

Implementation of Windows Server Active Directory Domain Services (AD DS) with Client PC Integration

Introduction: This project is about setting up and configuring a Windows Server as an Active Directory Domain Server to manage users, computers, and network resources in one place. I used a Windows Server as my Domain Controller (DC) and connected a Windows 8 PC as the client. The goal is to understand how Active Directory works in a real network environment and how it helps centralize management and improve security.

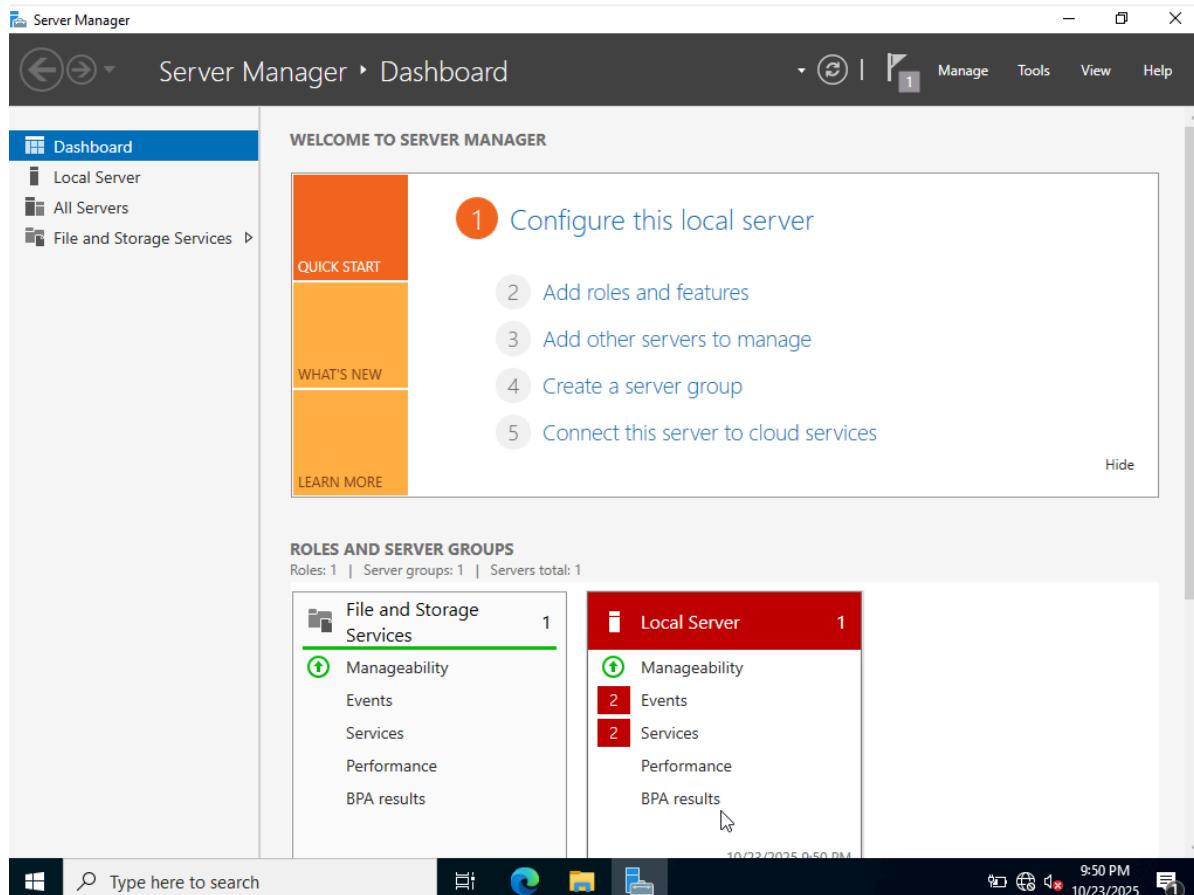
Project Overview

In this setup, I installed and configured Active Directory Domain Services (AD DS) on my Windows Server and promoted it to a Domain Controller. I also created a domain name and joined my Windows 8 PC to the same domain. To confirm connection between both systems, I pinged their IP addresses and got a successful reply, showing that the communication between the server and the client was working.

After that, I started creating Organizational Units (OUs) like *Lagos*, *UK*, and *US*, and also created user accounts and groups under each OU. This helps to manage users and computers based on their departments or locations.

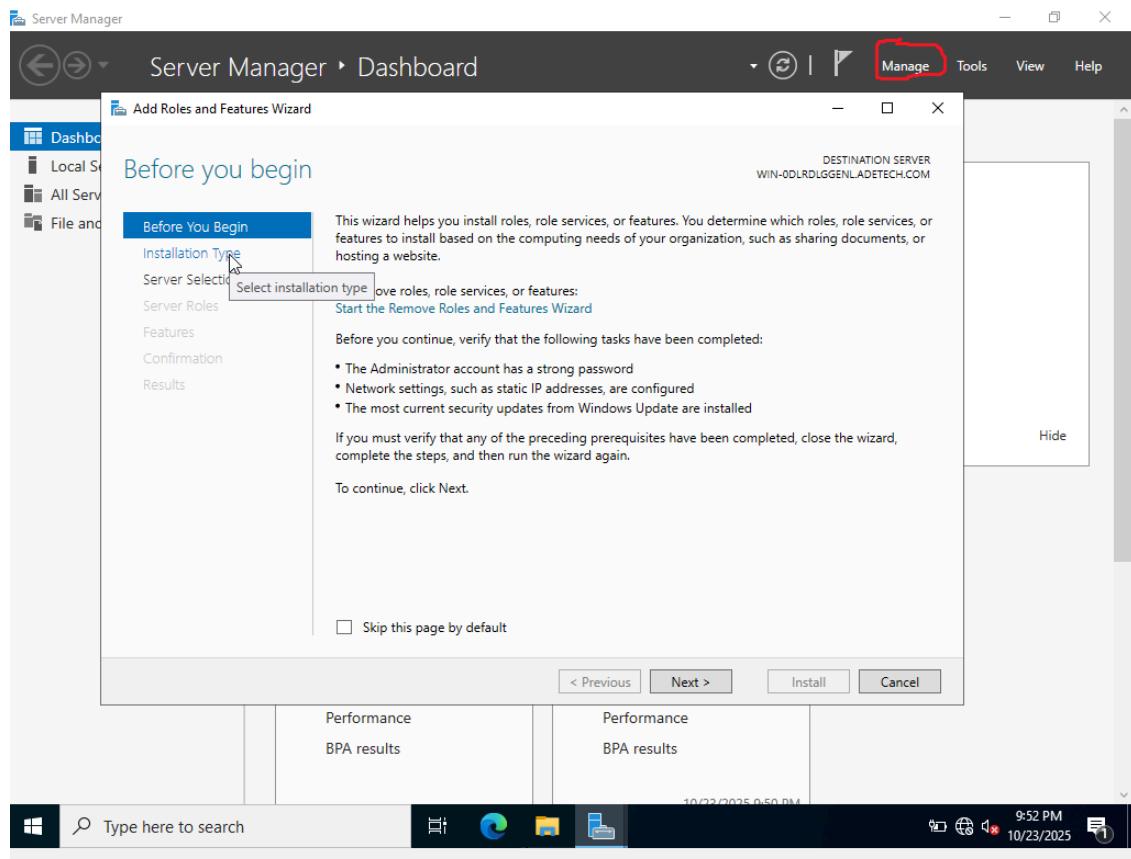
The whole process helped me understand how Windows Server manages users, devices, and permissions through Active Directory. It also shows how DNS and domain connectivity play a big role in managing network systems.

Step 1: Launch Window Server

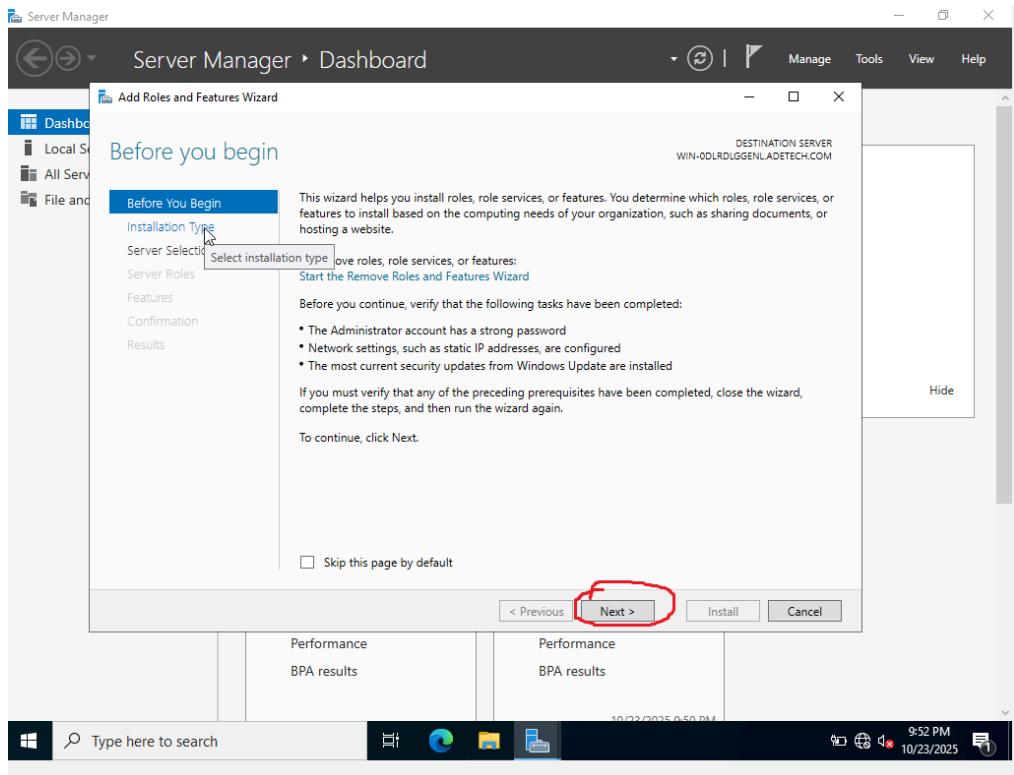


Step 2:

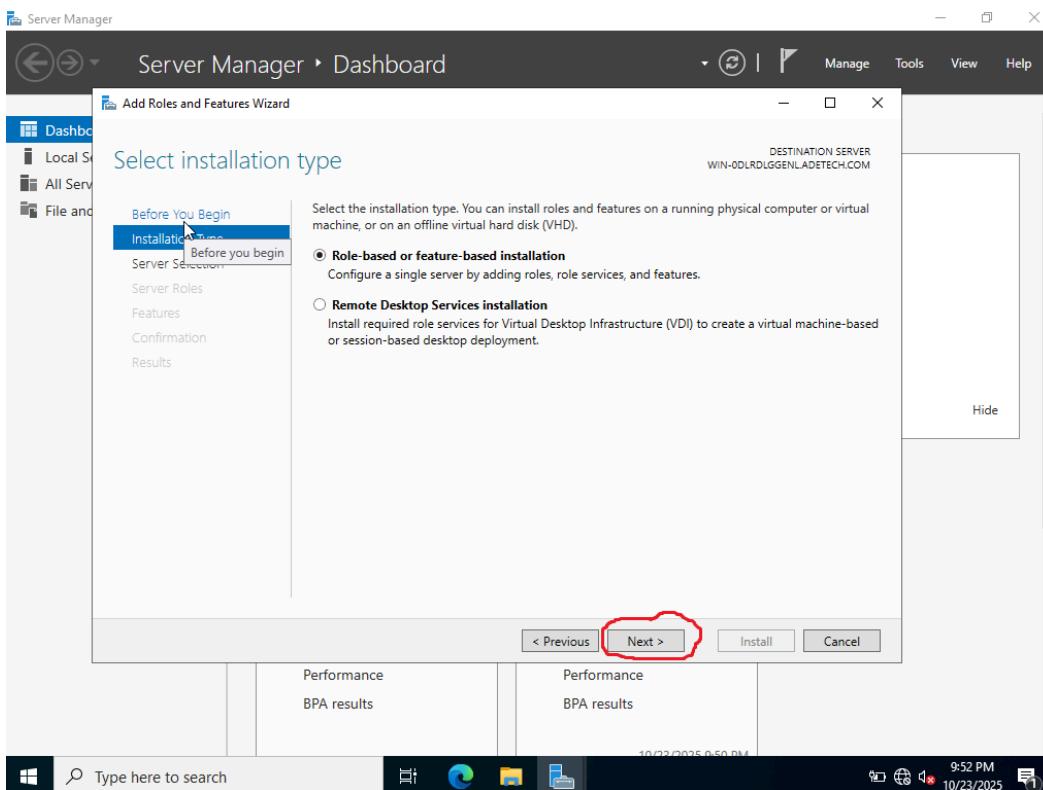
Click on Manage and Select Add “Roles and Features”



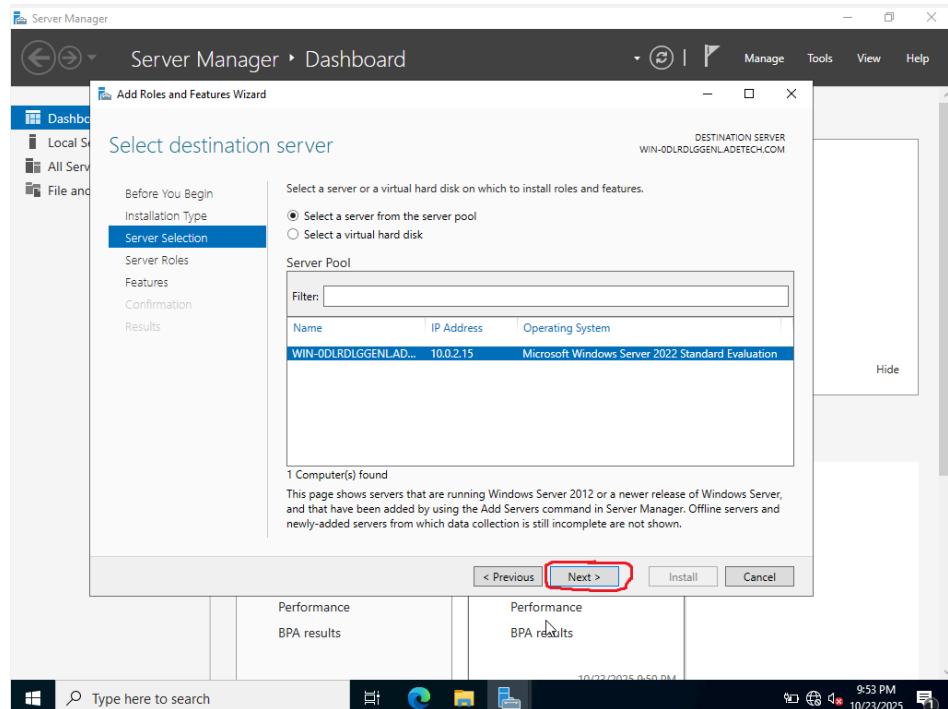
Step 3: Click Next



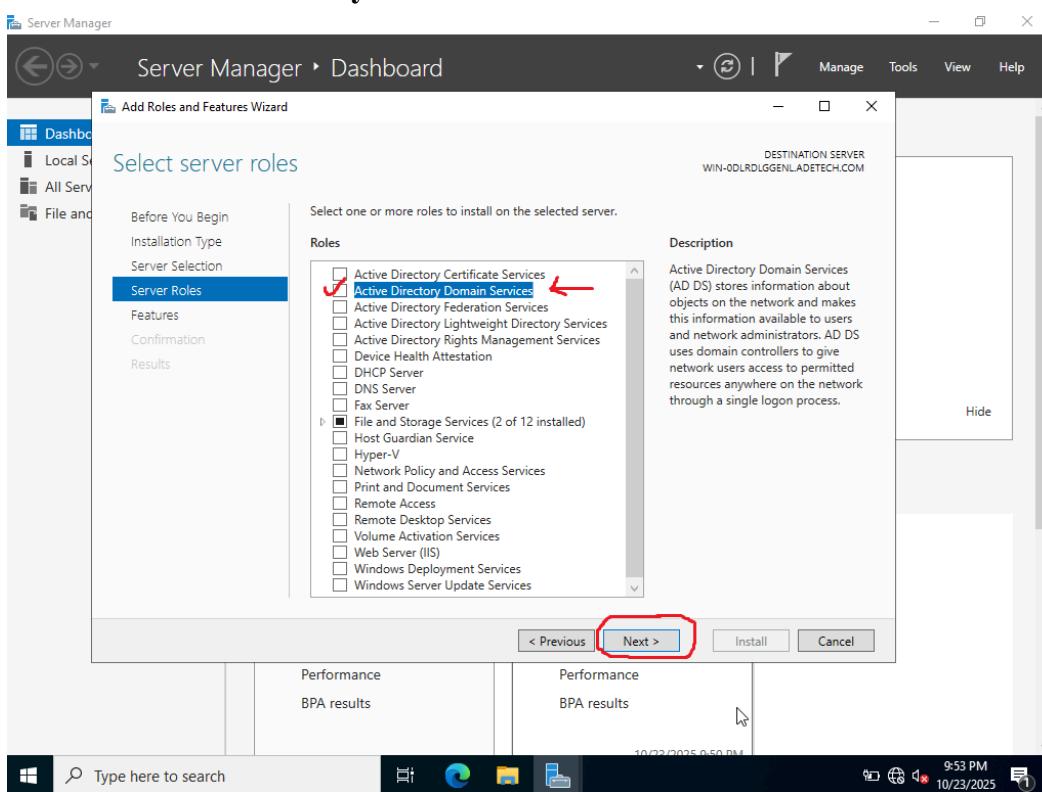
Step 4: Select “Role-Based or Feature-based installation” and “Next”



