

College of Computer Training (CCT)

Assignment Cover Page

Module Title:

Assignment Type:

Assignment Title:

Lecturer Name:

Student Names:

Student Nos.:

Assignment Due Date:

Academic Year: Year 1 ☒ Year 2 ☐ Year 3 ☐

DECLARATION

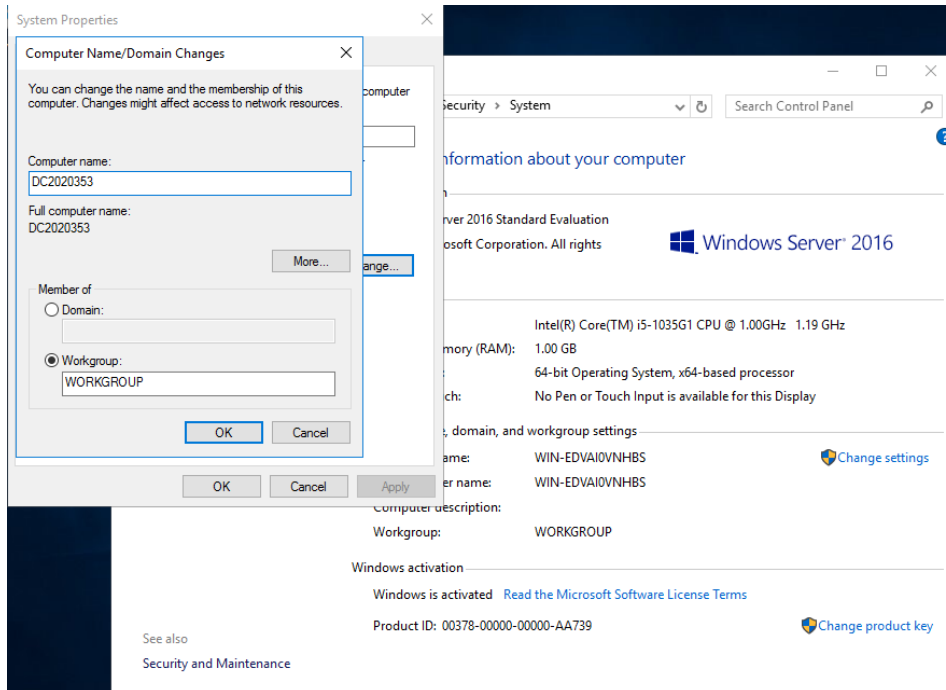
I, the above named student, confirm that by submitting, or causing the attached assignment to be submitted, to CCT, I have not plagiarised any other person's work in this assignment and except where appropriately acknowledged, this assignment is my own work, has been expressed in my own words, and has not previously been submitted for assessment.

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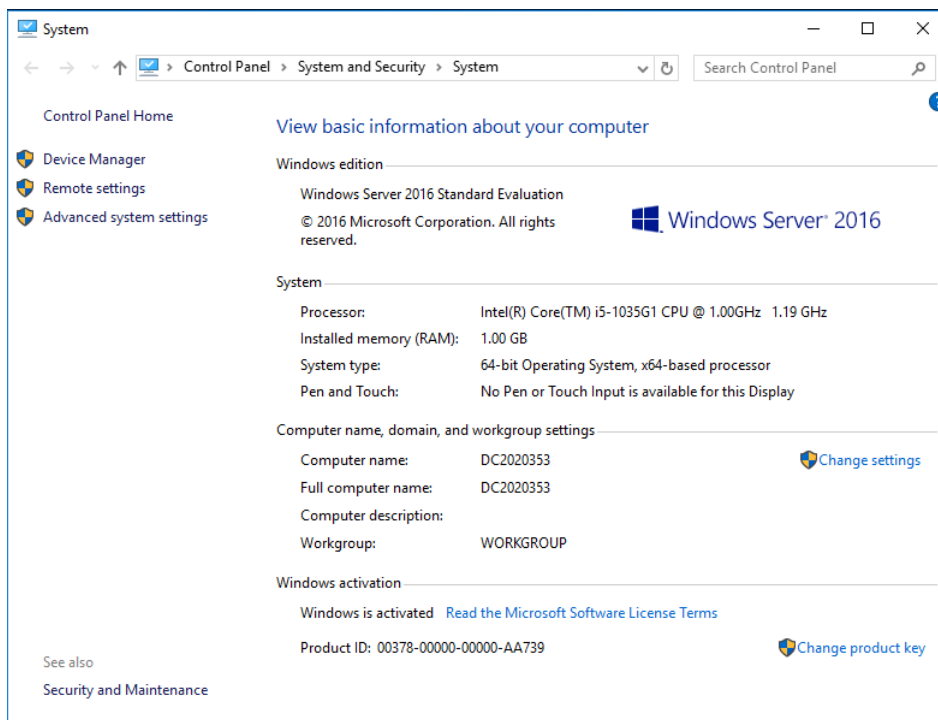
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Installing the network and setting up the network infrastructure

