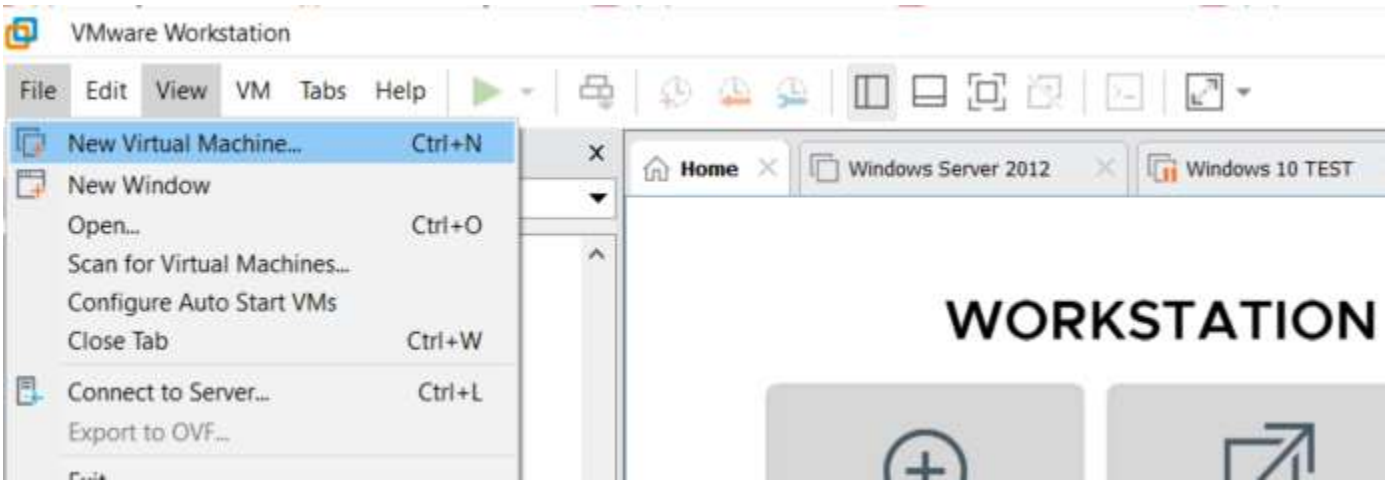
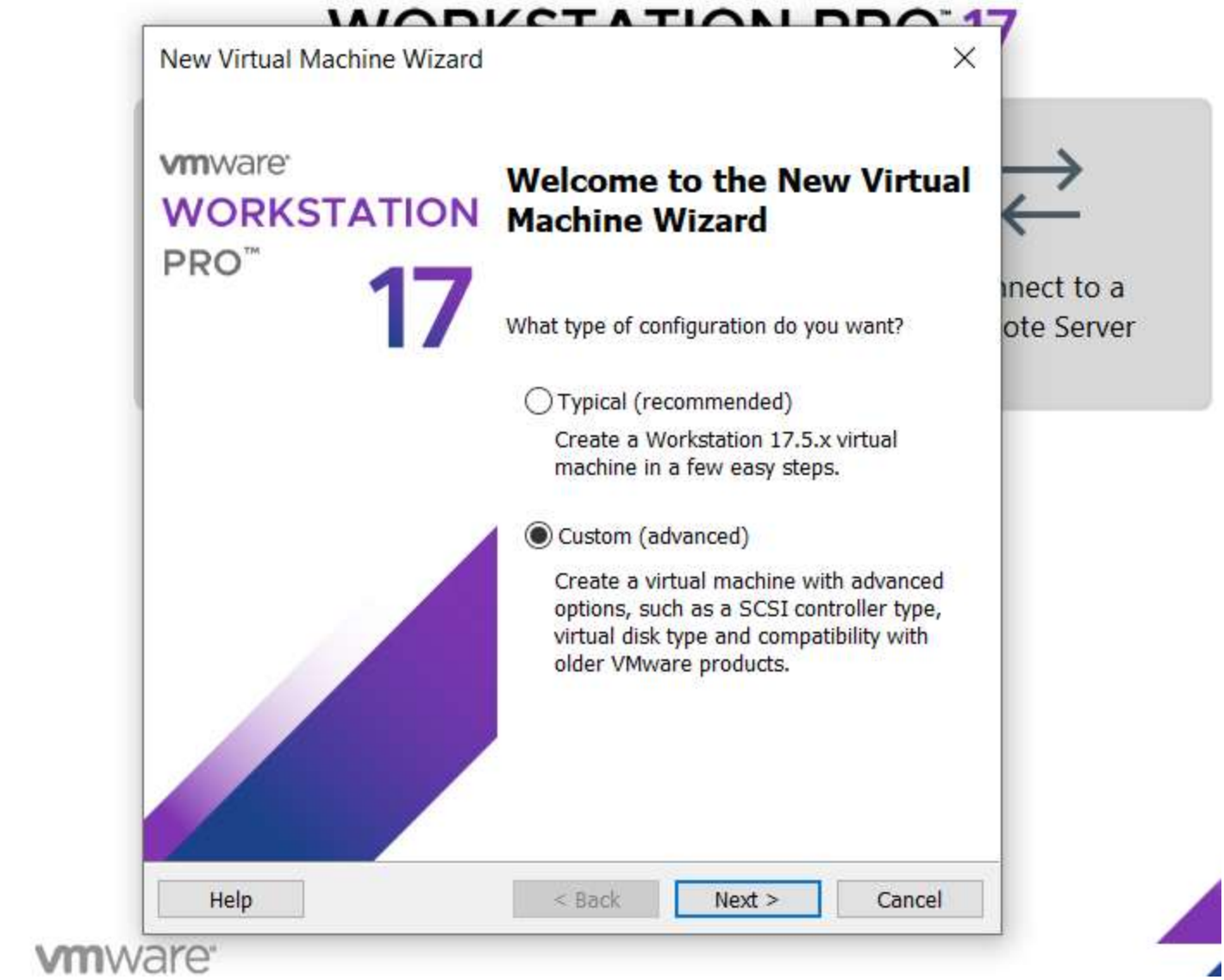
How to create Windows Server 2022 Virtual Machine:

Open VM Ware workstation from Start menu



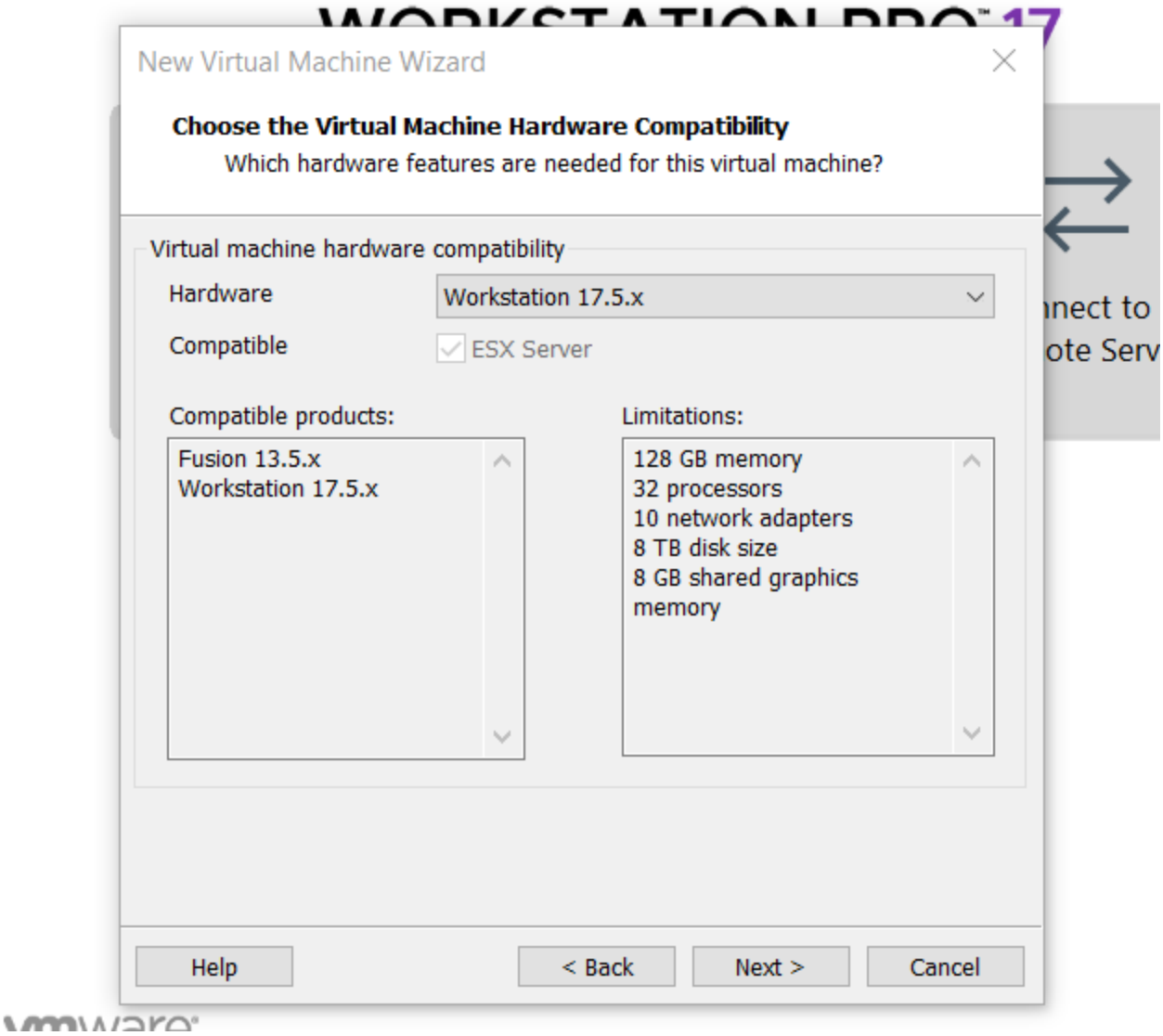
Click on File -> New Vritual Machine

Select Custom from New Vritual Machine Qizard and click on Next button



Select hardware compatibility:

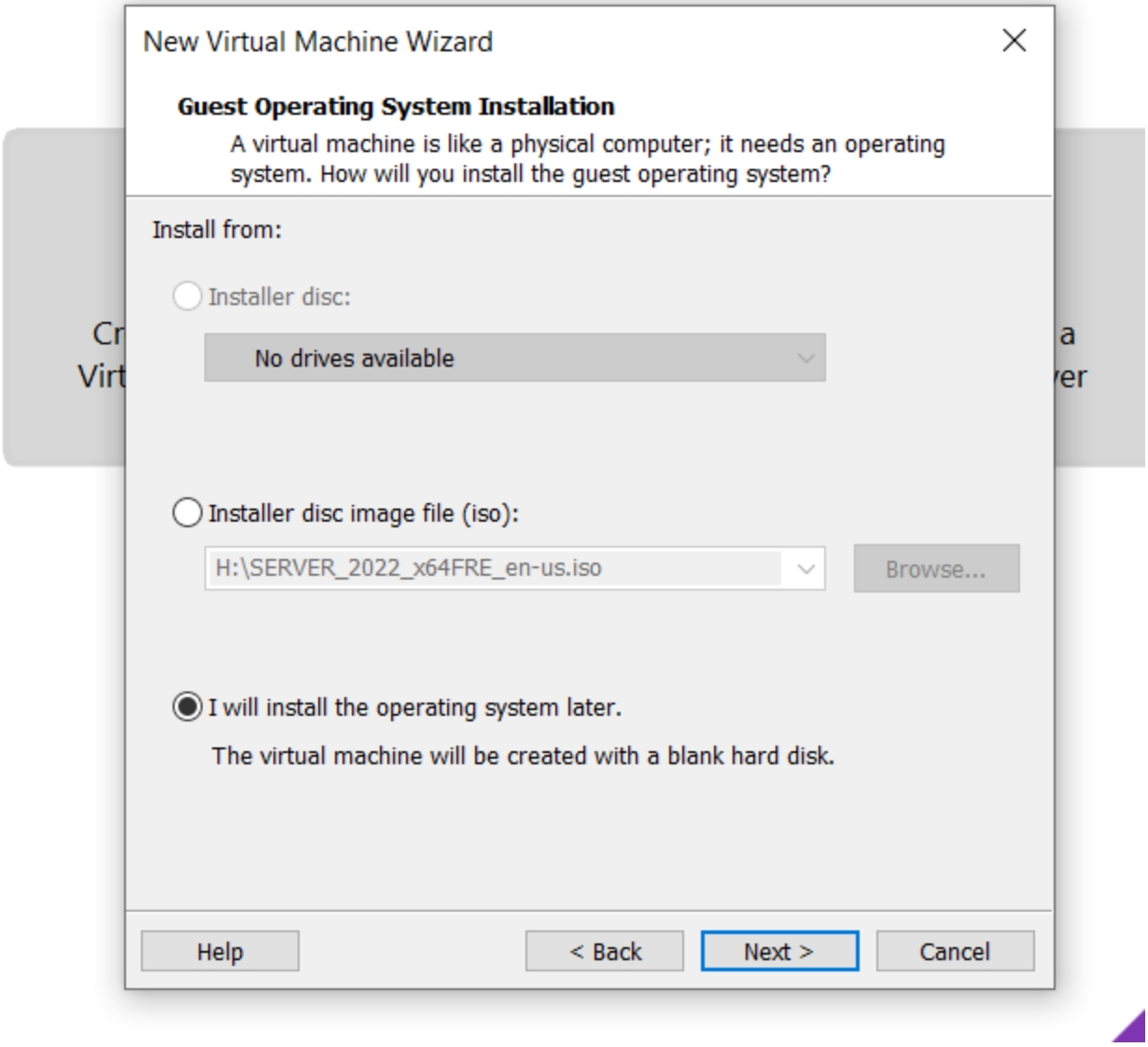
Click on Next Button



Guest Operating System Installation click on

“ I will install the operating system later “

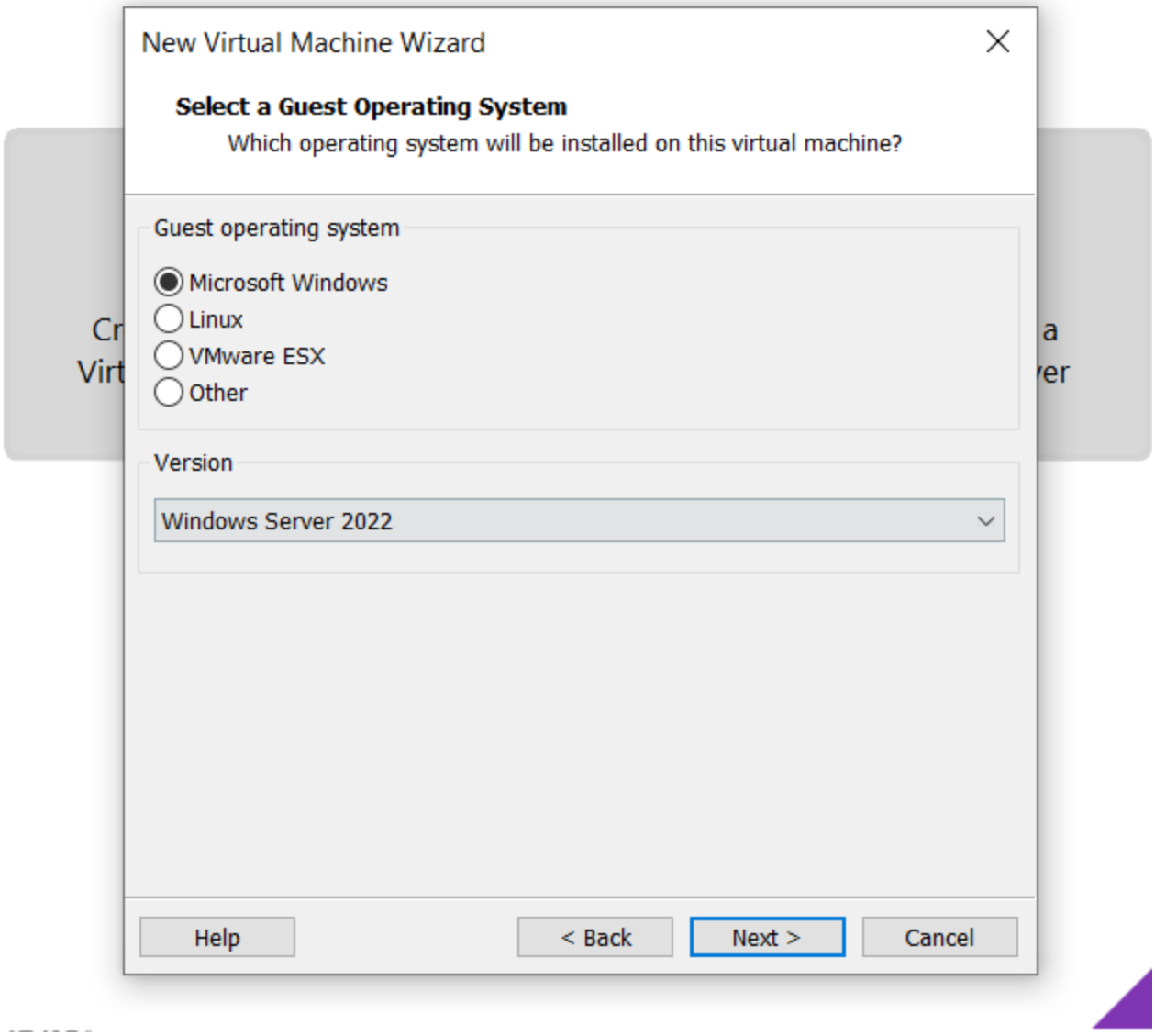
Click on Next Button



Select the Operating system

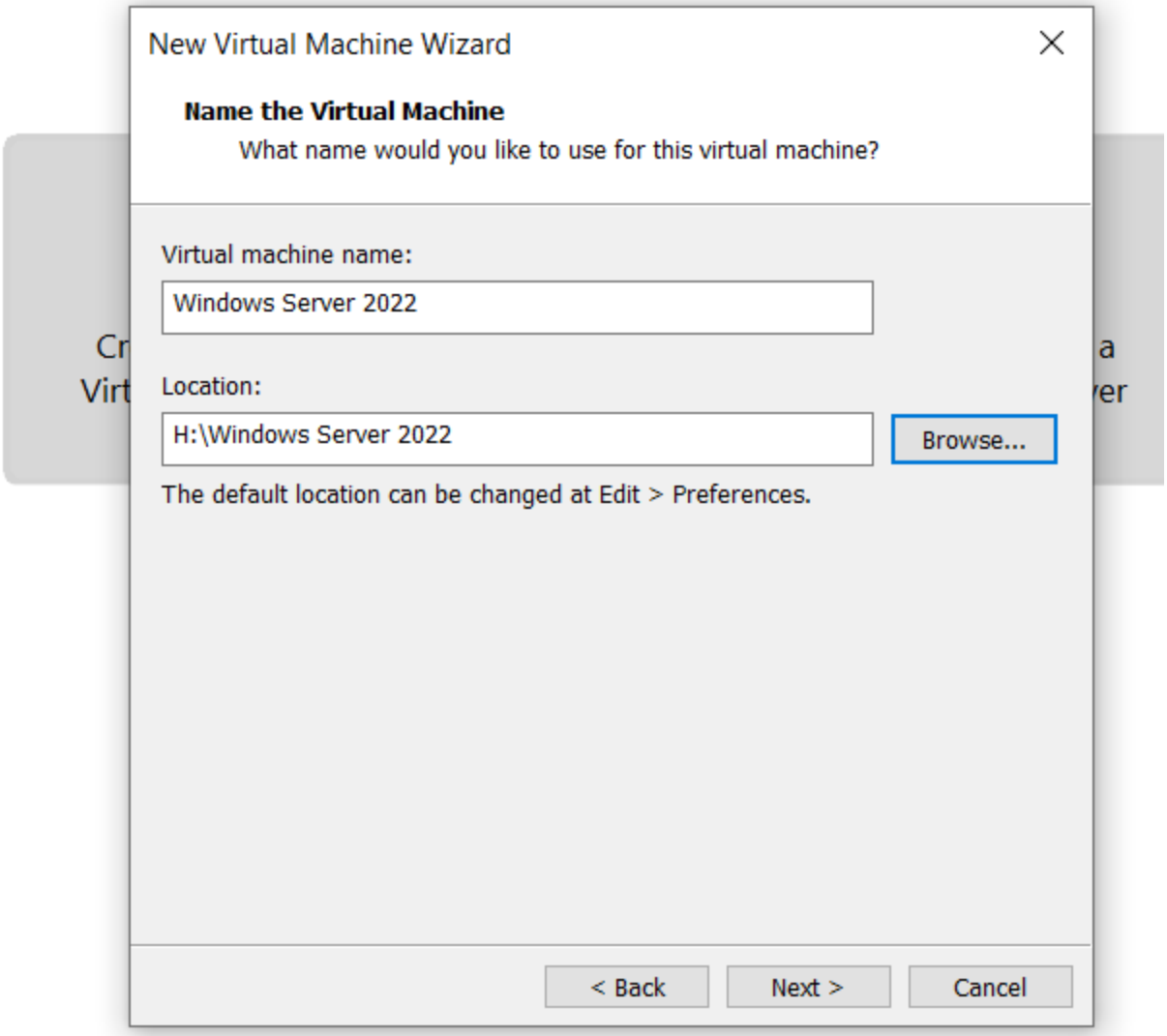
Guest Operating system

Click on Next Button:



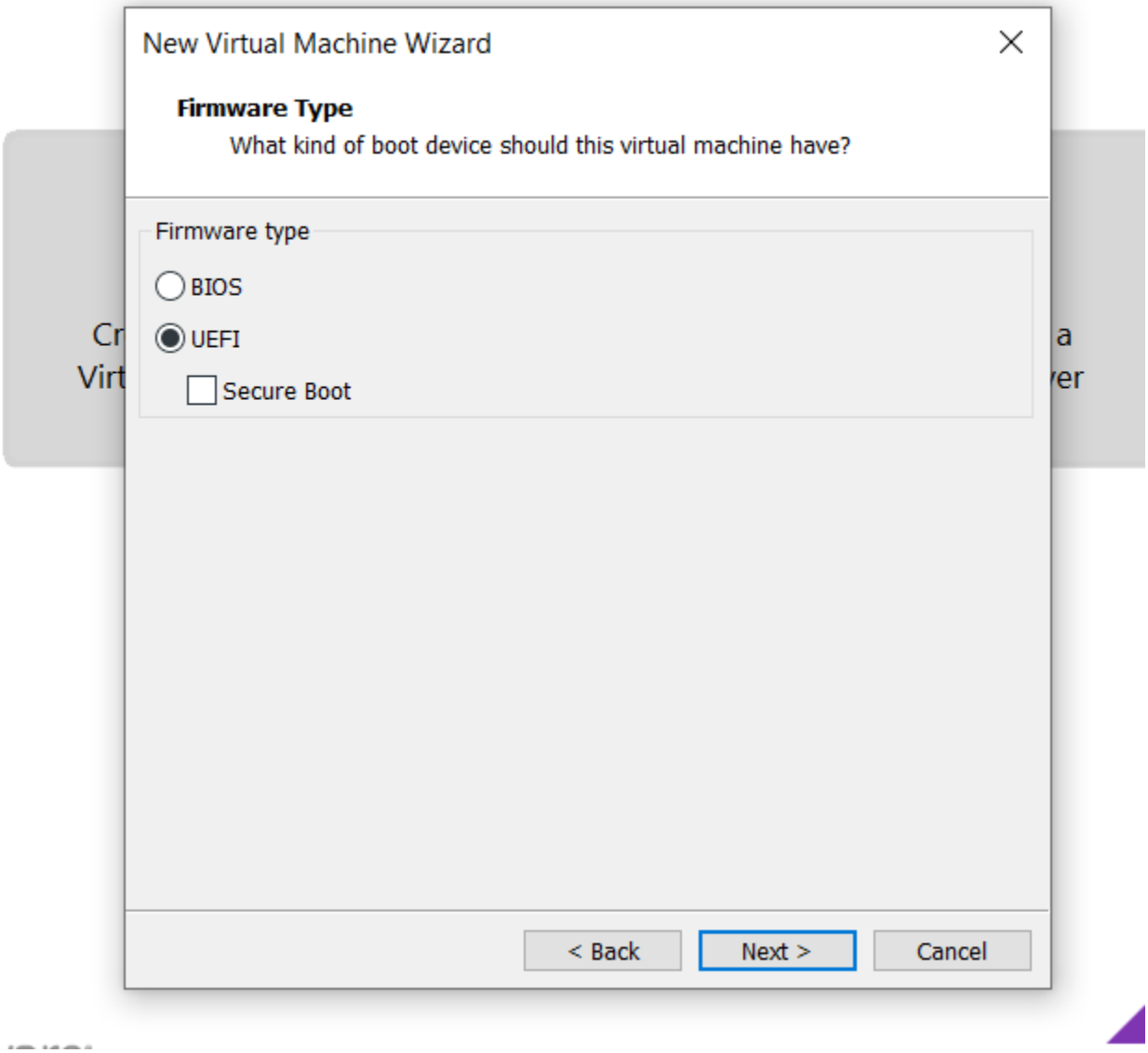
Give a name to virtual machine and select the location for virtual machine:

Click on Next Button:



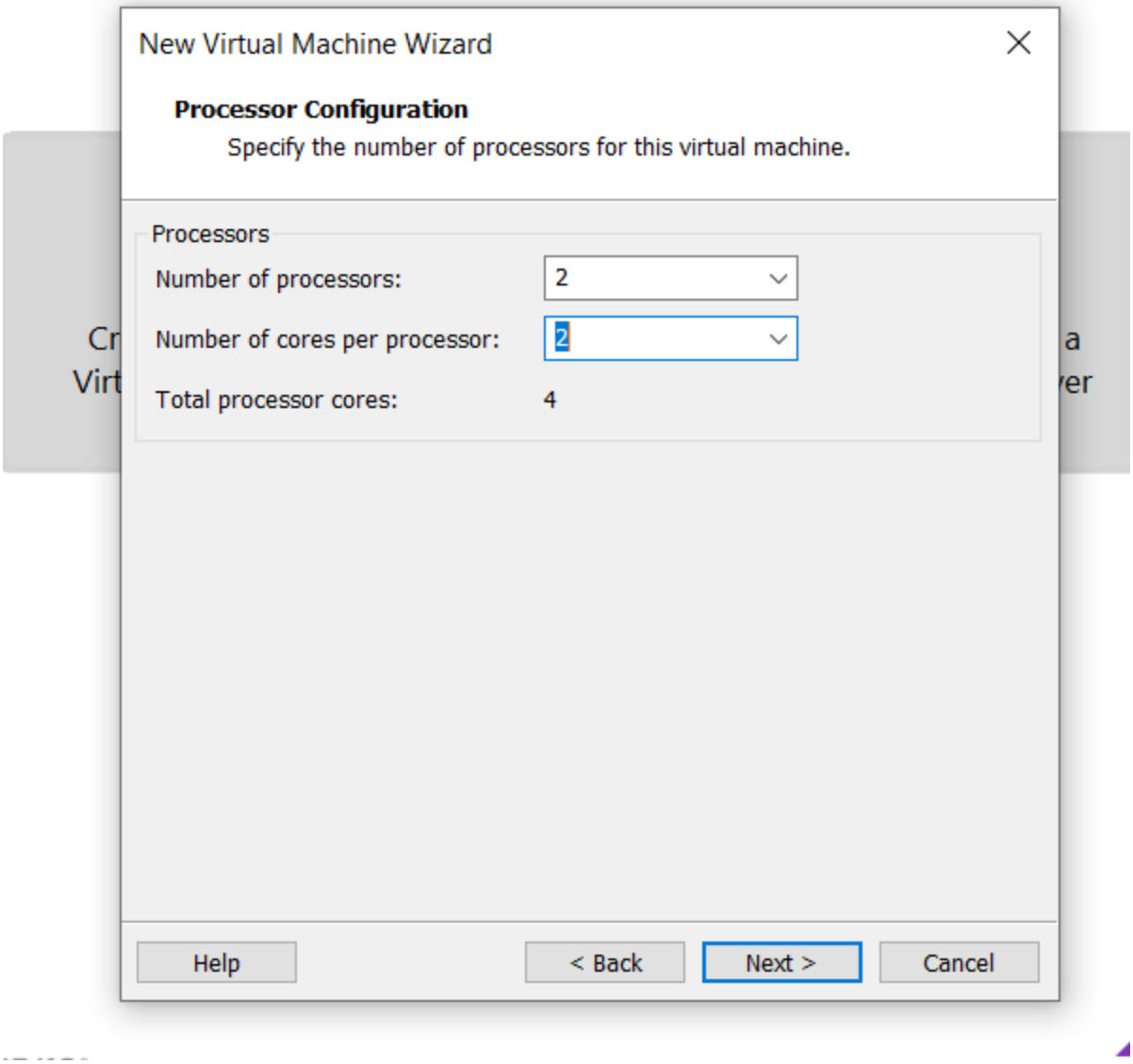
Select the Firmware type

Click on Next button



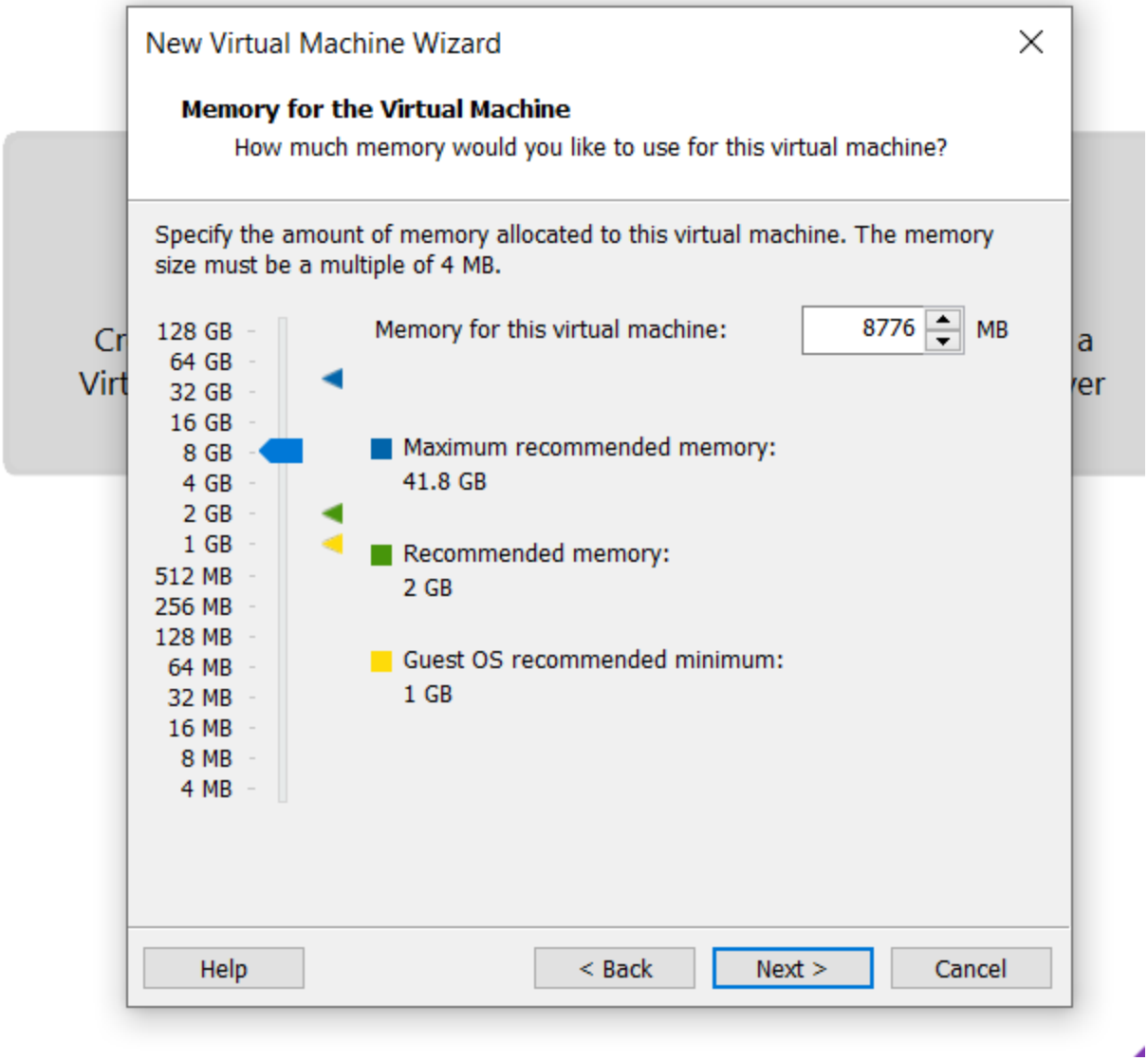
Select the processors for virtual machine

Click on Next Button



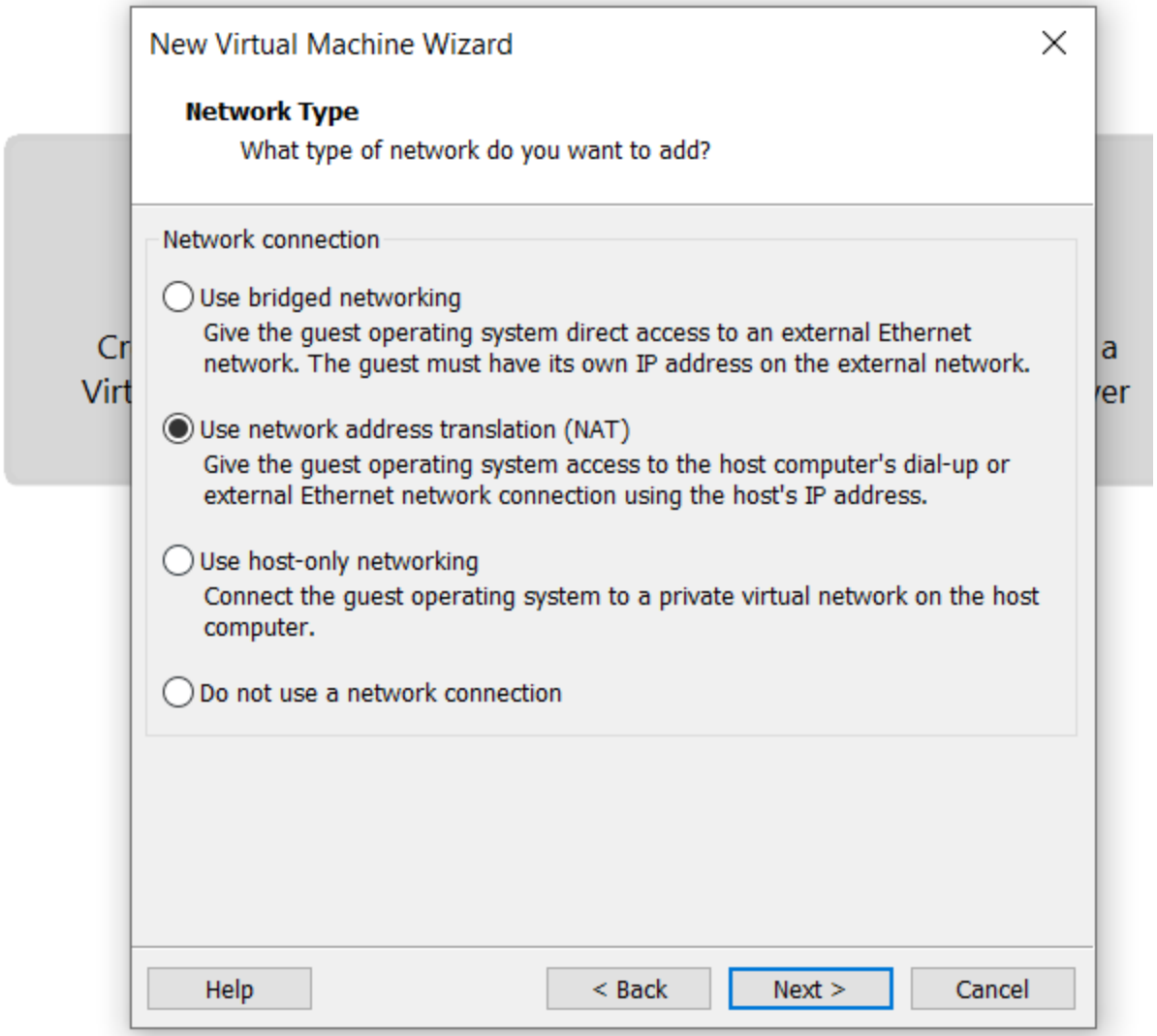
Select Memory for the virtual machine

Click on Next button;



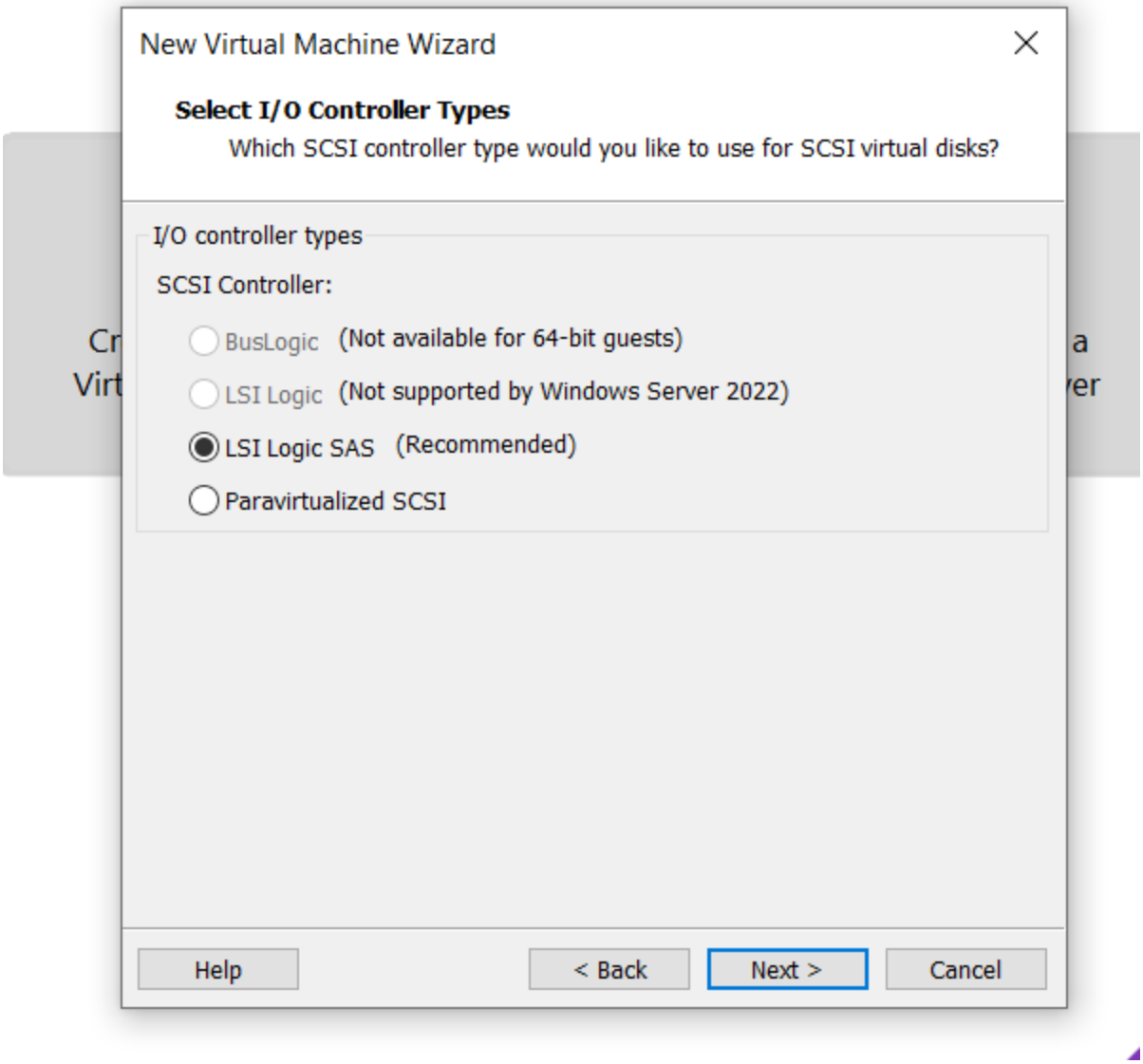
Select the Network type for virtual machine

