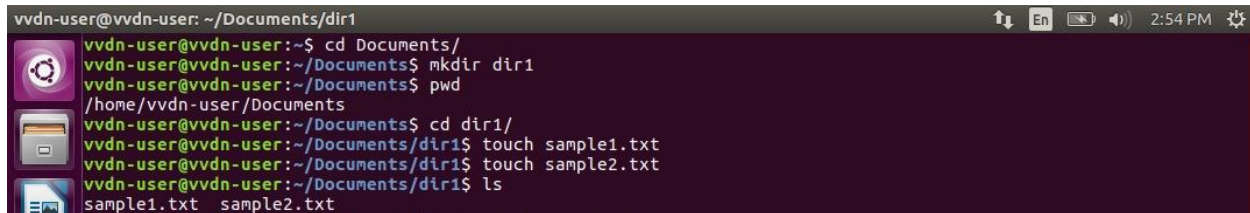


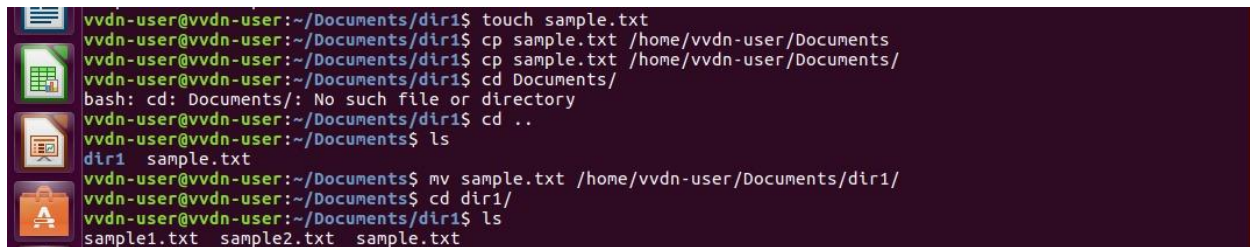
Basic linux commands:

- 1.mkdir-make a new directory
- 2.pwd-present working directory
- 3.touch-creating a file
- 4.ls-list the files in a directory



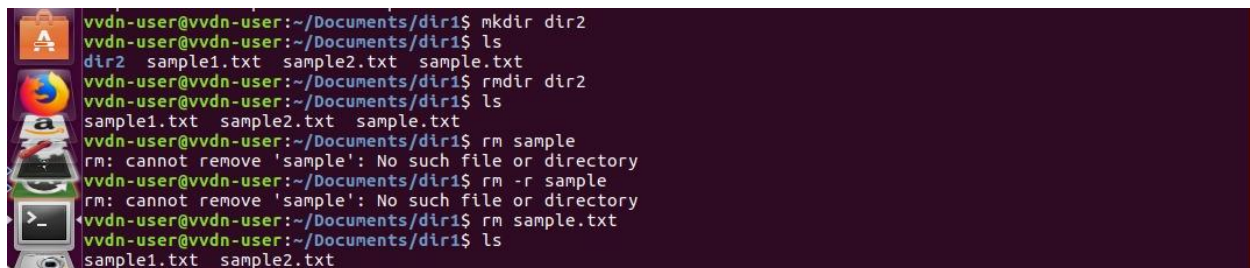
```
vvdn-user@vvdn-user: ~/Documents/dir1
vvdn-user@vvdn-user:~$ cd Documents/
vvdn-user@vvdn-user:~/Documents$ mkdir dir1
vvdn-user@vvdn-user:~/Documents$ pwd
/home/vvdn-user/Documents
vvdn-user@vvdn-user:~/Documents$ cd dir1/
vvdn-user@vvdn-user:~/Documents/dir1$ touch sample1.txt
vvdn-user@vvdn-user:~/Documents/dir1$ touch sample2.txt
vvdn-user@vvdn-user:~/Documents/dir1$ ls
sample1.txt sample2.txt
```

