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I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a mark of zero will be awarded

Contents

Table of Figures	3
INTRODUCTION	3
OBJECTIVE	4
REQUIRED TOOLS AND CONCEPTS	4
Hardware and Software:	4
Concepts:	4
STEPS OF REPLICATE	5
1. Install Oracle VM VirtualBox	5
2. Create a new Virtual Machine in VirtualBox	5
3. Storage settings for ISO file	7
4. Start Virtual Machine	8
5. Windows server Installation Process	9
6. Configuring Disk and completing installation	11
7. Finalizing setup	14
8. Logging into Windows Server	15
CONCLUSION	16
References	16

Table of Figures

Figure 1: VirtualBox installation process.	5
Figure 2 : Virtual Machine creation.	5
Figure 3 : Naming and choosing version of server.	6
Figure 4 : Creating Virtual Hard Disk	7
Figure 5 : Creating an ISO file.	7
Figure 6 : Choosing disk file for ISO.	8
Figure 7 : starting the virtual machine.	8
Figure 8 : Installing windows.	9
Figure 9 : Choosing preferred language and settings.	9
Figure 10 : Choosing Operating System version.	10
Figure 11: Notices and Licensing terms.	10
Figure 12 : Type of Installation prompt.	11
Figure 13 : Disk partition and allocation.	11
Figure 14 : Microsoft Server being installed.	12
Figure 15 : Microsoft Server being installed.	12
Figure 16 : Microsoft Server being installed.	13
Figure 17 : Microsoft Server being installed.	13
Figure 18 : Windows starting.	14
Figure 19 : Giving a sign in password.	14
Figure 20 : Windows installation completed.	15
Figure 21 : Keyboard input menu.	15
Figure 22 : First look into Server Manager	16

INTRODUCTION

This log is about installing and initial configuration of Windows Server 2022, which is, and operating system designed for server environments for data management, and network functions. (Microsoft, n.d.). this log deals with installing Windows Server 2022 on Oracle VM VirtualBox, for firsthand experience with server setup and management. Which is Microsoft's latest server, with enhancements for security, hybrid cloud integration, improved performance. (Microsoft, n.d.)

Windows Server, first launched in April of 2003, is a powerful operating system designed for high-end servers. Many IT infrastructures use it as their backbone for, managing network administration tasks, organizing, storing, and transferring files across connected devices. It has been a critical OS for server management in IT environments. Each version of Windows Server introduces essential updates, form supporting virtual machines since Windows Server 2008 to adding cybersecurity features like Microsoft Defender ATP in server 2019. (solar winds, n.d.)

OBJECTIVE

Setting up Windows Server 2022 on a Virtual Machine, installing necessary settings, and being familiar with server management are the objectives of this log. In addition to creating a basic understanding of server set up system requirements, and basic server security, this practical exercise aims to establish practical skills in server installation and virtual machine management. Also, we want to learn how to use Windows Server's management tools and carry out fundamental administrative tasks that are required in IT settings.

REQUIRED TOOLS AND CONCEPTS

Hardware and Software:

A computer, with enough resources to run a virtual machine (4GB RAM, Dual-core CPU, 64-bit processor with an i686-class processor) (Oracle, n.d.)

Virtualization software, i.e. VMware Workstation or VirtualBox.

Windows Server 2022 ISO (provided via Google Drive).

Concepts:

Virtualization: running multiple operating system on one physical machine, maximizing hardware efficiency.

Server Roles and Services

Disk Partition, MBR and GPT for disk formatting.

Networking Basis, understanding IP configuration for server access and network setup.

(VMware, n.d.)

STEPS OF REPLICATE

1. Install Oracle VM VirtualBox

We start by downloading and installing VirtualBox, and then downloading the ISO file for Windows Server 2022



Figure 1: VirtualBox installation process.

2. Create a new Virtual Machine in VirtualBox

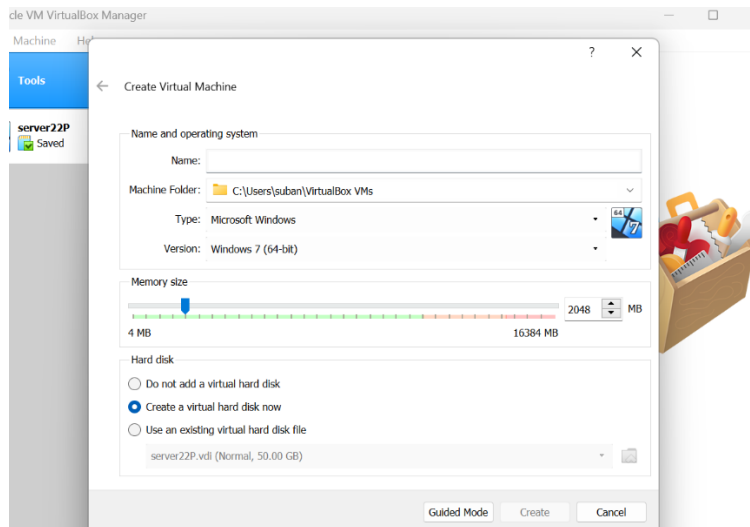


Figure 2 : Virtual Machine creation.