As usual the installation of the server was successful giving the opportunity of keeping work in the first few minutes. Then next step was reached in both ways required, rename the server by using Windows systems properties and the other server using PowerShell.



Renaming server by Windows systems properties.

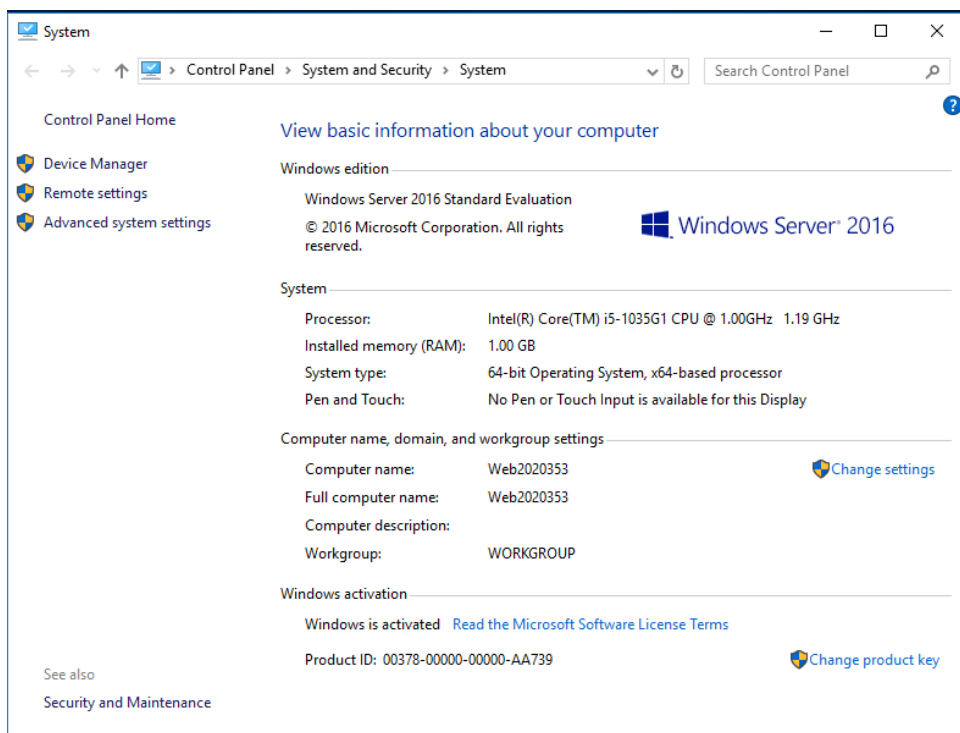


Server renamed.

