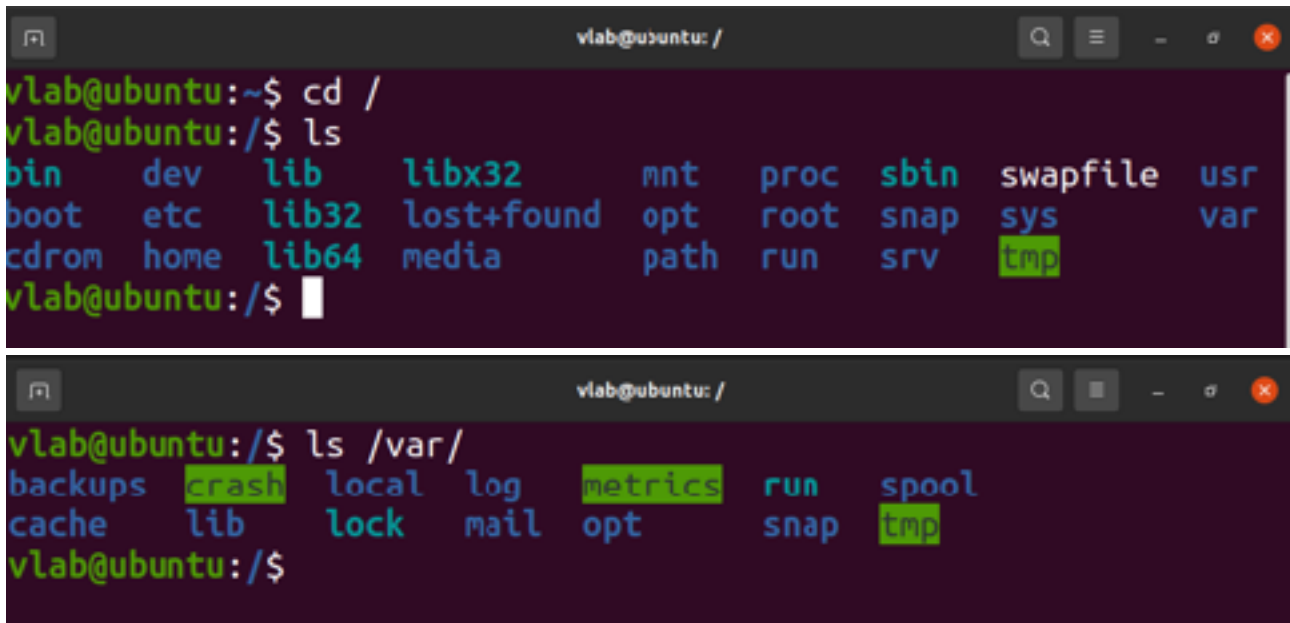


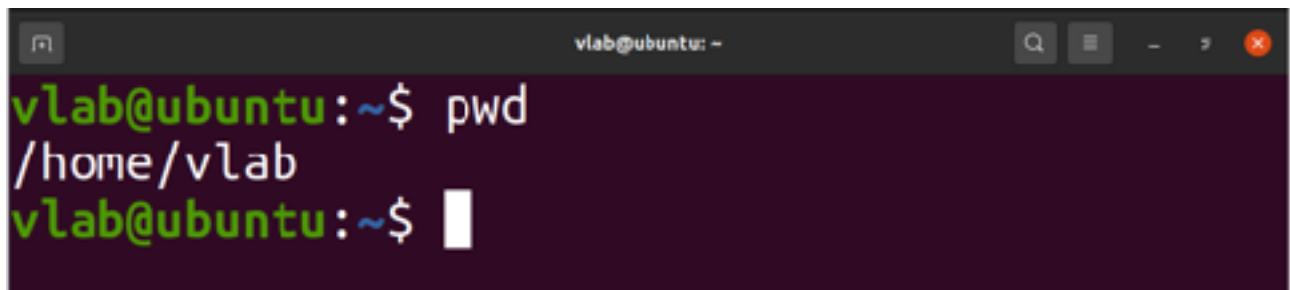
# Title : linux commands lab assignment :