Click on next button:

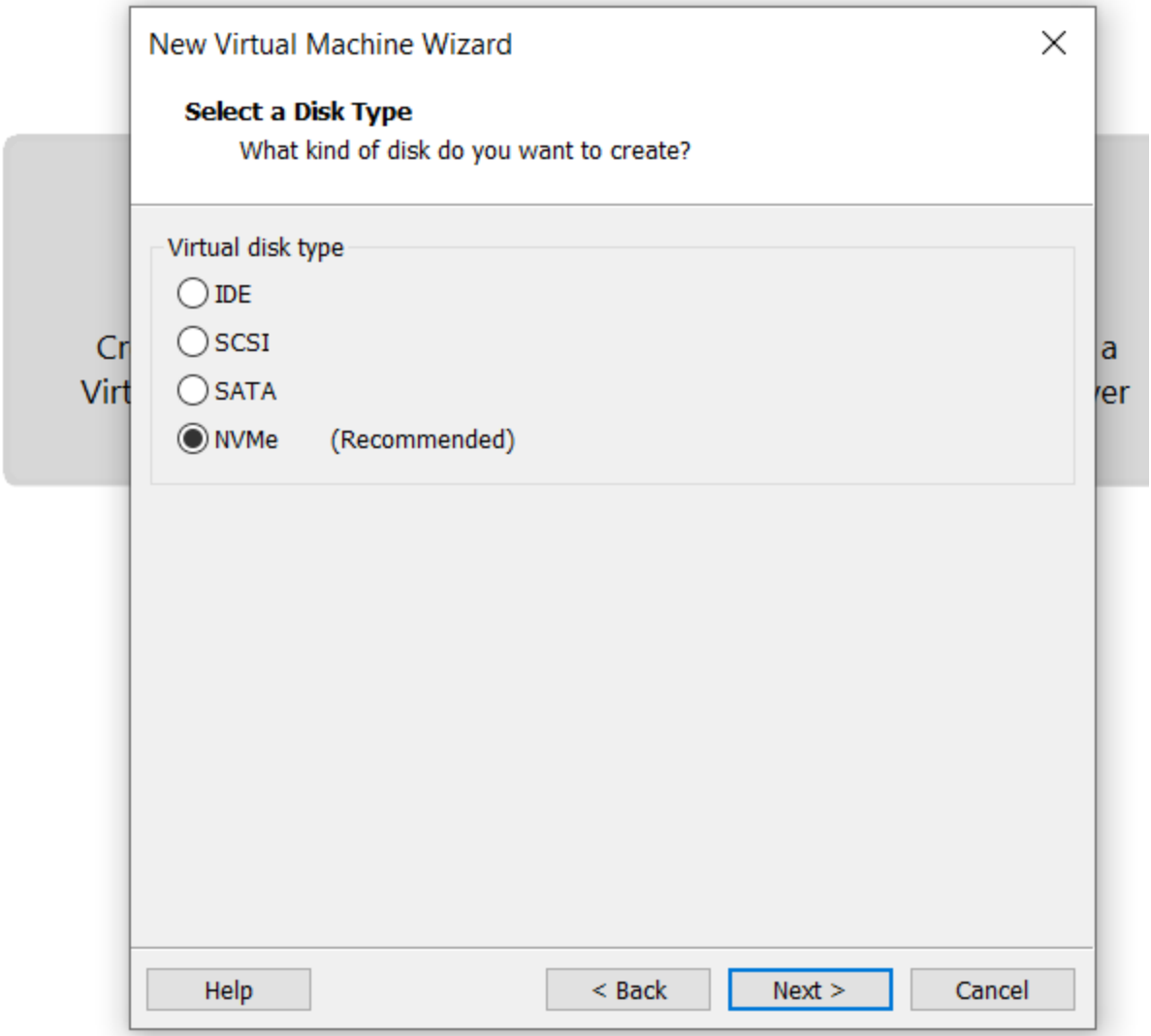


Select storage type for virtual machine

Click on next button

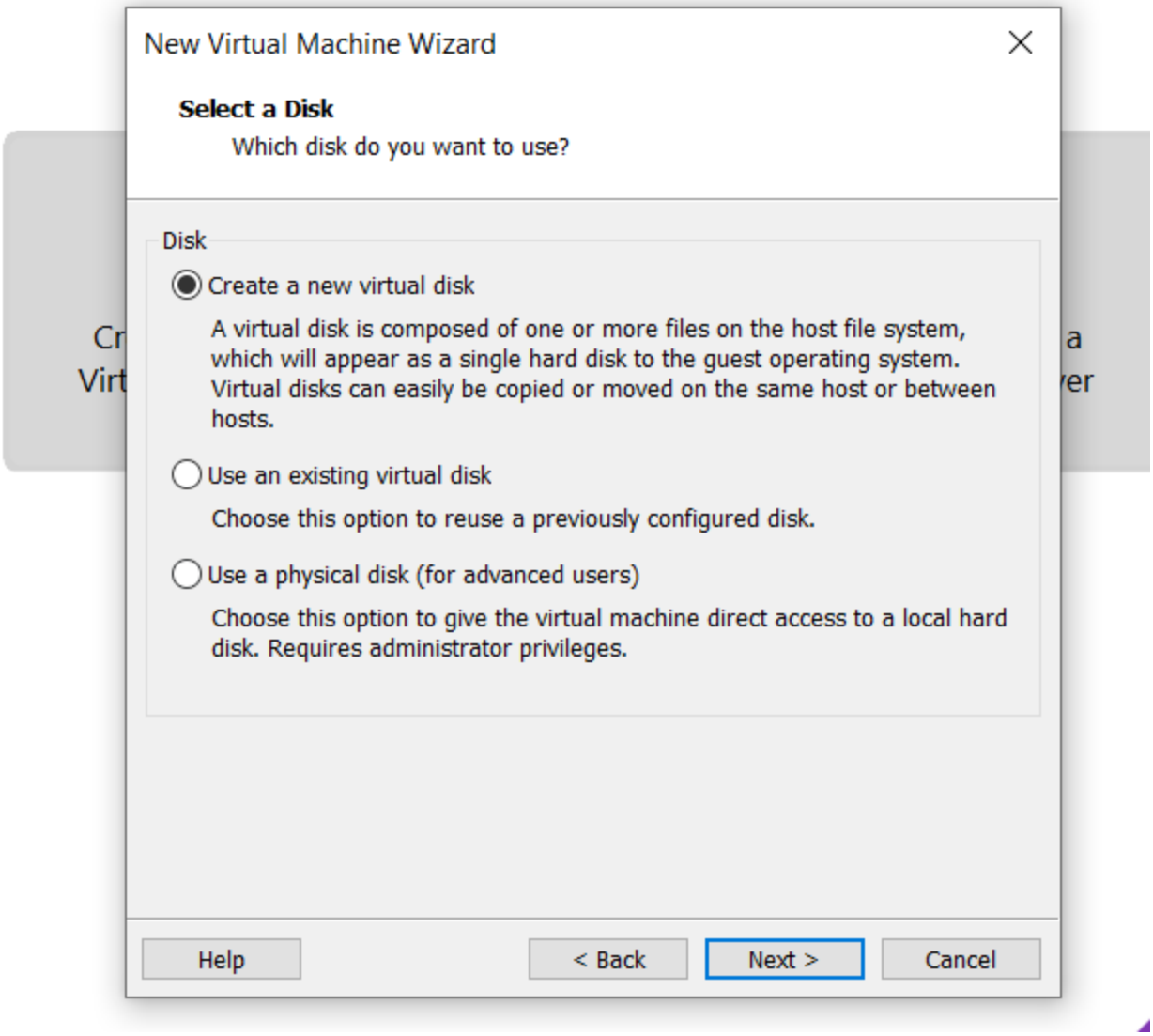


Select the Recommended disk type and Click on next button



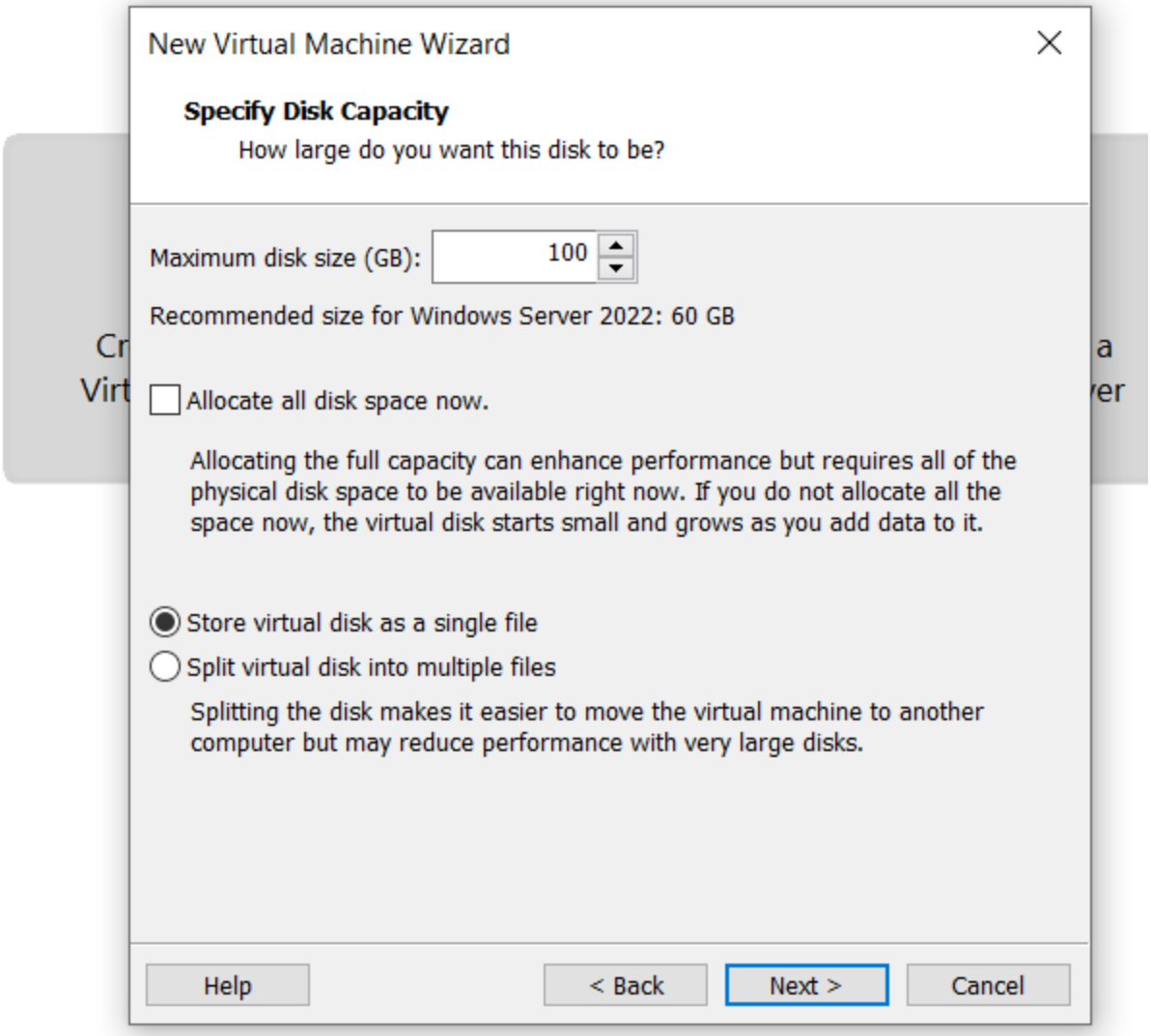
Select a Disk click on Create a new virtual disk

Click on next button:



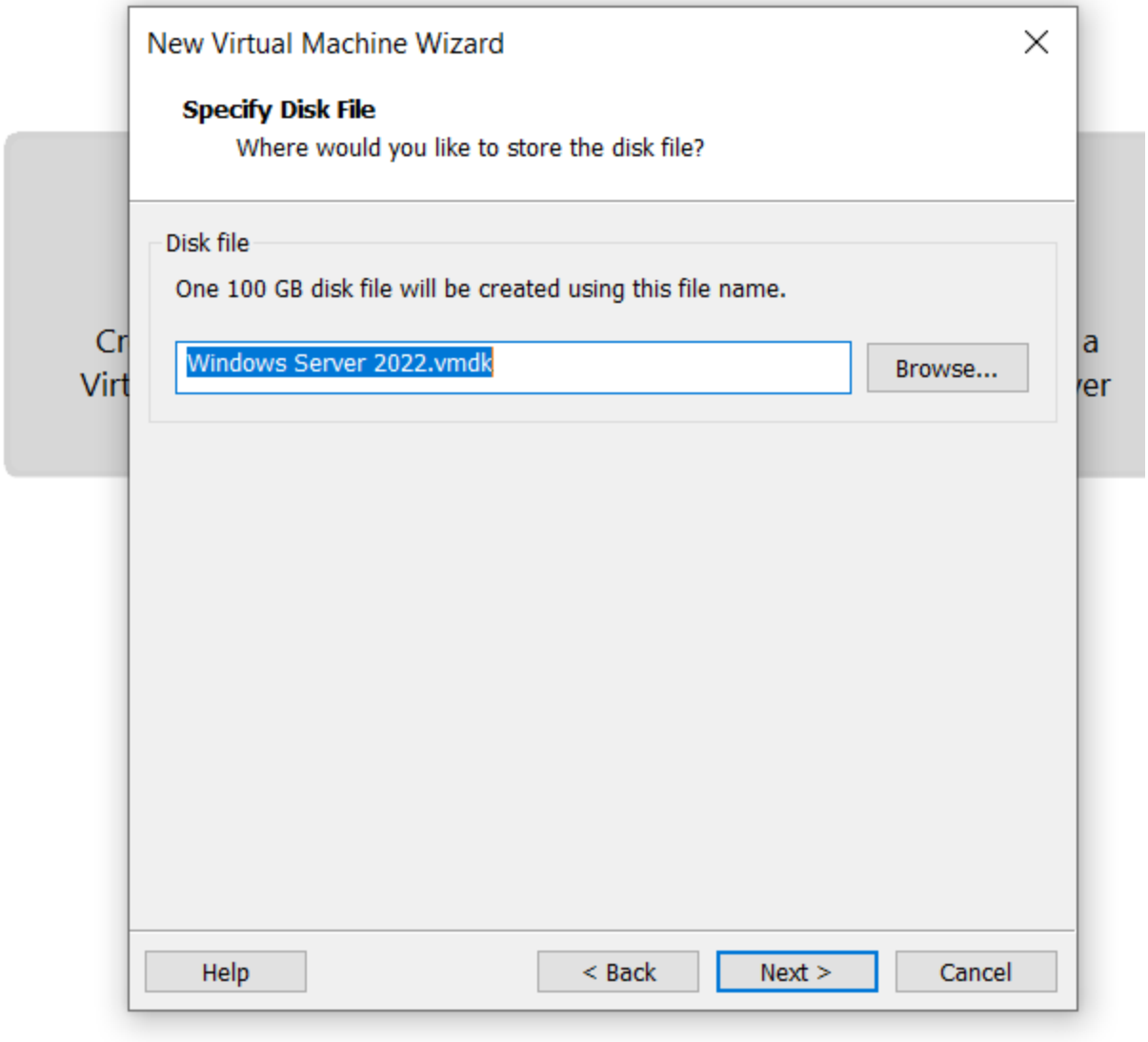
Specify disk Capacity and store file type