We start with installing a virtual machine, which will be used to install a server OS, for this log we will be using Oracle VM VirtualBox,

First, we download VirtualBox, and download a windows server file form related sites, and after the completion of the installation process, locate the server file, open the VirtualBox. And start with a new virtual machine, by clicking on new or pressing CTRL+N,

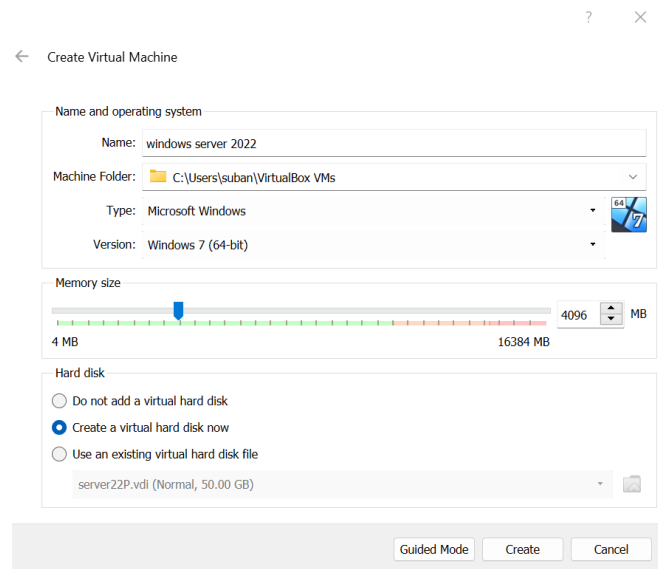


Figure 3 : Naming and choosing version of server.

Then We name the Virtual Machine, windows server 2022, and choose a folder, then select the OS type we are trying to install, the we select the version, we are using windows server 2022, since there is no option for windows 2022 we continue by selecting windows 2019(64 bit), and we

choose memory size, 4000 MB, but anything above 2000 MB should be enough, then we choose to create a virtual hard disk now,

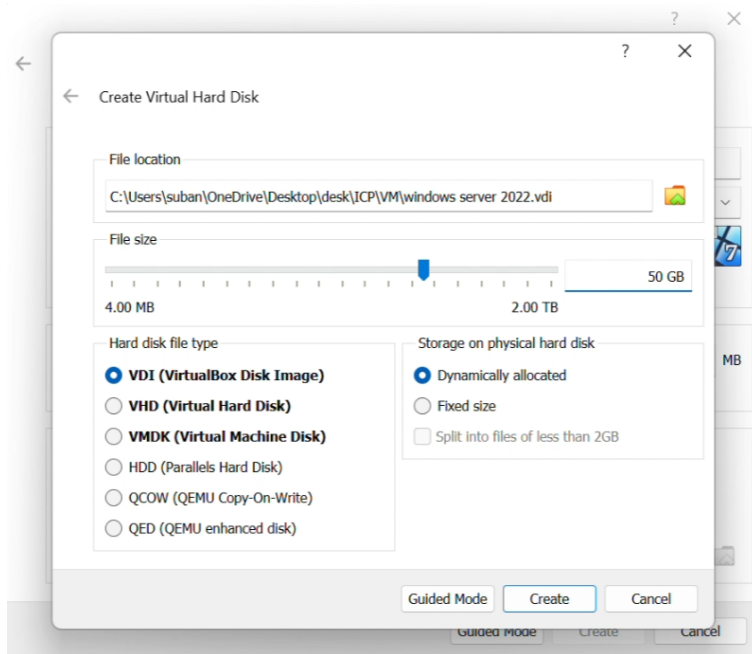


Figure 4 : Creating Virtual Hard Disk

We choose the file location for our server file, and choose the file size, i.e. 50GB, and press create.

3. Storage settings for ISO file

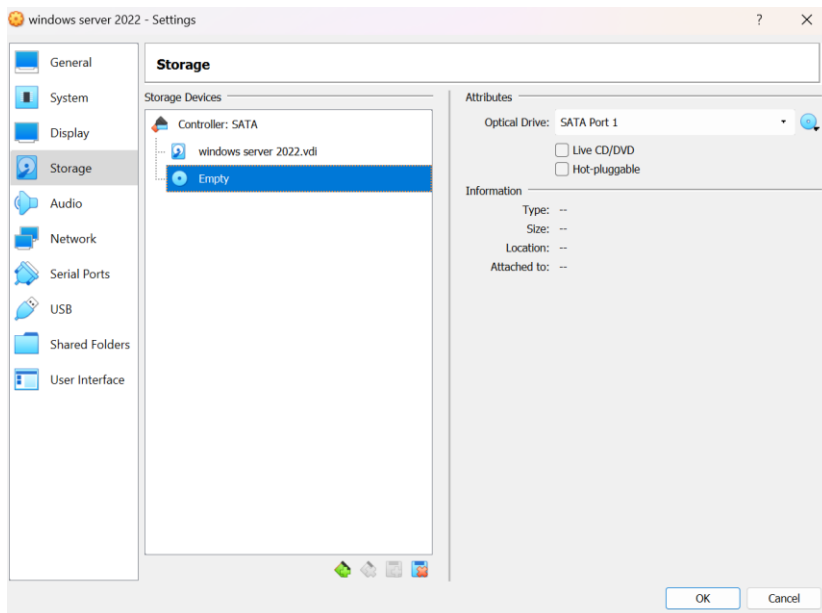


Figure 5 : Creating an ISO file.