The image contains two terminal window screenshots. The first screenshot shows the command `cd /` followed by `ls`, displaying a list of root-level directories including `bin`, `dev`, `lib`, `libx32`, `mnt`, `proc`, `sbin`, `swapfile`, `usr`, `boot`, `etc`, `lib32`, `lost+found`, `opt`, `root`, `snap`, `sys`, `var`, `cdrom`, `home`, `lib64`, `media`, `path`, `run`, `srv`, and `tmp`. The second screenshot shows the command `ls /var/`, displaying a list of subdirectories in `/var` including `backups`, `crash`, `local`, `log`, `metrics`, `run`, `spool`, `cache`, `lib`, `lock`, `mail`, `opt`, `snap`, and `tmp`.

```
vlab@ubuntu: /  
vlab@ubuntu:~$ cd /  
vlab@ubuntu:/$ ls  
bin      dev      lib      libx32    mnt      proc     sbin     swapfile  usr  
boot     etc      lib32    lost+found opt      root     snap     sys       var  
cdrom    home     lib64    media     path     run      srv      tmp  
vlab@ubuntu:/$  
  
vlab@ubuntu:/$ ls /var/  
backups  crash    local    log       metrics   run      spool  
cache    lib      lock     mail      opt       snap     tmp  
vlab@ubuntu:/$
```

Execute the command **pwd**. This will print the current working directory



The screenshot shows a terminal window where the command `pwd` has been executed, resulting in the output `/home/vlab`.

```
vlab@ubuntu: ~$ pwd  
/home/vlab  
vlab@ubuntu:~$
```

Execute the command **ls**. This will print the content of the current working directory on the terminal

```
vlab@ubuntu: /  
vlab@ubuntu:/$ ls  
bin      etc      lib64    mnt      root    srv      usr  
boot     home    libx32   opt      run     swapfile var  
cdrom    lib     lost+found path     sbin    sys  
dev      lib32   media    proc     snap    tmp  
vlab@ubuntu:/$
```

### 3. cd: Change Directory

Change the directory to **Desktop** using command **cd**

```
vlab@ubuntu: ~/Desktop  
vlab@ubuntu:~$ cd Desktop/  
vlab@ubuntu:~/Desktop$
```

### 4. mkdir: Create Directory

Create a new directory **newDir** using command **mkdir** and using **ls** command you can check the newly created directory

```
vlab@ubuntu: ~/Desktop  
vlab@ubuntu:~/Desktop$ mkdir newDir  
vlab@ubuntu:~/Desktop$ ls  
newDir  
vlab@ubuntu:~/Desktop$
```

### 5. rmdir: Remove Directory

Remove the directory **newDir** using command **rmdir** and using **ls** command you can check the directory has been deleted or not.

```
vlab@ubuntu: ~/Desktop
vlab@ubuntu:~/Desktop$ ls
newDir
vlab@ubuntu:~/Desktop$ rmdir newDir
vlab@ubuntu:~/Desktop$ ls
vlab@ubuntu:~/Desktop$
```

## 6. cp: Copy

First create a new file with command **touch** and a directory using command **mkdir** and confirm using **ls** command

```
vlab@ubuntu: ~/Desktop
vlab@ubuntu:~/Desktop$ touch hello.txt
vlab@ubuntu:~/Desktop$ mkdir foo
vlab@ubuntu:~/Desktop$ ls
foo  hello.txt
vlab@ubuntu:~/Desktop$
```

- Now using **cp** command copy the **hello.txt** file to **foo** directory and then check the contents of **foo** directory using **ls** command.
- You can also copy the directory using **cp**.

```
vlab@ubuntu: ~/Desktop
vlab@ubuntu:~/Desktop$ cp hello.txt foo/
vlab@ubuntu:~/Desktop$ ls foo/
hello.txt
vlab@ubuntu:~/Desktop$
```

## 7. mv: Move

First create a new directory using command **mkdir** and confirm using **ls** command.

```
vlab@ubuntu: ~/Desktop
vlab@ubuntu:~/Desktop$ mkdir newDir
vlab@ubuntu:~/Desktop$ ls
foo  hello.txt  newDir
vlab@ubuntu:~/Desktop$
```

Now, move the file **hello.txt** inside newly created directory and then check the content of current directory and newly created directory using **ls** command

```
vlab@ubuntu:~/Desktop$ mv hello.txt newDir/
vlab@ubuntu:~/Desktop$ ls
foo  newDir
vlab@ubuntu:~/Desktop$ ls newDir/
hello.txt
vlab@ubuntu:~/Desktop$
```