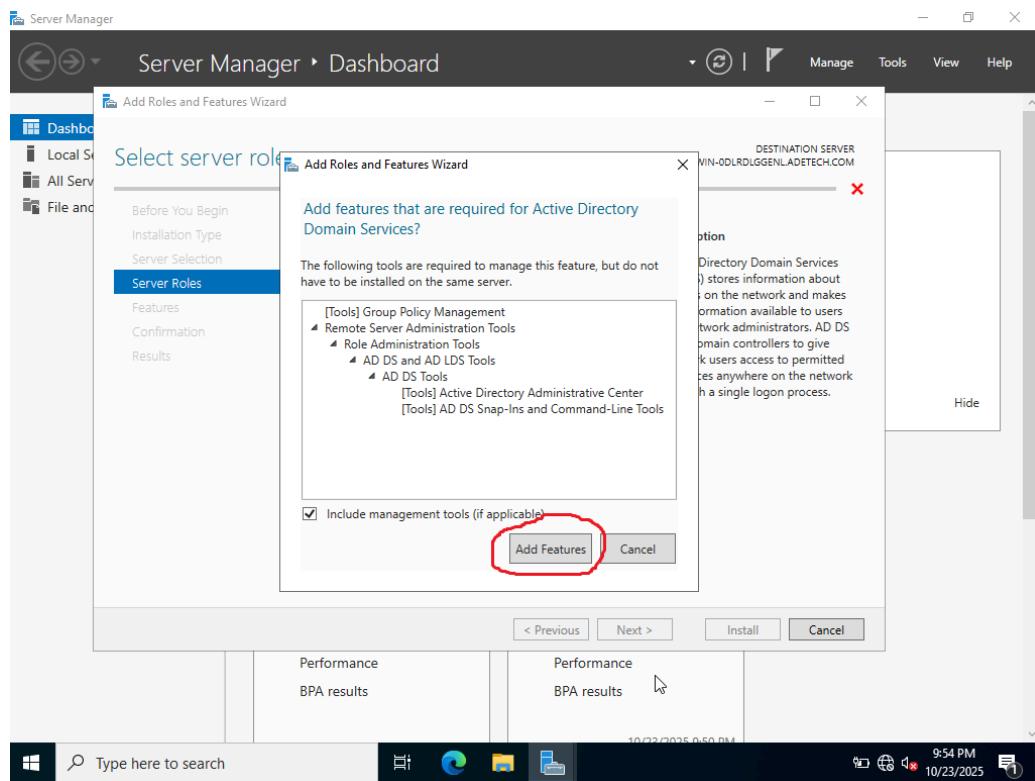
Step 5



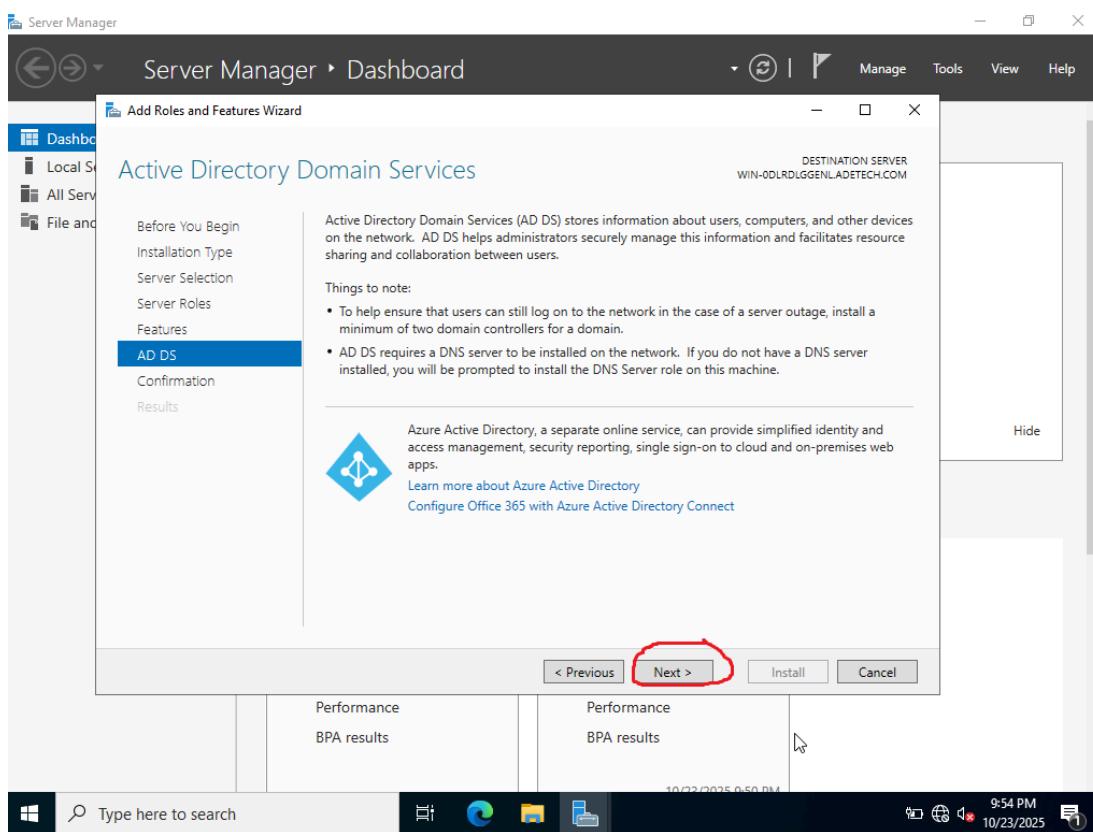
Step 6: Select “Active Directory Domain Servers”



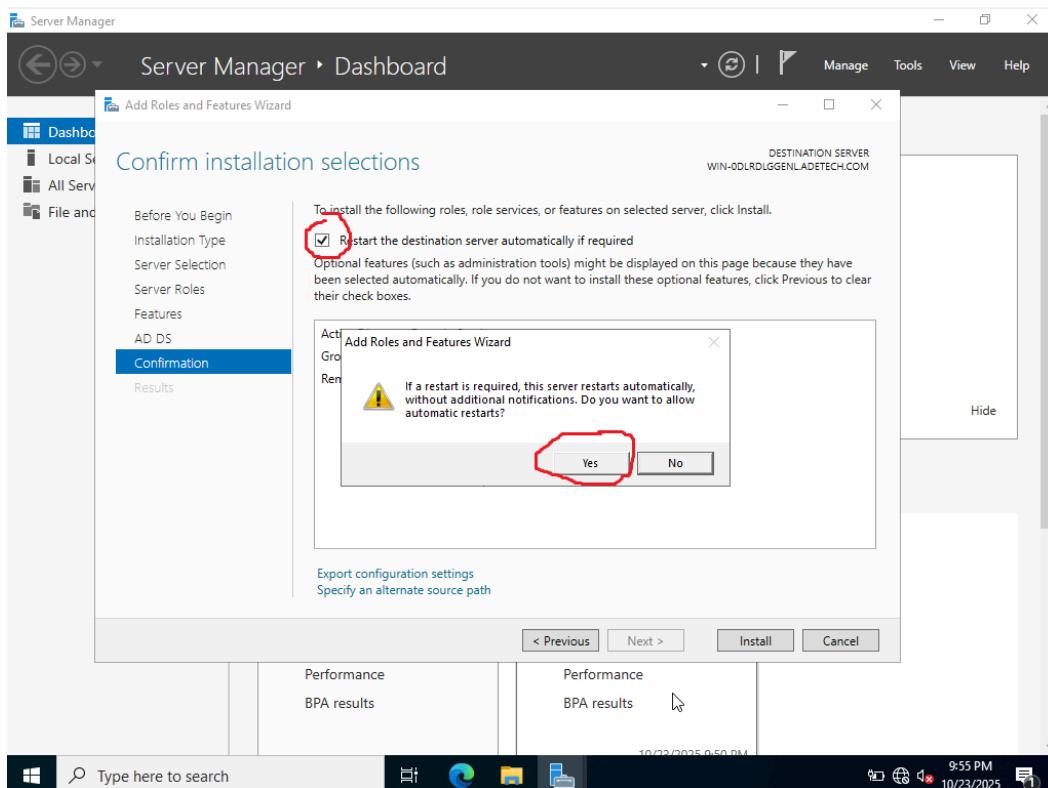
Step 7: Select “Add Features”



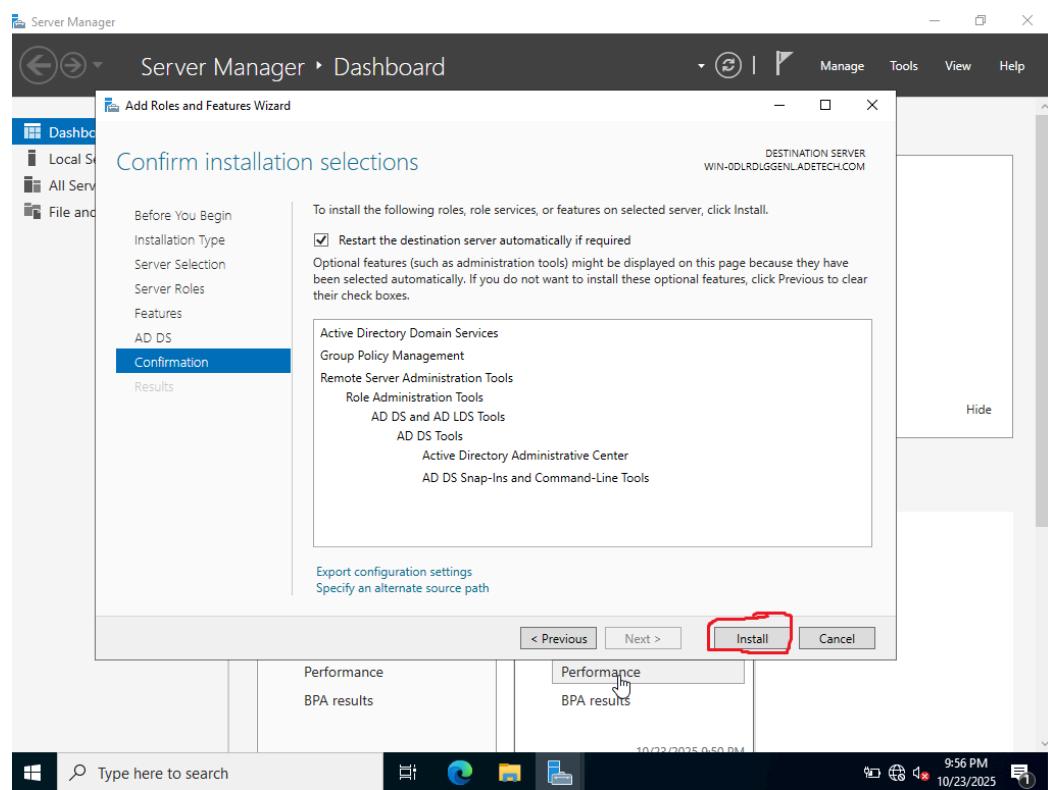
Step 8



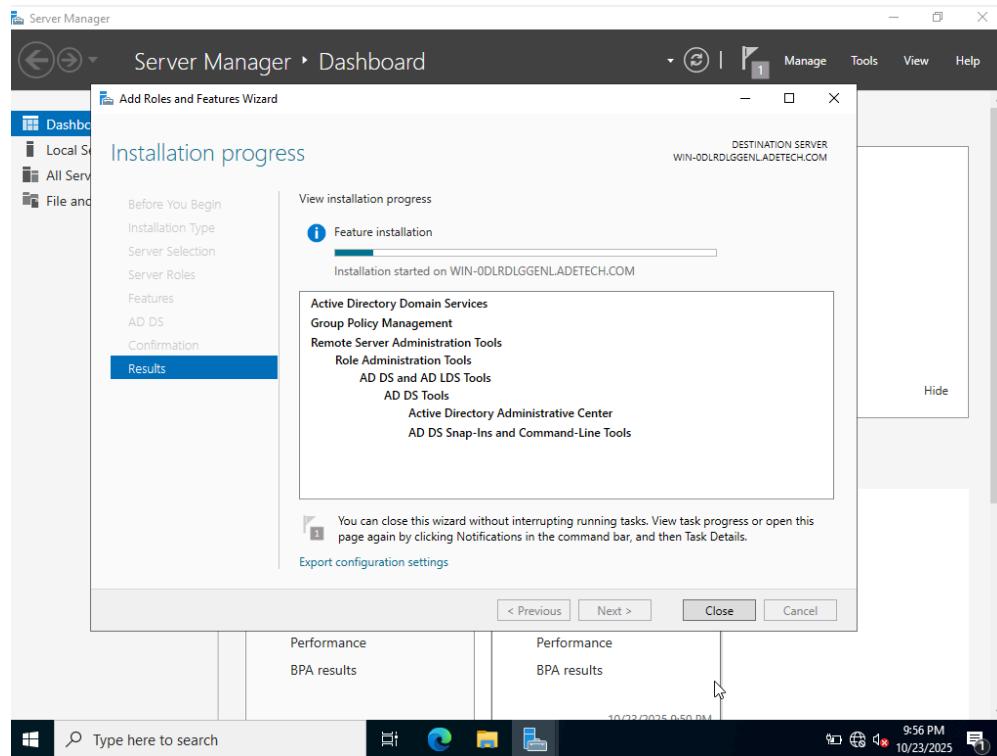
Step 9



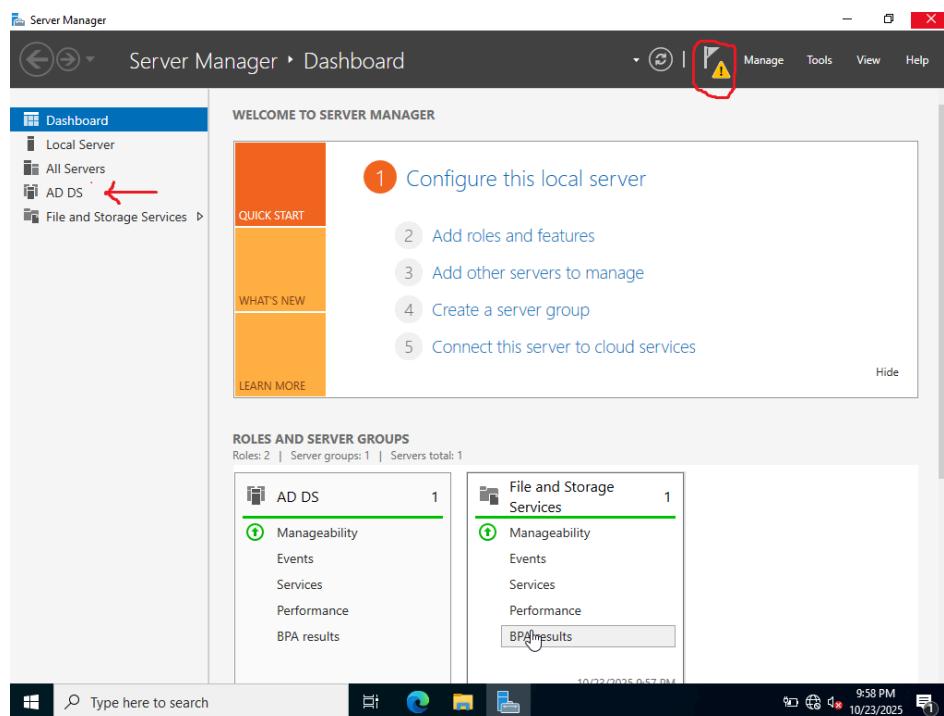
Step 10



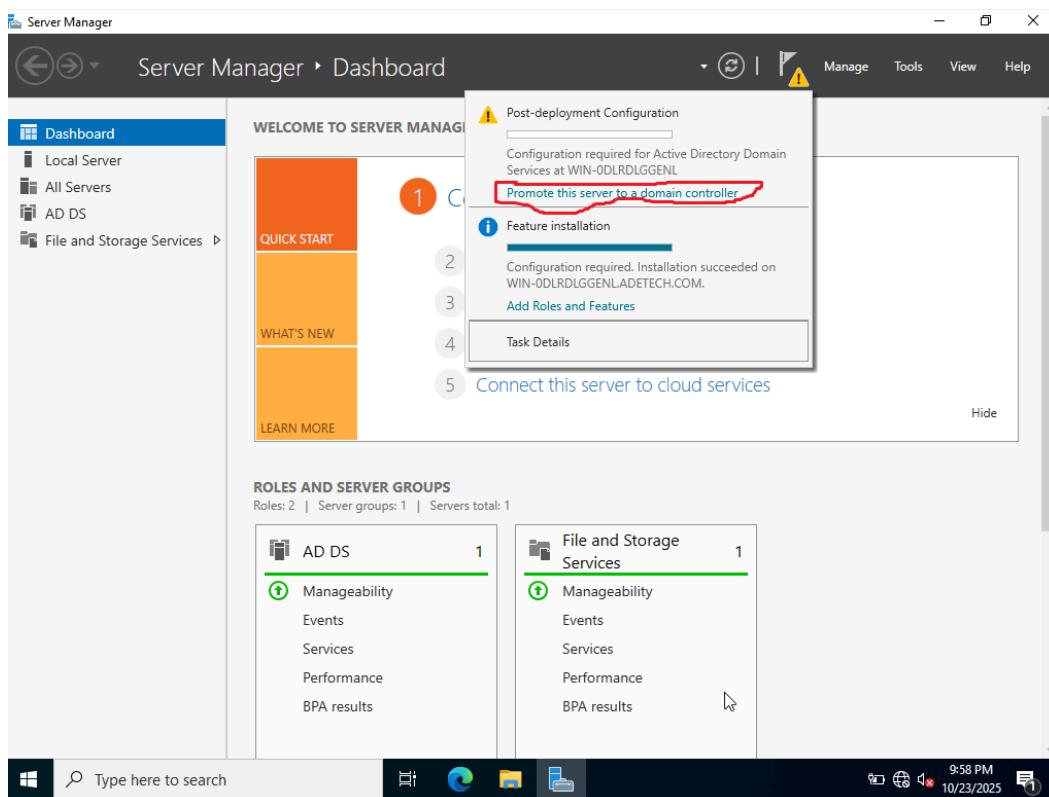
Step 11: Installation Started



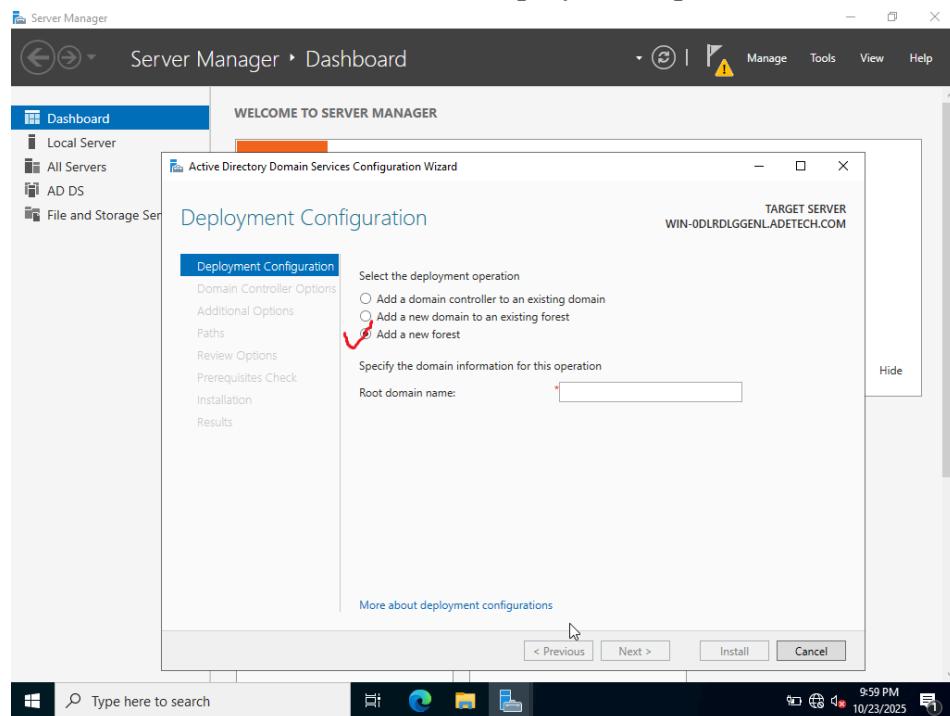
Step 12: Active Directory has successfully Installed. We now need to promote our Active Directory Domain Server (AD DS) to Domain Controller.