- 5.cp-copying a file
- 6.mv-moving a file location



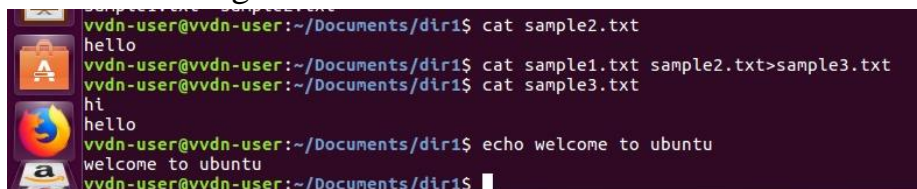
```
vvdn-user@vvdn-user:~/Documents/dir1$ touch sample.txt
vvdn-user@vvdn-user:~/Documents/dir1$ cp sample.txt /home/vvdn-user/Documents
vvdn-user@vvdn-user:~/Documents/dir1$ cp sample.txt /home/vvdn-user/Documents/
vvdn-user@vvdn-user:~/Documents/dir1$ cd Documents/
bash: cd: Documents/: No such file or directory
vvdn-user@vvdn-user:~/Documents/dir1$ cd ..
vvdn-user@vvdn-user:~/Documents$ ls
dir1 sample.txt
vvdn-user@vvdn-user:~/Documents$ mv sample.txt /home/vvdn-user/Documents/dir1/
vvdn-user@vvdn-user:~/Documents$ cd dir1/
vvdn-user@vvdn-user:~/Documents/dir1$ ls
sample1.txt sample2.txt sample.txt
```

- 7.rmdir-removing a directory
- 8.rm-removing a file from a directory



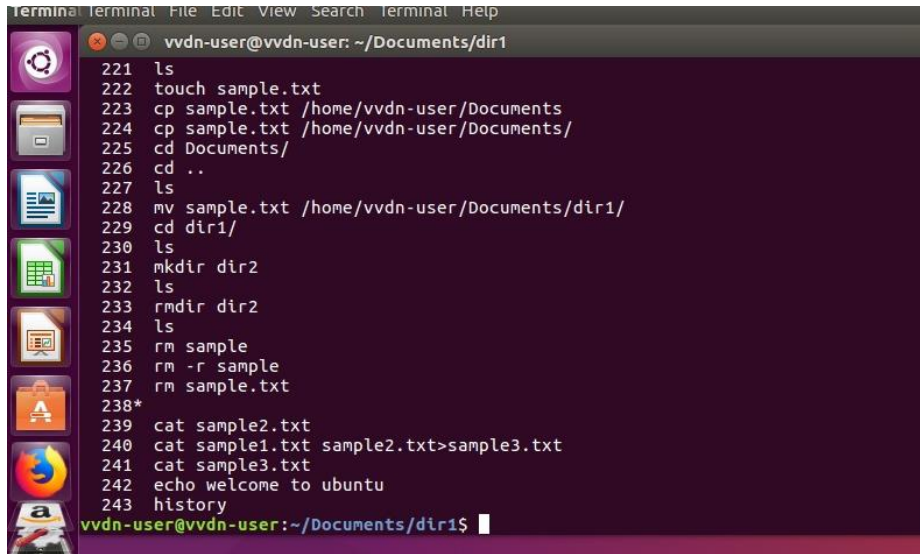
```
vvdn-user@vvdn-user:~/Documents/dir1$ mkdir dir2
vvdn-user@vvdn-user:~/Documents/dir1$ ls
dir2 sample1.txt sample2.txt sample.txt
vvdn-user@vvdn-user:~/Documents/dir1$ rmdir dir2
vvdn-user@vvdn-user:~/Documents/dir1$ ls
sample1.txt sample2.txt sample.txt
vvdn-user@vvdn-user:~/Documents/dir1$ rm sample
rm: cannot remove 'sample': No such file or directory
vvdn-user@vvdn-user:~/Documents/dir1$ rm -r sample
rm: cannot remove 'sample': No such file or directory
vvdn-user@vvdn-user:~/Documents/dir1$ rm sample.txt
vvdn-user@vvdn-user:~/Documents/dir1$ ls
sample1.txt sample2.txt
```

