

Q-1. Deploy a website on localhost using either apache2 or Nginx. Create a DNS name for this website as 'awesomeweb'. You can use any web template you want or can write your own simple HTML code.

-Deployed a website on localhost using Nginx:

```
sudo apt-get install nginx
```

```
sudo apt-get update
```

```
sudo service nginx start
```

```
➔ * Starting nginx nginx
```

```
sudo service nginx status
```

```
➔ * nginx is running
```

```
cd /var/www/html
```

```
ls
```

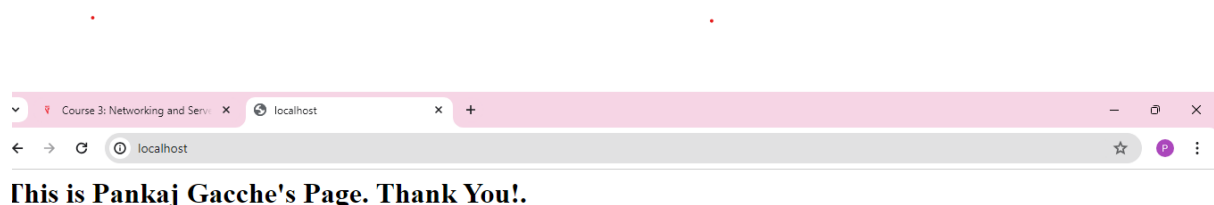
```
-> index.nginx-debian.html
```

```
sudo rm -rf index.nginx-debian.html
```

```
Created index.html file at /var/www/html
```

```
touch index.html
```

Website is running successfully on localhost.



-Created a DNS name for this website as 'awesomeweb':

-Created 'awesomeweb' DNS name in host file.

```
pankajgacche@DESKTOP-SF11  X  +  v
pankajgacche@DESKTOP-SF16DIM:/etc$ ping awesomeweb
PING awesomeweb (127.0.0.1) 56(84) bytes of data.
```



This is Pankaj Gacche's Page. Thank You!.

Q-2. A website can have many subdomains and different services are running on them. Write a Python script to check the status of the subdomains which are up or down. The script should automatically check the status every minute and should update it in tabular format on the screen.

-Written python script to check the status of the subdomains which are up or down and pushed .py file in github repository - https://github.com/PankajGacche/Networking_Assesment.git

-Created crontab which will execute python script every minute and validate subdomain availability and capture log and output in tabular format as below:

Output:

```
pankajgacche@DESKTOP-SF11 X + v
Sub-domain availability check at 2024-05-14 16:50:01

+-----+-----+
| Subdomain | Status |
+=====+=====+
| en.wikipedia.org | UP |
+-----+-----+
| store.example.com | DOWN |
+-----+-----+
| en.m.wikipedia.org | UP |
+-----+-----+
| secure.wikimedia.org/wiki/Main_Page | UP |
+-----+-----+

[sudo] password for pankajgacche:
Sub-domain availability check at 2024-05-14 16:51:01

+-----+-----+
| Subdomain | Status |
+=====+=====+
| en.wikipedia.org | UP |
+-----+-----+
| store.example.com | DOWN |
+-----+-----+
| en.m.wikipedia.org | UP |
+-----+-----+
| secure.wikimedia.org/wiki/Main_Page | UP |
+-----+-----+

[sudo] password for pankajgacche:
Sub-domain availability check at 2024-05-14 16:52:01

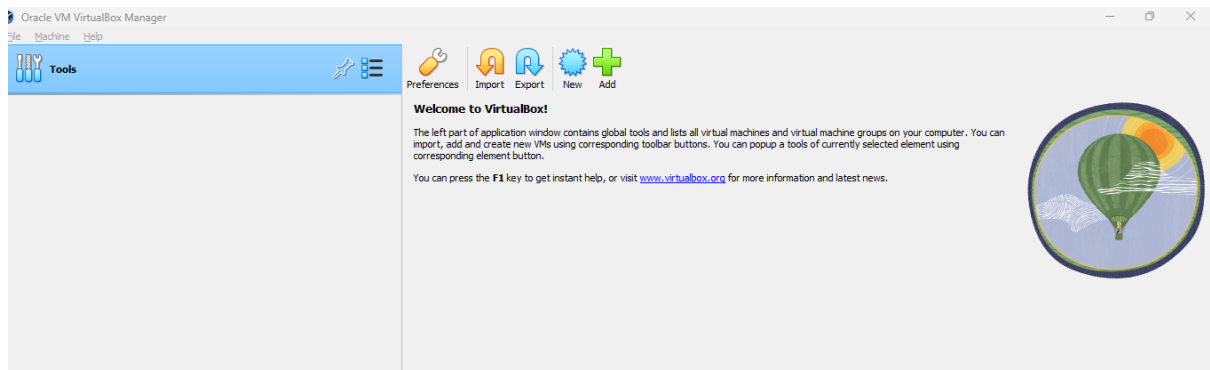
+-----+-----+
| Subdomain | Status |
+=====+=====+
| en.wikipedia.org | UP |
+-----+-----+
```

Logs:

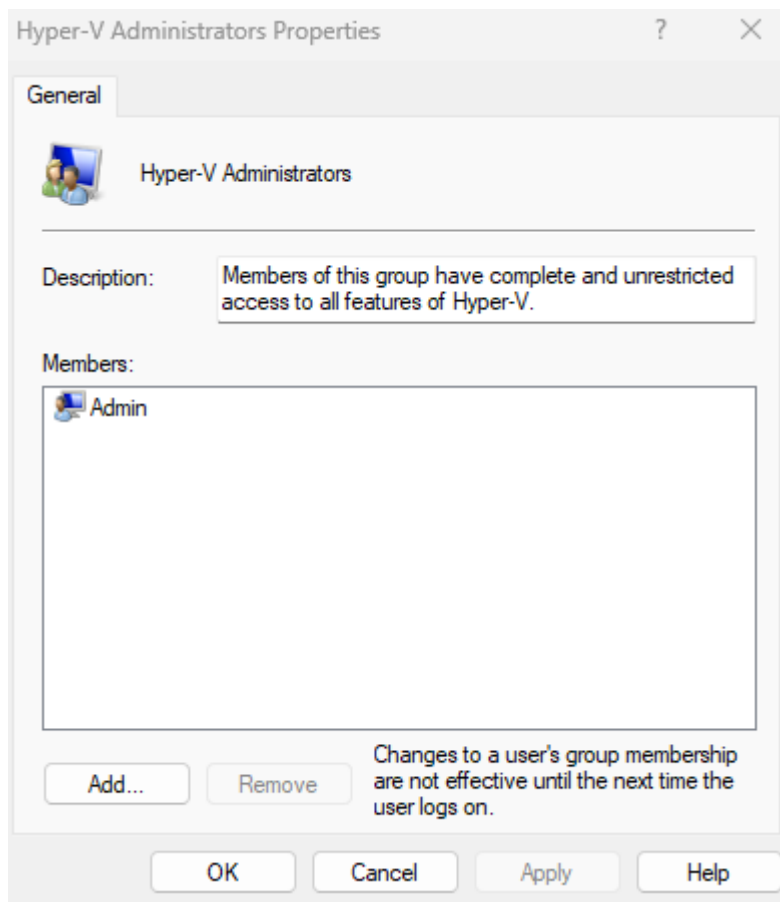
```
Python script started at 2024-05-14 16:50:01
Sub-domain availability check at 2024-05-14 16:50:01
[['en.wikipedia.org', 'UP'], ['store.example.com', 'DOWN'], ['en.m.wikipedia.org', 'UP'], ['secure.wikimedia.org/wiki/Main_Page', 'UP']]
Python script started at 2024-05-14 16:51:01
Sub-domain availability check at 2024-05-14 16:51:01
[['en.wikipedia.org', 'UP'], ['store.example.com', 'DOWN'], ['en.m.wikipedia.org', 'UP'], ['secure.wikimedia.org/wiki/Main_Page', 'UP']]
Python script started at 2024-05-14 16:52:01
Sub-domain availability check at 2024-05-14 16:52:01
[['en.wikipedia.org', 'UP'], ['store.example.com', 'DOWN'], ['en.m.wikipedia.org', 'UP'], ['secure.wikimedia.org/wiki/Main_Page', 'UP']]
```

Task-3:


-Download and Installed Oracle Virtual Box:



-Added user account to "VirtualBox Users" group on Windows to grant permissions to manage VMs.



