Date		EXP.N0.		Page No.	

Problem Statement:

Download and install Ubuntu in VirtualBox.

Aim:

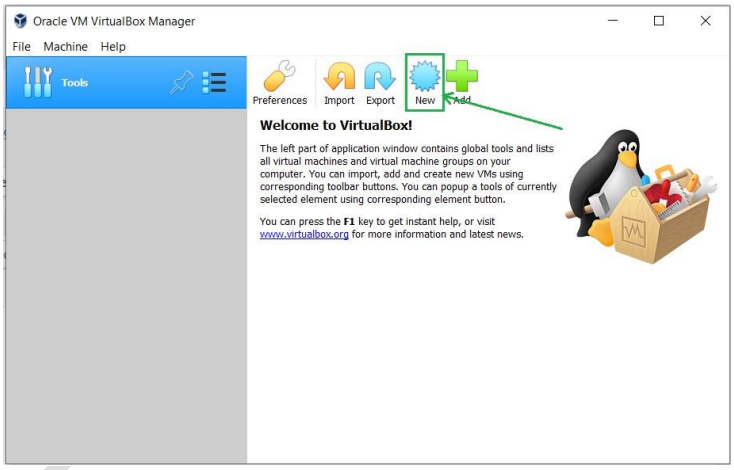
To download install ubuntu in VirtualBox.

Procedure:

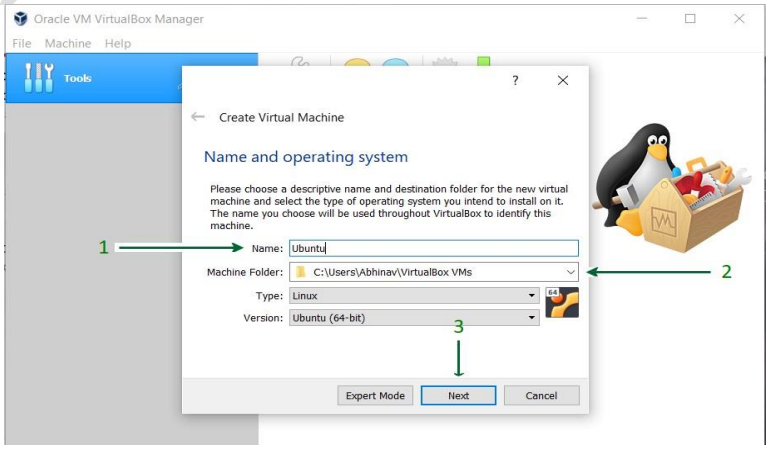
First visit the official website of Ubuntu from your favourite web browser. Once the page loads, click on Download.

After the downloading is over, you can install Ubuntu on VirtualBox with the help of following instructions:

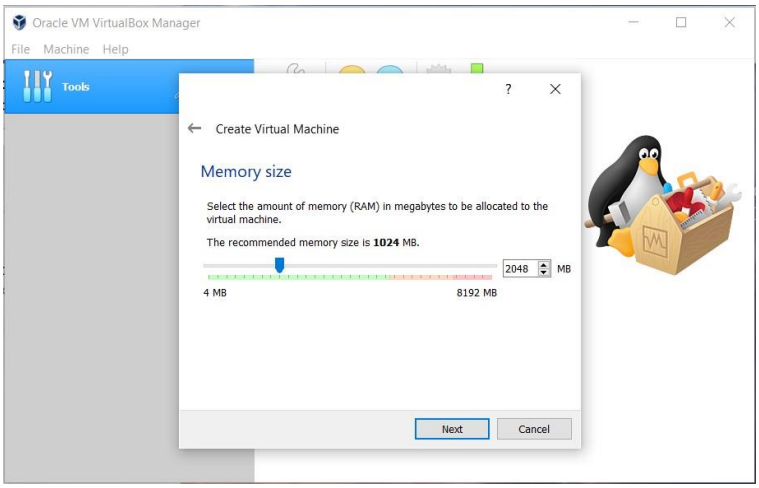
1. Open **VirtualBox** and click on the **New** button.



