U18ITI7202-Cloud Computing

Lab Exercise – 1

Name : T Dinesh kumar

Roll no : 23BIT023
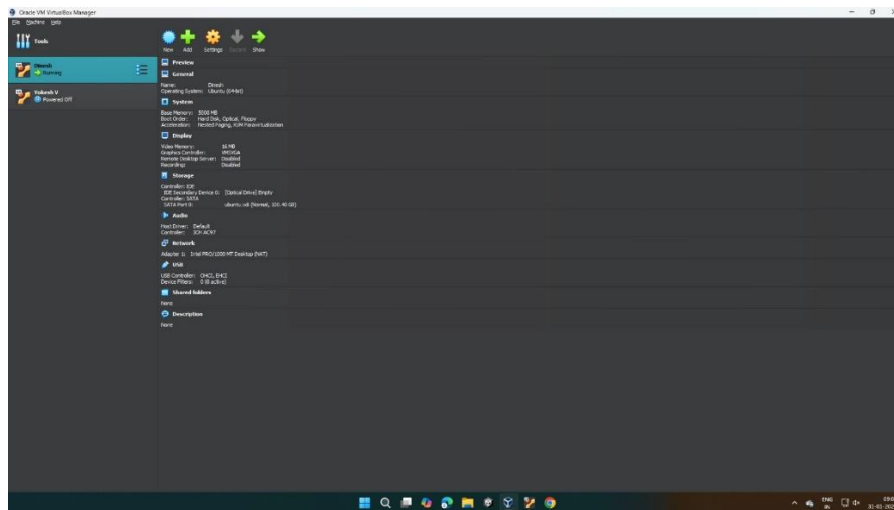
Configuring openstack cloud
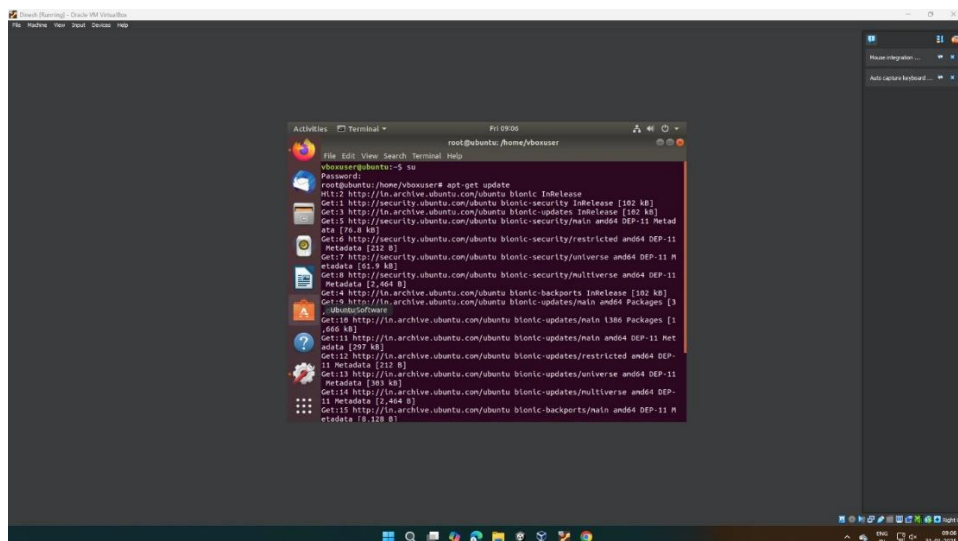
Aim :

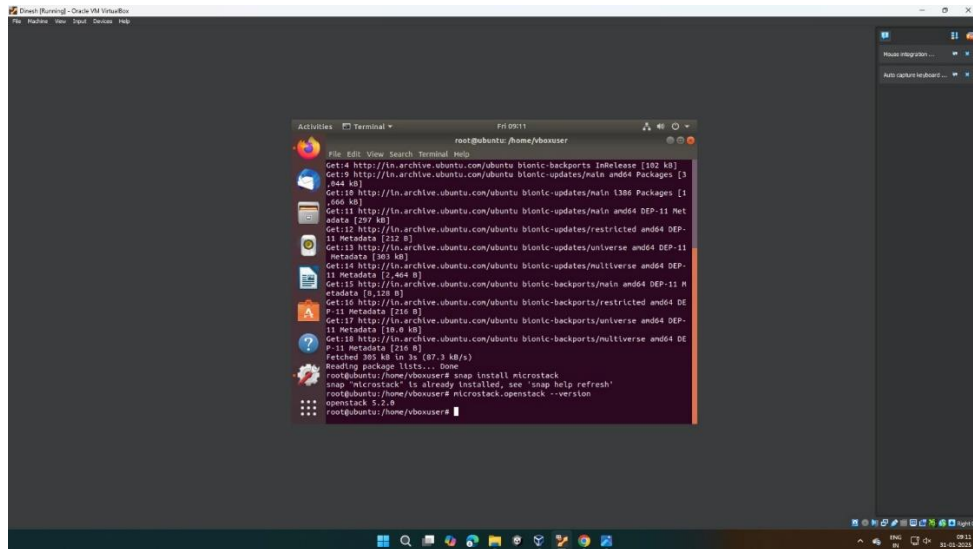To install and configure openstack.

