

## 1. Display User Manual of a Command

Functionality: Shows the manual page with details about a command's usage, options, and arguments.

Syntax: man <command>

```
LS(1)                               User Commands                               LS(1)

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
Manual page ls(1) line 1 (press h for help or q to quit)
```

## 2. Change Current Working Directory.

Functionality: Changes the terminal's current working directory.

Syntax: cd <directory-path>

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

## 3. List Contents of the Current Directory.

Functionality: Lists all files and directories in the current location.

Syntax: ls

```
ubuntu@ubuntu:~/Desktop$ ls
main.txt  ubuntu-desktop-bootstrap_ubuntu-desktop-bootstrap.desktop
ubuntu@ubuntu:~/Desktop$ 
```

## 4. Read/Modify/Concatenate Text Files.

Functionality: Displays or manipulates file content.

Syntax:

Read: cat <filename>

Modify: 'nano <filename>

Concatenate: cat <file1> <file2> > <outputfile>



The terminal window shows the command `cat main.txt notes.txt > merge.txt` being run. The output of the command is displayed in the terminal, showing the contents of both files merged together.

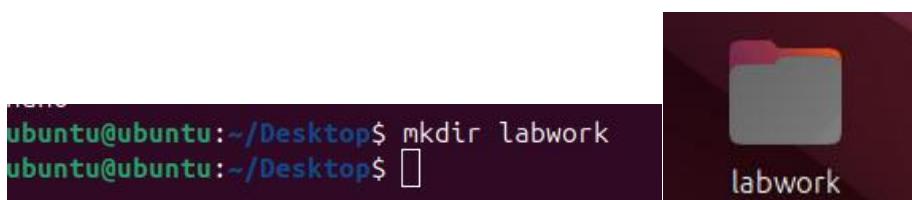
File icons on the desktop:

- notes.txt (empty document icon)
- main.txt (document icon)
- merge.txt (document icon)

## 5.Create a New Directory.

Functionality: Creates a new directory at the specified path.

Syntax: `mkdir <directory-name>`



The terminal window shows the command `mkdir labwork` being run. The output of the command is displayed in the terminal, showing the new directory `labwork` has been created.

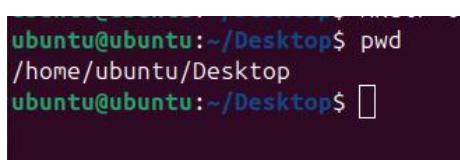
File icon on the desktop:

- labwork (grey folder icon)

## 6.Display Current Working Directory.

Functionality: Prints the current directory path.

Syntax: `pwd`



The terminal window shows the command `pwd` being run. The output of the command is displayed in the terminal, showing the current working directory is `/home/ubuntu/Desktop`.

## **7. Write Arguments to Standard Output.**

Functionality: Prints the provided string or variables.

Syntax: echo <arguments>

```
/home/ubuntu/Desktop  
ubuntu@ubuntu:~/Desktop$ echo "Operating System Lab"  
Operating System Lab  
ubuntu@ubuntu:~/Desktop$ 
```

## **8. Remove a File.**

Functionality: Deletes a specified file.

Syntax: rm <filename>

```
ubuntu@ubuntu:~/Desktop$ rm notes.txt  
ubuntu@ubuntu:~/Desktop$ ls  
labwork merge.txt  
main.txt ubuntu-desktop-bootstrap_ubuntu-desktop-bootstrap.desktop  
ubuntu@ubuntu:~/Desktop$ 
```

## **9. Delete a Directory.**

Functionality: Removes an empty directory.

Syntax: rmdir <directory-name>

```
ubuntu@ubuntu:~/Desktop$ rmdir labwork  
ubuntu@ubuntu:~/Desktop$ ls  
main.txt merge.txt ubuntu-desktop-bootstrap_ubuntu-desktop-bootstrap.desktop  
ubuntu@ubuntu:~/Desktop$ 
```

## **10. Copy a File or Directory.**

Functionality: Copies a file or directory to a destination.

Syntax: cp <source> <destination>

```
ubuntu@ubuntu:~/Desktop$ cp main.txt backup.txt  
ubuntu@ubuntu:~/Desktop$ ls  
backup.txt merge.txt  
main.txt ubuntu-desktop-bootstrap_ubuntu-desktop-bootstrap.desktop  
ubuntu@ubuntu:~/Desktop$ cat backup.txt  
This all are the command of linux terminal  
ls  
man  
touch  
cd  
cd ..  
mkdir  
rm  
rmdir  
nano  
ubuntu@ubuntu:~/Desktop$ 
```

## **10. Switch to Root User.**

Functionality: Gains root privileges temporarily.

Syntax: sudo su

```
ubuntu@ubuntu:~$ sudo su
root@ubuntu:/home/ubuntu# 
```

## 11.Move Files or Directories.

Functionality: Moves or renames files and directories.

-Syntax: mv <source> <destination>

```
ubuntu@ubuntu:~/Desktop$ mv main.txt labwork/
ubuntu@ubuntu:~/Desktop$ cd labwork
ubuntu@ubuntu:~/Desktop/labwork$ ls
main.txt
ubuntu@ubuntu:~/Desktop/labwork$ mv main.txt root.txt
ubuntu@ubuntu:~/Desktop/labwork$ ls
root.txt
ubuntu@ubuntu:~/Desktop/labwork$ 
```

## 12.Search for a String in a File.

Functionality: Searches for a specific word or pattern in a file.

