

Hands-On Challenge Lab

Installing Ubuntu Linux Desktop

Objective: (Estimated time: 30 minutes – 1 hour)

- The goal of this exercise is to help you understand how to complete new installation of an Ubuntu Linux Desktop image.

Materials Required:

- VirtualBox software
- Copy of Ubuntu Linux Desktop ISO image

Preparation:

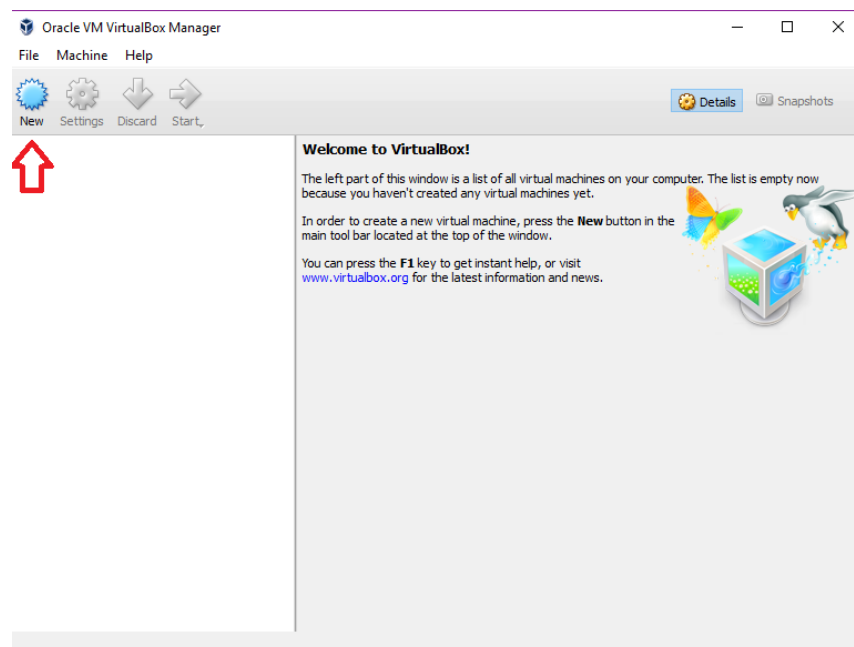
- Practice installing and configuring Ubuntu Linux Desktop inside VirtualBox.

Background: The understanding of setting up and using a virtual environment is important for any IT specialist. Virtualization is being used widely in all areas of the industry now.

Activity:

In this exercise, you will be installing a copy of Ubuntu Linux Desktop (64-bit).

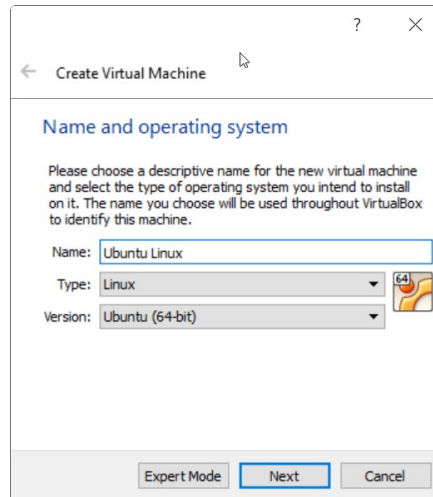
1. Open **VirtualBox**. Verify if updates are needed by using the File -> Check for Updates menu options. The **BLUE** download link in the window may not work. You will have to go to the VirtualBox website to download the update. Once downloaded, close VirtualBox and install the update. If unsure of these steps, contact your instructor. Once Oracle VM VirtualBox is updated, relaunch the program.
2. Click **New**.



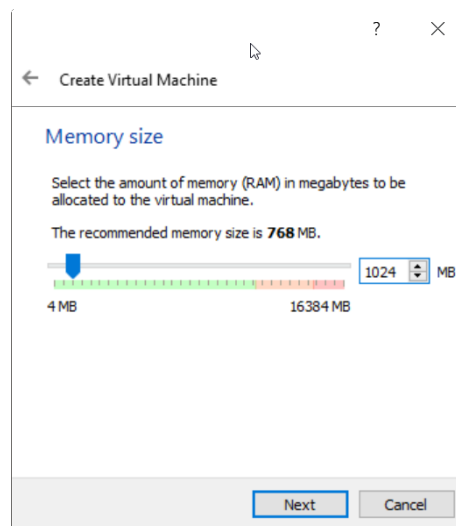
3. If the window does not look like below, Click on Guided Mode. Fill in the with the following information:

- a. Name: **Ubuntu**
- b. Type: **Linux**
- c. Version: **Ubuntu (64-bit)**

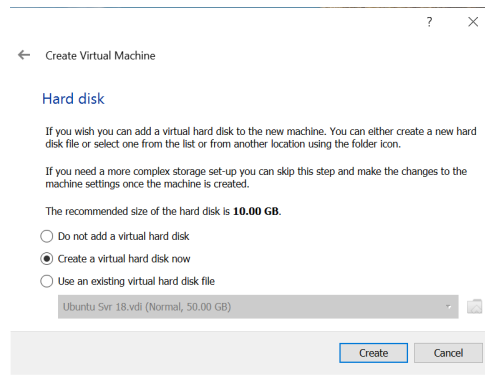
Click **Next**.