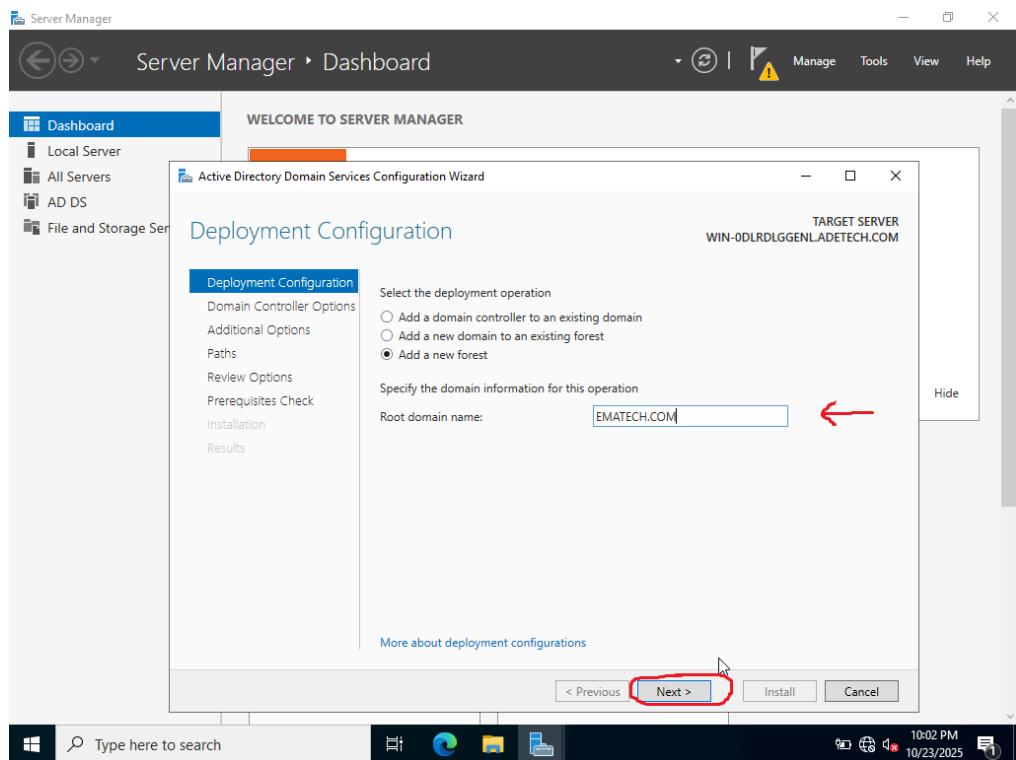
Step 13



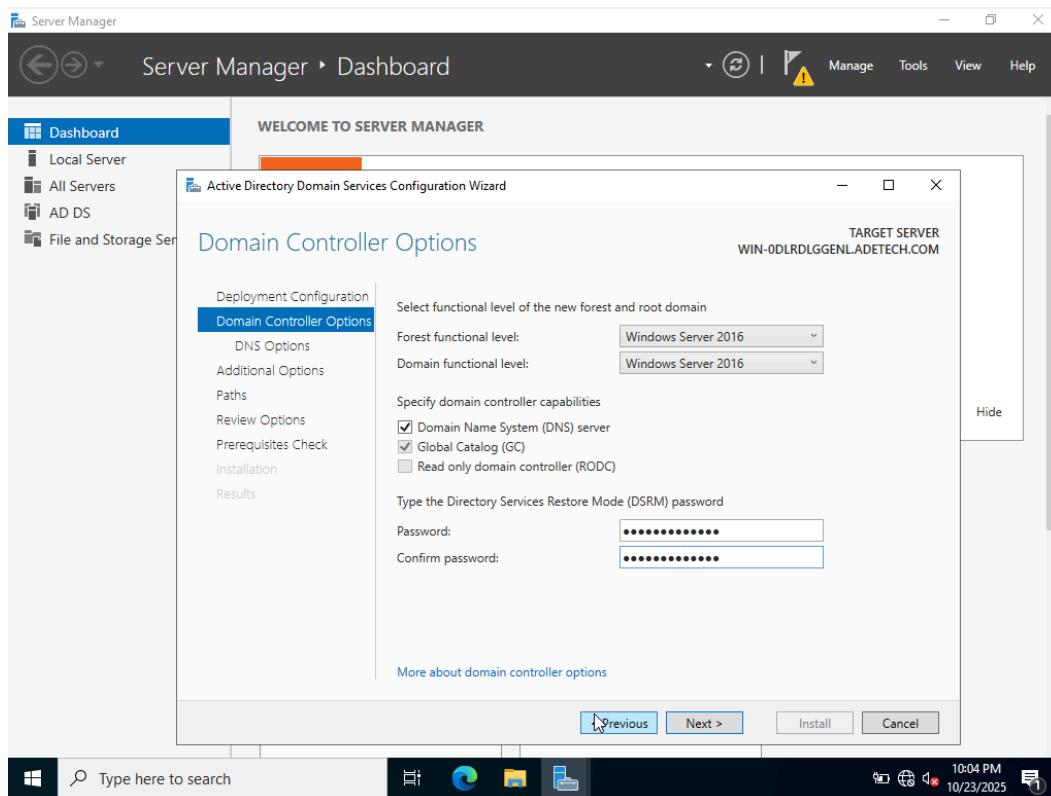
Step 14: Select “Add a new Forest” as out deployment option



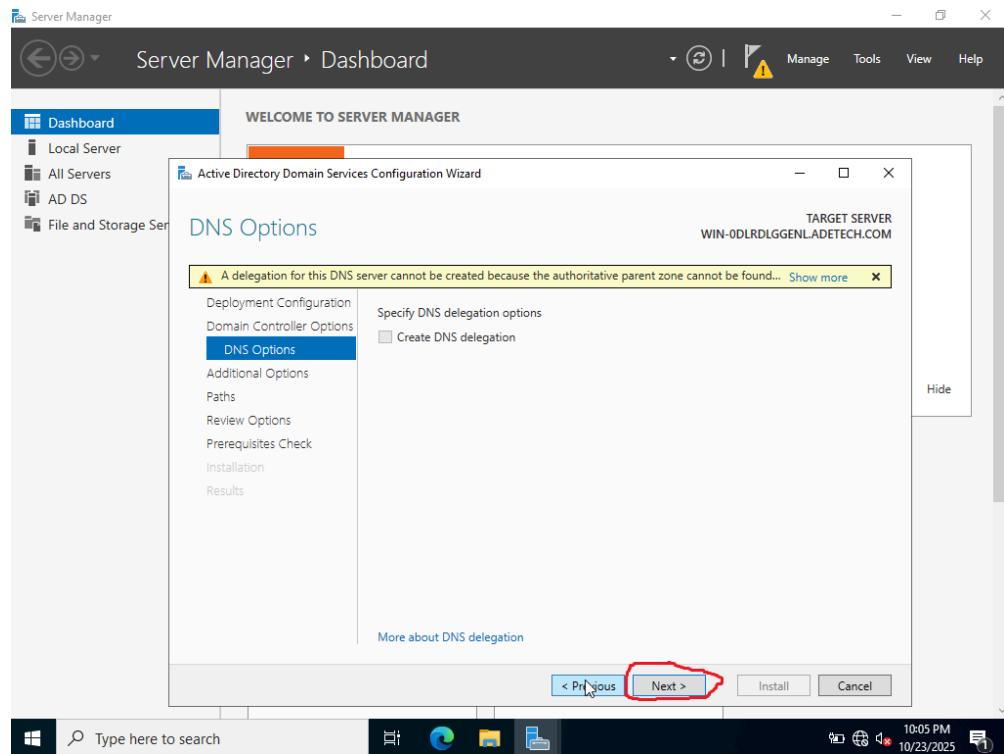
Step 15: I will be using “ [EMATECH.COM](#) ” as my domain name. Then click on “ Next ”



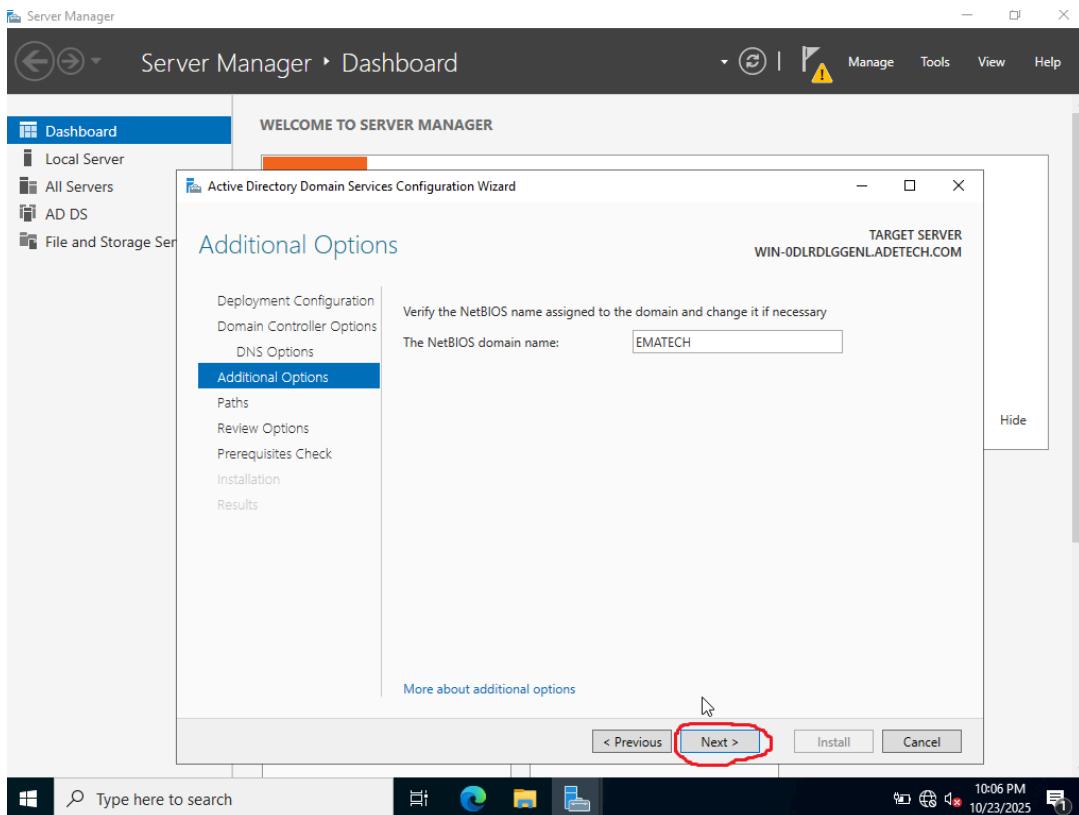
Step 15: Created a Password



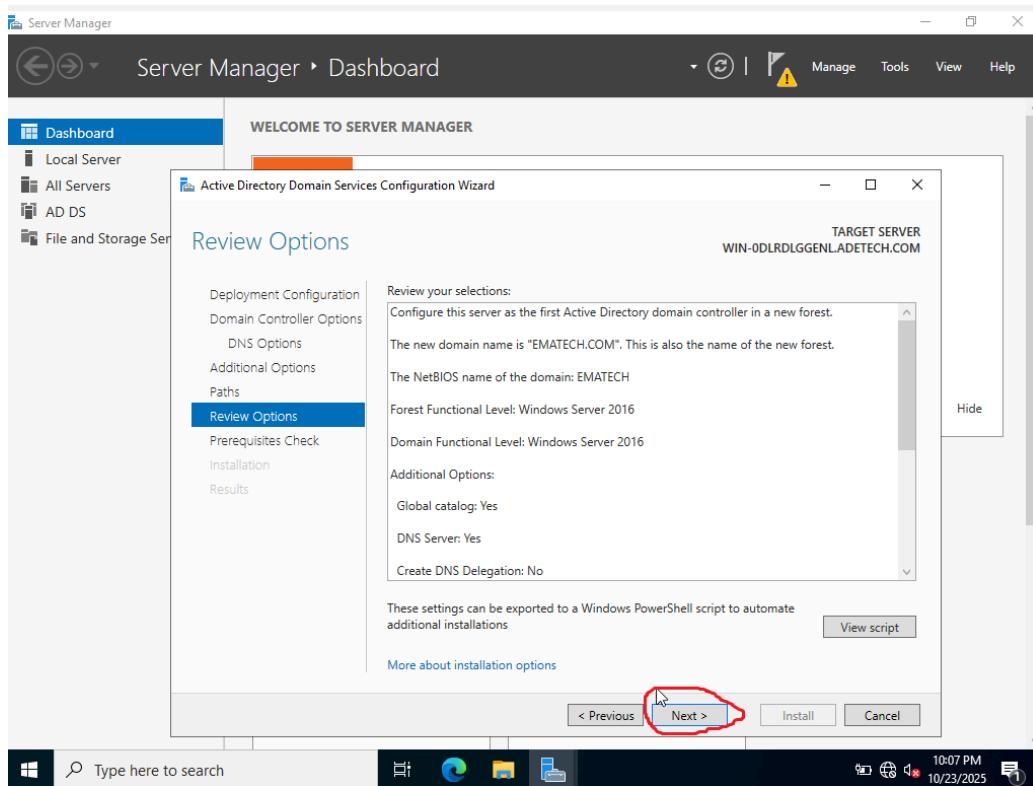
Step 16: Click on “Next”



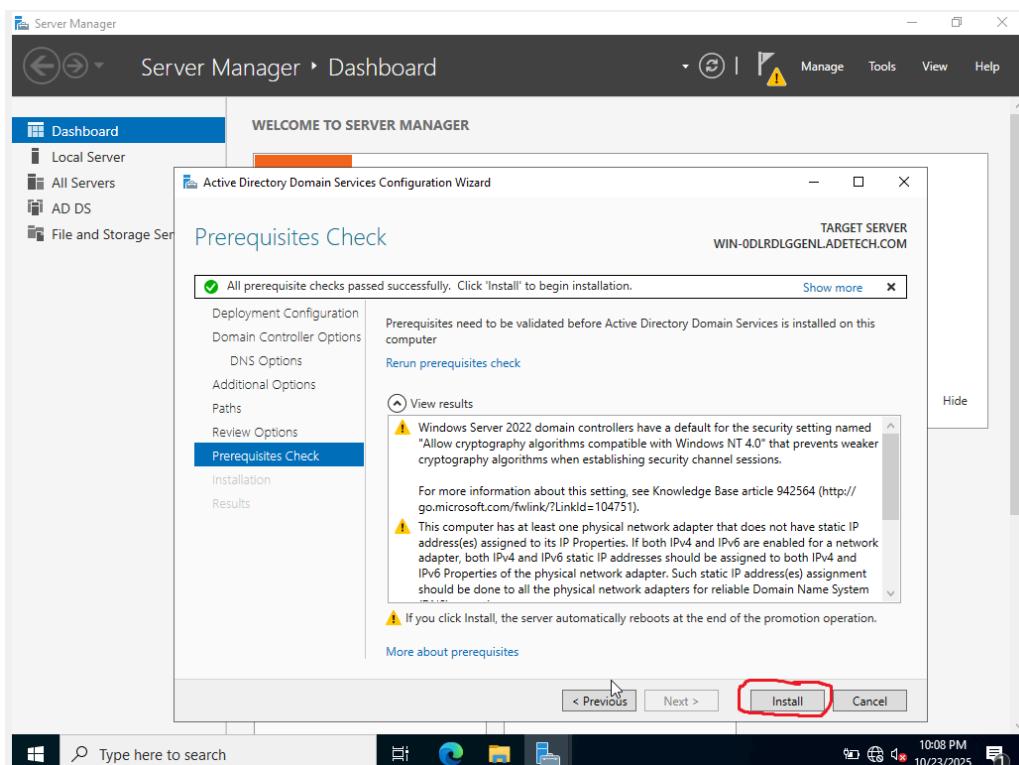
Step 17:



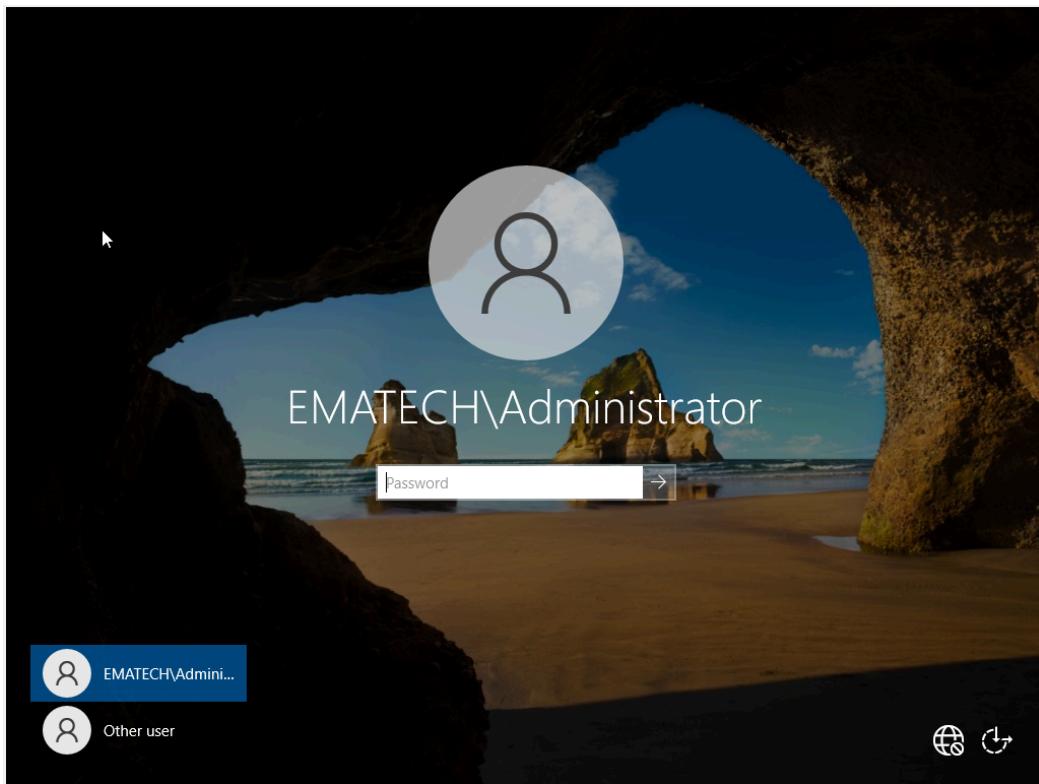
Step 18



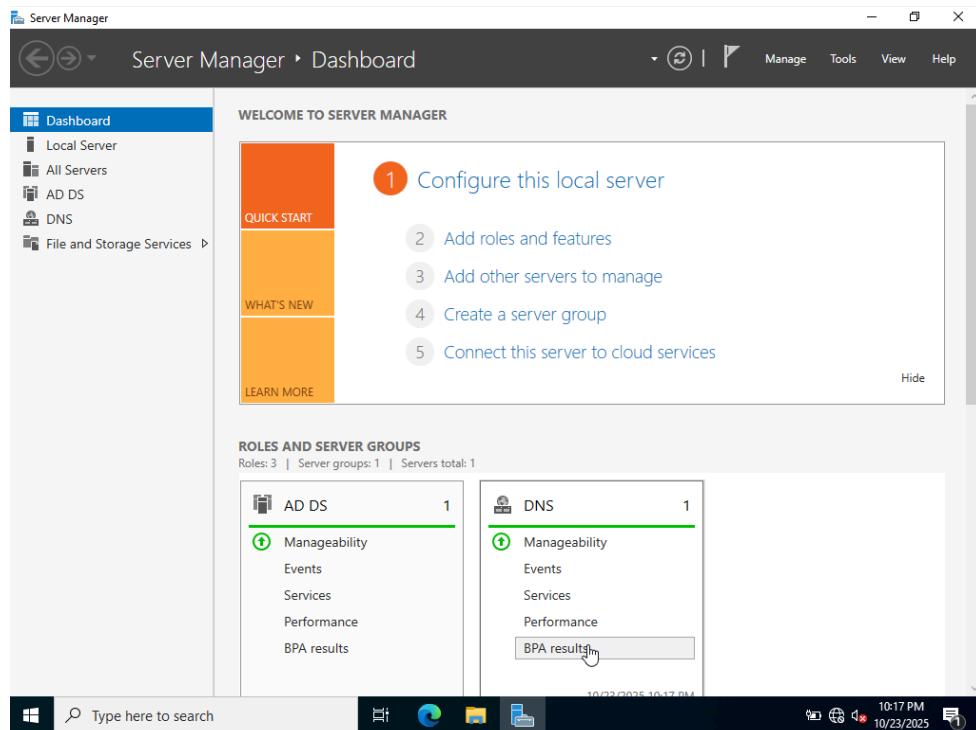
Step 19



Step 20: The Windows Server will automatically restart once the installation is complete.



Step 21: Active Directory Domain Server (AD DS) successfully promoted to a Domain Controller.