8. **less**: Allows you to view the contents of a file and navigate through file

First we will create a new file which has large content in it, for that execute below command:

```
vlab@ubuntu:~/Desktop$ man mkdir >> temp.txt
vlab@ubuntu:~/Desktop$
```

Now we will read the content of the file **temp.txt** using command **less**. This command will only show the one page at a time on the screen. If you can press **Enter** key it will show next line on the screen. And, if you press page down key, it will show the next page on the screen. Similarly, page up key will take you one page back.

```
vlab@ubuntu: ~/Desktop
MKDIR(1) User Commands
MKDIR(1)

NAME
    mkdir - make directories

SYNOPSIS
    mkdir [OPTION]... DIRECTORY...

DESCRIPTION
    Create the DIRECTORY(ies), if they do not already exist.

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

    -m, --mode=MODE
        set file mode (as in chmod), not a=rwx - umask

    -u, --umask=UMASK
        set umask (as in chmod) with no leading 0's

:█
```

## 9. more: Open a given file for interactive reading

Now, we will use the **more** command to read the content of **temp.txt**. You can scroll through the contents of the file by pressing **ENTER** or **SPACE BAR** keys.

**Note:** The main difference between **more** and **less** is that **less** command is faster because it does not load the entire file at once and allows navigation through file using page up/down keys.

```
vlab@ubuntu: ~/Desktop
vlab@ubuntu:~/Desktop$ more temp.txt
MKDIR(1)                                User Commands
                                   MKDIR(1)

NAME
    mkdir - make directories

SYNOPSIS
    mkdir [OPTION]... DIRECTORY...

DESCRIPTION
    Create the DIRECTORY(ies), if they do not already exist.

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

    -m, --mode=MODE
        set file mode (as in chmod), not a=rwx - umask

    -p, --parents
        no error if existing, make parent directories as needed

    -v, --verbose
        print verbose message
--More--(30%)
```

## 10. cat: Concatenate

Now, we will use the **cat** command to display the content of **temp.txt** on the screen.

```
vlab@ubuntu: ~/Desktop
vlab@ubuntu:~/Desktop$ cat temp.txt
MKDIR(1)                                User Commands

NAME
    mkdir - make directories

SYNOPSIS
    mkdir [OPTION]... DIRECTORY...

DESCRIPTION
    Create the DIRECTORY(ies), if they do not already exist.

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

    -m, --mode=MODE
        set file mode (as in chmod), not a=rwx - umask

    -p, --parents
        no error if existing, make parent directories as needed

    -v, --verbose
        print a message for each created directory
vlab@ubuntu:~/Desktop$
```

Now, we will use **cat** command to copy the content of **temp.txt** file to another text file. So, first we will create an empty text file using **touch** command and then copy the content of **temp.txt** to newly created file.

```
vlab@ubuntu: ~/Desktop
vlab@ubuntu:~/Desktop$ touch newFile.txt
vlab@ubuntu:~/Desktop$ ls
foo  newDir  newFile.txt  temp.txt
vlab@ubuntu:~/Desktop$ cat temp.txt >> newFile.txt
vlab@ubuntu:~/Desktop$
```

Now, print the content of **newFile.txt** using **cat** command and you can see that the content of **temp.txt** has got copied to **newFile.txt** using cat command

```
vlab@ubuntu:~/Desktop$ cat newFile.txt
MKDIR(1)                                User Commands
                                   mkdir(1)

NAME
    mkdir - make directories

SYNOPSIS
    mkdir [OPTION]... DIRECTORY...

DESCRIPTION
    Create the DIRECTORY(ies), if they do not already exist.

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

    -m, --mode=MODE
        set file mode (as in chmod), not a=rwx - umask

    -p, --parents
        no error if existing, make parent directories as needed

    -v, --verbose
        print a message for each created directory
vlab@ubuntu:~/Desktop$
```

## 11. head: Print the top N number of data of the given input

We can use a **head** command to display the content of **temp.txt** on the screen. By default it will print first 10 lines on the screen.



```
vlab@ubuntu: ~/Desktop
vlab@ubuntu:~/Desktop$ head temp.txt
MKDIR(1)                                User Commands                                MKDIR(1)

NAME
    mkdir - make directories

SYNOPSIS
    mkdir [OPTION]... DIRECTORY...

DESCRIPTION
    Create the DIRECTORY(ies), if they do not already ex-
vlab@ubuntu:~/Desktop$
```