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

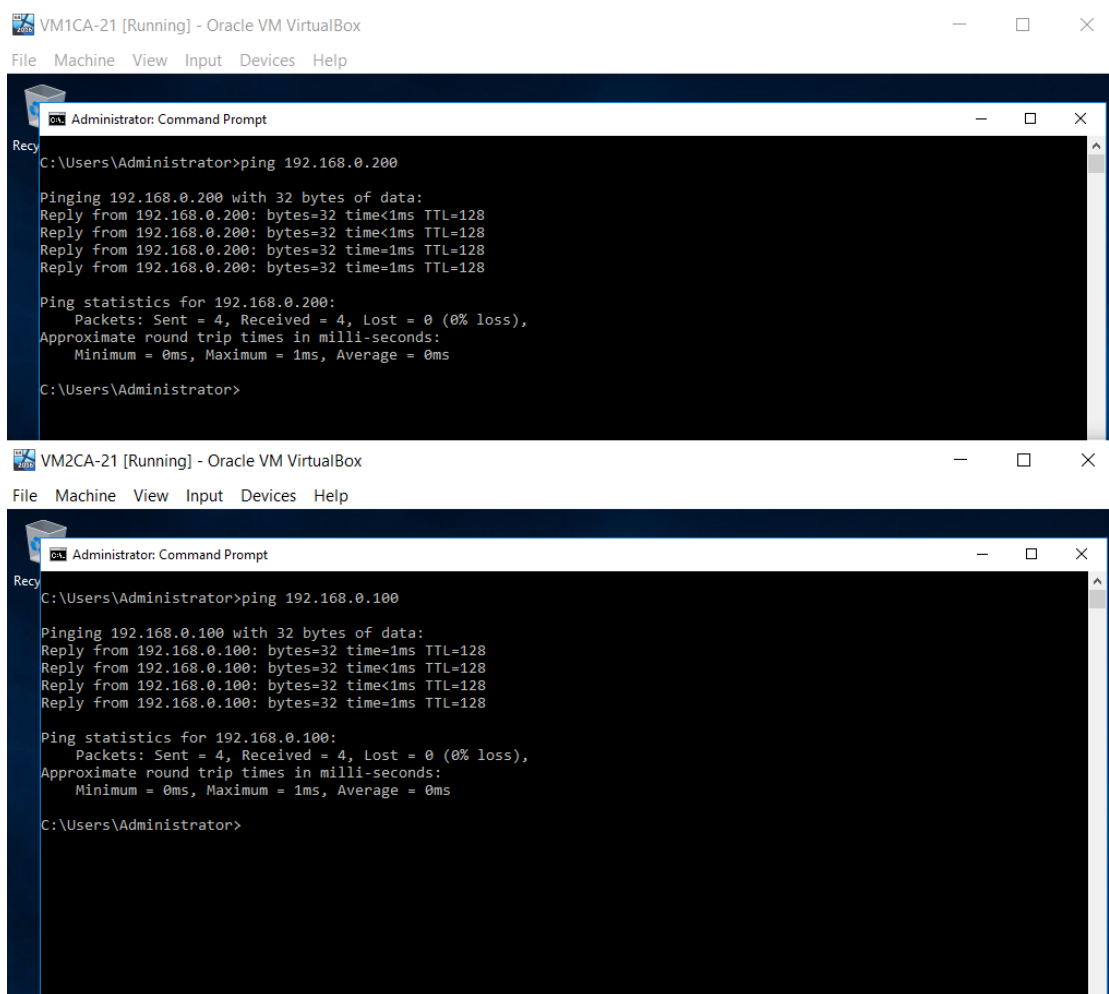
PS C:\Users\Administrator> rename-computer Web2020353
WARNING: The changes will take effect after you restart the computer WIN-14PMR5JN2C0.
PS C:\Users\Administrator>
```

Renaming server by Windows PowerShell.



Server renamed.

All networking was working according to expect so that it could ping to show us the result.



The image displays two screenshots of Oracle VM VirtualBox windows, each showing a Windows Command Prompt window with successful ping results.

