RZ]|djv?(u)|DJV?(U)|dvi|DVI|gif|jp?(e)g|miff|tif?(f)|pn|gm]|p|bpg|m|bmp|xpm|ico|xwd|tga|pcx|GIF|JP?(E)G|MIF|TIF?(F)|PN|GM]|P|BGP|M|BM|P|XPM|ICO|XWD|TGA|PCX|epub|EPUB|odt|ODT|fb?(2)|FB?(2)|mobi|MOBI|g3|G3|chm|CHM|?(.(gz|GZ|bz2|BZ2|xz|XZ))}" [galeon]="!*.*@{[xX]}[sS]}[hH][tT][mM]|?(.Ll))" [pdflatex]="!*.*@(?{1a}tex|texi|dtx|ins|ltx|dbj)" [lzmoe]="!*.*@{tlz|lzma}" [portecle]="!*.*@{ks|jks|jceks|p12|pfx|bks|ubr|gkr|cer|crt|cert|p7b|pkipath|pem|p10|csr|crl}|cacerts)" [coweriter]="!*.*@{(.sxw|stl|swg|sgl|doc?|[mx])|rtf|txt|htm|html|?(f)odt|ott|odm|pdf}" [loimpress]="!*.*@{xi|sti|pps?(x)|ppt?(mx)]|ppt?(mx)]|?(f)odp|otp}" [epiphany]="!*.*@{[xX]}[sS]}[hH][tT][mM]|?(.Ll))" [modplugplay]="!*.*@{669|abc|am|fs}|d|bs|m|dmf|far|it|md1|m[eo]d|mid?(i)|mt[2m]|oct|okt?(a)|p|st|m|s[3t]m|ult|umx|wav|xm)" [dvipdf]="!*.*dvi" [dillo]="!*.*@{[xX]}[sS]}[hH][tT][mM]|?(.Ll))" [fbxine]="!*.*@{(.mp?(e)g|MP?(E)G|wm|av}|WM|AV]|avi|AVI|asf|vob|VOB|bin|dat|divx|DIVX|vcd|ps|pes|fli|flv|FLV|fxm|FXM|viv|rm|ram|yuv|mov|MOV|qt|QT|web|am}|WEB|AM]|mp[234]|MP[234]|m?(p)4|av]|M?(P)4|AV]|mkv|MKV|og|agmv|x}|OG|AGMVX]|t[ps]|T[PS]|m2t?(s)|M2T?(S)|mts|MTS|wav|WAV|flac|FLAC|asx|ASX|mng|MNG|srt|m[eo]d|m[EO]D|s[3t]m|s[3T]M|it|IT|xm|XM)|+{[0-9]}.@(vdr|VDR))?(.(crdownload|part))" )
```

```
declare -- snap_bin_path="/snap/bin"
```

```
declare -- snap_xdg_path="/var/lib/snapd/desktop"
```

```
declare -- var="kiit"
```

```
kiit@Ketan-Kumar-Sureka:~$ bash
```

```
kiit@Ketan-Kumar-Sureka:~$ exec ls
```

20.1.c	Documents	arraymarks.c	elementsum.c	matrixtranspose.c	perfect.c	stringconc.c
20.2	Downloads	arrayname.c	elementsunfixedpos.c	matrixtranspose.c.save	pointer1.c	stringcopy.c
20.2.c	Music	arraynos.c	examq1.c	menu1.c	pointera.c	sumarrayparrow.c
20.22.c	Pictures	arraypositive.c	examq2.c	new_dir	pointerfactorial.c	sumavg.c
22.3.c	Public	arraysearch.c	filnarr.c	new_directory	power.c	swap.c
22.3.c.save	Salaryavg.c	calloccfun1.c	fs.c	nnn.c.save	prime3to100.c	temp.c
25larg.c	Templates	callocclang.c	fwrt.c	nnn.c.save.1	primefuncn.c	thinclient_drives
25leap.c	Videos	caseupper.c	gcd2.c	numbers.c	prod.c	tot.c
25min2.c	a.c	century.c.save	gcd3.c	odd.c	prog1.c	triangle.c
25min4.c	afafdfjb.c	chntimes.c	largest.c	pallindrome.c	program	try.c
25oddeven.c	armstrong.c.save	coorna	leapf.c	pass.c	q5.c	ubbbu
25timehmm.c	armstrong.c.save.1	correspyear.c	leapyear.c	pattern1.c	recfact.c	ubu
25timehmm.c.save	arrarduplicate.c	countdig.c	mallfun1.c	pattern2.c	recfibonacci.c	vehicle.c
31431dc.c	arrarreaddisplay.c	cric.c	marixoddmaindiagonal.c	pattern3.c	recpower.c	wsb.c
7.18.c	arrat2dlastrrowsum.c	crickavg.c.save	matrixadd.c	pattern4.c	recsumdig.c	
'=0?b[i]++:b[i]'	arrayadd.c	data.txt	matrixmultiply.c	pattern5.c	refcallsample.c	
'ntimes.c'	arrayduplicate2.c	dispcnt.c	matrixmultiplyscalar.c	pendulum.c	selectionsort.c	
Desktop	arrayduplicate2.c.save	dynsum2d.c	matrixsymmetric.c	percentage.c	strfreq.c	

```
kiit@Ketan-Kumar-Sureka:~$
```