Mawlana Bhashani Science and Technology University

Lab-Report

Lab Report No: 04

Lab Report Name: File operation and permission.

Course code: ICT-3110

Course title: Operating System Lab

Date of Performance: 14-09-2020

Date of Submission:

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3rd year 1st semester

Session: 2017-18

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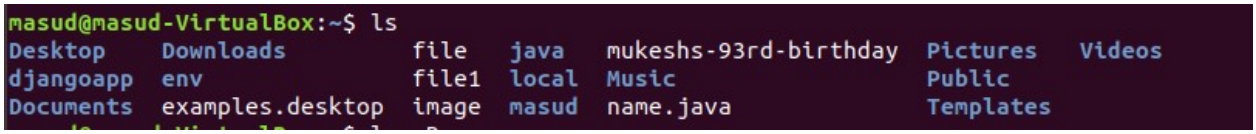
Experiment No: 04

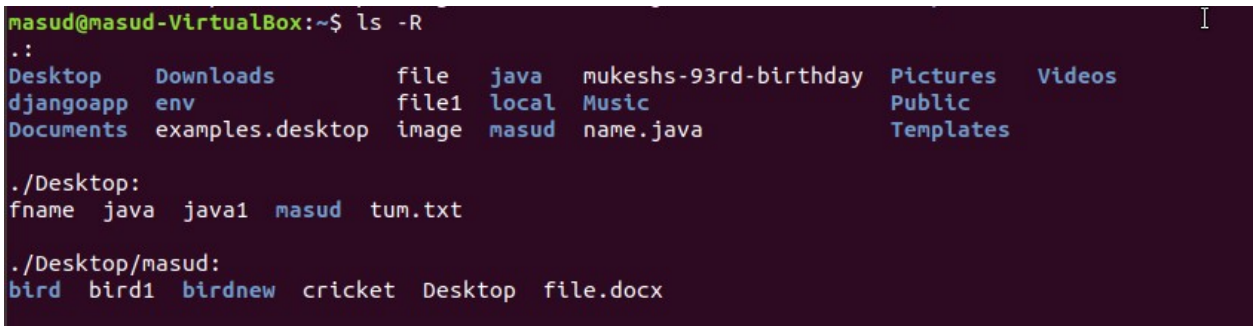
Experiment Name: File operation and permission

File Operation: To use the Linux terminal like a pro, we'll need to know the basics of managing files and navigating directories.Different file operation is given below.

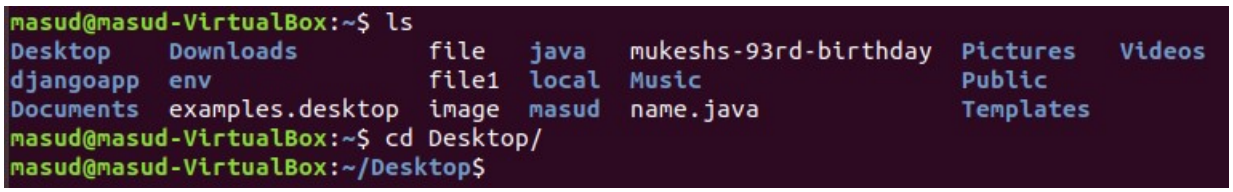
1. ls – List Files The ls command lists the files in a directory. By default, ls lists files in the current directory.



2. we can also list files recursively — that is, list all files in directories inside the current directory — with ls –R.



3. cd – Change Directory The cd command changes to another directory. For example, cd Desktop will take you to your Desktop directory if you're starting from your home directory.



4. cd . . will take you up a directory.

```
masud@masud-VirtualBox:~/Desktop$ cd ..
masud@masud-VirtualBox:~$ pwd
/home/masud
masud@masud-VirtualBox:~$
```

5) mkdir – Make Directories The mkdir command makes a new directory. mkdir example will make a directory with the name “example” in the current directory.

```
masud@masud-VirtualBox:~$ mkdir Masud
masud@masud-VirtualBox:~$ ls
Desktop    Downloads         file   java   Masud                 name.java  Templates
djangoapp  env               file1  local  mukeshs-93rd-birthday  Pictures   Videos
Documents  examples.desktop  image  masud  Music                 Public
masud@masud-VirtualBox:~$
```

