Active Directory Project

Step 1 :

Install Virtual Box and 6.1.34

Install Virtual Box 6.1.34 Extender

Step 2:

Download Windows 10 ISO

Download Windows Server ISO

Step 3:

Virtual Box

Create DC (Domain Controller) New virtual box.

Settings->General->Advanced->Shared Clipboard + Drag n Drop: set to bidirectional

Settings->System->Motherboard->Base Memory: set processors to 2gb or 2048mb

Settings->Network: Adapter 1 is set to NAT and Adapter 2 is set to Internal Network

Settings->Storage->ISO File for server

Start Virtual Box

Install Desktop experience

AdminPass: Password1!

Step 4:   Renaming Server and Ethernet Adapters

Network Settings -> Ethernet 1 and Ethernet 2

Right Click-> Status : Check IP's for what is connecting to the internet 10.0…..

Rename to _INTERNET_

Right Click ->Status: Check IP's for what is connected to local computer 169. 1….

Rename to X_Internal_X

Step 5:   Set IP address bases off Network Architecture picture

Network Settings -> X_Internal_X

       IP: 172.16.0.1

       Mask: 255.255.255.0

       Gateway: (empty)

       DNS: 127.0.0.1

Step 6:   Configure Local Server

Server Manager Dashboard -> 2: Add Roles and Features

       Next Next Next -> Active Directory Domain Services

Step 7:   Post Deployment Configuration

(Yellow Flag Tab)

Promote This Server -> Add new forest

Root Domain Name : mydomain.com

Password: Password1!

Step 8:   Create Dedicated Domain Admin Account

Start -> Windows Administrator Tools -> Active Directory Users and Computers

Right Click mydomain.com -> Create New Organizational Unit

Organizational Unit: _ADMINS

Right click _ADMINS - > Create new User

       New User : a-arusek

       Pass: Password1!

Make Admin -> Right Click User -> Properties -> Member of -> Add: domain admins

Sign out and re-Sign in as: a-arusek

Step 9:   Install RAS/NAT for Client routing through DC Server

Server Manager -> Add Roles and Features -> Remote Access: Allow Remote Access and Install

Server Manager -> Tools -> Routing and Remote access -> Right Click Server -> Configure and Enable Routing and Remote Access -> Install NAT

Step 10:   Install and configure DHCP

Server Manager -> Add Roles and Features -> DHCP Server: Install

Step 11:   Create a Scope for DHCP between 172.16.0.100-200

Server Manager -> Tools -> DHCP -> IPv4: Right Click -> New Scope

Range: 172.16.0.100 – 200

Mask: 255.255.255.0

Gateway: 172.16.0.1 (Don't Forget to ADD)

DNS: 172.16.0.1 #######<Error Was not a valid DNS (May cause issue in future)>###

Step 12:   Grant DC Server Internet Access (Not for actual professional use. Okay for Lab environments)

Server Manager -> Configure This local server -> IE Enhanced Security Configuration: Set to OFF

Step 13:   Download PowerShell script to create random Users

Internet Explorer -> https://github.com/joshmadakor1/AD_PS/archive/master.zip

Save As -> Desktop

Step 13 :   Open File in PowerShell and Allow PowerShell run script

Windows Key -> Power Shell ICE -> Right Click: Run as Administrator

Command in PowerShell: Set-ExecutionPolicy Unrestricted

Command in PowerShell: C:\Users\a-arusek\Desktop\AD_PS-master (to access .txt file)

Run Script to add all Users

Step 14:   Create new Virtual Machine and install Windows 10

VM Create New -> Named CLIENT1 and Windows 10

Settings -> General -> Advanced -> Bilateral

Settings -> Storage -> ISO Windows 10 File

Settings -> Network -> Internal Network

Double Click and Install

USER: CLIENT1

Pass: Password2!

Questions: blah, blah, blah

Step 15:   Check to see if Internet is accessible

Problems: No internet connectivity.

Go back to DC Domain Controller Server -> Check Internal NIC Ethernet Adapter

My issue was the IP was not set for my internal NIC and therefore was not allowing a connection through to the client.

Set IP of X_Interal_X Ethernet Adapter to IP Designated in Architecture Diagram.

Internet is resolved and now the client can access the internet through our DC Server.

Step 16:   Log Into a User that has been created on the Server

Use log in Credentials for all users

Username: (first initial)(last name)   example: jbezos

Password: (whatever was set in PowerShell Script)   example: Password1