- 9.cat-list the content of the file
- 10.echo-moving data to the file



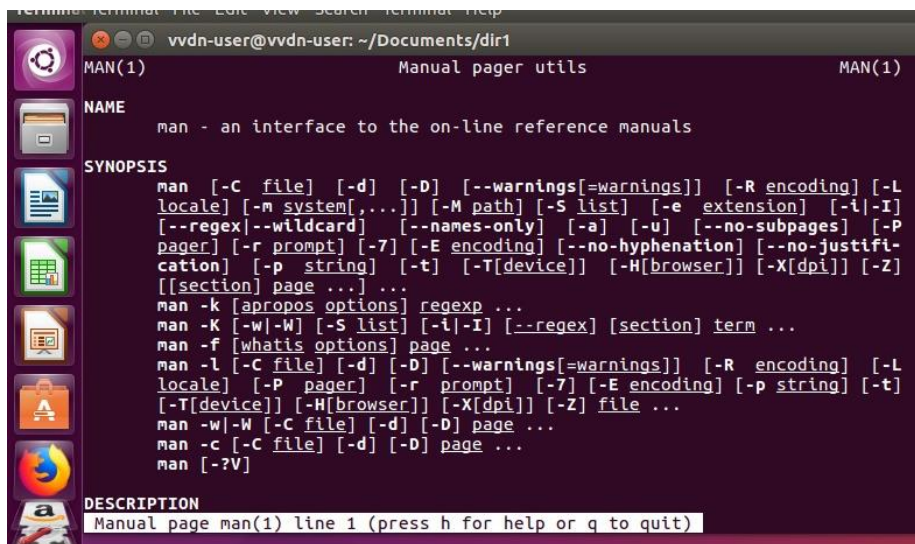
```
vvdn-user@vvdn-user:~/Documents/dir1$ cat sample2.txt
hello
vvdn-user@vvdn-user:~/Documents/dir1$ cat sample1.txt sample2.txt>sample3.txt
vvdn-user@vvdn-user:~/Documents/dir1$ cat sample3.txt
hi
hello
vvdn-user@vvdn-user:~/Documents/dir1$ echo welcome to ubuntu
welcome to ubuntu
vvdn-user@vvdn-user:~/Documents/dir1$
```

11.history-list of commands used so far.

A terminal window titled 'Terminal' with a menu bar (Terminal, File, Edit, View, Search, Terminal, Help). The window shows a series of commands and their outputs, numbered 221 to 243. The user is 'vvdn-user' at 'vvdn-user' in the directory '~/Documents/dir1'. The commands include file operations like 'ls', 'touch', 'cp', 'cd', 'mv', 'mkdir', 'rmdir', 'rm', 'cat', and 'echo', as well as the 'history' command at the end.

```
Terminal Terminal File Edit View Search Terminal Help
vvdn-user@vvdn-user: ~/Documents/dir1
221 ls
222 touch sample.txt
223 cp sample.txt /home/vvdn-user/Documents
224 cp sample.txt /home/vvdn-user/Documents/
225 cd Documents/
226 cd ..
227 ls
228 mv sample.txt /home/vvdn-user/Documents/dir1/
229 cd dir1/
230 ls
231 mkdir dir2
232 ls
233 rmdir dir2
234 ls
235 rm sample
236 rm -r sample
237 rm sample.txt
238*
239 cat sample2.txt
240 cat sample1.txt sample2.txt>sample3.txt
241 cat sample3.txt
242 echo welcome to ubuntu
243 history
vvdn-user@vvdn-user:~/Documents/dir1$
```

12.man-manual instructions of tail command.

A terminal window showing the man page for the 'tail' command. The window title is 'MAN(1)' and the manual pager is 'utils'. The page includes sections for NAME, SYNOPSIS, and DESCRIPTION. The SYNOPSIS section lists various options for the tail command, such as -C, -d, -D, --warnings, -R, -L, -m, -M, -S, -e, -i, -I, --regex, --wildcard, --names-only, -a, -u, --no-subpages, -P, -p, -r, -7, -E, --no-hyphenation, --no-justification, -t, -T, -H, -X, -Z, and -Z. The DESCRIPTION section is partially visible at the bottom.

```
Terminal Terminal File Edit View Search Terminal Help
vvdn-user@vvdn-user: ~/Documents/dir1
MAN(1) Manual pager utils MAN(1)
NAME
man - an interface to the on-line reference manuals
SYNOPSIS
man [-C file] [-d] [-D] [--warnings[=warnings]] [-R encoding] [-L
locale] [-m system[,...]] [-M path] [-S list] [-e extension] [-i|-I]
[--regex|--wildcard] [--names-only] [-a] [-u] [--no-subpages] [-P
pager] [-r prompt] [-7] [-E encoding] [--no-hyphenation] [--no-justifi-
cation] [-p string] [-t] [-T[device]] [-H[browser]] [-X[dpi]] [-Z]
[[section] page ...] ...
man -k [apropos options] regexp ...
man -K [-w|-W] [-S list] [-i|-I] [--regex] [section] term ...
man -f [whatIs options] page ...
man -l [-C file] [-d] [-D] [--warnings[=warnings]] [-R encoding] [-L
locale] [-P pager] [-r prompt] [-7] [-E encoding] [-p string] [-t]
[-T[device]] [-H[browser]] [-X[dpi]] [-Z] file ...
man -w|-W [-C file] [-d] [-D] page ...
man -c [-C file] [-d] [-D] page ...
man [-?V]
DESCRIPTION
Manual page man(1) line 1 (press h for help or q to quit)
```

