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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.

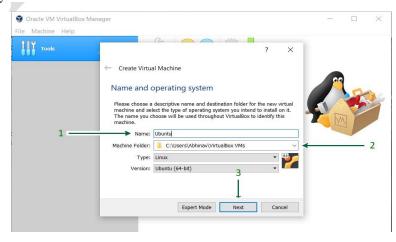


After the downloading is over, you can install Ubuntu on VirtualBox with the help of following instructions:

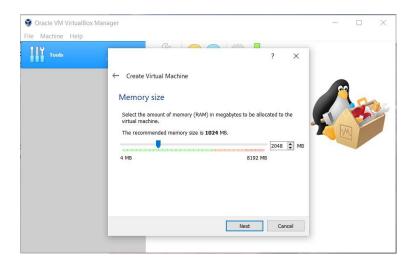
1. Open **VirtualBox** and click on the **New** button.



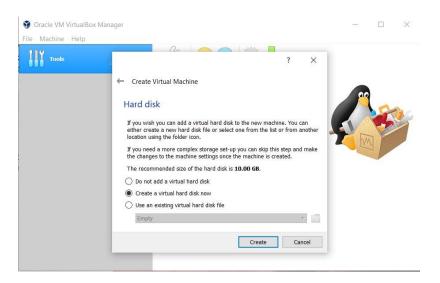
2. Give a name to your Virtual Machine and select the location for it to install.



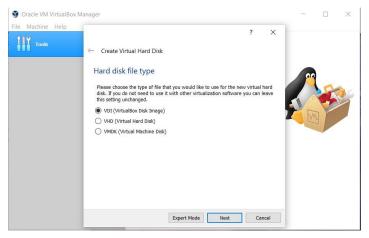
3. Assign RAM size to your Virtual Machine.



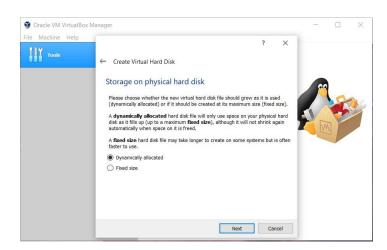
4. Create a Virtual Hard disk for the machine to store files.



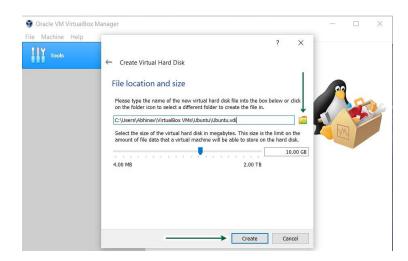
5. Select the type of Hard disk. Using **VDI** type is recommended.



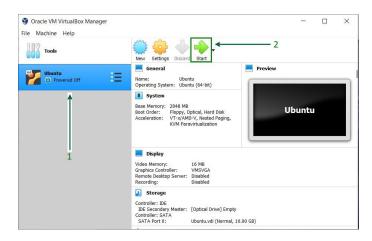
6. Either of the physical storage type can be selected. Using Dynamically allocated disk is by default recommended.



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.

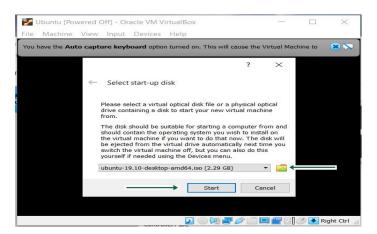


9. If the installation disk is not automatically detected. Browse the file location and select the ISO file for Ubuntu.

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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.

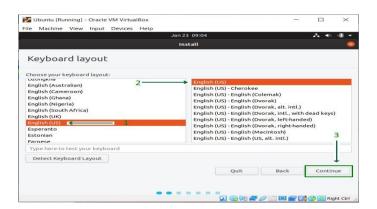


12. Select Keyboard layout, if the defaults are compatible, just click on the **continue** button and proceed.

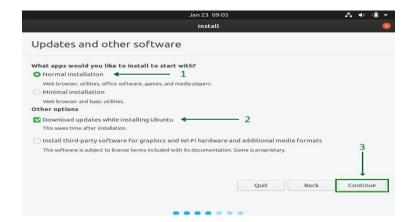
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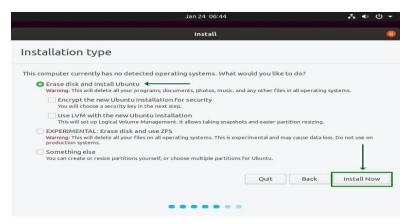
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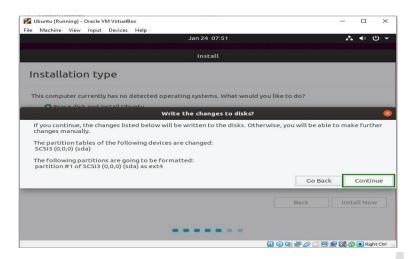
13. Select installation type. By default, it is set to Normal installation, which is recommended, but it can also be changed to Minimal installation if there is no need for all Ubuntu features.



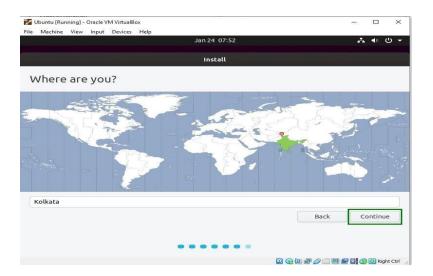
14. Click on the Install Now button and carry on with the installation. Do not get worried with the Erase disk option, it will only be effective inside the virtual machine, other system files outside the VirtualBox remain intact.