You can specify the no of lines to be printed on the screen by using **-n** followed by no of lines.

```
vlab@ubuntu: ~/Desktop
vlab@ubuntu:~/Desktop$ head -n15 temp.txt
MKDIR(1)                                User Commands                                MKDIR(1)

NAME
    mkdir - make directories

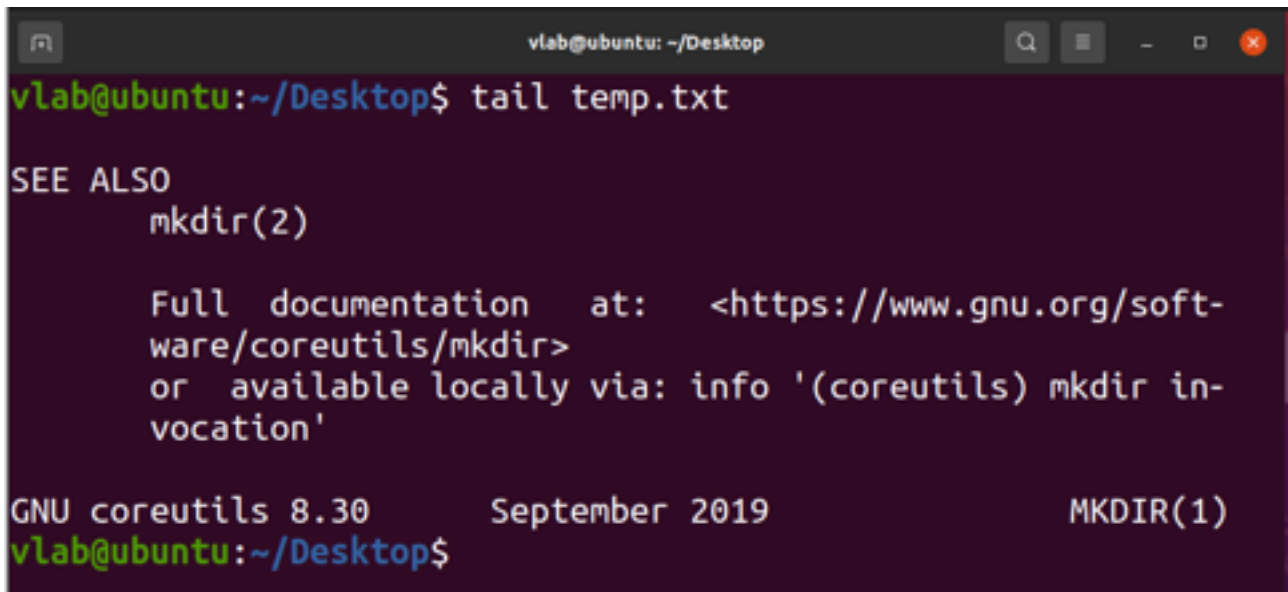
SYNOPSIS
    mkdir [OPTION]... DIRECTORY...

DESCRIPTION
    Create the DIRECTORY(ies), if they do not already ex-
    ist.

    Mandatory arguments to long options are mandatory for
    short options too.
vlab@ubuntu:~/Desktop$
```

12. tail: Print the last N number of data of the given input

We can use a tail command to display the content of **temp.txt** from the end of the file. By default it will print last 10 lines on the screen.

