ITHFA0-33 Project

QUESTION 1

EDUV7276134
EDUVOS MIDRAND CAMPUS | HYPER-V FUNDAMENTALS

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Introduction

In this project, we will be creating two virtual machines using Hyper-V on our host machine

To accomplish this project, we will need the following:

- Windows 10 IOS Image
- Windows Server 2016
- Hyper-V Manager

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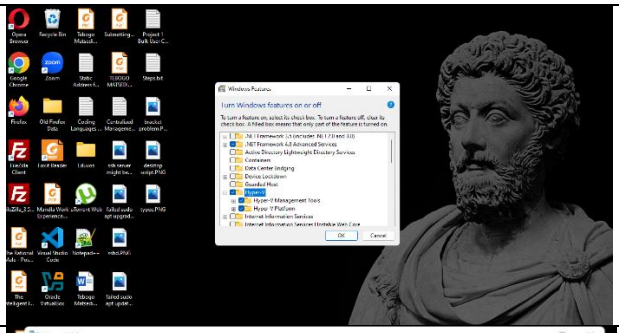
Installing Hyper-V Manager

1. First, in the search bar type the following "Windows Feature on or off"
2. Once **the windows feature on or off** window appears locate Hyper-V and tick
3. Finally click okay

***Note you will be prompted to restart the computer so that the installation takes full affect**

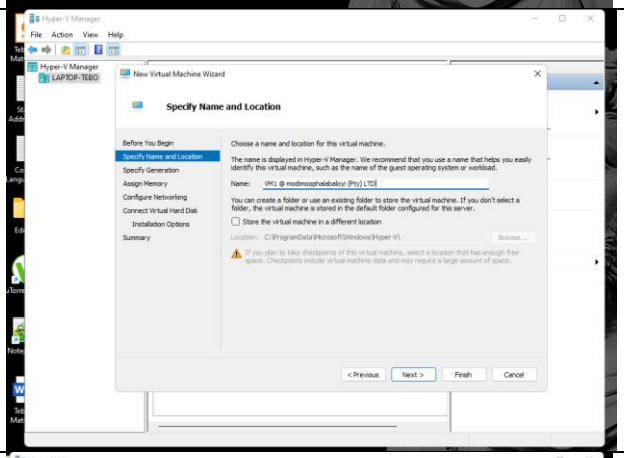


Creating VM1 (Naming)

Now that the installation has taken full affect you can now open your Hyper-V manger by typing in the search bar for Hyper-V

Once in the application right click your on <laptop-name> and select drop right-facing arrow "new" then "virtual machine"

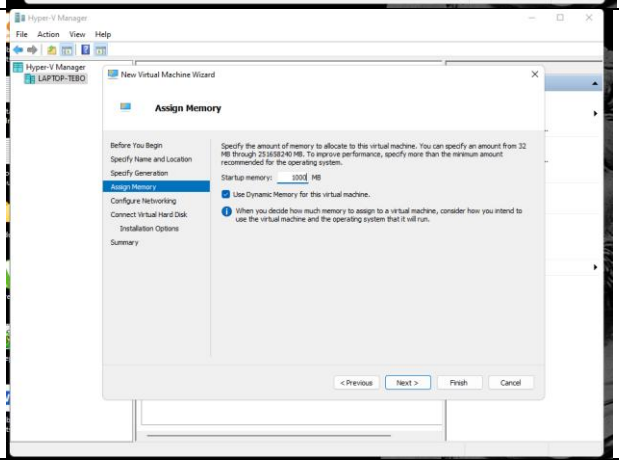
It will open a window N**ew Virtual Machine Wizard** on the **Before You Begin** page select next on the **Specify Name and Location** give your VM a name then select the next option again



Creating VM1 (Assigning Memory)

On the Specify Generation select either Generation 1 or Generation 2 (depending on specification/required task) then select next

Now that you are on the Assign Memory page allocate your VM 1 1GB and turn on the Dynamic Memory by ticking the box and select the next option