13.zip-compression of files

14.unzip-extraction of files

```
vvdn-user@vvdn-user:~/Documents/dir1$ sudo apt-get install zip
[sudo] password for vvdn-user:
Sorry, try again.
[sudo] password for vvdn-user:
Reading package lists... Done
Building dependency tree
Reading state information... Done
zip is already the newest version (3.0-11).
0 upgraded, 0 newly installed, 0 to remove and 571 not upgraded.
vvdn-user@vvdn-user:~/Documents/dir1$ sudo apt-get install unzip
Reading package lists... Done
Building dependency tree
Reading state information... Done
unzip is already the newest version (6.0-20ubuntu1).
0 upgraded, 0 newly installed, 0 to remove and 571 not upgraded.
vvdn-user@vvdn-user:~/Documents/dir1$
```

```
vvdn-user@vvdn-user:~/Documents/dir1$ zip -r sample.zip sample1.txt
adding: sample1.txt (stored 0%)
vvdn-user@vvdn-user:~/Documents/dir1$ ls
sample1.txt sample2.txt sample3.txt sample.zip
vvdn-user@vvdn-user:~/Documents/dir1$ unzip sample.zip
Archive: sample.zip
replace sample1.txt? [y]es, [n]o, [A]ll, [N]one, [r]ename: y
extracting: sample1.txt
vvdn-user@vvdn-user:~/Documents/dir1$ ls
sample1.txt sample2.txt sample3.txt sample.zip
vvdn-user@vvdn-user:~/Documents/dir1$
```

15.zip-This is also similar to zip by the means of compression

```
vvdn-user@vvdn-user:~/Documents/dir1$ gzip sample1.txt
vvdn-user@vvdn-user:~/Documents/dir1$ ls
sample1.txt.gz sample2.txt sample3.txt sample.zip
```