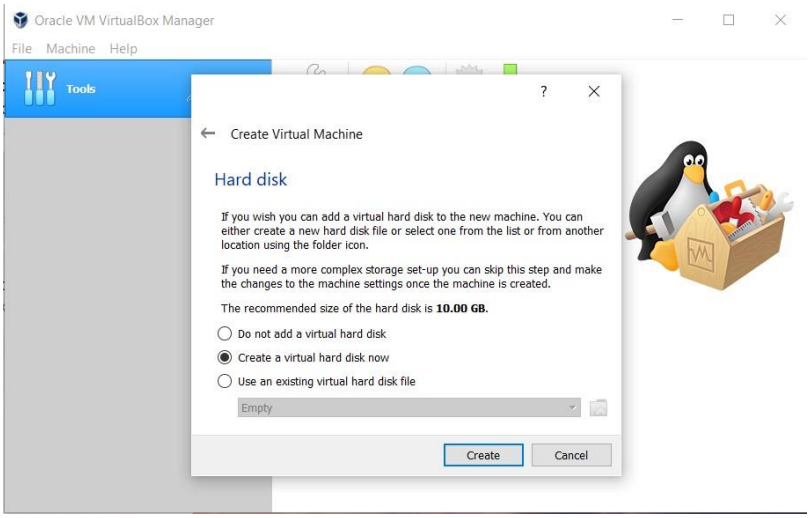
2. Give a name to your Virtual Machine and select the location for it to install.



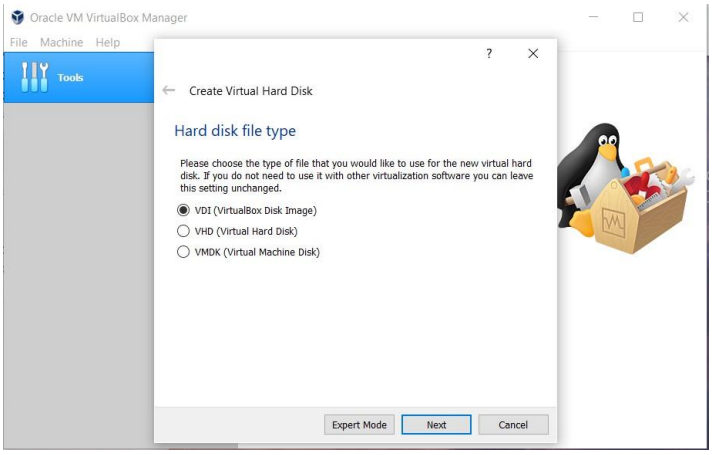
3. Assign RAM size to your Virtual Machine.



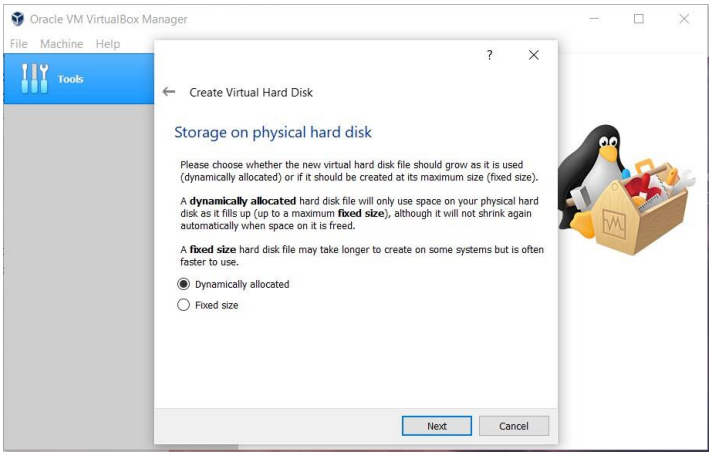
4. Create a Virtual Hard disk for the machine to store files.



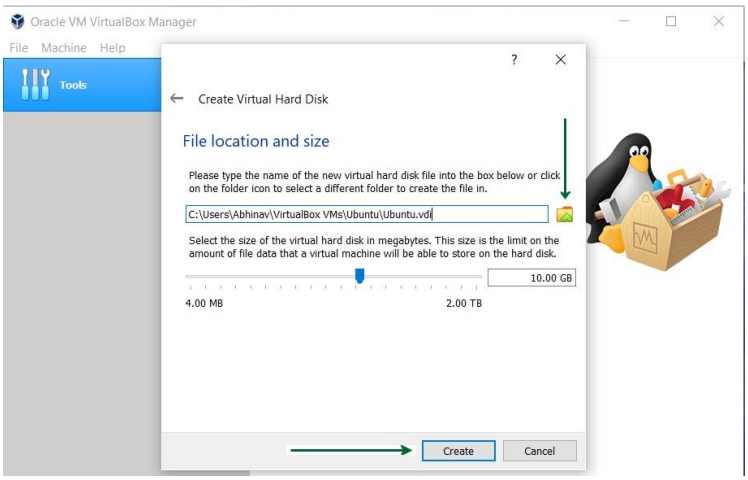
5. Select the type of Hard disk. Using **VDI** type is recommended.