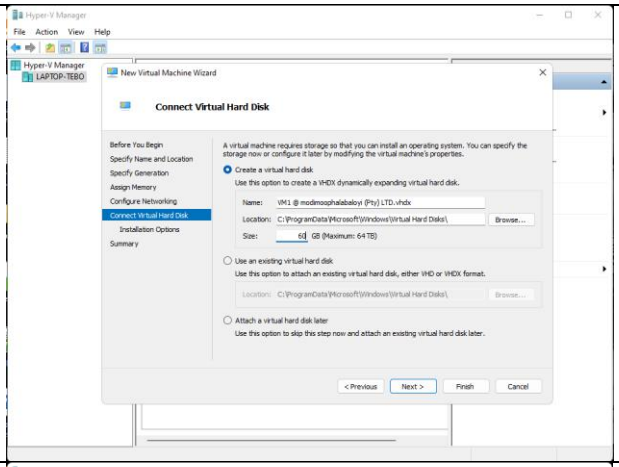


Creating VM1 (Virtual Disk)

For the Configure Networking you can skip it entirely we will be addressing the network in the second question

Now that you are on the Connect Virtual Hard Disk page select the path as to where you want to save the location of the VHDX

Then allocate 60 GB of storage space for the VM and select the next option

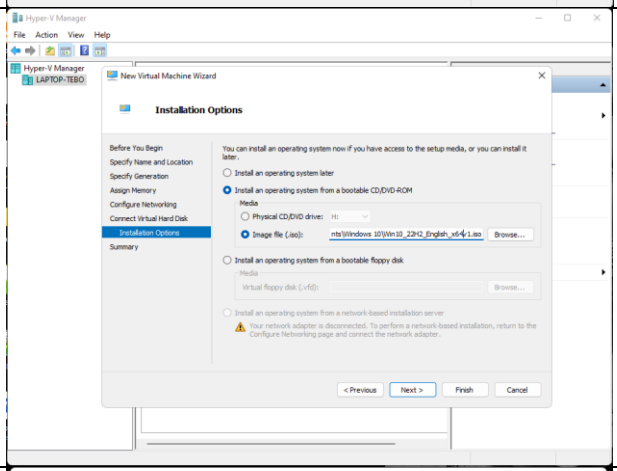


Creating VM1 (IOS Image)

We are almost complete with the installation of our VM on the Installation Options page we have two options to select from in our case we will use the Install an operating system from a bootable CD/DVD-ROM by ticking the button

Now we will tick the Image File options as I have downloaded a IOS Image before hand then we will browse to where I saved it and select it

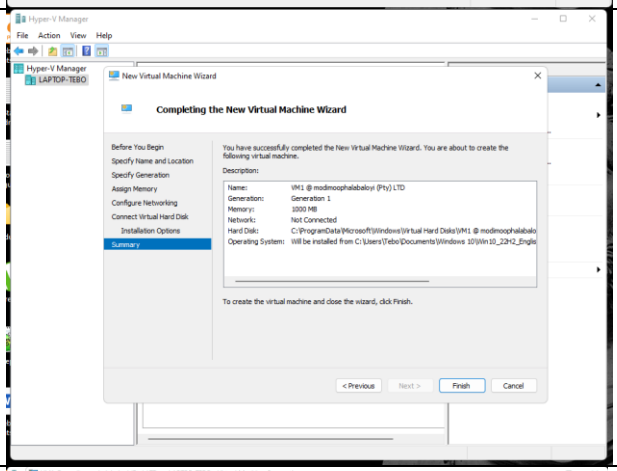
Lastly, we will select the next option



Creating VM1 (Configs Summary)

Before finishing our creation of our VM we need to check that everything is configured correctly like name, memory, disk size, and ISO file.

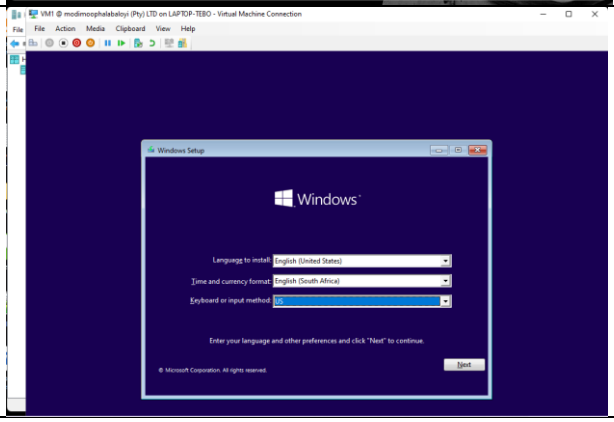
Then we can click Finish.



