Virtual Machine Setup with Oracle VirtualBox (Ubuntu & OpenSUSE)

Objective:
This task involves setting up a virtual environment using Oracle VirtualBox as the hypervisor. You will create two virtual machines:
1. Ubuntu 20.04 server with a minimal installation.
2. OpenSUSE 15 Leap with a minimal installation.

After creating the virtual machines, you will assign hostnames:
- ubuntu.example.com for the Ubuntu VM.
- opensuse.example.com for the OpenSUSE VM.

Constraints:
- Only use Oracle VirtualBox as a hypervisor.
- Download the minimal installation ISOs for Ubuntu 20.04 server and OpenSUSE 15 Leap.
- Ensure adequate system resources (RAM and storage) are allocated to each virtual machine for smooth operation.

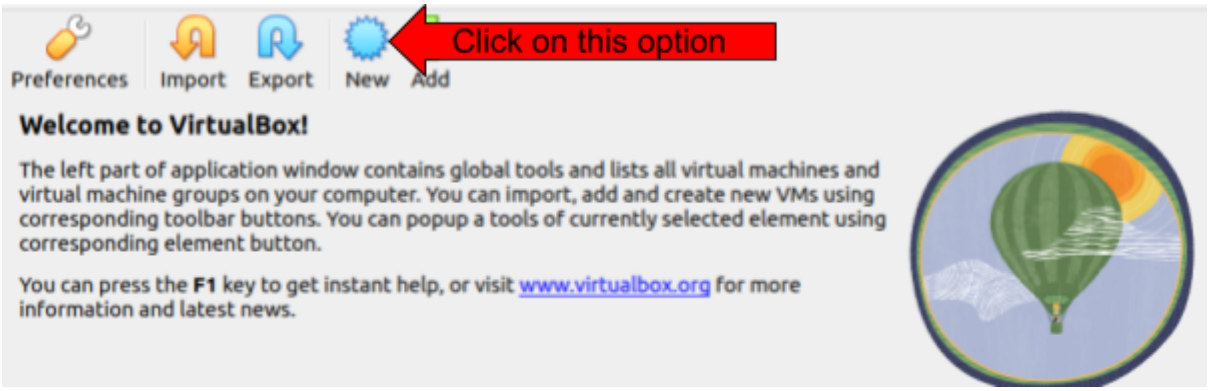
Solution :-

1] Ubuntu 20.04 server with a minimal installation :

Step 1:- ISO Image download via link.

- Copy the link given and paste it on any web browser address bar so that the ISO image of ubuntu 20.04 can automatically start downloading.
  Link: Ubuntu 20.04

- After your ISO image gets downloaded, Open the Oracle VM VirtualBox Application and Click on option mark in the below option..



Step 2:- Virtual Machine Name and Operating System

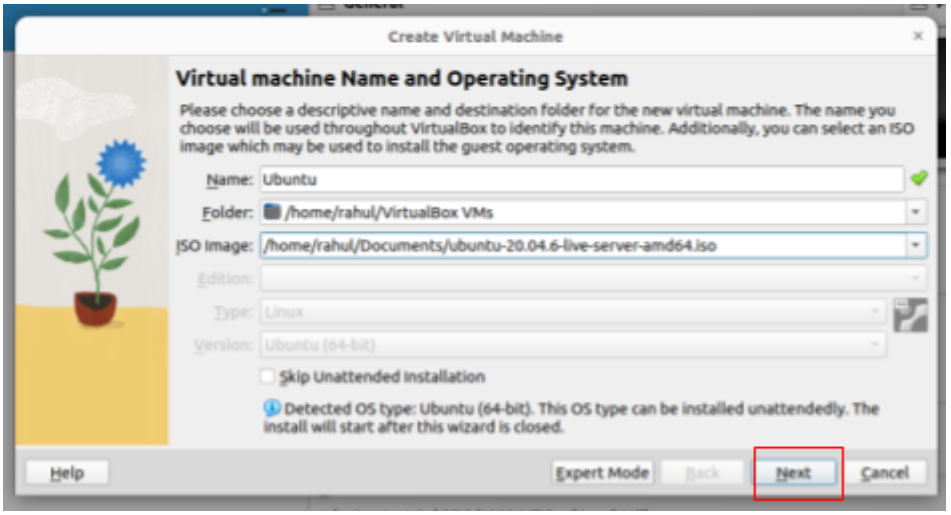
1] Name your VM: Choose a descriptive name for your virtual machine in the "Name" section.

2] Set the folder location:

Windows: Look for the Oracle VM VirtualBox folder in "C:".

Linux: Find the folder in "/home/<username>/" (replace `<username>` with your actual username). This is where VirtualBox is typically installed on Linux.

3] Select the ISO image: Click the "ISO Image" option and browse to the location where you downloaded the operating system installation file (ISO image).



- After Completing this process, Click Next as marked in the above image to continue.

