Active Directory (AD) is Microsoft's directory service for managing users, computers, and network resources in Windows Server environments. Hyper-V, Microsoft's virtualization technology, lets you run virtual instances of Windows Server, including Active Directory Domain Controllers (DCs).

With Windows Server 2025, AD comes with enhanced security, automation, and improved cloud integration, making it even more efficient for hybrid setups. Running AD on Hyper-V offers IT administrators greater flexibility, easier management, and better disaster recovery options.
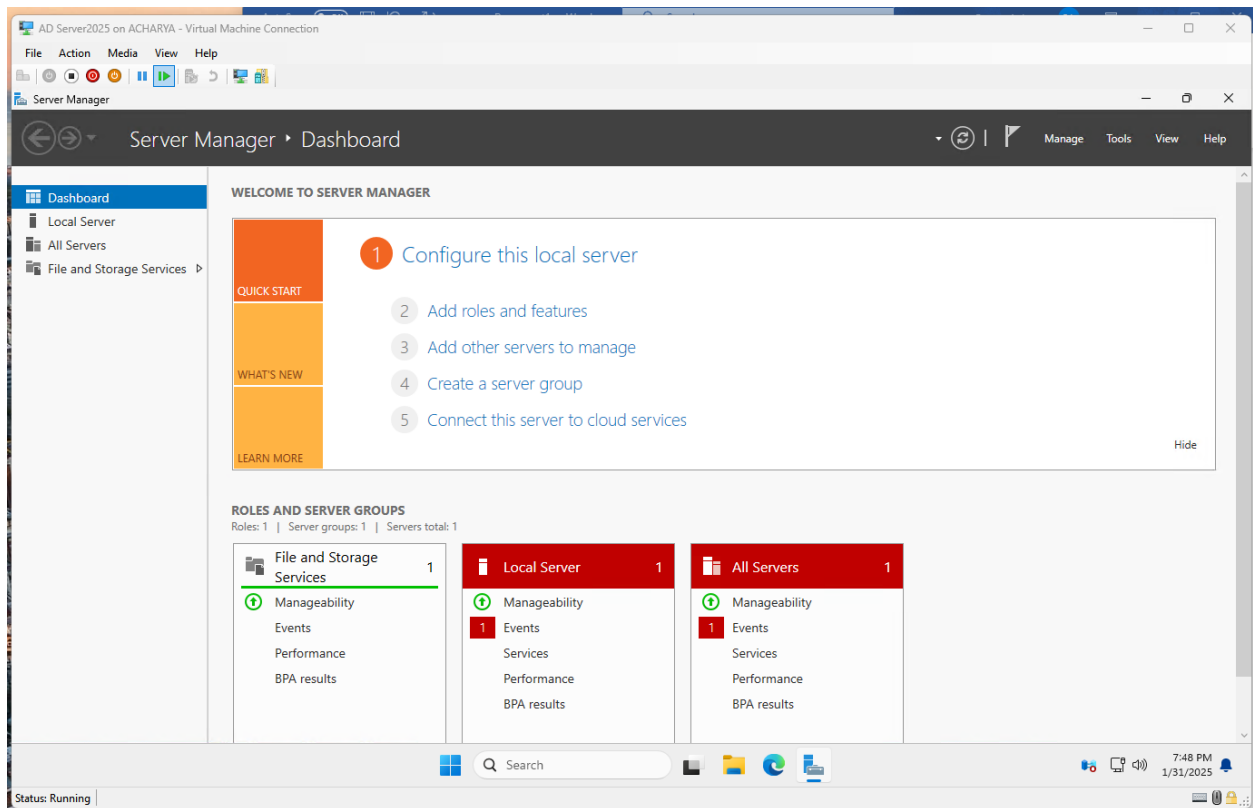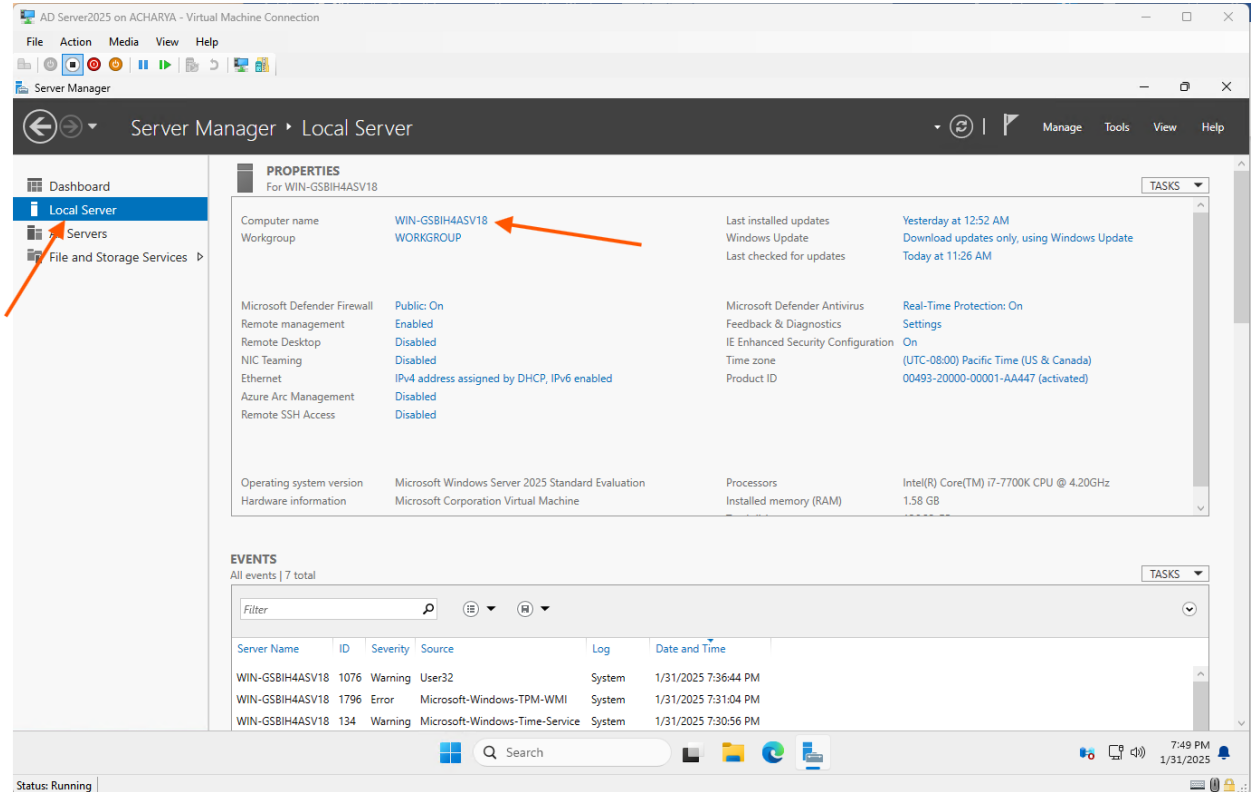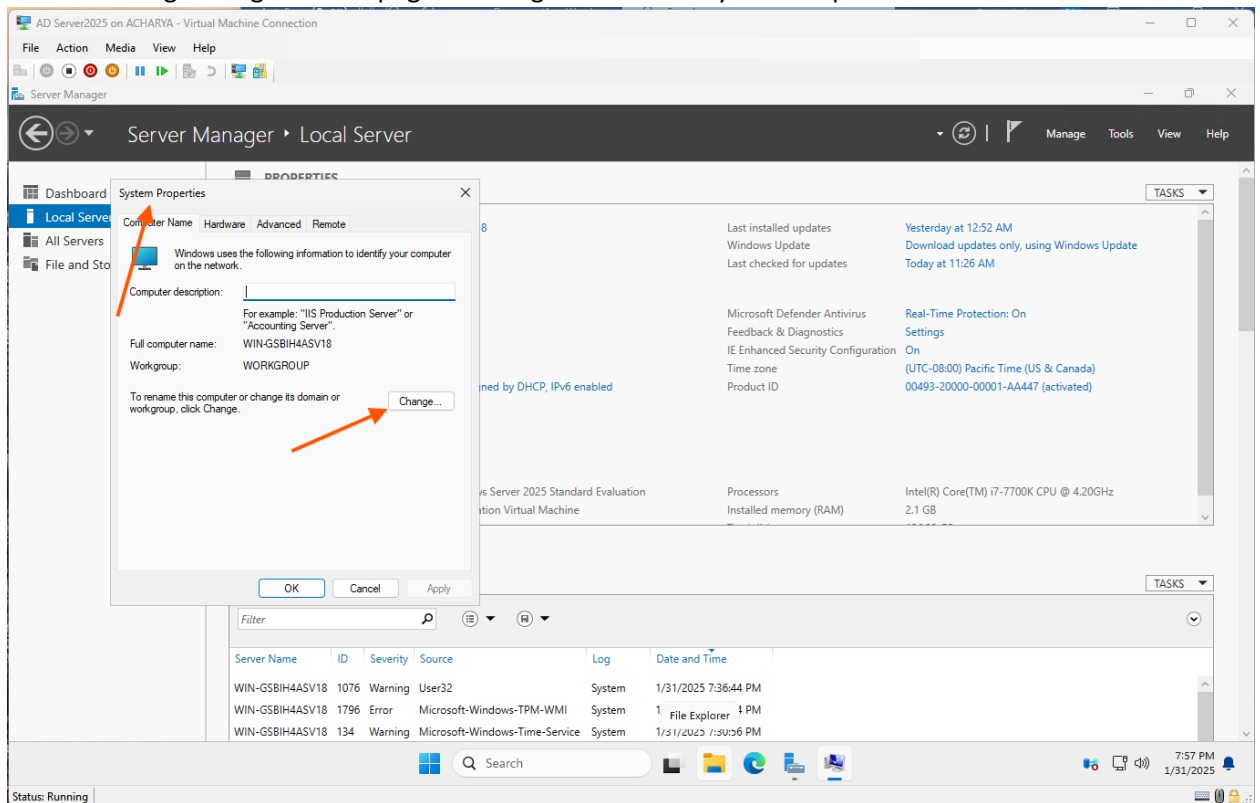
Steps:

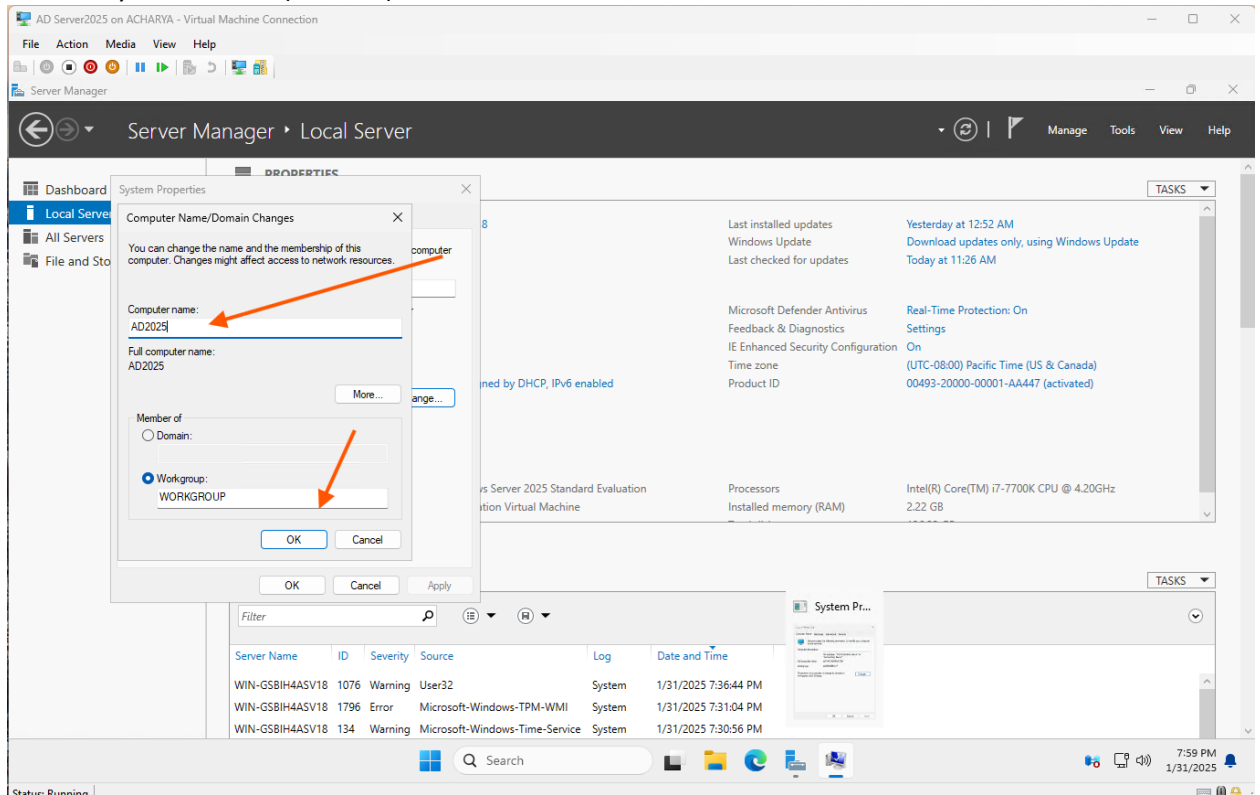## A. Renaming

1. Power on the Server
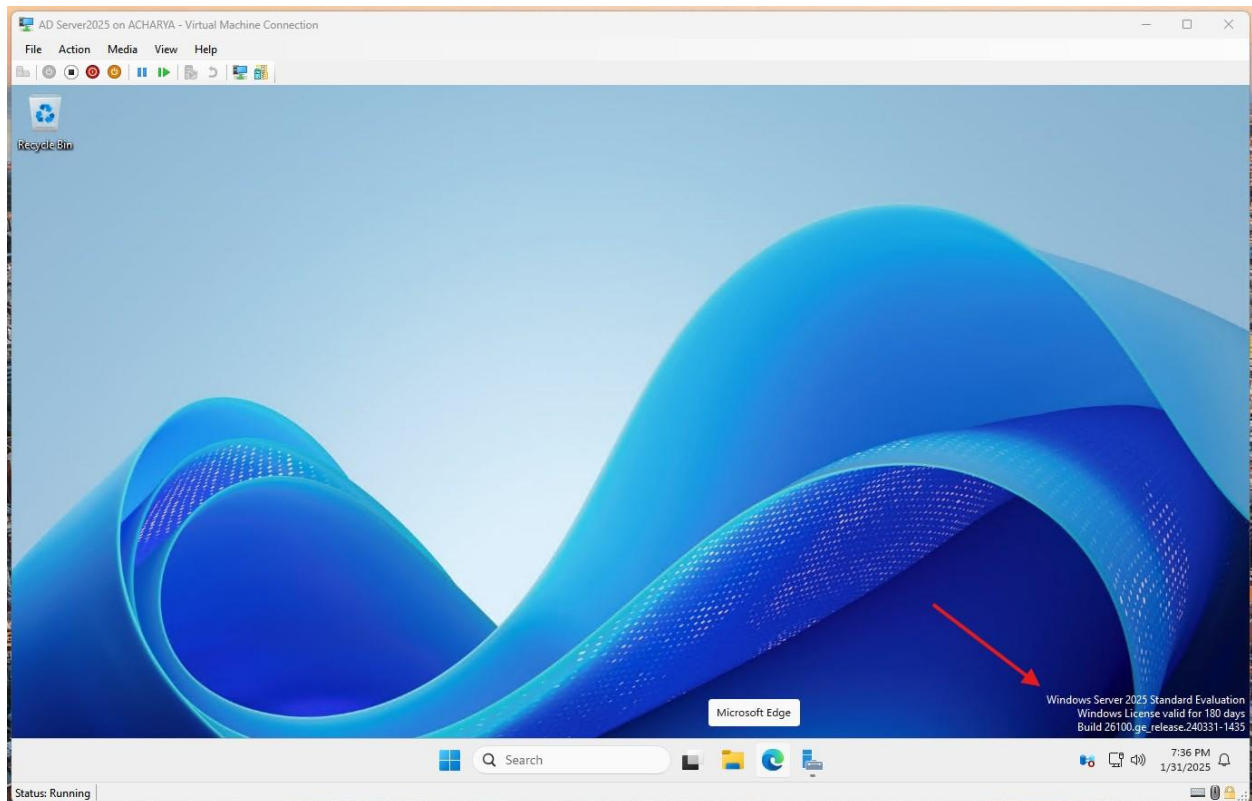
2. Run Server manager

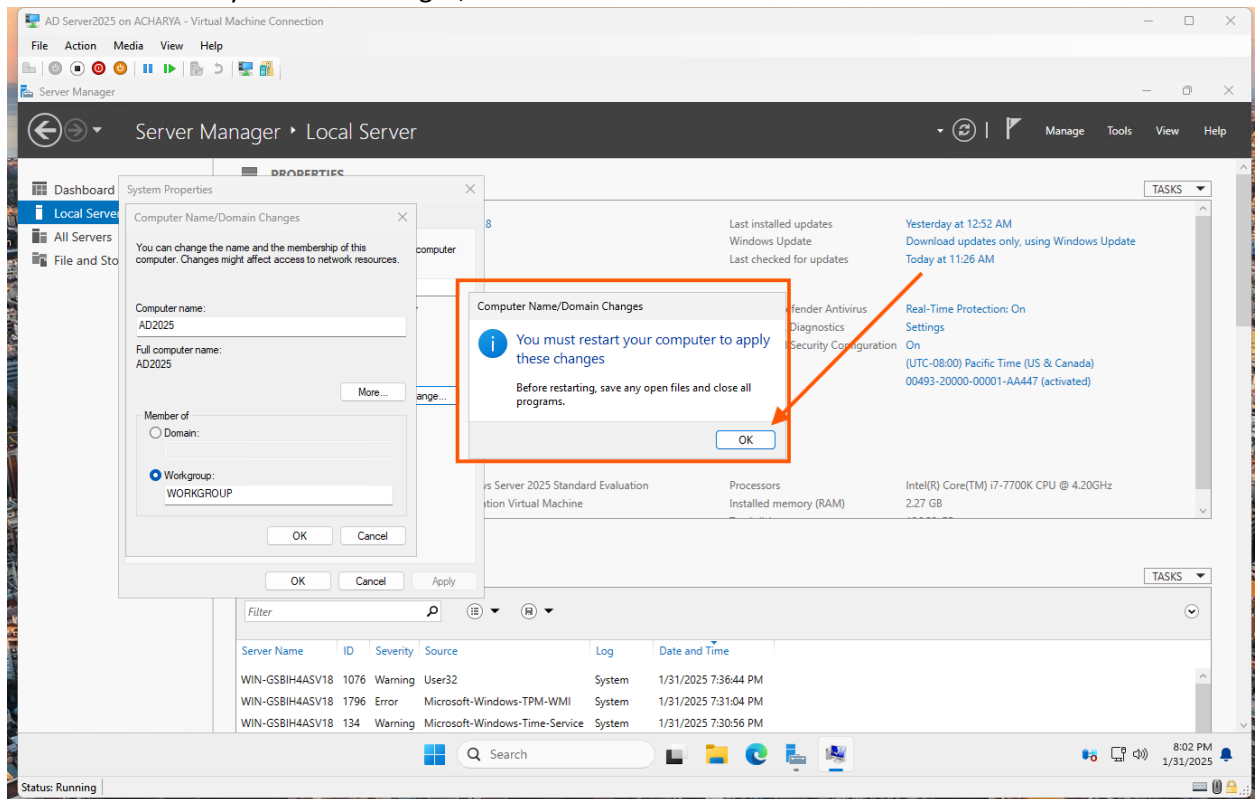3. Go to Local server and change Computer name as required

4. Click on change and go to next page to change the name of your Computer
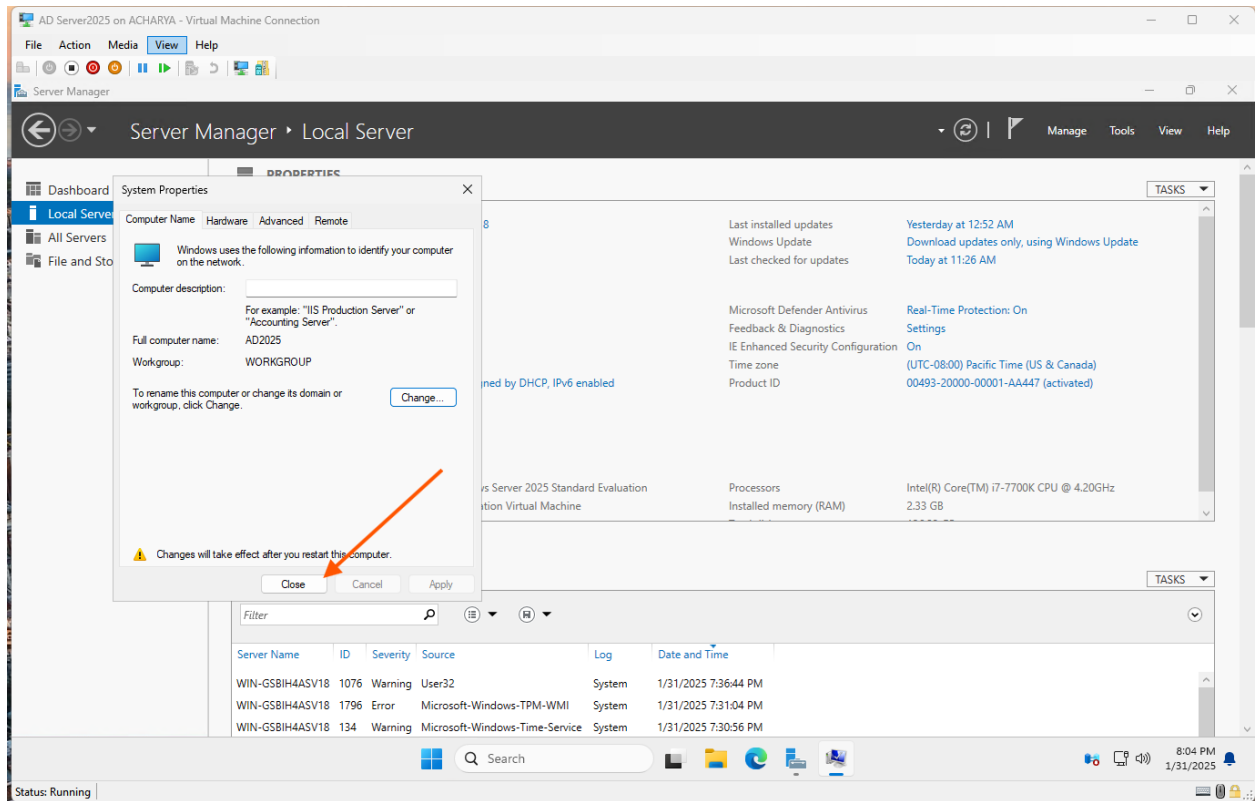

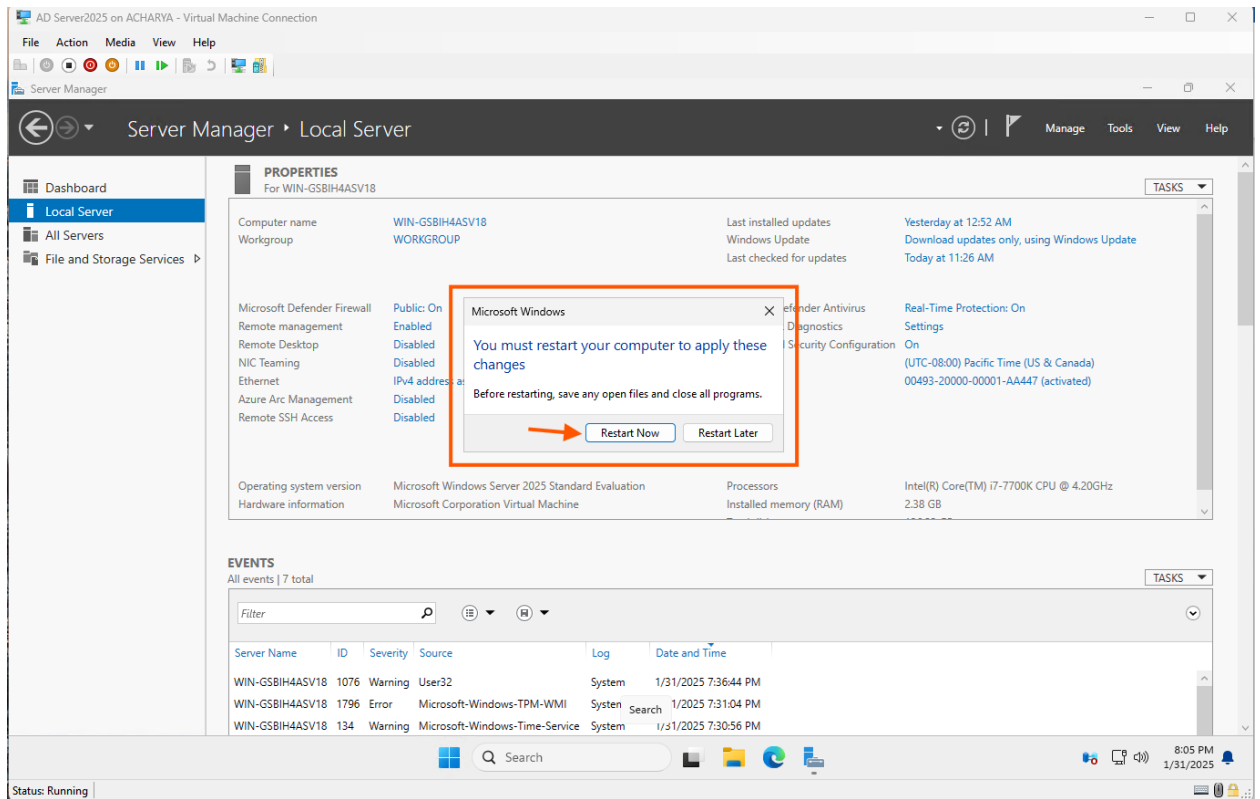5. Name as you want like (*AD2025*)

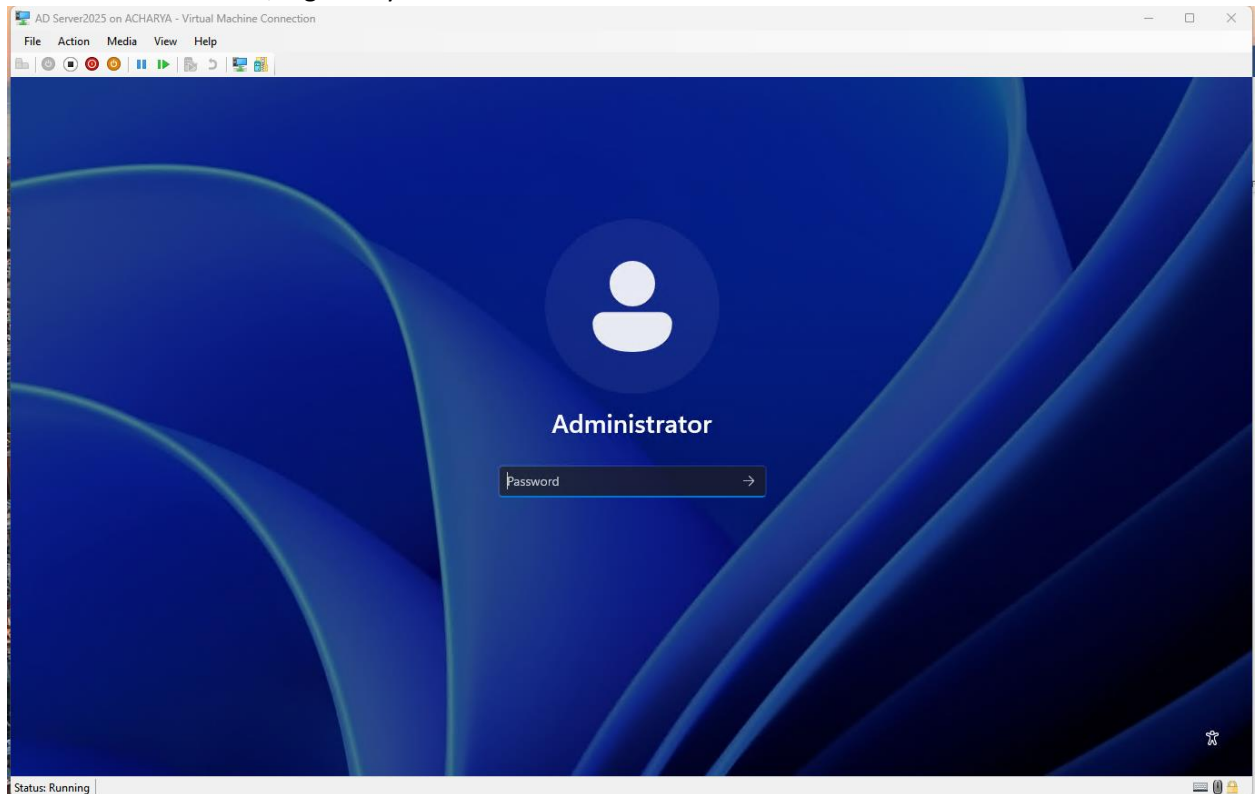6. Restart is necessary for these changes, so click ok
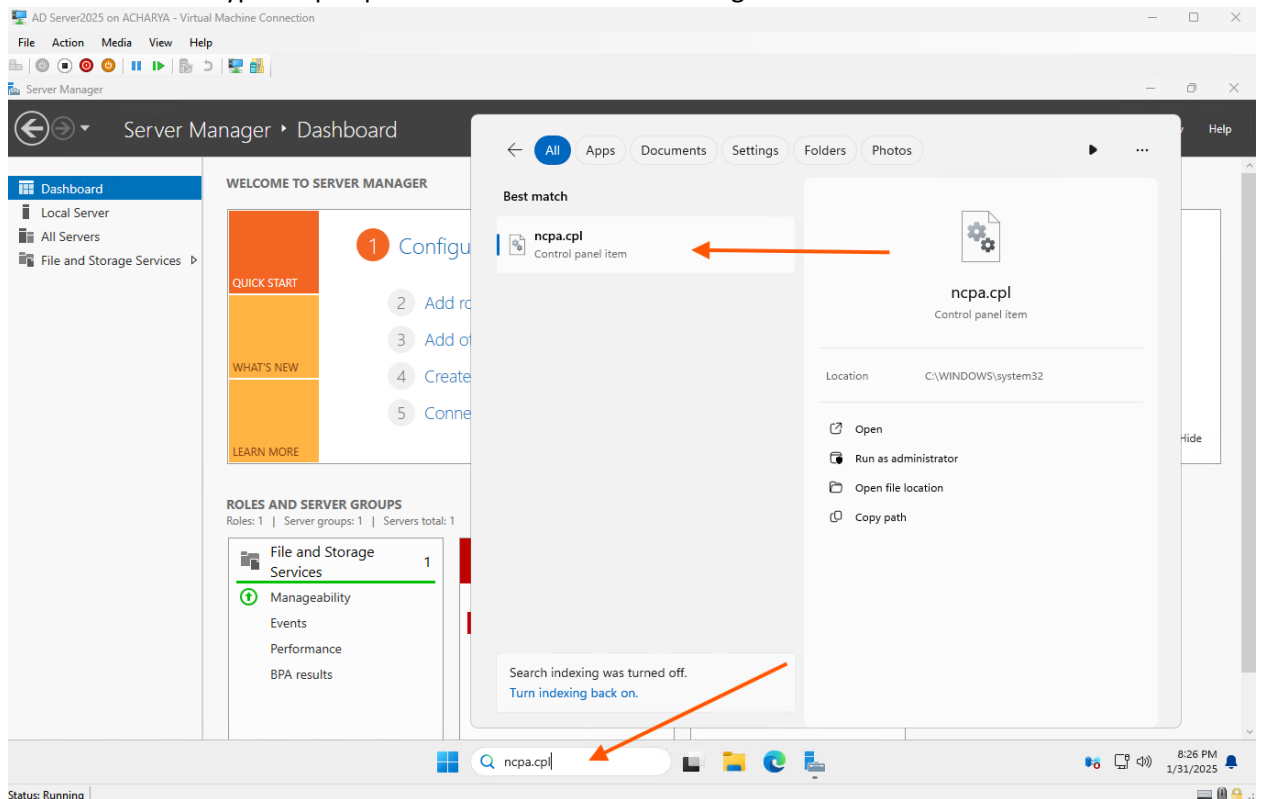

