Parul™ University

OPERATING SYSTEM

LAB MANUAL

B.TECH IT

2nd YEAR 4TH SEM

200303108073

CERTIFICATE

This is to certify that Mr./Ms Chauhan Dharmendrakumar Jagatsinh with

enrolment no.   200303108073   has successfully completed his/her laboratory

experiments in Operating System(203105204) from the department of

B,Tech IT 4th SEM   during the academicyear 2021-2022

Date of Submission: ....   Staff In charge: ....

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PRACTICLE 1

AIM: Study basics command of Linux.

Linux Basic Commands:

1. mkdir command
Use mkdir command to make a new directory.

2. rmdir command
If you need to delete a directory, use the rmdir command. However, rmdir only allows you to delete empty directories.

3. Touch command
It is used to create a new file in linux.

4. Cd command
navigate the Linux files and directories, use the cd command

```
┌──(kali㉿kali)-[~]
└─$ mkdir Basics

┌──(kali㉿kali)-[~]
└─$ rmdir Basics

┌──(kali㉿kali)-[~]
└─$ mkdir Basics

┌──(kali㉿kali)-[~]
└─$ cd Basics

┌──(kali㉿kali)-[~/Basics]
└─$ cd

┌──(kali㉿kali)-[~]
└─$ cd Basics

┌──(kali㉿kali)-[~/Basics]
└─$ touch Basics
```

5. cat> command
cat (short for concatenate) is one of the most frequently used commands in Linux. It is used to list the contents of a file on the standard output (sdout).

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6. cp command

Use the cp command to copy files from the current directory to a different directory.

7. rm command

The rm command is used to delete directories and the contents within them.

touch command

The touch command allows you to create a blank new file through the Linux command line

```
┌──(kali㉿kali)-[~/Basics]
└─$ cat>Basics
Hello!
Hello!
ABCDEFGHIJKLMNOPQRSTUVWXYZ

┌──(kali㉿kali)-[~/Basics]
└─$ touch Basics1

┌──(kali㉿kali)-[~/Basics]
└─$ cat>Basics1
How are you?
abcdefghijklmnopqrstuvwxyz

┌──(kali㉿kali)-[~/Basics]
└─$ cp Basics Basics1

┌──(kali㉿kali)-[~/Basics]
└─$ rm Basics
```

8. mv command

The primary use of the mv command is to move files, although it can also be used to rename files.

```
┌──(kali㉿kali)-[~/Basics]
└─$ cd

┌──(kali㉿kali)-[~]
└─$ mv hello Basics
```

9. head command

The head command is used to view the first lines of any text file. By default, it will show the first ten lines, but you can change this number to your liking. For example, if you only want to show the first five lines, type head -n 5 filename.ext.

10. tail command

This one has a similar function to the head command, but instead of showing the first lines, the tail command will display the last ten lines of a text file. For example, tail -n filename.ext.

```
┌──(kali㉿kali)-[~]
└─$ cd Basics

┌──(kali㉿kali)-[~/Basics]
└─$ cat>hello
f
fs
f
s
fs
fs
f
s
fs
f
sf
s
fs
fdht
htr

h

h
dgggsf
s
s
f
```

```
┌──(kali㉿kali)-[~/Basics]
└─$ head hello
f
fs
f
s
fs
fs
f
s
fs
f

┌──(kali㉿kali)-[~/Basics]
└─$ tail hello
fdht
htr

h

h
dgggsf
s
s
f
```

11. ls command

The ls command is used to view the contents of a directory.

```
┌──(kali㉿kali)-[~]
└─$ ls
Basics    Documents  file.txt  First      Good   hello.txt  Morning  Pictures  Templates
Desktop   Downloads  first     firstclear Hello  Hello.txt  Music    Public    Videos
```

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12. tac command
Use to view the content in reverse order in file

```
  ┌──(kali㉿kali)-[~/Basics]
  └─$ tac hello
f
s
s
dgggsf
h

h

htr
fdht
fs
s
sf
f
fs
s
f
fs
fs
s
f
fs
f
```

13. more command
Use to view the content more than 100 lines

```
  ┌──(kali㉿kali)-[~/Basics]
  └─$ more hello
f
fs
f
s
fs
fs
f
s
fs
f
sf
s
fs
fdht
htr

h

h
dgggsf
s
s
f
```

14.passwd command
Use to change the password or user

```
  ┌──(kali㉿kali)-[~/Basics]
  └─$ passwd
Changing password for kali.
Current password:
New password:
Retype new password:
passwd: password updated successfully
```

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15.history command

When you've been using Linux for a certain period of time, you'll quickly notice that you can run hundreds of commands every day

```
┌──(kali㉿kali)-[~]
└─$ history
    1
    2  ls
    3  pwd
    4  cd
    5  ls
    6  mkdir Hello
    7  rmdir Hello
    8  rm Hello
    9  rm Hello.txt
   10  rm Hello
   11  rmdir Hello
   12  mkdir Hello
   13  cp hello.txt hello
   14  cp hello.txt Hello
   15  rm
   16  cp Hello
   17  touch Good Morning
   18  locate Good
   19  locate Good.txt
   20  locate Hello
   21  find Good.txt
```

16.find command

Similar to the locate command, using find also searches for files and directories

```
┌──(kali㉿kali)-[~]
└─$ find Basics
Basics
Basics/Basics1
Basics/hello
```

17.hostname command

It is used to know the name of your host/network

```
┌──(kali㉿kali)-[~]
└─$ hostname                              2 ⚙
kali

┌──(kali㉿kali)-[~]
└─$ uname                                 2 ⚙
Linux

┌──(kali㉿kali)-[~]
└─$ ping                                  2 ⚙
ping: usage error: Destination address required
```

18.diff command

It is used to see the difference between two files regarding content.

```
┌──(kali㉿kali)-[~]
└─$ diff hello.txt bye.txt                                    2 ⚙
0a1,3
> fsghkj
> desjdjesk
> debjkd
```

19.pwd command

It is used to find out the path of the current working directory you're in.

```
┌──(kali㉿kali)-[~]
└─$ pwd
/home/kali
```

20.Sudo command

Enable you to perform tasks that require administrative or oroot permissions.

```
┌──(kali㉿kali)-[~]
└─$ sudo                                                      2 ⚙
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] [-D directory] [-g group] [-h host] [-p
            prompt] [-R directory] [-T timeout] [-u user] [VAR=value] [-i├s] [<command>]
usage: sudo -e [-AknS] [-r role] [-t type] [-C num] [-D directory] [-g group] [-h host] [-p
            prompt] [-R directory] [-T timeout] [-u user] file ...
```

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PRACTICAL: 2

AIM: Study the basics of shell programming.