Installing VM1 (Language Selection)

Start our VM1, so that we install our IOS Image.

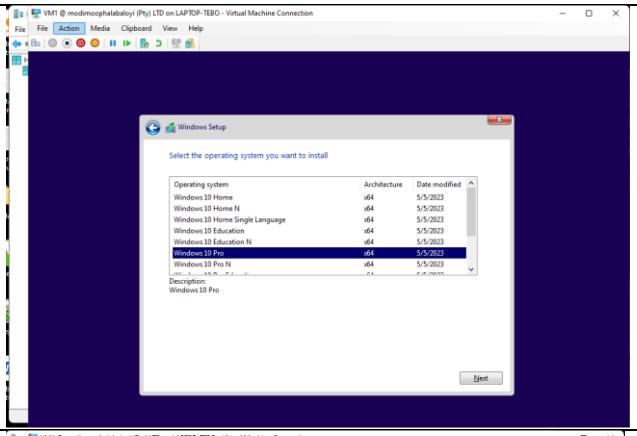
Then choose the language, time zone, and keyboard layout (according to your preferences), then click next option.



Installing VM1 (Windows 10 Pro)

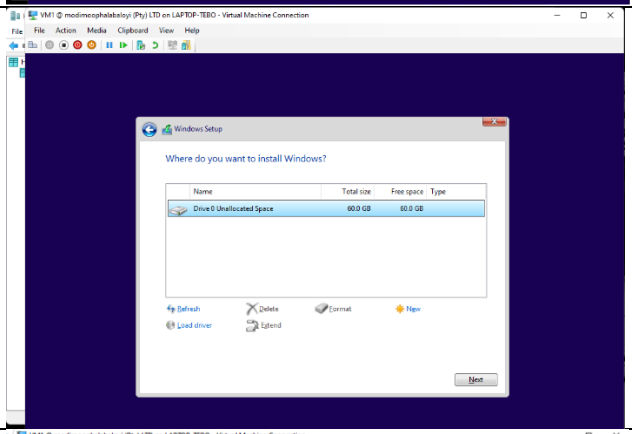
Since in this situation we don't have a product key select **I don't have a product key** option

Then choose Windows 10 Pro.



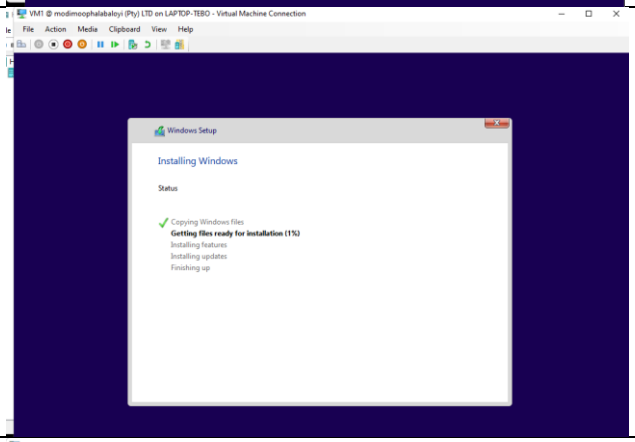
Installing VM1 (Clean Disk)

When you are asked where to install Windows, choose the virtual hard drive you created earlier and click next.

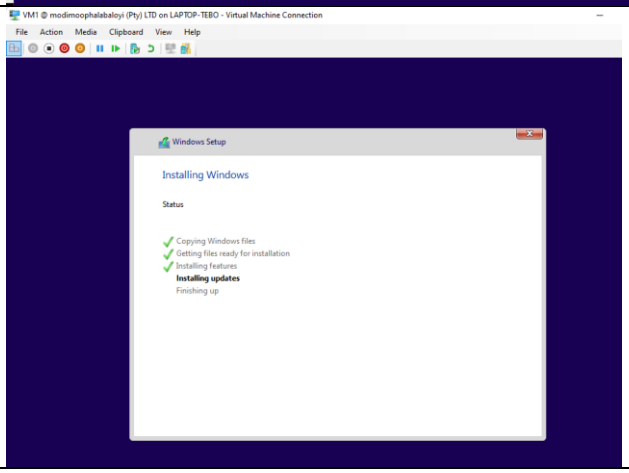


Installation VM1 (Wait for Installation)

Now, we wait while Windows installs.