7. And Close

8. Click Re-start now

9. Machine is Re-started, log in to your AD server

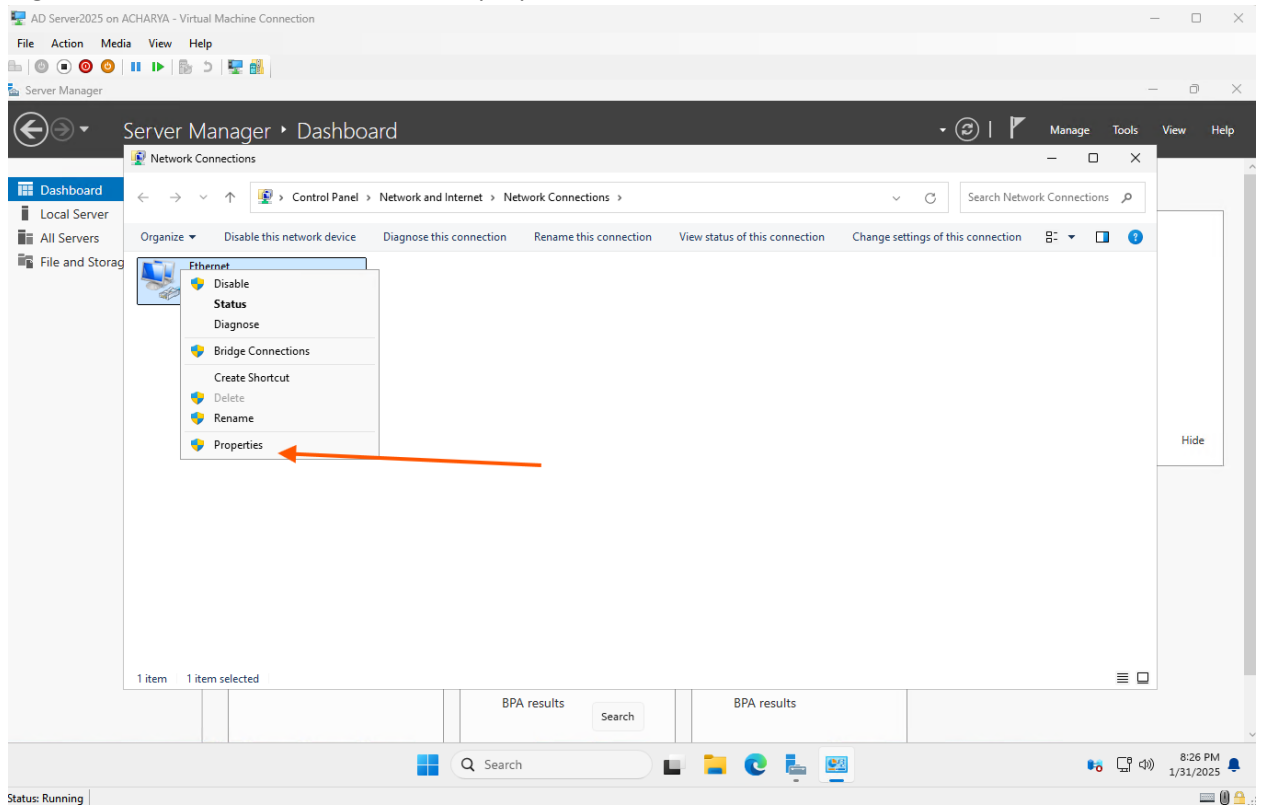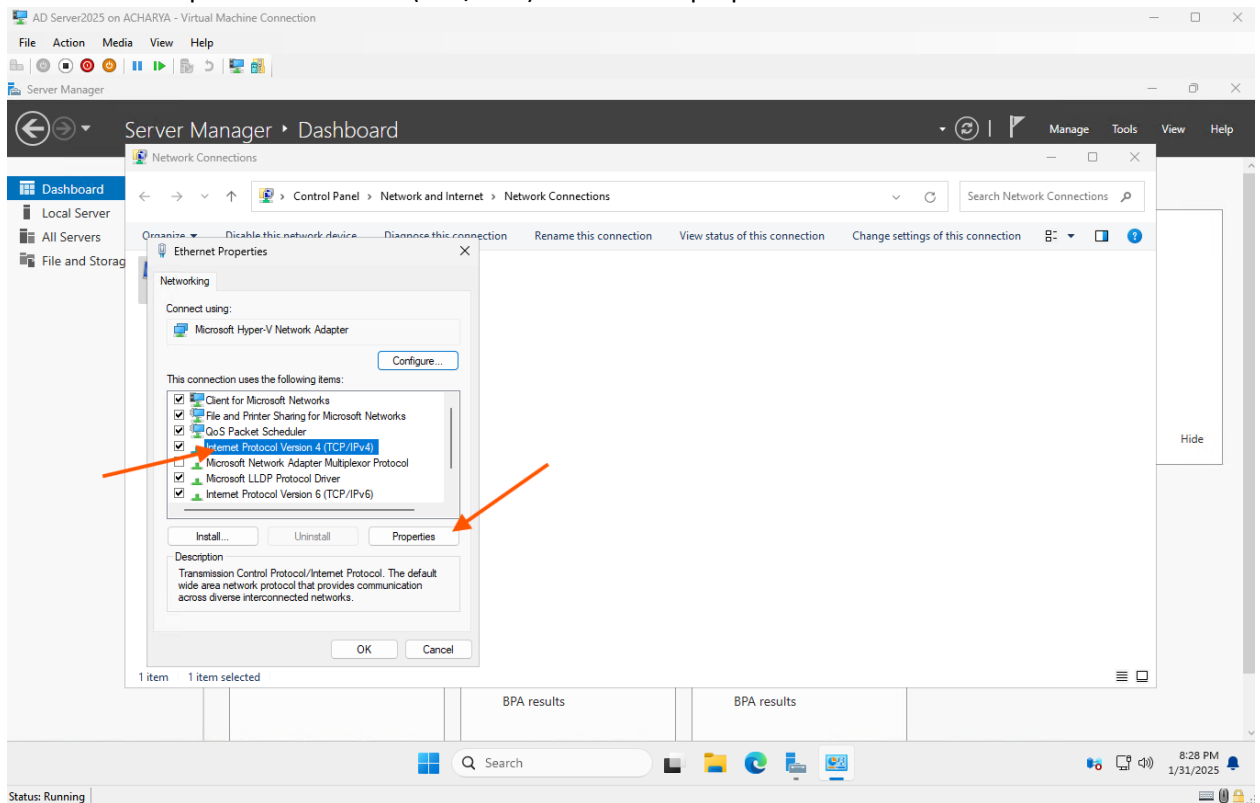## B. Connectivity, static IP address for Active Directory Server

1. In the search bar type "ncpa.cpl" this takes to network setting

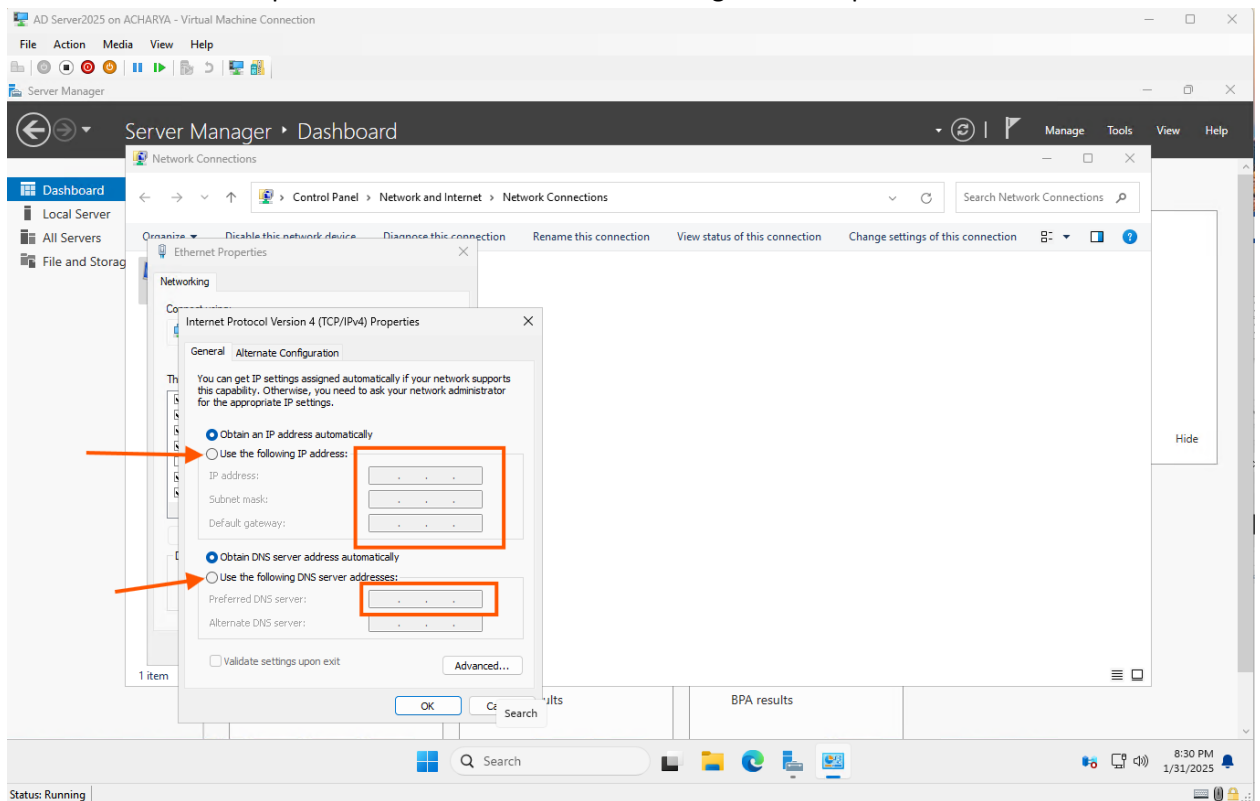2. Right click on Ethernet network and on properties

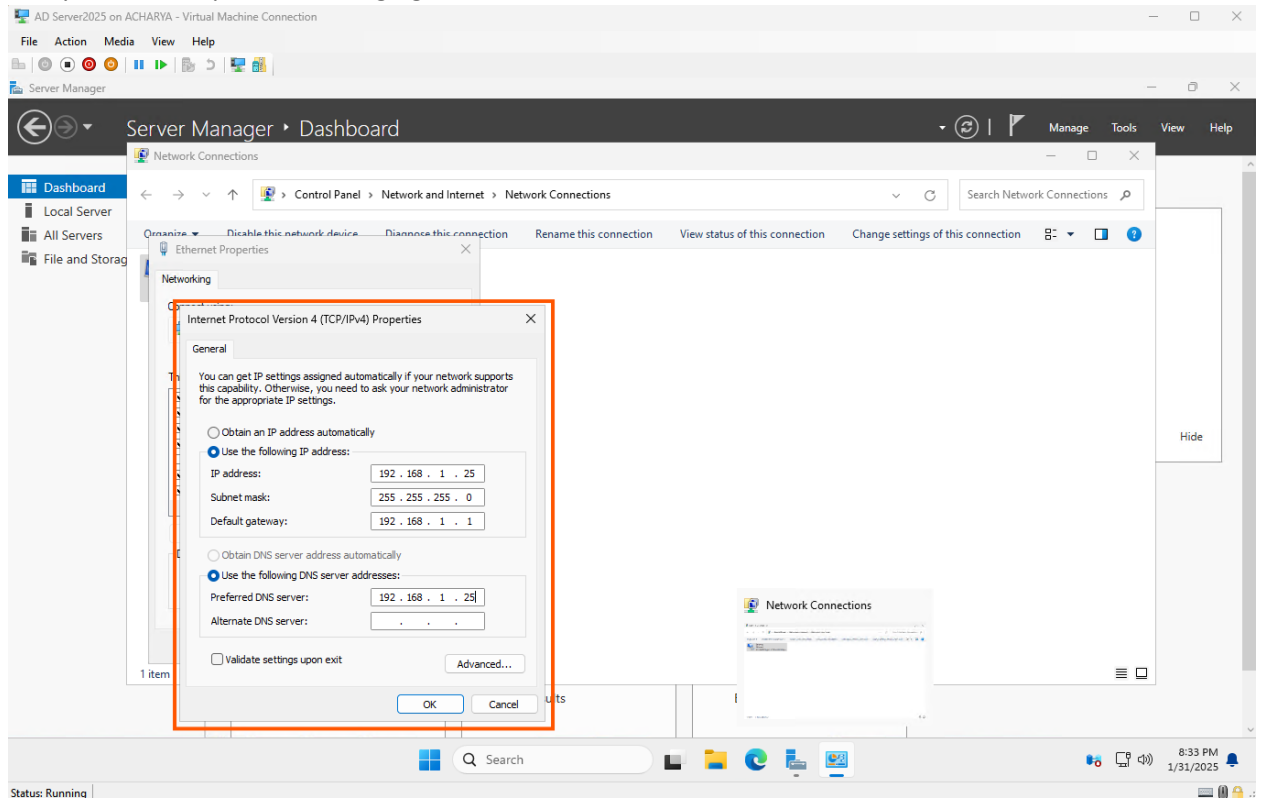3. Select internet protocol version 4 (TCP/IPv4) and click on properties