16.top-lists the process and threads

```
vvdn-user@vvdn-user: ~/Documents/dir1
top - 16:25:09 up 3:49, 1 user, load average: 0.21, 0.43, 0.51
Tasks: 154 total, 1 running, 152 sleeping, 0 stopped, 1 zombie
%Cpu(s): 5.4 us, 2.4 sy, 0.0 ni, 65.7 id, 26.6 wa, 0.0 hi, 0.0 si, 0.0 st
KiB Mem : 1009892 total, 429000 free, 266592 used, 314300 buff/cache
KiB Swap: 1998844 total, 1396220 free, 602624 used. 577060 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM    TIME+  COMMAND
 1663 vvdn-us+  20   0 1323440 109672 25300 S   2.6   10.9   21:09.38 compiz
 7394 vvdn-us+  20   0 357128 16252 14344 D   2.0    1.6    0:00.06 gnome-screensho
1356 vvdn-us+  20   0 366076 3960 2120 S   0.7    0.4    0:20.63 ibus-daemon
    8 root      20   0     0     0     0 S   0.3    0.0    0:02.23 rcu_sched
 813 root      20   0 428096 32228 6080 S   0.3    3.2    3:34.52 Xorg
1309 vvdn-us+  20   0 43928 2292 1052 S   0.3    0.2    0:06.54 dbus-daemon
1387 vvdn-us+  20   0 486720 5480 3360 S   0.3    0.5    0:04.44 ibus-ui-gtk3
2251 vvdn-us+  20   0 541572 7528 6680 S   0.3    0.7    0:00.94 update-notifier
5787 vvdn-us+  20   0 669976 21924 17596 S   0.3    2.2    0:10.25 gnome-terminal-
7386 root      20   0     0     0     0 S   0.3    0.0    0:00.06 kworker/0:1
7388 vvdn-us+  20   0 48868 3484 2888 R   0.3    0.3    0:00.77 top
    1 root      20   0 185260 3200 1964 S   0.0    0.3    0:04.71 systemd
    2 root      20   0     0     0     0 S   0.0    0.0    0:00.01 kthreadd
    4 root      0 -20     0     0     0 S   0.0    0.0    0:00.00 kworker/0:0H
    6 root      0 -20     0     0     0 S   0.0    0.0    0:00.00 mm_percpu_wq
    7 root      20   0     0     0     0 S   0.0    0.0    0:02.43 ksoftirqd/0
    9 root      20   0     0     0     0 S   0.0    0.0    0:00.00 rcu_bh
   10 root      rt    0     0     0     0 S   0.0    0.0    0:00.00 migration/0
   11 root      rt    0     0     0     0 S   0.0    0.0    0:00.16 watchdog/0
   12 root      20   0     0     0     0 S   0.0    0.0    0:00.00 cpuhp/0
   13 root      20   0     0     0     0 S   0.0    0.0    0:00.00 kdevtmpfs
   14 root      0 -20     0     0     0 S   0.0    0.0    0:00.00 netns
   15 root      20   0     0     0     0 S   0.0    0.0    0:00.02 khungtaskd
   16 root      20   0     0     0     0 S   0.0    0.0    0:00.00 oom_reaper
   17 root      0 -20     0     0     0 S   0.0    0.0    0:00.00 writeback
```


17. lsblk-reads sysfs filesystem to gather information.

```
vvdn-user@vvdn-user:~/Documents/dir1$ lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sr0          11:0    1 1024M  0 rom
sda           8:0     0   10G  0 disk
├─sda2        8:2     0    1K  0 part
├─sda5        8:5     0   8.1G  0 part /
└─sda1        8:1     0   1.9G  0 part [SWAP]
```

18. env-list of current environment variable

```
vvdn-user@vvdn-user:~/Documents/dir1$ env
XDG_VTNR=7
XDG_SESSION_ID=c2
XDG_GREETER_DATA_DIR=/var/lib/lightdm-data/vvdn-user
CLUTTER_IM_MODULE=xim
SESSION=ubuntu
GPG_AGENT_INFO=/home/vvdn-user/.gnupg/S.gpg-agent:0:1
TERM=xterm-256color
VTE_VERSION=4205
XDG_MENU_PREFIX=gnome-
SHELL=/bin/bash
QT_LINUX_ACCESSIBILITY_ALWAYS_ON=1
WINDOWID=58720266
UPSTART_SESSION=unix:abstract=/com/ubuntu/upstart-session/1000/1222
GNOME_KEYRING_CONTROL=
GTK_MODULES=gail:atk-bridge:unity-gtk-module
USER=vvdn-user
LS_COLORS=rs=0:di=01;34;ln=01;36:mh=00:pi=40;33;so=01;35;do=01;35;bd=40;33;01:cd=40;33;01:or=40;31;01:mi=00:su
=37;41;sg=30;43;ca=30;41;tw=30;42;ow=34;42;st=37;44;ex=01;32;*.tar=01;31;*.tgz=01;31;*.arc=01;31;*.arj=01;31;*.
.taz=01;31;*.lha=01;31;*.lz4=01;31;*.lzh=01;31;*.lzma=01;31;*.tlz=01;31;*.txz=01;31;*.tzo=01;31;*.t7z=01;31;*.
zip=01;31;*.z=01;31;*.Z=01;31;*.dz=01;31;*.gz=01;31;*.lrz=01;31;*.lz=01;31;*.lzo=01;31;*.xz=01;31;*.bz2=01;31;
*.bz=01;31;*.tbz=01;31;*.tbz2=01;31;*.tz=01;31;*.deb=01;31;*.rpm=01;31;*.jar=01;31;*.war=01;31;*.ear=01;31;*.s
ar=01;31;*.rar=01;31;*.alz=01;31;*.ace=01;31;*.zoo=01;31;*.cpio=01;31;*.7z=01;31;*.rz=01;31;*.cab=01;31;*.jpg=
01;35;*.jpeg=01;35;*.gif=01;35;*.bmp=01;35;*.pbm=01;35;*.pgm=01;35;*.ppm=01;35;*.tga=01;35;*.xbm=01;35;*.xpm=0
1;35;*.tif=01;35;*.tiff=01;35;*.png=01;35;*.svg=01;35;*.svgz=01;35;*.mng=01;35;*.pcx=01;35;*.mov=01;35;*.mpg=0
1;35;*.mpeg=01;35;*.m2v=01;35;*.mkv=01;35;*.webm=01;35;*.ogm=01;35;*.mp4=01;35;*.m4v=01;35;*.mp4v=01;35;*.vob=
01;35;*.qt=01;35;*.nuv=01;35;*.wmv=01;35;*.asf=01;35;*.rm=01;35;*.rmvb=01;35;*.flc=01;35;*.avi=01;35;*.fli=01;
35;*.flv=01;35;*.gl=01;35;*.dl=01;35;*.xcf=01;35;*.xwd=01;35;*.yuv=01;35;*.cgm=01;35;*.emf=01;35;*.ogv=01;35;*
```