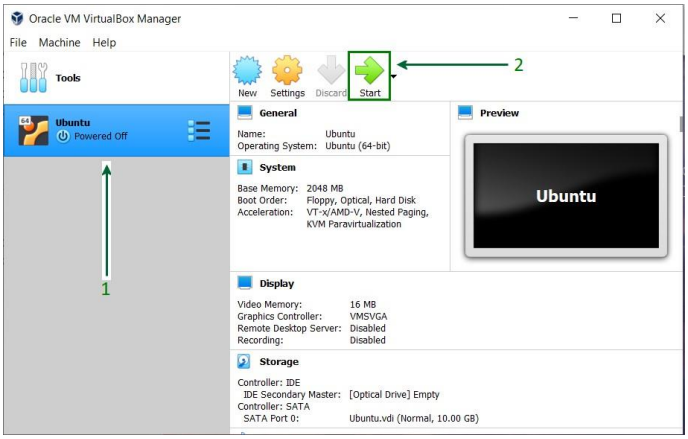
6. Either of the physical storage type can be selected. Using Dynamically allocated disk is by default recommended.



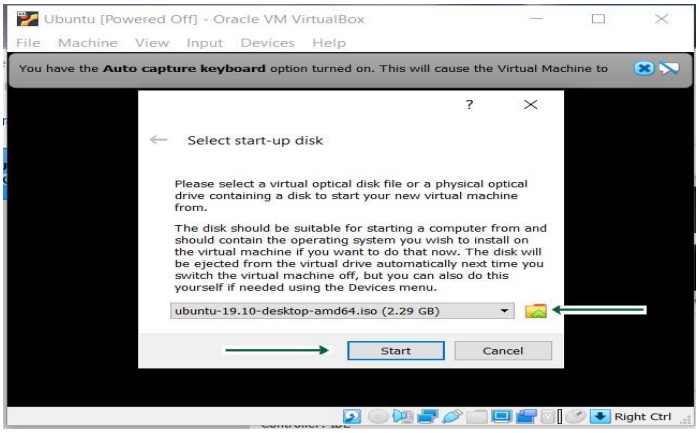
7. Select disk size and provide the destination folder to install.



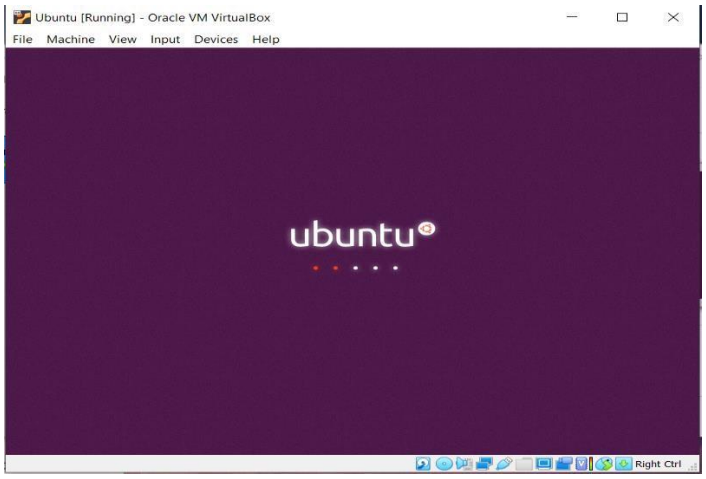
8. After the Disk creation is done, boot the Virtual Machine and begin installing Ubuntu.