Procedure:

Setting Up OpenStack

1. Open VirtualBox and start the virtual machine.

2. Open the terminal.

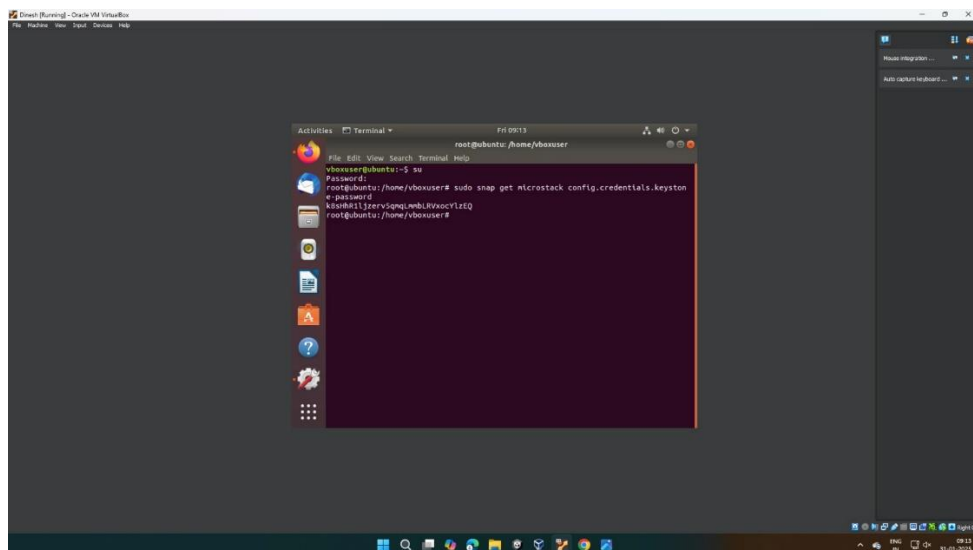3. Ensure the system is up to date by running:
   sudo apt-get update

4. Initialize MicroStack and configure it as a control node:
sudo microstack init --auto --control

5. Verify the installation by checking the OpenStack version:
microstack.openstack –version

Logging into OpenStack

6. Retrieve the OpenStack login credentials:
sudo snap get microstack config.credentials.keystone-password

   o Note the password. The default username is admin.