Step 3:-Unattended Guest OS Install Setup

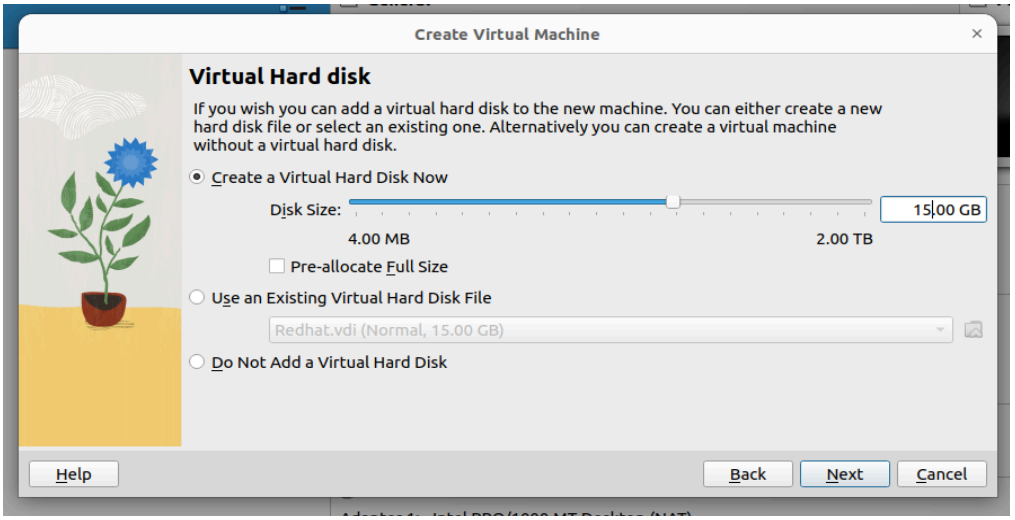
- After that you will see the interface of Unattended Guest OS Install Setup Without changing any default settings, Click on Next Option at bottom.

Step 4:- Hardware

- **Recommended:** [Minimum]
  Base Memory - 1.5 to 2 GB
  Processor - 1
- Click on **Next**.

Step 5:- Virtual Hard Disk

- **Recommended:** 15 to 20 GB



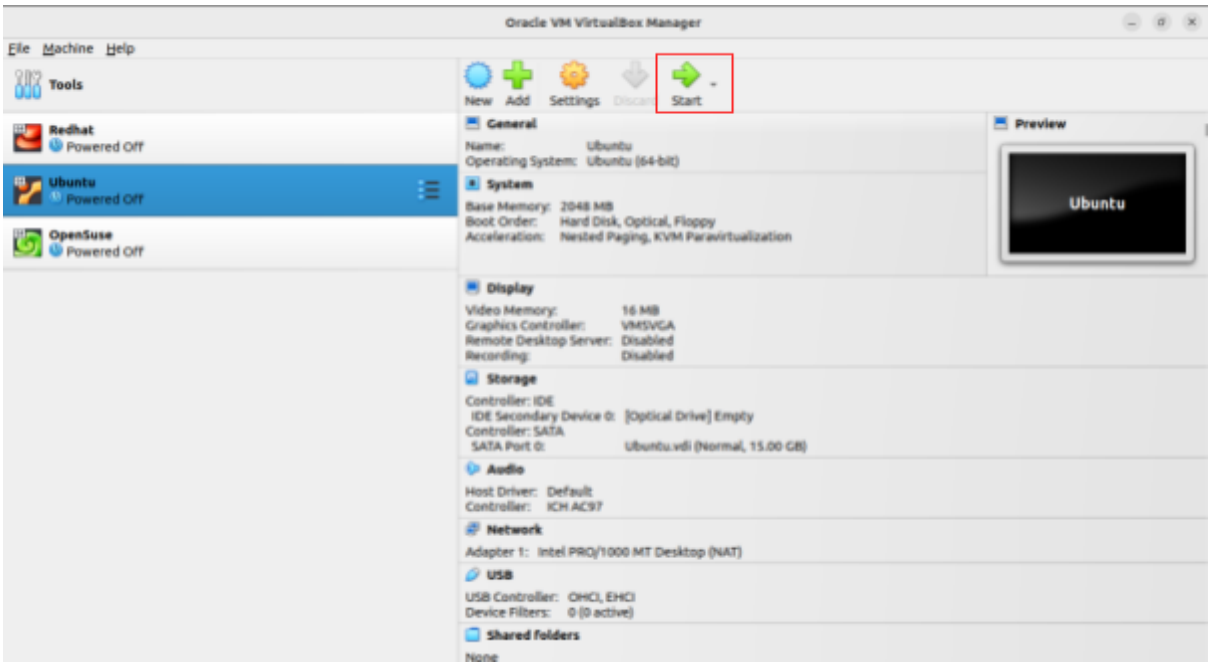
- Click **Next** , after selecting size.

Step 6:- Summary

- Click **Finish**, after verifying all details in Summary.