The top screenshot shows the window titled "VM1CA-21 [Running] - Oracle VM VirtualBox". The Command Prompt window shows the command `ping 192.168.0.200` being executed. The output indicates that the ping was successful, with 4 packets sent and 4 received, resulting in 0% loss. The approximate round trip times in milliseconds are: Minimum = 0ms, Maximum = 1ms, Average = 0ms.

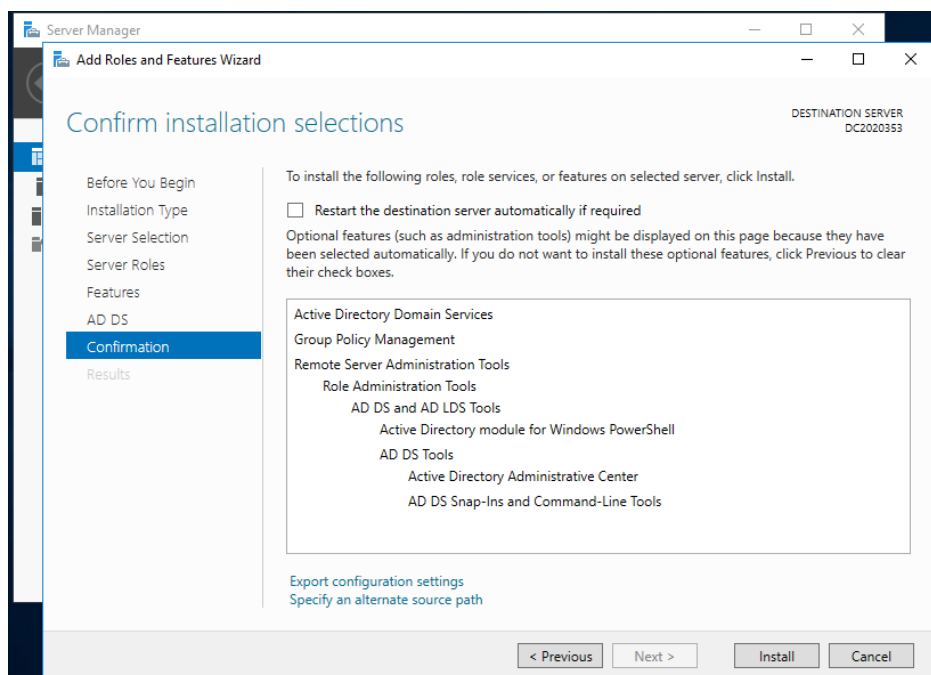
The bottom screenshot shows the window titled "VM2CA-21 [Running] - Oracle VM VirtualBox". The Command Prompt window shows the command `ping 192.168.0.100` being