After creating the virtual machine, we tweak settings, by selecting the settings option in the virtual machine, and go to storage and select the empty optical drive.

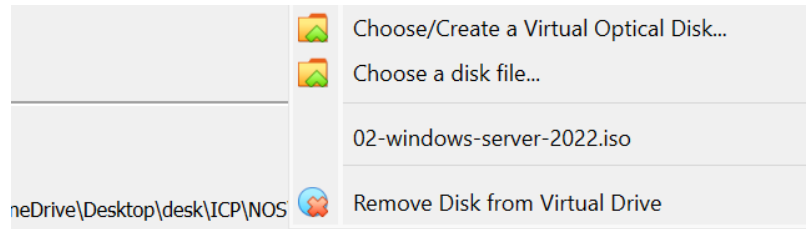


Figure 6 : Choosing disk file for ISO.

Choose the windows server 2022 ISO file as a disk file.

4. Start Virtual Machine

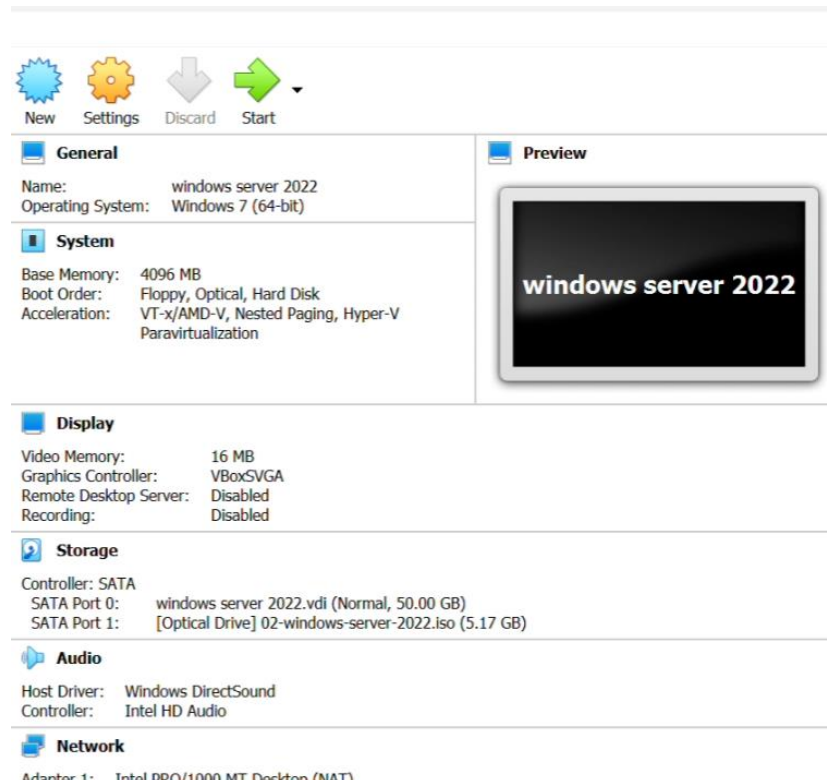


Figure 7 : starting the virtual machine.

Clicking on Start to launch the VM.

5. Windows server Installation Process

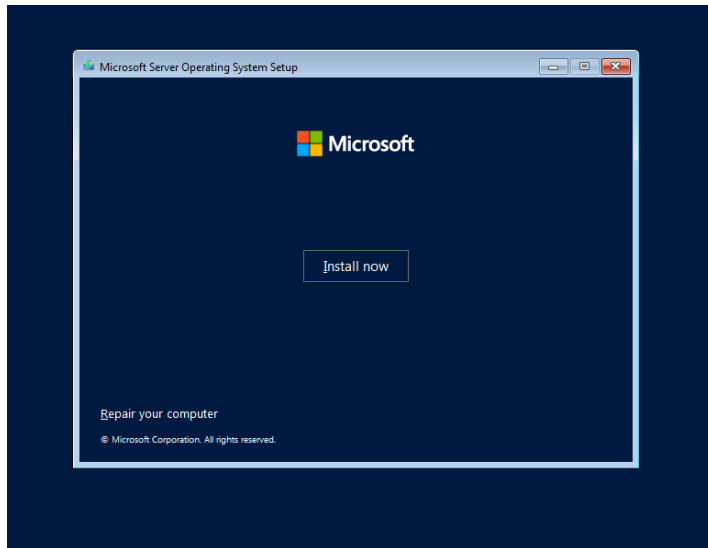


Figure 8 : Installing windows.

We are now in the process of installing the windows server to the virtual machine.

