

Basic Linux Commands

Submitted By

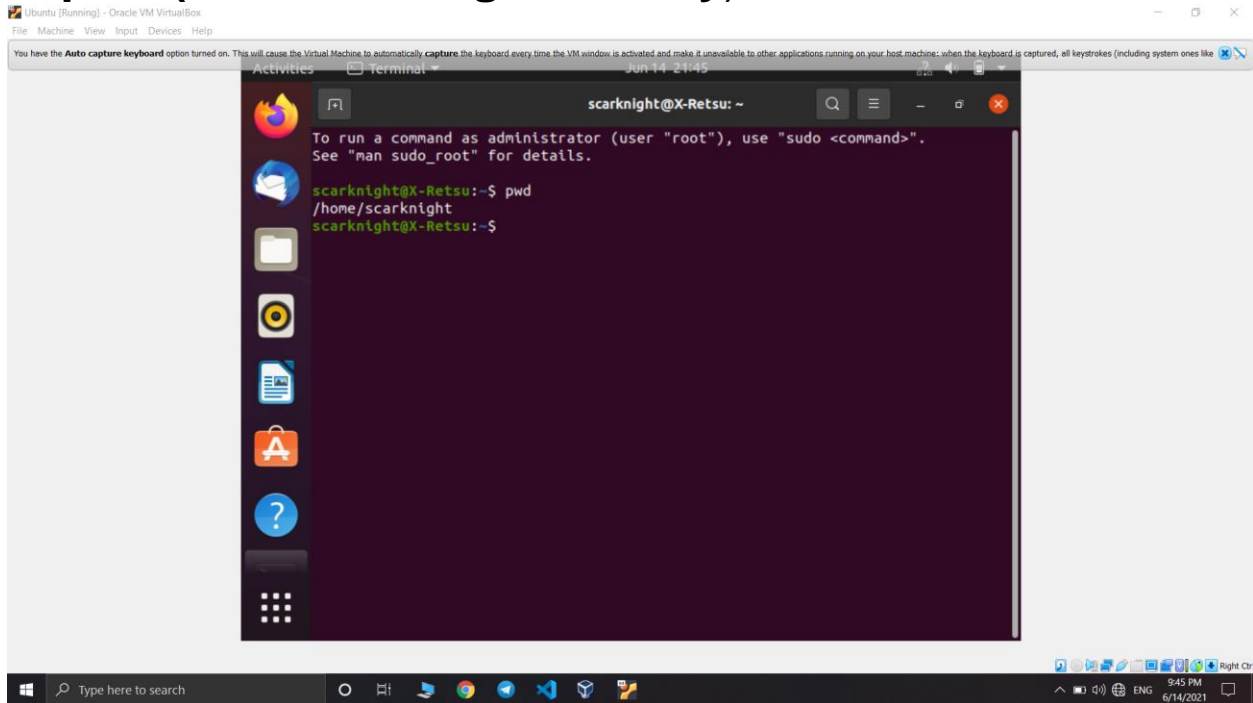
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Roll no.1

MCA – A[S2]

Basic Linux Commands

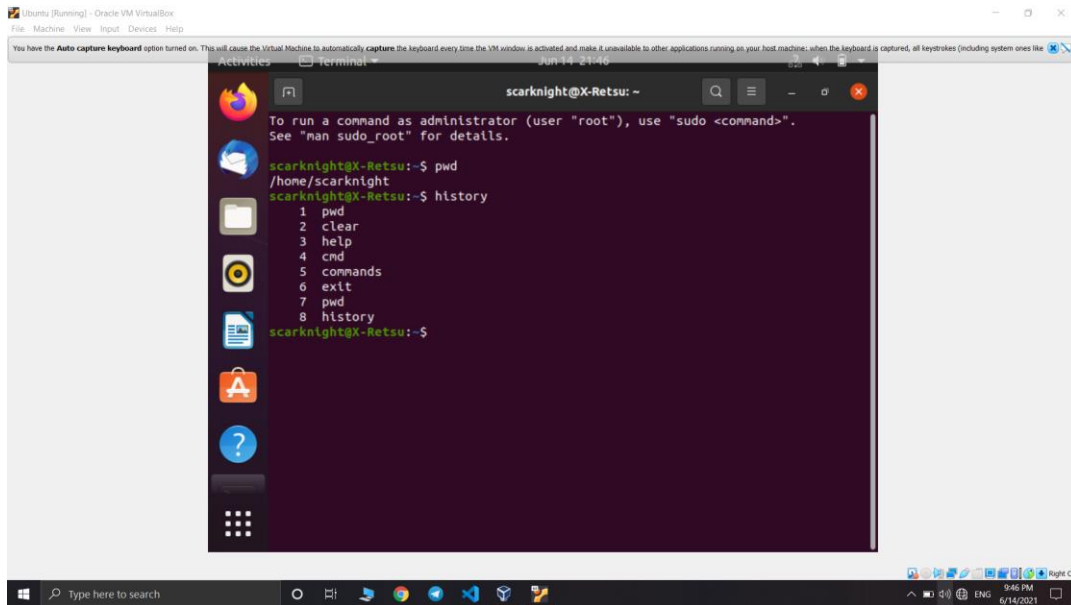
1. pwd (Print Working Directory)