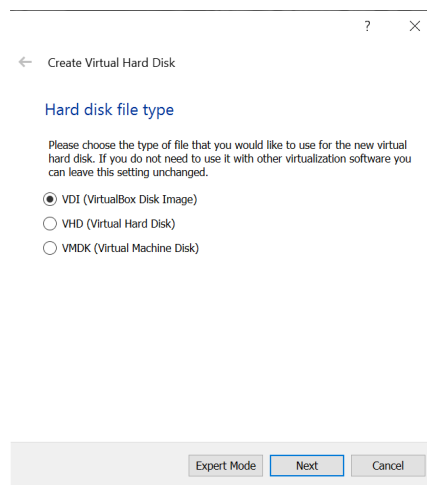
4. On the next screen, change the memory size to 2048 MB. Click **Next**.



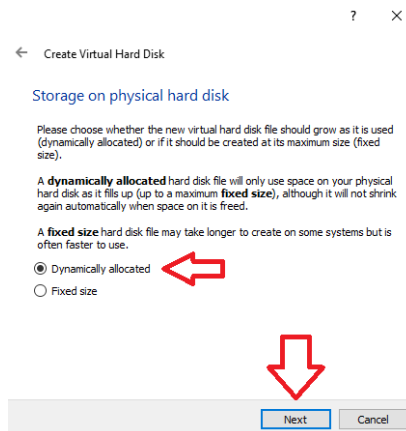
5. On the next screen, leave the default for **Create a virtual hard disk now** and click **Create**.



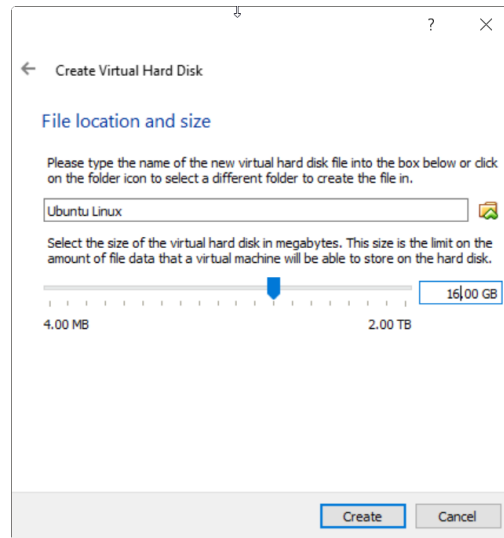
6. For hard disk file type, leave it to default of **VDI (VirtualBox Disk Image)**. Click **Next**.



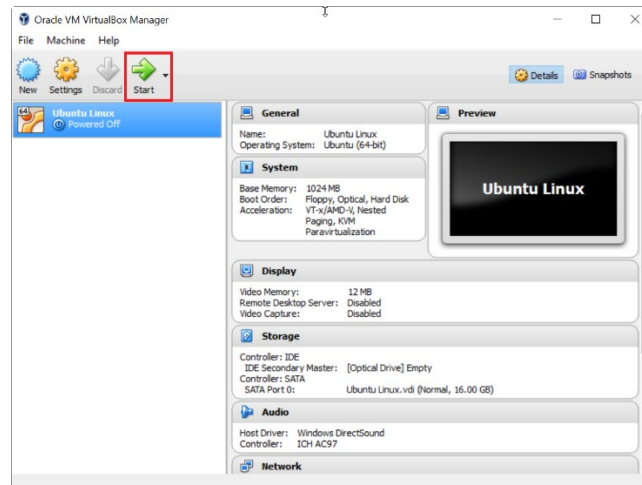
7. Leave the Storage on physical disk screen set to default of **Dynamically allocated**. Click **Next**.



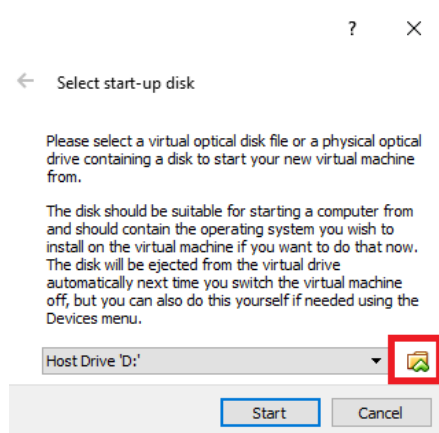
8. For the File and Location size screen, change it to the size of **16 GB**. Click **Create**.