19. sleep-delays the execution by the given time

```
vvdn-user@vvdn-user:~/Documents/dir1$ sleep --help
Usage: sleep NUMBER[SUFFIX]...
       or: sleep OPTION
Pause for NUMBER seconds. SUFFIX may be 's' for seconds (the default),
'm' for minutes, 'h' for hours or 'd' for days. Unlike most implementations
that require NUMBER be an integer, here NUMBER may be an arbitrary floating
point number. Given two or more arguments, pause for the amount of time
specified by the sum of their values.

--help      display this help and exit
--version   output version information and exit

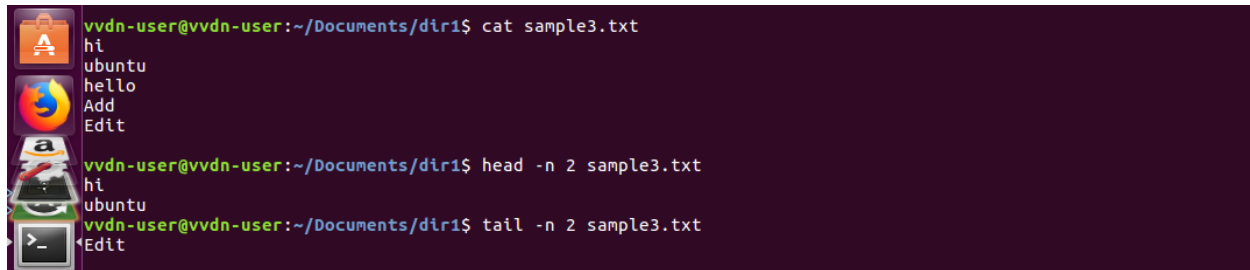
GNU coreutils online help: <http://www.gnu.org/software/coreutils/>
Full documentation at: <http://www.gnu.org/software/coreutils/sleep>
or available locally via: info '(coreutils) sleep invocation'
vvdn-user@vvdn-user:~/Documents/dir1$ sleep 5s
vvdn-user@vvdn-user:~/Documents/dir1$ sleep 10s
```

20. grep-filter searches for particular pattern and displays required field.

```
vvdn-user@vvdn-user:~/Documents/dir1$ grep -c "hi" sample3.txt
1
vvdn-user@vvdn-user:~/Documents/dir1$
```