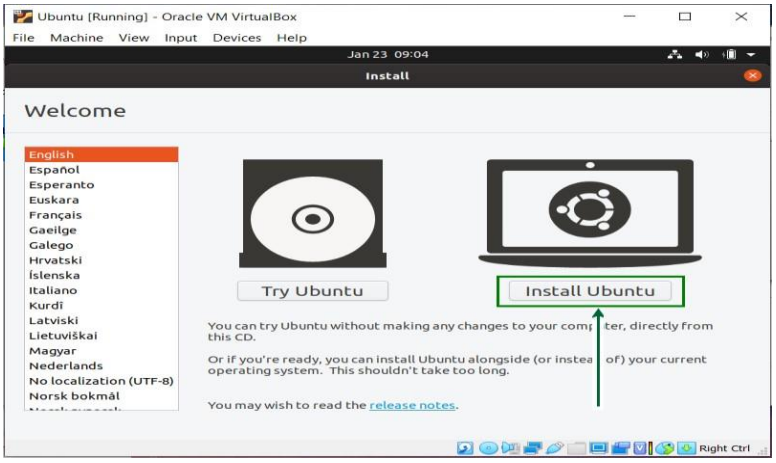
9. If the installation disk is not automatically detected. Browse the file location and select the ISO file for Ubuntu.



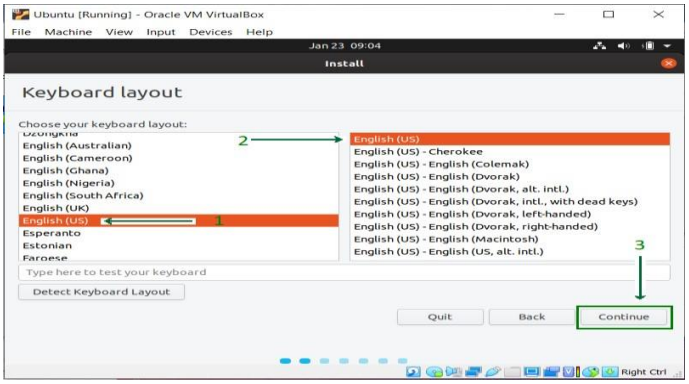
10. Proceed with the installation file and wait for further options.



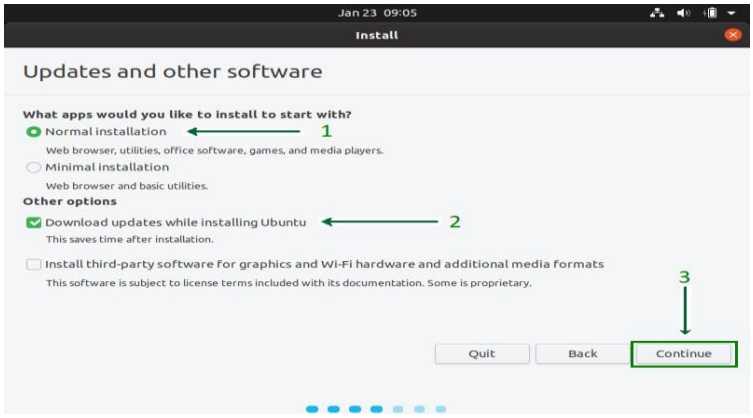
11. Click on the Install Ubuntu option, this might look different for other Ubuntu versions.



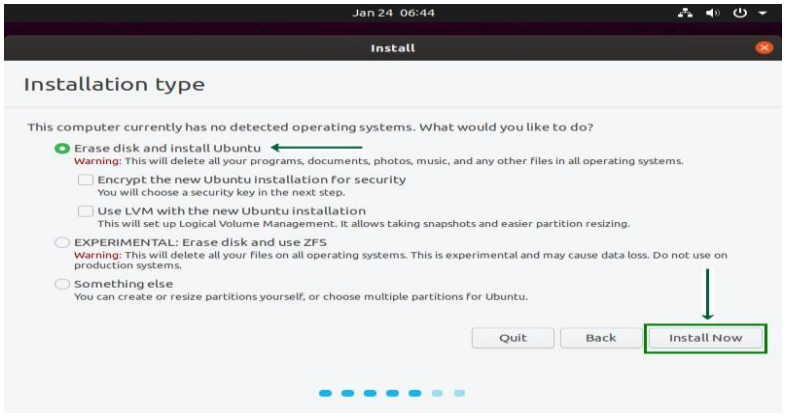
12. Select Keyboard layout, if the defaults are compatible, just click on the **continue** button and proceed.