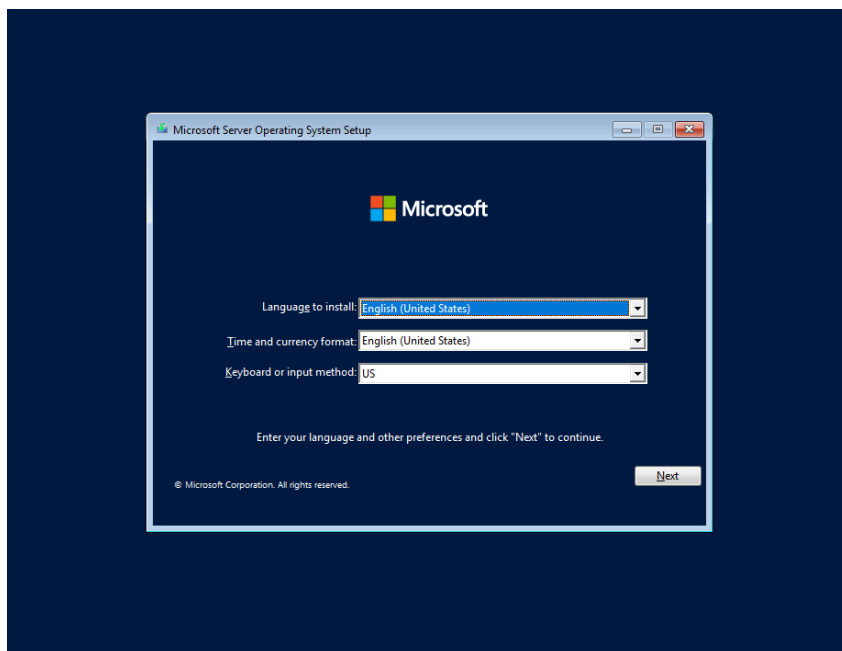


Figure 9 : Choosing preferred language and settings.

We get prompted with language installation, time, and keyboard format after selecting our preferred options we continue to the next option.

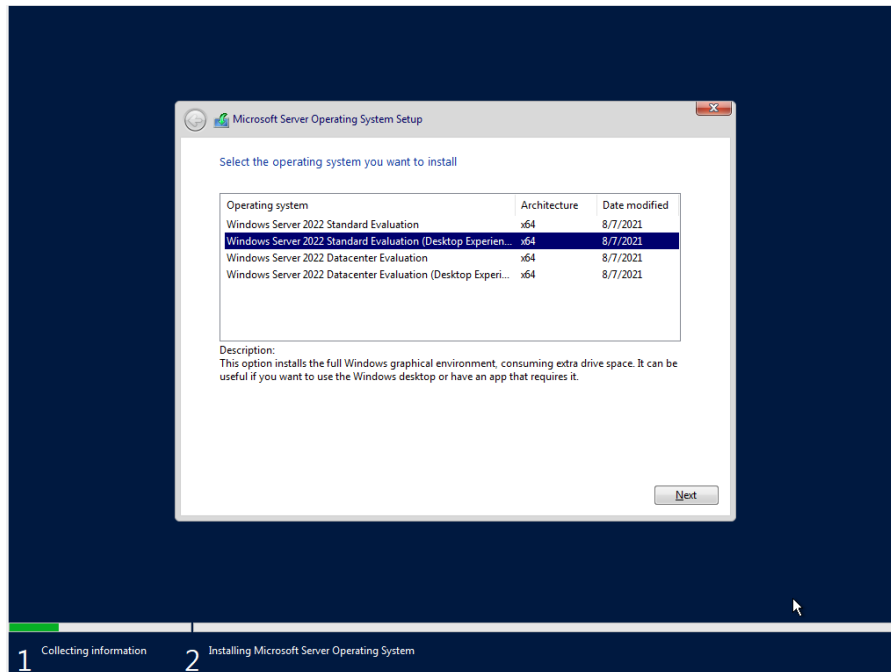


Figure 10 : Choosing Operating System version.

We get prompted with selecting Operating System, we see windows server 2022 standard evaluation and datacentre evaluation and each having desktop experience, and no desktop experience options on the one without the desktop experience we can only access the command line, so we select the standard evaluation with desktop experience and press next,

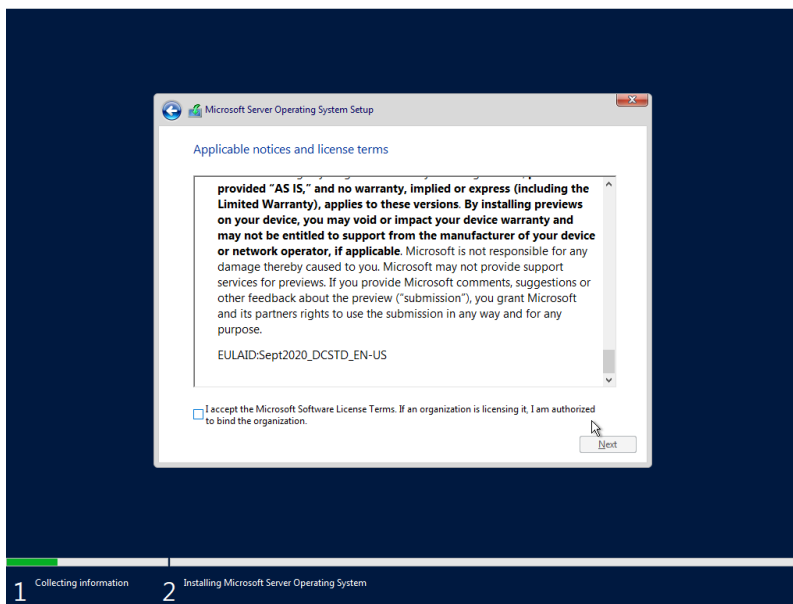


Figure 11: Notices and Licensing terms.