Click on next button



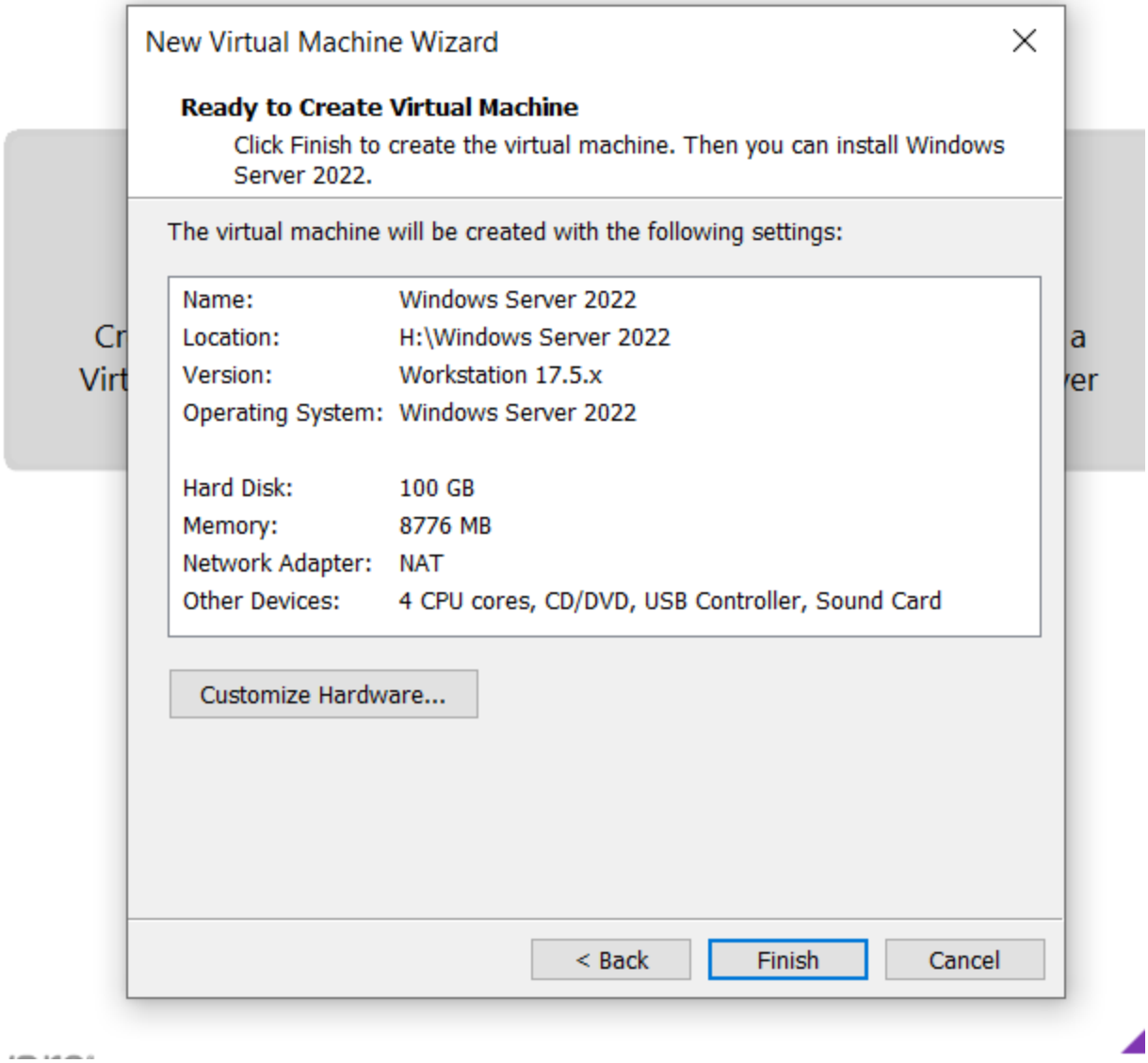
Specify the disk file name and location

Click on next button

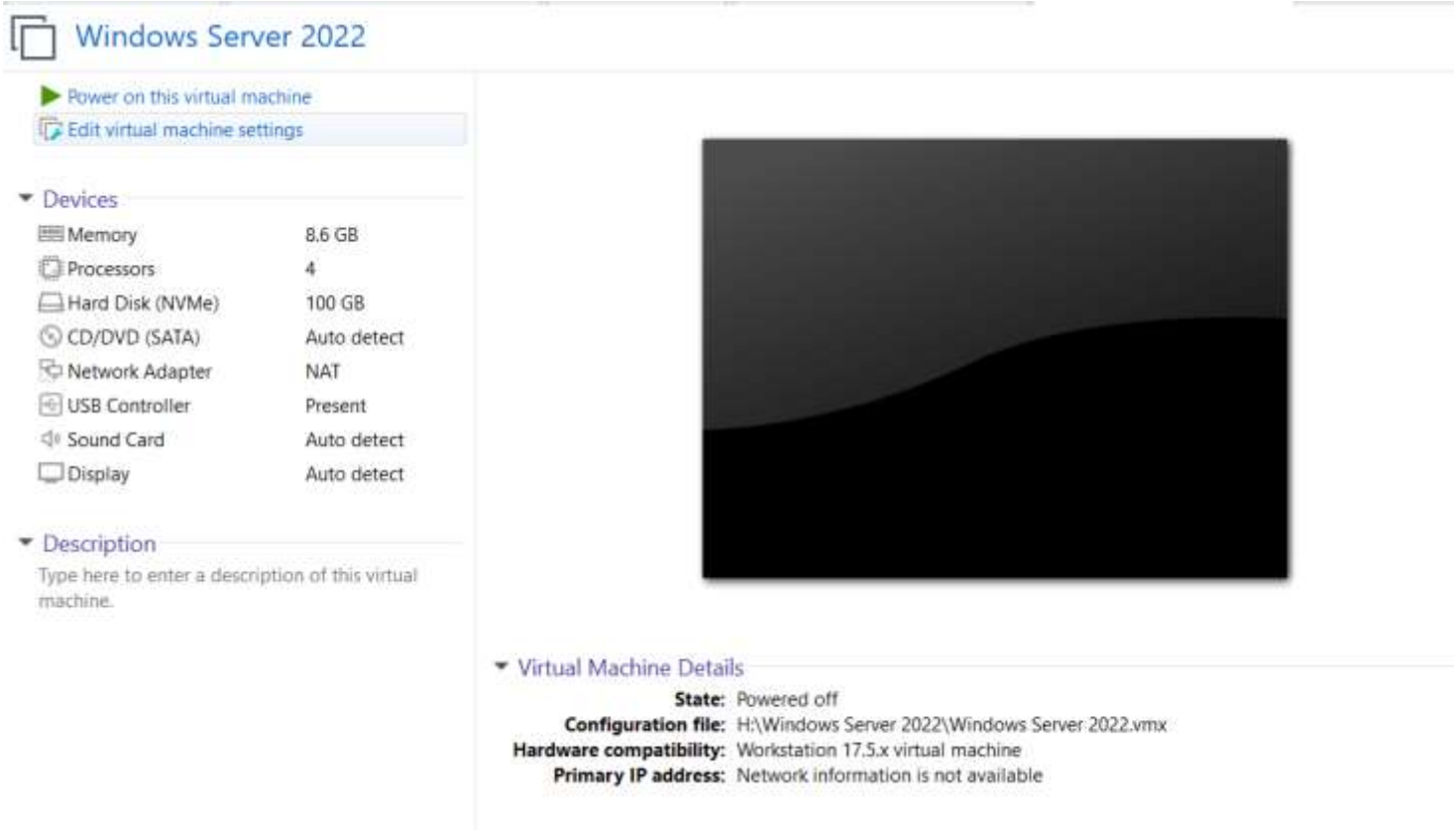


Verify the virtual machine configuration

Click on finish Button



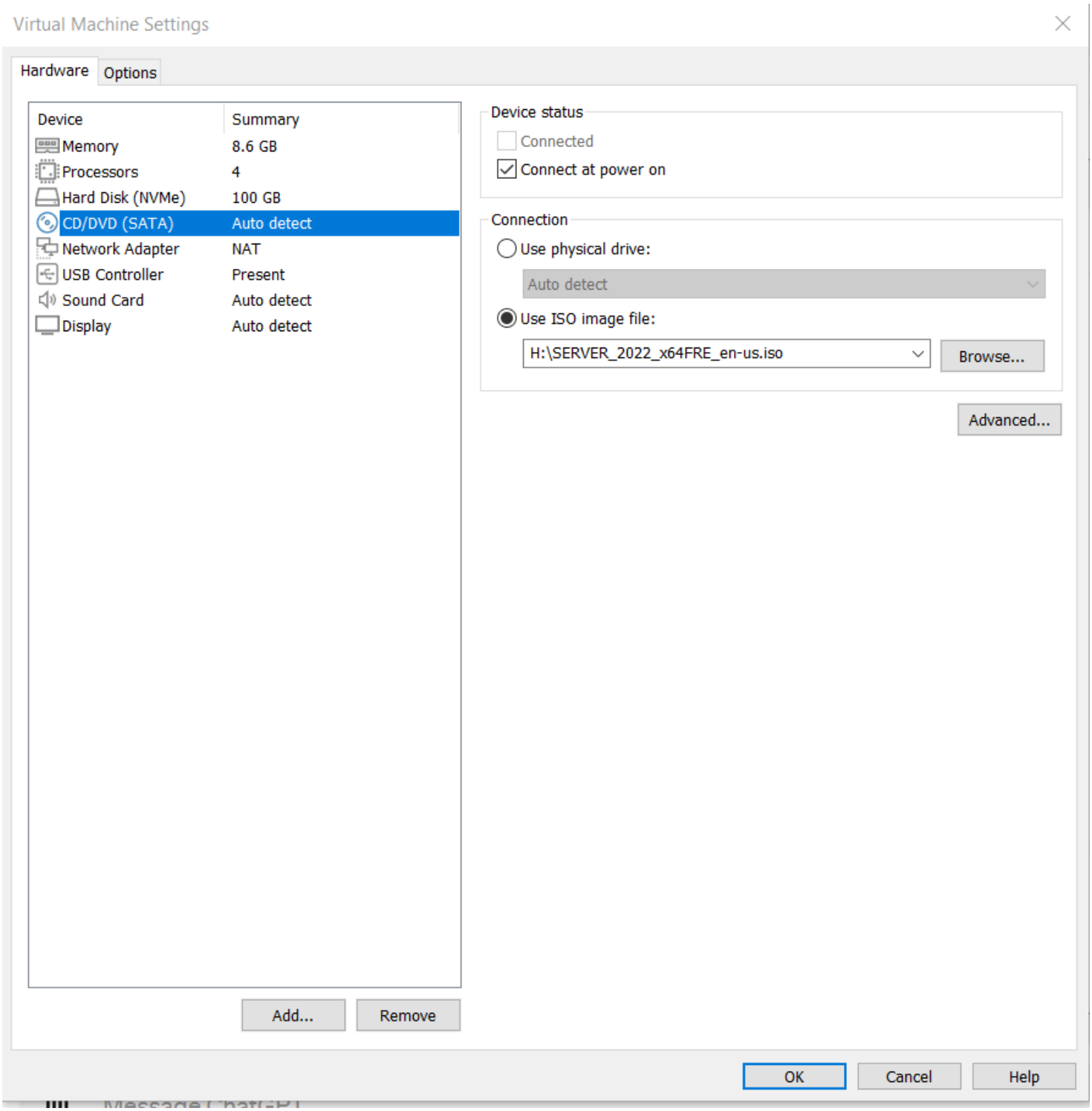
Now the virtual machine is completed



From the virtual machine Settings

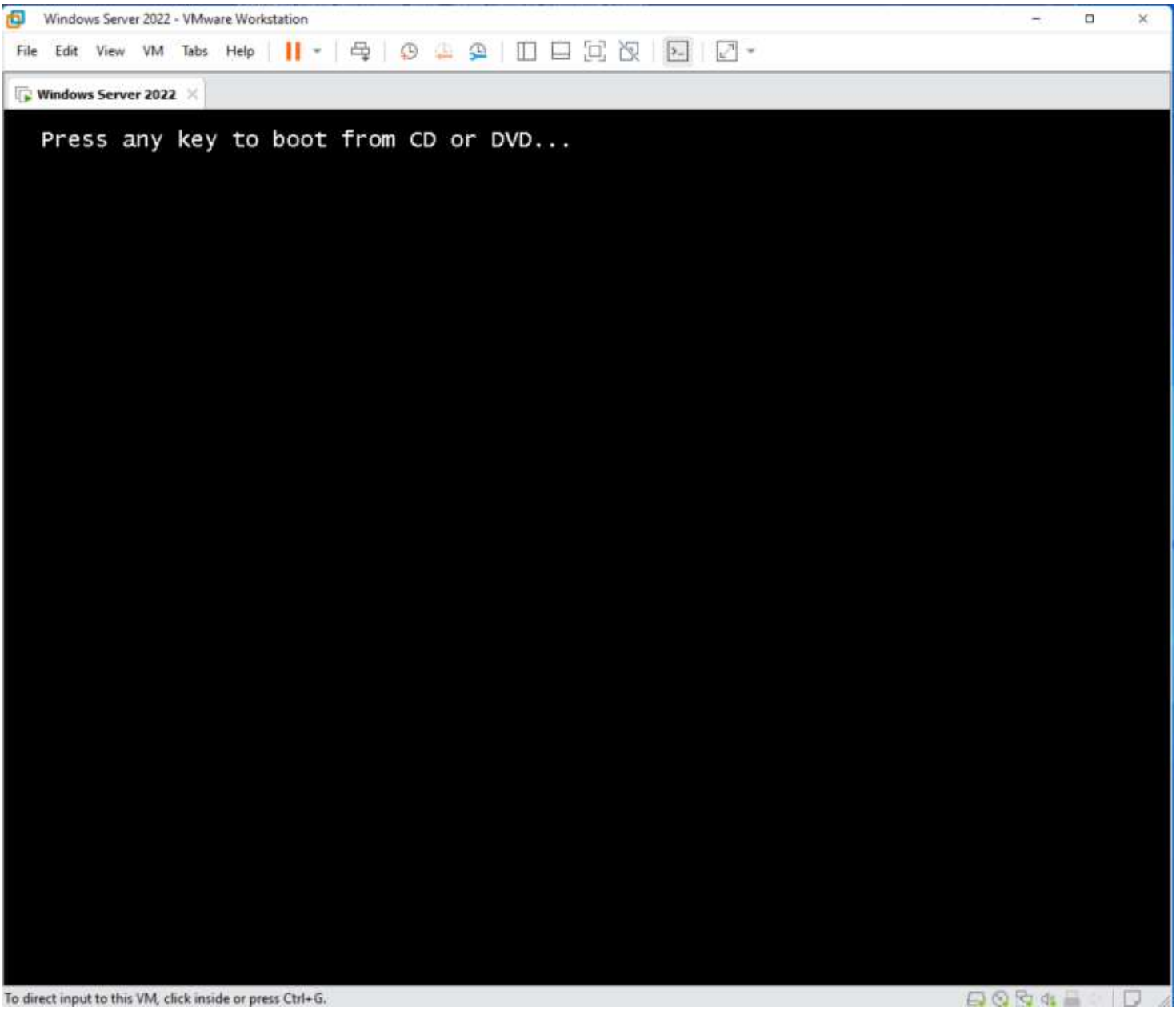
Click on Use ISO Image file and Click on Browse button to select the ISO