21.head-outputs the first part of file

22.tail-prints the last part of the file

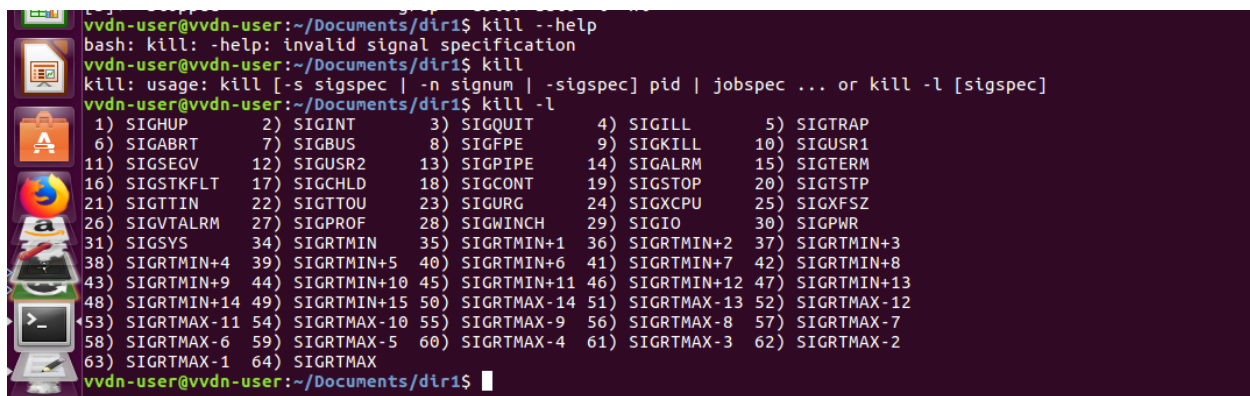
A terminal window with a dark purple background and a sidebar on the left containing icons for a file manager, web browser, and terminal. The terminal shows the following commands and output:

```
vvdn-user@vvdn-user:~/Documents/dir1$ cat sample3.txt
hi
ubuntu
hello
Add
Edit

vvdn-user@vvdn-user:~/Documents/dir1$ head -n 2 sample3.txt
hi
ubuntu

vvdn-user@vvdn-user:~/Documents/dir1$ tail -n 2 sample3.txt
Add
Edit
```

23.kill-terminates the process manually

A terminal window with a dark purple background and a sidebar on the left containing icons for a file manager, web browser, and terminal. The terminal shows the following commands and output:

```
vvdn-user@vvdn-user:~/Documents/dir1$ kill --help
bash: kill: -help: invalid signal specification

vvdn-user@vvdn-user:~/Documents/dir1$ kill
kill: usage: kill [-s sigspec | -n signum | -sigspec] pid | jobspec ... or kill -l [sigspec]

vvdn-user@vvdn-user:~/Documents/dir1$ kill -l
 1) SIGHUP      2) SIGINT      3) SIGQUIT     4) SIGILL      5) SIGTRAP
 6) SIGABRT     7) SIGBUS     8) SIGFPE      9) SIGKILL     10) SIGUSR1
11) SIGSEGV    12) SIGUSR2    13) SIGPIPE    14) SIGALRM     15) SIGTERM
16) SIGSTKFLT  17) SIGCHLD   18) SIGCONT    19) SIGSTOP     20) SIGTSTP
21) SIGTTIN    22) SIGTTOU    23) SIGURG     24) SIGXCPU     25) SIGXFSZ
26) SIGVTALRM  27) SIGPROF   28) SIGWINCH   29) SIGIO       30) SIGPWR
31) SIGSYS     34) SIGRTMIN  35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42) SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47) SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52) SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9  56) SIGRTMAX-8  57) SIGRTMAX-7
58) SIGRTMAX-6  59) SIGRTMAX-5 60) SIGRTMAX-4  61) SIGRTMAX-3  62) SIGRTMAX-2
63) SIGRTMAX-1  64) SIGRTMAX

vvdn-user@vvdn-user:~/Documents/dir1$
```

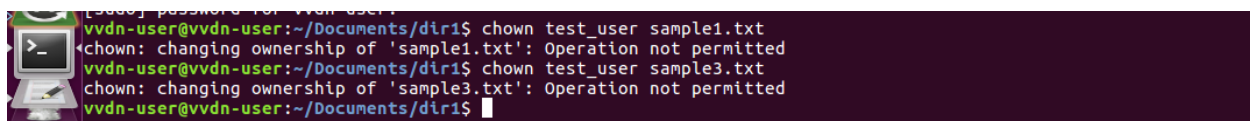
24.chmod-making file readable,writable,executable