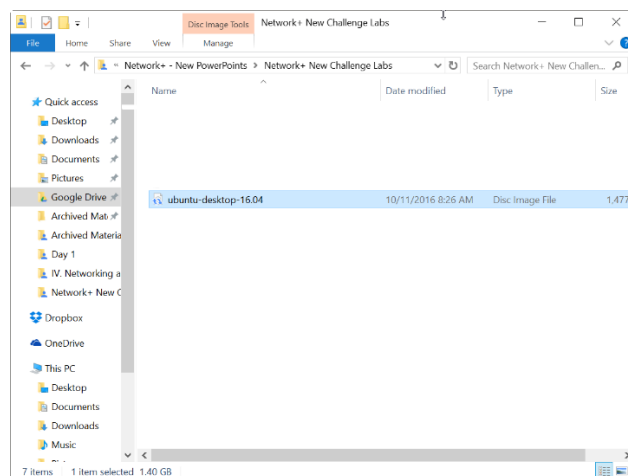
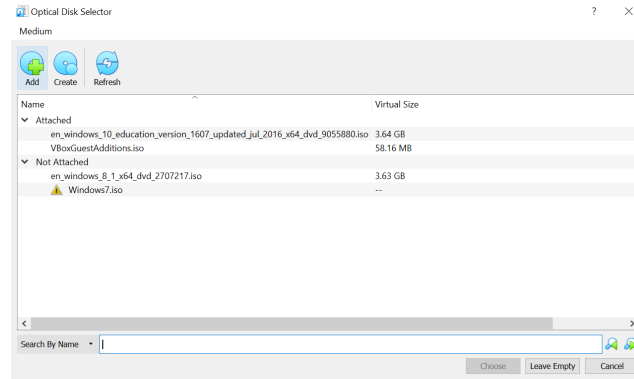
9. From the default screen, highlight your new virtual machine (Ubuntu Linux) and click **Start** or **double** click the virtual machine name.



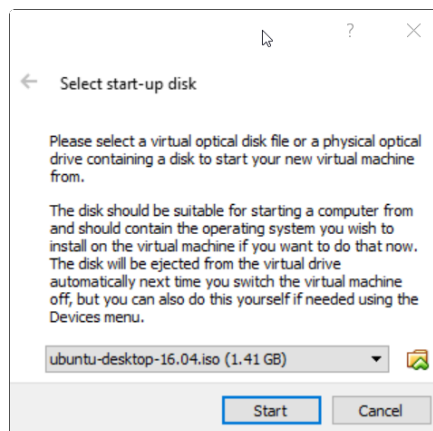
10. When the new startup appears, click the icon folder located on the bottom right hand side of the screen.



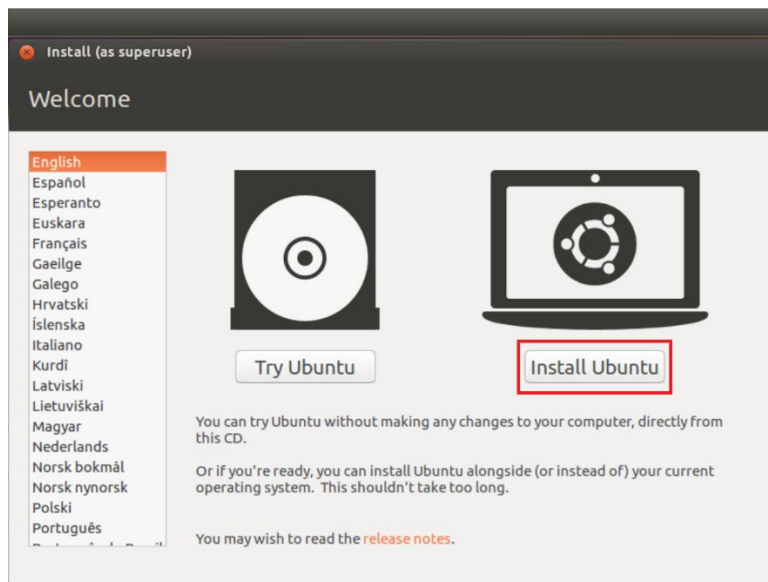
11. In the Optical Disk Selector screen, click on **ADD**. Then locate the folder or area where you downloaded the **Ubuntu Linux .iso image**. It should be located in “C:/Images/”. If you are unable to locate it, got to <https://ubuntu.com> and download Ubuntu Desktop. Highlight it and click **Open**. It should now be highlighted in the Optical Disk Selector window. Ensure it is highlighted and click **Choose**.