executed. The output indicates that the ping was successful, with 4 packets sent and 4 received, resulting in 0% loss. The approximate round trip times in milliseconds are: Minimum = 0ms, Maximum = 1ms, Average = 0ms.

Servers pinged each other. First trying.

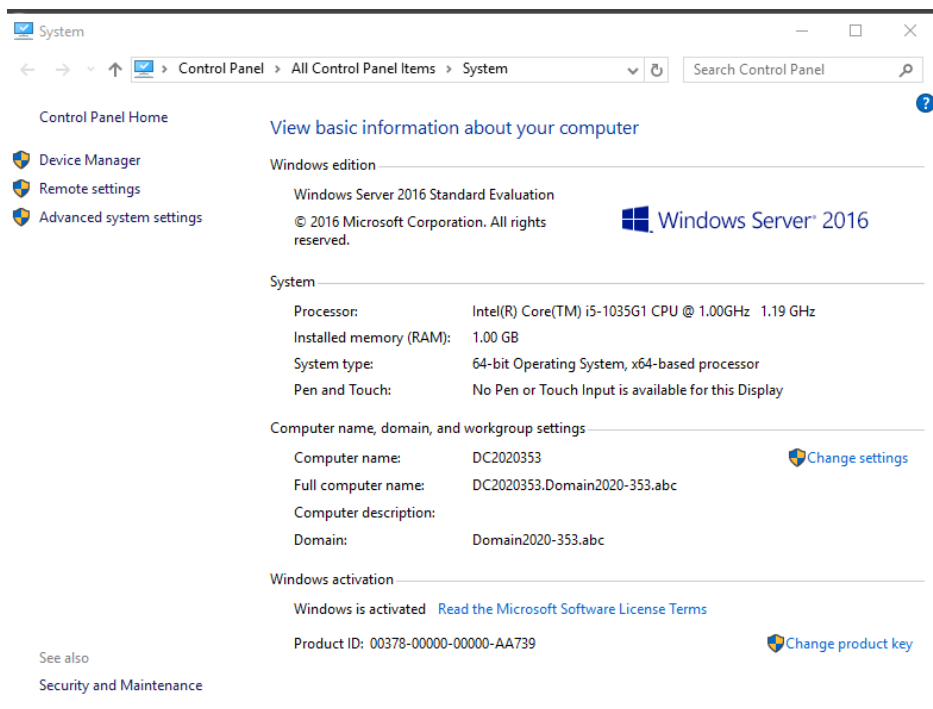
Installing the DHCP.

Dynamic Host Configuration Protocol is the name of a TCP / IP protocol that offers dynamic configuration services on networks. When connecting to a network, even without notice, the user gets an automatic provide IP address given by