-Creating virtual machine on Virtual Box:



Virtual machine Name and Operating System

Please choose a descriptive name and destination folder for the new virtual machine. The name you choose will be used throughout VirtualBox to identify this machine. Additionally, you can select an ISO image which may be used to install the guest operating system.

Name: VM-1

Folder: C:\Users\Admin\VirtualBox VMs


ISO Image: <not selected>

Edition:

Type: Linux

Version: Ubuntu 22.04 LTS (Jammy Jellyfish) (64-bit)

☐ Skip Unattended Installation

 No ISO image is selected, the guest OS will need to be installed manually.

Help

Expert Mode

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Next

Cancel

Oracle VM VirtualBox Manager

File Machine Help


Tools


Preferences Import Export New Add

Welcome to VirtualBox!

The left part of application window contains global tools and lists all virtual machines and virtual machine groups on your computer. You can import, add and create new VMs using corresponding toolbar buttons. You can popup a tools of currently selected element using corresponding element button.

You can press the **F1** key to get instant help, or visit www.virtualbox.org for more information and latest news.





Hardware

You can modify virtual machine's hardware by changing amount of RAM and virtual CPU count. Enabling EFI is also possible.

Base Memory: 2048 MB

Processors: 1 CPU

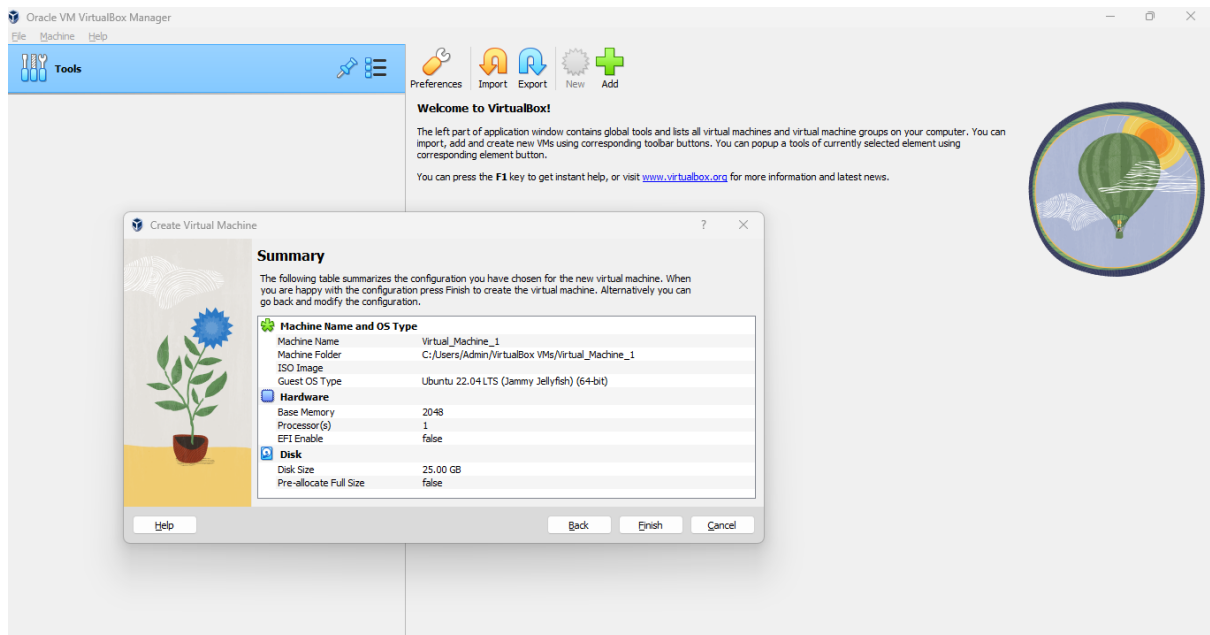
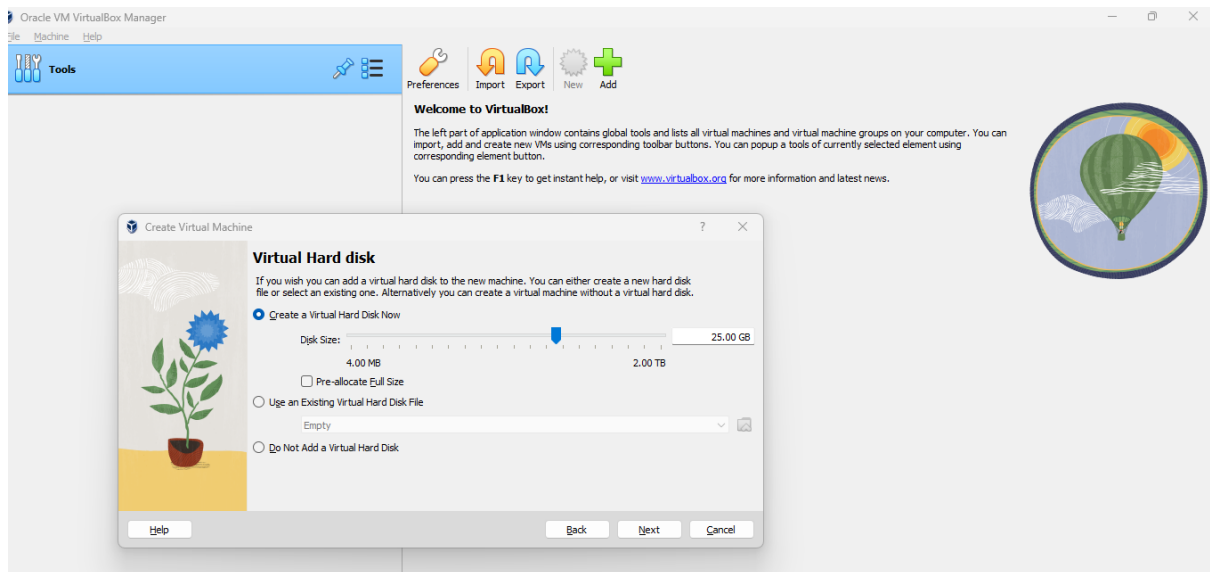
☐ Enable EFI (special OSes only)

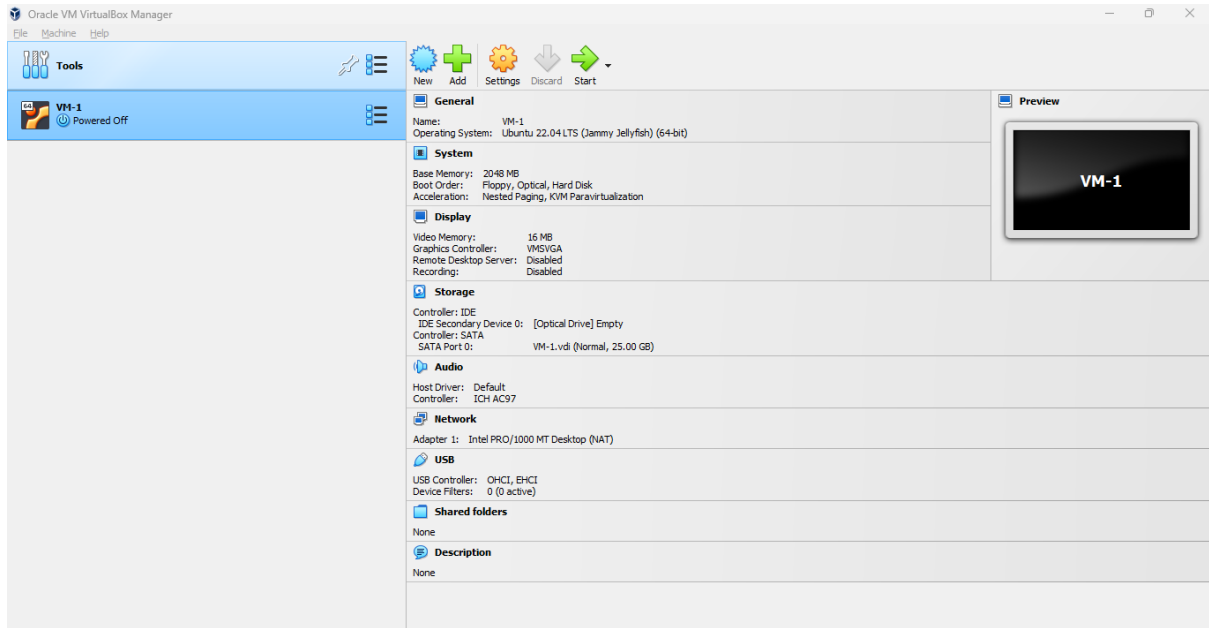
Help

Back

Next

Cancel





-Visited <https://www.osboxes.org/> and downloaded a Ubuntu 22.04 image:



Ubuntu 22.04 Jammy Jellyfish

VirtualBox

VMware

Info

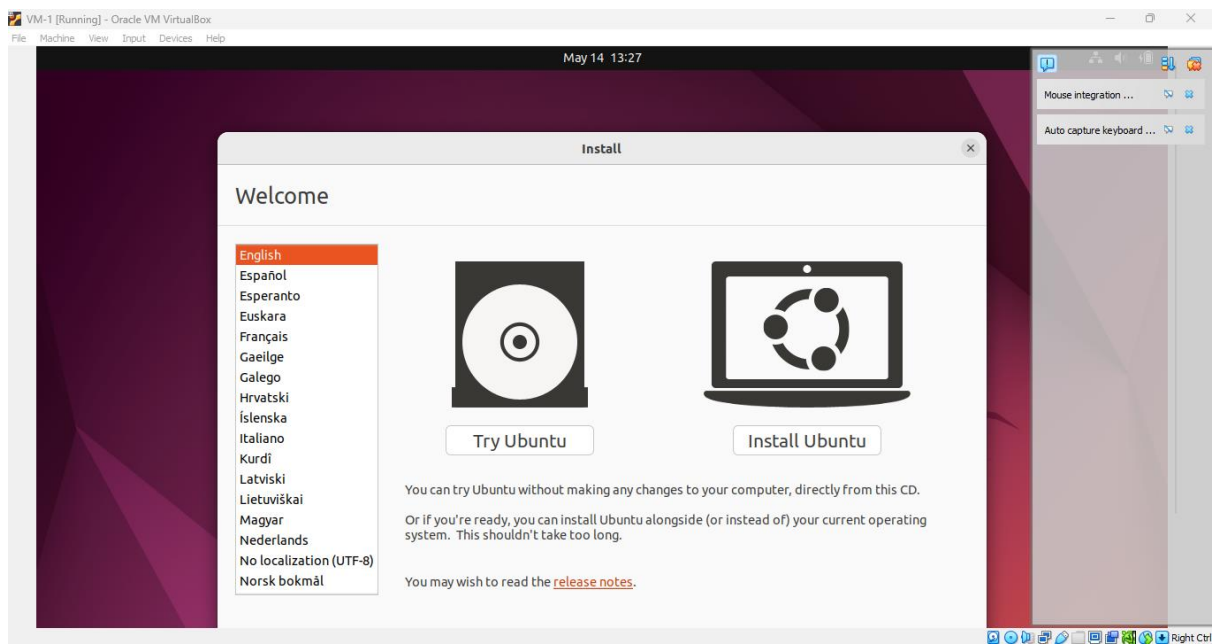
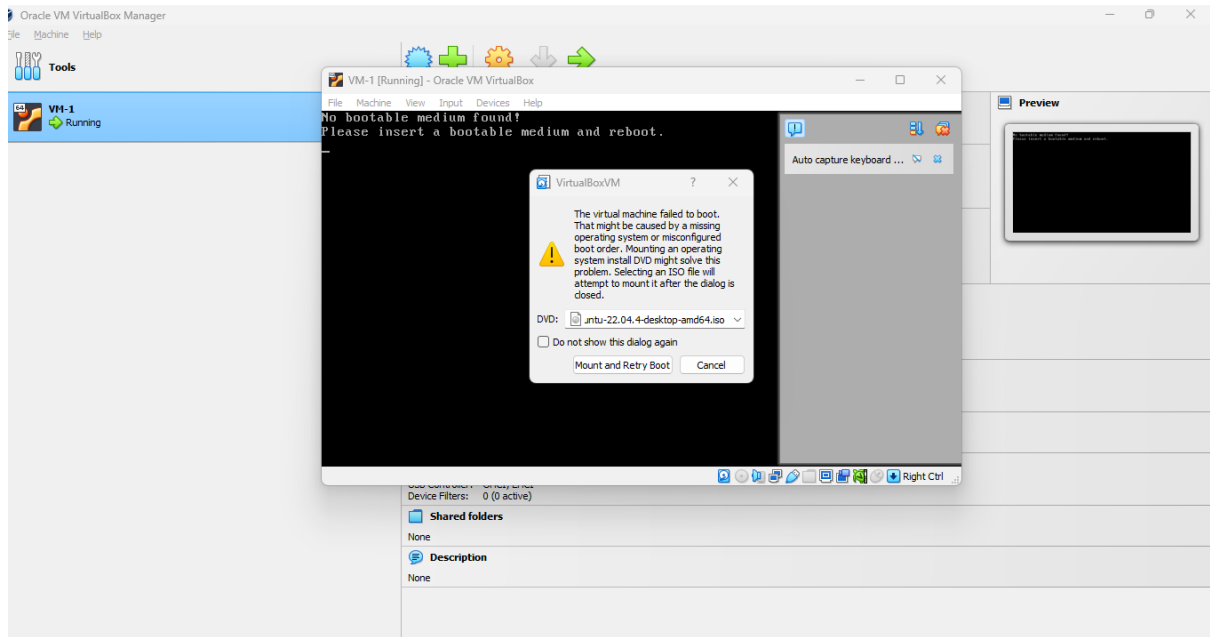
VirtualBox (VDI) 64bit