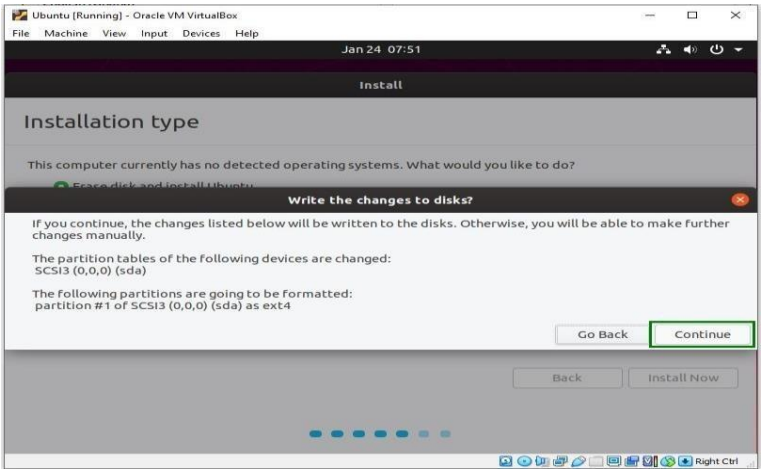
13. Select installation type. By default, it is set to Normal installation, which is recommended, but it can also be changed to Minimal installation if there is no need for all Ubuntu features.



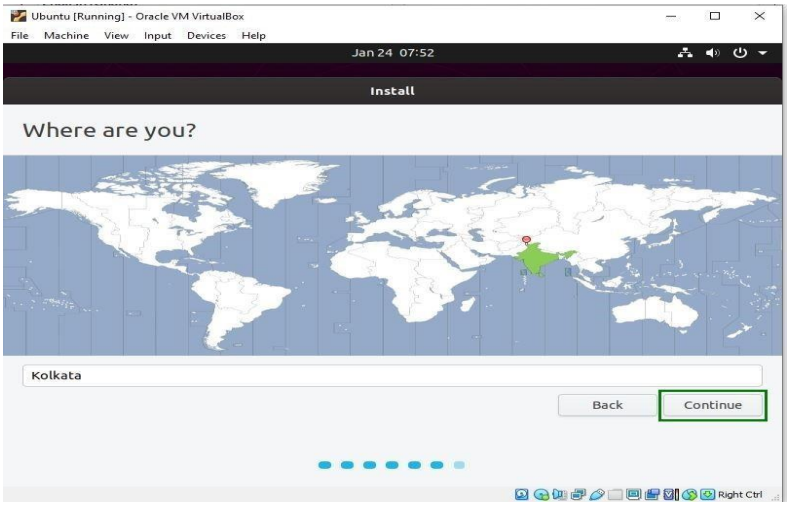
14. Click on the Install Now button and carry on with the installation. Do not get worried with the Erase disk option, it will only be effective inside the virtual machine, other system files outside the VirtualBox remain intact.



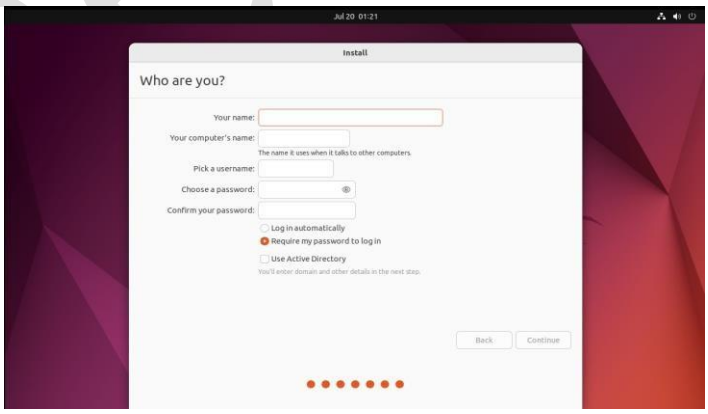
15. Click on the **continue** button, and proceed with writing changes on the disk.



