N+

ITVNA0-22 Project 1

SUBNETTING

1.2

192.168.1.66/28

a. Subnet Mask

Binary: 1111111.11111111.11111111.1111000

Decimal: 255.255.255.240

Byte Size:

BZ = 256-240

=16

Search for IP Address Scope:

192.168.1.0	**-**	**192.168.1.15**
192.168.1.16	**-**	**192.168.1.31**
192.168.1.32	**-**	**192.168.1.47**
192.168.1.48	**-**	**192.168.1.63**
192.168.1.64	**-**	**192.168.1.79**

Broadcast Address:

192.168.1.79

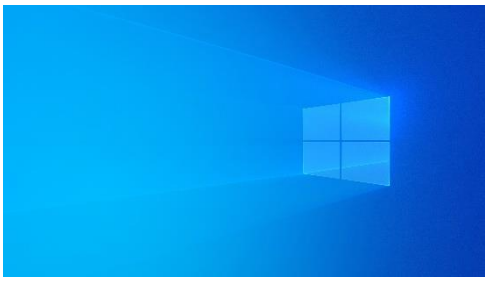
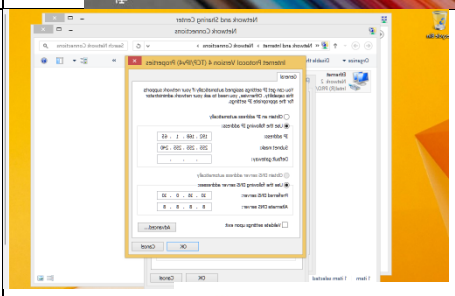
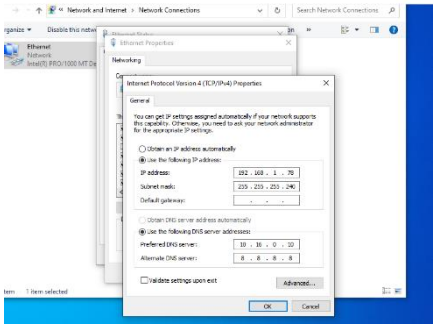
First Host:

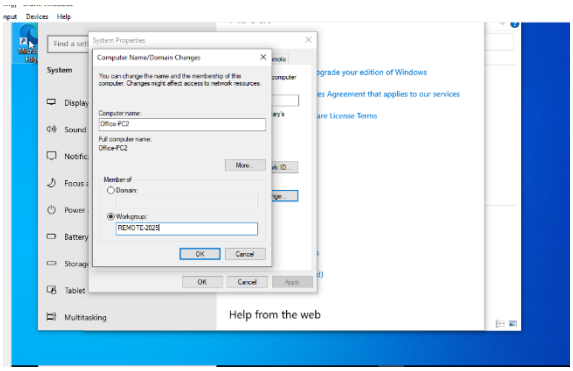
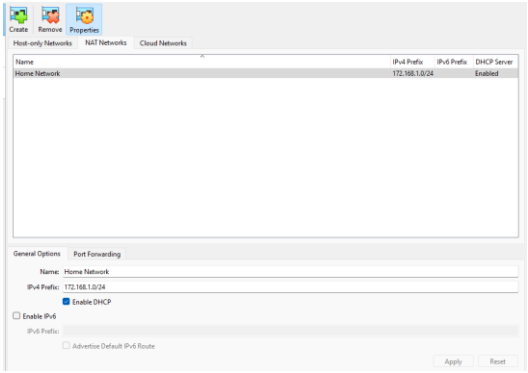
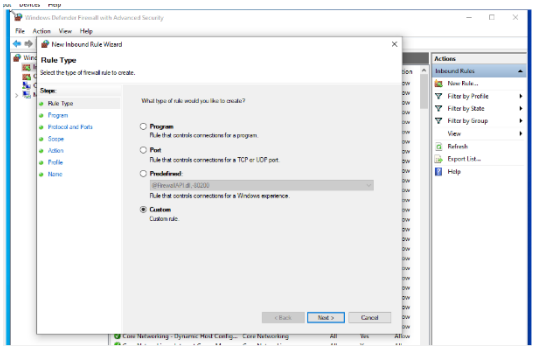
192.168.1.64