4. Provide the static IP address according to your network, subnet mask and default gateway.

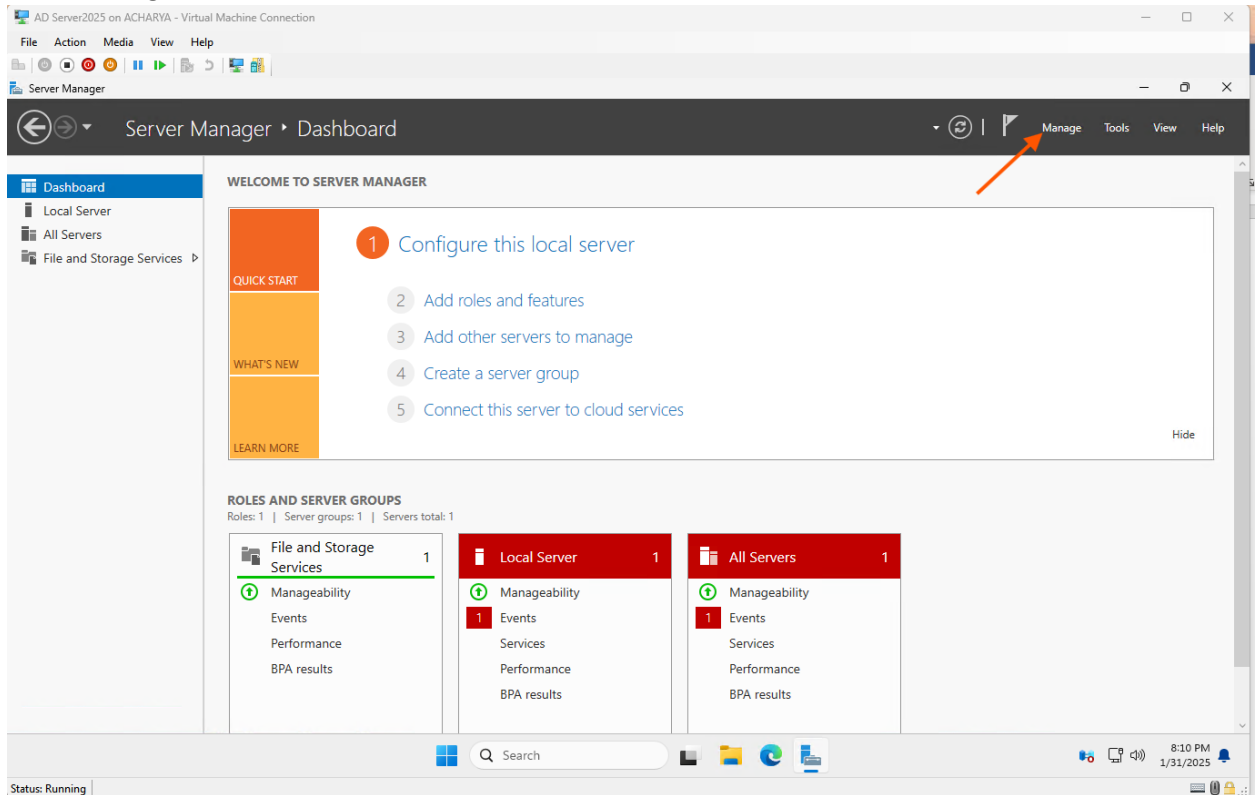Make sure **DO NOT** provide the IP address within the range of DHCP pool.

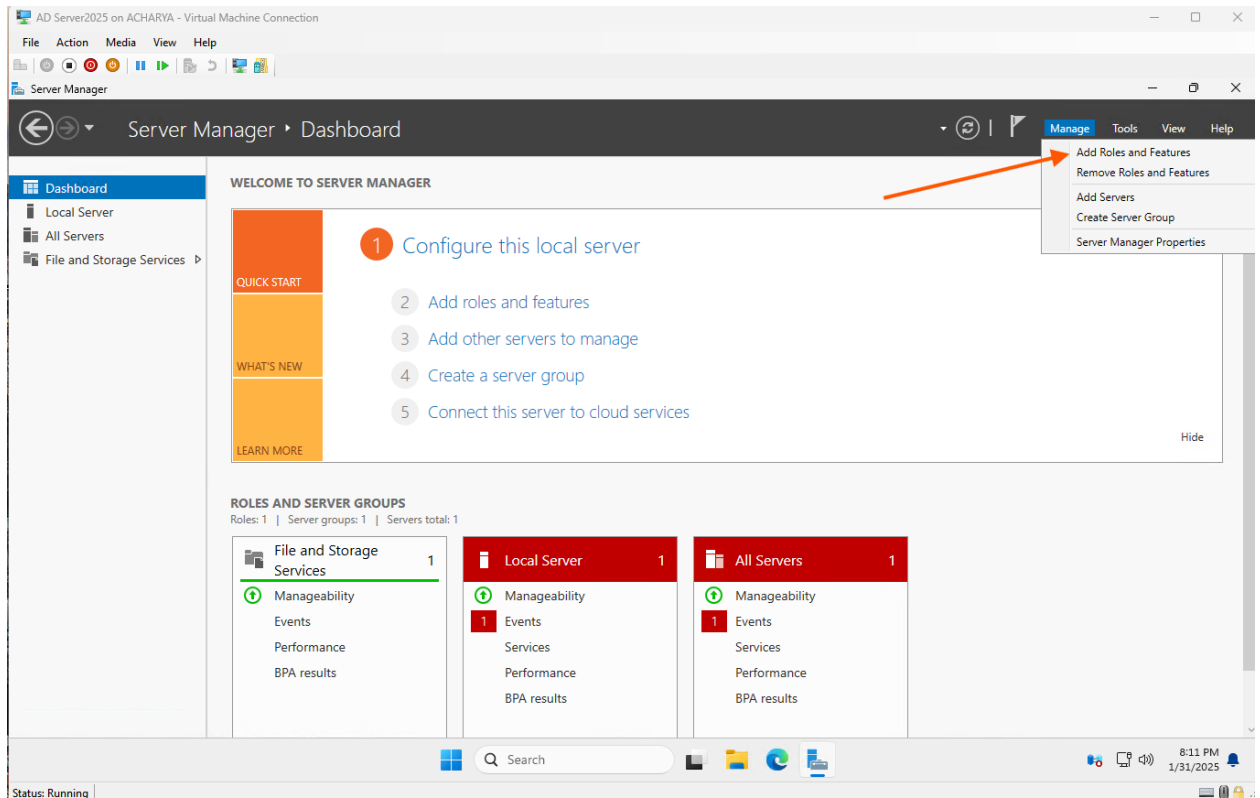5. In my case, example in the image given below. Click ok and close the wizard
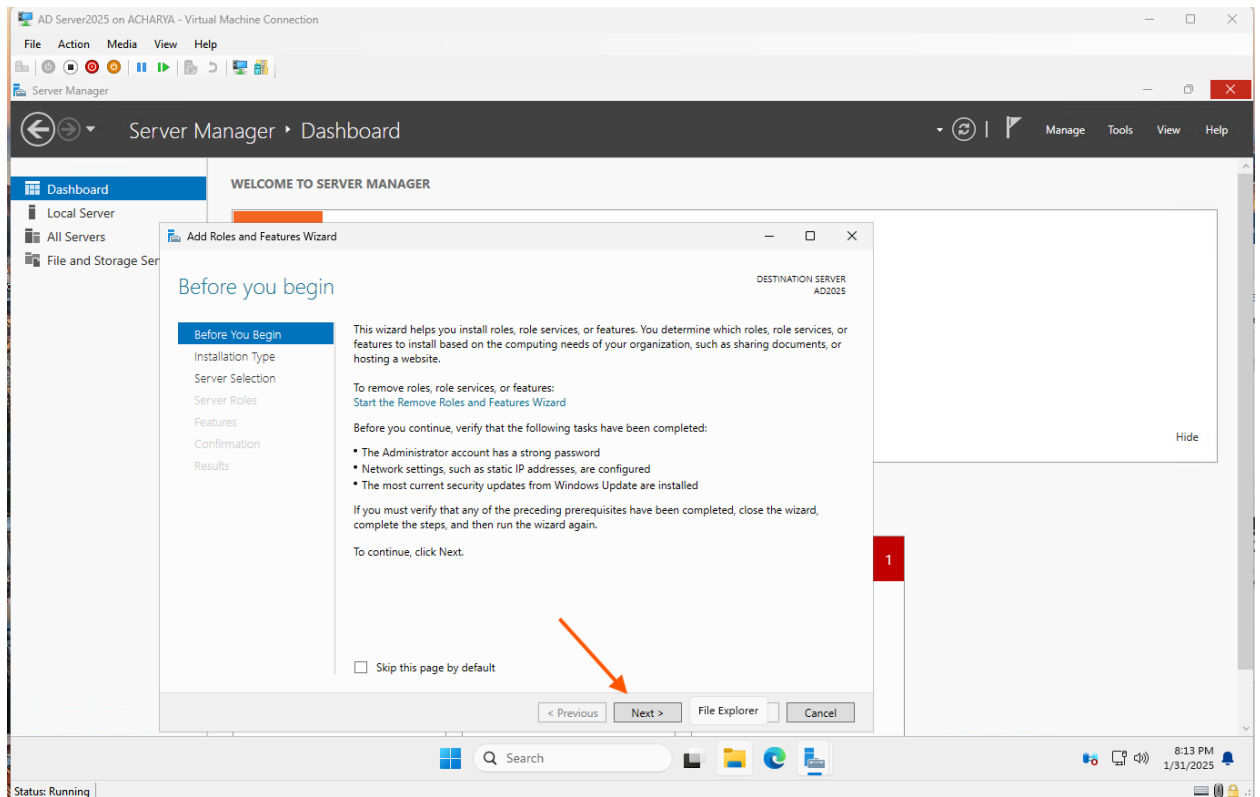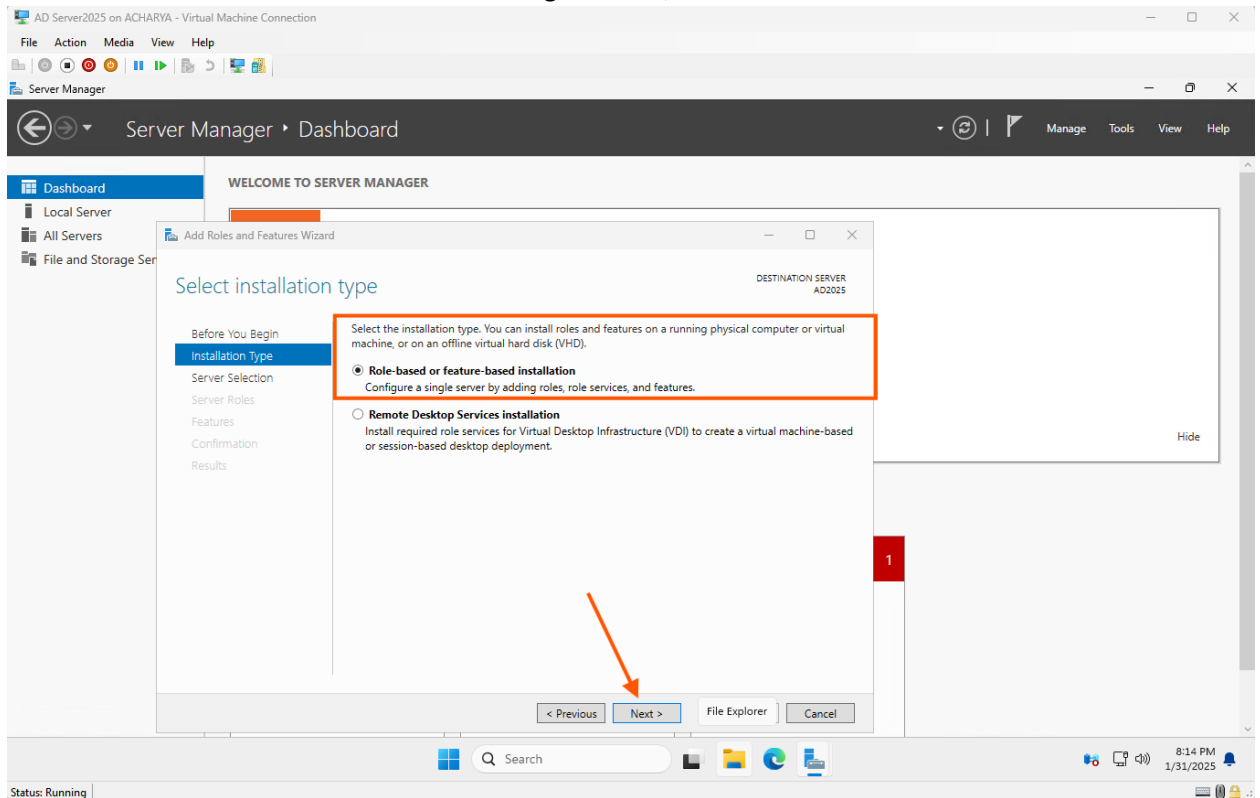