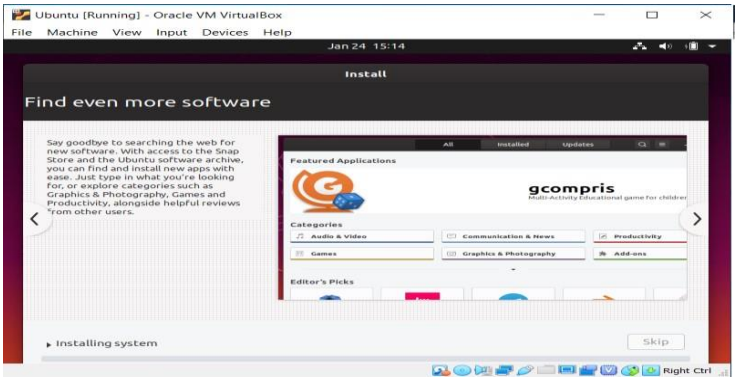
16. Select your location to set the Time Zone.



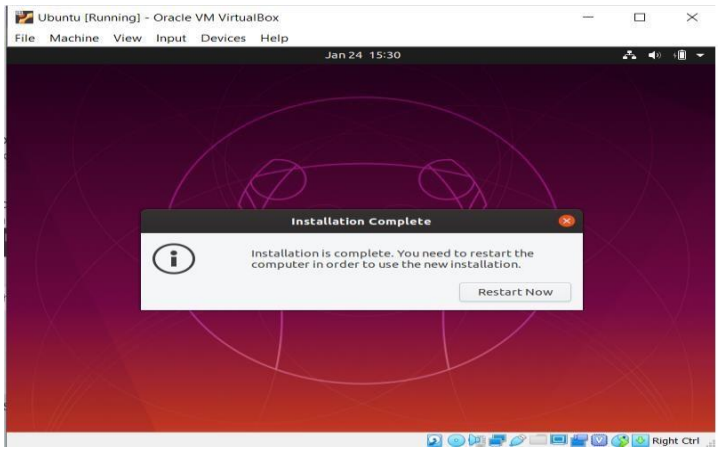
17. Choose a name for your computer and set a password to secure login info.



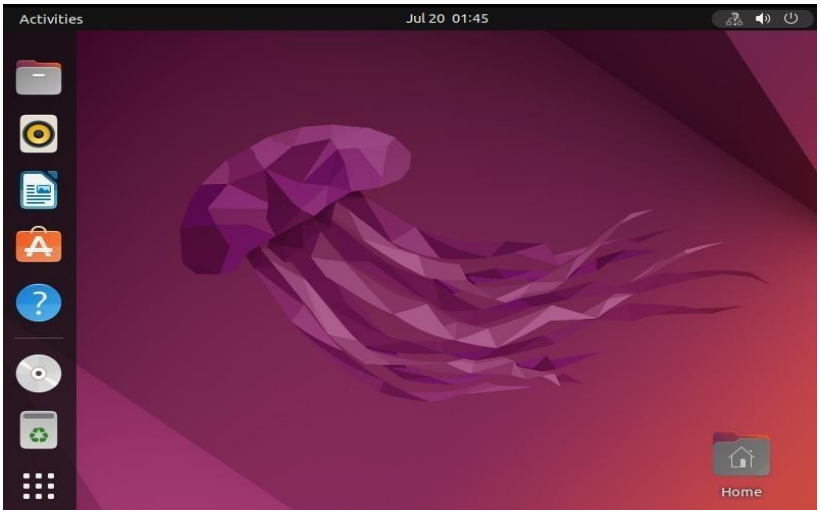
18. Wait for the installation process to complete.



19. Once the installation process is over, reboot your Virtual Machine.



20. Voila!! You're finished with the installation process. Now you can use Ubuntu along with the Windows, without creating a dual boot.



Result:

Downloading and Installation of Ubuntu on VirtualBox was completed successfully.

Problem Statement:

Execute Linux commands required for DevOps.

Aim:

To execute Linux Commands required for DevOps.