it, also gets subnet mask, Default gateway. DHCP is an important protocol for the operation of most current networks and is an essential tool for network administrators, as it allows configuring large amounts of networked devices, without any manual configuration.

The installation of the DHCP is found on the Server Manager and could be done successfully.

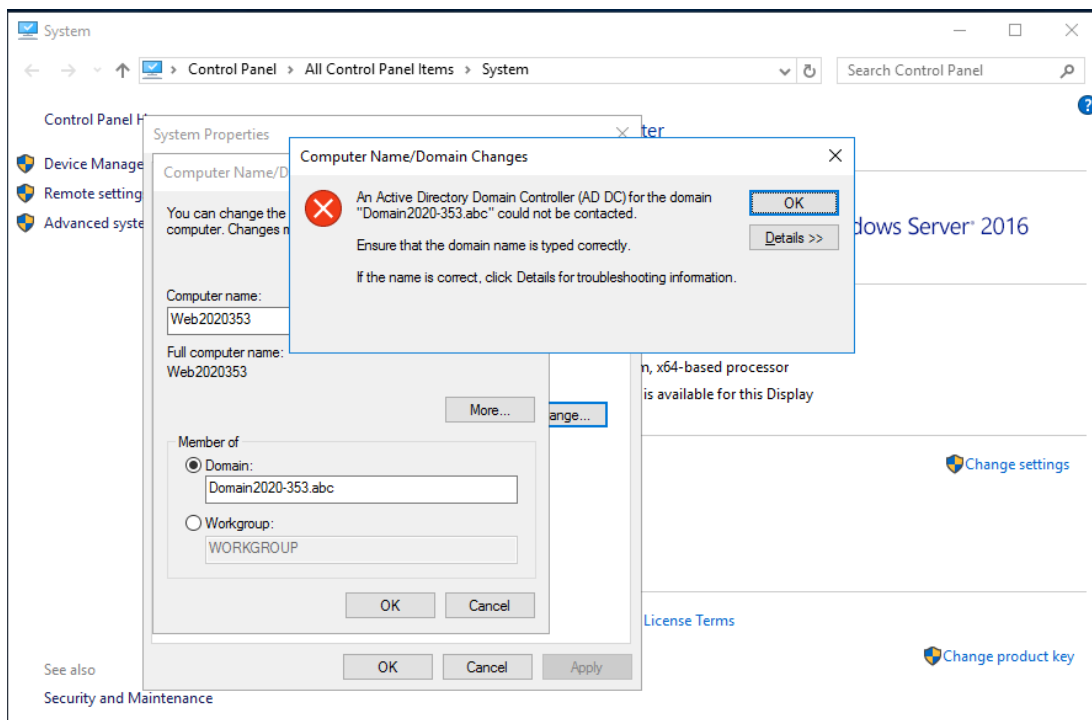


Steps of the installation.

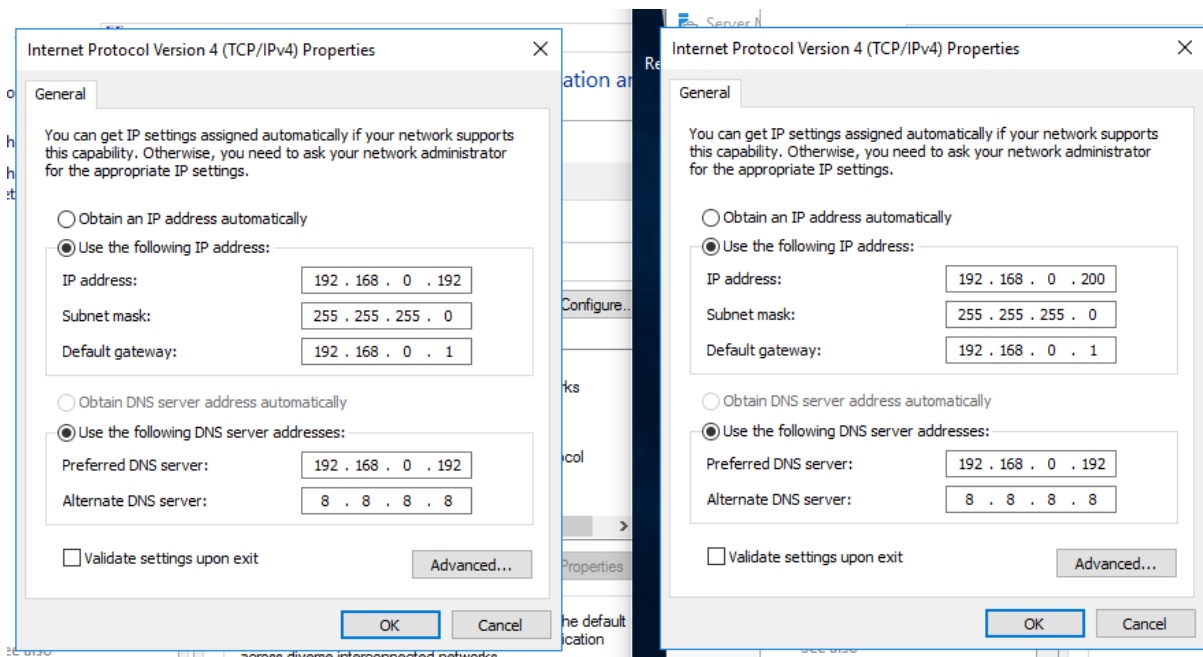


DHCP Installed to the first Server.

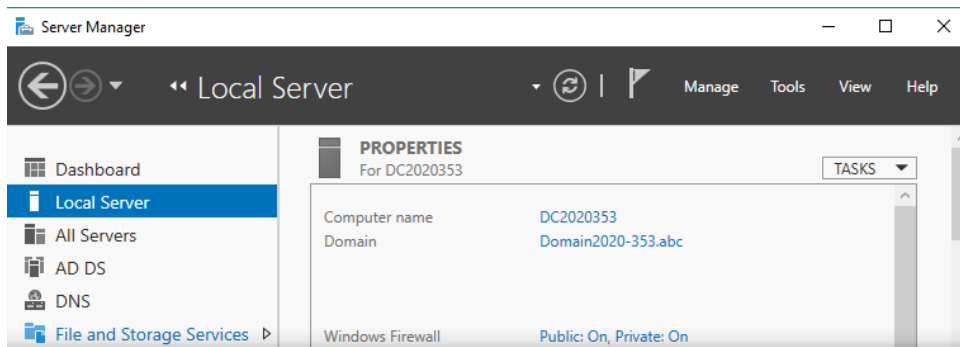