7. Open a web browser (Firefox) and go to:

   o http://localhost or http://10.20.20.1

8. Log in using the retrieved credentials.
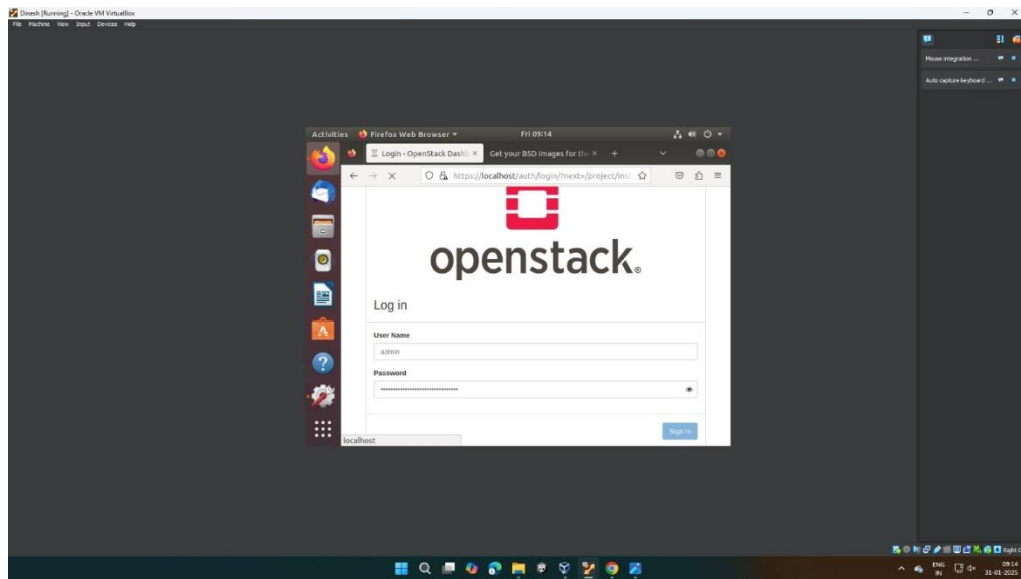
Launching an Instance in OpenStack

9. Navigate to the Instances page from the OpenStack dashboard.

10. Click on Create Instance and provide a name, MyVm.
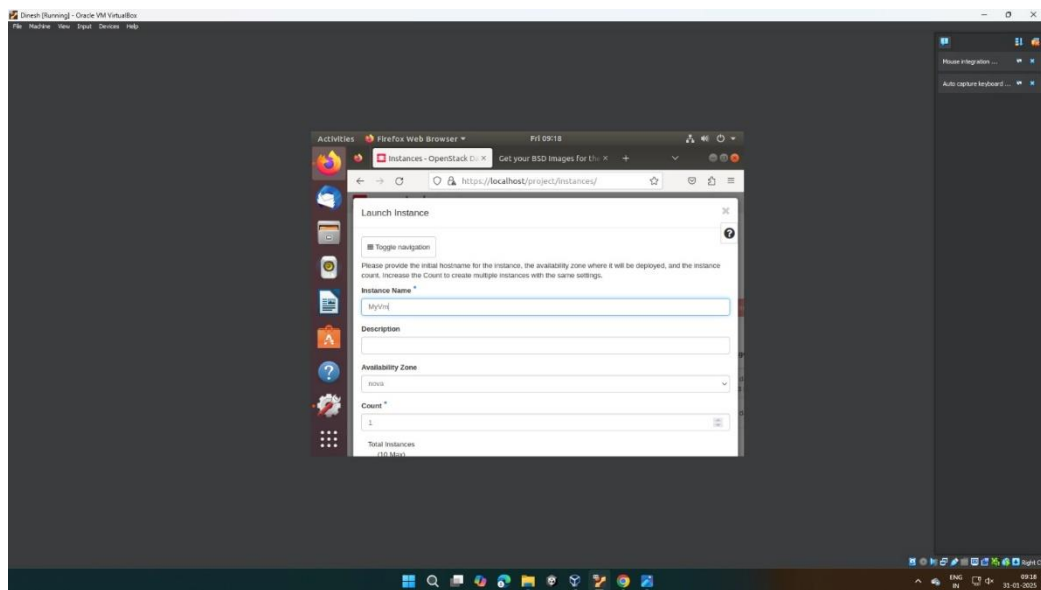
11. Configure the instance as follows:

   o   Source: Select the Cirros image.

   o   Flavor: Choose m1.tiny.

   o   Networks: Select External.

Screenshot 1

Dinesh [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

Activities Firefox Web Browser Fri 09:20

Instances - OpenStack D... × Get your BSD Images for the × +

https://localhost/project/instances/

Displaying 1 item

Name

> cirros

Displaying 1 item

∨ Available ❶   Select one

🔍 Click here for filters or full text search.   ✕

Displaying 1 item

Name

> NetBSD

Displaying 1 item

✕ Cancel   ‹ Back   Next ›   ☁ Launch Instance

Screenshot 2

Dinesh [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

Activities Firefox Web Browser Fri 09:20

Instances - OpenStack D... × Get your BSD Images for the × +

https://localhost/project/instances/

Flavors manage the sizing for the compute, memory and storage capacity of the instance.