Download

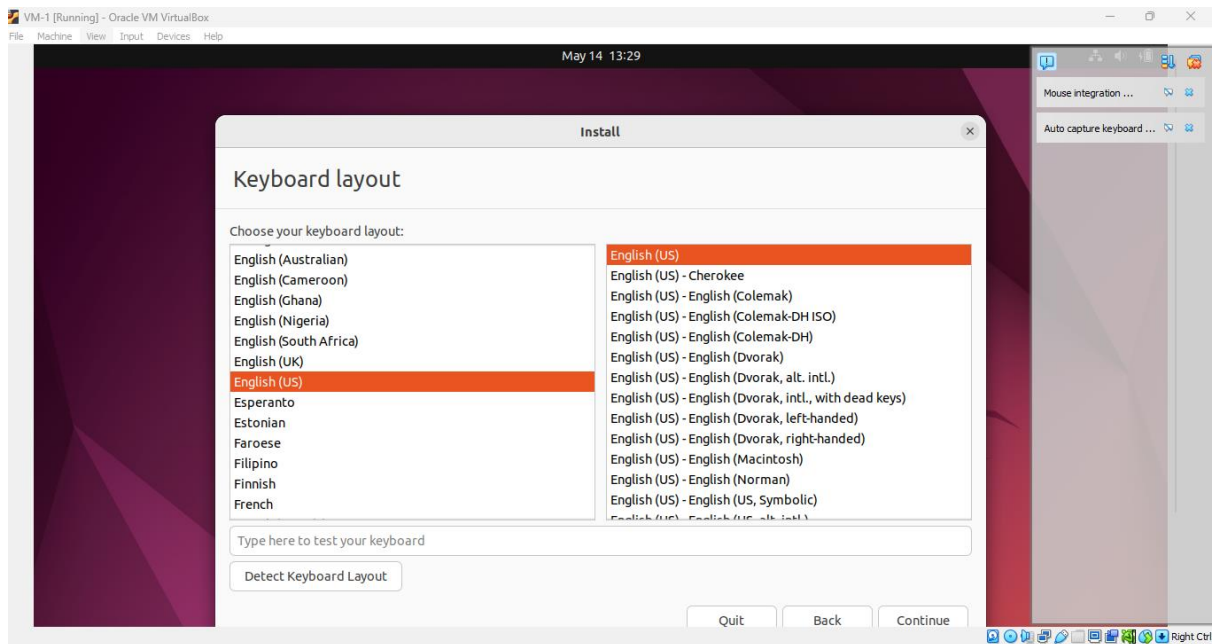
Size: 2.59GB

SHA256: 7c7641bdb3f3dfa1beaa76b4edd7d3a2a95a4aa27c88b21cb569e8b40cd8e92

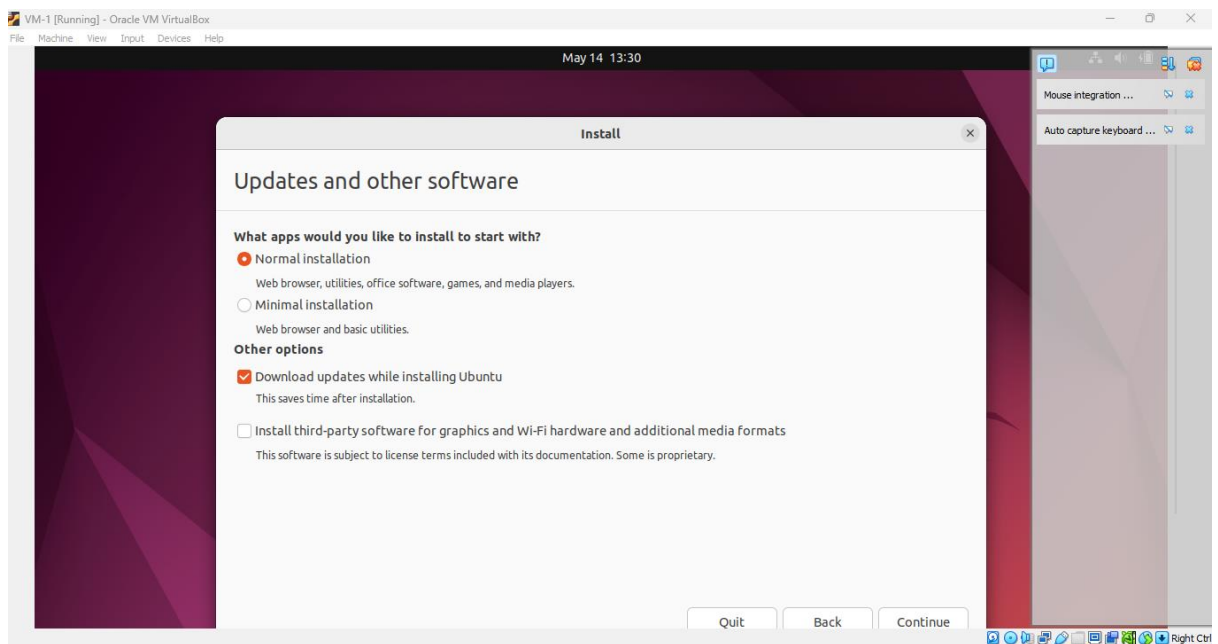
-Mounted Ubuntu 22.04 image into VM machine:



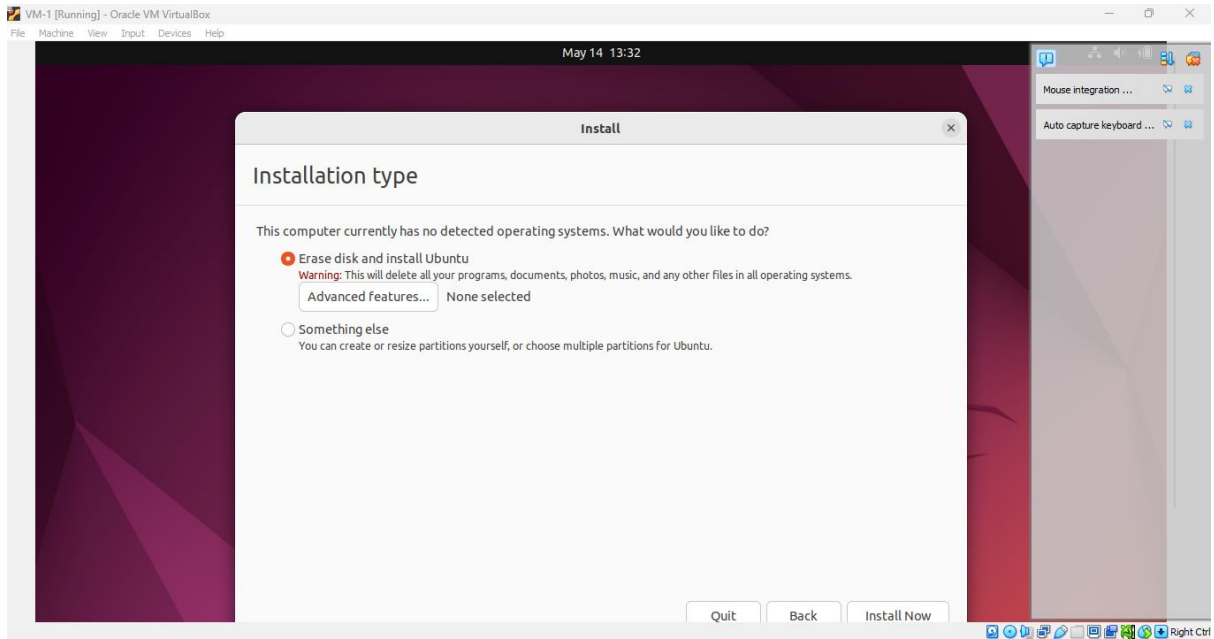
Clicked on install Ubuntu:



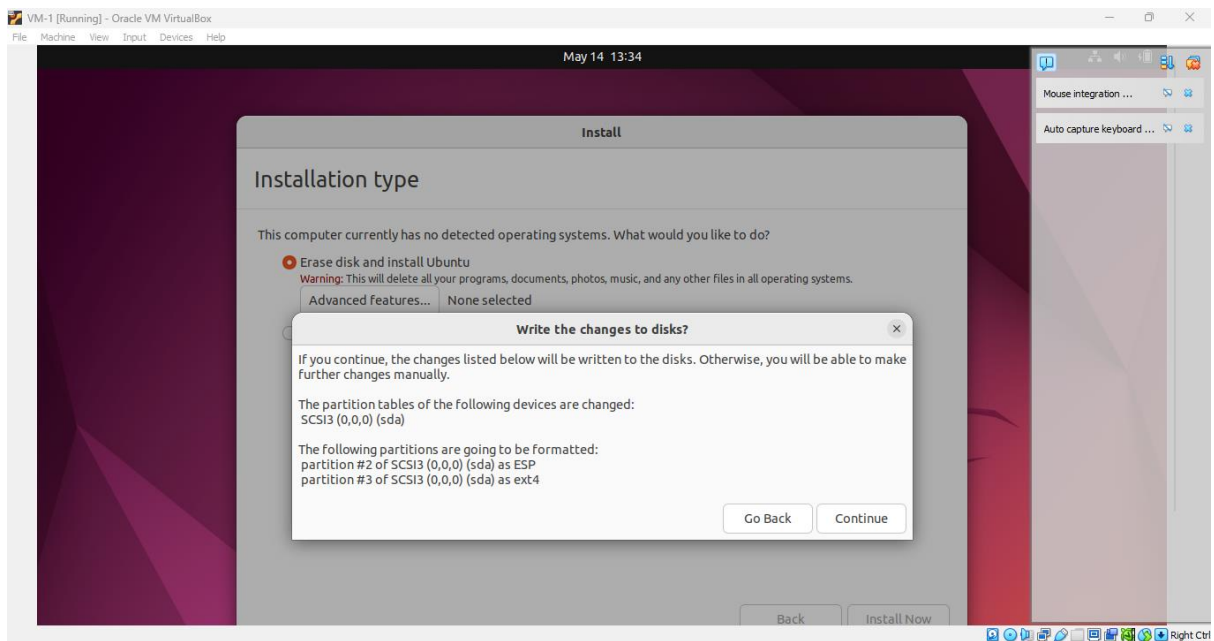
Click on continue:



Click on continue:

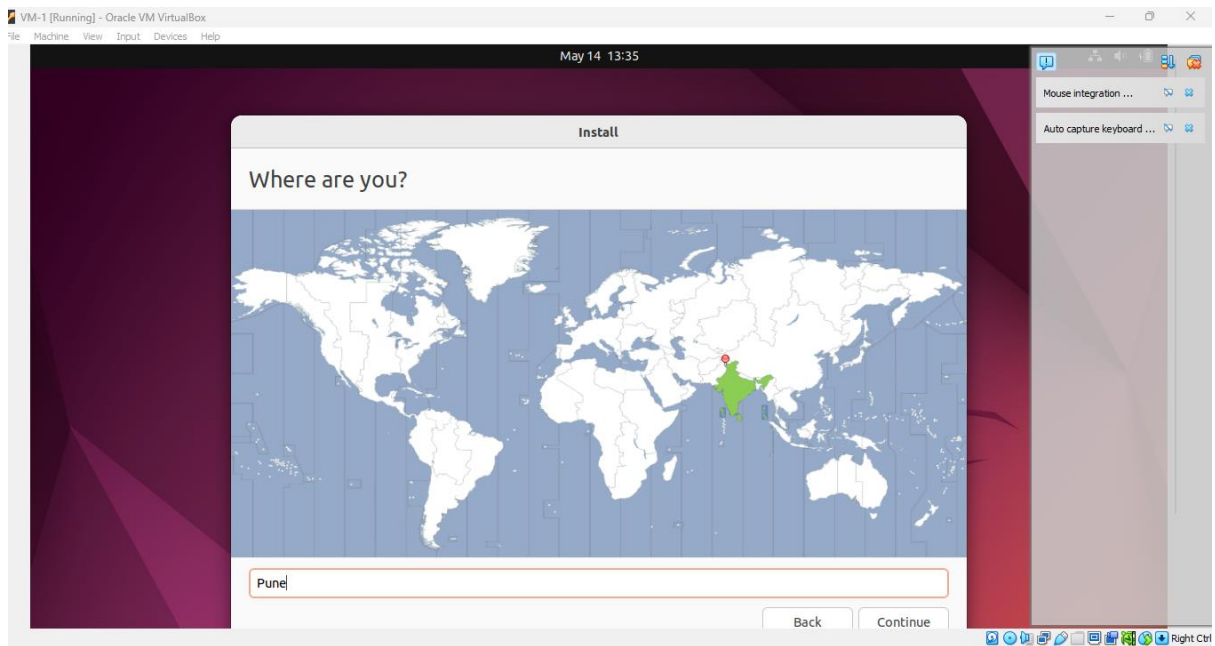


Click on install now:

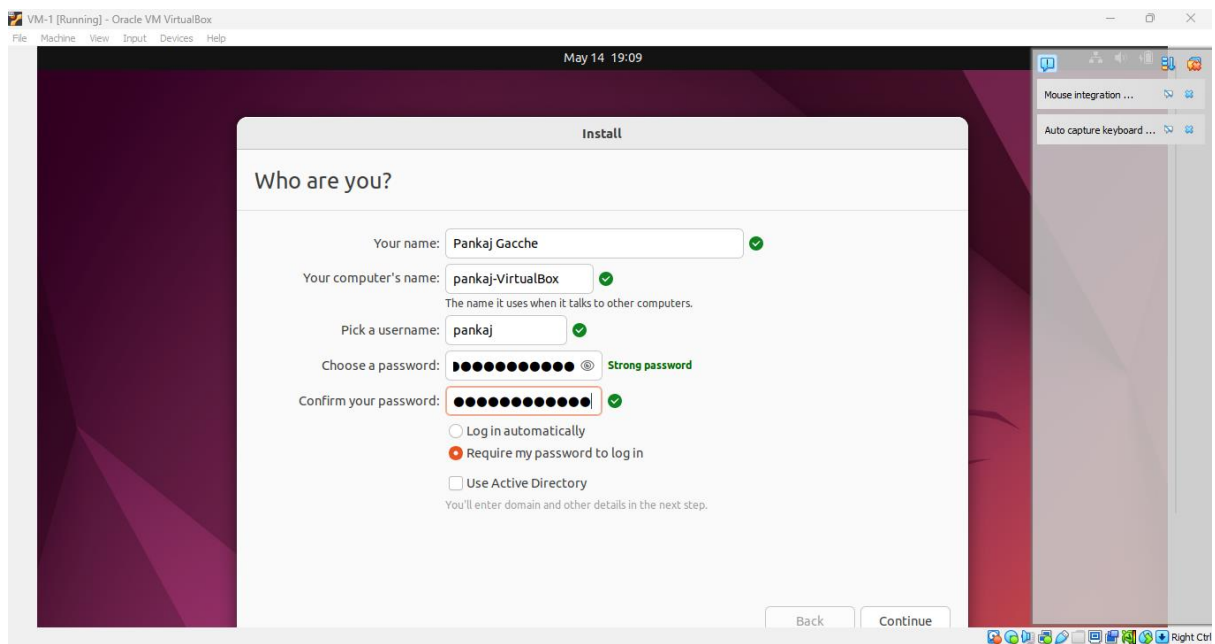


Click on continue:

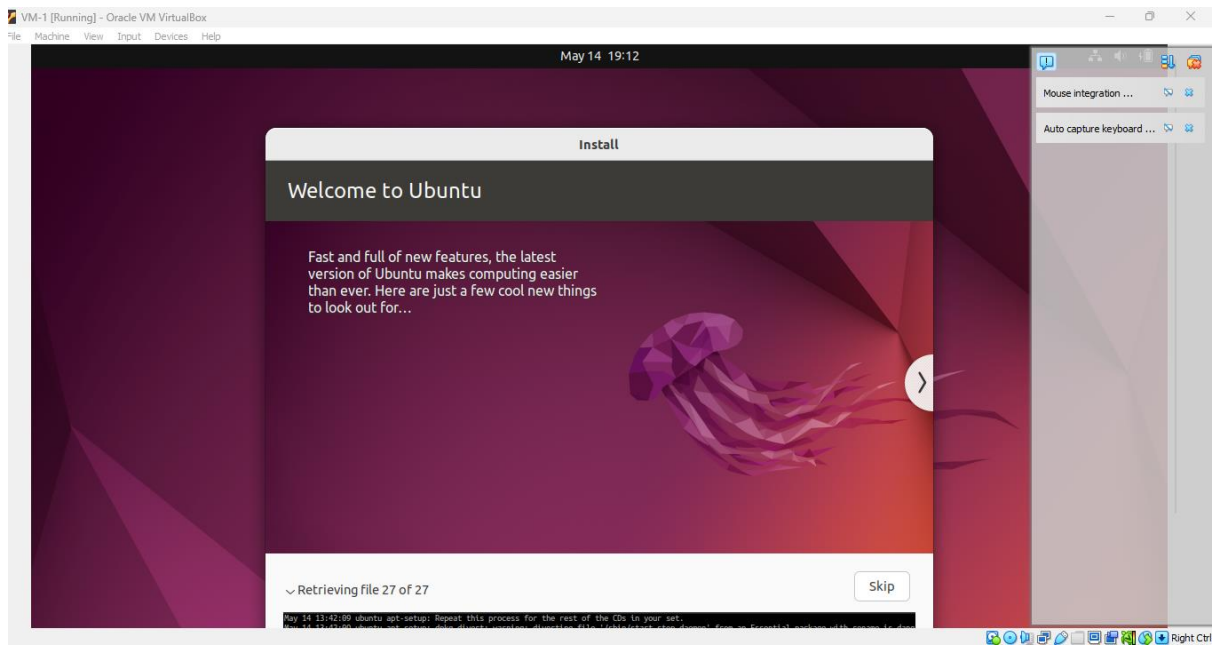
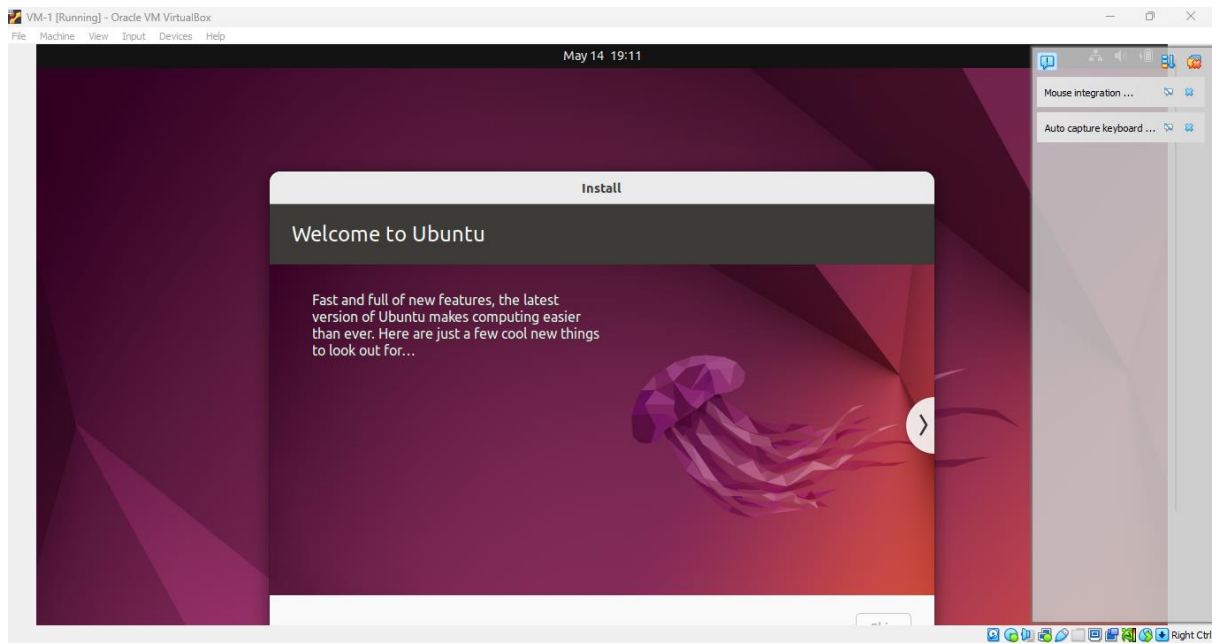
Selected My city and click on continue:

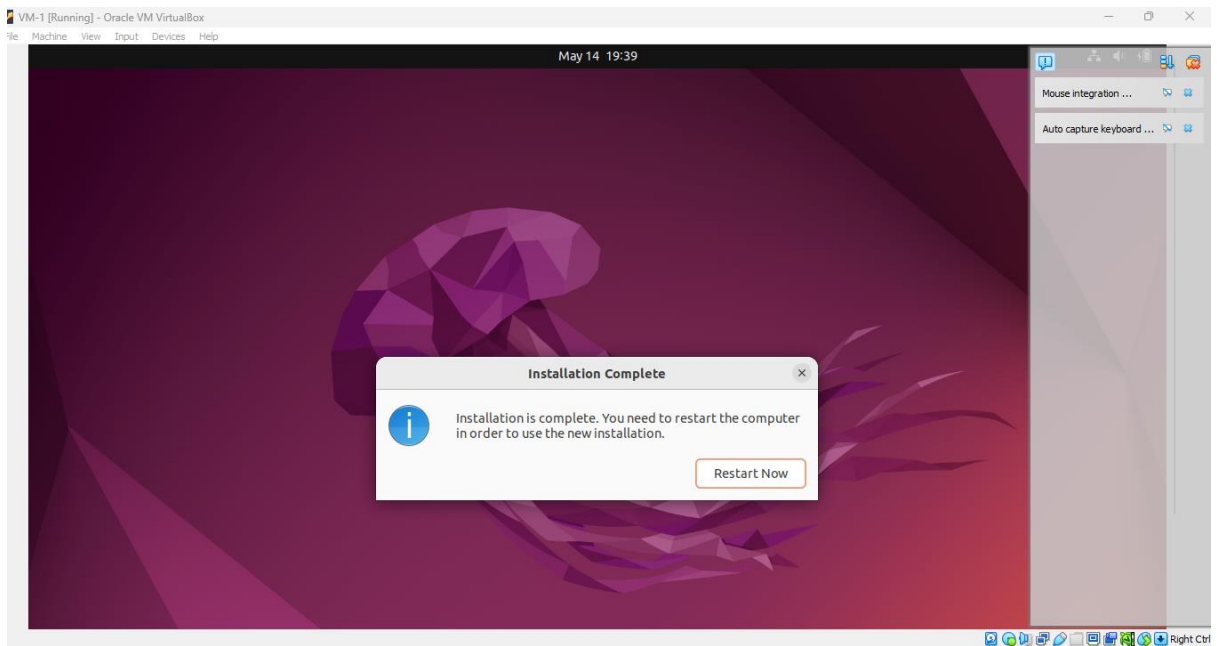
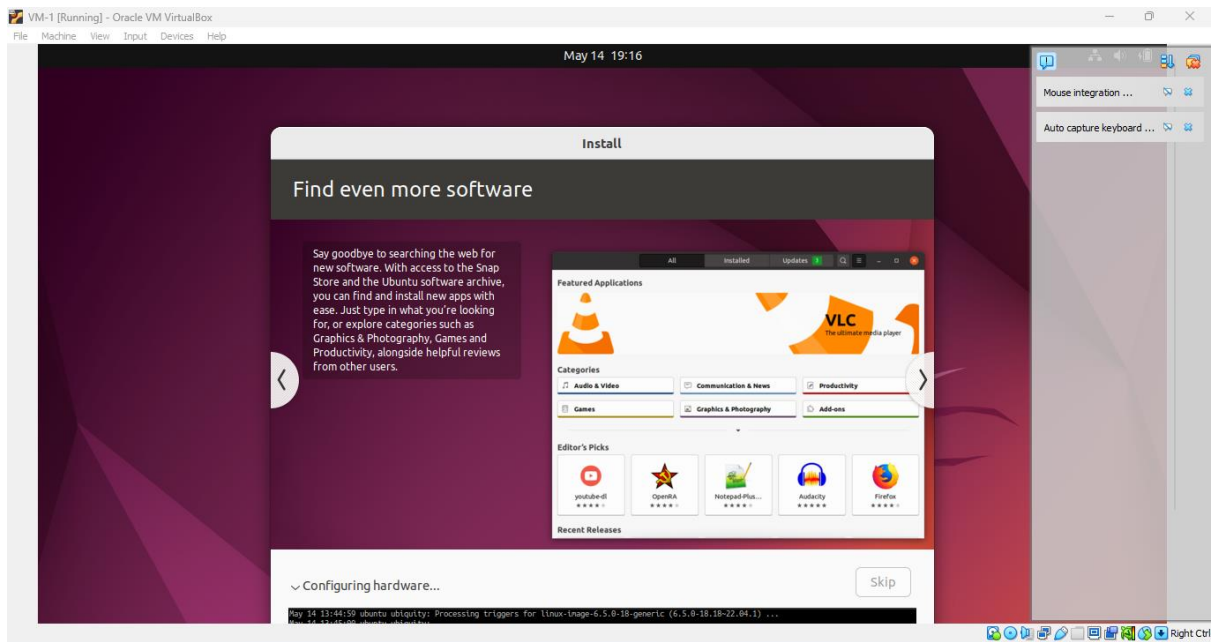