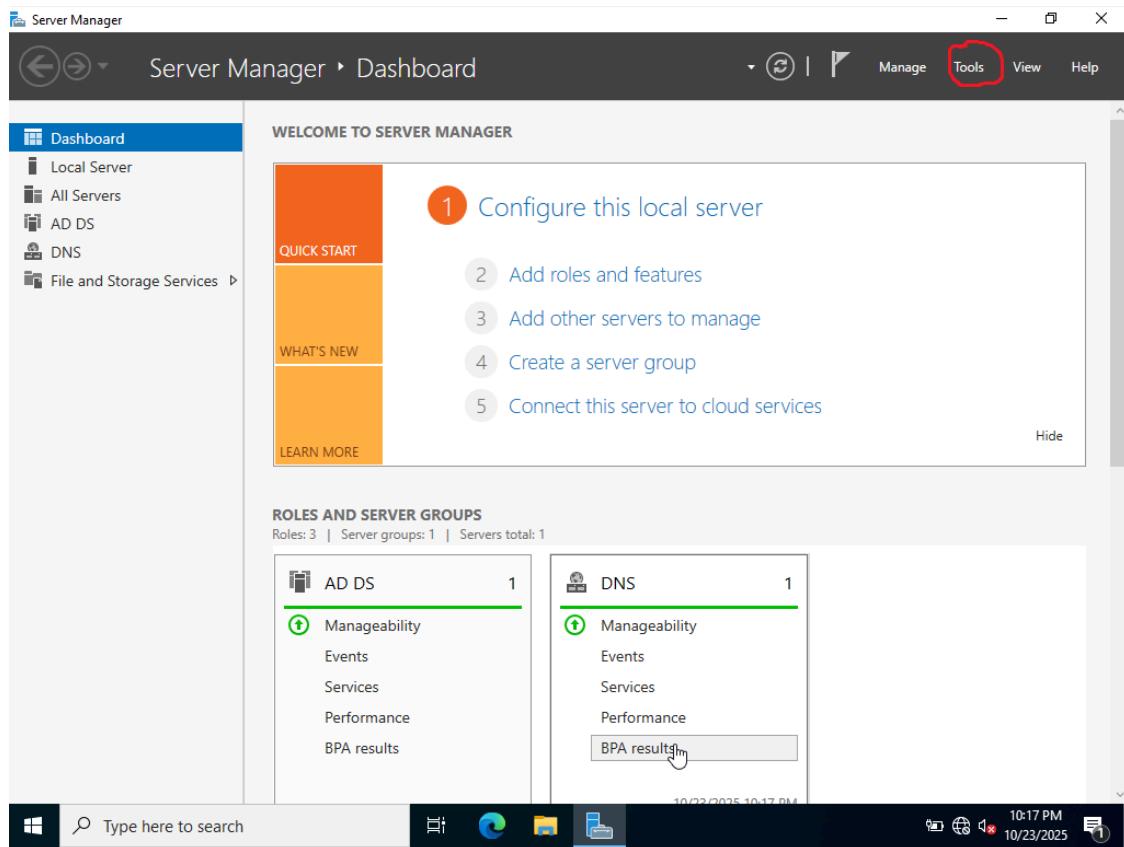
Creating OUs, Groups and Users

OUs: Lagos, UK, US

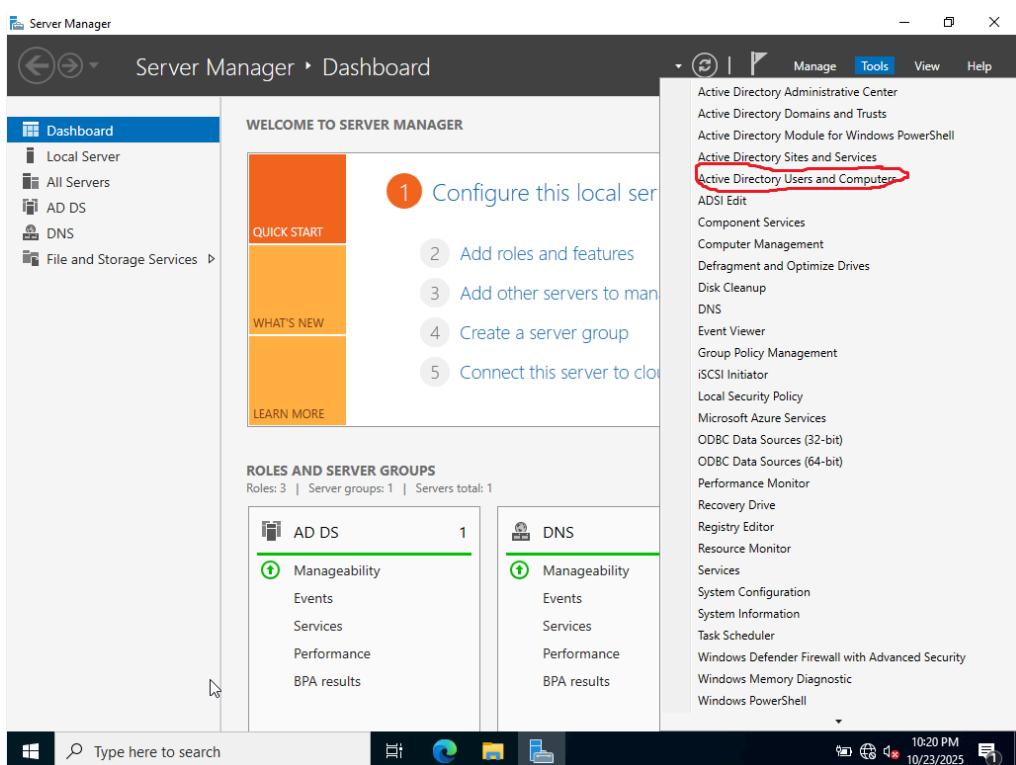
Groups: Finance, IT, Sales

Users: Aminat, Brian

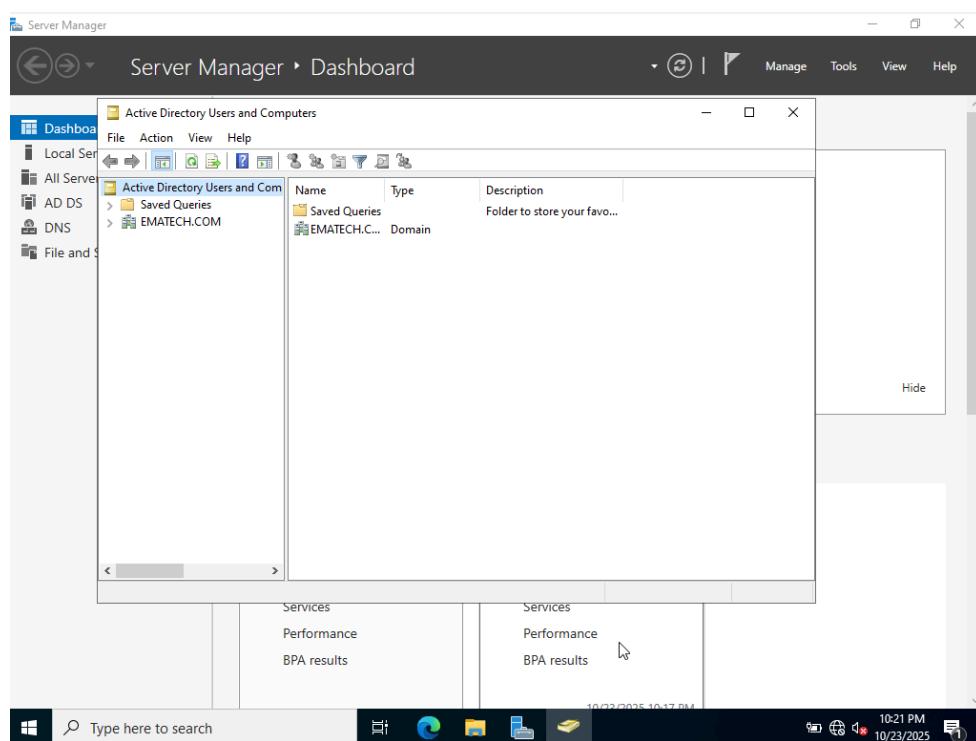
Step 1: Select “Tools”



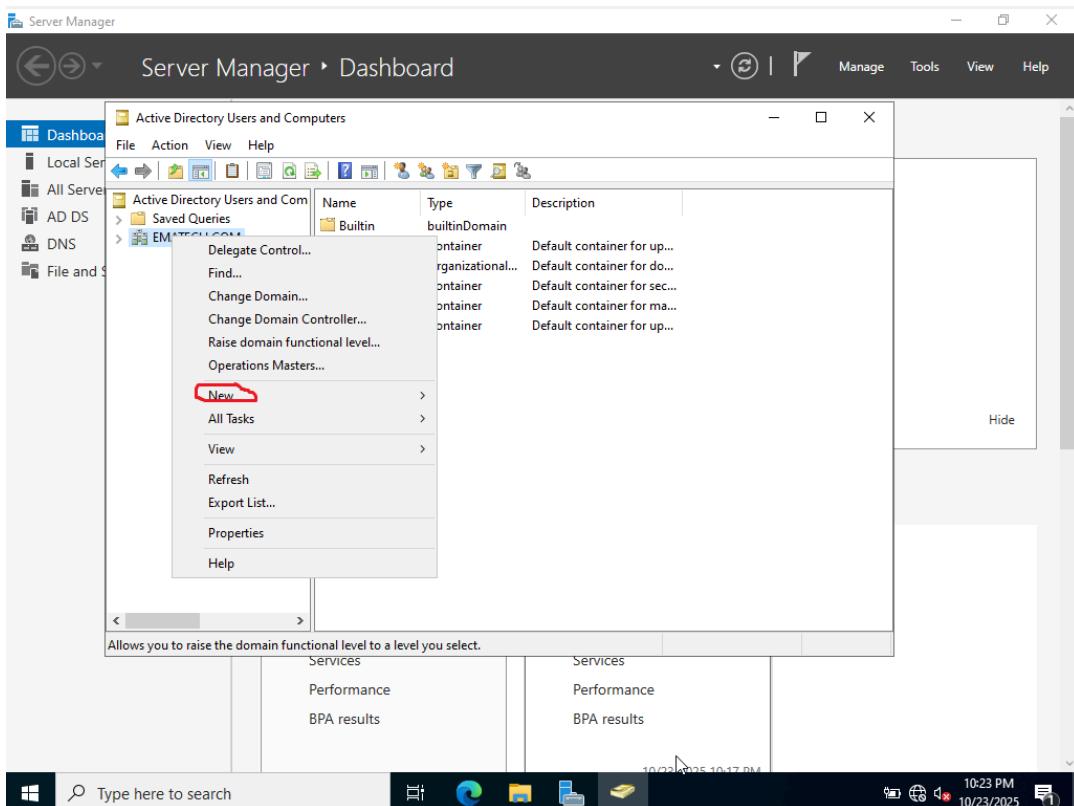
Step 2:



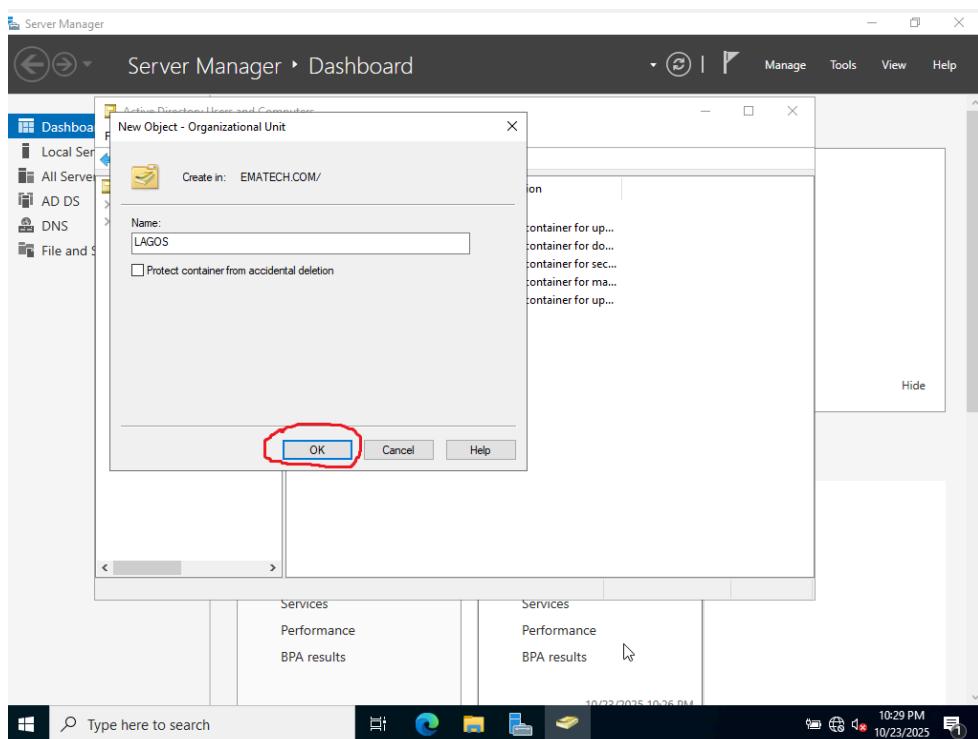
Step 3



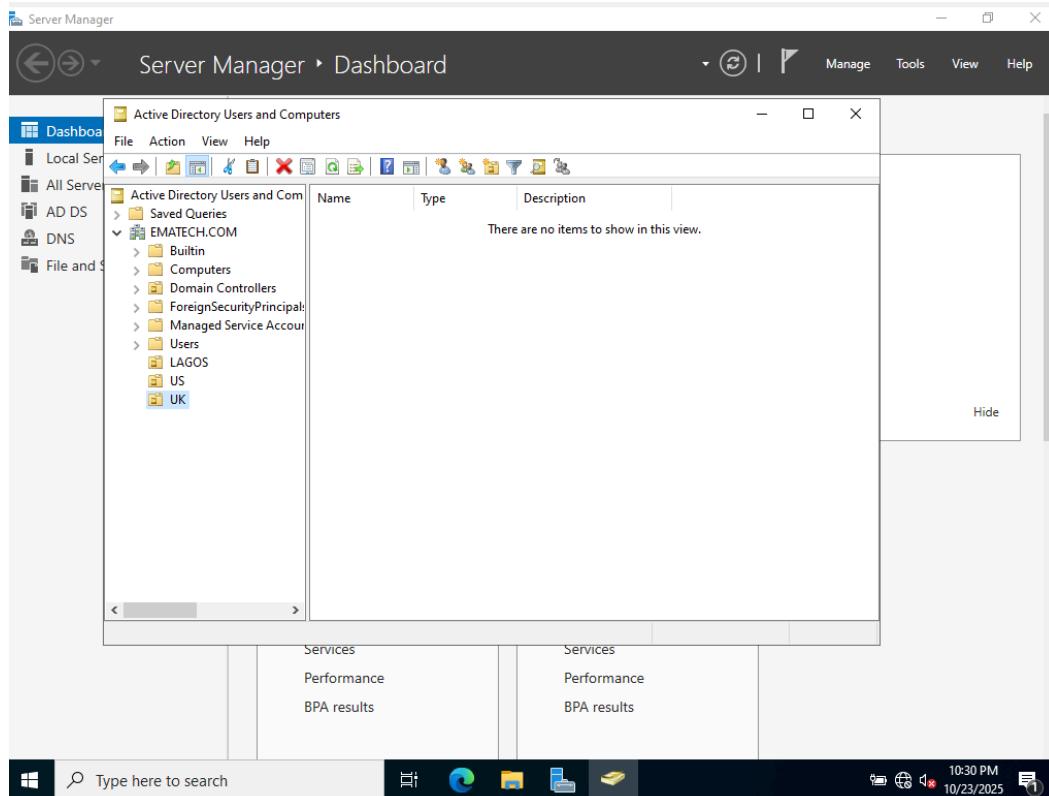
Step 4: Right click on the “[EMATECH.COM](#)” Select “New” and click on Organizational Unit



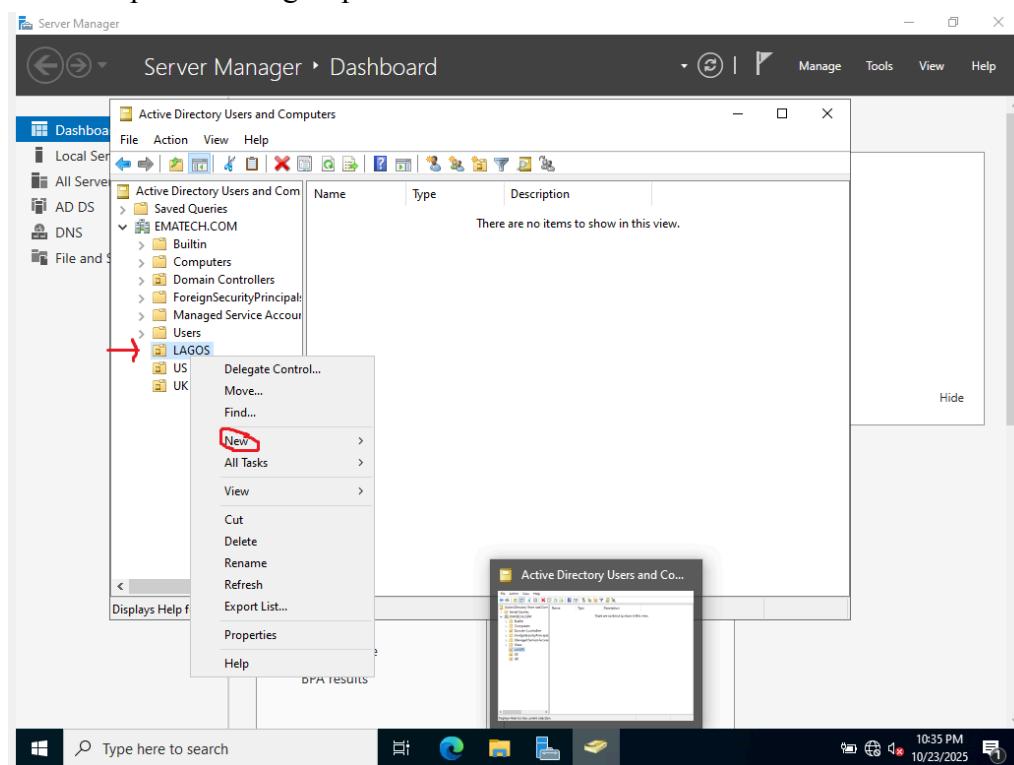
Step 5: For my setup, I will create Organizational Units (OUs) for Lagos, the UK, and the US.



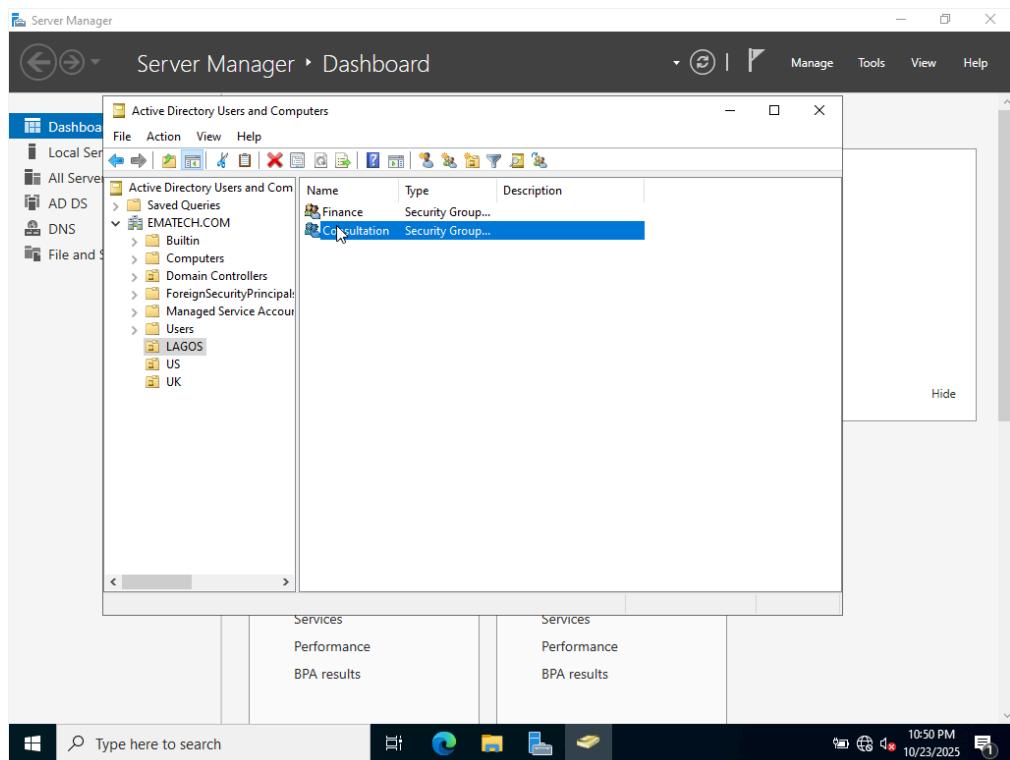
Step 6: I followed the same process for the remaining two.