Allocated

Name	VCPUS	RAM	Total Disk	Public	
> m1.tiny	1	512 MB	1 GB	Yes	↓

∨ Available ❶   Select one

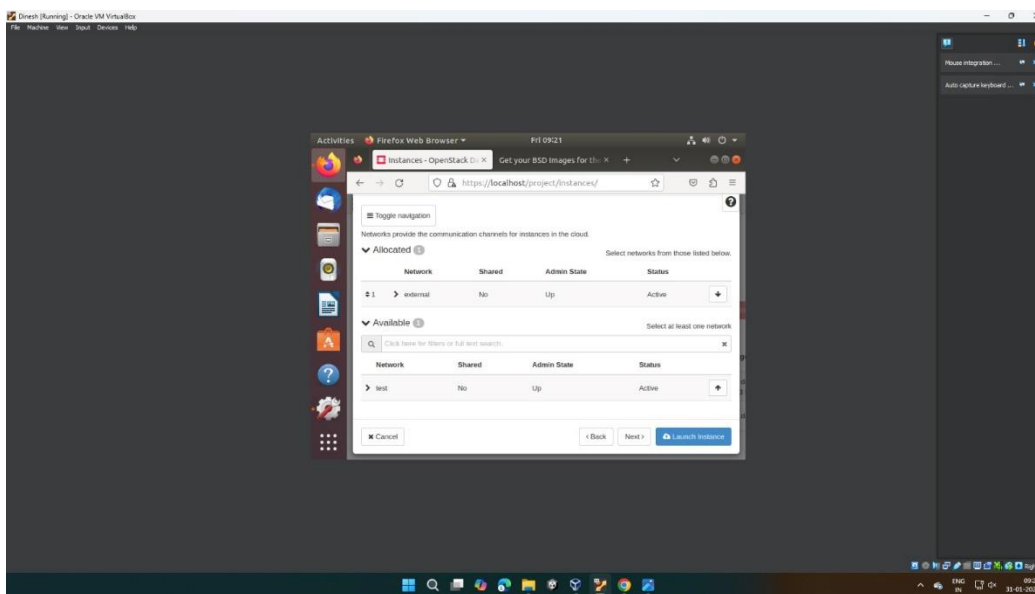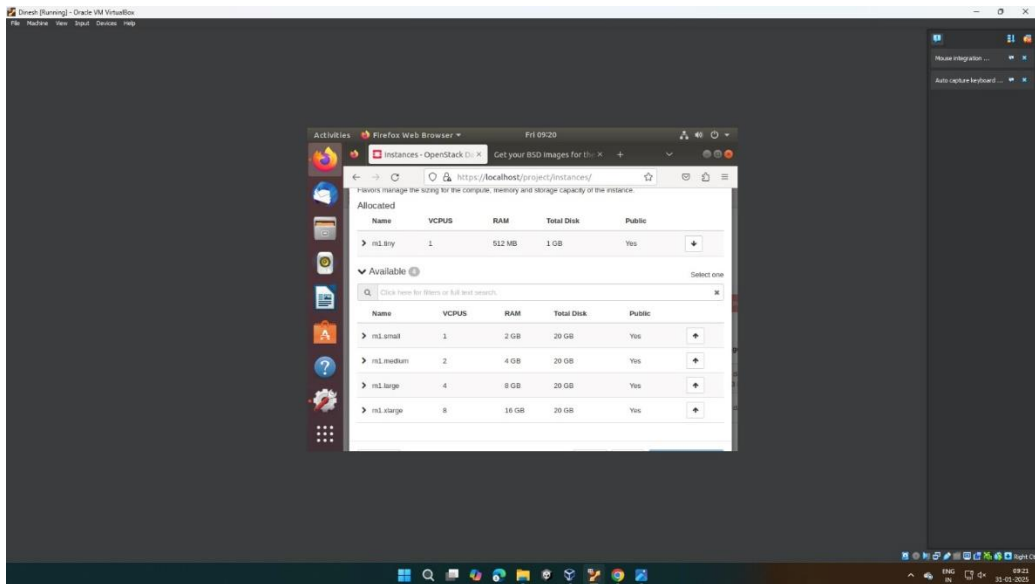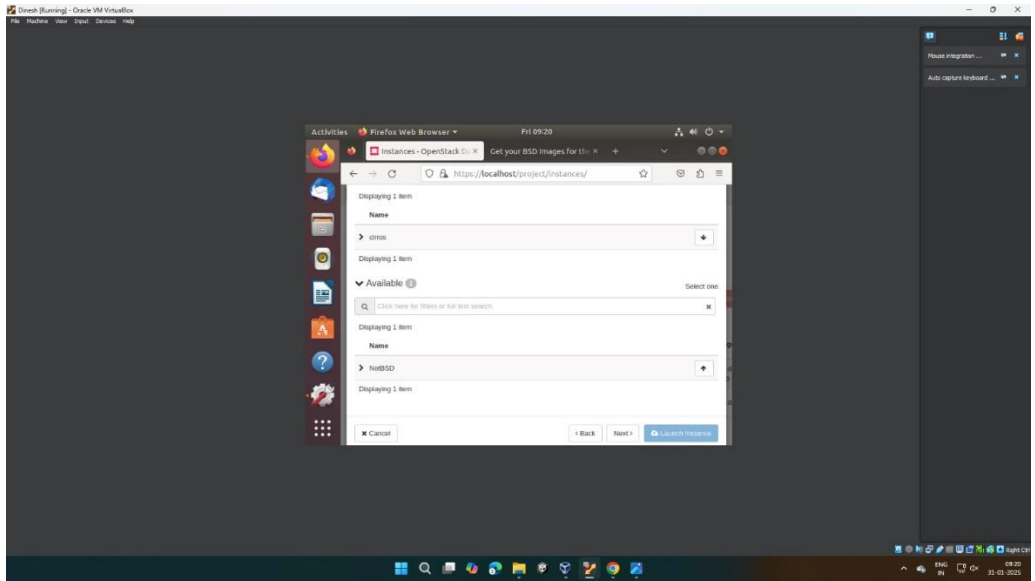🔍 Click here for filters or full text search.   ✕