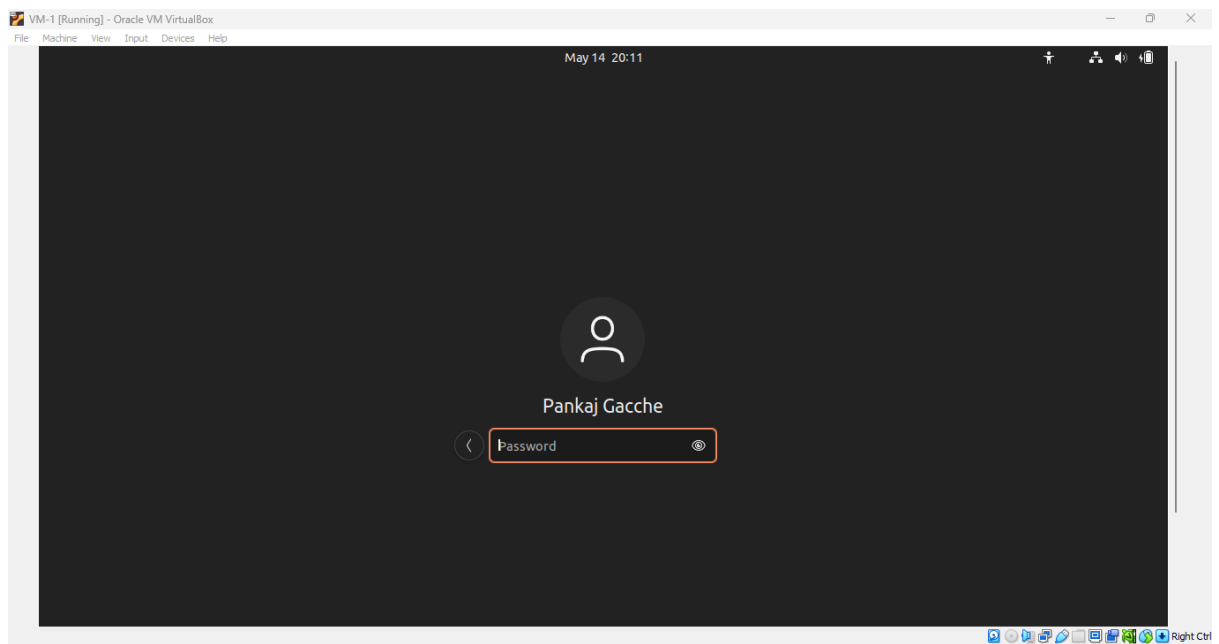
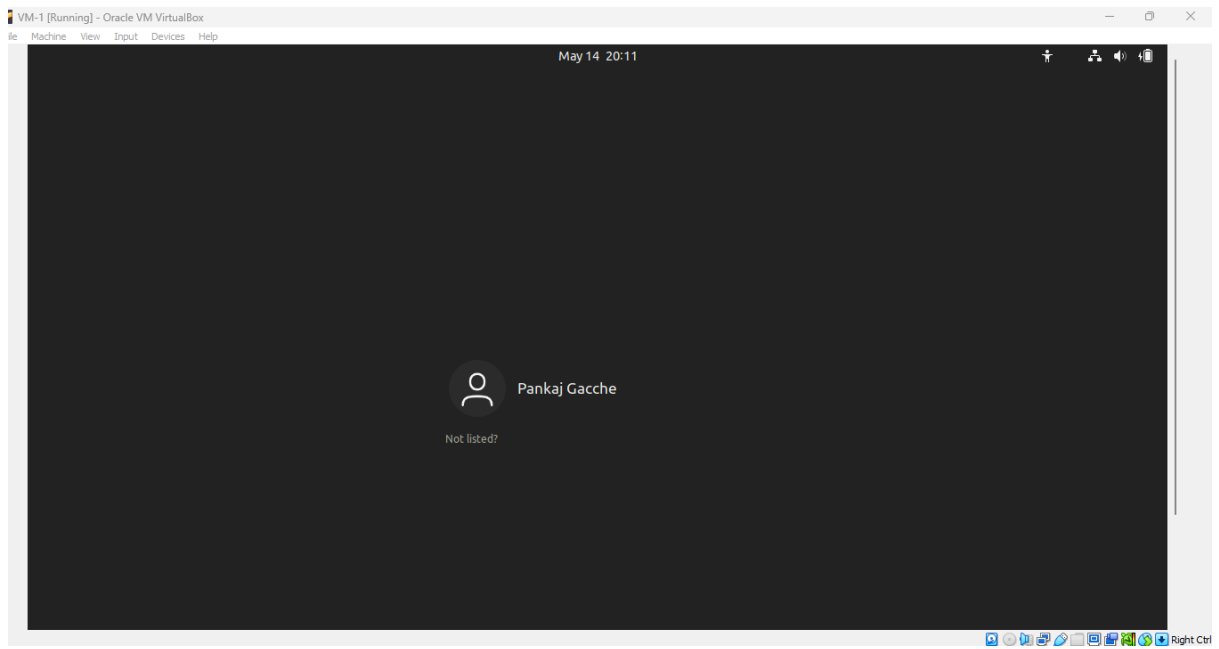
-Entered details and click on continue:

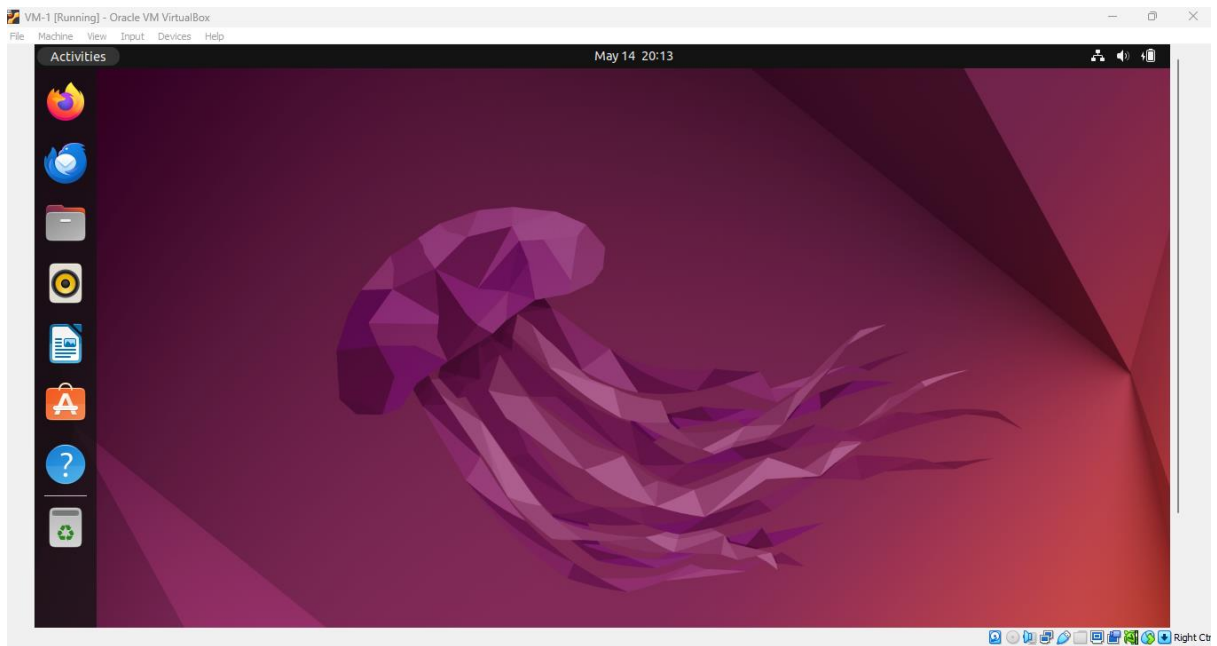
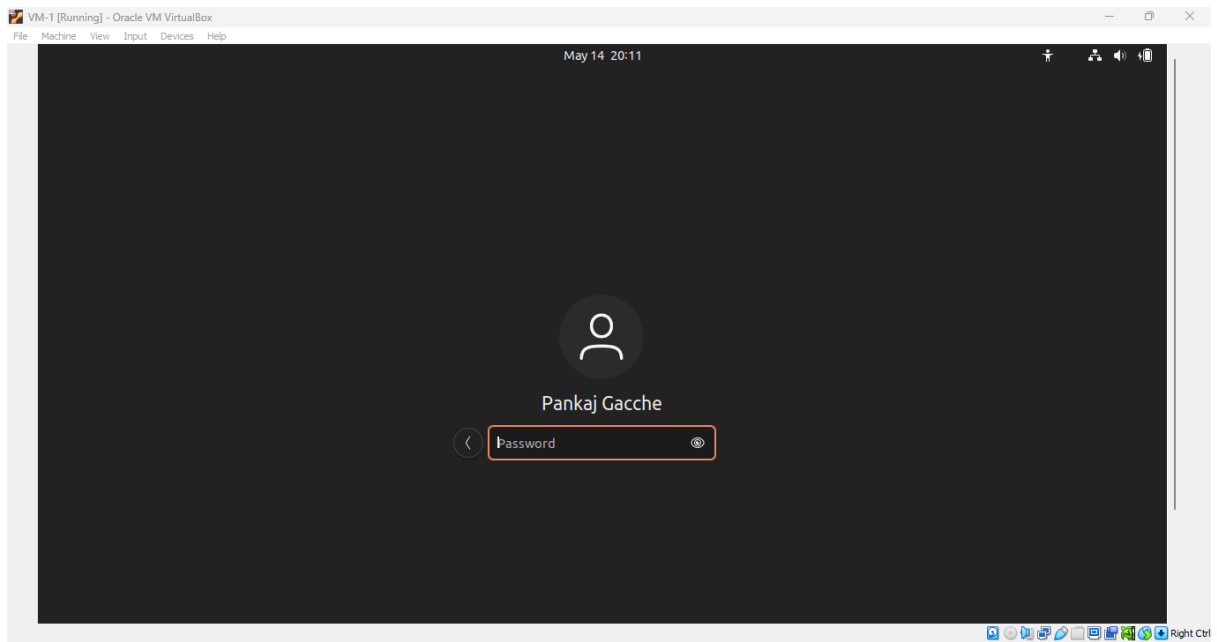