A terminal window with a dark purple background and a sidebar on the left containing icons for a file manager, web browser, and terminal. The terminal shows the following commands and output:

```
vvdn-user@vvdn-user:~/Documents/dir1$ chmod 777 sample1.txt
vvdn-user@vvdn-user:~/Documents/dir1$ ls -l sample1.txt
-rwxrwxrwx 1 vvdn-user vvdn-user 3 Nov 30 14:56 sample1.txt

vvdn-user@vvdn-user:~/Documents/dir1$
```

25.chown-changes user/ownership of a file or directory

A terminal window with a dark purple background and a sidebar on the left containing icons for a file manager, web browser, and terminal. The terminal shows the following commands and output:

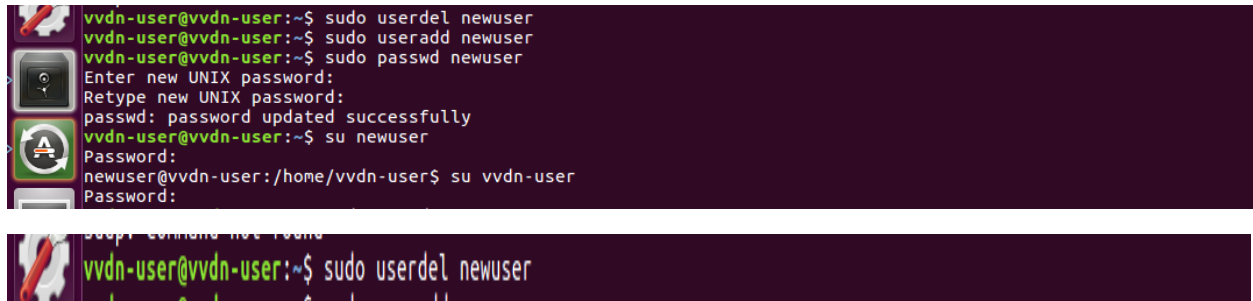
```
[sudo] password for vvdn-user:
vvdn-user@vvdn-user:~/Documents/dir1$ chown test_user sample1.txt
chown: changing ownership of 'sample1.txt': Operation not permitted

vvdn-user@vvdn-user:~/Documents/dir1$ chown test_user sample3.txt
chown: changing ownership of 'sample3.txt': Operation not permitted

vvdn-user@vvdn-user:~/Documents/dir1$
```

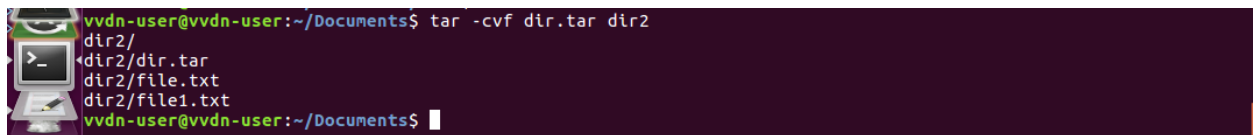
26.useradd-adding new user with password setup

27.userdel-deletion of the created user

A terminal window with a dark purple background and a sidebar on the left containing icons for a gear, a key, a warning triangle, and a monitor. The terminal text shows a sequence of commands to create and delete a user. The user 'newuser' is created with a password, then the user is deleted. The prompt changes from 'vvdn-user@vvdn-user' to 'newuser@vvdn-user' when the 'su' command is used.

```
vvdn-user@vvdn-user:~$ sudo userdel newuser
vvdn-user@vvdn-user:~$ sudo useradd newuser
vvdn-user@vvdn-user:~$ sudo passwd newuser
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
vvdn-user@vvdn-user:~$ su newuser
Password:
newuser@vvdn-user:/home/vvdn-user$ su vvdn-user
Password:
vvdn-user@vvdn-user:~$ sudo userdel newuser
```

28.tar-creates,modifies and extract files.

A terminal window with a dark purple background and a sidebar on the left containing icons for a gear, a key, a warning triangle, and a monitor. The terminal text shows the 'tar' command being used to create an archive of a directory. The prompt is 'vvdn-user@vvdn-user:~/Documents\$'.

```
vvdn-user@vvdn-user:~/Documents$ tar -cvf dir.tar dir2
dir2/
dir2/dir.tar
dir2/file.txt
dir2/file1.txt
vvdn-user@vvdn-user:~/Documents$
```