Installation VM1 (Installation Complete)



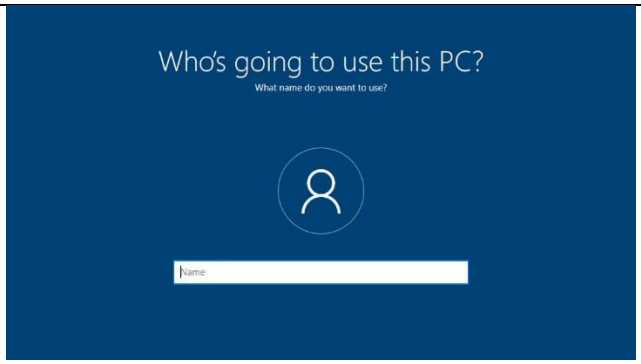
Additional Steps

***Selecting Language & Keyboard Layout Again: Confirm your language and region.**

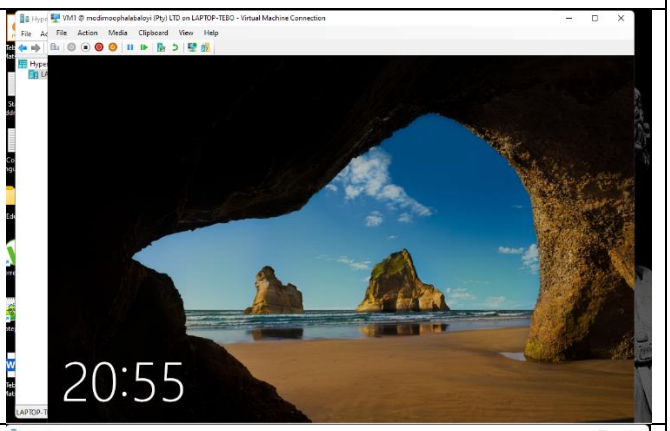
***Creating an Offline Account: Choose to set up without signing into Microsoft (offline).**

***Naming the User: Give your virtual machine a username.**

***Adding User Password: Add a password to keep it secure.**



VM1 (Setup Complete)

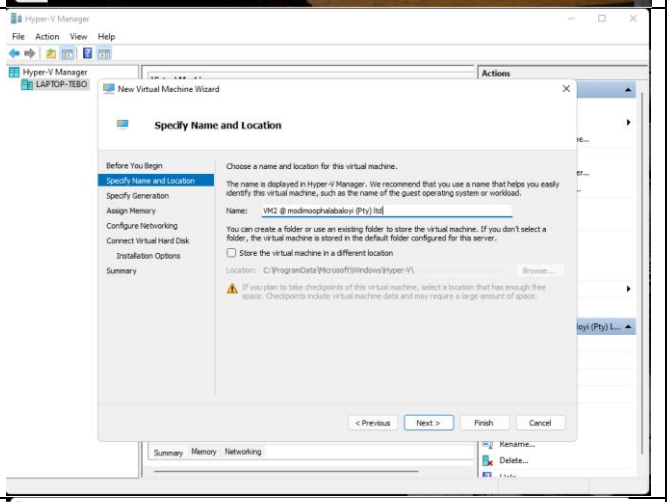


Creating VM2 (Naming)

To create VM2 we will follow the same steps as the 1st VM

Once in the application right click your on <laptop-name> and select right-facing arrow "new" then "virtual machine".

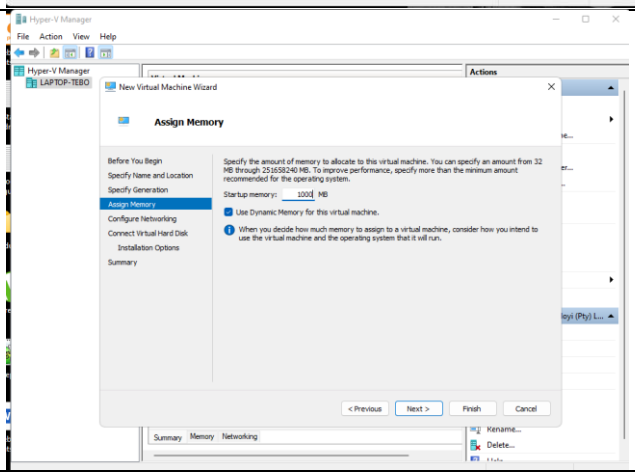
It will open a window N**ew Virtual Machine Wizard** on the **Before You Begin** page select next on the **Specify Name and Location** give your VM a name then select the next option again