Click on OK button



Power ON the virtual Machine and

Press any key to Boot From CD Drive



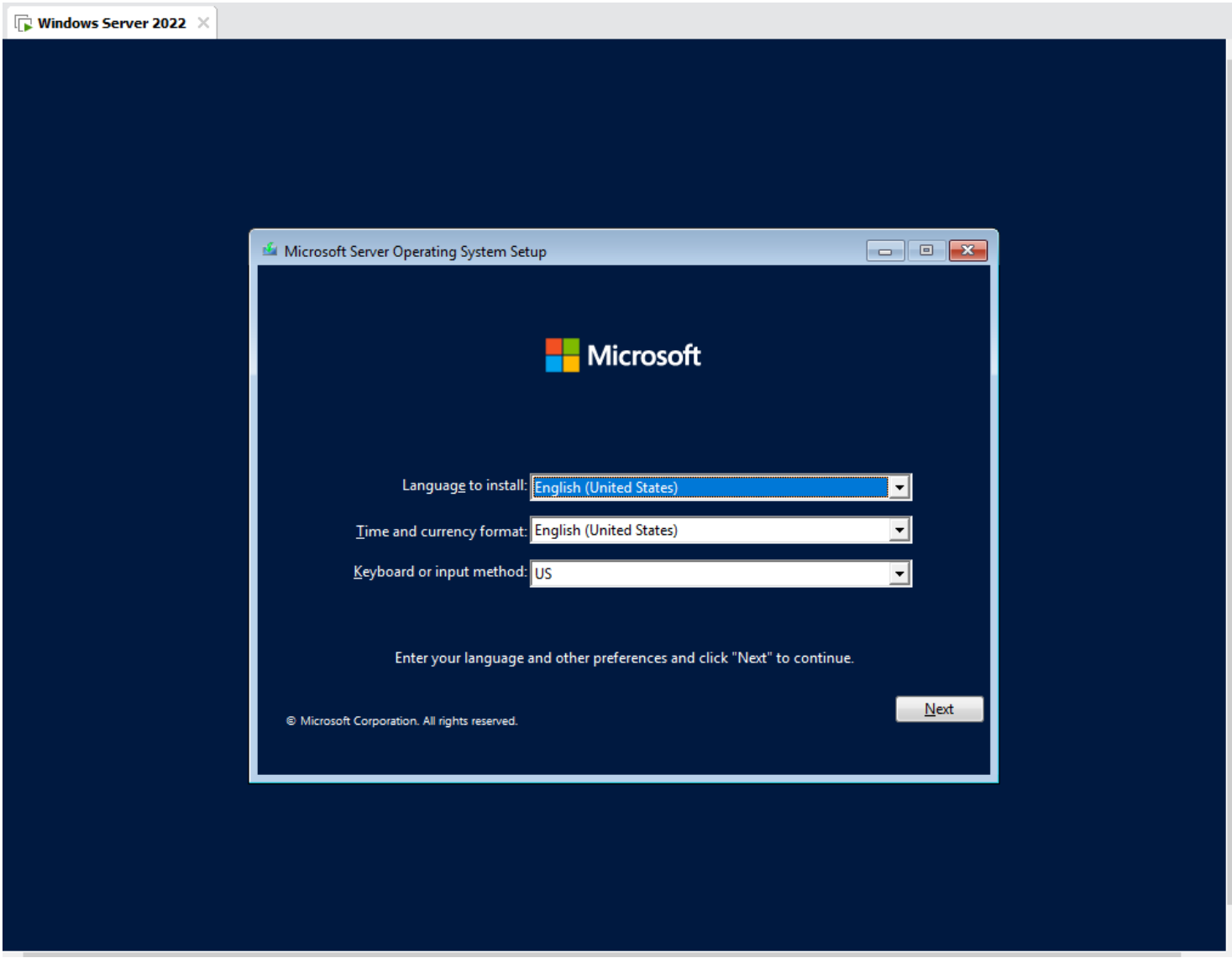
In Server Operating system Setup Wizard

Select the Installation Language

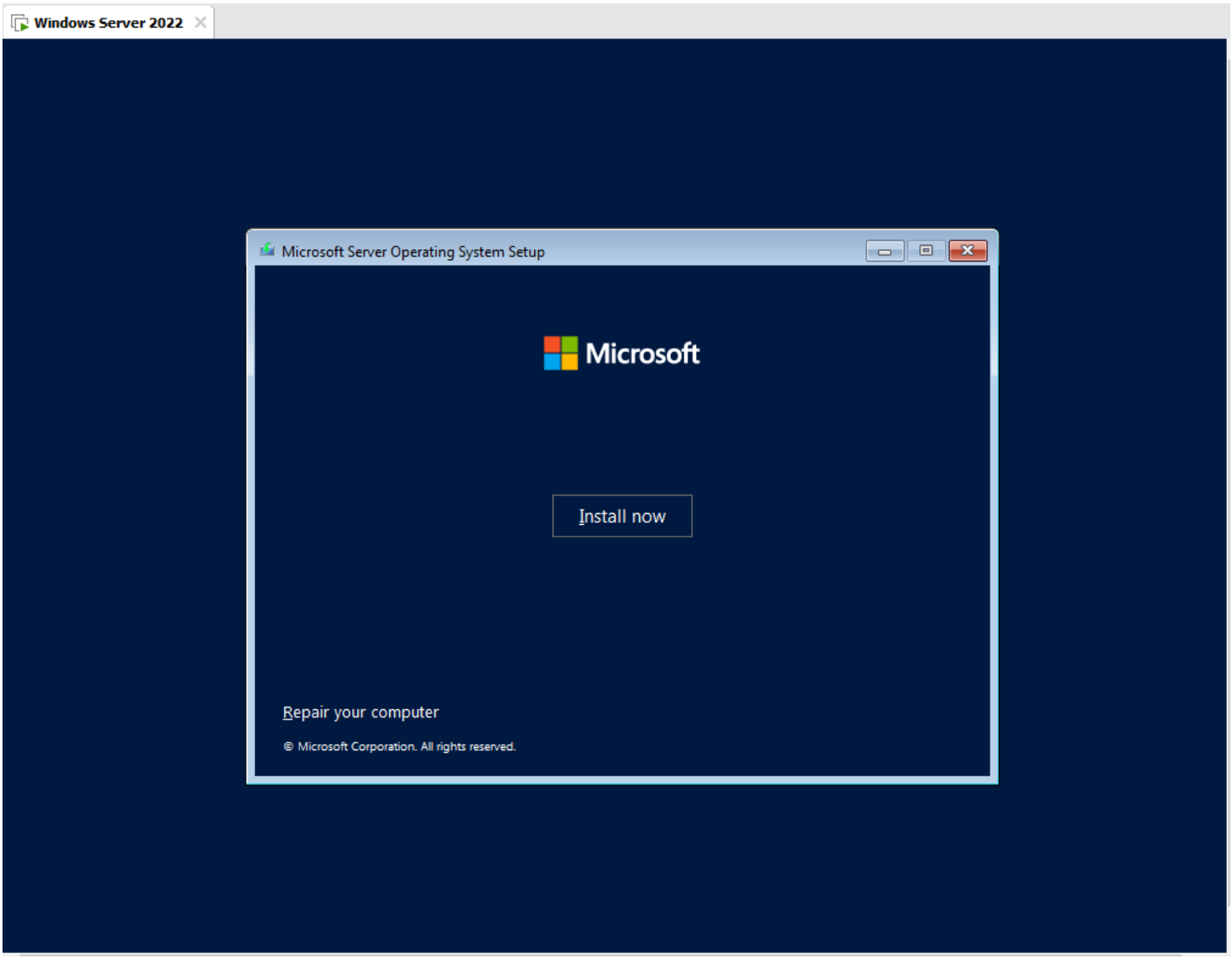
Time and currency format

And KeyBoard or input method

Click on Next

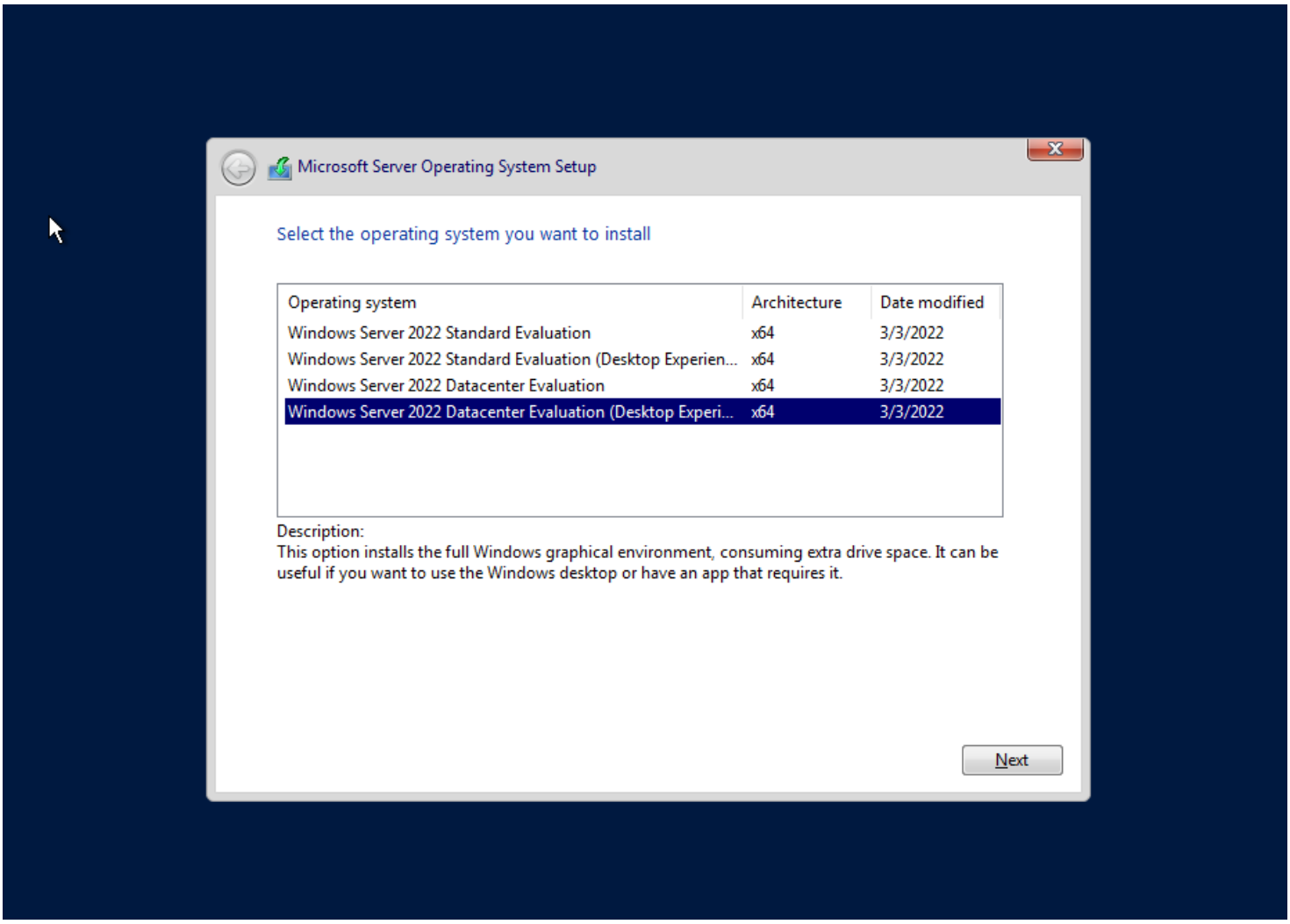


Click on install button



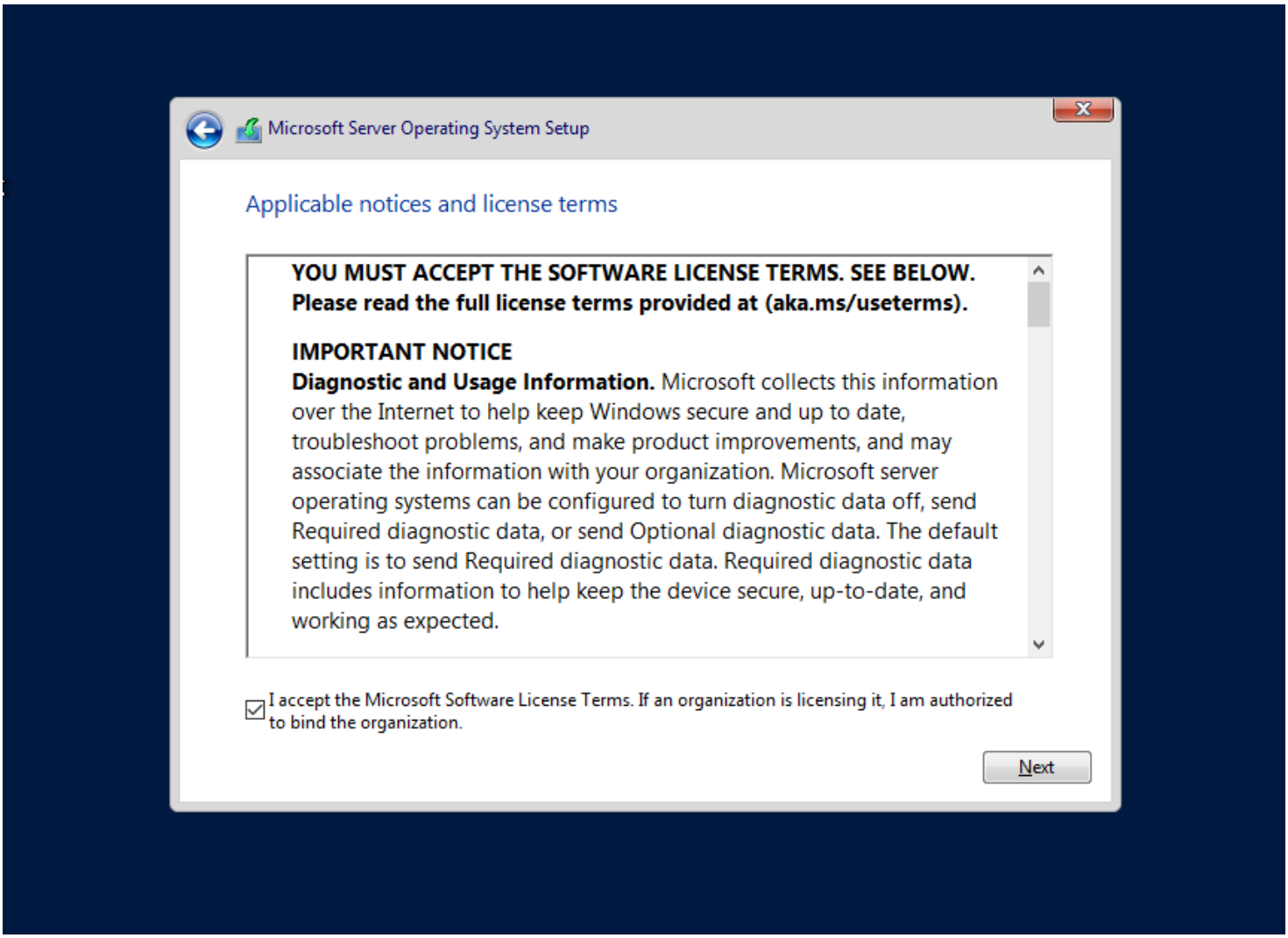
Select the operating system and architecture