6.rmdir – Remove Directories The rmdir command removes an empty directory. rmdir directory would delete the directory named “directory” in the current directory.

```
masud@masud-VirtualBox:~$ ls
Desktop    Downloads         file   java   Masud                 name.java  Templates
djangoapp  env               file1  local  mukeshs-93rd-birthday  Pictures   Videos
Documents  examples.desktop  image  masud  Music                 Public
masud@masud-VirtualBox:~$ rmdir Masud
masud@masud-VirtualBox:~$ ls
Desktop    Downloads         file   java   mukeshs-93rd-birthday  Pictures   Videos
djangoapp  env               file1  local  Music                 Public
Documents  examples.desktop  image  masud  name.java             Templates
masud@masud-VirtualBox:~$
```

7) ln – Create Links The ln command creates links. The most commonly used type of link is probably the symbolic link, which you can create with ln -s.

```
masud@masud-VirtualBox:~$ cd Desktop
masud@masud-VirtualBox:~/Desktop$ ln -s /home/Desktop
masud@masud-VirtualBox:~/Desktop$ ls
Desktop  fname  java  java1  masud  tum.txt
masud@masud-VirtualBox:~/Desktop$
```

File Permissions-

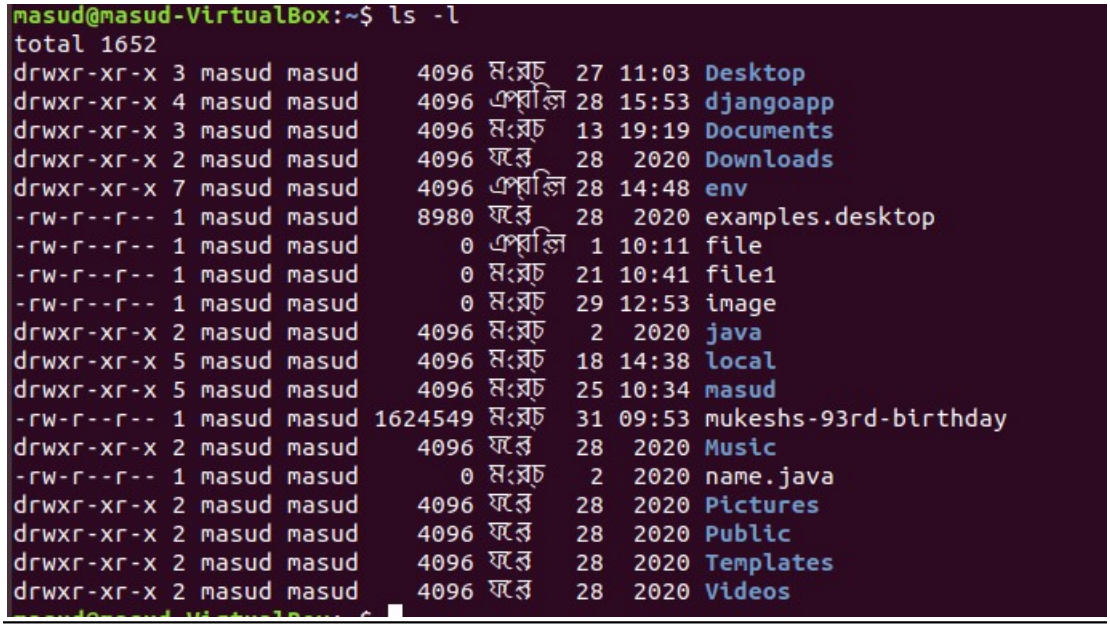
1) Read

2) Write

3) Execute permission

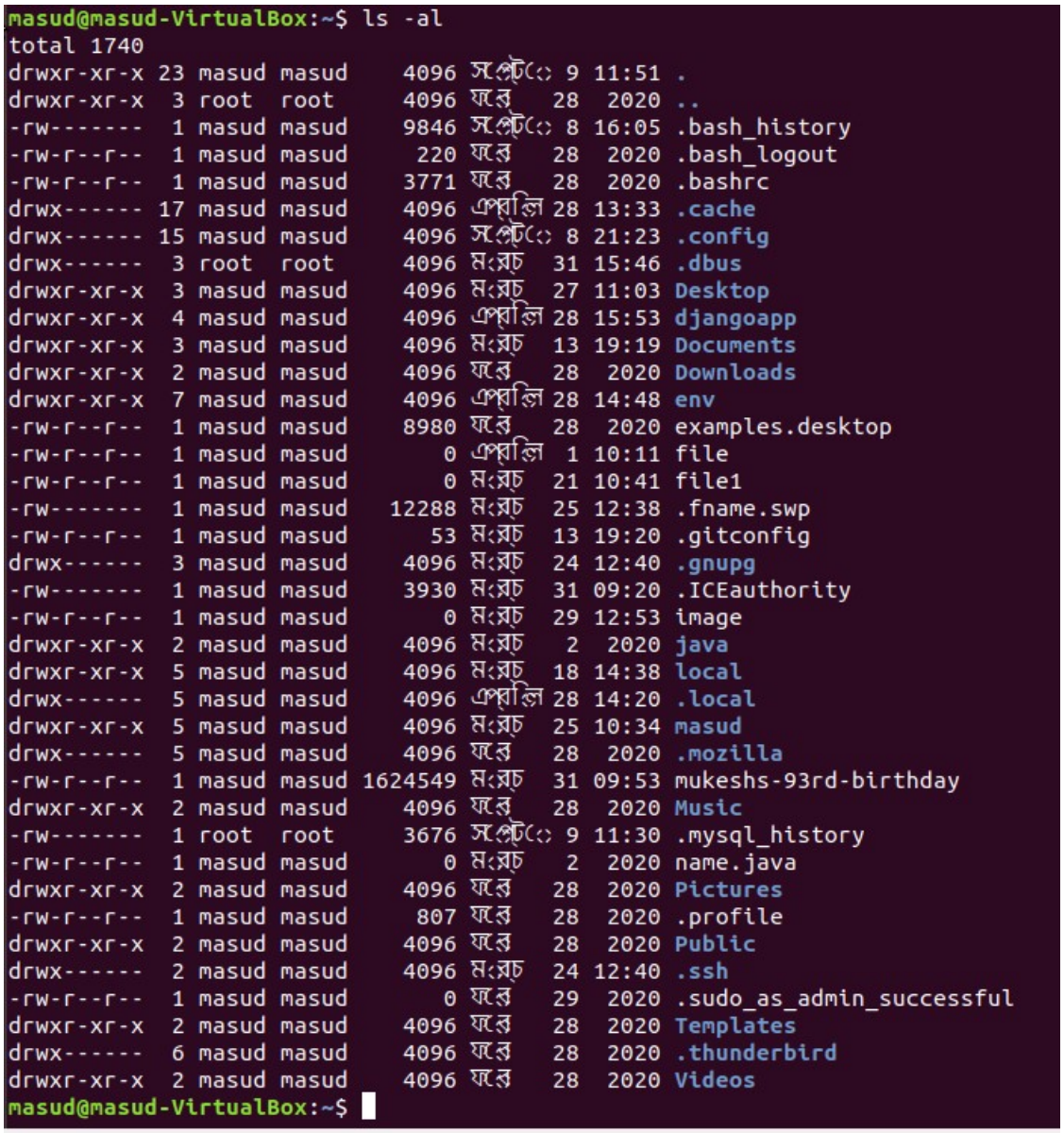
Read (r): this gives permission to merely open a file or folder and view its contents.

Write (w): this gives permission to overwrite, append-to or delete a file or folder.
Execute (x): this gives permission to "run" a file. For example to run a script or a program. So, how can we put this all into context? Let's have a look at the contents of a typical folder. I used the command ls -l to bring up this list:



the following command to view all files in a list:

ls –al



Next to each file and directory, we'll see a special section that outlines the permissions it has. It looks like this:

-rwx rw- r–

The r stands for “read,” the w stands for “write,” and the x stands for “execute.” Directories will be start with a “d” instead of a “-“. You’ll also notice that there are 10 spaces which hold value. You can ignore the first, and then there are 3 sets of 3. The first set is for the owner, the second set is for the group, and the last set is for the world. To change a file or directory’s permissions, let’s look at the basic form of the chmod command.

chmod [class][operator][permission] file

chmod [ugoa][+ or –] [rwx] file

u: This is for the owner.

g: This is for the group.

o: This is for all others.

a: This will change permissions for all of the above.

+: The plus sign will add the permissions which follow.

-: The minus sign will remove the permissions which follow.

r: Allows read access. w: Allows write access. x: Allows execution.

Discussion: This is lab is about file operation and permission.Here we use some command for file operation such as ls is used for show the file list and ls -R is used for show the all file list in current directory.mkdir is used for create directory cd for change the directory and also some other for various purposes. In file permission we see that the linux divides the file into read, write and executed denoted by r,w,x.ls -al is used for view all files in list.