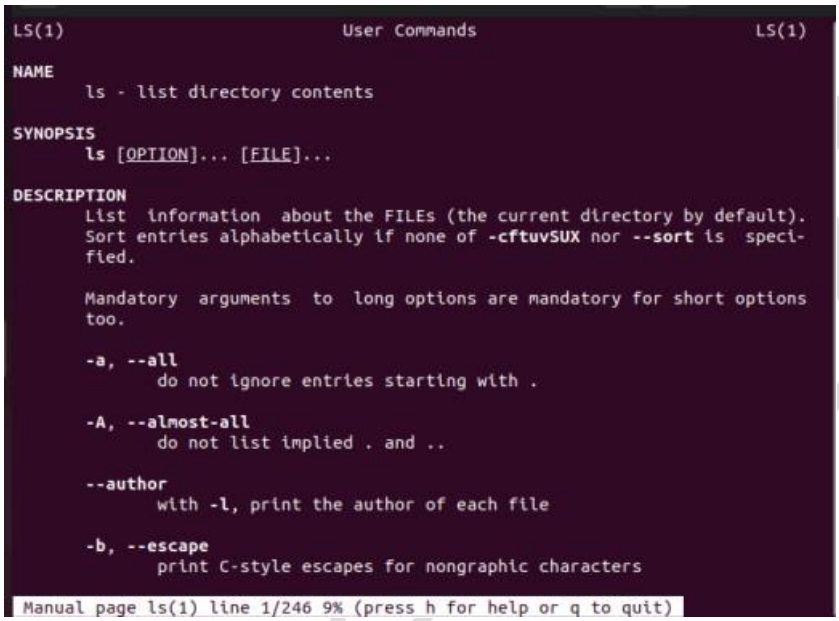
Linux Commands:

1.Man command:

man command in Linux is used to display the user manual of any command that we can run on the terminal

Syntax: $ man [COMMAND NAME]

Output:

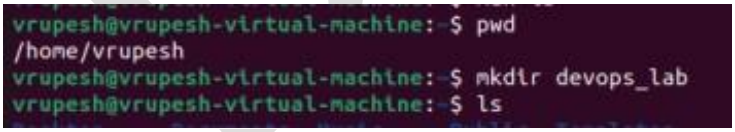


2.pwd Command:

The pwd command is used to display the location of the current working directory.

Syntax: -$ pwd

Output:

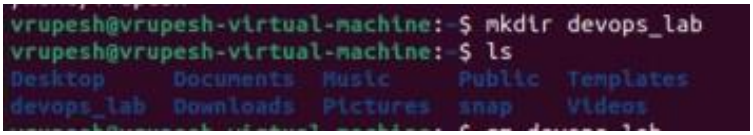


3.mkdir Command:

The mkdir command is used to create a new directory under any directory.

Syntax: -$ mkdir <directory name>

Output:



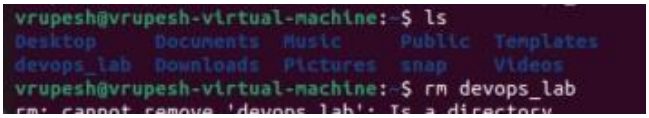
4.rmdir Command:

The rmdir command is used to delete a directory.

Syntax: -$ rmdir <directory name>
Output:

5.ls Command:

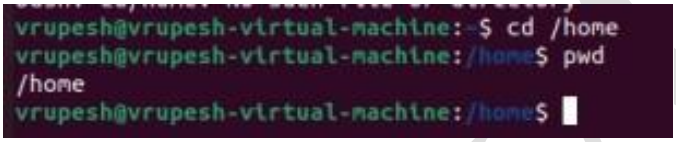
The ls command is used to display a list of content of a directory.
Syntax: -$ ls
Output:-



6.cd Command:

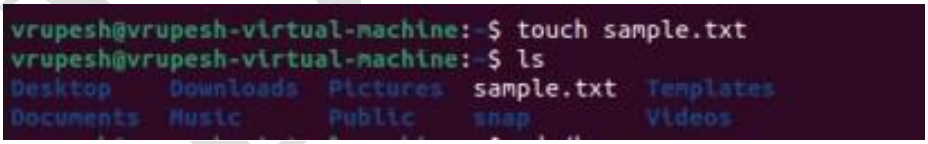
The cd command is used to change the current directory.
Syntax: -$ cd <directory name>