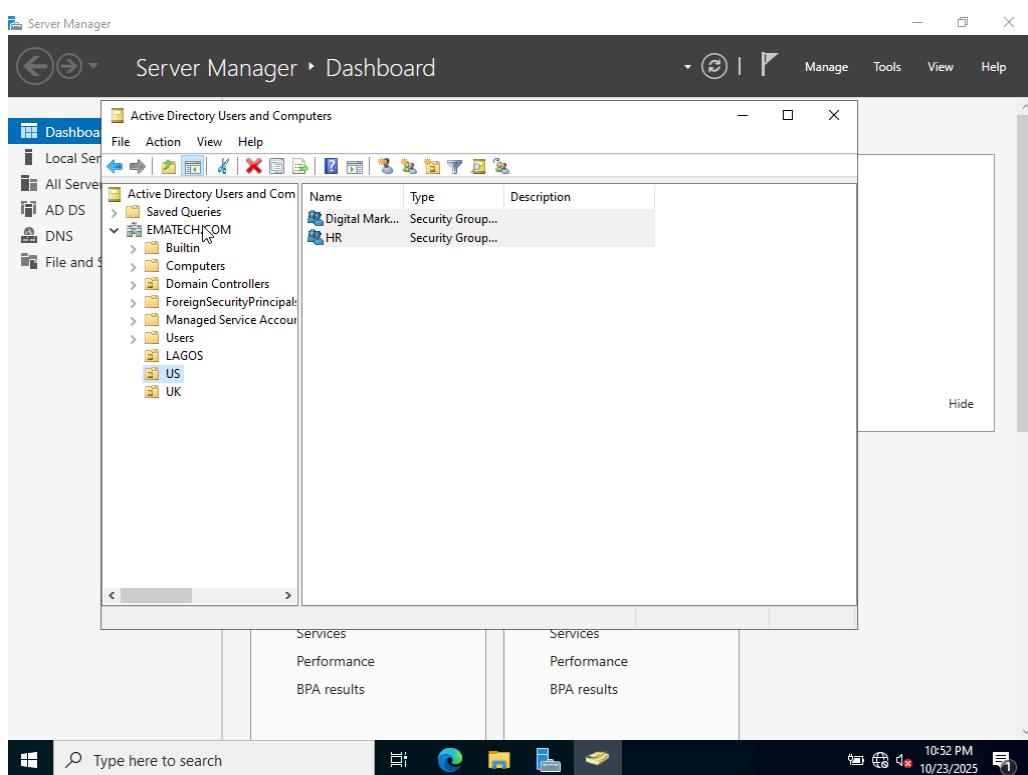
Step 7: Now to create a group under the ‘Lagos’ OU, right-click the OU, select ‘New,’ choose ‘Group,’ and then provide the group name



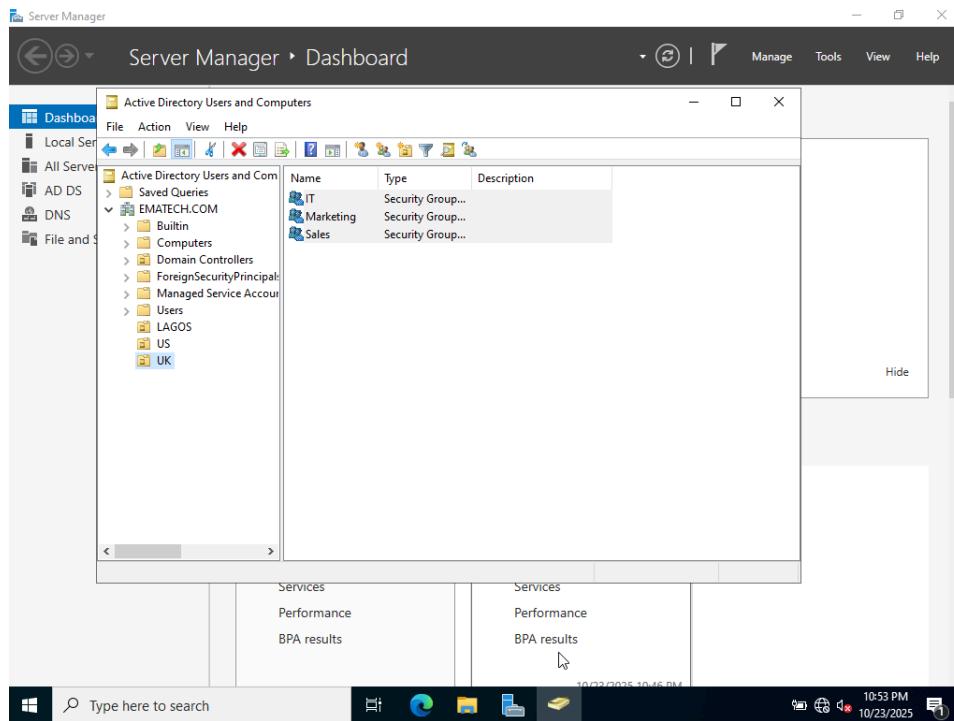
Step 8



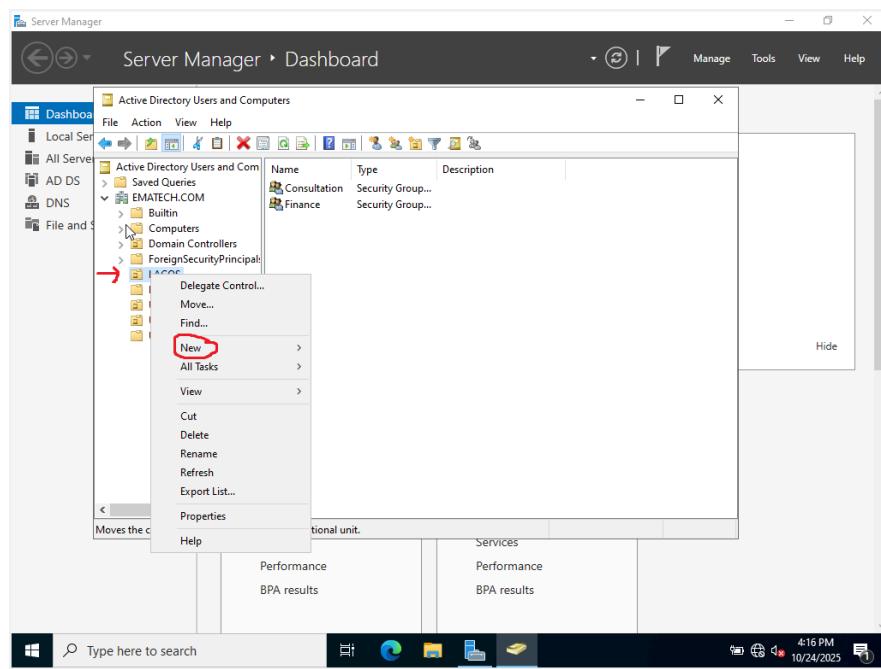
Step 9



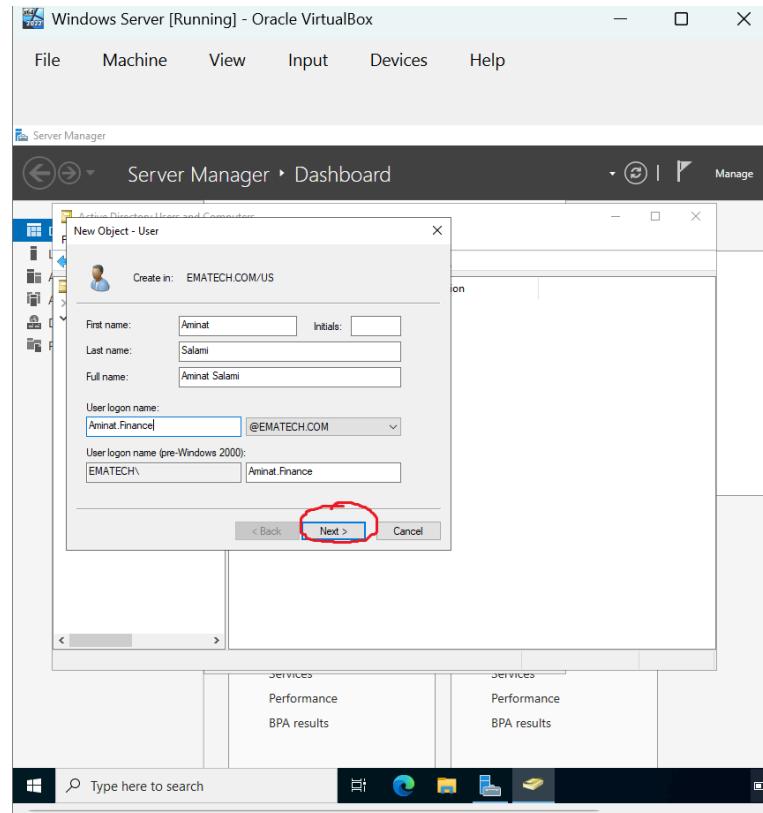
Step 11



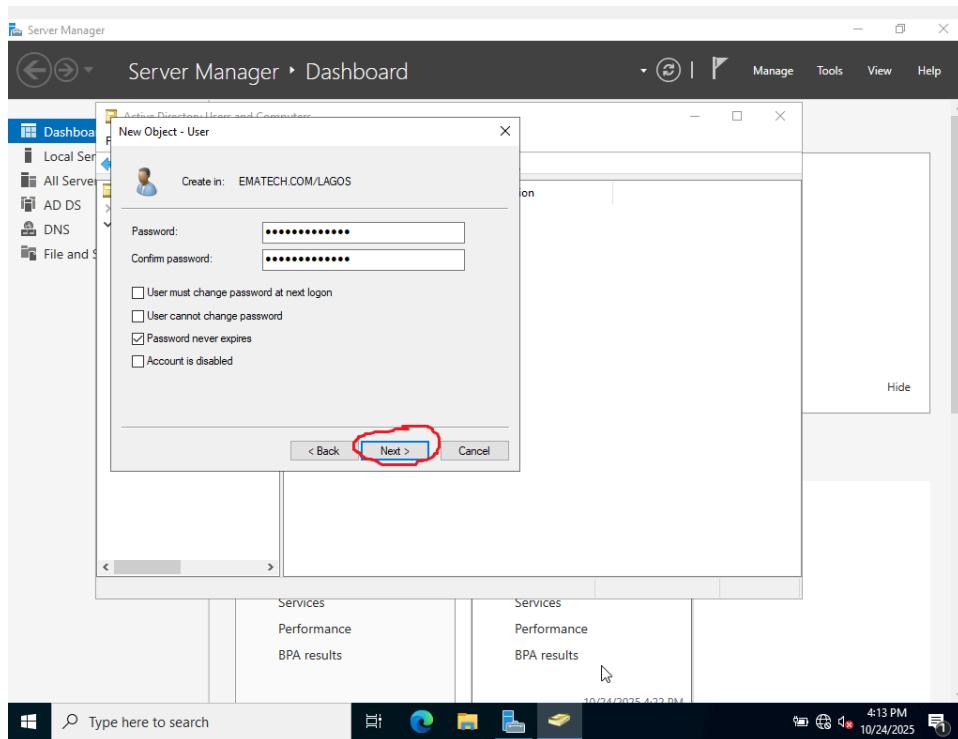
Step 12: To create the Users, Right- Click on the “OU” go to New and select “User”



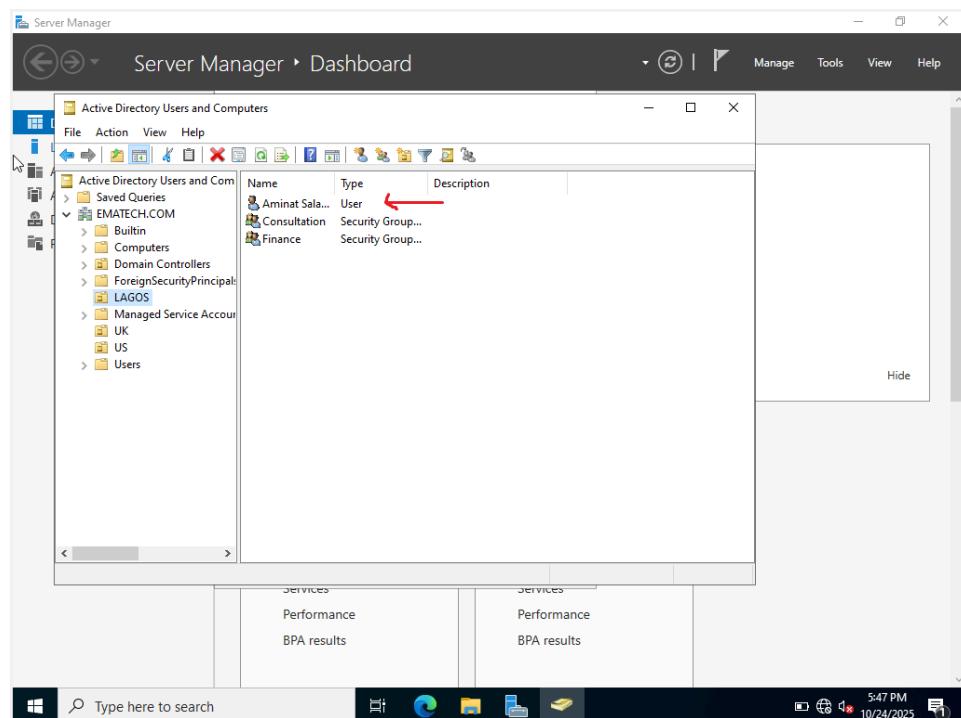
Step 13: Fill the User Information and select “Next”



Step 14: Enter User Password and select “Next”

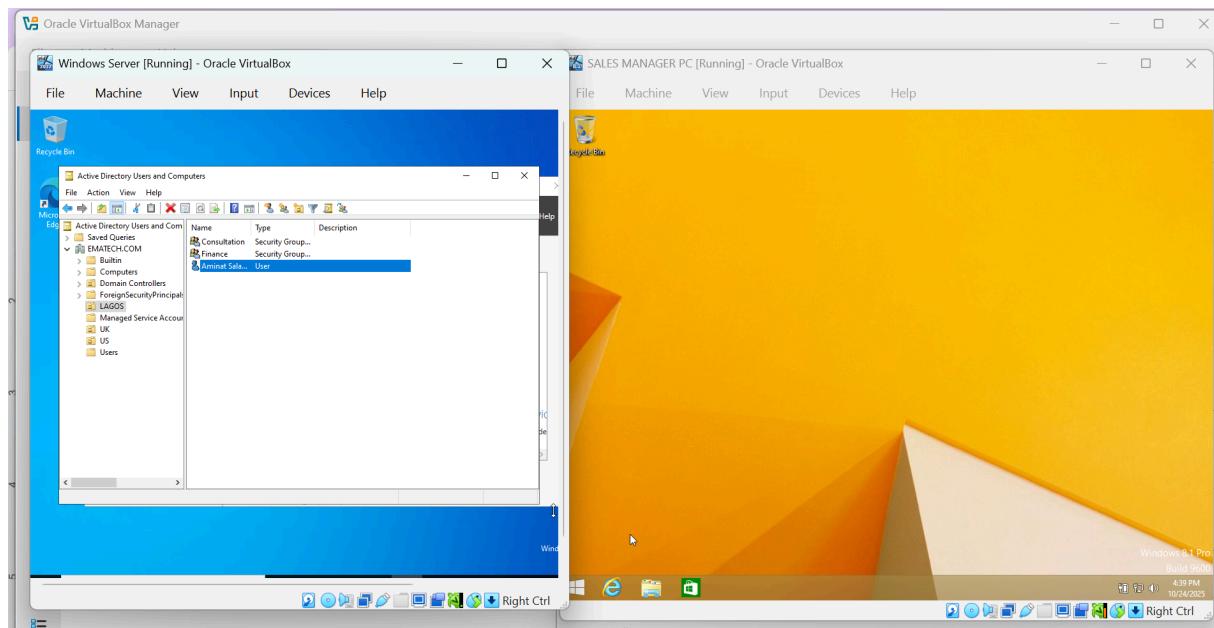


Step 15: User successfully Created

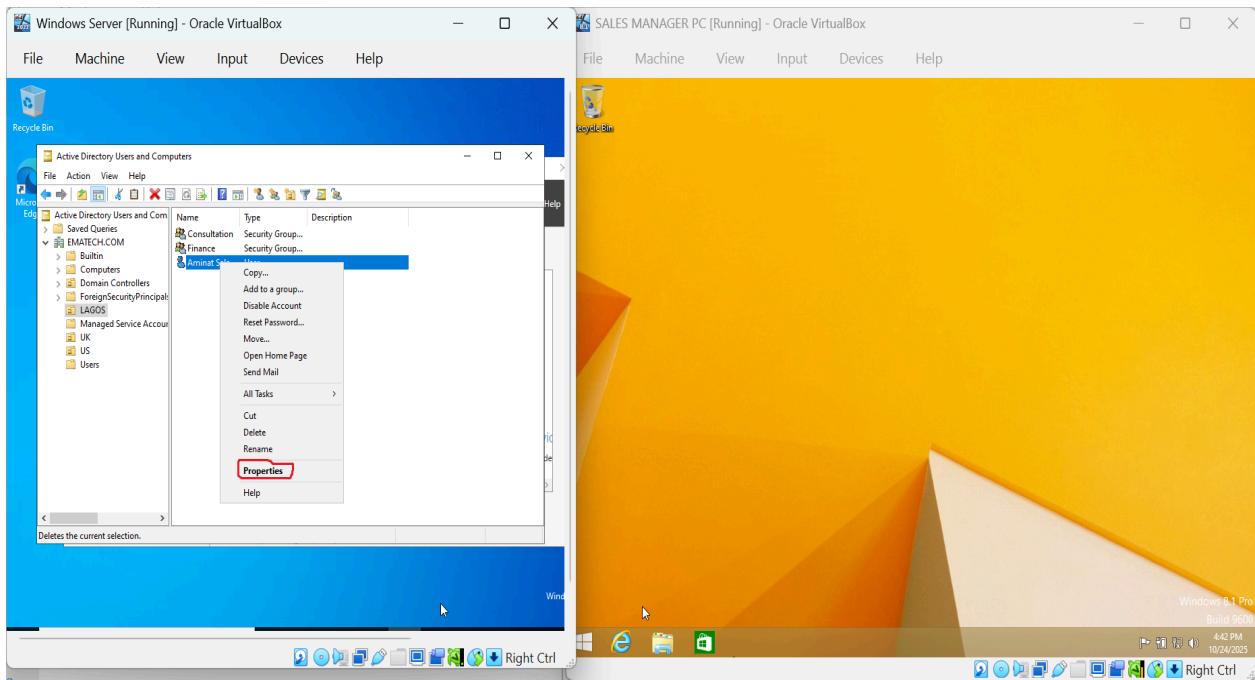


Let's Configure the Window 8 User's PC to the Windows Server Active Directory Domain