Join the Client server to the domain server was the next step that could not be completed without a modification.



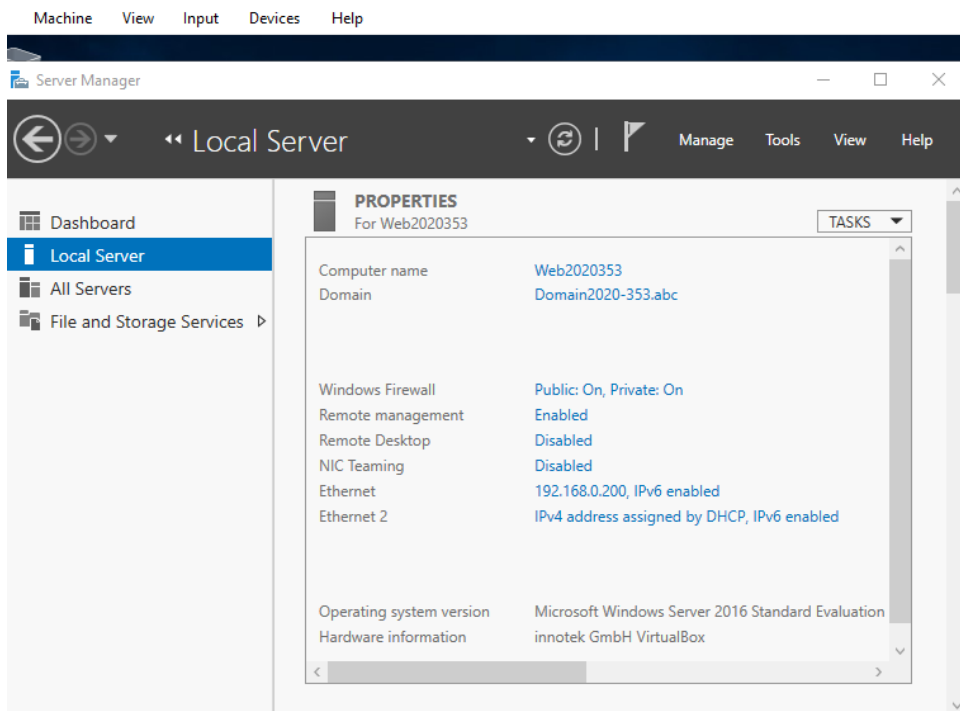
Trying to join the second server to the domain, it gets an error – the domain could not be contacted.



After trying another IP different of the one given and using the IP 192.168.0.192 – and both DNS 192.168.0.192, (to guarantee the connection), it reached the connection and joined the domain. As I observed the IP address of my own computer was 192.168.0.150, then using a number greater than 150 I could solve it. I think it was resulting on that troubleshooting.