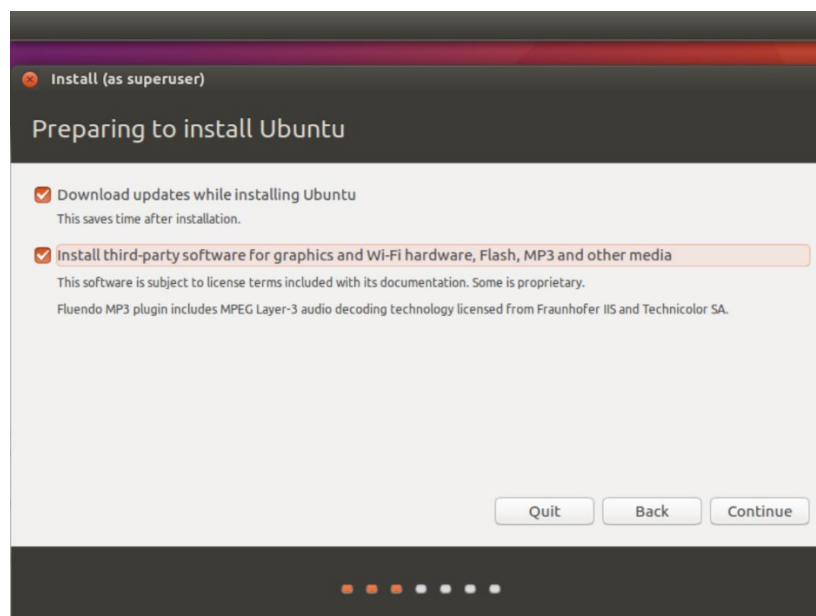
12. Click **Start**.



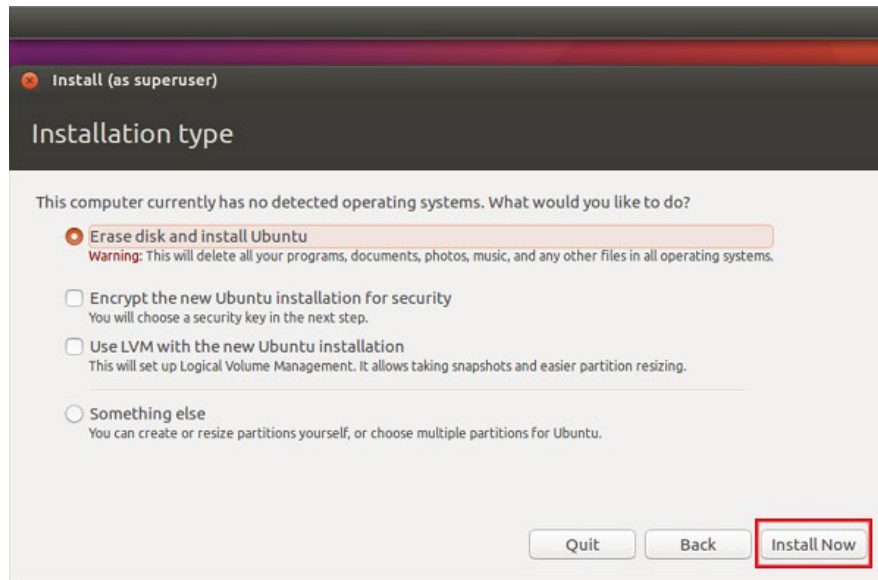
13. On the installation wizard that appears, click **Install Ubuntu** on the first screen.



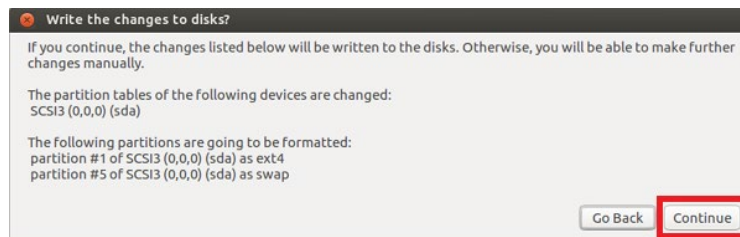
14. Check **both boxes** on the next screen and click **Continue**.



15. Leave everything as default on the next page and click **Install Now**.



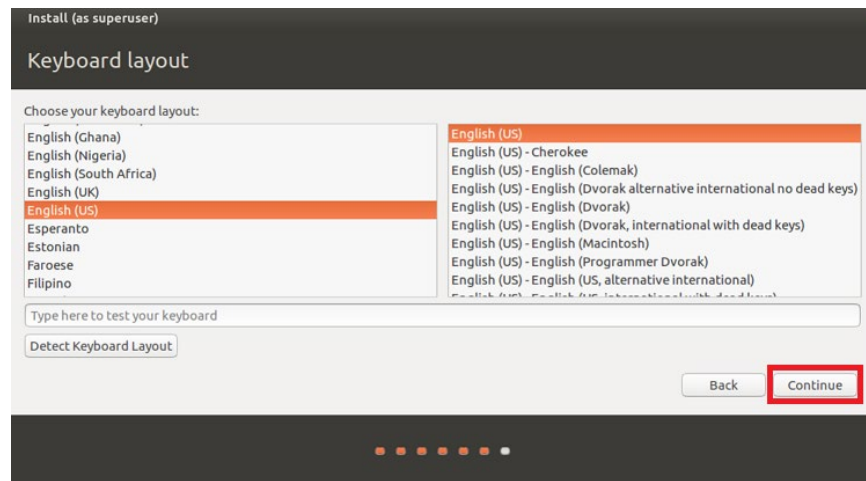
16. On the following screen, leave everything as default, then click **Continue**.