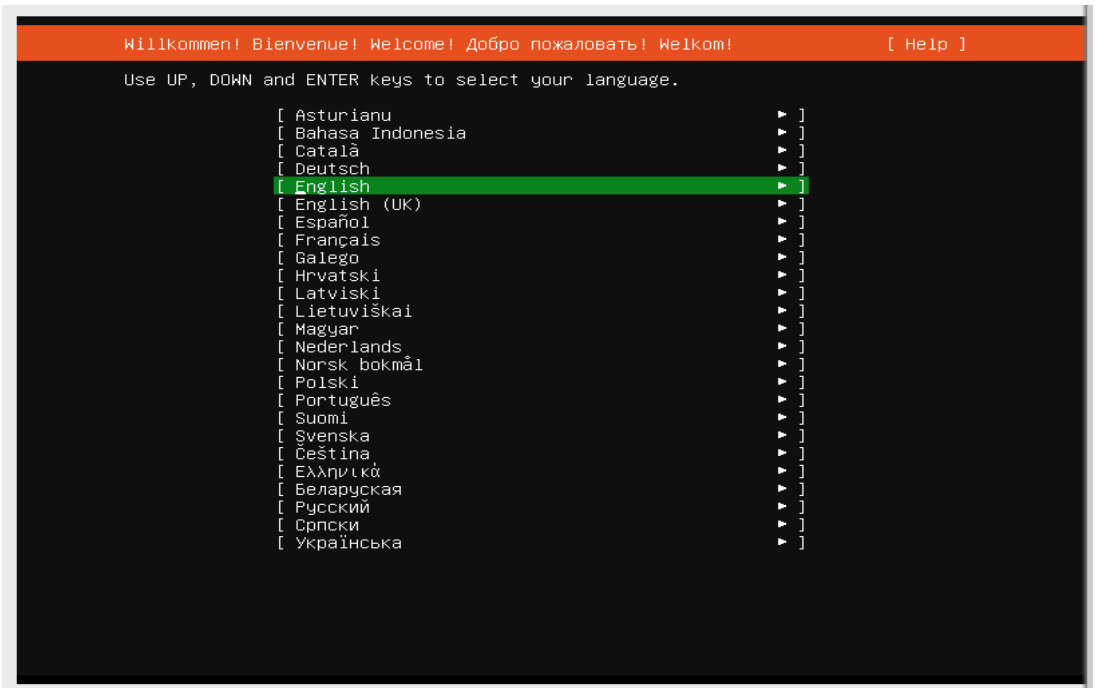
Step 7:-

- Select Ubuntu and Click on Start Option.



Step 8:- Select your language.

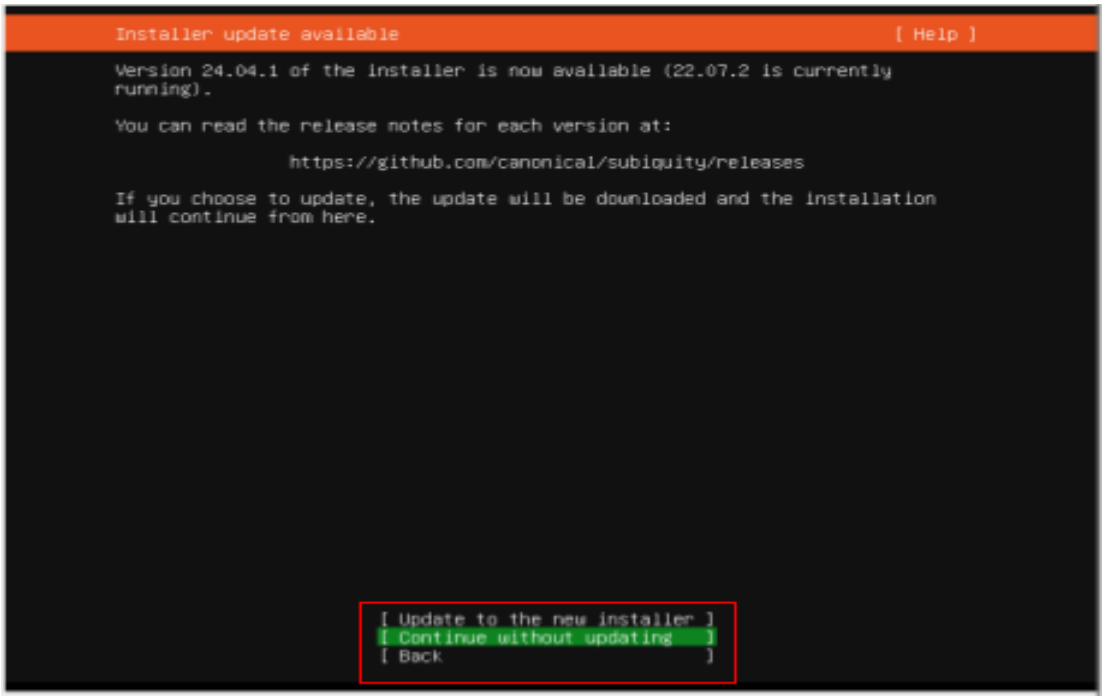
- Select **English** or as your preferable.



- Press **Enter** to Select Your Language.

Step 9:- Installer update available

- Select the option “**Continue without updating**”.
- Use Tab on the keyboard to switch the option.