Accept all the notices and license terms.

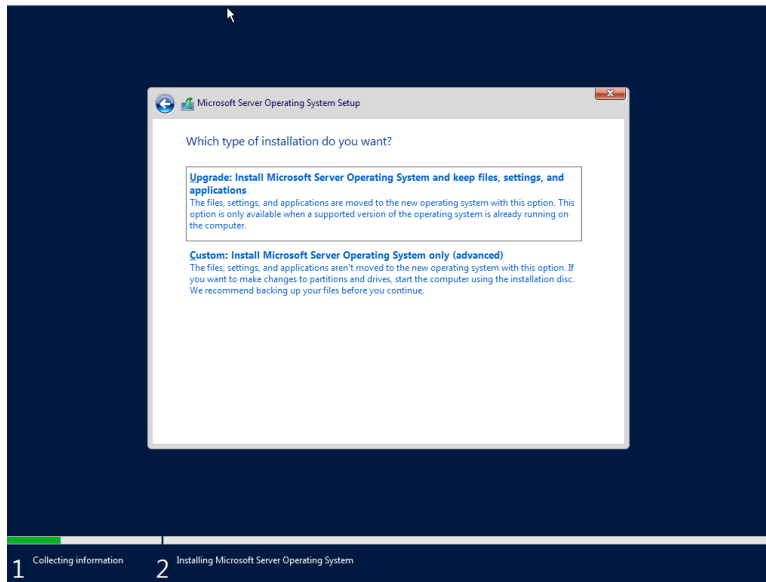


Figure 12 : Type of Installation prompt.

Type of Installation, since we do not have any OS pre-installed in the VM and do not have any files to protect, we do a clean install, by choosing custom (advance)

6. Configuring Disk and completing installation

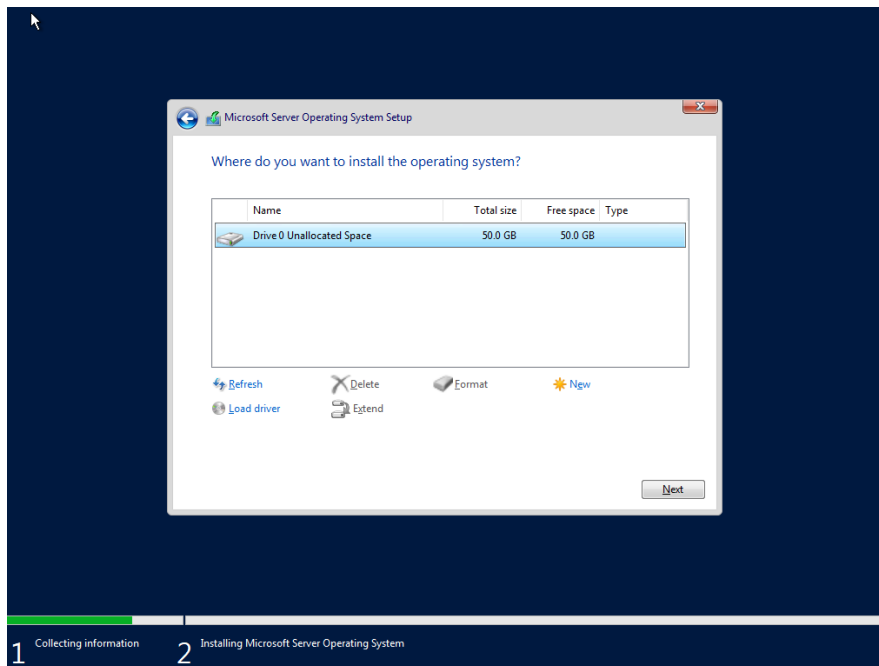


Figure 13 : Disk partition and allocation.

And choose the drive for OS, you can make partition for the drive here but since we only have 50GB we will not be making any partitions.