Name	VCPUS	RAM	Total Disk	Public	
> m1.small	1	2 GB	20 GB	Yes	↑
> m1.medium	2	4 GB	20 GB	Yes	↑
> m1.large	4	8 GB	20 GB	Yes	↑
> m1.xlarge	8	16 GB	20 GB	Yes	↑

Screenshot 3

Dinesh [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

Activities Firefox Web Browser Fri 09:21

Instances - OpenStack D... × Get your BSD Images for the × +

https://localhost/project/instances/

≡ Toggle navigation

Networks provide the communication channels for instances in the cloud.

∨ Allocated ❶   Select networks from those listed below.

	Network	Shared	Admin State	Status	
⇅ 1 > external	No	Up	Active	↓

∨ Available ❷   Select at least one network

🔍 Click here for filters or full text search.   ✕

Network	Shared	Admin State	Status	
> test	No	Up	Active	↑

✕ Cancel   ‹ Back   Next ›   ☁ Launch Instance
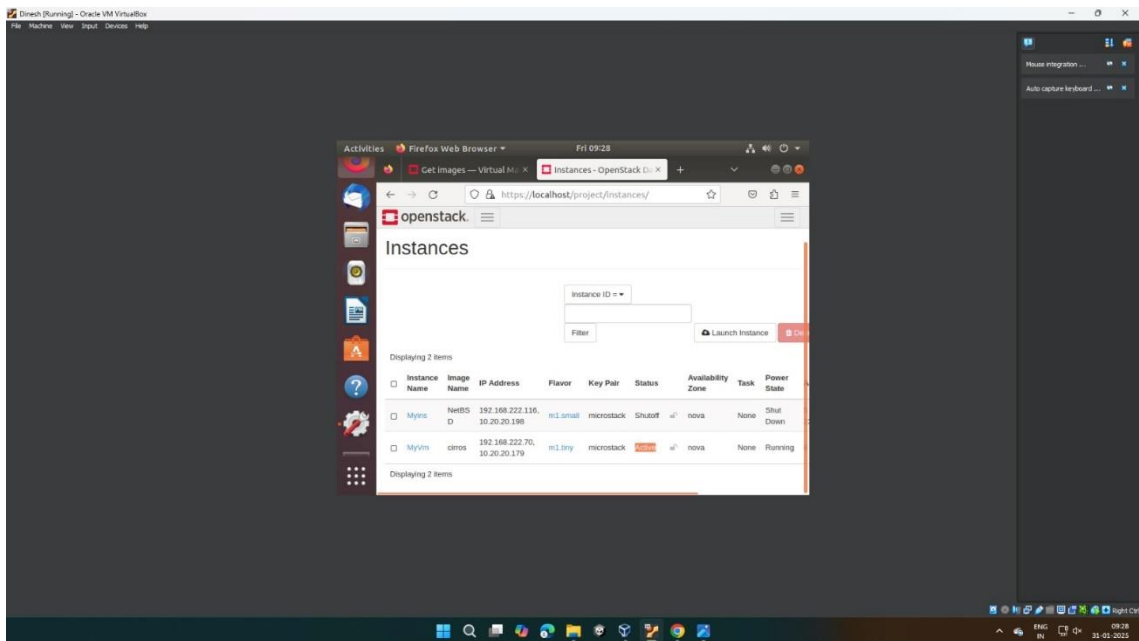
12. Proceed by clicking Next until the Launch Instance button is enabled, then click it.
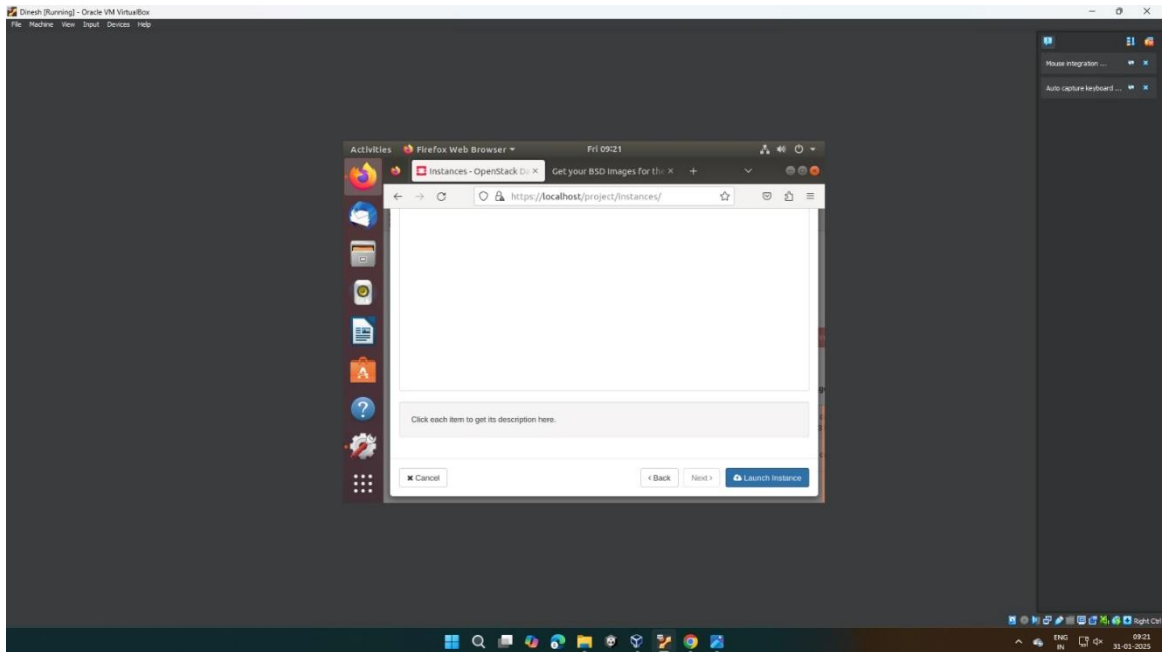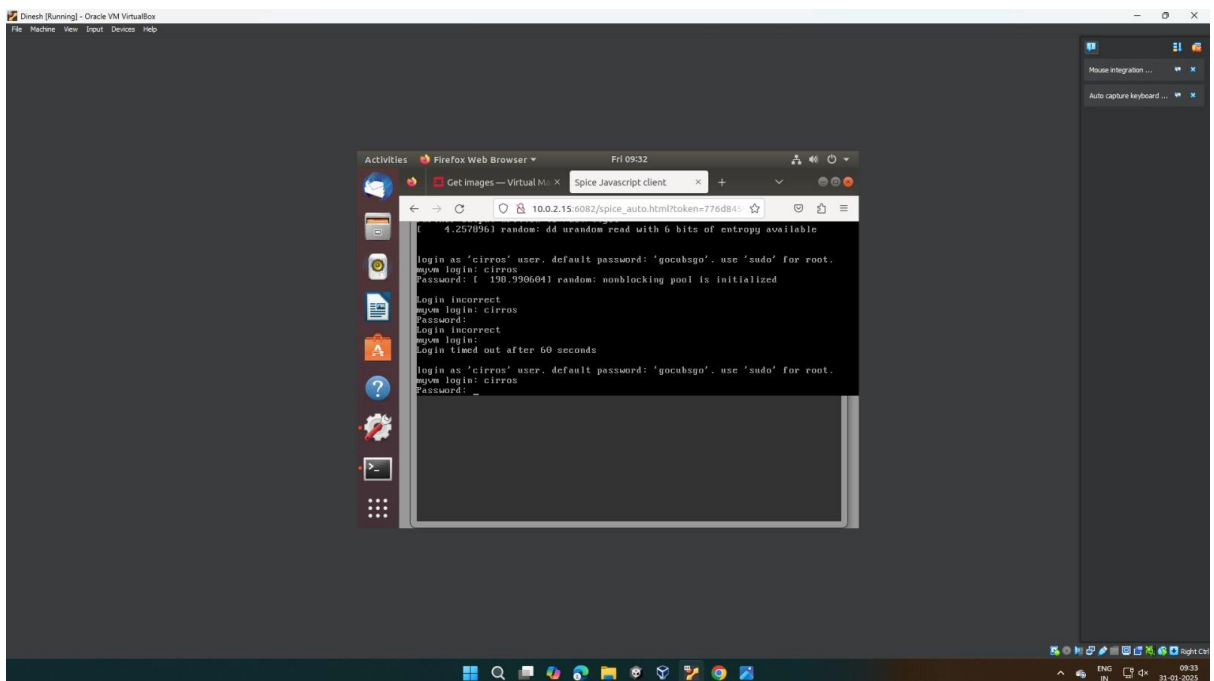