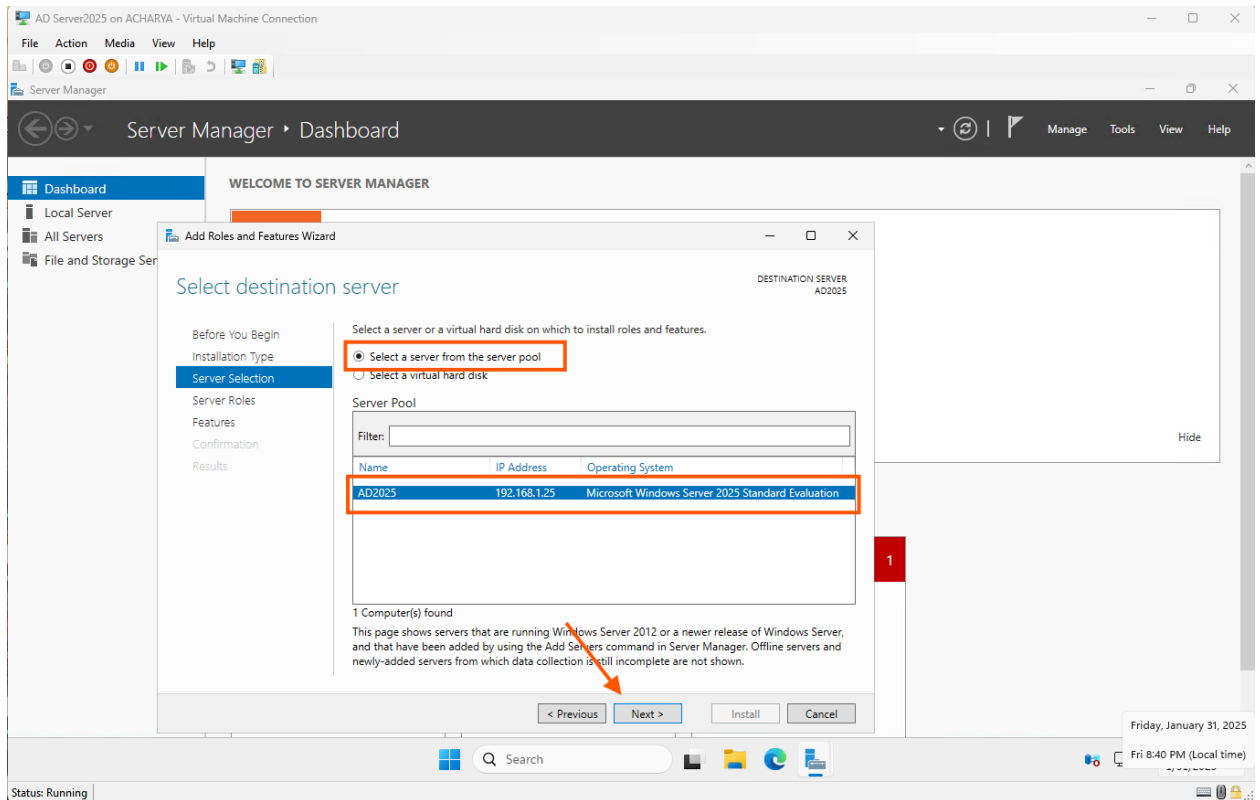C. **Active Directory Setup**
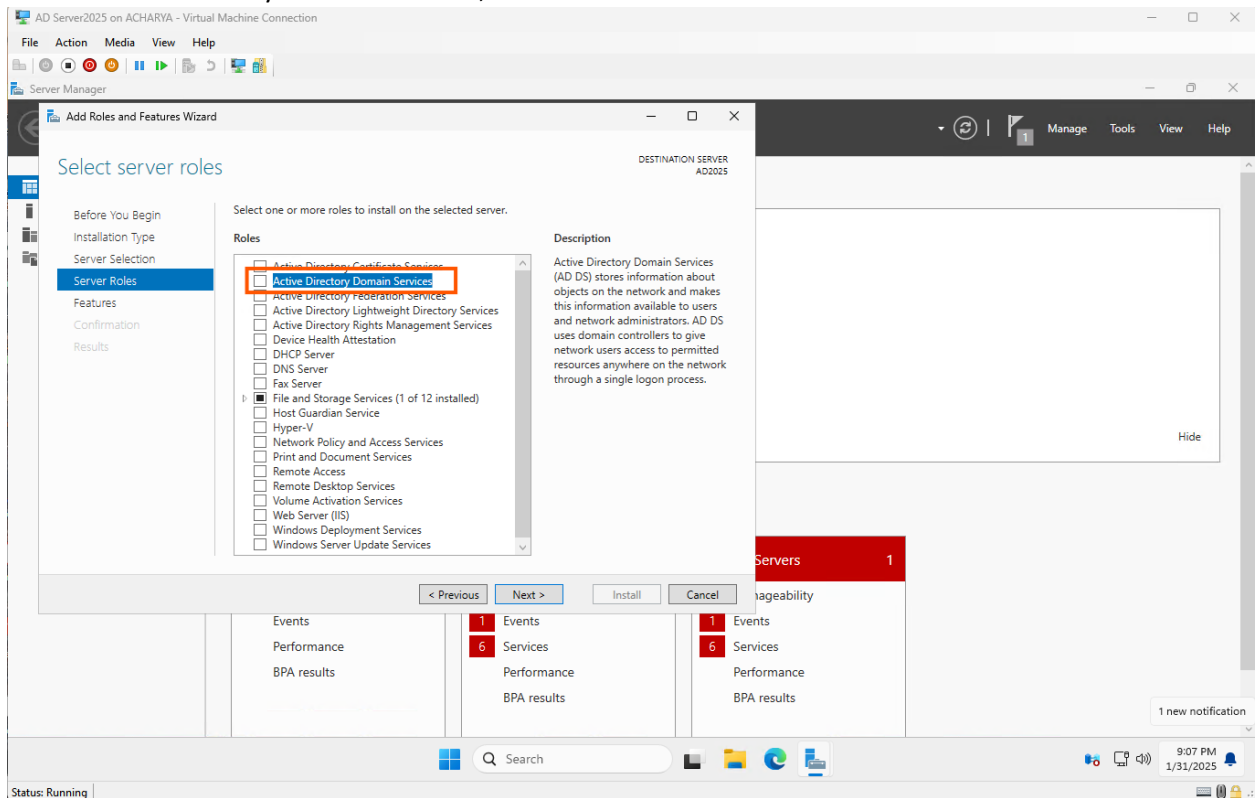
1. Go to manage

2. Add Role and features

3. Next

4. Role-based or feature-based installation being selected, click next
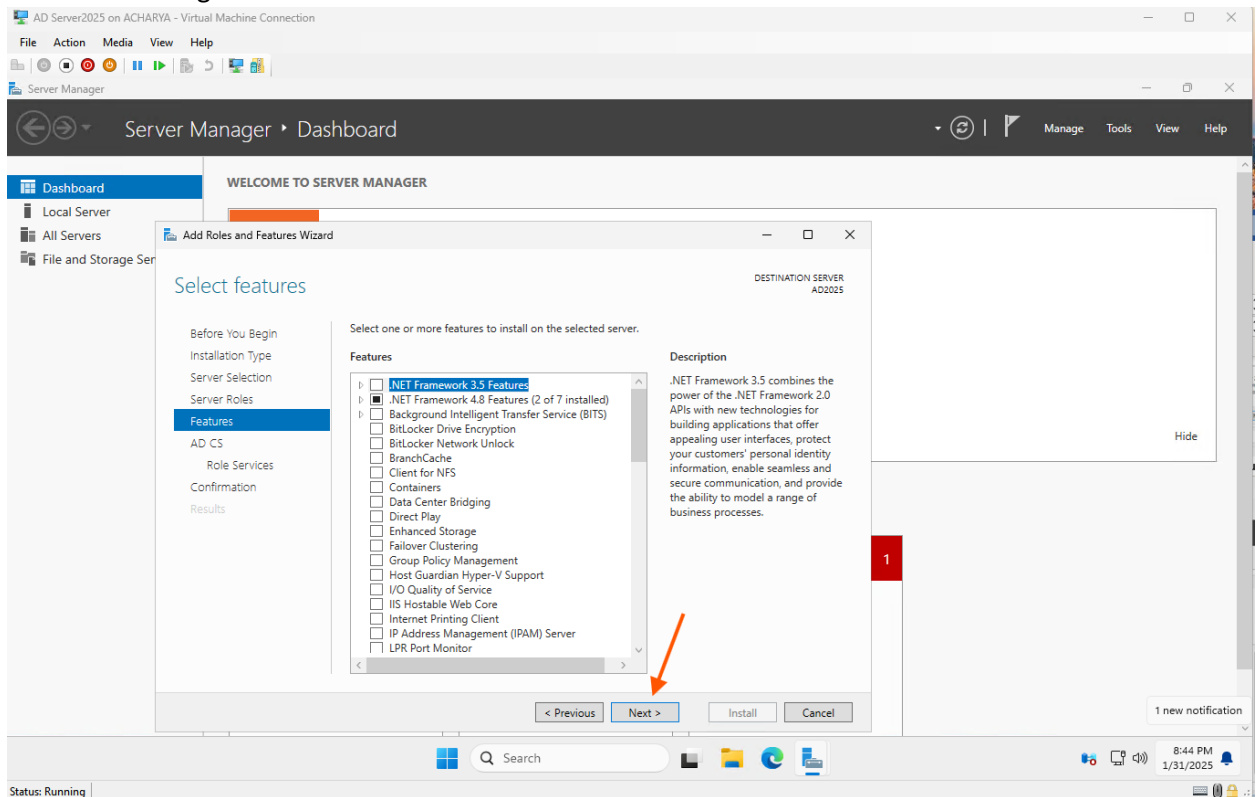
5. Make sure your IP address is correct, leave -Select a server from the server pool as it is and click next
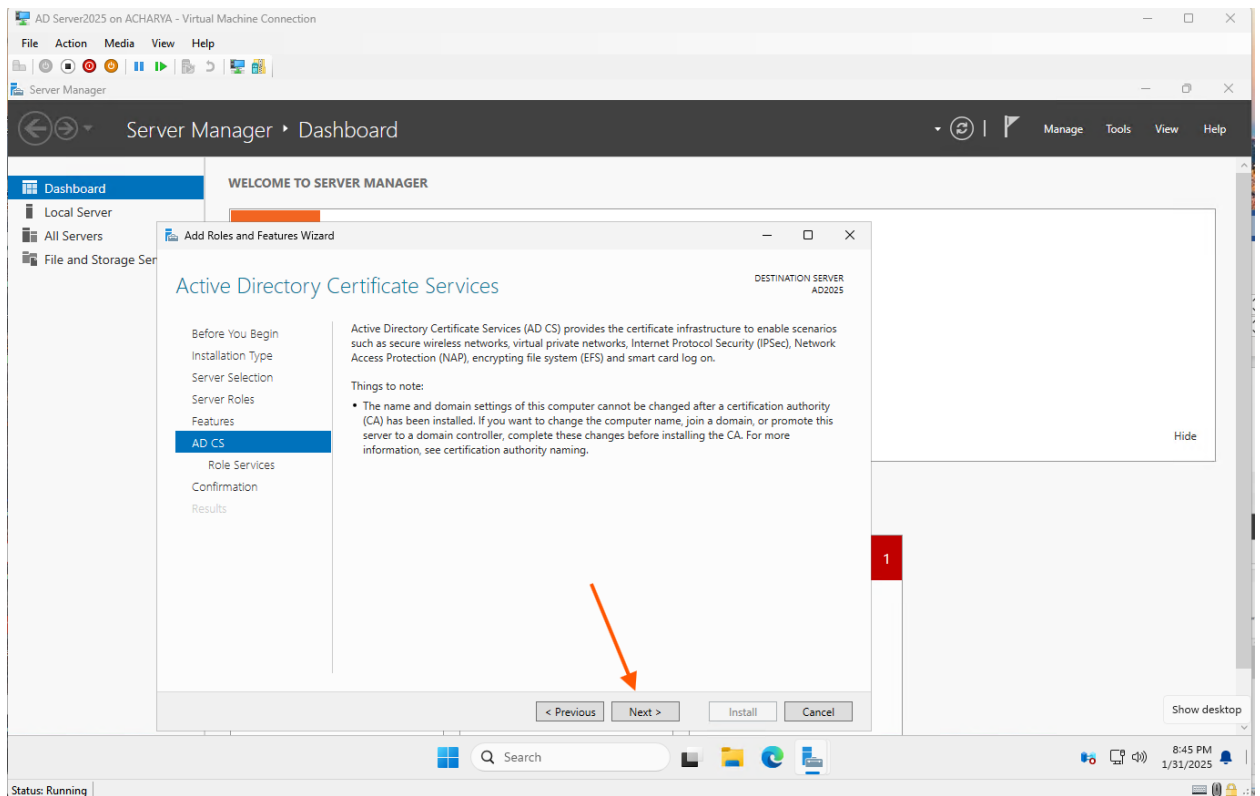

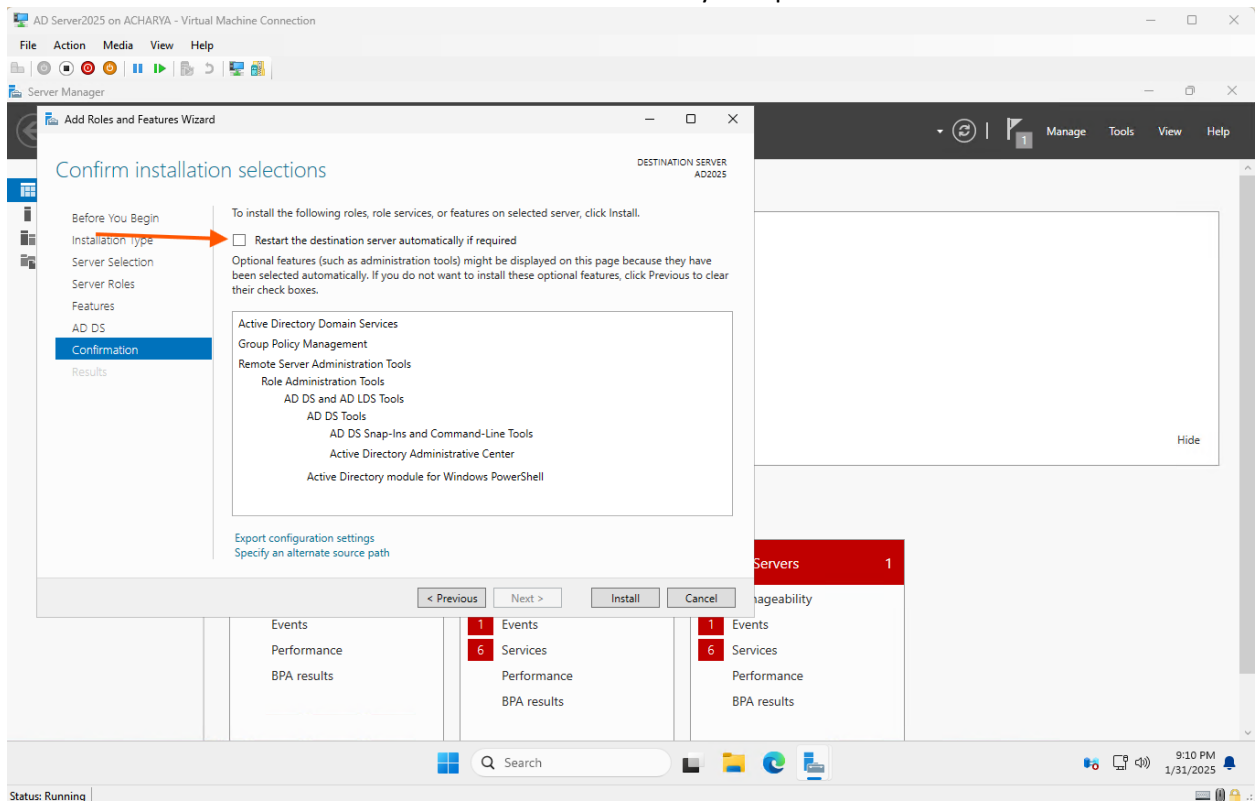6. Check Active Directory Domain Services, add features and click next