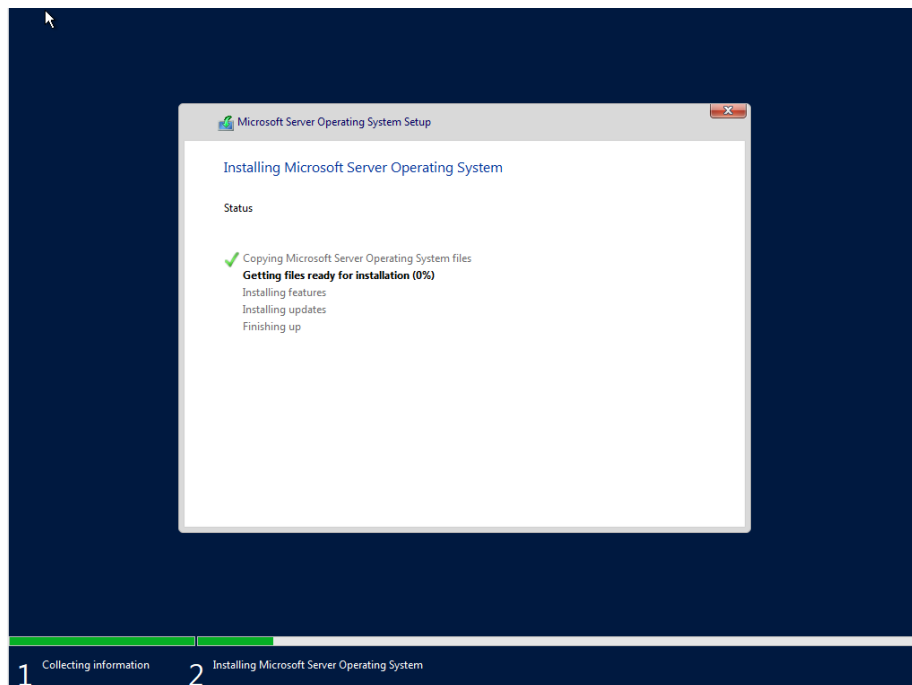


Figure 14 : Microsoft Server being installed.

OS installation process started.

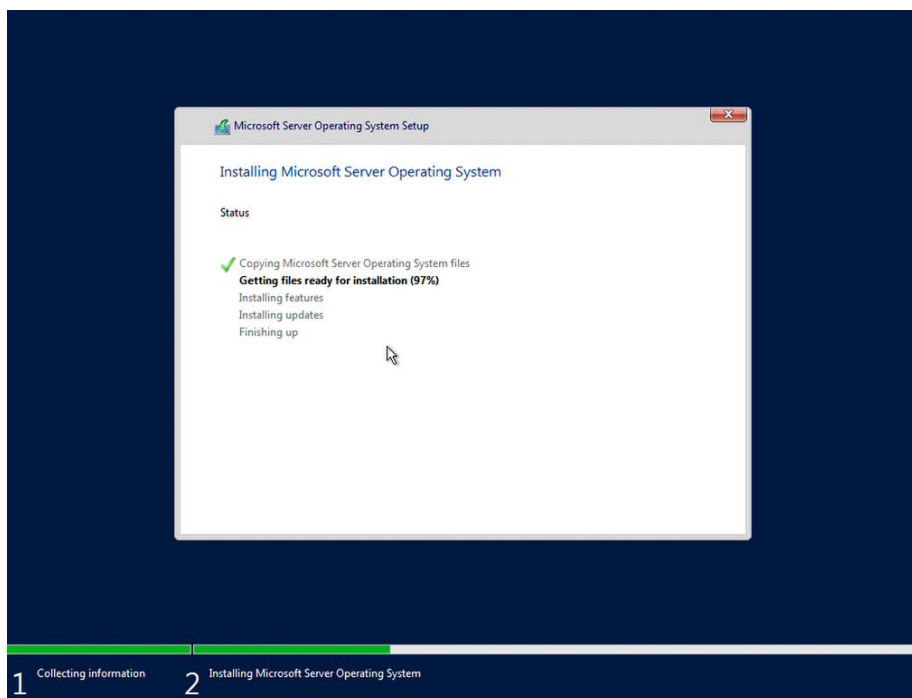


Figure 15 : Microsoft Server being installed.

OS installation process

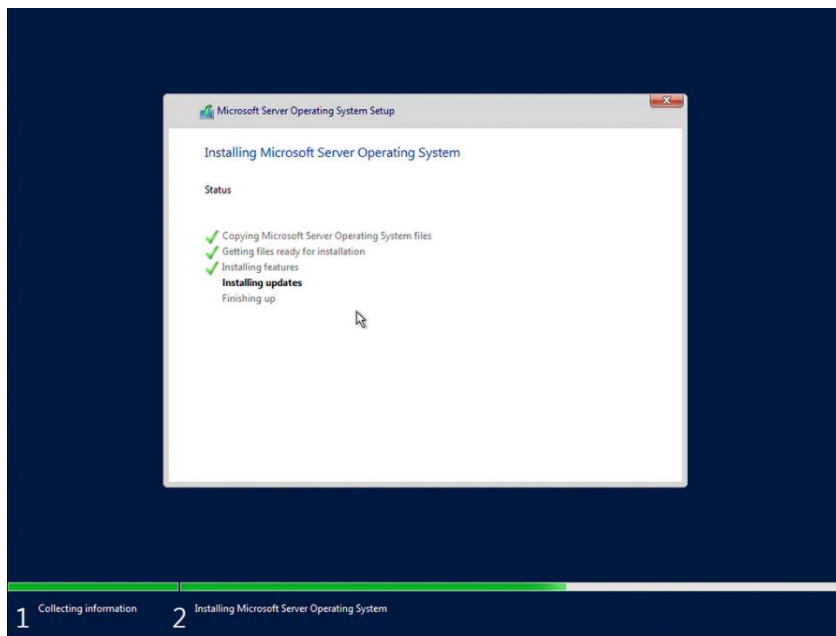


Figure 16 : Microsoft Server being installed.