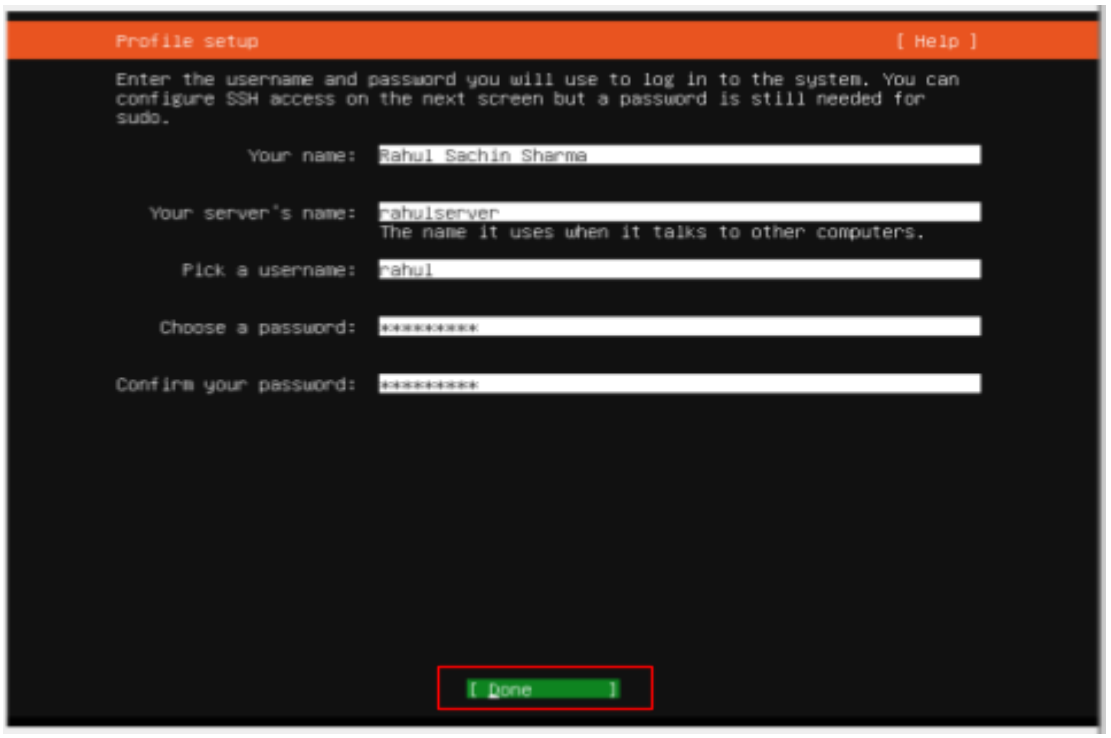
- Press **Enter** to Select the option.

Step 10:-

- Don’t change the default setting and Select “**done**” Option in the following interfaces.
- **Network connection.**
- **Configure Ubuntu archive mirror**
- **Guided storage configuration.**
- **Storage configuration.**
- After selecting the option in the Storage configuration. There will be one alert dialogue box of “**Confirm destructive action”**.
- Select the “**continue**” option in that dialogue box.

Step 11:- Profile Setup

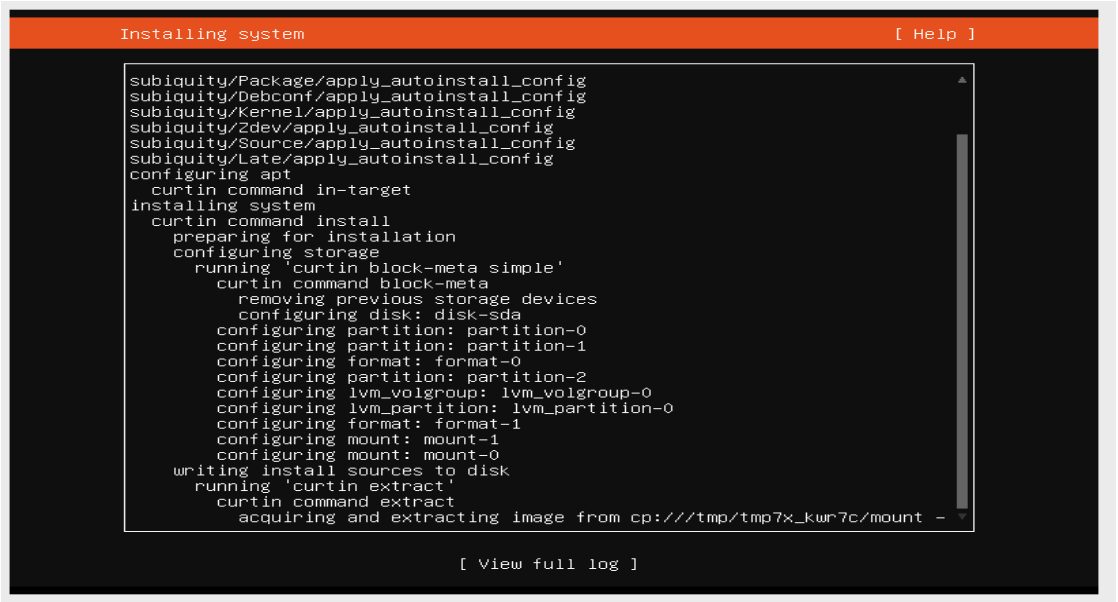
- Enter your details and password.
- Select **Done.**



Step 12:-

- Don’t change the default setting and Press **done.** In the following interface.
- **SSH Setup.**
- **Featured Server Snaps.**