Output:-



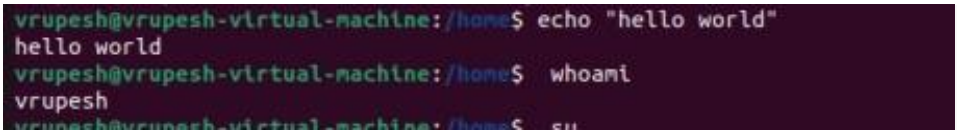
7.touch Command

The touch command is used to create empty files.We can create multiple empty files by executing it once.
Syntax: -$ touch <file name>
-$ touch <file 1><file 2>
-$ touch <file 1><file 2>
Output:



8.echo command:

It is used to display a line of text that is passed in as an argument.
Syntax:echo [option] [string]
Output:-



9.whoami command:

It displays the username of the current user when this command is invoked.
Syntax: whoami [OPTION]

Output:

```
vrupesh@vrupesh-virtual-machine:/home$  whoami
vrupesh
vrupesh@vrupesh-virtual-machine:/home$  su
Password:
```

10.su Command:

The su command provides administrative access to another user. In other words, it allows access of the Linux shell to another user.

Syntax: su <user name>

Output:-

```
vrupesh
vrupesh@vrupesh-virtual-machine:/home$  su
Password:
```

11.sudo bash command:

It allows users to run programs with the security privileges of another user

Syntax:$ sudo bash

Output:-

```
vrupesh@vrupesh-virtual-machine:/home$ sudo bash
[sudo] password for vrupesh:
```

12.cat Command:

The cat command is a multiple-purpose utility in the Linux system. It can be used to create a file, display content of the file, copy the content of one file to another file and more.

Syntax: cat <file name>

Output:

```
vrupesh@vrupesh-virtual-machine:~/Desktop/devops lab$ cat sample.txt
Welcome this is ubuntu.
team leader jaswanth
vrupesh@vrupesh-virtual-machine:~/Desktop/devops lab$ rm sample.txt
```

13.rm command:

It helps to delete files and directories

Syntax: rm [OPTION]... FILE...

Output:-

```
vrupesh@vrupesh-virtual-machine:~/Desktop/devops lab$ rm sample.txt
vrupesh@vrupesh-virtual-machine:~/Desktop/devops lab$ ls
vrupesh@vrupesh-virtual-machine:~/Desktop/devops lab$
```

14.cp command:

To copy files or directories from ome location to another

Syntax:cp [OPTION]

Output:


```
vrupesh@vrupesh-virtual-machine:~/Desktop/devops lab$ cp sample.txt team10.txt
vrupesh@vrupesh-virtual-machine:~/Desktop/devops lab$ ls
sample.txt  team10.txt  team11.txt
```

15.mv command:

mv stands for **move**. mv is used to move one or more files or directories from one place to another in a file system like UNIX.

Syntax:mv [Option] source destination

Output:

16.head command:

To print first N lines of a given file content.

Syntax: head [OPTION]... [FILE]...

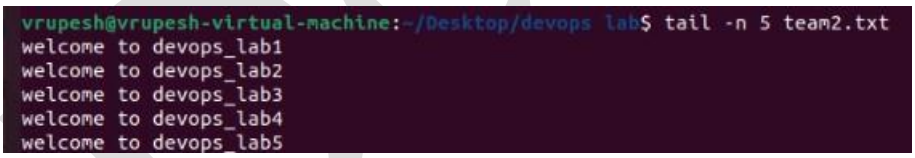
Output:

17.Tail command:

To print last N lines of a given file content

Syntax: tail [OPTION]... [FILE]...

Output:



18.History command:

Used to view a history of all commands previous executed inside bash terminal

Syntax:$history

Output:

```
welcome to devops_lab4
welcome to devops_lab5
vrupesh@vrupesh-virtual-machine:~/Desktop/devops lab$ history
    1  man ls
    2  ls
    3  man ls
    4  pwd
    5  mkdir devops_lab
    6  ls
    7  rm devops_lab
    8  ls
    9  rmdir devops_lab
   10  ls
   11  cd/home
   12  cd /home
   13  pwd
   14  touch sample.txt
   15  touch sampl.txt
   16  touch sample.txt
   17  ls
   18  cd /home
   19  echo "hello world"
   20  sudo bash
   21  touch sample.txt
   22  ls
   23  cat sample.txt
   24  rm sample.txt
   25  ls
   26  cp team10.txt sample.txt
```

Result:

Execution of Linux commands required for DevOps was completed successfully.