Syntax: grep "<string>" <file>

```
ubuntu@ubuntu:~/Desktop$ grep "nano" merge.txt
nano
ubuntu@ubuntu:~/Desktop$ 
```

### **13.Print Top N Lines of a File.**

Functionality: Displays the first N lines of a file.

Syntax: head -n <N> <file>

```
ubuntu@ubuntu:~/Desktop$ head -n 7 merge.txt
This all are the command of linux terminal
ls
man
touch
cd
cd ..
mkdir
ubuntu@ubuntu:~/Desktop$
```

### **14.Print Last N Lines of a File.**

Functionality: Displays the last N lines of a file.

Syntax: tail -n <N> <file>

```
ubuntu@ubuntu:~/Desktop$ tail -n 7 merge.txt
touch
cd
cd ..
mkdir
rm
rmdir
nano
ubuntu@ubuntu:~/Desktop$
```

### **15.Remove Read Permission from Owner.**

Functionality: Revokes the owner's read permission for a

file.Syntax: chmod u-r <filename>

```
ubuntu@ubuntu:~/Desktop$ chmod u-r backup.txt
ubuntu@ubuntu:~/Desktop$ ls -l backup.txt
--w-rw-r-- 1 ubuntu ubuntu 87 Jan 17 16:20 backup.txt
ubuntu@ubuntu:~/Desktop$
```

### **16.Change Specific Permissions.**

Functionality: Sets or removes specific file permissions.

-Syntax: chmod u+r,w-x,g+w <filename>

```
ubuntu@ubuntu:~/Desktop$ chmod u+rwx,g+x merge.txt
ubuntu@ubuntu:~/Desktop$ ls -l merge.txt
-rwxrwxr-- 1 ubuntu ubuntu 87 Jan 17 16:14 merge.txt
ubuntu@ubuntu:~/Desktop$ 
```

## 17.Add Write Permission to Owner, None to Others.

-Functionality: Allows write access for the owner only.

Syntax: chmod u+w,o-rwx <filename>

```
ubuntu@ubuntu:~/Desktop$ chmod u+w,u-rx,g-rwx,o+rwx merge.txt
ubuntu@ubuntu:~/Desktop$ ls -l merge.txt
--w---rwx 1 ubuntu ubuntu 87 Jan 17 16:14 merge.txt
ubuntu@ubuntu:~/Desktop$ 
```

## 18.Assign Permissions to Users.

Functionality: Modifies file access for users, groups, and others.

Syntax: chmod u+rwx,g+rx,o+r <filename>

```
ubuntu@ubuntu:~/Desktop$ chmod u+rwx,g+rw,g-x,o+r,o-wx merge.txt
ubuntu@ubuntu:~/Desktop$ ls
backup.txt  merge.txt
labwork      ubuntu-desktop-bootstrap_ubuntu-desktop-bootstrap.desktop
ubuntu@ubuntu:~/Desktop$ ls -l merge.txt
-rwxrwxr-- 1 ubuntu ubuntu 87 Jan 17 16:14 merge.txt
ubuntu@ubuntu:~/Desktop$ 
```

## 19.Assign R/W/X to Others.

Functionality: Gives read, write, and execute permissions to others.

Syntax: chmod o+rwx <filename>

```
ubuntu@ubuntu:~/Desktop$ chmod o+rwx backup.txt
ubuntu@ubuntu:~/Desktop$ ls -l backup.txt
--w-rw-rwx 1 ubuntu ubuntu 87 Jan 17 16:20 backup.txt
ubuntu@ubuntu:~/Desktop$ 
```

## 20.Remove All Permissions from All Users.

Functionality: Clears all permissions on a file.

Syntax: 'chmod a-rwx <filename>

```
ubuntu@ubuntu:~/Desktop$ chmod a-rwx merge.txt
ubuntu@ubuntu:~/Desktop$ ls -l merge.txt
----- 1 ubuntu ubuntu 87 Jan 17 16:14 merge.txt
ubuntu@ubuntu:~/Desktop$ 
```

## 21.Remove Read Permission Using Absolute Mode.

Functionality: Uses numeric mode to restrict read access.

Syntax: chmod 700 <filename>

## 22.Set R/W for Owner, None for Group/Other.

Functionality: Assigns permissions in numeric mode.

Syntax: chmod 600 <filename>

```
ubuntu@ubuntu:~/Desktop$ chmod 600 confidential.txt
ubuntu@ubuntu:~/Desktop$ ls -l confidential.txt
-rw----- 1 ubuntu ubuntu 0 Jan 17 16:43 confidential.txt
ubuntu@ubuntu:~/Desktop$ 
```

## 23.Add Execute for Owner, Read for Group/Others.

Functionality: Adds execution and read access.

Syntax: chmod u+x,g+r,o+r <filename>

```
ubuntu@ubuntu:~/Desktop$ chmod u+x,g+r,o+r script.sh
ubuntu@ubuntu:~/Desktop$ ls -l script.sh
-rwxrwxr-- 1 ubuntu ubuntu 0 Jan 17 16:45 script.sh
ubuntu@ubuntu:~/Desktop$ 
```

## 24.Add Execute Permission to All Users.

Functionality: Enables execution by everyone.

Syntax: chmod a+x <filename>

```
ubuntu@ubuntu:~/Desktop$ chmod a+x run.sh
ubuntu@ubuntu:~/Desktop$ ls -l run.sh
-rwxrwxr-x 1 ubuntu ubuntu 0 Jan 17 16:45 run.sh
ubuntu@ubuntu:~/Desktop$ 
```