Step 13:- Installing system

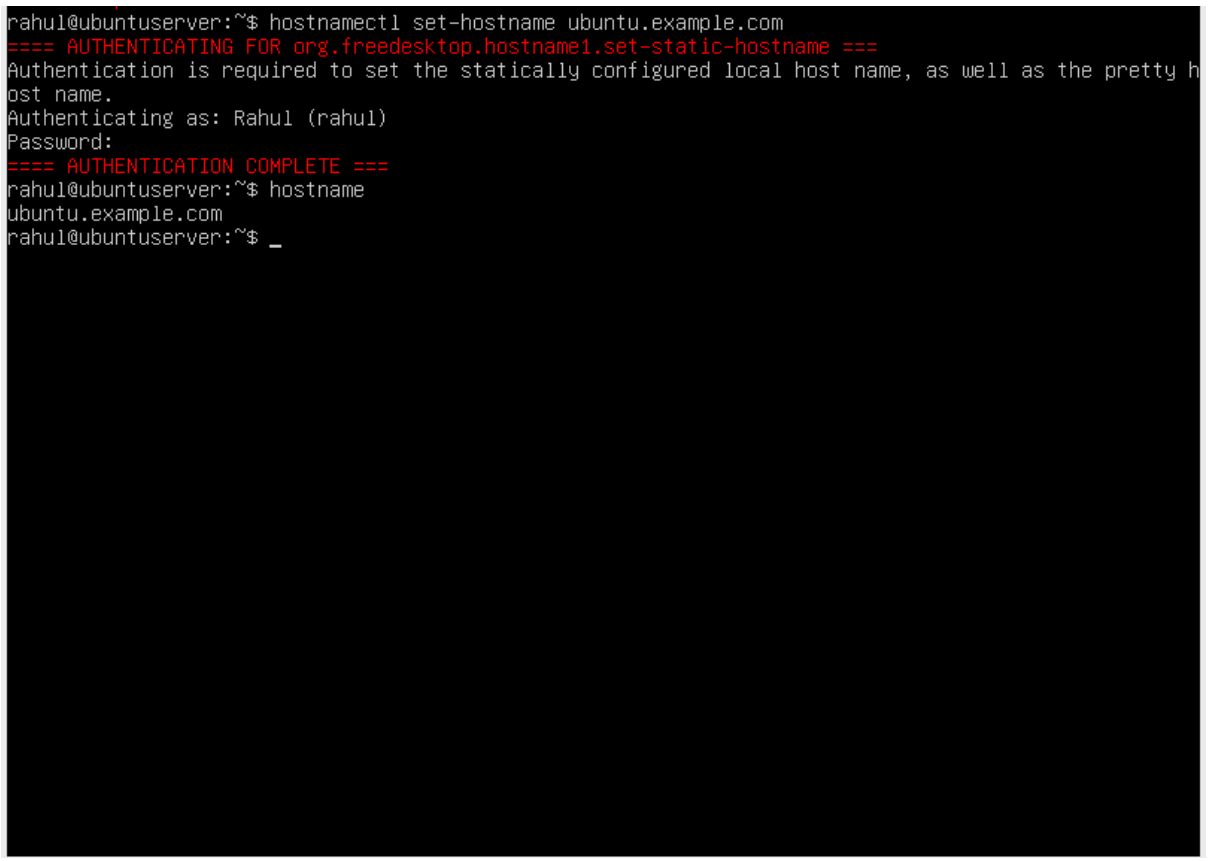


- Select **Reboot now**, After the Installation is Completed.

Step 14:- Login with servername and password.

Step 15:- Change the Hostname.

- Use Command “**hostnamectl set-hostname ubuntu.example.com**”
- Enter password for authentication.



2] OpenSUSE 15 Leap with a minimal installation:

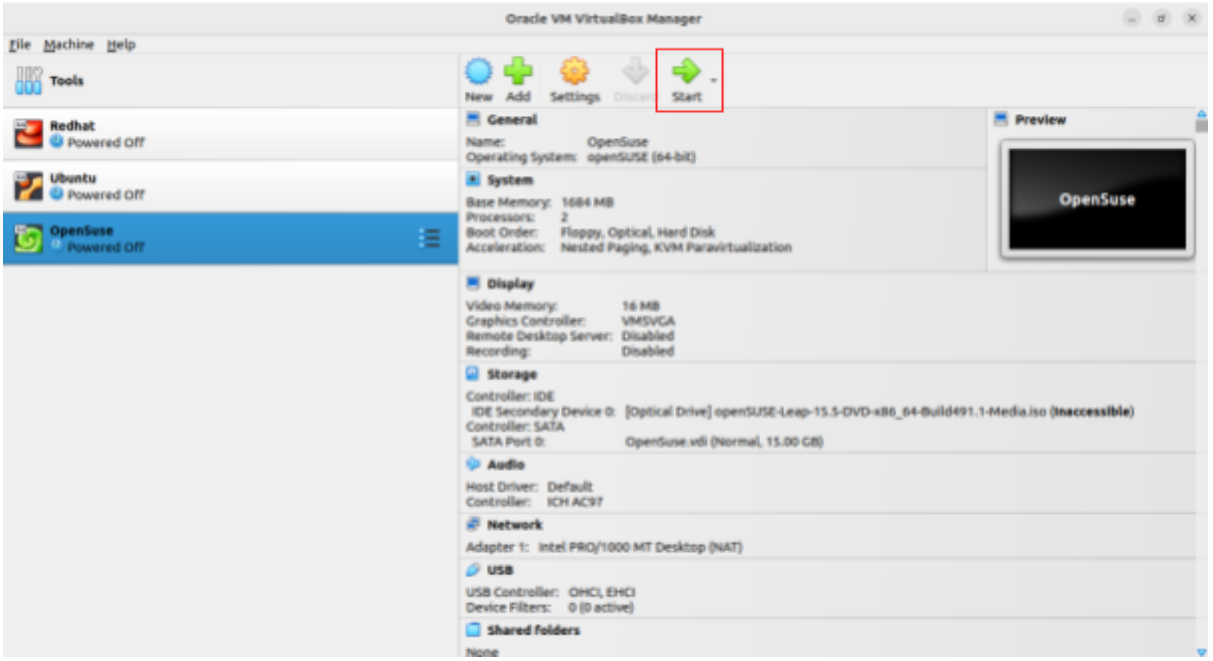
Step 1:- Download ISO image via link

- Copy the link given and paste it on any web browser address bar so that the ISO image of opensuse 15 leap can automatically start downloading.
- Link: OpenSuse 15 Leap

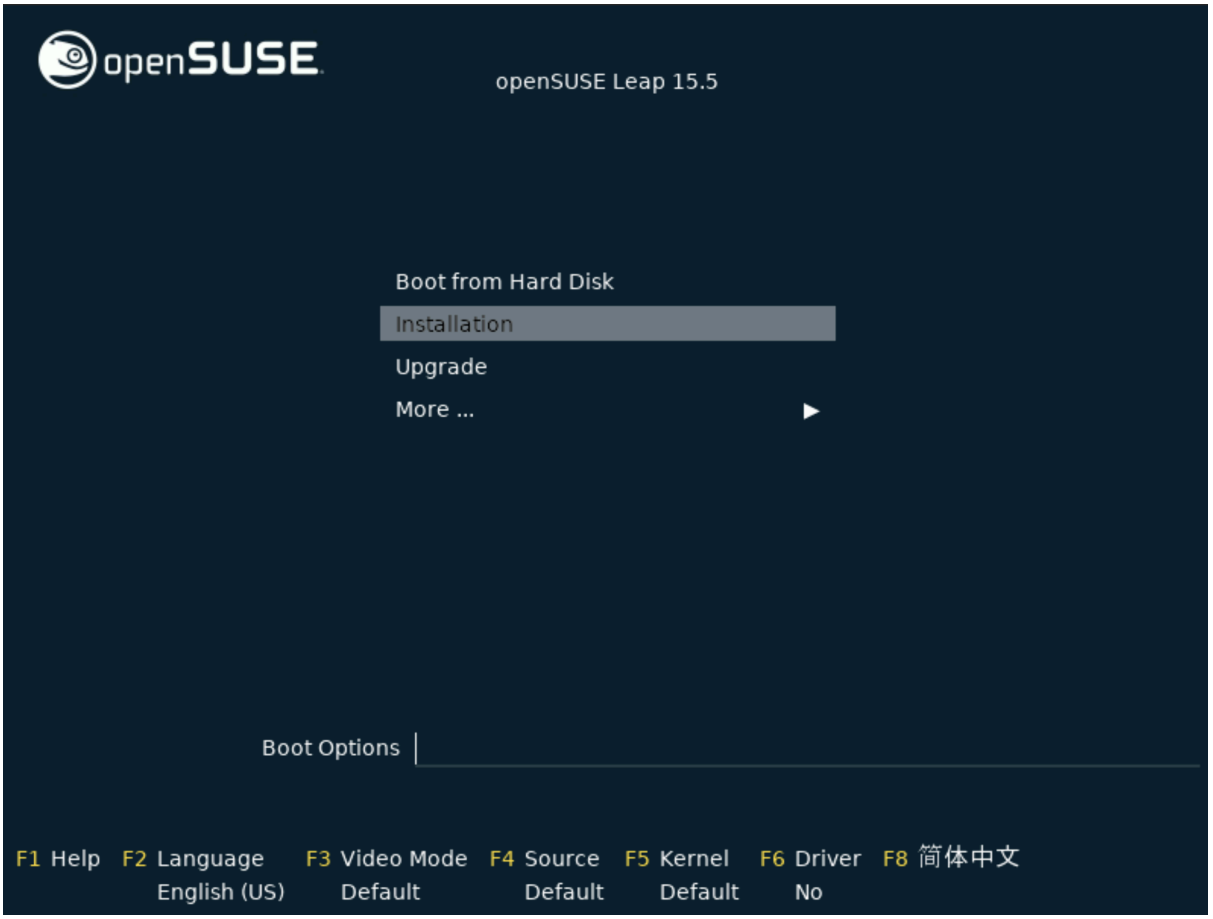
Step 2:- Repeat the steps of ubuntu installation up to step 6.

- As we have followed the process in the ubuntu installation from Step 2 to Step 6. Follow the same process.
- NOTE:- In step 2 of ubuntu installation, select the iso image of opensuse for installing opensuse vm.

Step 3:- Start the Virtual Machine.