A screenshot of a Linux terminal window running on a virtual machine. The terminal title bar shows 'scarknight@X-Retsu: ~'. The prompt is 'scarknight@X-Retsu:~\$'. The user has entered the command 'pwd', and the output is '/home/scarknight'. The terminal window is part of a desktop environment with a sidebar on the left containing icons for Firefox, a mail client, a file manager, a media player, a document viewer, an application store, and a help icon. The top of the window shows a menu bar with 'File', 'Machine', 'View', 'Input', 'Devices', and 'Help'. A status bar at the bottom of the window shows system icons and the date '6/14/2021'.

```
scarknight@X-Retsu: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
scarknight@X-Retsu:~$ pwd  
/home/scarknight  
scarknight@X-Retsu:~$
```

Use the pwd command to find out the path of the current working directory (folder) you're in.

2. history

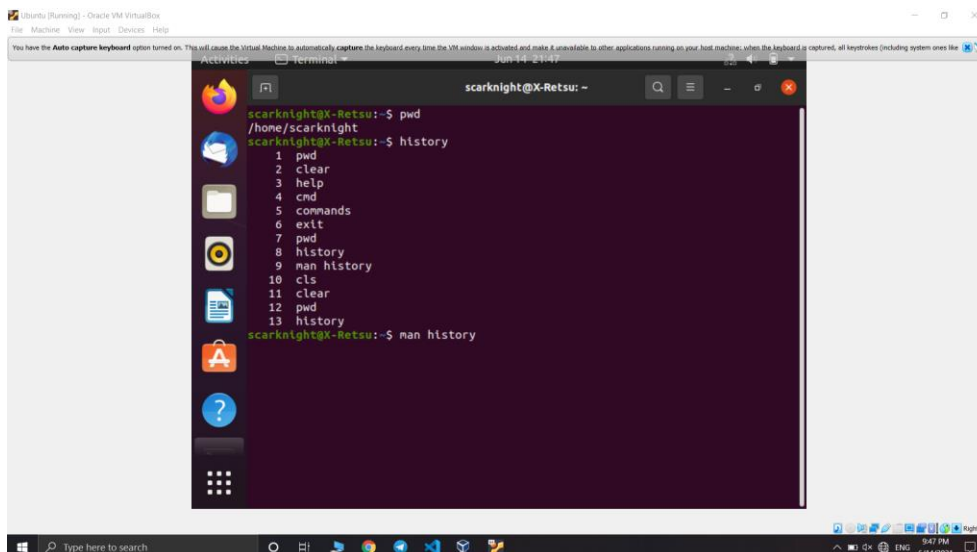


The screenshot shows a terminal window titled 'scarknight@X-Retsu: ~'. The prompt is 'scarknight@X-Retsu:~\$'. The user has entered 'pwd' and the output is '/home/scarknight'. Then, the user enters 'history' and the output is a list of 8 commands: 1 pwd, 2 clear, 3 help, 4 cmd, 5 commands, 6 exit, 7 pwd, 8 history. The terminal window is part of a larger desktop environment with a taskbar at the bottom and a sidebar on the left.

```
scarknight@X-Retsu:~$ pwd
/home/scarknight
scarknight@X-Retsu:~$ history
1  pwd
2  clear
3  help
4  cmd
5  commands
6  exit
7  pwd
8  history
scarknight@X-Retsu:~$
```