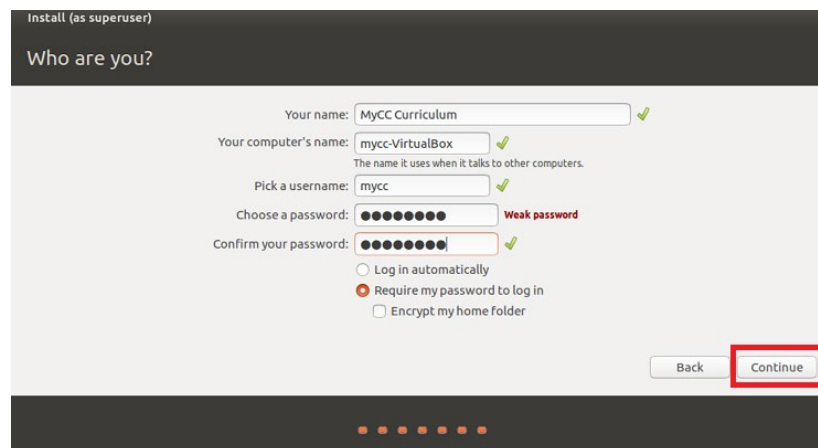
17. On the time zone screen, change to your appropriate time zone. Click **Continue**.



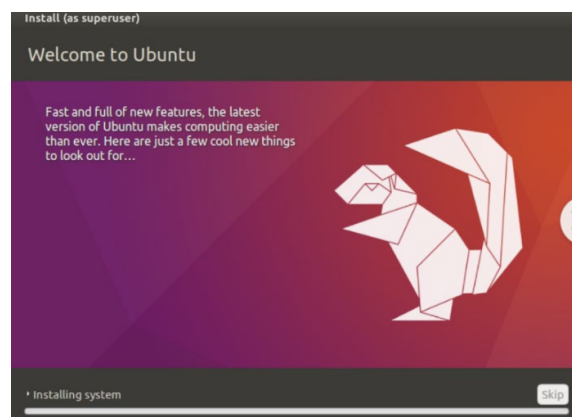
18. On the next screen, leave the keyboard as default. Click **Continue**.



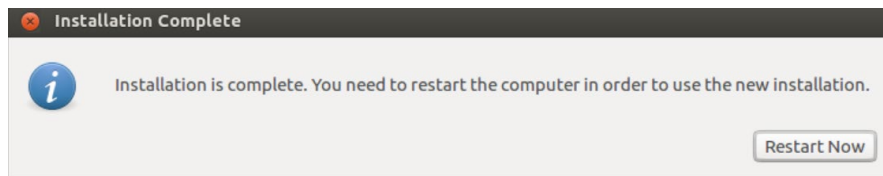
19. On the next screen, fill out the blank areas and put your password as **P@ssw0rd**. Click **Continue**.



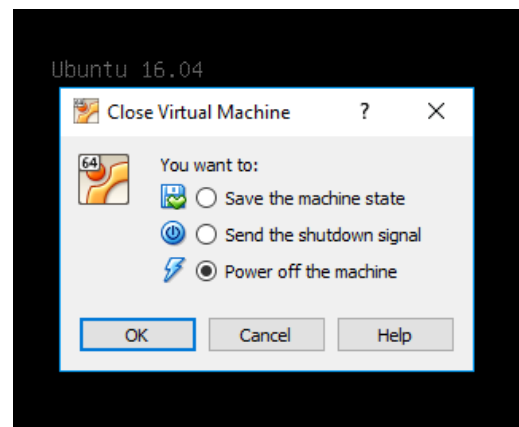
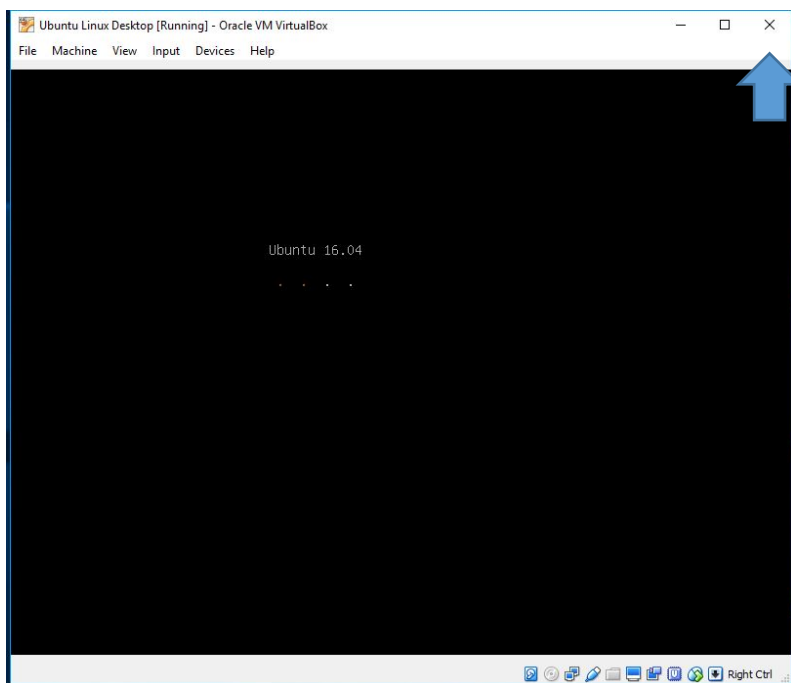
20. The installation will run automatically. You will see a progress screen similar to the one below.



