Linux Hands - On

Through this hands-on you will install Ubuntu Server on a vm.

Setting up virtualbox

Installation of virtualbox and Downloading Ubuntu iso image

- Download and install virtualbox
- Click Download Ubuntu image from the website
- Click Download Virtual Box

Creating the VM

- Start virtualbox and Click on **New** button to create new virtual machine
- Enter name of the VM as: **Master Or Node**.

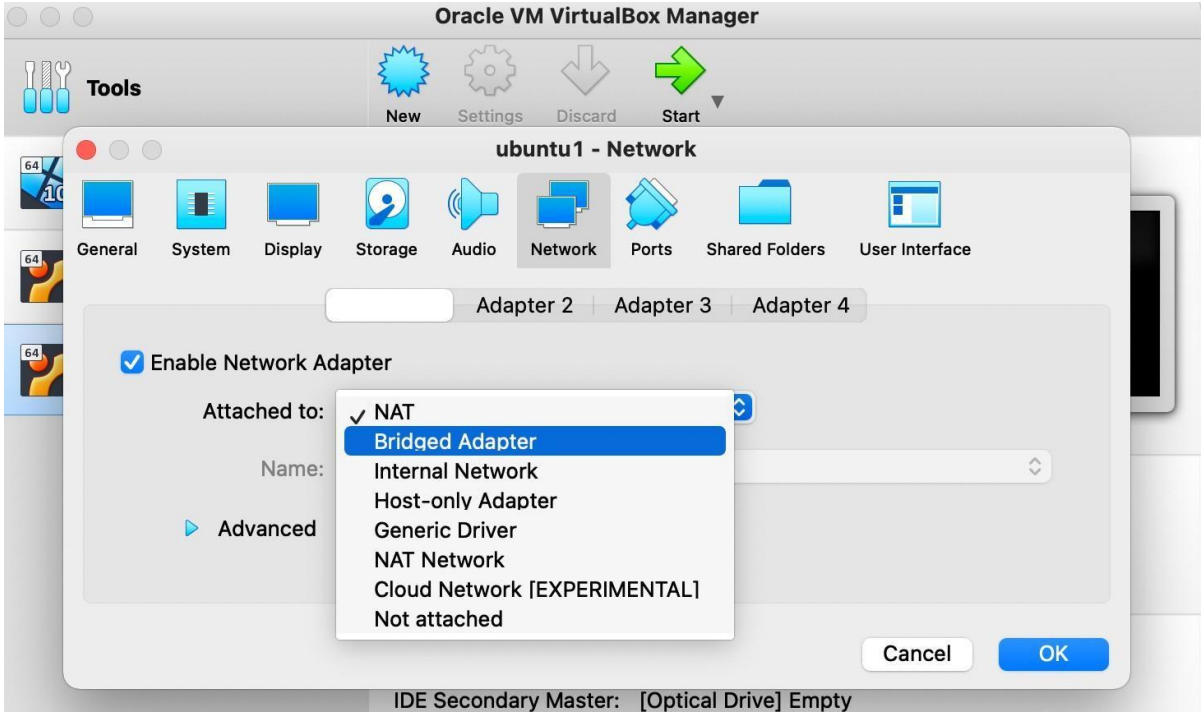
- Select OS Type: **Linux**
  - Select Version: **Ubuntu (64-bit)**
  - Then click on **Continue** button
  - Set VM's memory size to **4096MB** and click on Continue button
  - Set VM's hard disk option to **Create a virtual hard disk now** and then click on **Continue**
  - Select disk type to **VDI**
  - Select storage type to **Fixed size** and **Continue**
  - adjust the disk size to **50.0GB** and click on **Create** to create the VM

This might take couple of minutes

(Note down the location of vdi image file when virtualbox flashes it on the screen)

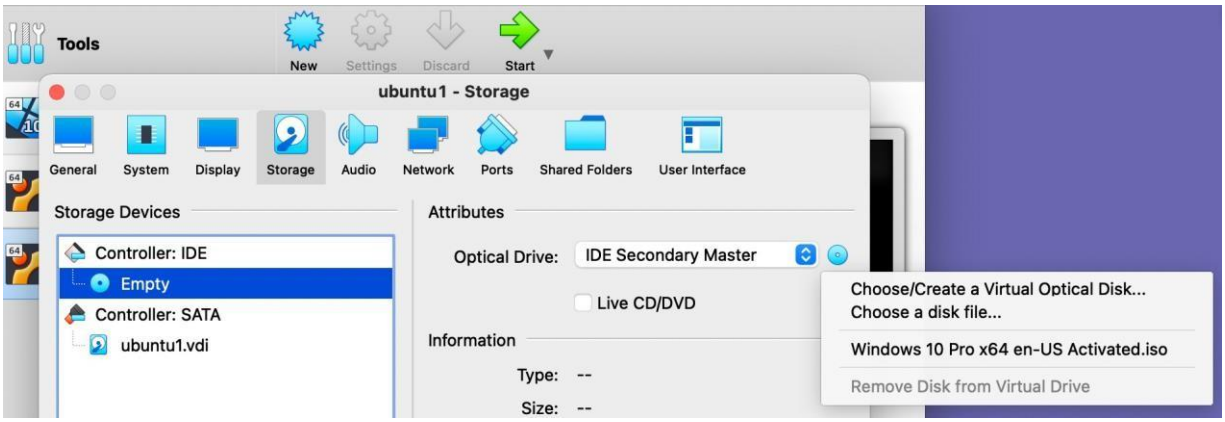
Setting up Network Interface

- Select the VM from left panel on Virtual box, right click and open **Settings**
- Click on the **Network** title
- On **Adapter 1** While *Enable* Network Adapter selected choose Attached to be **Bride Adapter**, then select the name of the network (please select only LAN connection, later it will help you to access switches) This virtual interface will work as the WAN port of the firewall (Can be connect from out side).



Setting up boot device and Booting

- Click on **Storage** title and select **CD ROM icon** with Caption "Empty" under the **Controller:IDE**, Click on CD ROM icon under the **Attribute** on the left side to select
- Choose **Virtual Optical Disk File**
- Locate the **Ubuntu CD Image** file you downloaded from the above mentioned link. Press OK to close the settings window.
- Right click on VM and select Start to make a **Normal Start**. You should now see a separate window with Installation screen"



Installation

Initial Installation options

- Select **English** as language for the installation wizard
- Select **Continue without updating**
- Select **Done** for keyboard configuration
- Select **Done**' for Network connection (it will automatically assign an IP address)
- Select **Done** for Proxy settings
- Select **Done** for Guided storage configuration (check if it uses the entire disk)
- Select **Continue** for confirm destructive actions

Note that it configure network with DHCP

- Type host name as: **Master or Node**
- When it asked, add a User by entering Your **Name, your username, password** (Please give a strong password. This VM will be directly exposed to the internet)

Final Configuration

SSH Setup

- Select only

    OpenSSH server (select by pressing space)

- Select **Done** to continue

Features server snaps

Select **Done** as the final setup of installation

Select **Reboot**

VM now should restart with the newly installed OS.

You may now login using your credentials

Ip Configuration

```
vi  /etc/netplan/50-cloud-init.yaml
```

```
# This is the network config written by 'subiquity'
network:
  renderer: networkd
  ethernets:
    enp0s3:
      addresses:
        - 192.248.X.XX/24
      nameservers:
        addresses: [192.248.1.161, 8.8.8.8]
      routes:
        - to: default
          via: 192.248.4.254
  version: 2
```

Then to apply the command type

```
netplan apply
```