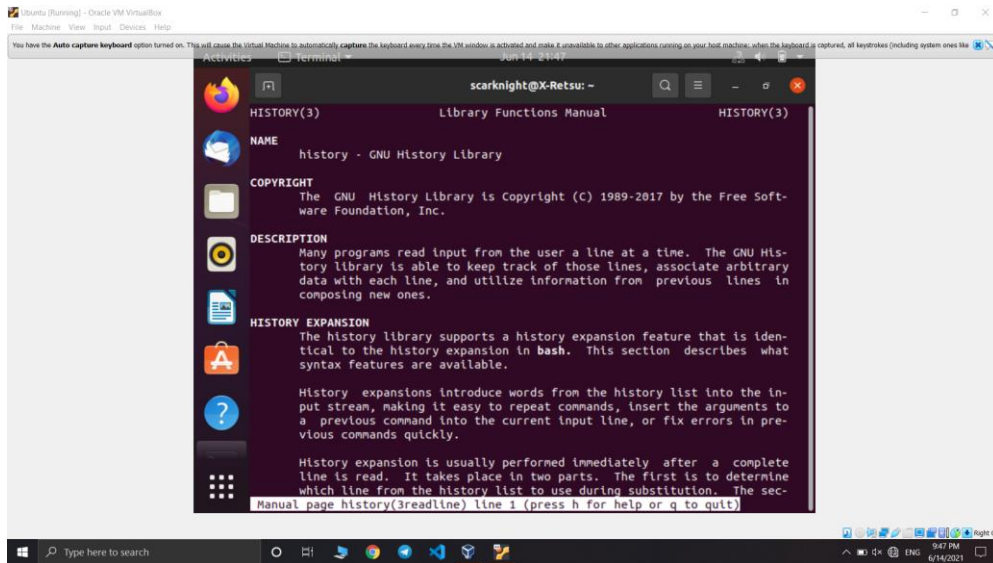
- When you have been using Linux for a certain period of time, you will quickly notice that you can run hundreds of commands everyday. As such, running history command is particularly useful if you want to review the commands you have entered before.
- History
- !command number to run a command from history

3. man



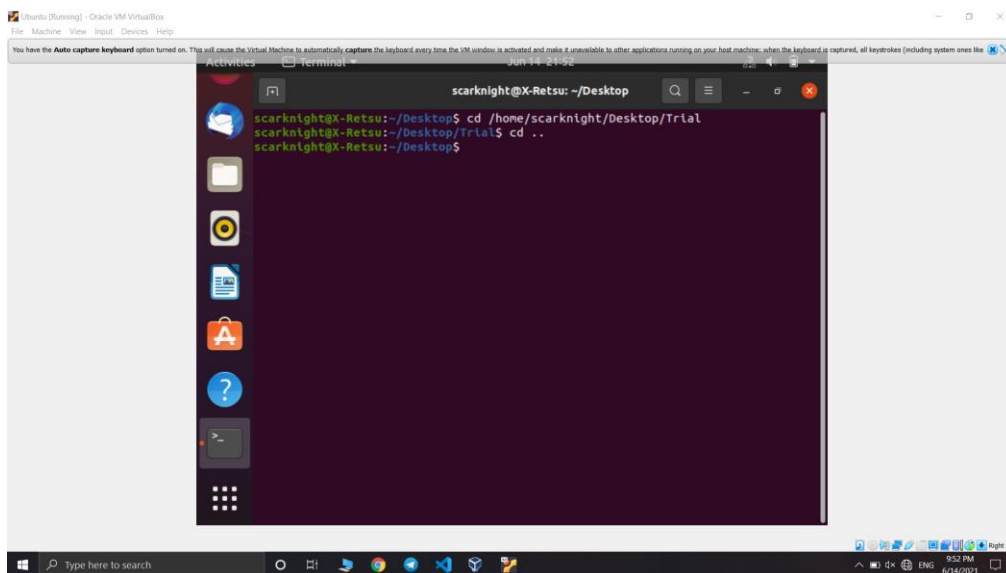
The screenshot shows a terminal window titled 'scarknight@X-Retsu: ~'. The prompt is 'scarknight@X-Retsu:~\$'. The user has entered 'pwd' and the output is '/home/scarknight'. Then, the user enters 'history' and the output is a list of 13 commands: 1 pwd, 2 clear, 3 help, 4 cmd, 5 commands, 6 exit, 7 pwd, 8 history, 9 man history, 10 cls, 11 clear, 12 pwd, 13 history. Finally, the user enters 'man history' and the output is 'man history'. The terminal window is part of a larger desktop environment with a taskbar at the bottom and a sidebar on the left.

```
scarknight@X-Retsu:~$ pwd
/home/scarknight
scarknight@X-Retsu:~$ history
1  pwd
2  clear
3  help
4  cmd
5  commands
6  exit
7  pwd
8  history
9  man history
10 cls
11 clear
12 pwd
13 history
scarknight@X-Retsu:~$ man history
```