Creating VM2 (Assigning Memory)

On the Specify Generation select either Generation 1 or Generation 2 (depending on specification/required task) then select next

Now that you are on the Assign Memory page allocate your VM 2 1GB and turn on the Dynamic Memory by ticking the box and select the next option

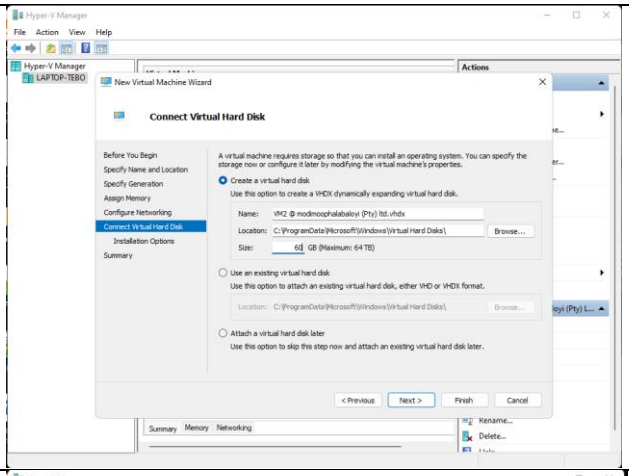


Creating VM2 (Virtual Disk)

For the Configure Networking you can skip it entirely we will be addressing the network in the second question

Now that you are on the Connect Virtual Hard Disk page select the path as to where you want to save the location of the VHDX

Then allocate 60 GB of storage space for the VM and select the next option

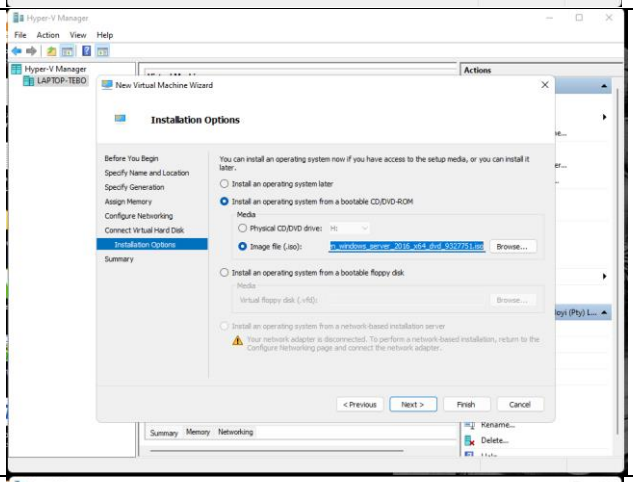


Creating VM2 (IOS Image)

We are almost complete with the installation of our VM on the Installation Options page we have two options to select from in our case we will use the Install an operating system from a bootable CD/DVD-ROM by ticking the button

Now we will tick the Image File options as I have downloaded a IOS Image beforehand then we will browse to where I saved it and select it

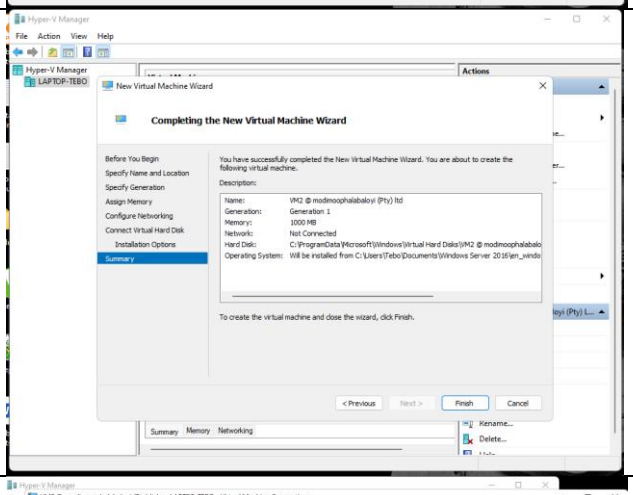
Lastly, we will select the next option



Creating VM2 (Configs Summary)

Before finishing our creation of our VM we need to check that everything is configured correctly like name, memory, disk size, and ISO file.