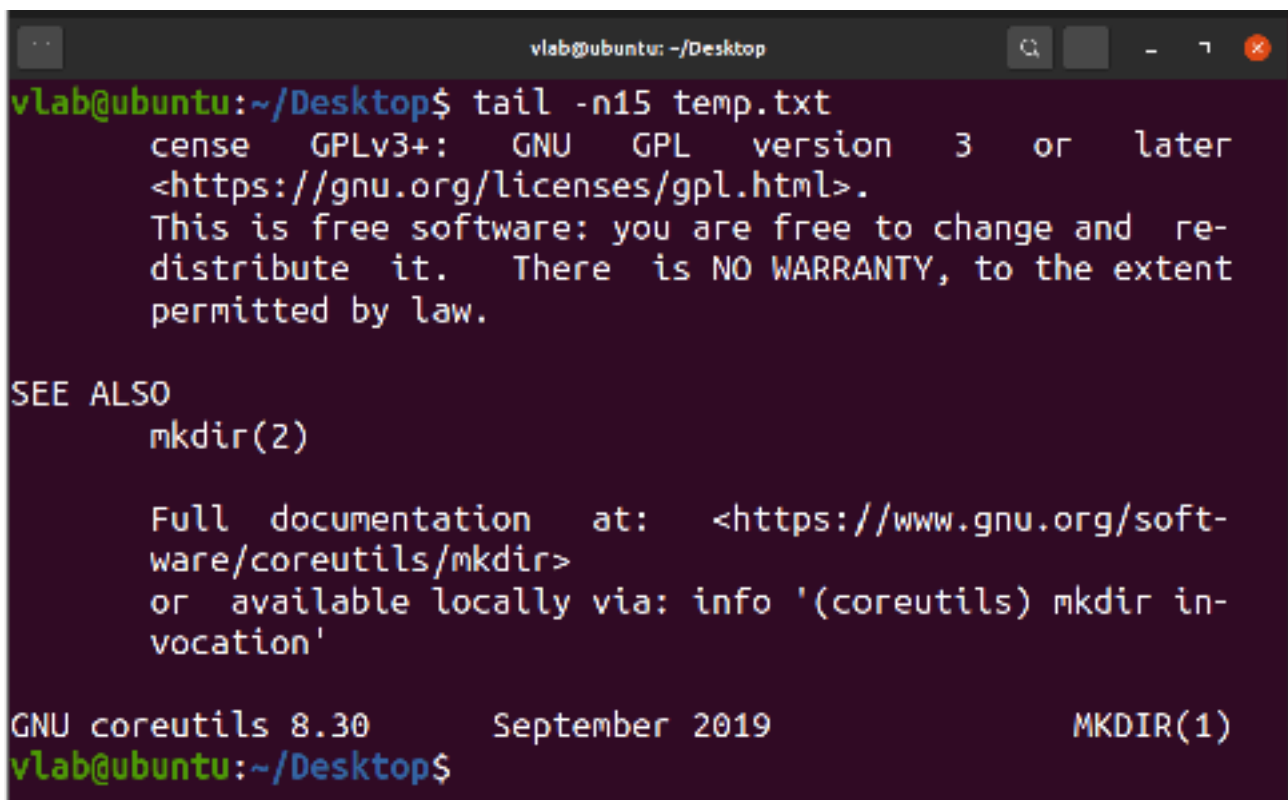
A terminal window titled 'vlab@ubuntu: ~/Desktop' showing the command 'tail temp.txt' being executed. The output displays the end of a file, including a 'SEE ALSO' section for 'mkdir(2)', a URL for GNU coreutils documentation, and the footer 'GNU coreutils 8.30 September 2019 MKDIR(1)'.

```
vlab@ubuntu:~/Desktop$ tail temp.txt
SEE ALSO
    mkdir(2)

Full documentation at: <https://www.gnu.org/software/coreutils/mkdir>
or available locally via: info '(coreutils) mkdir invocation'

GNU coreutils 8.30          September 2019          MKDIR(1)
vlab@ubuntu:~/Desktop$
```

We can specify the no of lines to print using option **-n**.

A terminal window titled 'vlab@ubuntu: ~/Desktop' showing the command 'tail -n15 temp.txt' being executed. The output displays the last 15 lines of the file, including the GNU GPL license text, the 'SEE ALSO' section for 'mkdir(2)', and the footer 'GNU coreutils 8.30 September 2019 MKDIR(1)'.

```
vlab@ubuntu:~/Desktop$ tail -n15 temp.txt
cense GPLv3+: GNU GPL version 3 or later
<https://gnu.org/licenses/gpl.html>.
This is free software: you are free to change and re-
distribute it. There is NO WARRANTY, to the extent
permitted by law.

SEE ALSO
    mkdir(2)

Full documentation at: <https://www.gnu.org/software/coreutils/mkdir>
or available locally via: info '(coreutils) mkdir invocation'

GNU coreutils 8.30          September 2019          MKDIR(1)
vlab@ubuntu:~/Desktop$
```