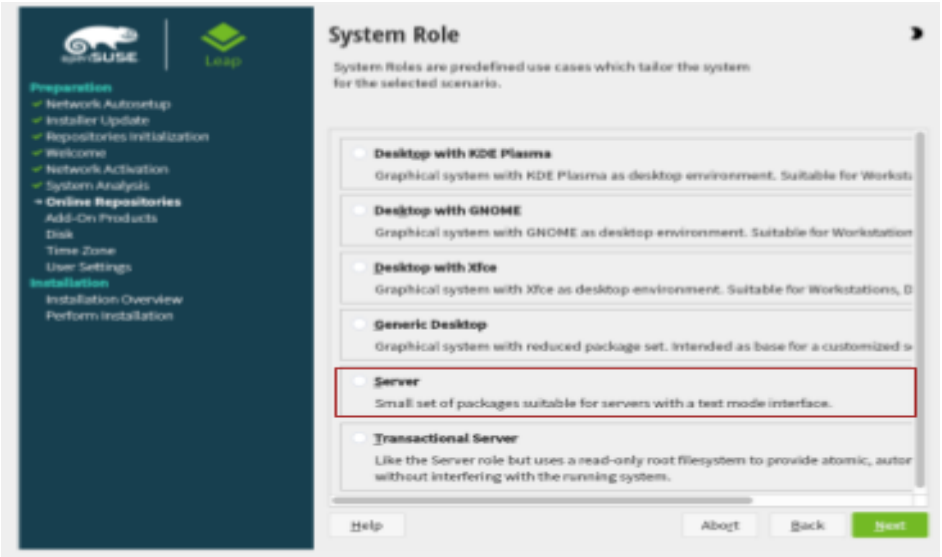
Step 4:- Installation of Opensuse VM.



- Select **Installation.**

Step 5:- System Role.

- Select **Next** Option Until System Role.
- Select **Server** option in System Role. Click on **Next.**

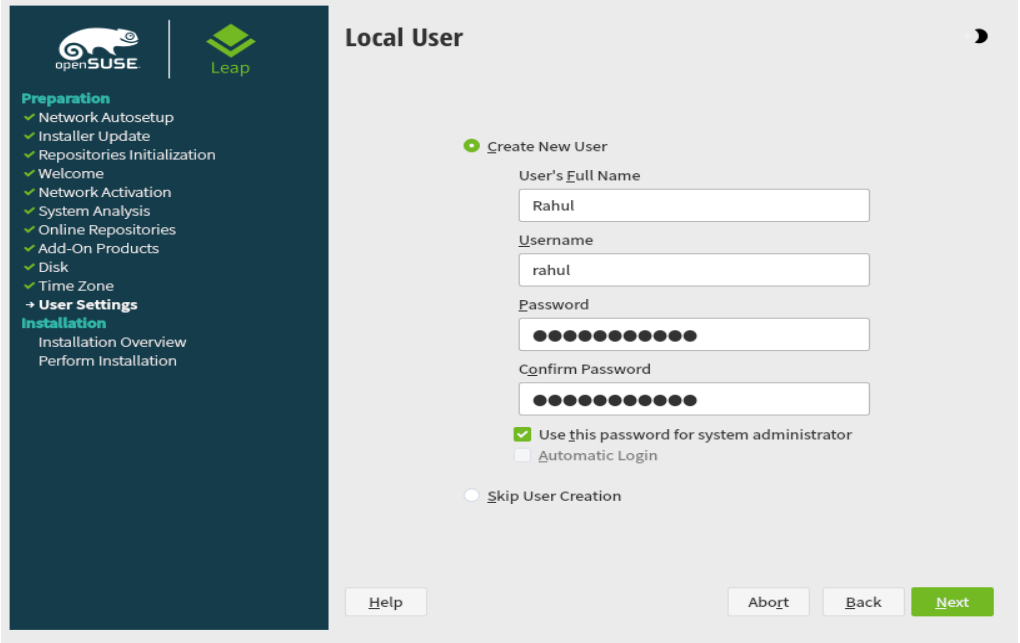


Step 6:- Clock and Time Zone

- Select **Next** on Suggested Partitioning.
- Select Region **Asia** and Time Zone **Kolkata.** Click on **Next**.

Step 7:- Local User

- Enter the User Detail and Password.

