Project Title: Introduction to Windows Server 2022

Project Objective: The objective of this project is to familiarize the student with the basic setup and administration tasks of Windows Server 2022. By completing this project, the student will gain hands-on experience with installing, configuring, and managing various server roles and features.

Project Steps:

- Setting Up the Virtual Environment:
    - Explain the concept of virtualization and why it's used.
    - Install a virtualization software such as VMware Workstation.
    - Create a new virtual machine (VM) with the following specifications:
    - Operating System: Windows Server 2022
    - RAM: 4GB or higher
    - Hard Disk: At least 60GB
    - Networking: Bridged or NAT for internet access
- Installing Windows Server 2022:
    - Mount the ISO image to the virtual machine.
    - Start the virtual machine and proceed with the installation of Windows Server 2022.
    - Follow the installation wizard, select the appropriate options, and complete the installation.
- Initial Configuration:
    - After installation, log in to the Windows Server 2022.
    - Change the computer name to a suitable name.
    - Set the administrator password.
    - Configure the network settings (IP address, subnet mask, gateway, DNS) based on your network environment.
- Adding Roles and Features:
    - Introduce the concept of roles and features in Windows Server.
    - Use Server Manager to add roles and features.
    - Add common server roles such as:
    - Active Directory Domain Services (AD DS)
    - DNS Server
    - DHCP Server
- Add features such as:
    - Remote Server Administration Tools (RSAT)
    - .NET Framework
- Configuring Active Directory:
    - Explain the purpose of Active Directory and its components.
    - Promote the server to a domain controller.
    - Create a new Active Directory forest or join an existing one.
    - Configure DNS settings for Active Directory.

- Configuring DNS Server:
    - Explain the role of DNS in name resolution.
    - Install and configure DNS Server role.
    - Create forward and reverse lookup zones.
    - Configure DNS zone transfers and dynamic updates.
- Testing and Troubleshooting:
    - Perform basic connectivity tests within the network.
    - Verify DNS resolution.
    - Troubleshoot common issues such as network connectivity problems, DNS resolution failures, etc.