7. Leave the setting as it is and click next
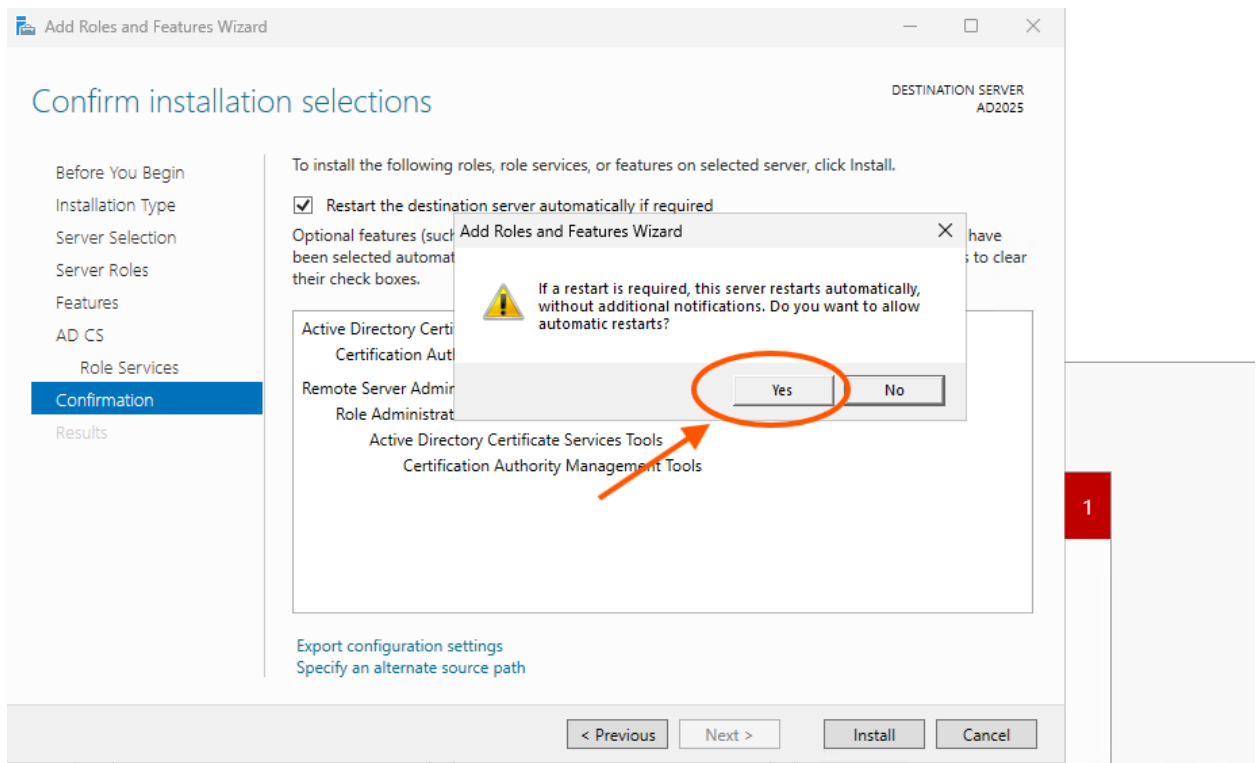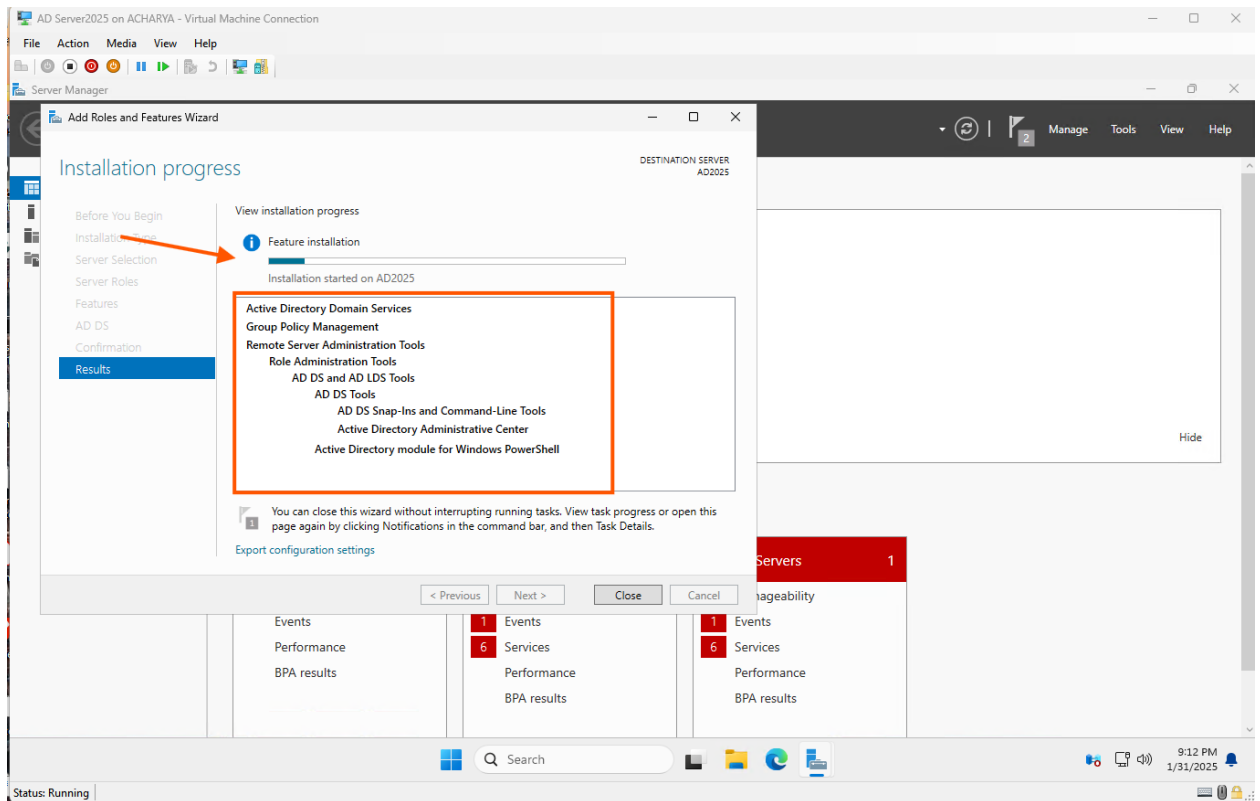

8. Next

9. Check the box: Restart the destination server automatically if required and install.
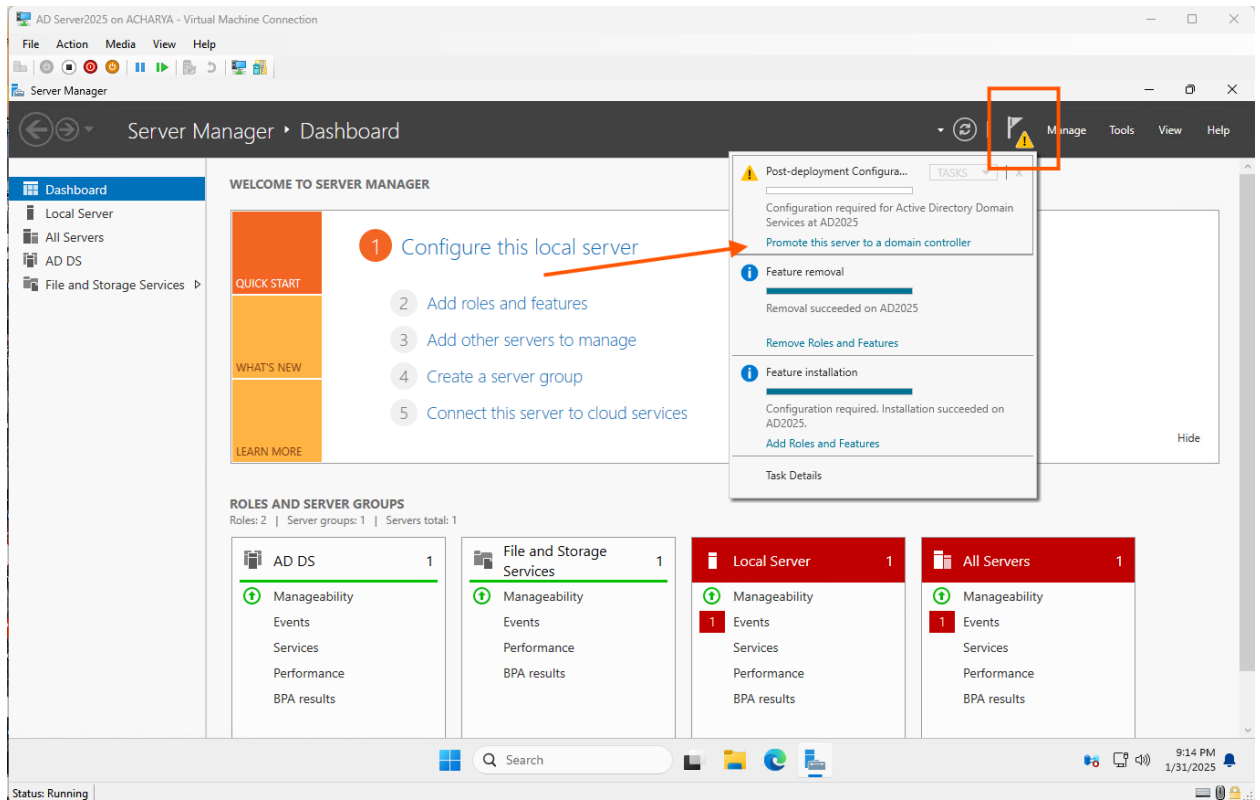