Click on Next button

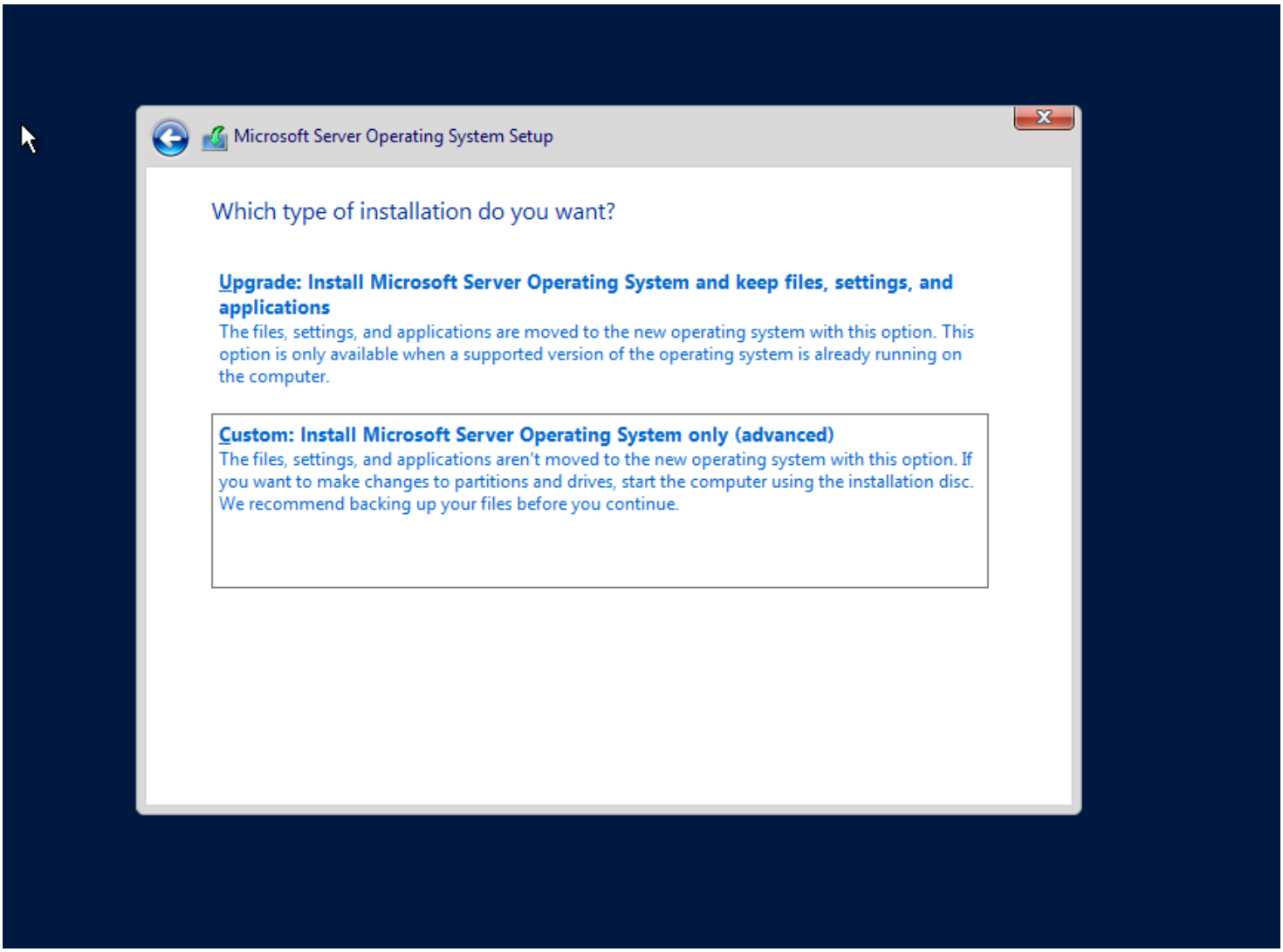


Accept the license agreement

Click on Next button

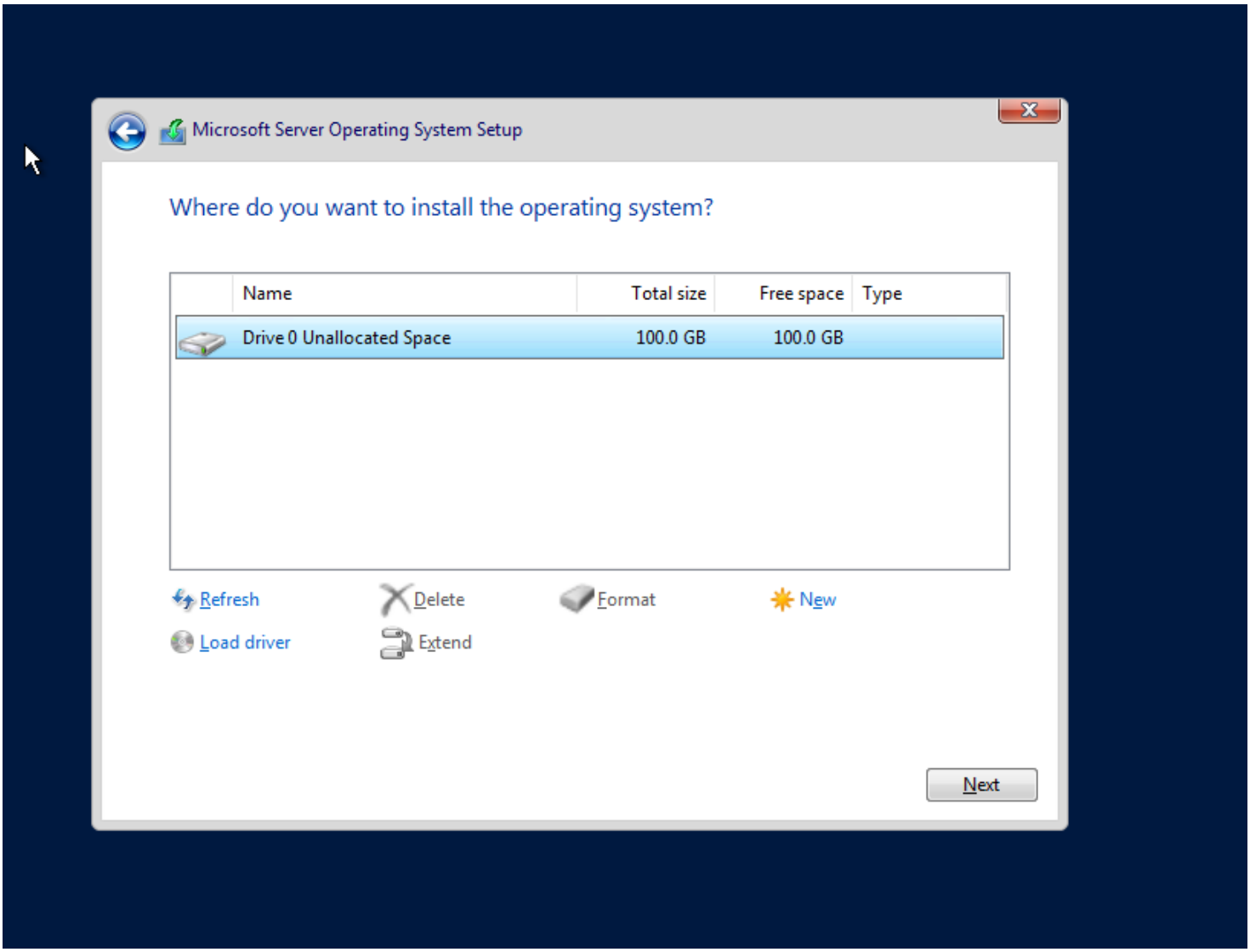


Select custom installation

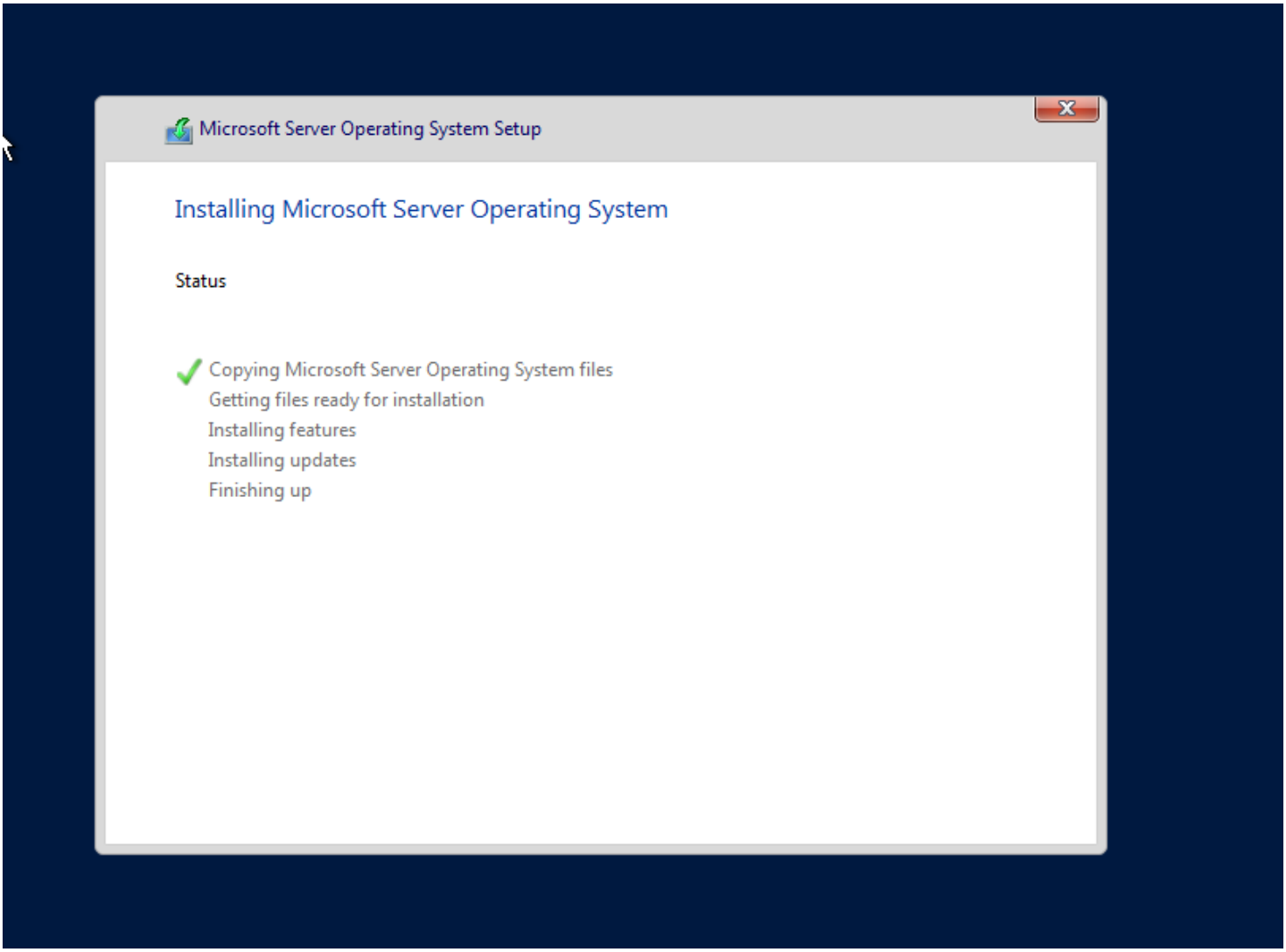


Select drive for installation

Click on Next button



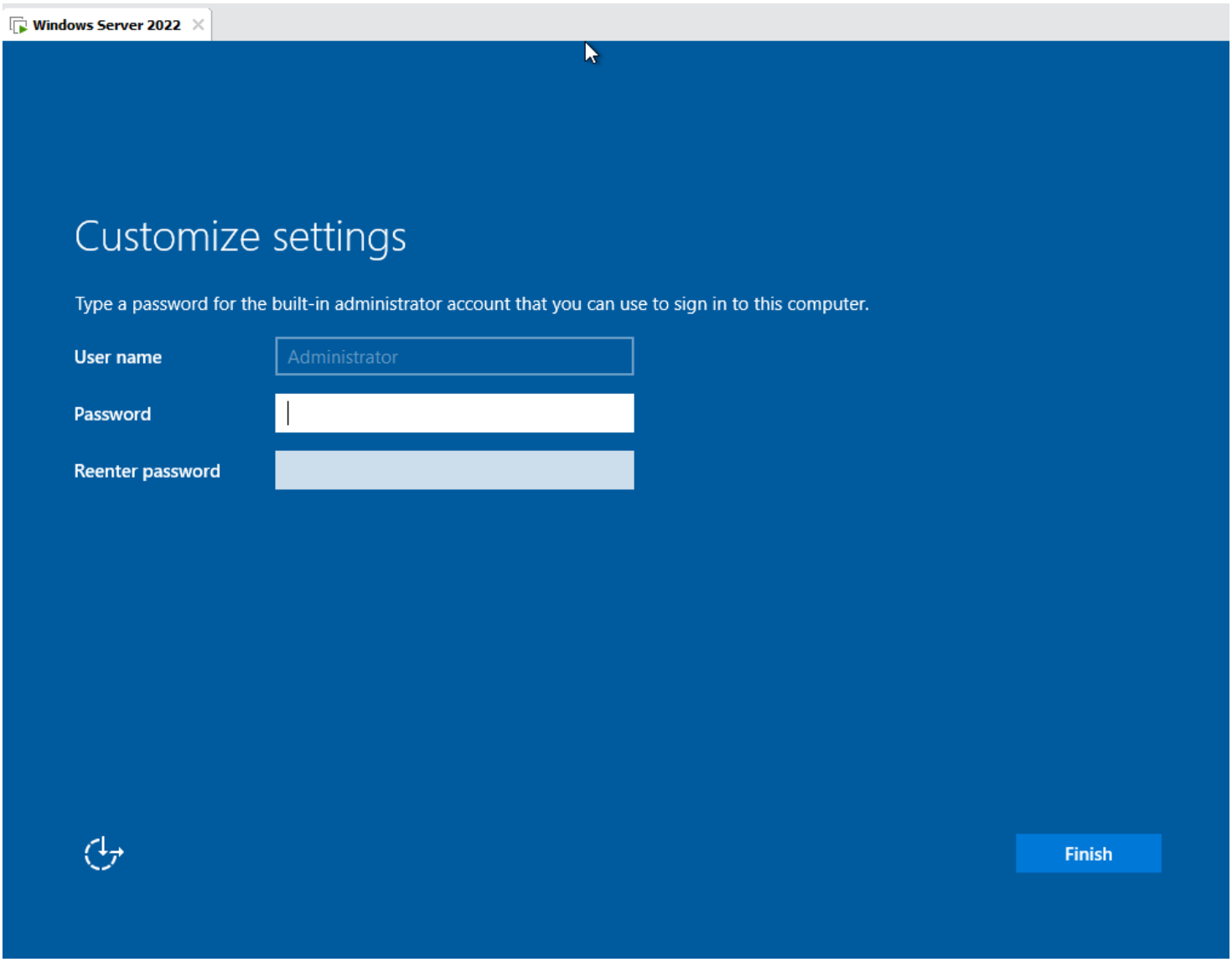
Installation of Operating system is started.



After the installation the setup is completed

Enter password for Administrator user

Now click on Finish button



DHCP:

DHCP Server Installation and Configuration :

Installing and configuring a DHCP (Dynamic Host Configuration Protocol) server on Windows Server 2022

Step 1: Install the DHCP Server Role

Click on the Start menu, search for Server Manager, and open it.

In Server Manager, click on Manage and then select Add Roles and Features.

Click Next on the Before You Begin page.

Select Role-based or feature-based installation and click Next.

Select the server you want to install the DHCP role on and click Next.

Select DHCP Server. A new window will pop up to add the required features. Click Add Features.

Click Next.

You can leave the default features selected. Click Next.

Review the information about DHCP Server and click Next.

Click Install to begin the installation. The installation process will take a few minutes.

Step 2: Post-Installation Configuration

Complete DHCP Configuration:

In Server Manager, click on the notification flag at the top right corner, which will indicate that there are post-deployment configuration steps required for the DHCP server.

Click Complete DHCP configuration.

Click Next to proceed with the configuration.

Authorize the DHCP server in Active Directory. Use the current credentials or specify an alternate set of credentials if necessary.

Click Commit to authorize the DHCP server.

Click Close when the configuration is complete.

In Server Manager, click on Tools and select DHCP from the drop-down menu.

This will open the DHCP Management Console.

In the DHCP Management Console, expand the server node.

Right-click on IPv4 (or IPv6 if you are configuring an IPv6 scope) and select New Scope.

Click Next on the Welcome page.

Enter a name and description for the scope (e.g., "lightwood-DHCP").

Click Next.

Enter the Start IP address and End IP address for the scope. This range will define the IP addresses that DHCP can assign to clients.

Enter the Subnet Mask (e.g., 255.255.255.0).

Click Next.

If there are any IP addresses within the range that should not be assigned by DHCP (e.g., for servers or network devices with static IPs), add them here.

Click Next.

Set the duration for how long a client can hold an IP address lease (e.g., 8 days).

Click Next.

Select Yes, I want to configure these options now to configure common DHCP options immediately.

Click Next.

Enter the IP address of the default gateway (e.g., the router's IP address).

Click Add and then click Next.

Enter the Parent domain name (e.g., lightwood.local) and the IP address of the DNS servers.

Click Add and then click Next.

Choose Yes, I want to activate this scope now to activate the scope immediately.

Click Next.

Click Finish to complete the New Scope Wizard.

:- DNS server installation and configuration

Installing and configuring a DNS server on Windows Server 2022

Step 1: Install the DNS Server Role

Click on the Start menu Server Manager, and open it.

In Server Manager, click on Manage and then select Add Roles and Features.

Click Next on the Before You Begin page.

Select Role-based or feature-based installation and click Next.

Select the server you want to install the DNS role on and click Next.

Select DNS Server. A new window will pop up to add the required features. Click Add Features.

Click Next.

You can leave the default features selected. Click Next.

Review the information about DNS Server and click Next.