If we are confused about the function of certain Linux commands we can easily learn how to use them right from Linux's shell by using the man command. For instance, entering **man tail** will show the manual instruction of the **tail** command.

4. cd

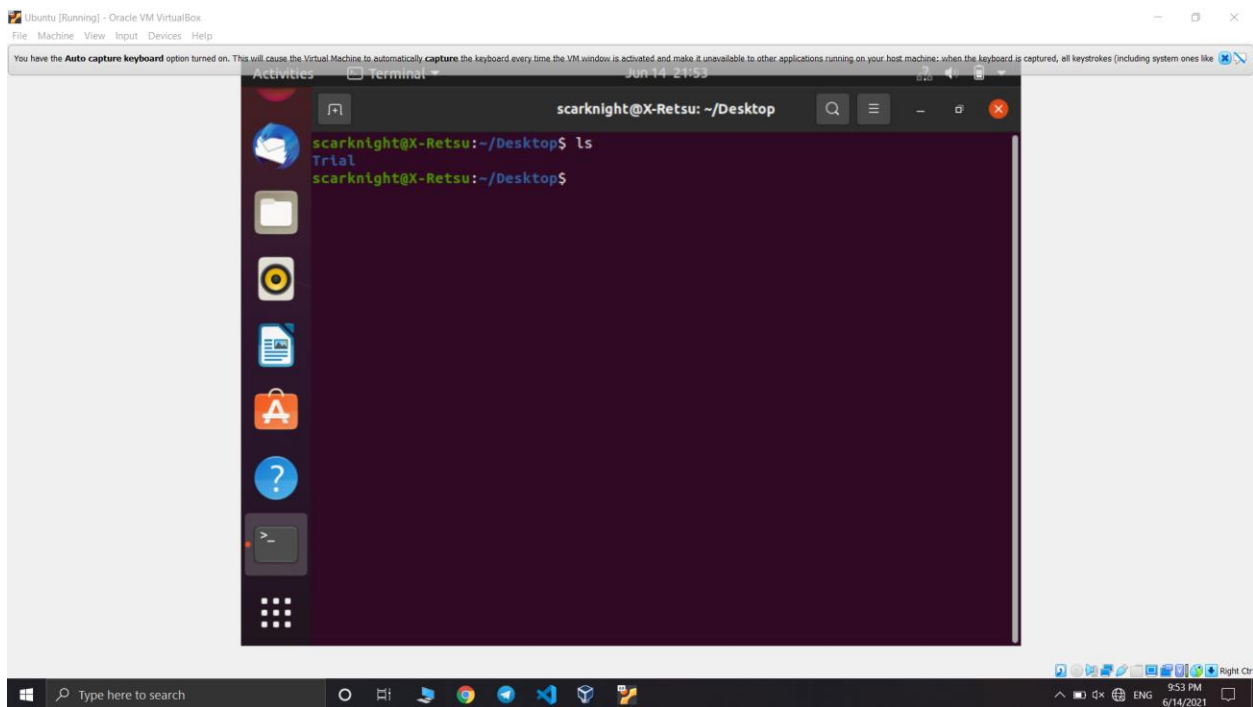


To navigate through the Linux files and directories, use the `cd`. It requires either the full path or the name of the directory, depending on the current working directory that you're in.