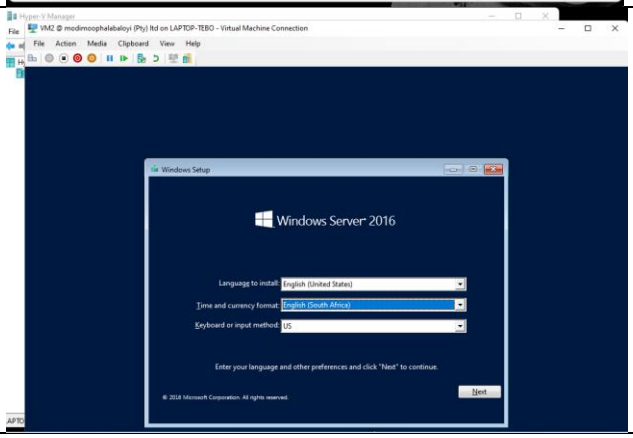
Then we can click Finish.

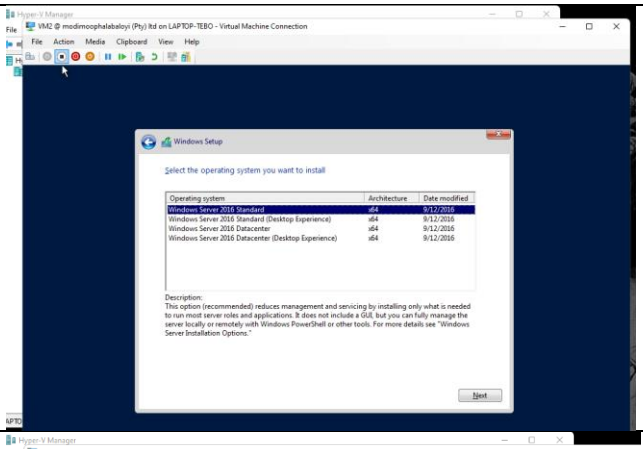
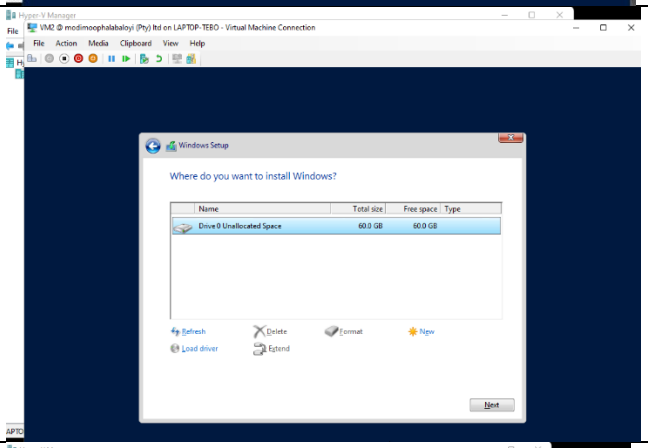
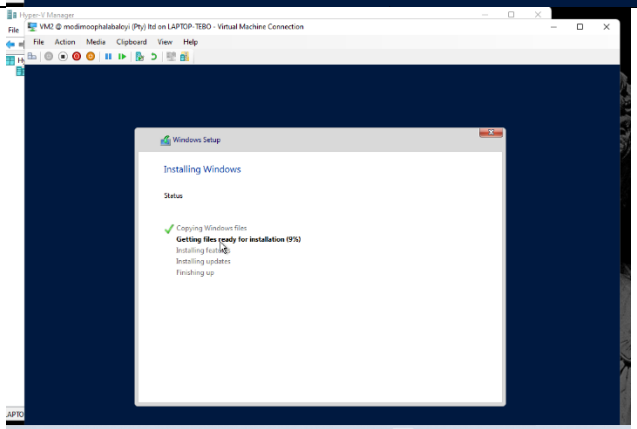
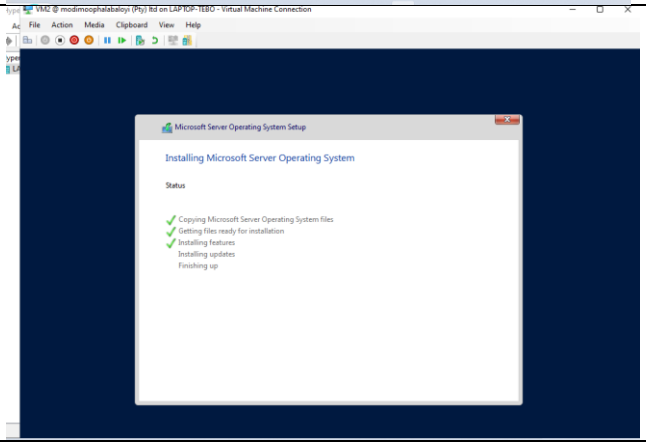