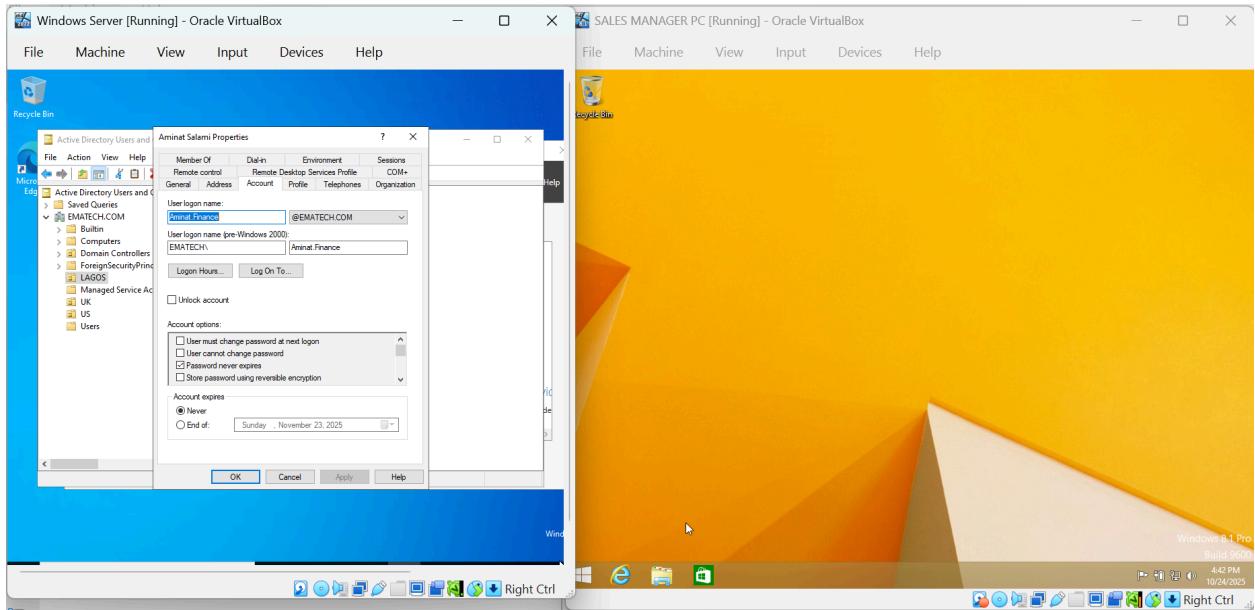
Step 1



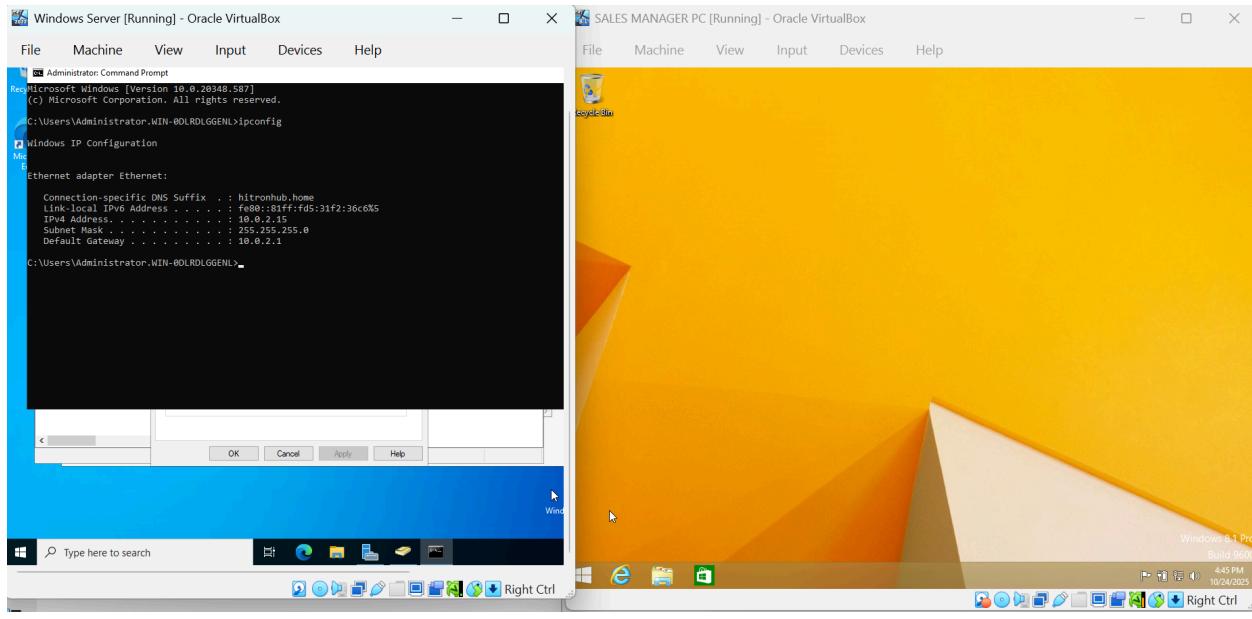
Step 2: Right-Click on user and select “Properties”



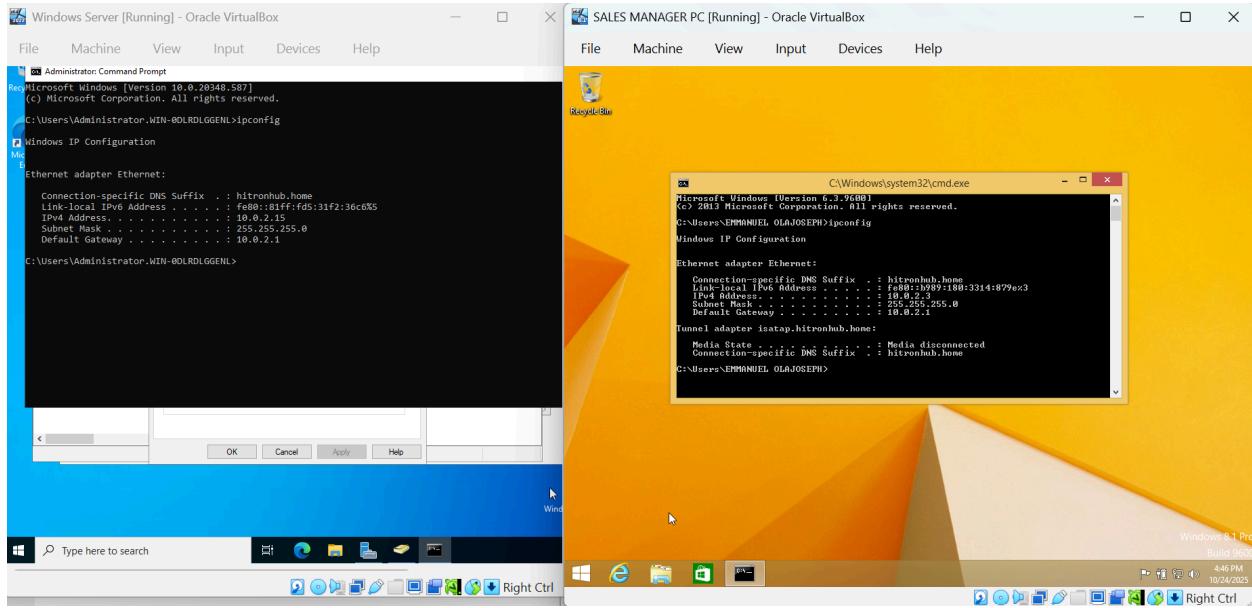
Step 3



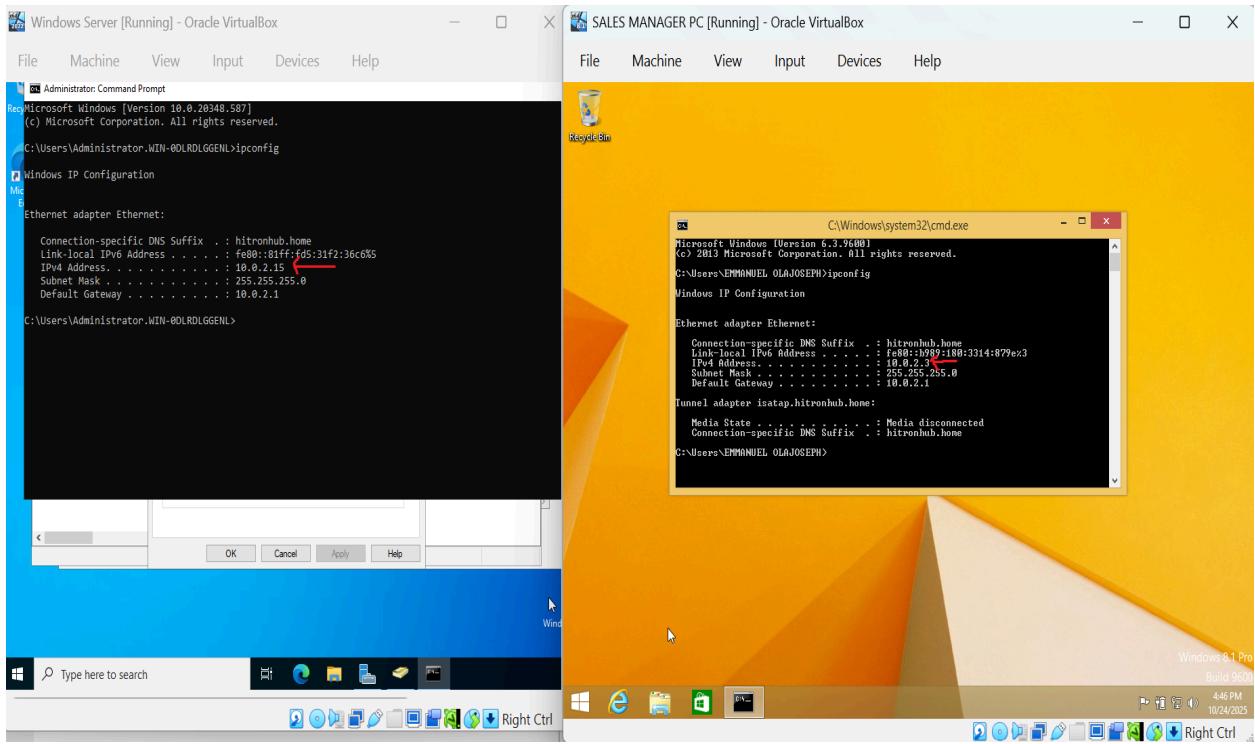
Step 4: On the Windows Server, press **Windows key + R**, type **cmd**, and press **Enter**. In the Command Prompt window, type “**ipconfig**” and press **Enter** to view the server’s IP configuration.



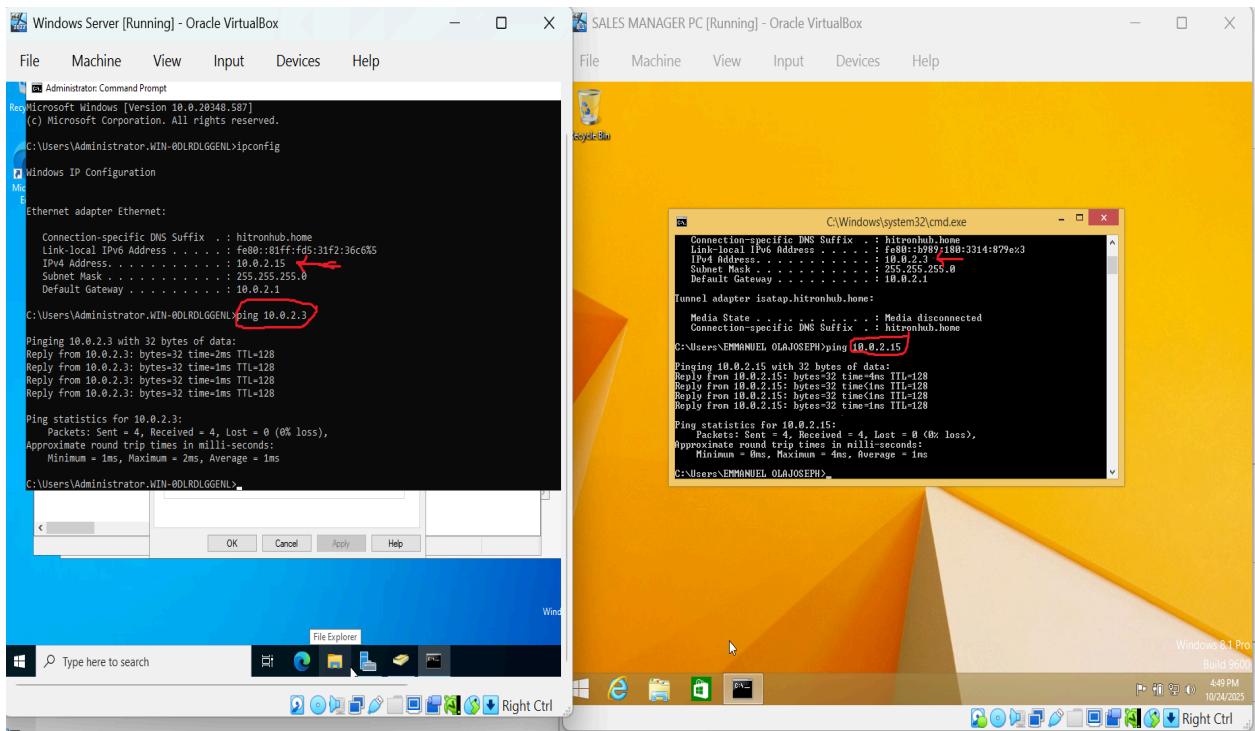
Step 5: Do the same for the Window 8 PC to view the IP address



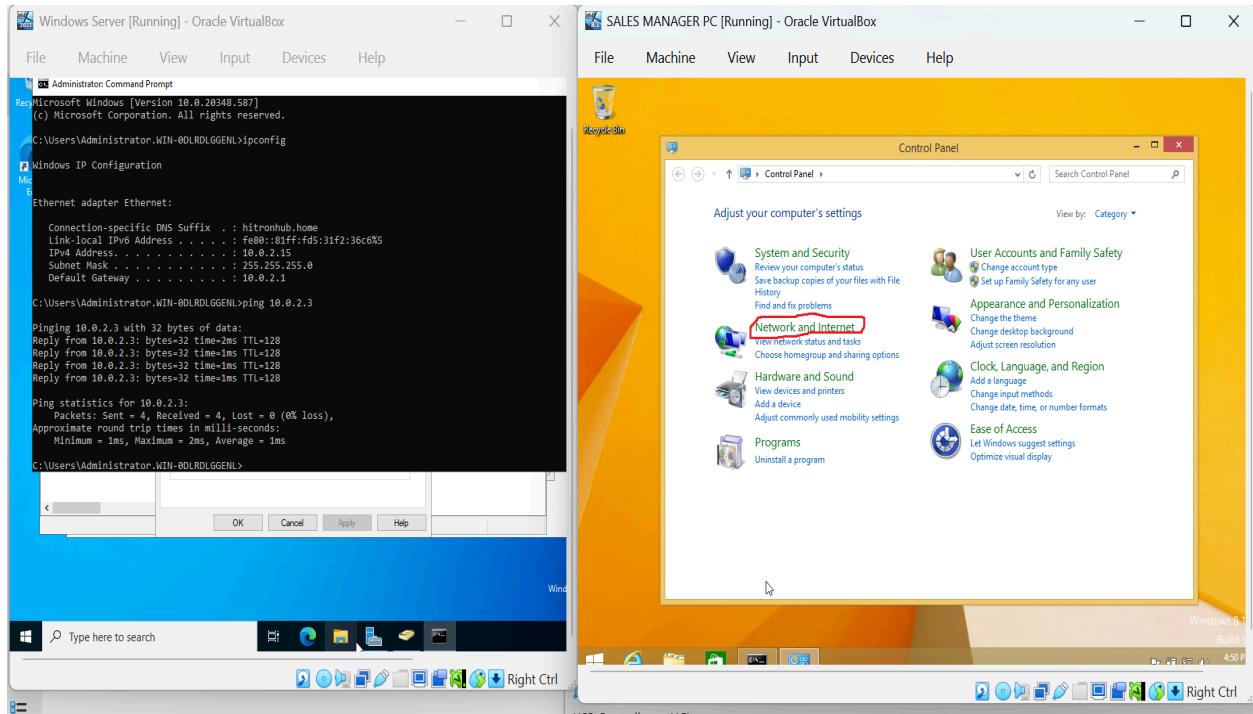
Step 6: Both IP Addresses



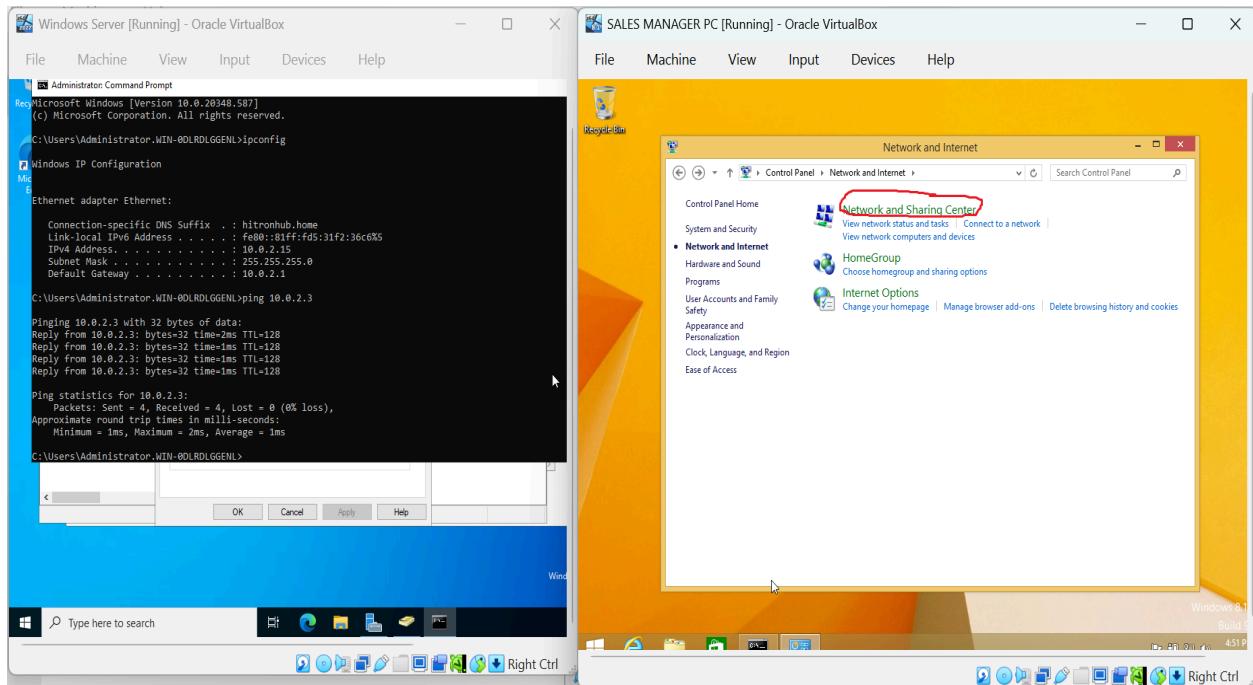
Step 7: Ping both IP addresses to each other



