# Windows Server 2022/2025 with Windows 10 Client — Active Directory Project

Date/Time: 5:00 PM (Start of Installation)

## Project Objective

To install and configure Windows Server 2022/2025 as a Domain Controller and connect a Windows 10 client to the same domain using VMware Workstation Pro. This project demonstrates an understanding of Windows Server setup, Active Directory configuration, IP assignment, and domain joining.

## Tools and Resources

* Virtualization Platform: VMware Workstation Pro
* Server OS: Windows Server 2022 / 2025 (Evaluation Version) - https://www.microsoft.com/en-us/evalcenter/download-windows-server-2025
* Client OS: Windows 10 (2022 Update) - https://www.microsoft.com/en-us/software-download/windows10
* Reference Videos:
* - Install Windows Server 2025 on VMware | Full Tutorial: https://www.youtube.com/watch?v=7be423KU5HQ
* - How to Install Windows 10 on VMware Workstation Pro: https://www.youtube.com/watch?v=53P7AL1bLz4
* - Create a Domain in Windows Server 2025 and Connect Windows 10 Client: https://www.youtube.com/watch?v=teJMyb-in5o
* - How to Install and Configure Active Directory Domain Services (AD DS): https://www.youtube.com/watch?v=-q2l48Ap3s8

## Part 1: Install Windows Server 2022/2025 on VMware Workstation

1. Create a New Virtual Machine: Open VMware Workstation Pro → Create a New Virtual Machine → Typical (Recommended) → Select 'I will install OS later' → Choose Windows Server 2022/2025 (x64).
2. Allocate 60–80 GB Disk Space and at least 4 GB RAM, 2 Cores, NAT Network → Finish and Power On the VM.
3. Follow the installation wizard to complete setup. Set Administrator password (e.g., p@$$w0rd).
4. In Server Manager, click 'Add roles and features' → Select 'Active Directory Domain Services (AD DS)' → Install.
5. Click 'Promote this server to a domain controller' → Choose 'Add a new forest' → Enter domain name (e.g., corp.local) → Set DSRM password → Install.
6. Configure Static IP: Run 'ncpa.cpl' → Ethernet → Properties → IPv4 → Set IP, Subnet, Gateway, Preferred DNS (Server IP), Alternate DNS (8.8.8.8).
7. Create Users: Server Manager → Tools → Active Directory Users and Computers → Right-click domain → New → User → Set credentials and password.

* Screenshot Folder Reference: screenshots/server/

## Part 2: Install Windows 10 on VMware Workstation

1. Create a New Virtual Machine → Typical (Recommended) → Select 'I will install OS later' → Choose Windows 10 (x64).
2. Allocate 60 GB Disk Space, 3–4 GB RAM, 2 Cores, and NAT Network → Mount the Windows 10 ISO.
3. Power on the VM and complete installation.
4. Once booted, check the IP configuration using 'ipconfig' and ensure it matches the same network as the server.
5. Join Domain: Control Panel → System → Rename this PC (Advanced) → Change → Domain: corp.local → Provide domain admin credentials → Restart.
6. Login using domain user (e.g., corp.local\jdoe). Verify access to the domain resources.

* Screenshot Folder Reference: screenshots/client/

## Troubleshooting Notes

* EFU Network Unsuccessful during installation – Refer to https://www.youtube.com/watch?v=SBPtT5p\_JcY
* Ensure both Server and Client VMs use the same NAT or Bridged Network.
* If domain join fails, verify DNS settings on client – Preferred DNS should be the Server IP.

## Project Completion Summary

* Installed and configured Windows Server 2022/2025 as a Domain Controller.
* Set up Active Directory, Users, and Organizational Units.
* Configured IP addressing, DNS, and DHCP.
* Installed Windows 10 client and successfully joined it to the AD domain.
* Verified authentication and policy enforcement between Server and Client.