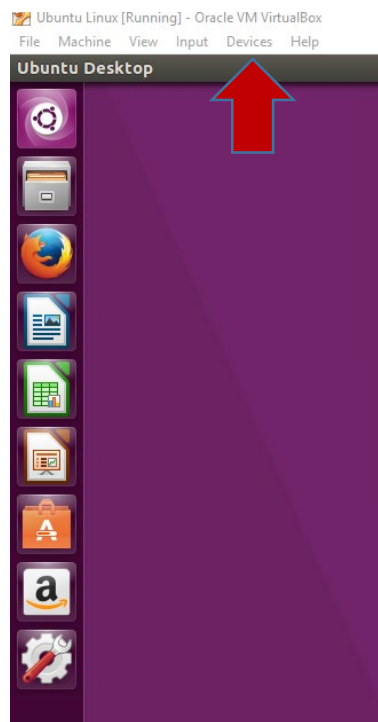
21. After the installation completes, click **Restart Now**.



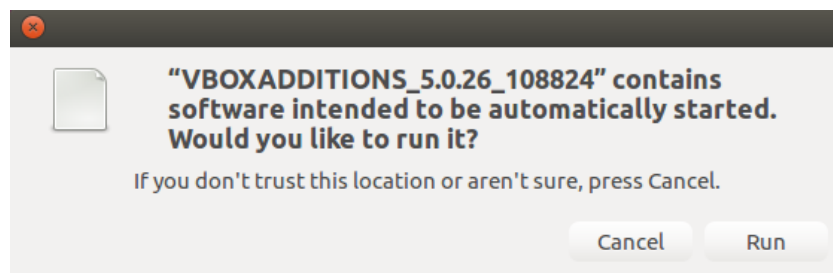
22. If you receive an error message after clicking restart or it freezes, shut down the Virtual Box machine and reboot the Ubuntu Linux VM. This can be done by clicking the X in the upper right-hand corner and selecting **Power off the machine**.



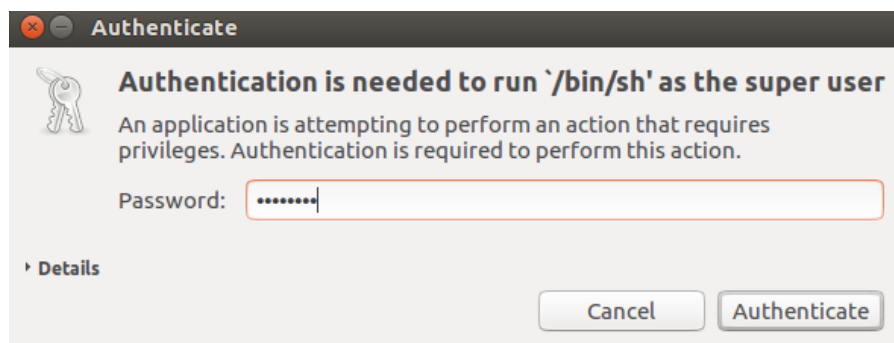
23. Once the OS restarts and you are logged back into the desktop, click on **Devices** in the top left-hand corner of the screen. Click on **Insert Guest Additions CD Image**.