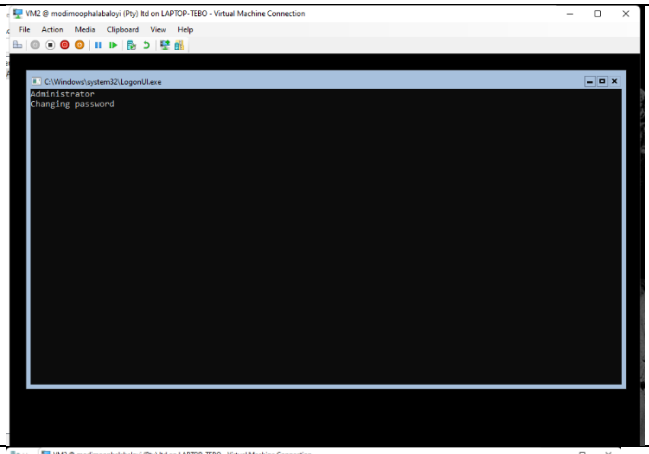
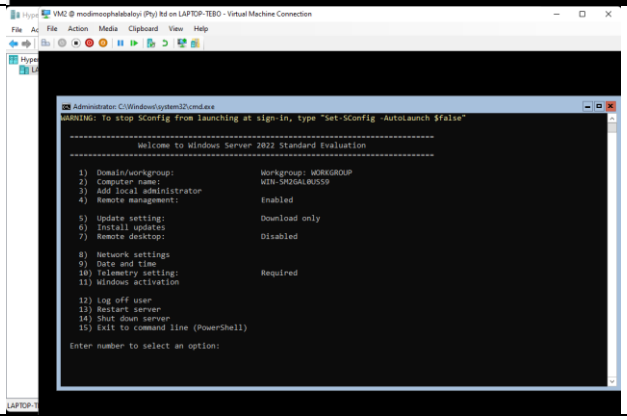
Installing VM2 (Language Selection)

Start our VM2, so that we install our IOS Image.

Then choose the language, time zone, and keyboard layout (according to your preferences), then click next option.



Installing VM2 (Windows Server 2016 Standard) Since in this situation we don't have a product key select I don't have a product key option Click Install Now and select Windows Server 2016 Standard.	
Installing VM2 (Clean Disk) When you are asked where to install Windows, choose the virtual hard drive you created earlier and click next.	
Installation VM2 (Wait for Installation) Now, we wait while Windows installs.	
Installation VM2 (Installation Complete)	

VM1 (Setting Password) For servers, you must set a strong administrator password. Enter and confirm it.	
VM2 (Setup Complete)	

Glossary

Hyper-V:

A tool in Windows that allows you to create and run virtual computers (virtual machines) inside your physical computer.

Virtual Machine (VM):

A "computer within your computer" that behaves just like a real one but runs in a window on your desktop.

ISO Image:

A file that contains everything from an installation DVD or USB drive. It’s used to install an operating system on a virtual machine.

Virtual Disk (VHDX):

A file that acts like a hard drive for your virtual machine. This is where the VM stores its files, programs, and operating system.

Dynamic Memory:

A feature that allows a virtual machine to use more or less memory (RAM) as it needs, so it doesn’t waste resources.

Offline Account:

A user account created without signing in with an internet-based account (like a Microsoft account). This is just a local username and password for the VM.

Windows Server 2016 Standard:

An operating system designed for managing networks, users, and services—used mostly in businesses and IT environments.

Windows 10 Pro:

A version of Windows 10 commonly used on personal and work computers, with extra features for professionals.

Administrator Password:

The main password used to secure your virtual machine and give you control over all settings and files.