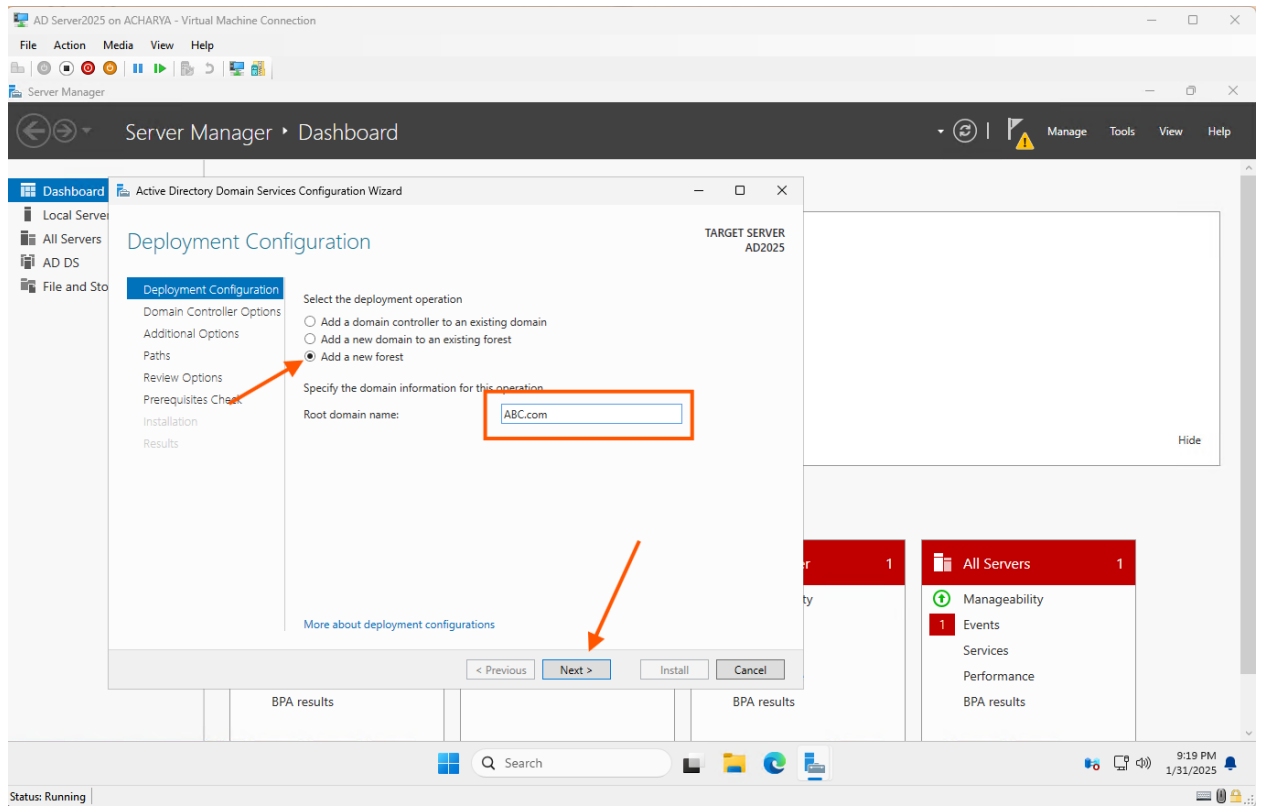10. Click Yes to confirm

11. Installation Started

12. Once installation is done close the wizard.

D. Configuration/promotion

1. On your dashboard, click on yellow triangle, and click "Promote this server to a domain controller"

2. Select Add a new Forest because this is the First Active Directory (AD), Enter your domain-name as Root domain name and click next.
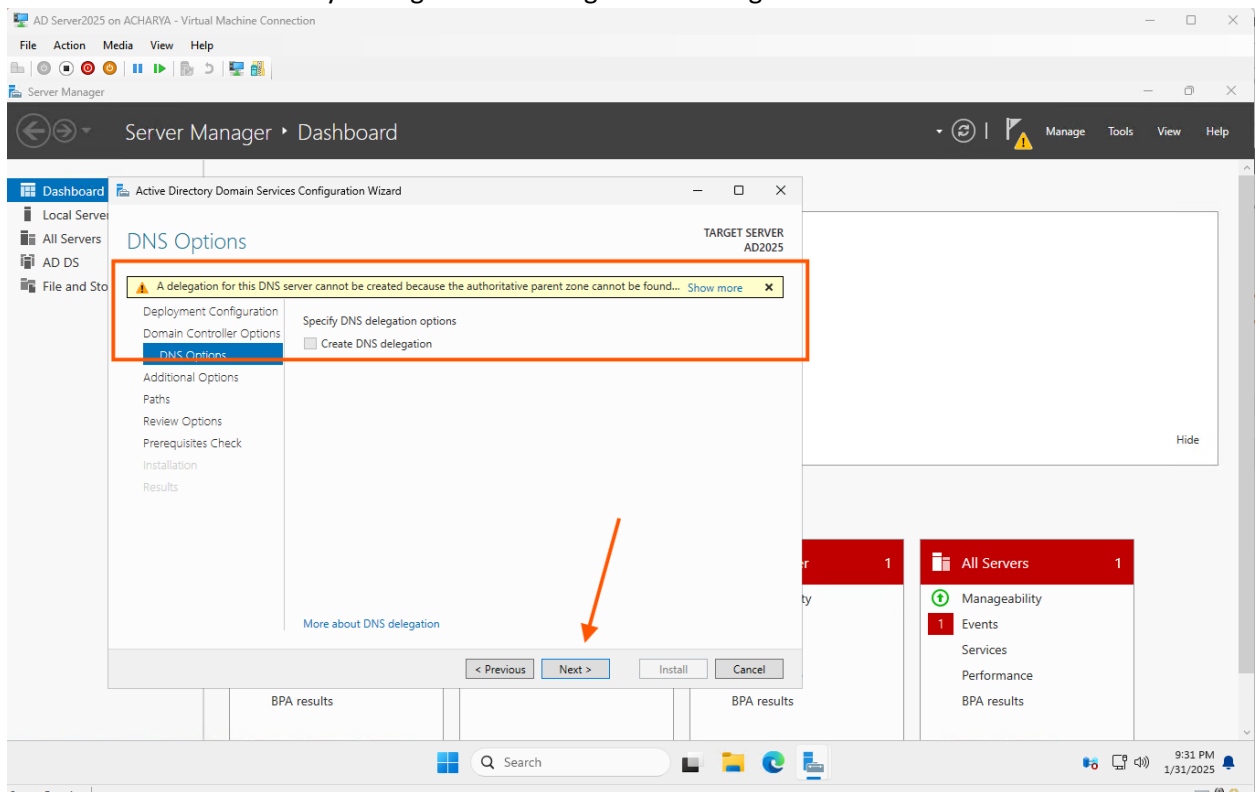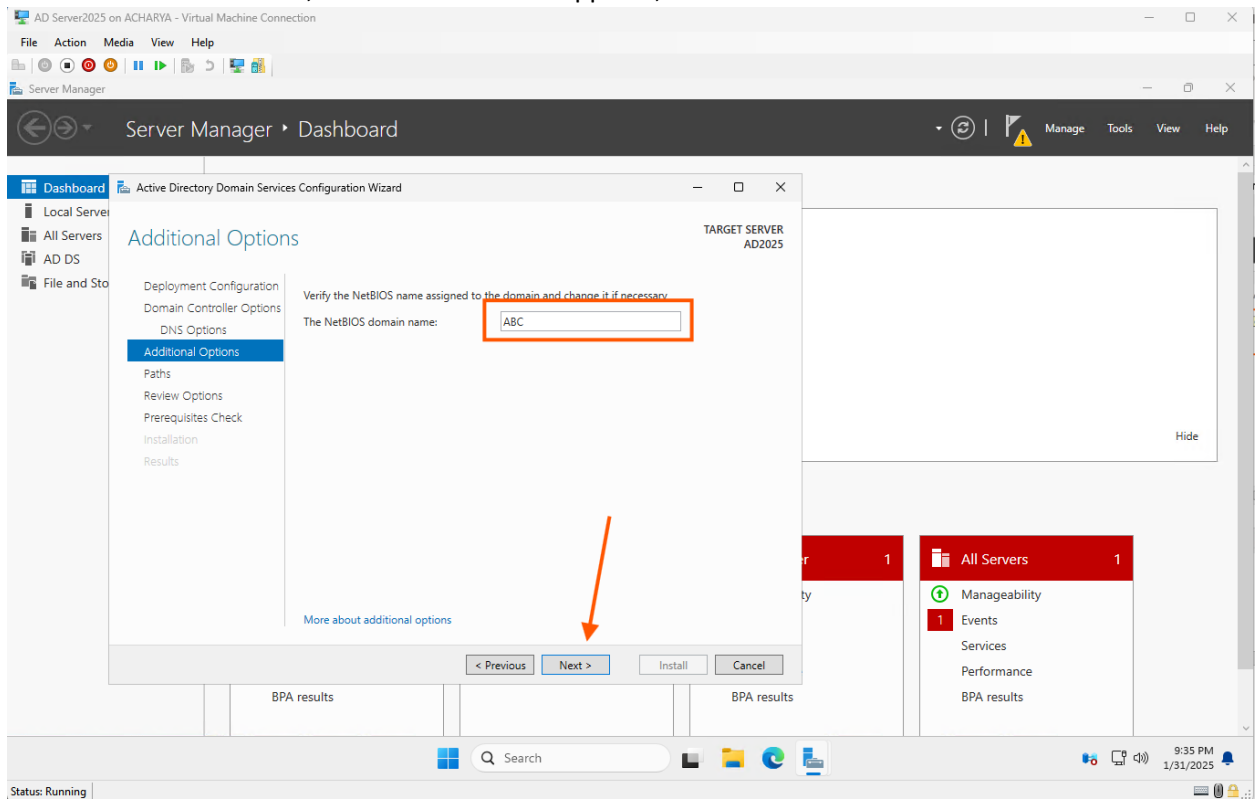
3. Make sure Forest functioanl level AND Domain functional level matchs.
   Set your administrative password, confirm password and click next
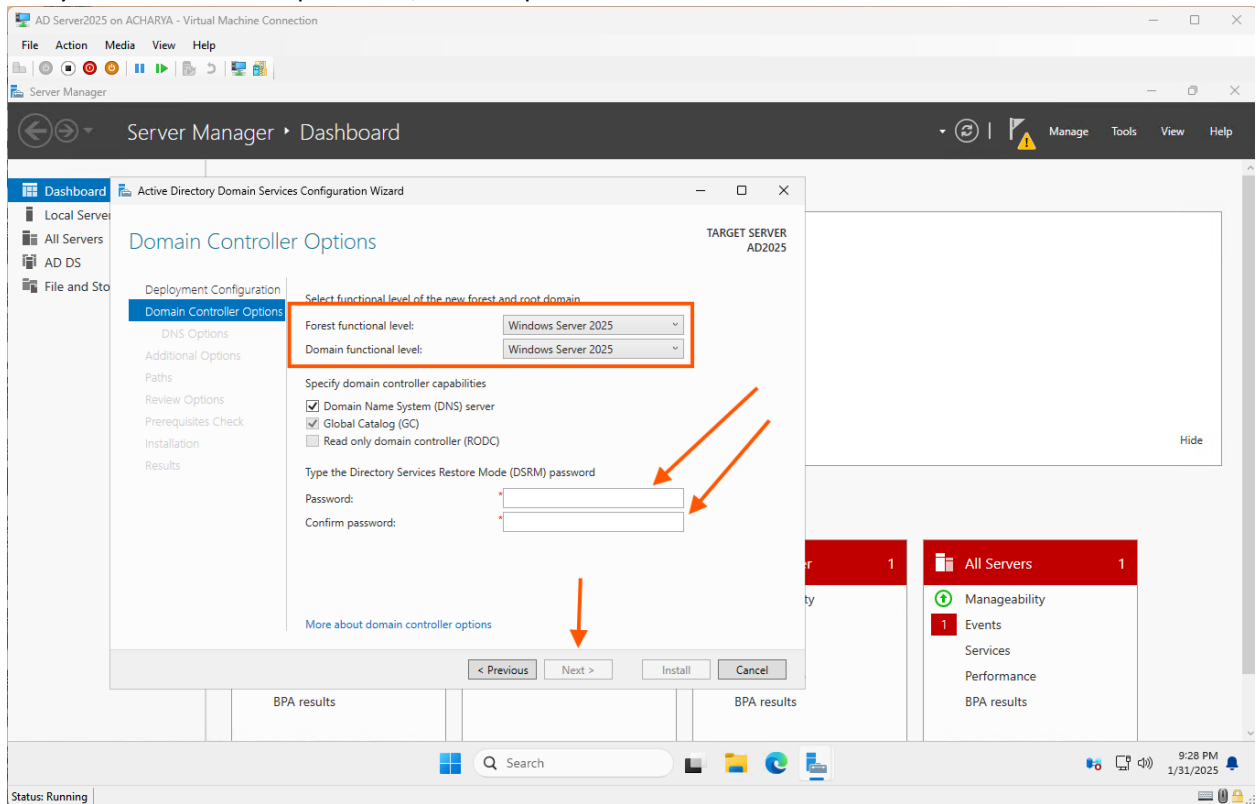
4. We don't have DNS server yet so ignore the delegation warning and click next
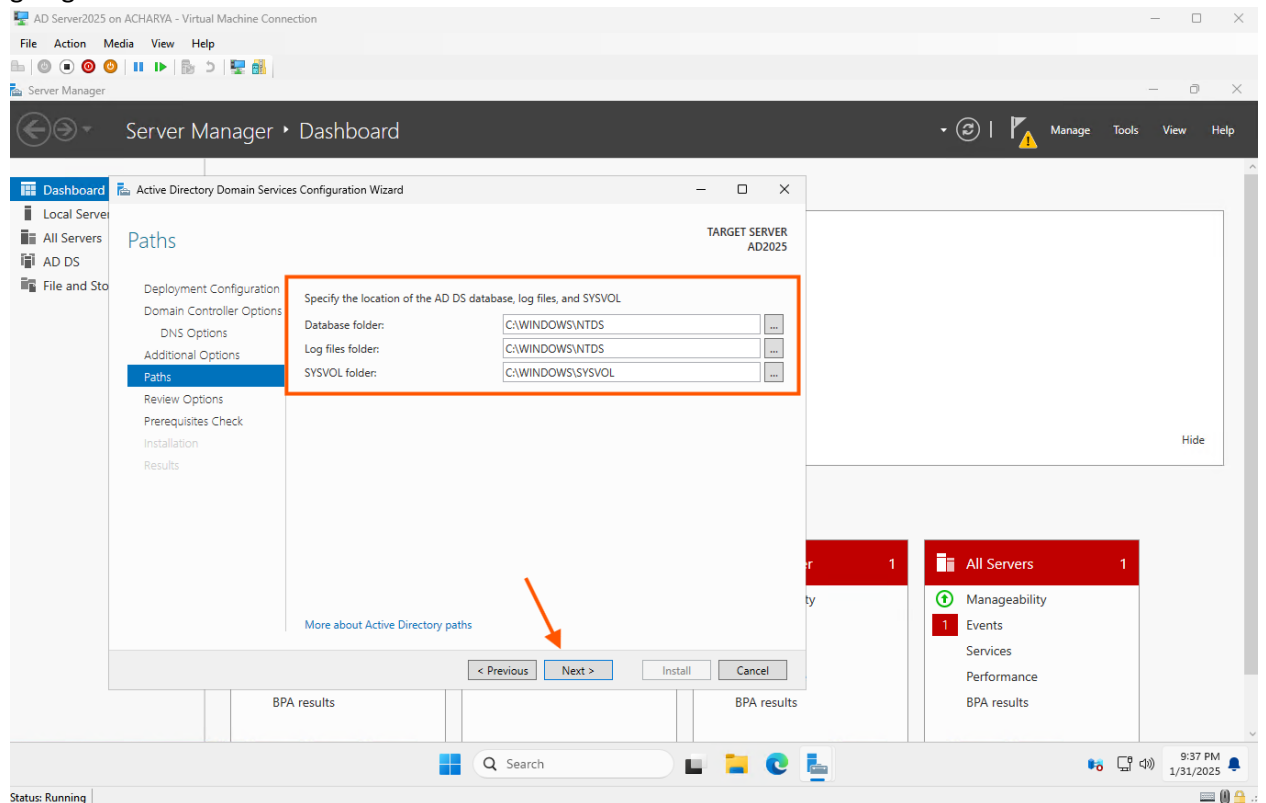
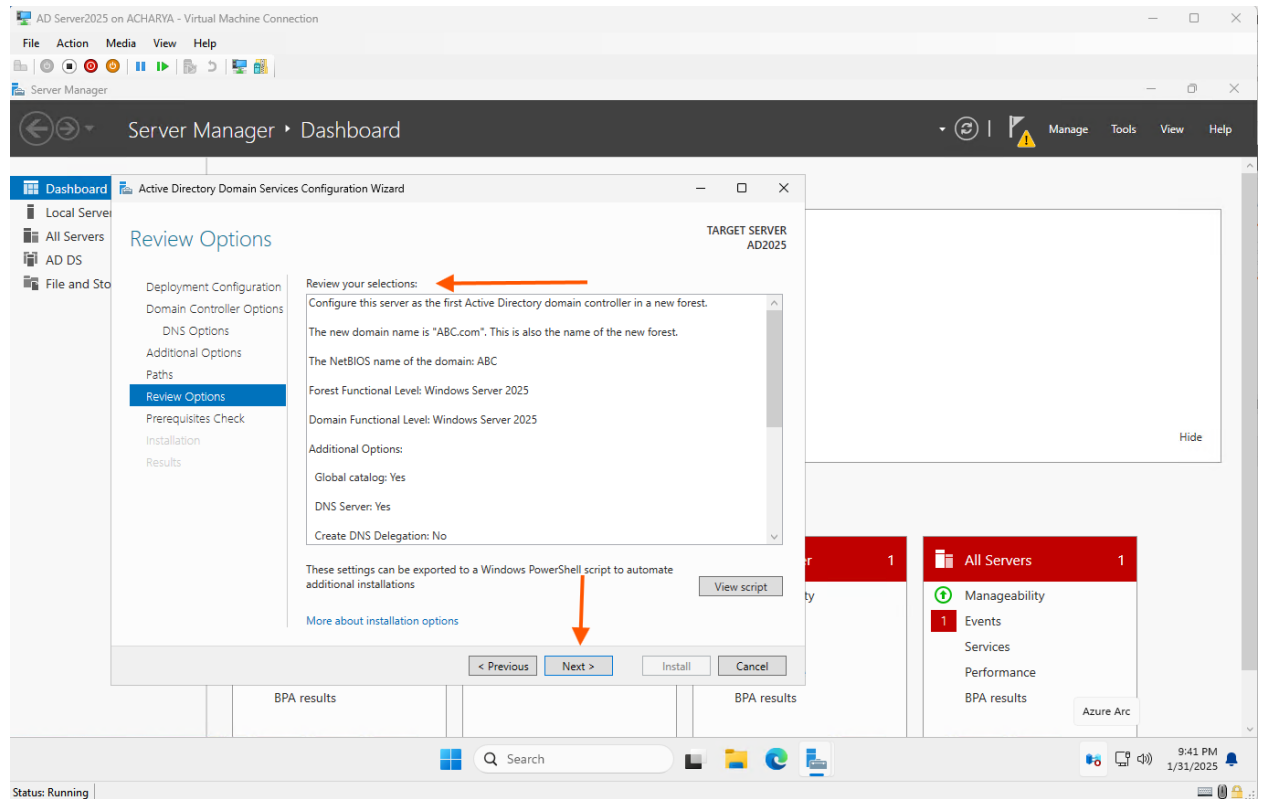5. In NetBIOS domain name, Once domain name appears, click next