13. If the instance fails to launch via the dashboard, use the following terminal command:
microstack launch cirros -n MyInstance
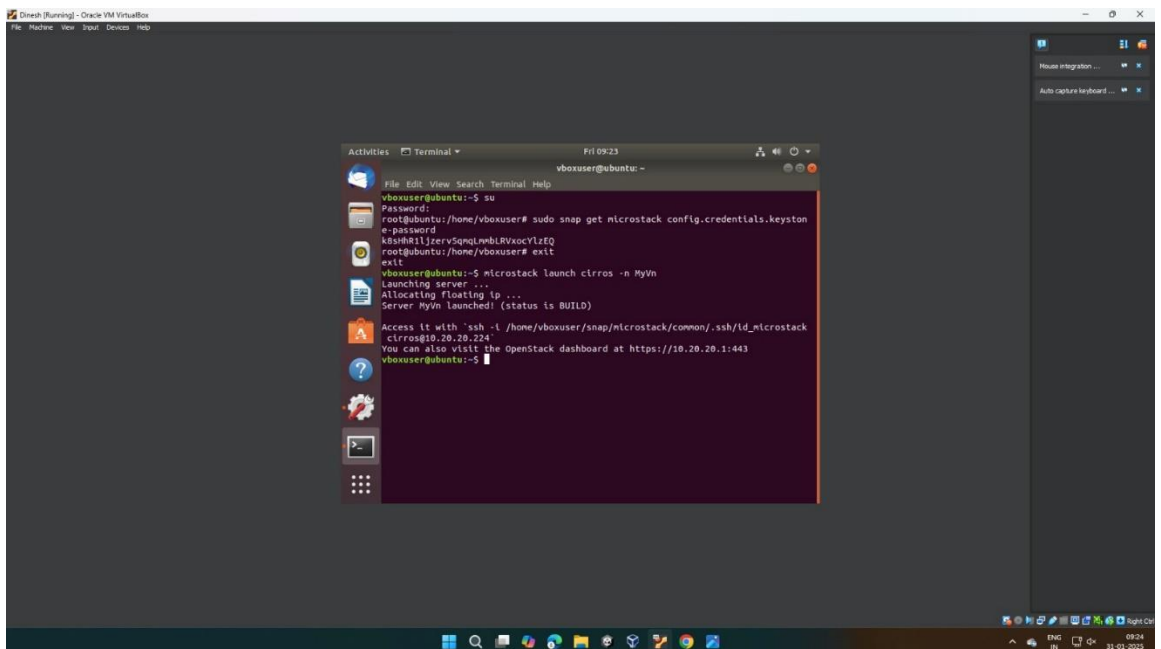
14. Refresh the Instances page to verify that the instance is running.

15. To confirm successful launch, access the Console page and run basic commands.

RESULT:

We have successfully installed and configured OpenStack on our virtual machine, setting up a private cloud.