OS installation process

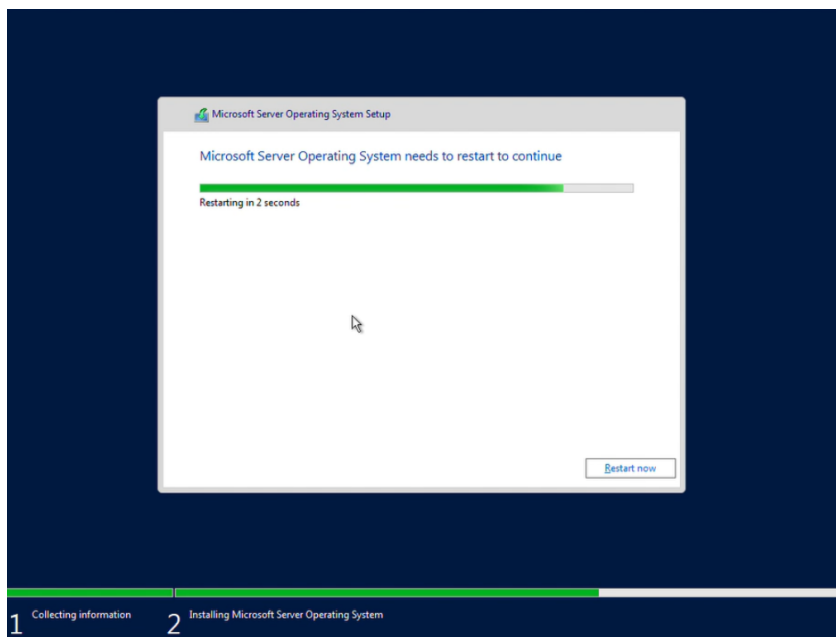


Figure 17 : Microsoft Server being installed.

OS installation process almost completed.

7. Finalizing setup

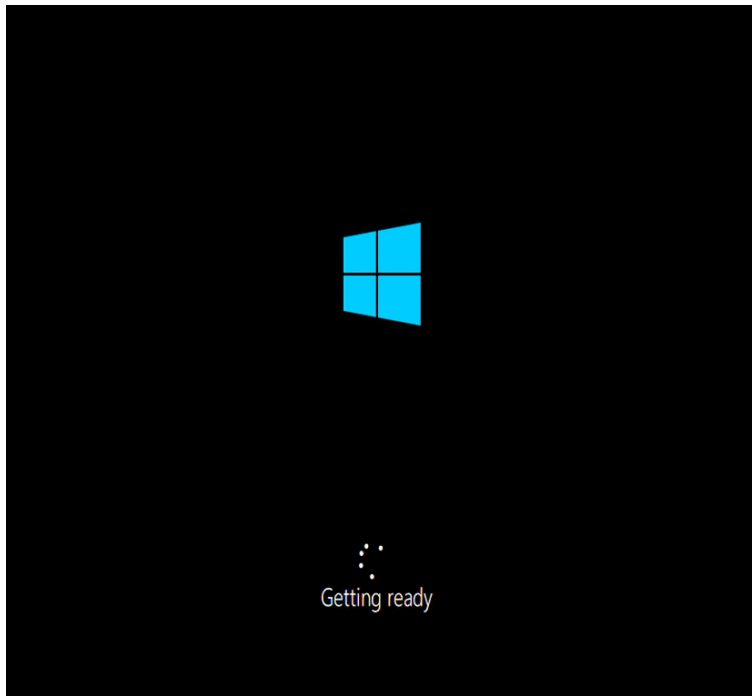


Figure 18 : Windows starting.

Windows getting ready.

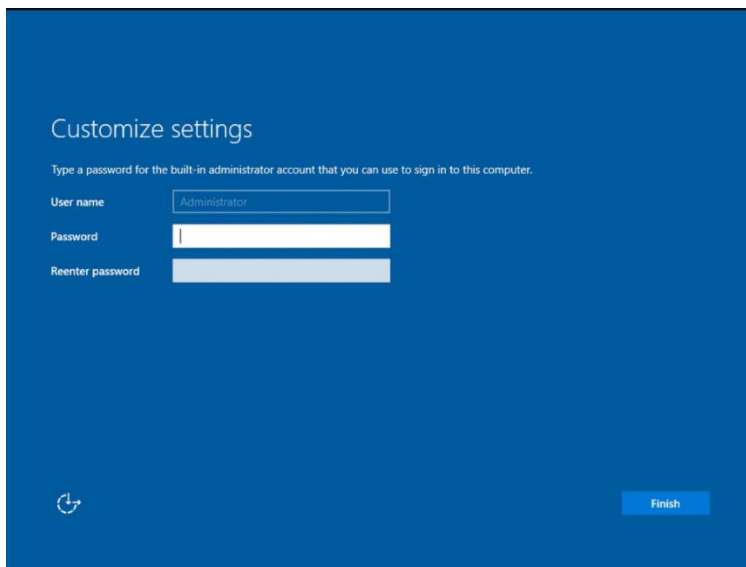
A blue rectangular screen titled "Customize settings". Below the title, it says "Type a password for the built-in administrator account that you can use to sign in to this computer." There are three input fields: "User name" with "Administrator" entered, "Password" with a single character entered, and "Reenter password" which is empty. At the bottom left is a circular arrow icon, and at the bottom right is a blue button labeled "Finish".