Installing packages:

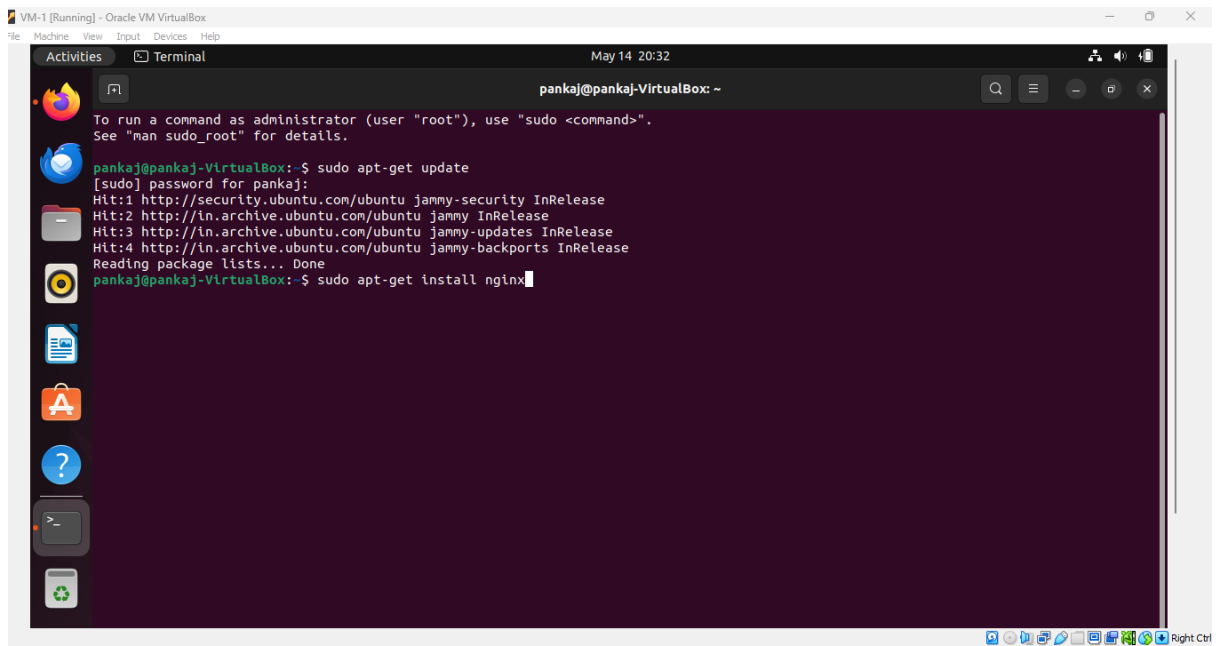








- Installed Nginx server inside the Ubuntu:



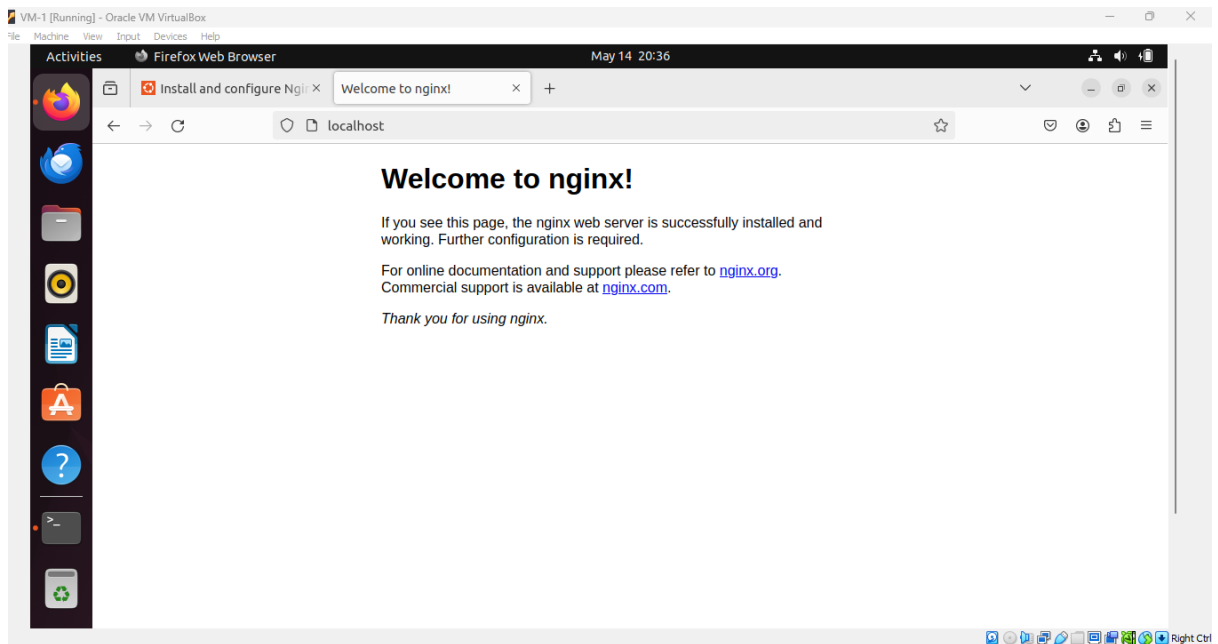
VM-1 [Running] - Oracle VM VirtualBox

Activities Terminal May 14 20:32

pankaj@pankaj-VirtualBox: ~

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

```
pankaj@pankaj-VirtualBox:~$ sudo apt-get update
[sudo] password for pankaj:
Hit:1 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:2 http://in.archive.ubuntu.com/ubuntu jammy InRelease
Hit:3 http://in.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:4 http://in.archive.ubuntu.com/ubuntu jammy-backports InRelease
Reading package lists... Done
pankaj@pankaj-VirtualBox:~$ sudo apt-get install nginx
```



-Hosted a new website on Nginx server:

VM-1 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Activities Terminal May 14 20:51

pankaj@pankaj-VirtualBox: /etc/nginx/sites-enabled

```
pankaj@pankaj-VirtualBox:~$ cd /var/www/html
pankaj@pankaj-VirtualBox:/var/www/html$ ls
index.nginx-debian.html
pankaj@pankaj-VirtualBox:/var/www/html$ sudo nano index.html
pankaj@pankaj-VirtualBox:/var/www/html$ cd /etc/nginx/sites-enabled
pankaj@pankaj-VirtualBox:/etc/nginx/sites-enabled$ sudo nano mysite
pankaj@pankaj-VirtualBox:/etc/nginx/sites-enabled$ ls
default mysite
pankaj@pankaj-VirtualBox:/etc/nginx/sites-enabled$ sudo service nginx restart
pankaj@pankaj-VirtualBox:/etc/nginx/sites-enabled$ sudo service nginx status
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2024-05-14 20:50:46 IST; 16s ago
     Docs: man:nginx(8)
   Process: 6574 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
   Process: 6578 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
   Main PID: 6579 (nginx)
    Tasks: 2 (limit: 2261)
   Memory: 3.0M
      CPU: 134ms
   CGroup: /system.slice/nginx.service
           └─6579 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"
             └─6580 "nginx: worker process"

May 14 20:50:46 pankaj-VirtualBox systemd[1]: Starting A high performance web server and a reverse proxy server...
May 14 20:50:46 pankaj-VirtualBox systemd[1]: Started A high performance web server and a reverse proxy server.
pankaj@pankaj-VirtualBox:/etc/nginx/sites-enabled$
```