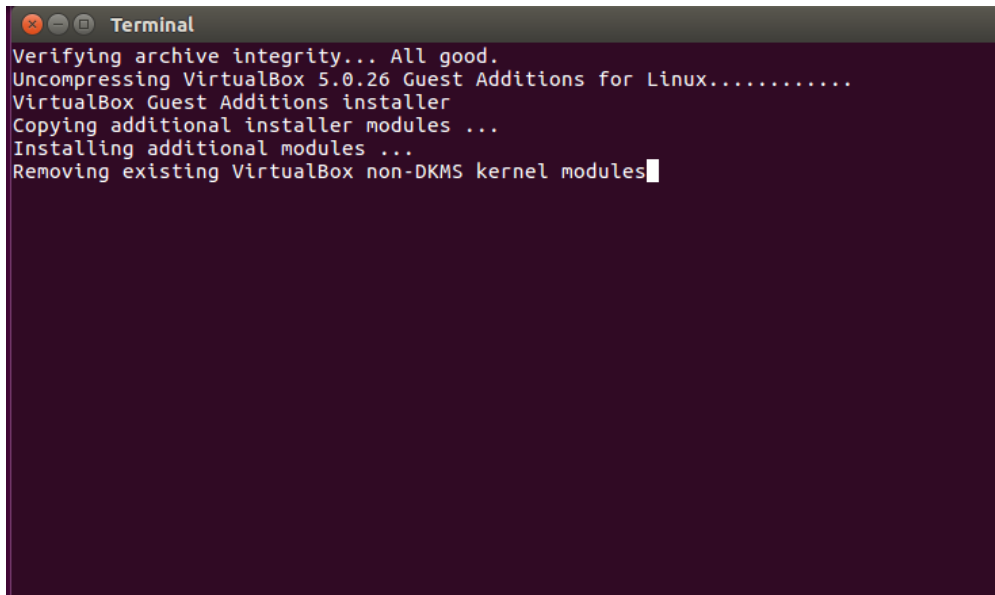
24. It may take a few seconds to start up. Click on Run on the warning box that appears.



25. Enter your administrator/root password from earlier. Click **Authenticate**.

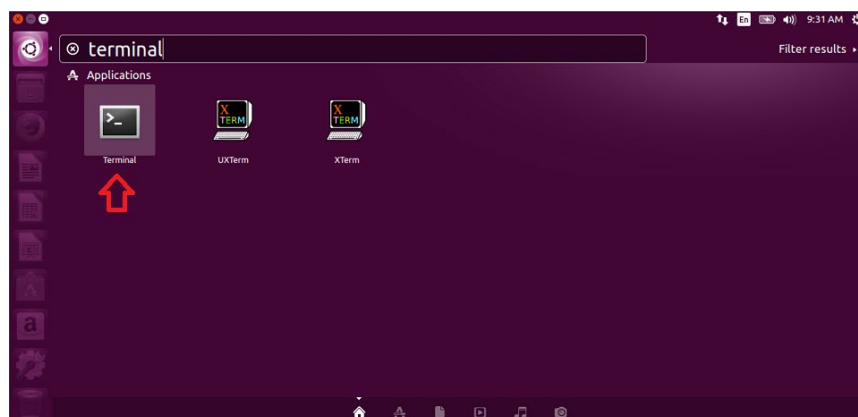


26. You will see a similar terminal screen with the software installing. This will take several minutes to install.



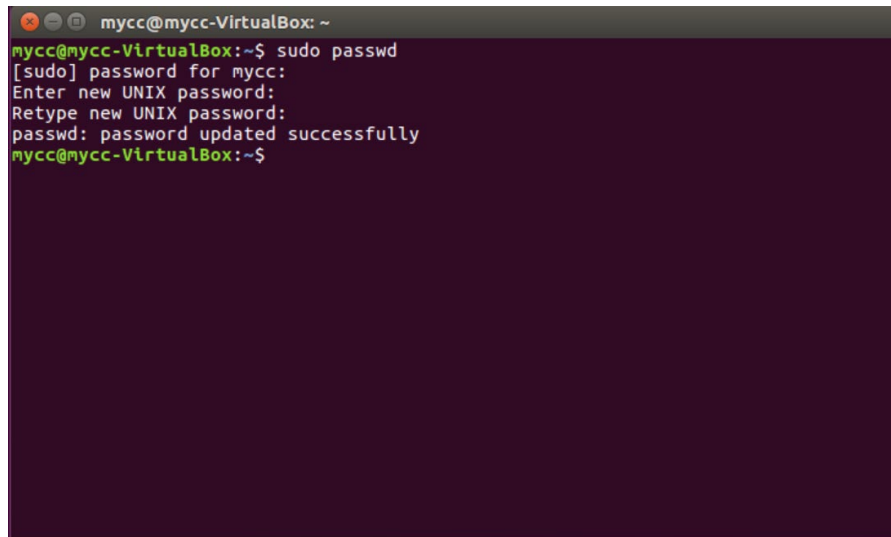
```
Terminal
Verifying archive integrity... All good.
Uncompressing VirtualBox 5.0.26 Guest Additions for Linux.....
VirtualBox Guest Additions installer
Copying additional installer modules ...
Installing additional modules ...
Removing existing VirtualBox non-DKMS kernel modules
```

27. After installation is completed, press the Return/Enter key to close the terminal windows and Restart the OS.
28. Log back into your desktop after restarting the system password.
29. At the desktop, click on the **top right** search icon and search for **terminal**.
30. Click on the terminal icon to open it.