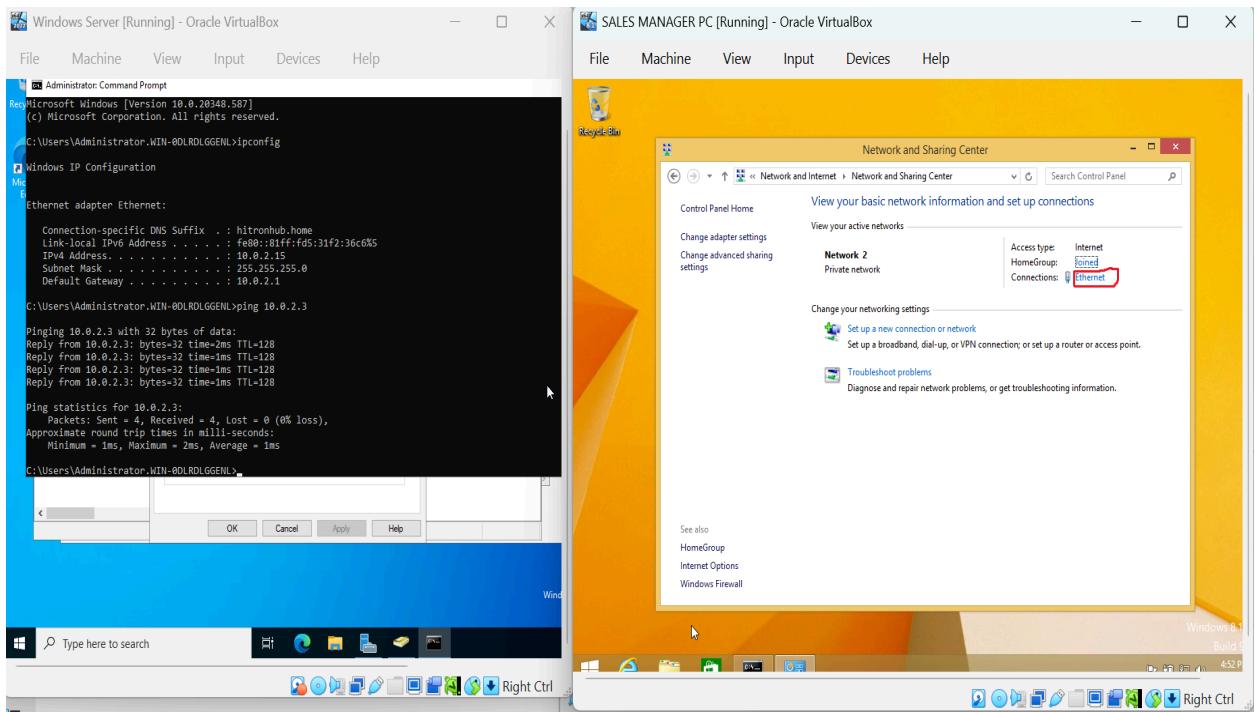
Step 8



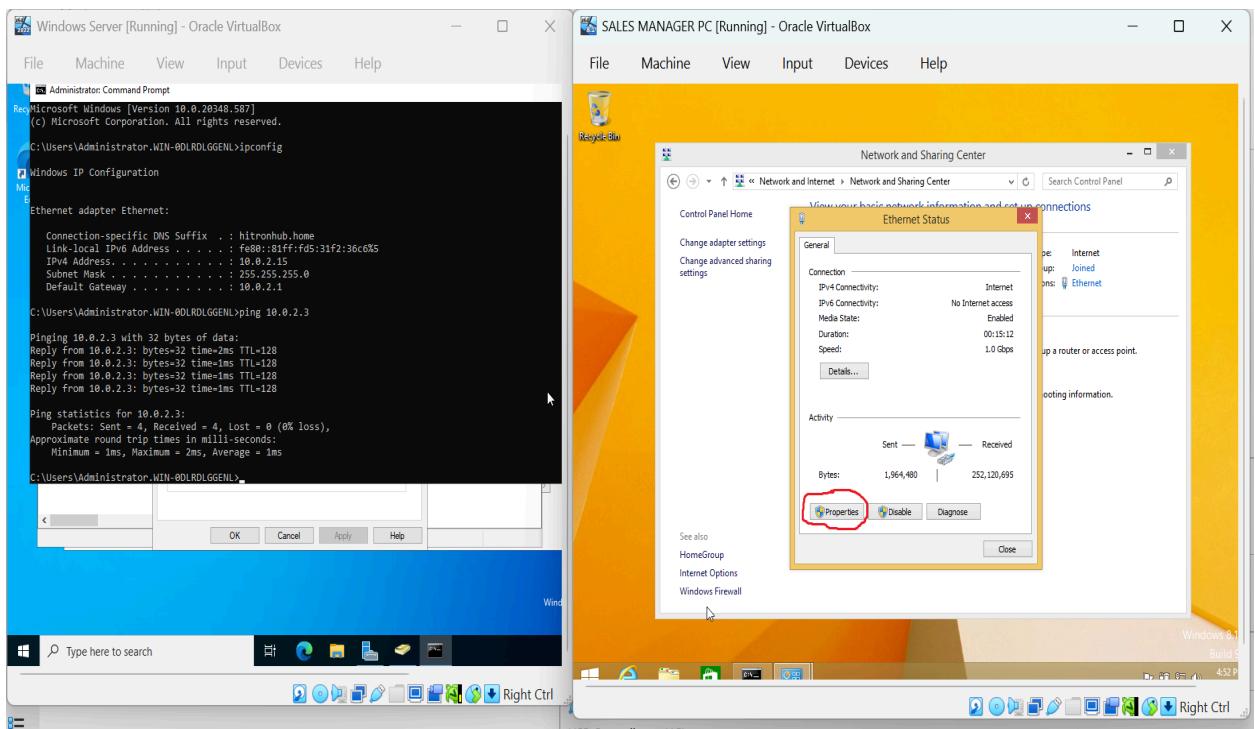
Step 9



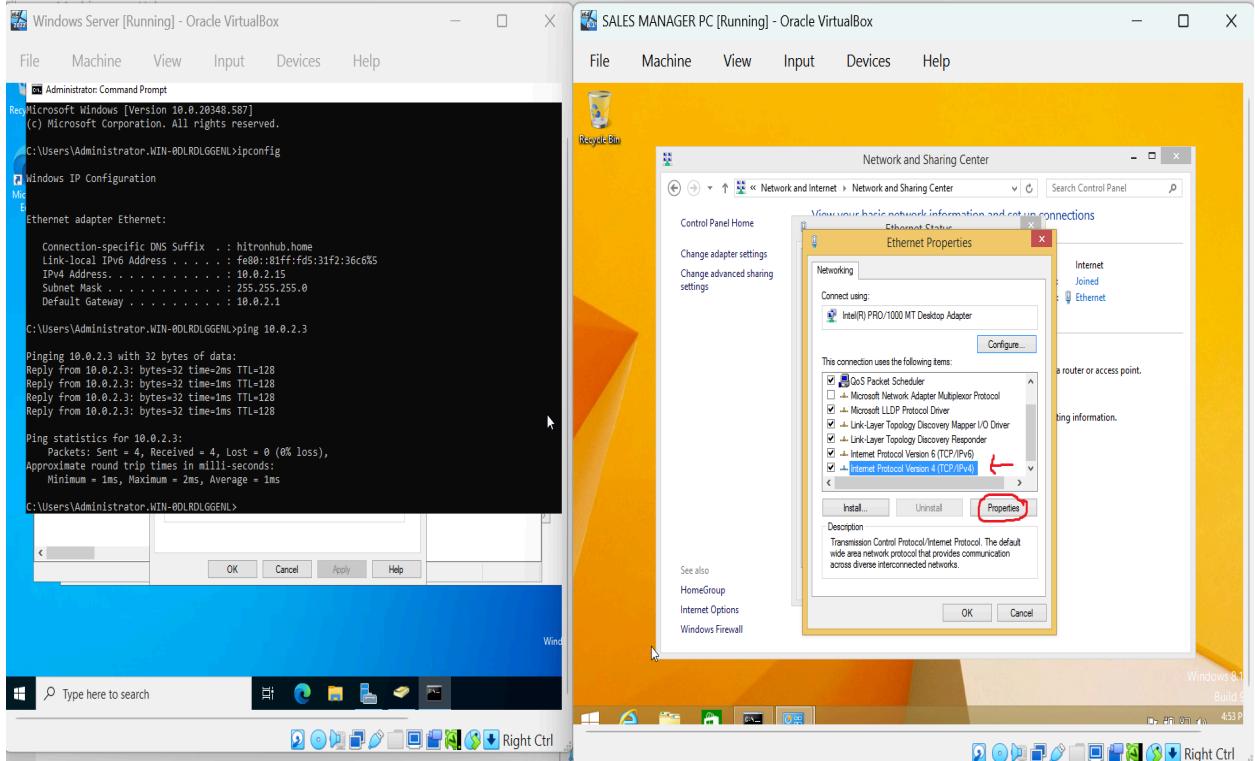
Step 10



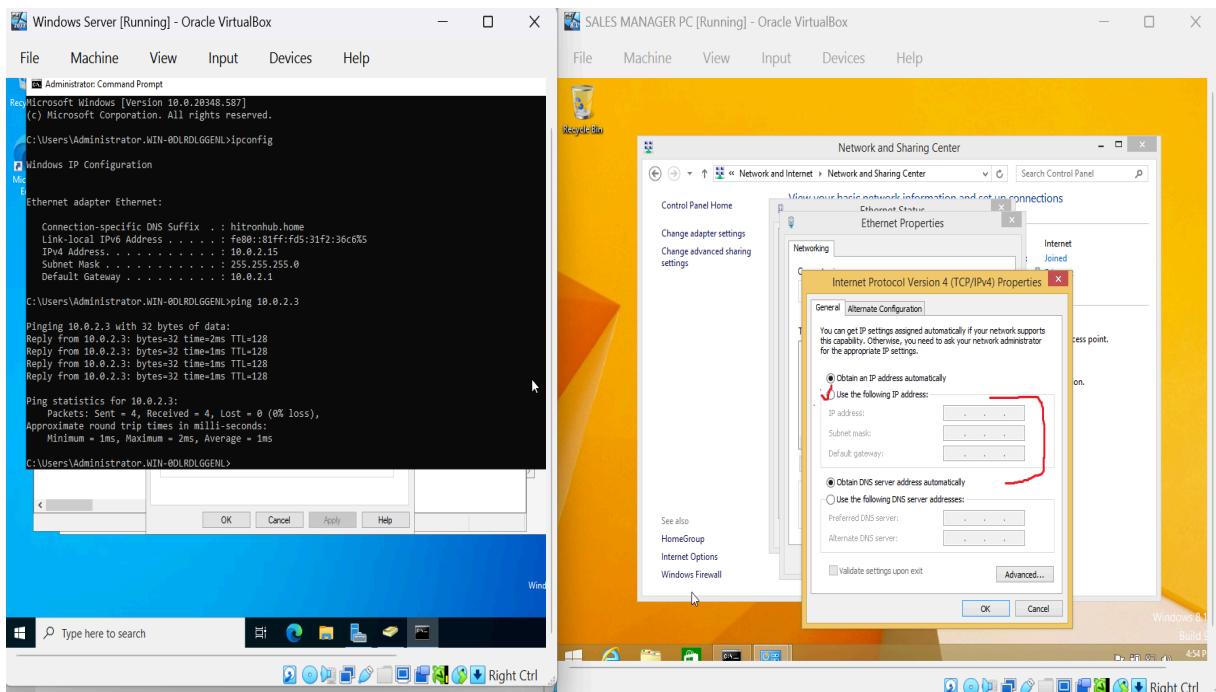
Step 11



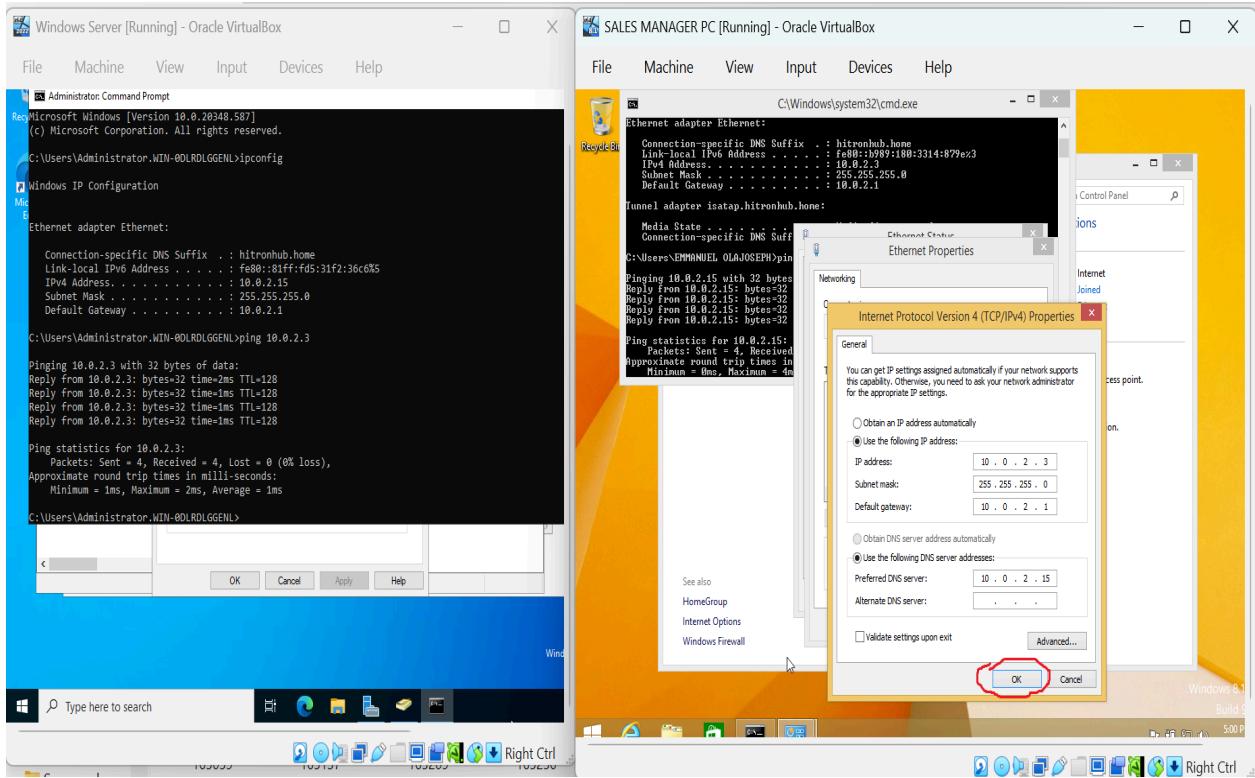
Step 12



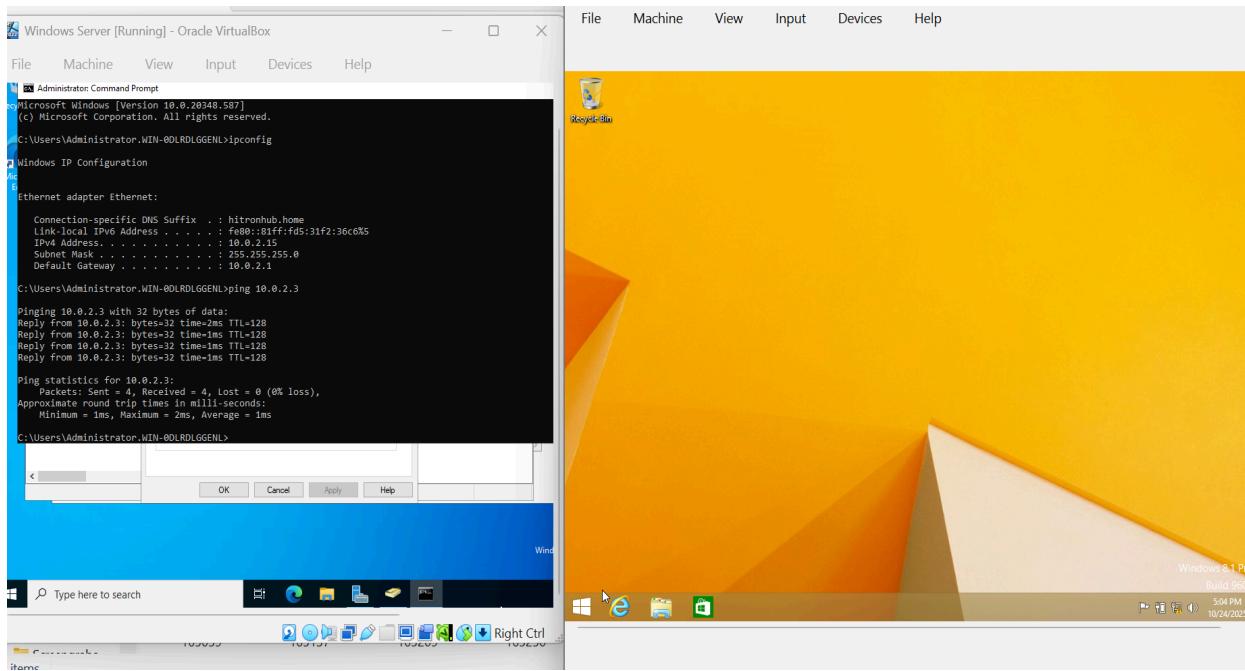
Step 13: Click “Use the following IP Address”



Step 15: Enter the “IP Address, Subnet Mask, Default Gateway” of the Window 8 PC and the Window Server “IP address” as the **DNS Server** to the Window 8 PC