Shortcuts to help you navigate quickly:

- `cd ..` (with two dots) to move one directory up
- `cd` to go straight to the home folder
- `cd-` (with a hyphen) to move to your previous directory

5. ls



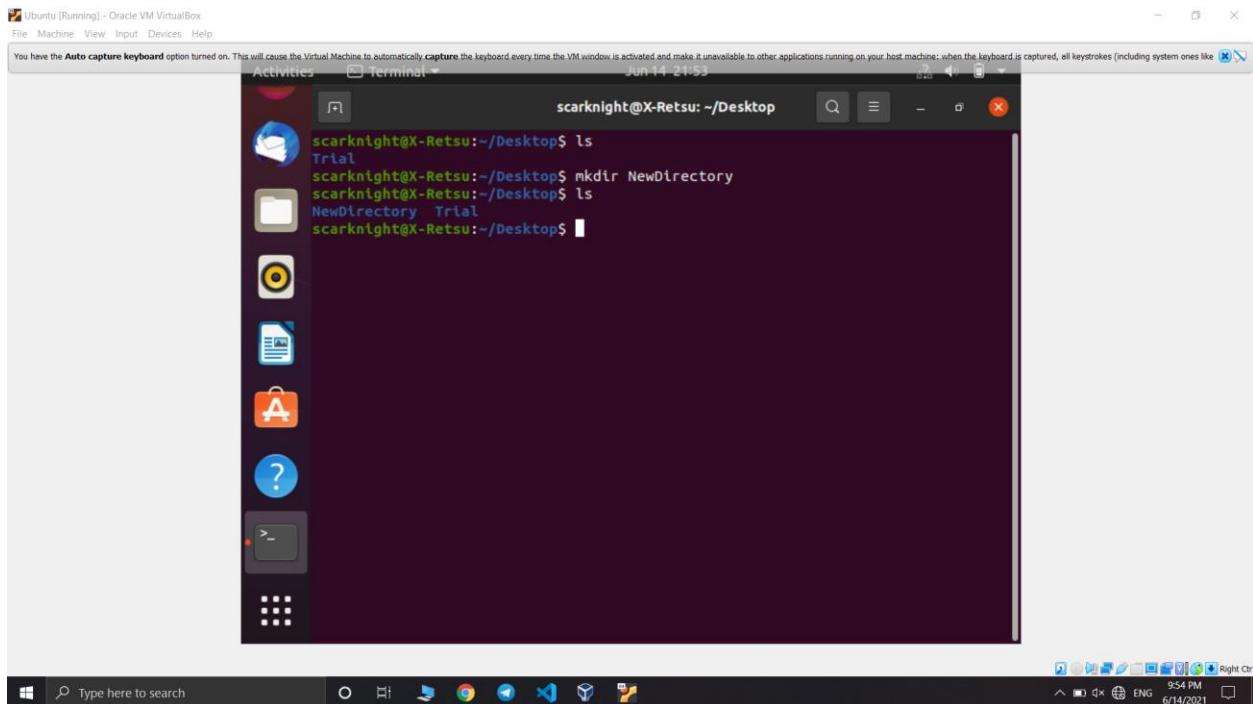
The `ls` command is used to view the contents of a directory.

By default, this command will display the contents of your current working directory.

There are variations you can use with the ls command:

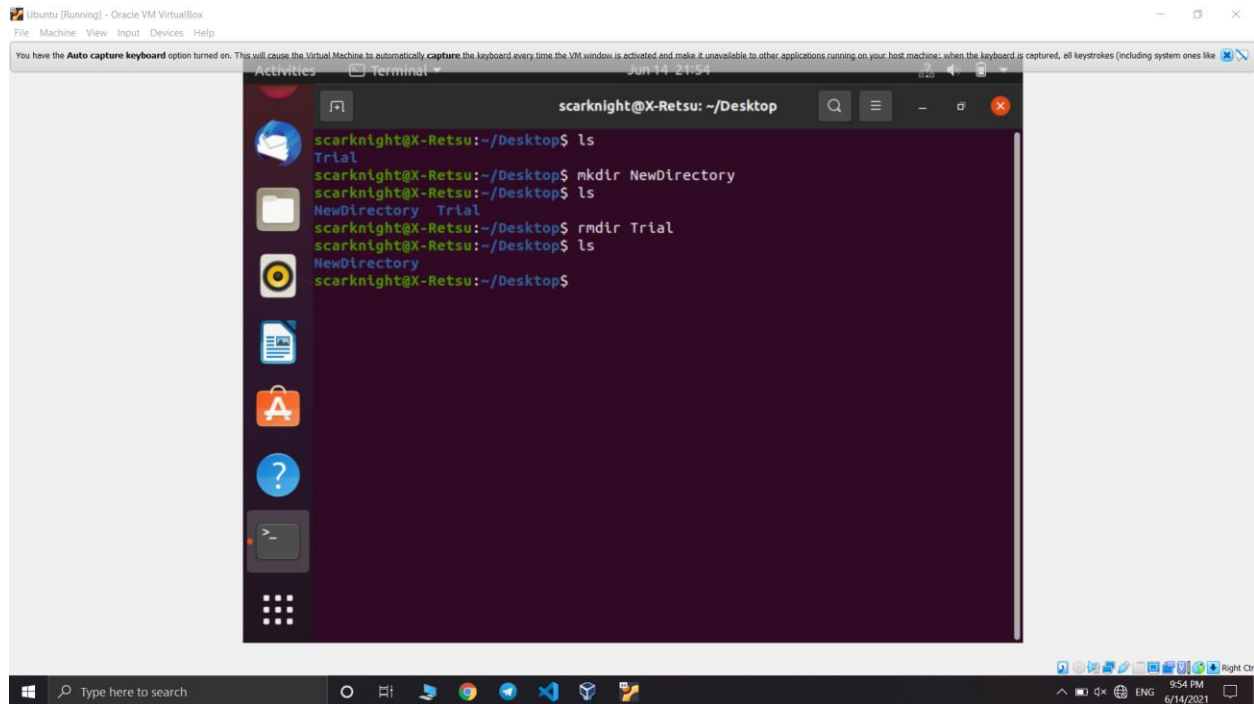
- **ls -R** will list all the files in the sub-directories as well
- **ls -l** – long listing
- **ls -a** will show the hidden files
- **ls -al** will list the files and directories with detailed information like the permissions, size, owner, etc.
- **ls -t** lists files sorted in the order of “last modified”.
- **ls -r** option will reverse the natural sorting order. Usually used in combination with other switches such as ls -tr. This will reverse the time-wise listing.

6. mkdir



Use mkdir command to make a new directory .
To generate a new directory inside another directory, use this Linux basic command.

7. rmdir



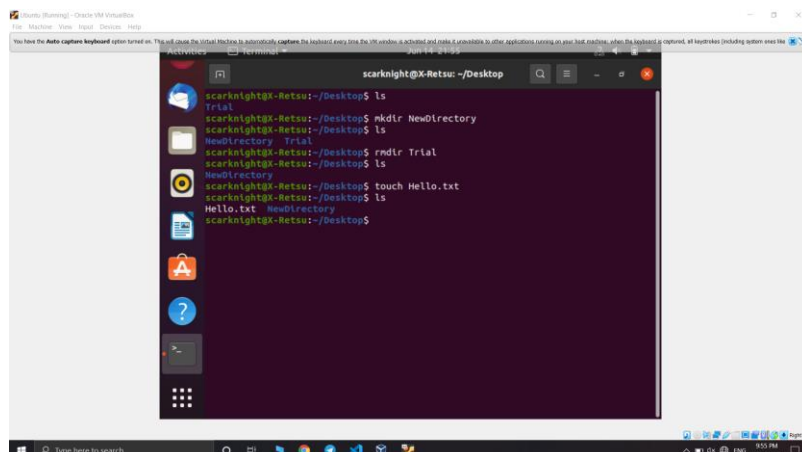
The screenshot shows a terminal window titled "scarknight@X-Retsu: ~/Desktop". The user has executed the following commands:

```
scarknight@X-Retsu:~/Desktop$ ls
Trial
scarknight@X-Retsu:~/Desktop$ mkdir NewDirectory
scarknight@X-Retsu:~/Desktop$ ls
NewDirectory Trial
scarknight@X-Retsu:~/Desktop$ rmdir Trial
scarknight@X-Retsu:~/Desktop$ ls
NewDirectory
scarknight@X-Retsu:~/Desktop$
```

The terminal output shows that the "Trial" directory was successfully removed. The background shows the Ubuntu desktop environment with various application icons on the left and a taskbar at the bottom.