Figure 19 : Giving a sign in password.

Now we create security password.

8. Logging into Windows Server



Figure 20 : Windows installation completed.

Windows being open after all the installations being completed now, we need to press Ctrl+Alt+Delete to unlock, but the physical keyboard does not work so we need to do it manually from the VM.

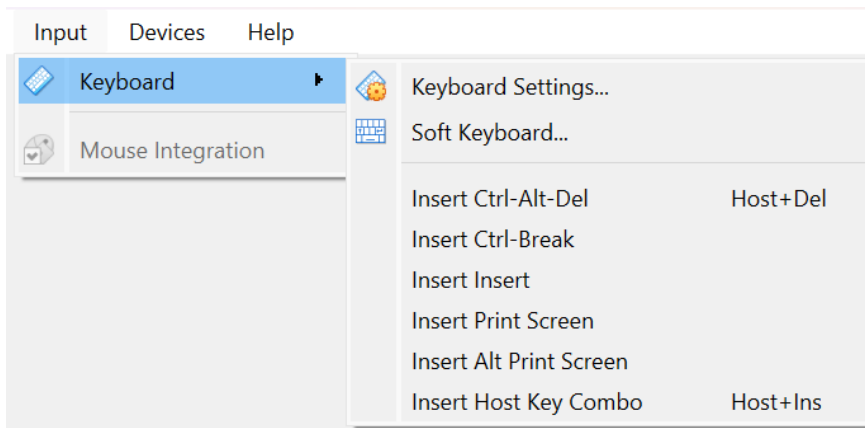


Figure 21 : Keyboard input menu.

Manually unlocking from, the keyboard input method, then we type in our password.

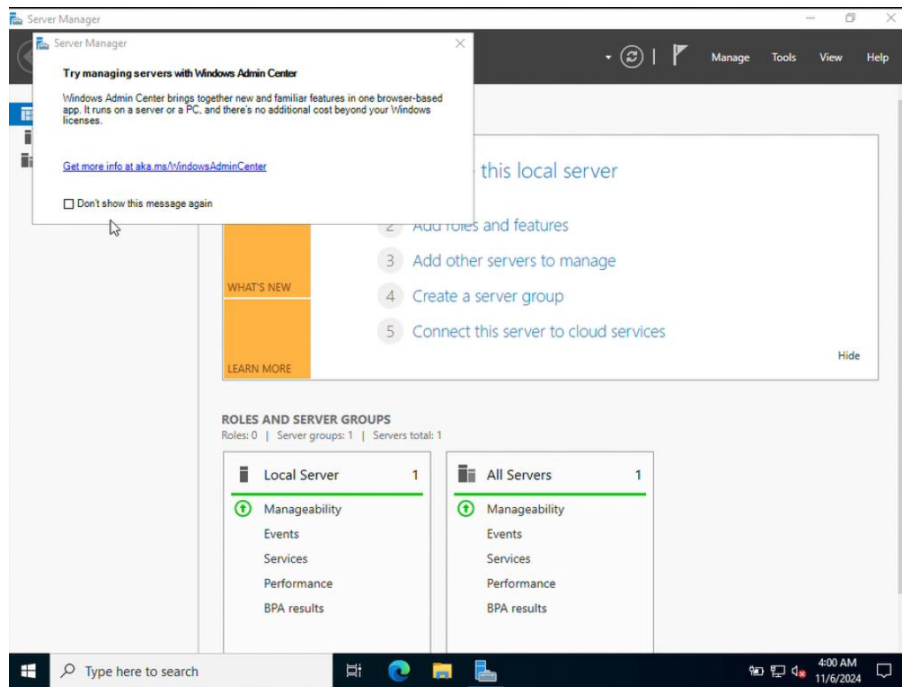


Figure 22 : First look into Server Manager

Then the windows get open, and Server manager gets open by itself.

CONCLUSION

In this log by completing the setup, we gained practical experience with VM setting, and server installation. We successfully installed Windows Server 2022 on a virtual machine and configure the settings. We experienced the server installation process, virtual machine setup, and basic partitioning.

References

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Oracle. (n.d.). *Oracle VM Server hardware requirements*. Retrieved November 06, 2024, from https://docs.oracle.com/html/E50247_08/vmiug-server-hardware.html#:~:text=Oracle%20VM%20Server%20requires%20a,or%20Athlon%20CPU%20is%20recommended.

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