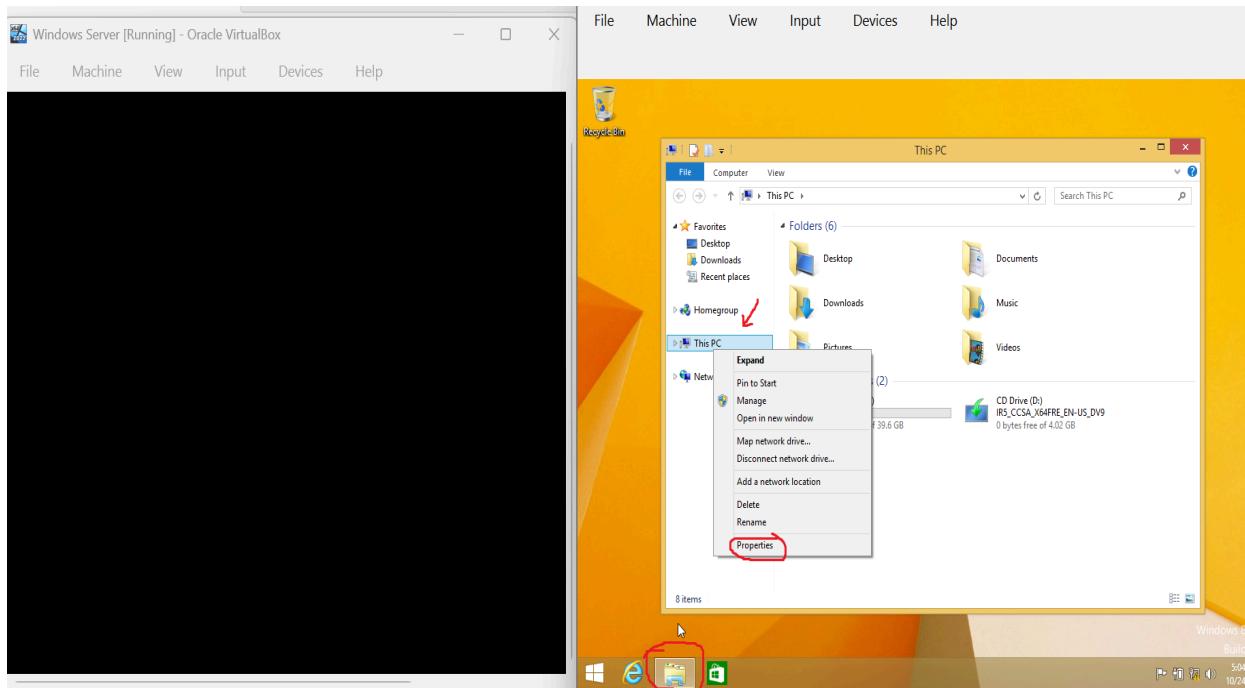


Step 16

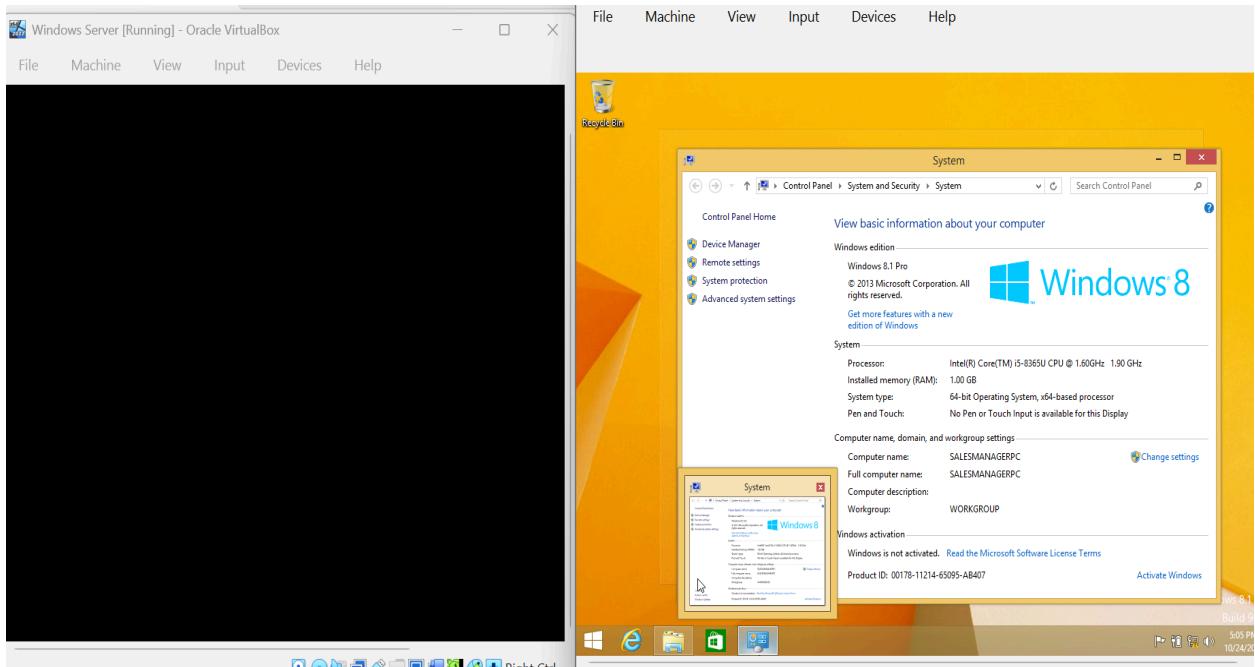


Step 17

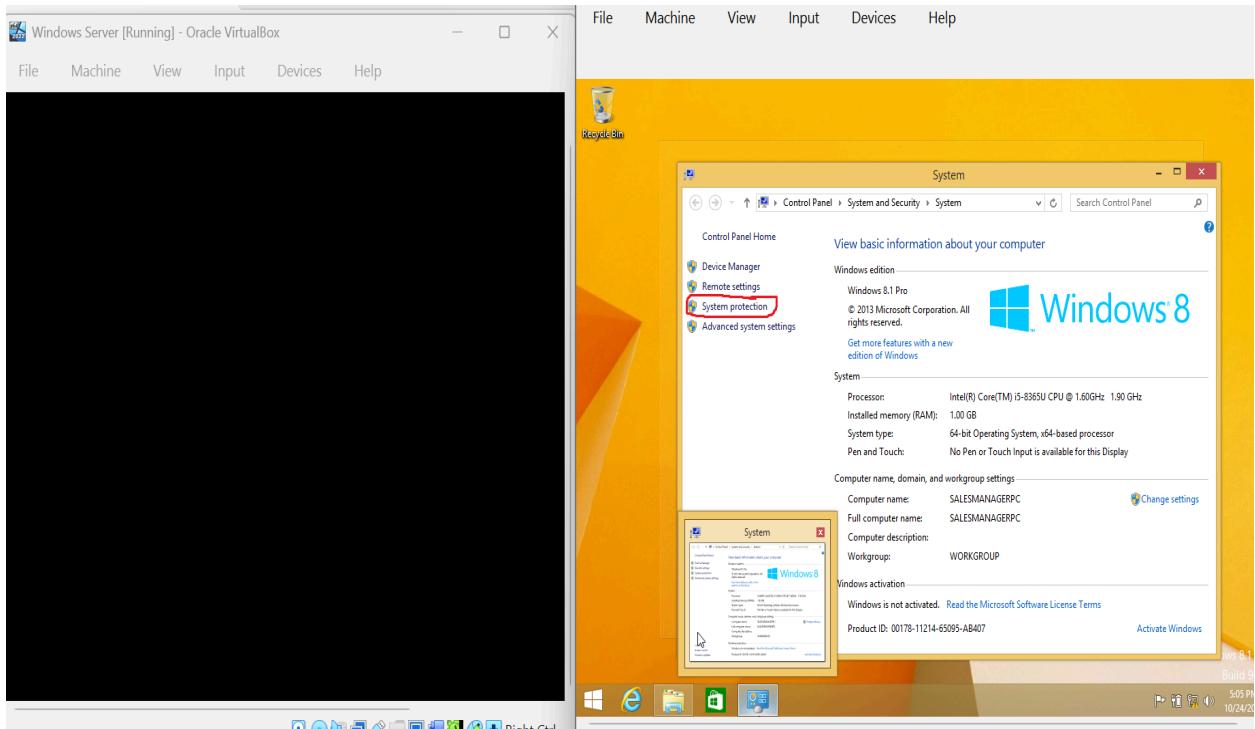
Click on the file explorer and right-click on “The PC” and select “Properties”



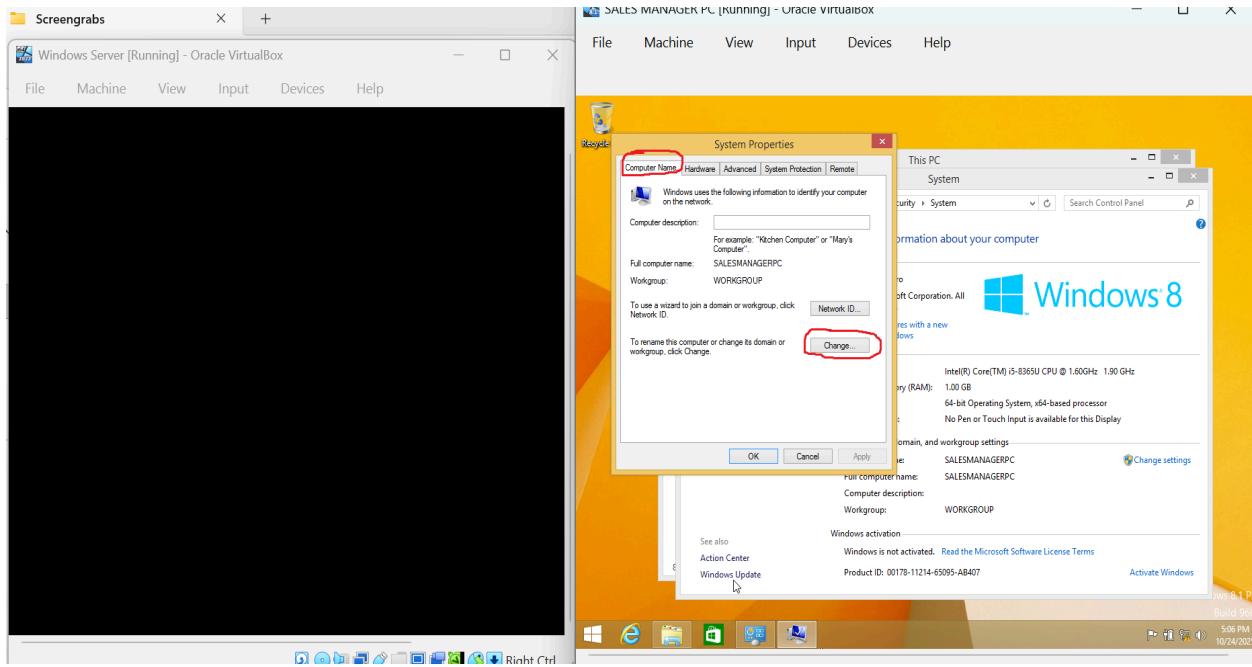
Step 18



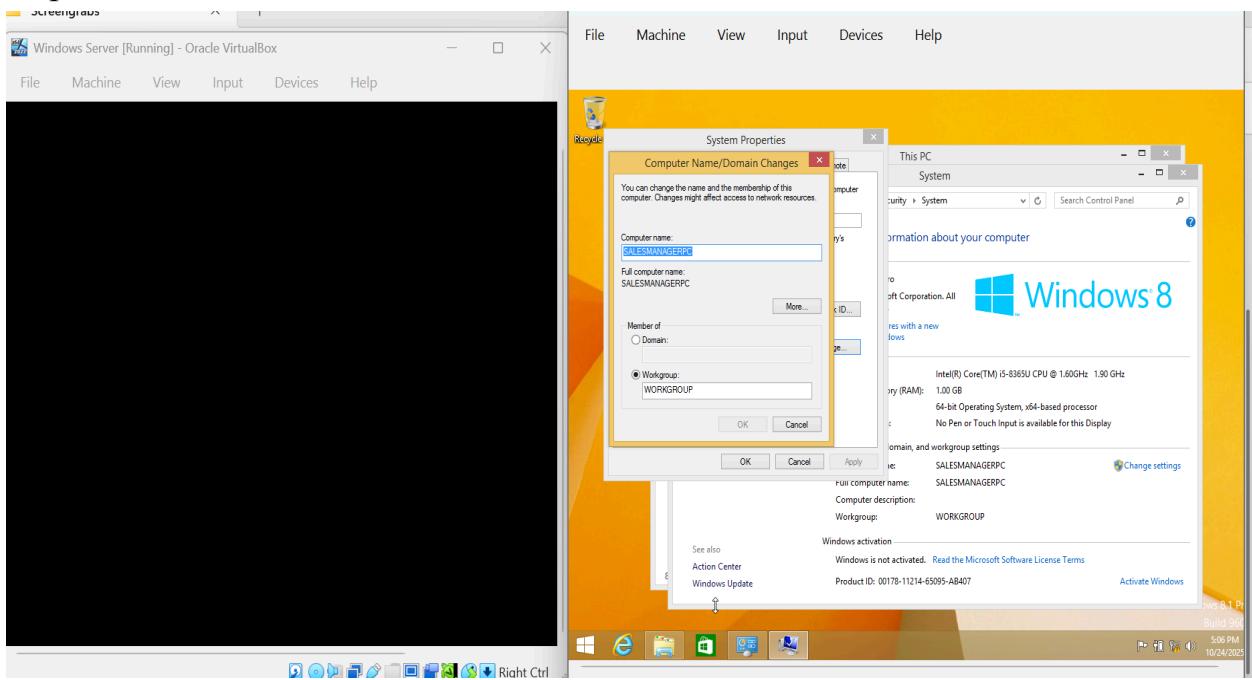
Step 19



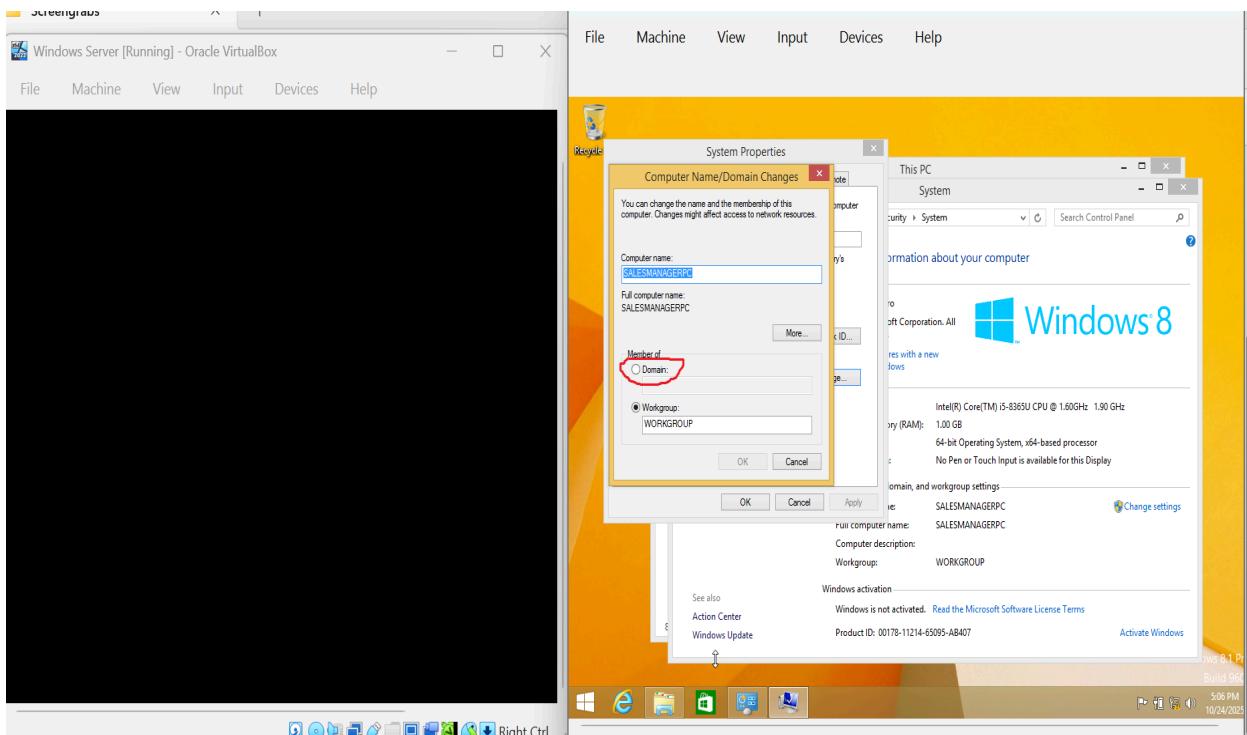
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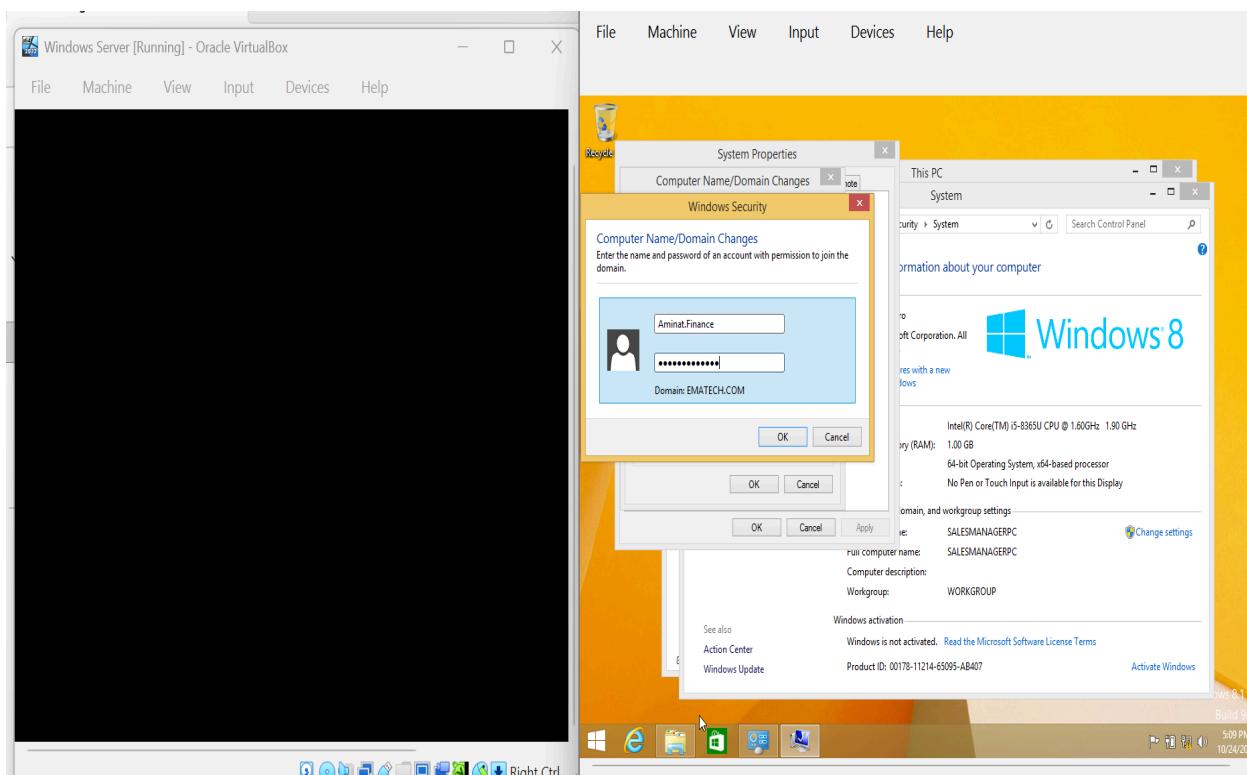
Step 21



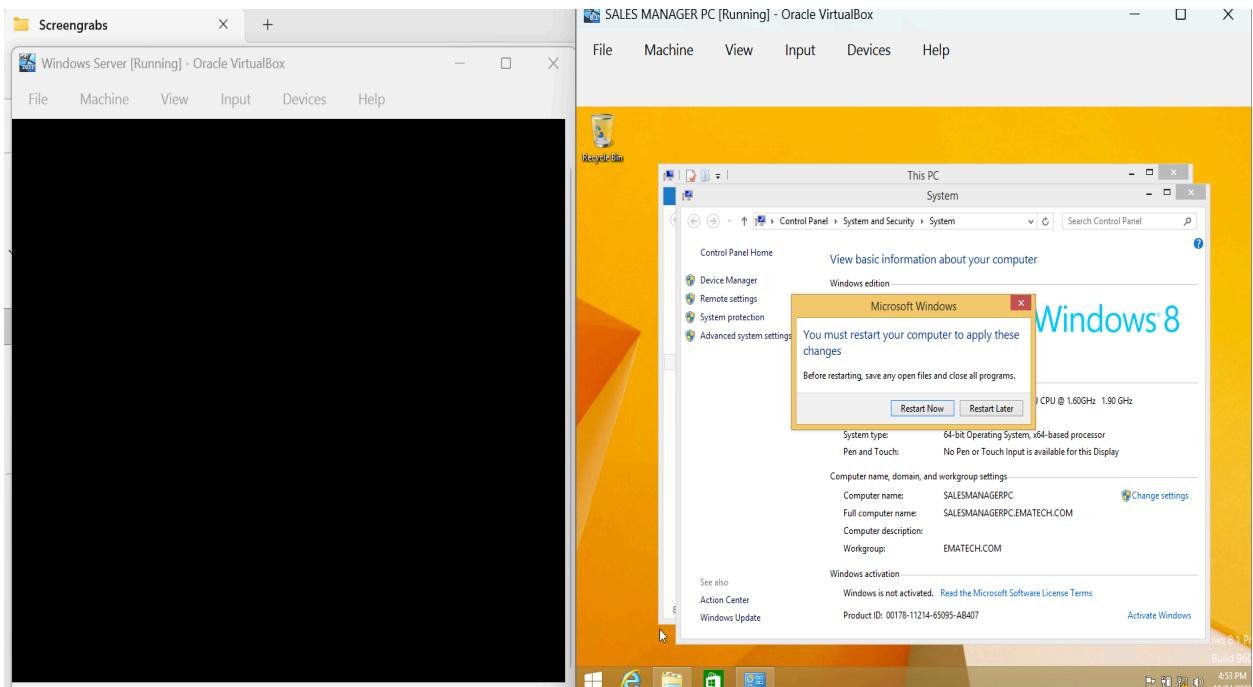
Step 22: Click on “Member of Domain” to enter “[EMATECH.COM](#)” Active Directory Window Server Domain



Step 23: Enter the user “username and password”



Step 24: Click to Restart



Step 25: Windows Server Active Directory Domain Services (AD DS) with Client PC Successfully Configured