Click Install to begin the installation. The installation process will take a few minutes.

Once the installation is complete, click Close.

Step 2: Post-Installation Configuration

In Server Manager, click on Tools and select DNS from the drop-down menu.

This will open the DNS Manager console.

If the DNS Manager does not automatically connect to the local server, right-click on DNS in the left pane and select Connect to DNS Server.

Choose This computer if you are configuring the local server. Click OK.

Create a New Forward Lookup Zone:

In the DNS Manager, expand the server node.

Right-click on Forward Lookup Zones and select New Zone.

The New Zone Wizard will open. Click Next.

Select Primary zone (this is the default) and click Next.

Ensure Store the zone in Active Directory is selected if your server is a domain controller. Click Next.

Choose the appropriate replication scope for your environment (e.g., To all DNS servers running on domain controllers in this domain). Click Next.

Enter the name of the zone (e.g., lightwoodZone) and click Next.

Choose the appropriate dynamic update option.

Click Next.

Review your settings and click Finish.

Create a New Reverse Lookup Zone:

In the DNS Manager, right-click on Reverse Lookup Zones and select New Zone.

The New Zone Wizard will open. Click Next.

Select Primary zone (this is the default) and click Next.

Ensure Store the zone in Active Directory is selected if your server is a domain controller. Click Next.

Exchange server 2019 installation and configuration

Ensure the server is a member of the domain where you want to install Exchange Server.

Install Roles and Features:

Open PowerShell as an administrator and run the following commands to install the necessary Windows features:

" Install-WindowsFeature -Name AD-Domain-Services, RSAT-ADDS, Web-Server, Web-Metabase, Web-Lgcy-Mgmt-Console, Web-ISAPI-Filter, Web-ISAPI-Ext, Web-WMI, Web-Basic-Auth, Web-Digest-Auth, Web-Windows-Auth, Web-Dyn-Compression, Web-Net-Ext45, Web-Asp-Net45, Web-Client-Auth, Web-Http-Logging, Web-Http-Tracing, Web-Request-Monitor, Web-Stat-Compression, Web-Filtering, Web-Mgmt-Service, Web-Mgmt-Console, Net-Framework-45-Core, RSAT-Web-Server, WCF-HTTP-Activation, Windows-Identity-Foundation "

Download and install the Unified Communications Managed API 4.0 Runtime from the Microsoft website.

Download and install the Microsoft Visual C++ 2013 Redistributable Package

Run Setup.exe from the Exchange installation media.

Click Next on the Introduction page.

Accept the license agreement and click Next.

Choose whether to use recommended settings and click Next.

Select Mailbox role (the Management Tools will be selected automatically) and click Next.

Choose the installation location. The default is usually fine. Click Next.

Choose whether to enable or disable malware protection. Click Next.

The setup will perform readiness checks. Address any issues that arise before proceeding.

Click Install to begin the installation. This process may take some time.

Open Exchange Admin Center (EAC):

Open a web browser and navigate to the EAC using the following URL:

https://localhost/ecp

Log in with an administrative account.

In the EAC, navigate to Servers > Virtual Directories.

Configure the virtual directories for OWA, ECP, and other services as needed.

In the EAC, navigate to Mail Flow > Send Connectors.

Create a new send connector for outbound mail flow

In the EAC, navigate to Mail Flow > Receive Connectors.

Configure the receive connectors as needed to control how incoming mail is handled.

Send and receive test emails internally and externally to ensure mail flow is working correctly.

Verify that clients can connect to Exchange using Outlook, OWA, and mobile devices.

Check the Event Viewer for any errors or warnings related to Exchange.