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

8. touch



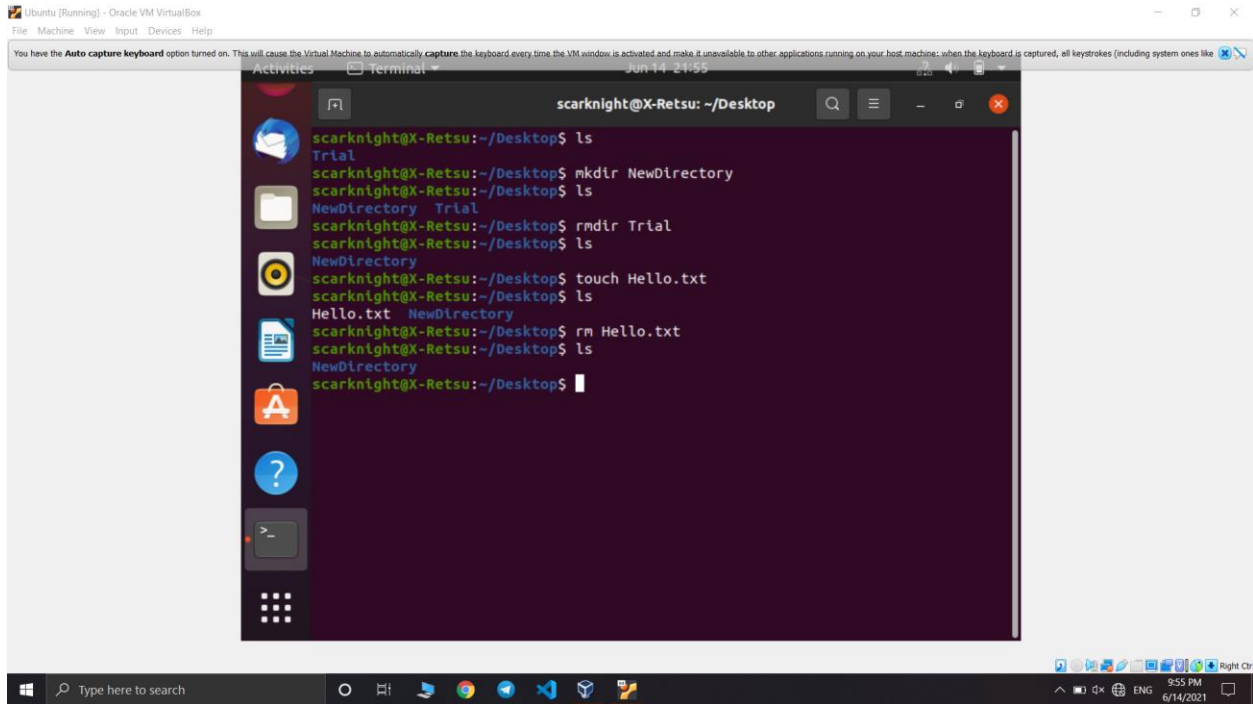
The screenshot shows a terminal window titled "scarknight@X-Retsu: ~/Desktop". The user has executed the following commands:

```
scarknight@X-Retsu:~/Desktop$ ls
Trial
scarknight@X-Retsu:~/Desktop$ mkdir NewDirectory
scarknight@X-Retsu:~/Desktop$ ls
NewDirectory Trial
scarknight@X-Retsu:~/Desktop$ rmdir Trial
scarknight@X-Retsu:~/Desktop$ ls
NewDirectory
scarknight@X-Retsu:~/Desktop$ touch Hello.txt
scarknight@X-Retsu:~/Desktop$ ls
Hello.txt NewDirectory
scarknight@X-Retsu:~/Desktop$
```

The terminal output shows that a new file named "Hello.txt" has been created in the current directory. The background shows the Ubuntu desktop environment with various application icons on the left and a taskbar at the bottom.

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

9. rm



The screenshot shows a terminal window titled 'scarknight@X-Retsu: ~/Desktop'. The user has executed the following commands:

```
scarknight@X-Retsu:~/Desktop$ ls
Trial
scarknight@X-Retsu:~/Desktop$ mkdir NewDirectory
scarknight@X-Retsu:~/Desktop$ ls
NewDirectory Trial
scarknight@X-Retsu:~/Desktop$ rmdir Trial
scarknight@X-Retsu:~/Desktop$ ls
NewDirectory
scarknight@X-Retsu:~/Desktop$ touch Hello.txt
scarknight@X-Retsu:~/Desktop$ ls
Hello.txt NewDirectory
scarknight@X-Retsu:~/Desktop$ rm Hello.txt
scarknight@X-Retsu:~/Desktop$ ls
NewDirectory
scarknight@X-Retsu:~/Desktop$
```