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



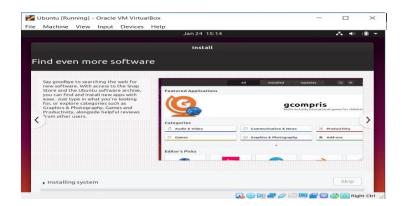
16. Select your location to set the Time Zone.



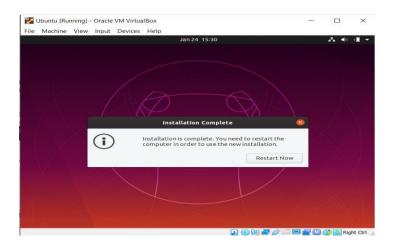
17. Choose a name for your computer and set a password to secure login info.



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.

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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:

```
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 speci-
        Mandatory arguments to long options are mandatory for short options
        -a, --all
                do not ignore entries starting with .
        -A, --almost-all
                do not list implied . and ..
                with -1, print the author of each file
        -b. --escape
               print C-style escapes for nongraphic characters
Manual page ls(1) line 1/246 9% (press h for help or q to quit)
```

2.pwd Command:

The <u>pwd</u> command is used to display the location of the current working directory.

Syntax: -\$ pwd

Output:

```
vrupesh@vrupesh-virtual-machine:-$ pwd
/home/vrupesh
vrupesh@vrupesh-virtual-machine:-$ mkdir devops_lab
vrupesh@vrupesh-virtual-machine:-$ ls
```

3.mkdir Command:

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

Syntax: -\$ mkdir <directory name>

Output:

```
vrupesh@vrupesh-virtual-machine:-S mkdir devops_lab
vrupesh@vrupesh-virtual-machine:-S ls
Desktop Documents Music Public Templates
devops_lab Downloads Pictures snap Videos
```

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4.rmdir Command:

The <u>rmdir</u> command is used to delete a directory.

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Syntax: -\$ rmdir <directory name>

Output:

```
vrupesh@vrupesh-virtual-machine:-$ rmdir devops_lab
vrupesh@vrupesh-virtual-machine:-$ ls
Desktop Downloads Pictures snap Videos
Documents Music Public Templates
```

5.ls Command:

The <u>ls</u> command is used to display a list of content of a directory.

Syntax: -\$ ls
Output:-

```
vrupesh@vrupesh-vtrtual-machine:-$ ls

Desktop Documents Music Public Templates

devops_lab Downloads Pictures snap Videos

vrupesh@vrupesh-vtrtual-machine:-$ rm devops_lab

rm: cappot remove 'devops lab': Is a directory
```

6.cd Command:

The <u>cd</u> command is used to change the current directory.

Syntax: -\$ cd <directory name>

Output:-

```
vrupesh@vrupesh-virtual-machine: $ cd /home
vrupesh@vrupesh-virtual-machine:/home$ pwd
/home
vrupesh@vrupesh-virtual-machine:/home$
```

7.touch Command

The <u>touch</u> 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:

```
vrupesh@vrupesh-virtual-machine:-$ touch sample.txt
vrupesh@vrupesh-virtual-machine:-$ ls
Desktop Downloads Pictures sample.txt Templates
Documents Music Public snap Videos
```

8.echo command:

It is used to display a line of text that is passed in as an argument.

Syntax:echo [option] [string]

Output:-

```
vrupesh@vrupesh-virtual-machine:/home$ echo "hello world"
hello world
vrupesh@vrupesh-virtual-machine:/home$ whoami
vrupesh
```

9.whoami command: ngineering (Autonomous), Pulivendula

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It displays the username of the current user when this command is invoked.

Syntax: whoami [OPTION]

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Output:

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

10.su Command:

The <u>su</u> 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@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-vtrtual-machine:/home$ sudo bash
[sudo] password for vrupesh:
```

12.cat Command:

The <u>cat</u> 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:

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```
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
```

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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:

```
vrupesh@vrupesh-virtual-machine:-/Desktop/devops lab$ mv sample.txt team2.txt
vrupesh@vrupesh-virtual-machine:-/Desktop/devops lab$ ls
team10.txt team11.txt team2.txt
```

16.head command:

To print first N lines of a given file content.

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

Output:

```
vrupesh@vrupesh-virtual-machine:~/Desktop/devops lab$ head -n 5 team2.txt
welcome to devops_lab1
welcome to devops_lab2
welcome to devops_lab3
welcome to devops_lab4
welcome to devops_lab5
```

17. Tail command:

To print last N lines of a given file content

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

Output:

```
vrupesh@vrupesh-virtual-machine:-/Desktop/devops lab$ tail -n 5 team2.txt
welcome to devops_lab1
welcome to devops_lab2
welcome to devops_lab3
welcome to devops_lab4
welcome to devops_lab4
```

18. History command:

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

Syntax: \$history

Output:

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```
welcome to devops_lab4
welcome to devops_lab5
vrupesh@vrupesh-virtual-machine:-/Desktop/devops lab$ history
        man ls
ls
         man ls
         mkdir devops_lab
         rm devops_lab
         ls
         rmdir devops_lab
ls
    10
         cd/home
cd /home
         pwd
         touch sample.txt
         touch sampl.txt
         touch sample.txt
        cd /home
echo "hello world"
sudo bash
touch sample.txt
    19
   20
         cat sample.txt
rm sample.txt
ls
         cp team10.txt sample.txt
```

Result:

Execution of Linux commands required for DevOps was completed successfully.