6. These are the options to choose the location of the Active Directory database, log files and the SYSVOL folder, where important files are stored and shared with other domain controller. Im
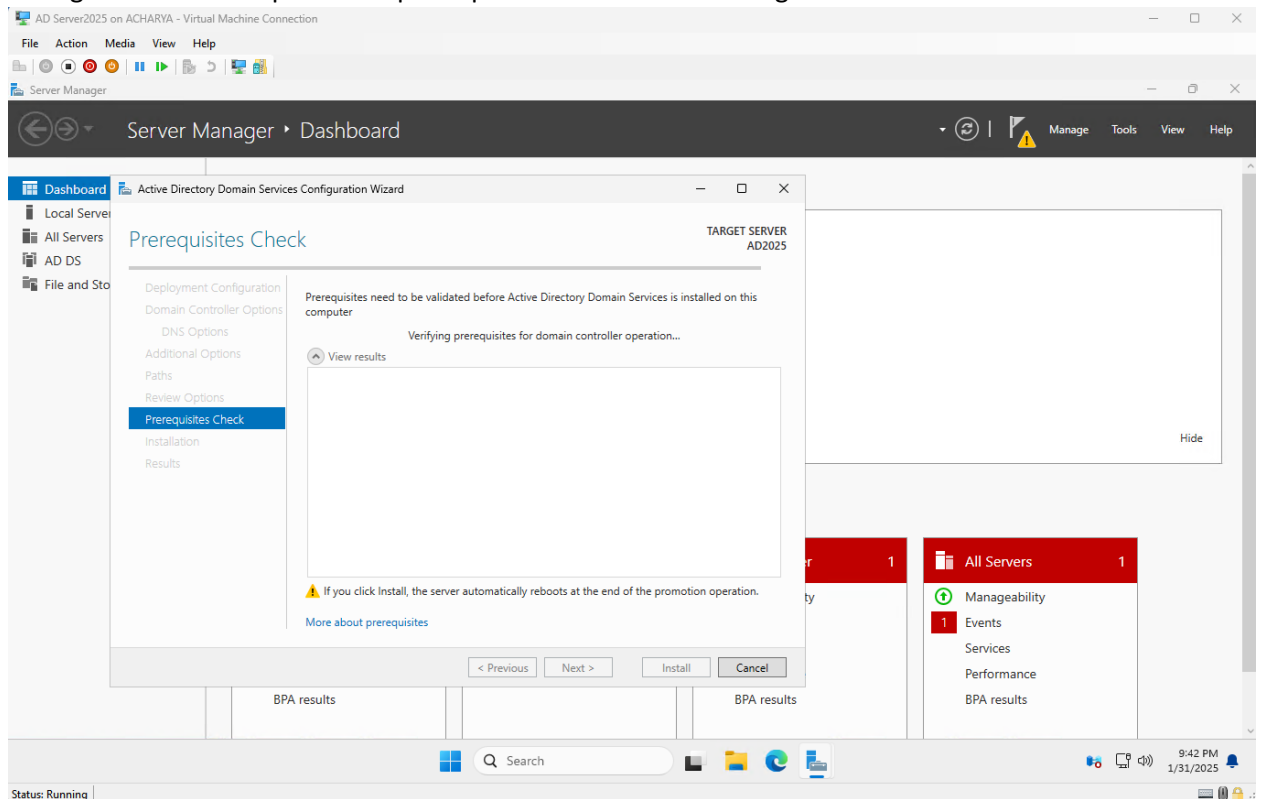
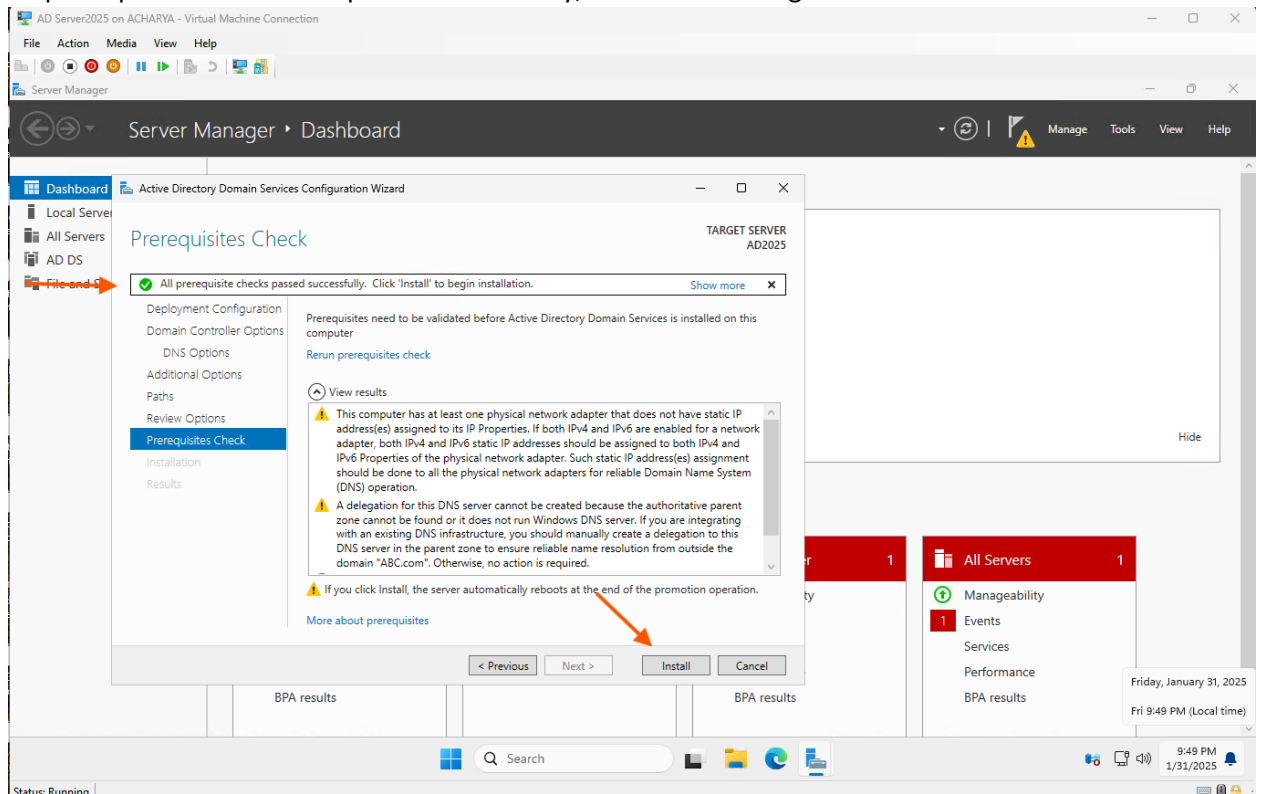going with default and click next

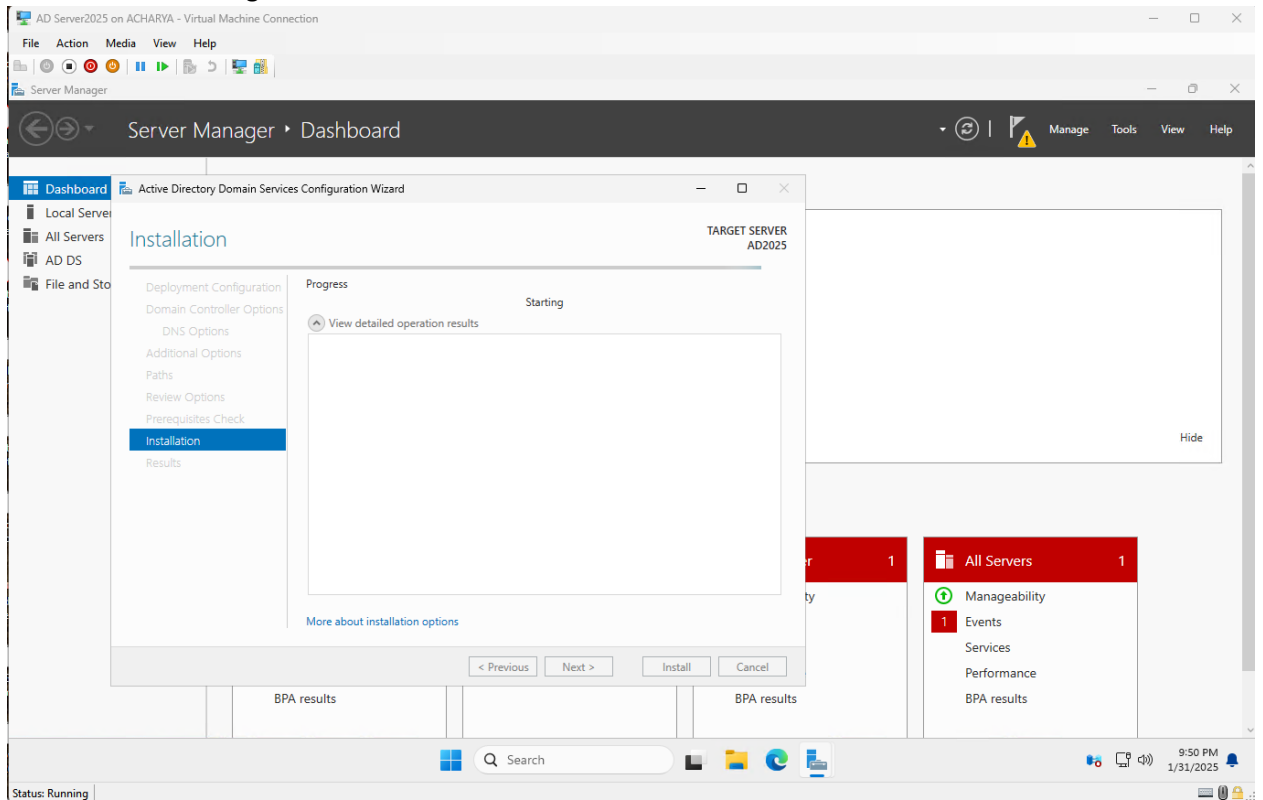

7. Review the selection and Next

8. Configration needs to perform a prerequisites check before it begain the installation.

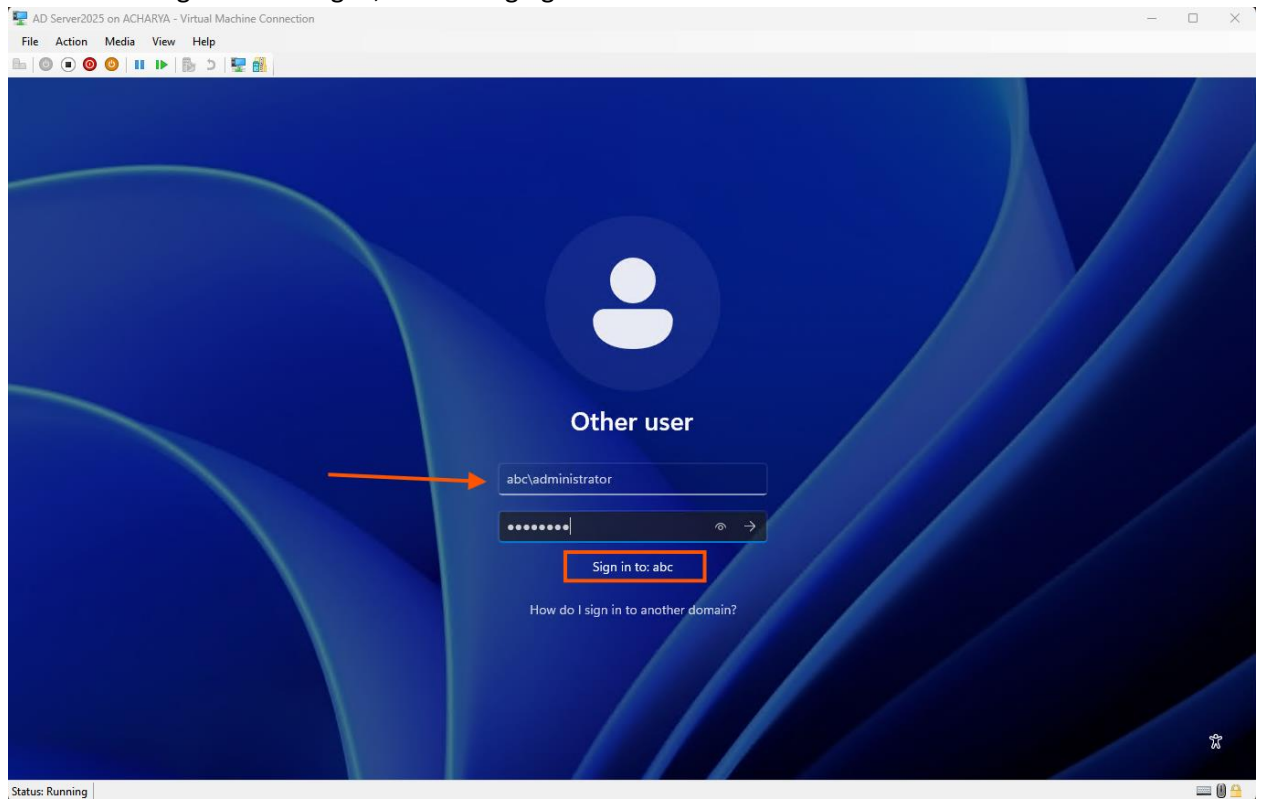9. All prerequisite checks have passed successfully, click install to begain instalation

10. Installing, this part is going to take some time and the server is going to reboot few times. So leave it to run through.
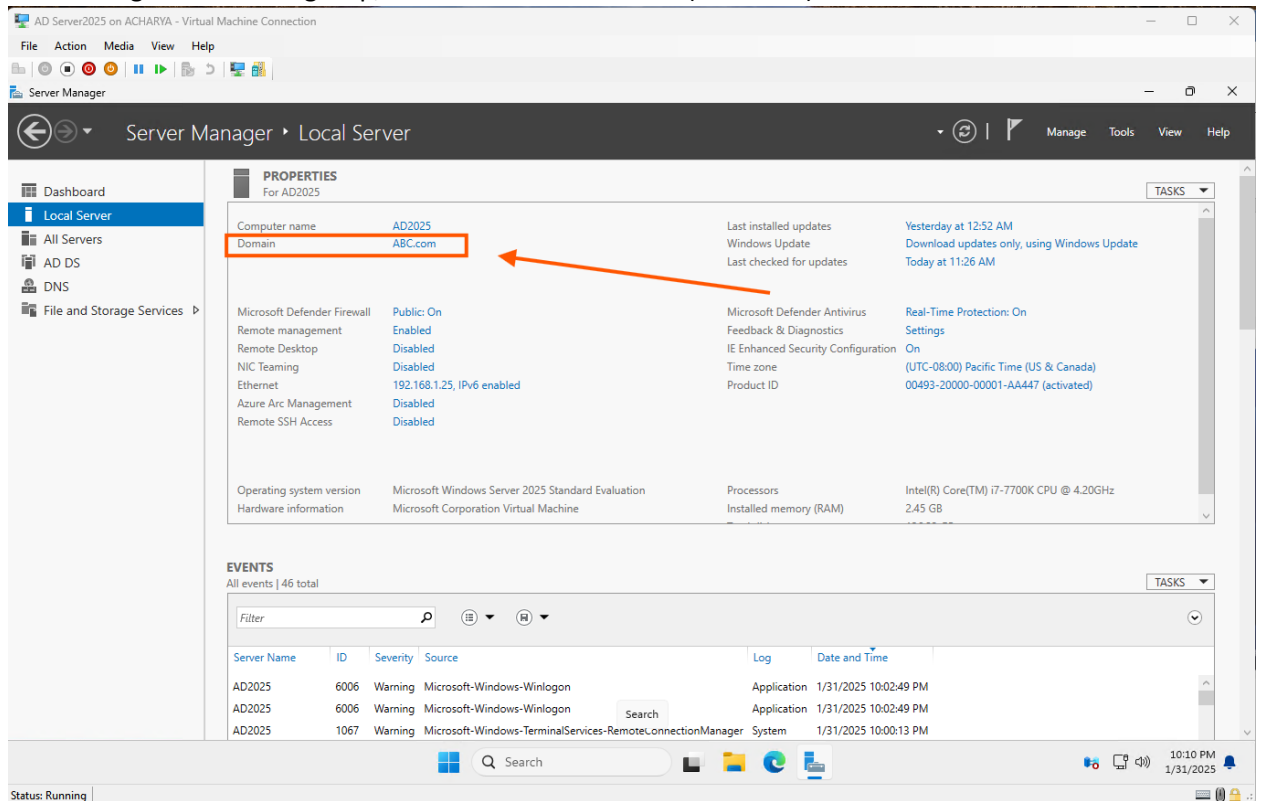

11. It should restart by itself. If not, Close the wizard and restart.

12. Noticed the log in has changed, now im loging to the ABC.com domain

13. We no longer have Workgroup, instead we have domain (ABC.Com)

The installation of Windows Server 2025 Active Directory on Hyper-V is now complete. With this setup in place, I'll be diving deeper into its features and configurations in the coming days to optimize performance and security. Stay tuned.