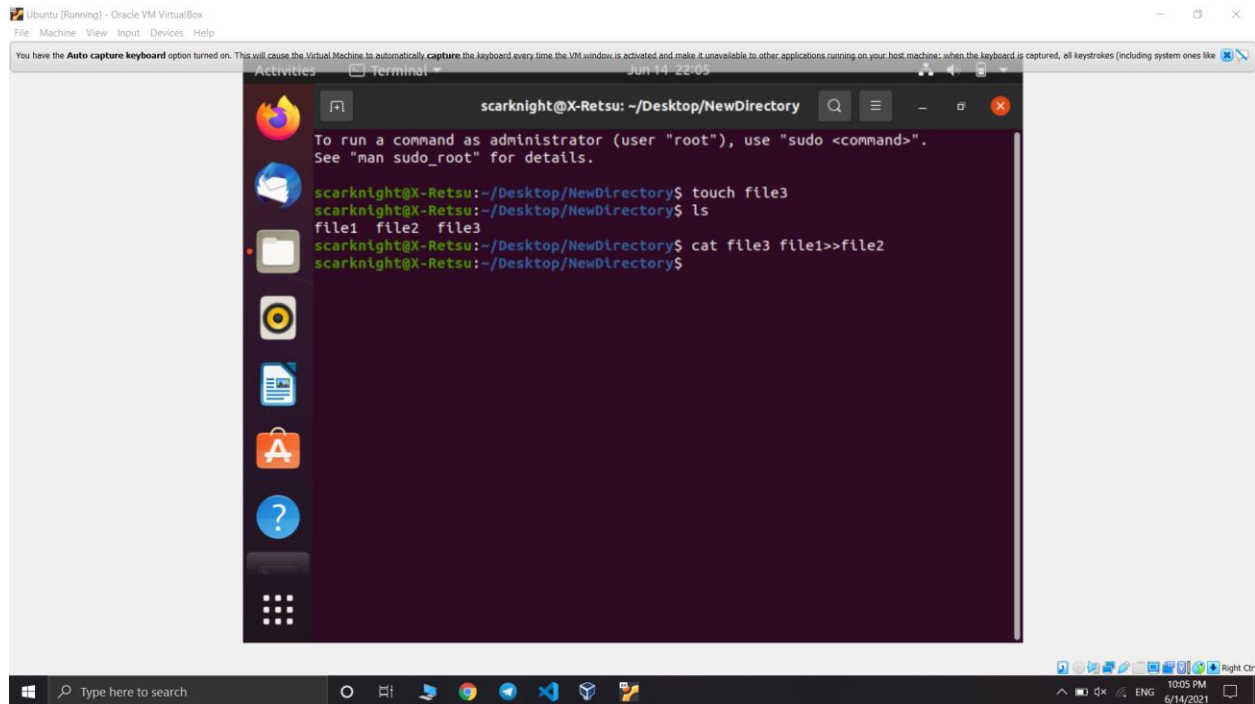
The terminal window is part of an Ubuntu VM running in Oracle VM VirtualBox. The host OS is Windows, as indicated by the taskbar at the bottom.

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

If you only want to delete the directory — as an alternative to rmdir — use rm -r.

To remove a file use **rm filename**

10. cat



The screenshot shows a terminal window titled "scarknight@X-Retsu: ~/Desktop/NewDirectory". The terminal output is as follows:

```
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
scarknight@X-Retsu:~/Desktop/NewDirectory$ touch file3  
scarknight@X-Retsu:~/Desktop/NewDirectory$ ls  
file1 file2 file3  
scarknight@X-Retsu:~/Desktop/NewDirectory$ cat file3 file1>>file2  
scarknight@X-Retsu:~/Desktop/NewDirectory$
```

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 stdout .

To run this command, type cat followed by the file's name and its extension. For instance: cat file.txt.

Here are other ways to use the cat command:

- **cat > filename** creates a new file
- **cat filename1 filename2>filename3** joins two files (1)and (2) and stores the output of them in a new file (3)
- **cat filename | tr a-z A-Z >output.txt** to convert a file to upper or lower case use
- **cat >>myfile** insert data to a file