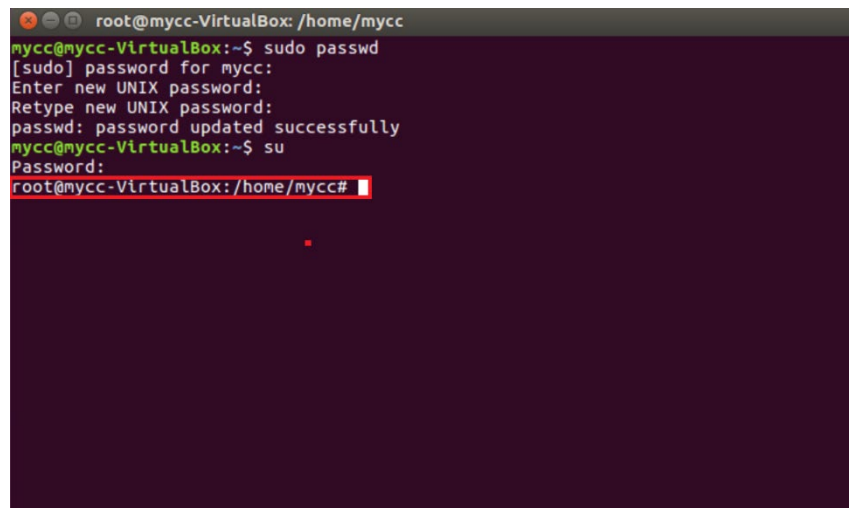
31. In the terminal command line type following and press Enter (*This will give you full administrator rights to be accessed or “root” access as they say in Linux*):
- `sudo passwd`

32. Enter the password that you used when you installed the operating system (*Note: you will NOT see the cursor move as your type. This is a security feature in Linux*).
33. Enter a password to be used as your administrator/root password. Confirm the password. Use the same password you set earlier in this guide.

A terminal window titled 'mycc@mycc-VirtualBox: ~' with a dark purple background. The user 'mycc' has entered the command 'sudo passwd'. The terminal shows the following sequence of prompts and responses: '[sudo] password for mycc:', 'Enter new UNIX password:', 'Retype new UNIX password:', and 'passwd: password updated successfully'. The prompt returns to 'mycc@mycc-VirtualBox:~\$'.

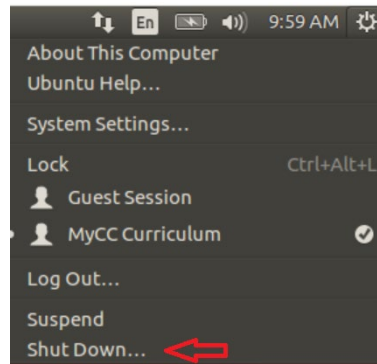
```
mycc@mycc-VirtualBox: ~  
mycc@mycc-VirtualBox:~$ sudo passwd  
[sudo] password for mycc:  
Enter new UNIX password:  
Retype new UNIX password:  
passwd: password updated successfully  
mycc@mycc-VirtualBox:~$
```

34. Now... anytime you want to enter root, you will type **su** and then your administrator password. You will know you are in root by seeing the same screen as the one below (there will be a # sign at the end instead of a \$)

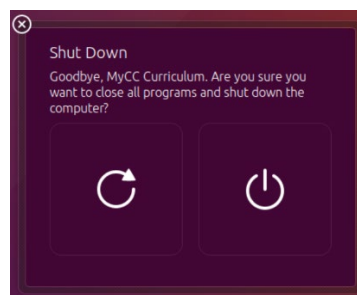
A terminal window titled 'root@mycc-VirtualBox: /home/mycc' with a dark purple background. The user 'mycc' has entered the command 'sudo passwd'. The terminal shows the same sequence of prompts and responses as the previous screenshot: '[sudo] password for mycc:', 'Enter new UNIX password:', 'Retype new UNIX password:', and 'passwd: password updated successfully'. The prompt returns to 'mycc@mycc-VirtualBox:~\$'. Then, the user enters 'su'. A prompt 'Password:' appears, followed by a redacted password (indicated by a black box). The terminal then shows the root prompt 'root@mycc-VirtualBox: /home/mycc#'.

```
root@mycc-VirtualBox: /home/mycc  
mycc@mycc-VirtualBox:~$ sudo passwd  
[sudo] password for mycc:  
Enter new UNIX password:  
Retype new UNIX password:  
passwd: password updated successfully  
mycc@mycc-VirtualBox:~$ su  
Password:  
root@mycc-VirtualBox: /home/mycc#
```

35. Close the terminal screen.
36. Click the gear icon in the upper right-hand corner of the screen and click **Shut Down**.



37. Verify the shutdown.



38. Once the Ubuntu Virtual Machine is shutdown, use the tool inside of Oracle VM VirtualBox Manager to create a Snapshot. If unsure of how to perform this step, try to do some research by searching the internet using your favorite search engine. If you need further guidance, ask you instructor for help.

This hands-on challenge lab is now complete!!