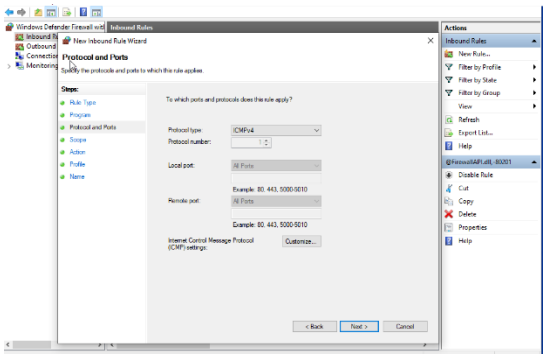
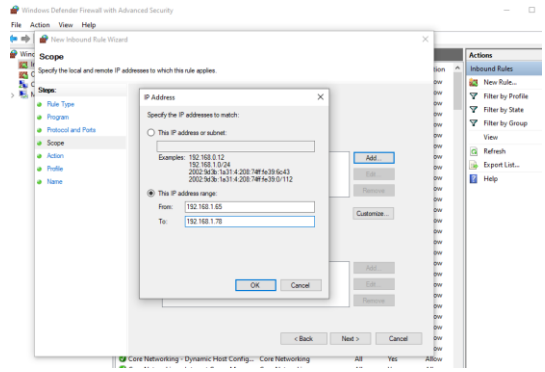
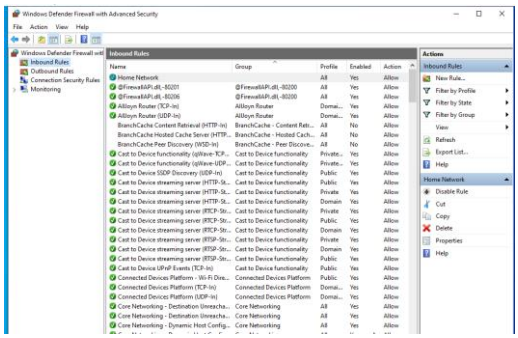
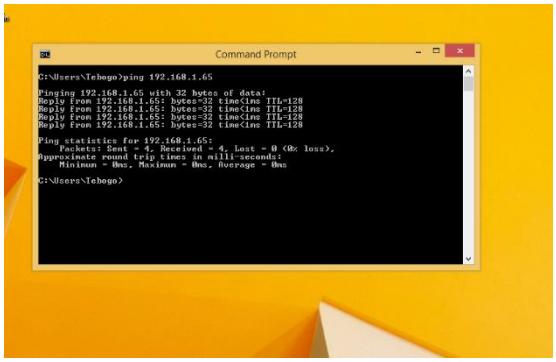
Last Host:

192.168.1.78

START

We are going to skip over the installation of Oracle virtual box, Windows server IOS and Windows 10 IOS I will be inserting a link of how to download each of them as they will be crucial to completing this project.	• Oracle Virtual Box • Windows 10 ISO • Windows 8.1
Once you've completed the installation of Oracle virtual box, Windows 10 and Windows 8.1 the next thing step is configuring our virtual machines with the recommended RAM and Storage Memory, both Windows 10 and Windows 8.1 computer will have different configurations	 VM2 OFFICE-PC2
VM1 OFFICE-PC2	
The first changes we need to make to our PC's is changing the IPv4 Addresses to the static we calculated to do this on our Windows 8.1 we need press on the windows key, then search for the control panel then we are going to select the "network and internet" link this will direct us to the next window of network and internet we will then select the "network and sharing centre" then on the "change adapter settings" option on the left of the window then right-click the adapter you are currently using and select properties on the drop-down menu on the next window look for the IPv4 option select it and change the IPv4 **Follow the same steps for Windows 10 computer** ***(Note do not forget to set the DNS to 10.16.0.10)**	 

Once you've assigned the IPv4 Addresses for both of the computers it is time to change both their names and workgroups for this open up your file explorer, then right-click on "this PC" and select properties on the drop-down menu options this open up settings look for "advanced system settings" select it once you've found it, it will open on the advanced tab look for the computer name tab and select it then select change on that tab you will options to change the name and workgroup ***(Note that this process will need you to restart the computer to take full effect)**	
While we wait for our PCs to restart, we need to create a network that both are computers are connected to, so it will help our computers to see each other	
Now both are computers are connected to one network are configured with the right IPv4 Address it is to set a new firewall rule which is our ICMP this will allow for our computers to ping each not only that we can set the ranges of IP address that ping each other so since we have ranges of IP addresses, we are going use those when configuring our ICMP. To find ICMP you will need search for windows firewall defender and select it then you will select "advanced settings" then click on "Inbound Rules" after that on actions select new rule	

Select ICMP on Protocol Type	
Input your range on Scope	
New Inbound has been created	
Ping Office-PC2 with Office-PC1	

Ping Office-PC1 with Office-PC2