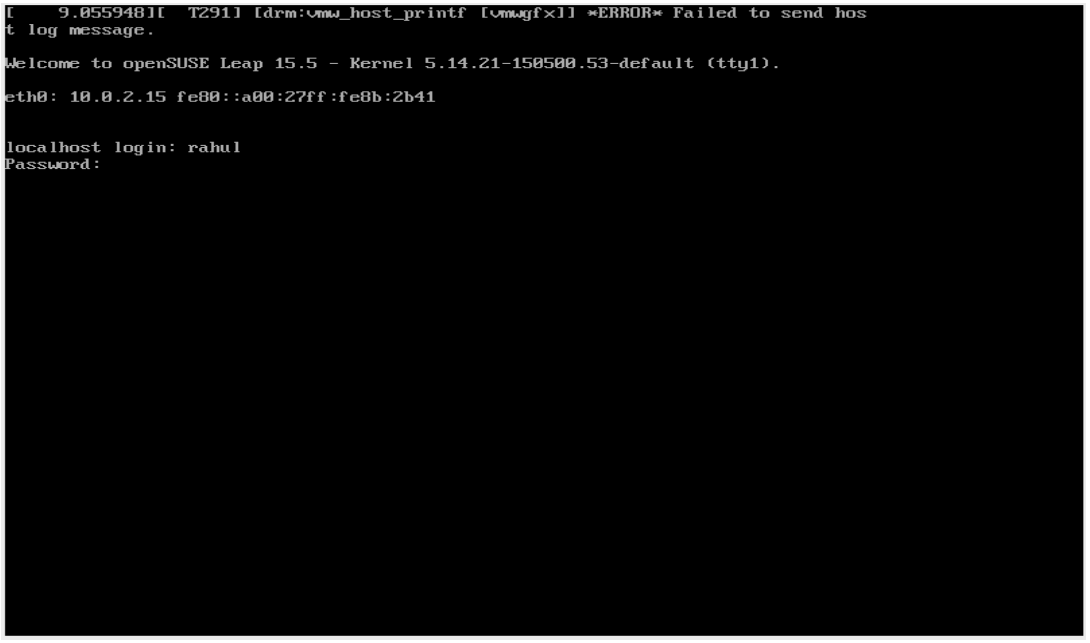


- Click on **Next.**

Step 8:- Installation Setting

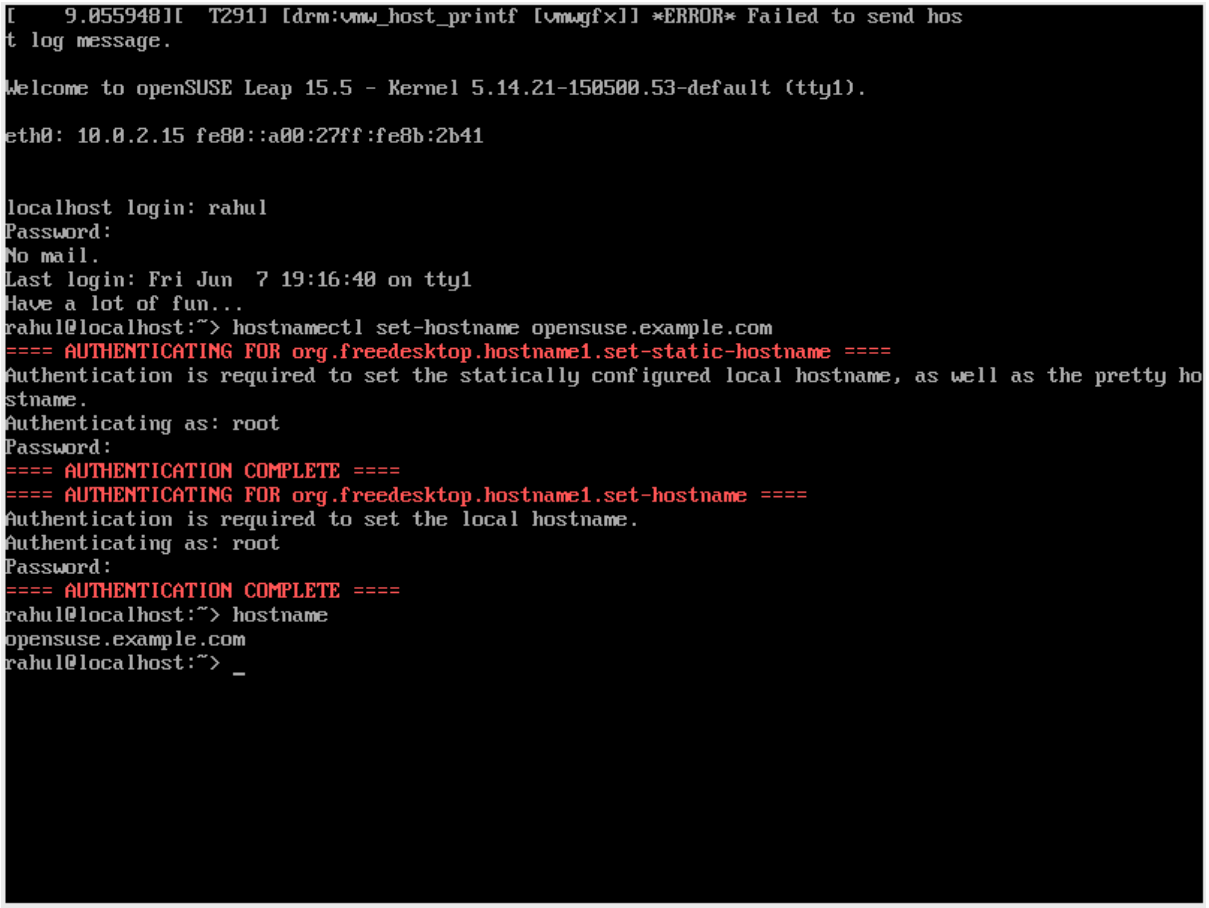
- Verify the details. Click on **Install** to start the Installation.

Step 9:- Login with username and password.



Step 9:- Set the Hostname.

- Enter these command in the shell,
  "**hostnamectl set-hostname opensuse.example.com"**
- Give Password Authentication.
- Alternatively you can also used
  "**sudo hostnamectl set-hostname opensuse.example.com"** to avoid authentication.



Congratulation You Have Completed Installation of Ubuntu and OpenSuse Virtual Machine.
Now You Are Good To Go!.....

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