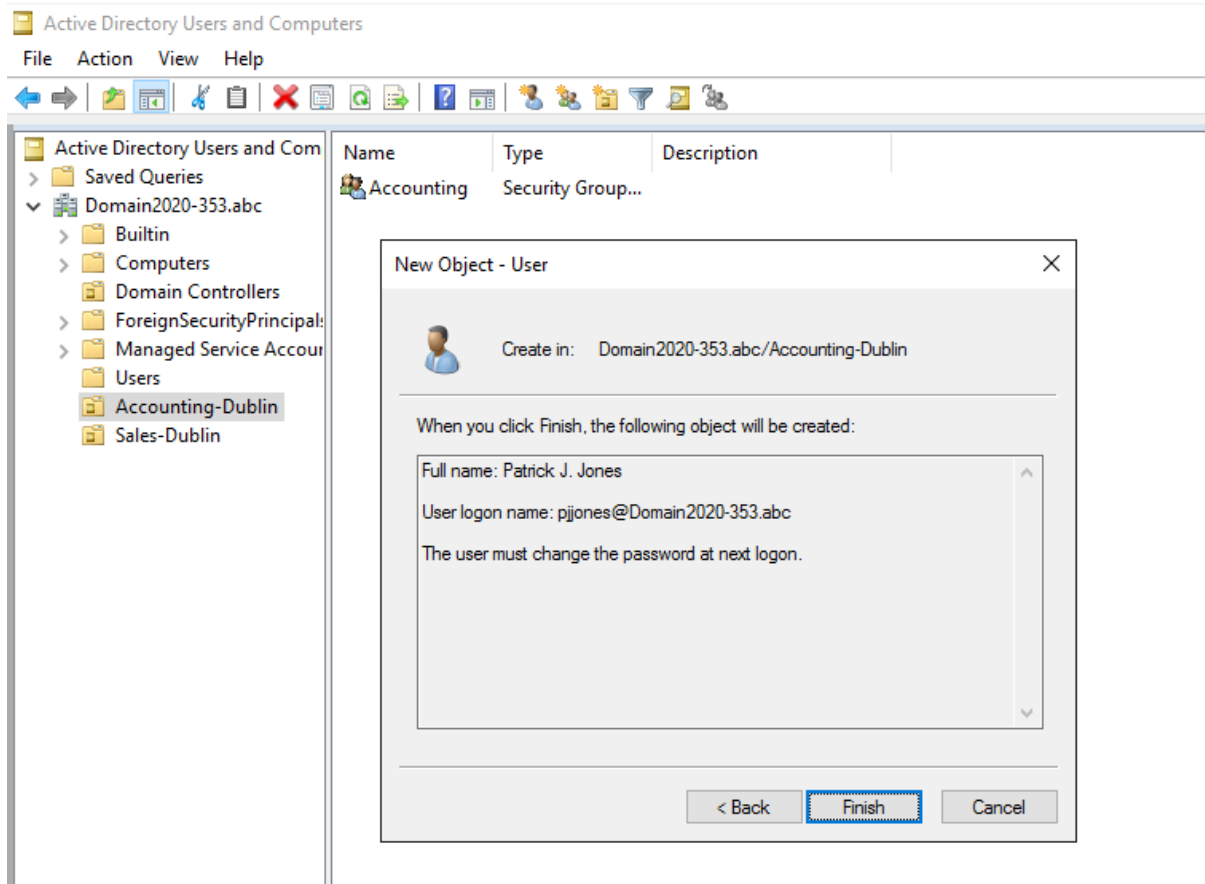
VM2021-CA2-Client [Running] - Oracle VM VirtualBox



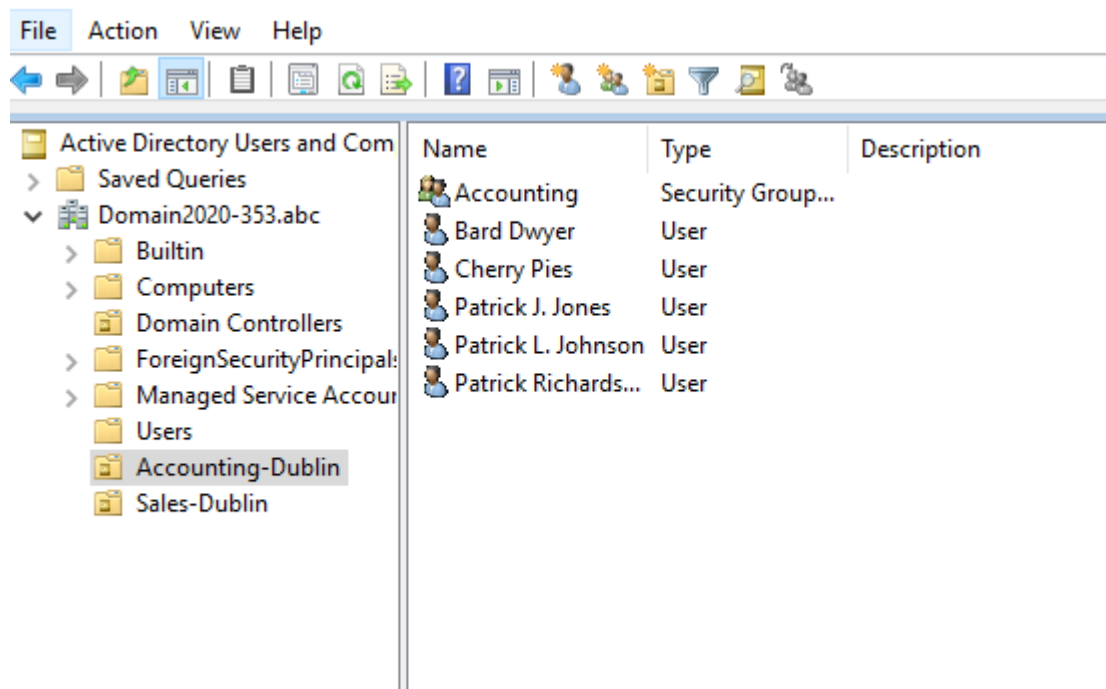
After fixing the previous problem, the Web Server could join to the domain.

Setting up the resources and network users

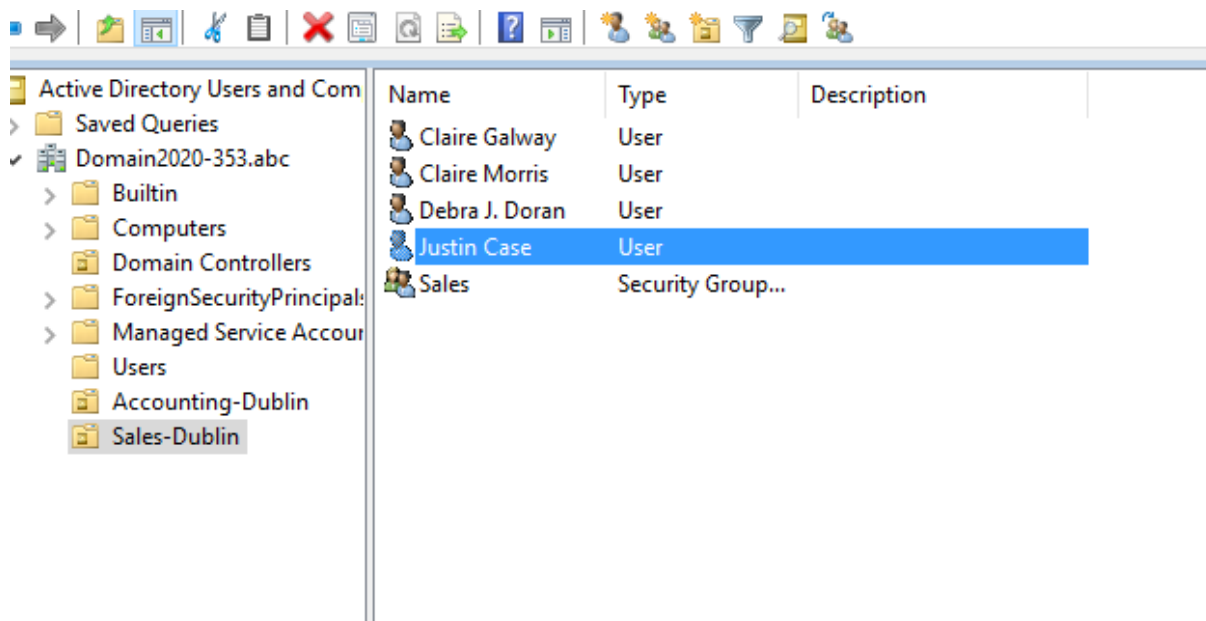
By default, Active Directory or local machine groups are used to control gateway access. If you have an Active Directory domain, you can manage gateway user and administrator access from within the Windows Admin Center interface.



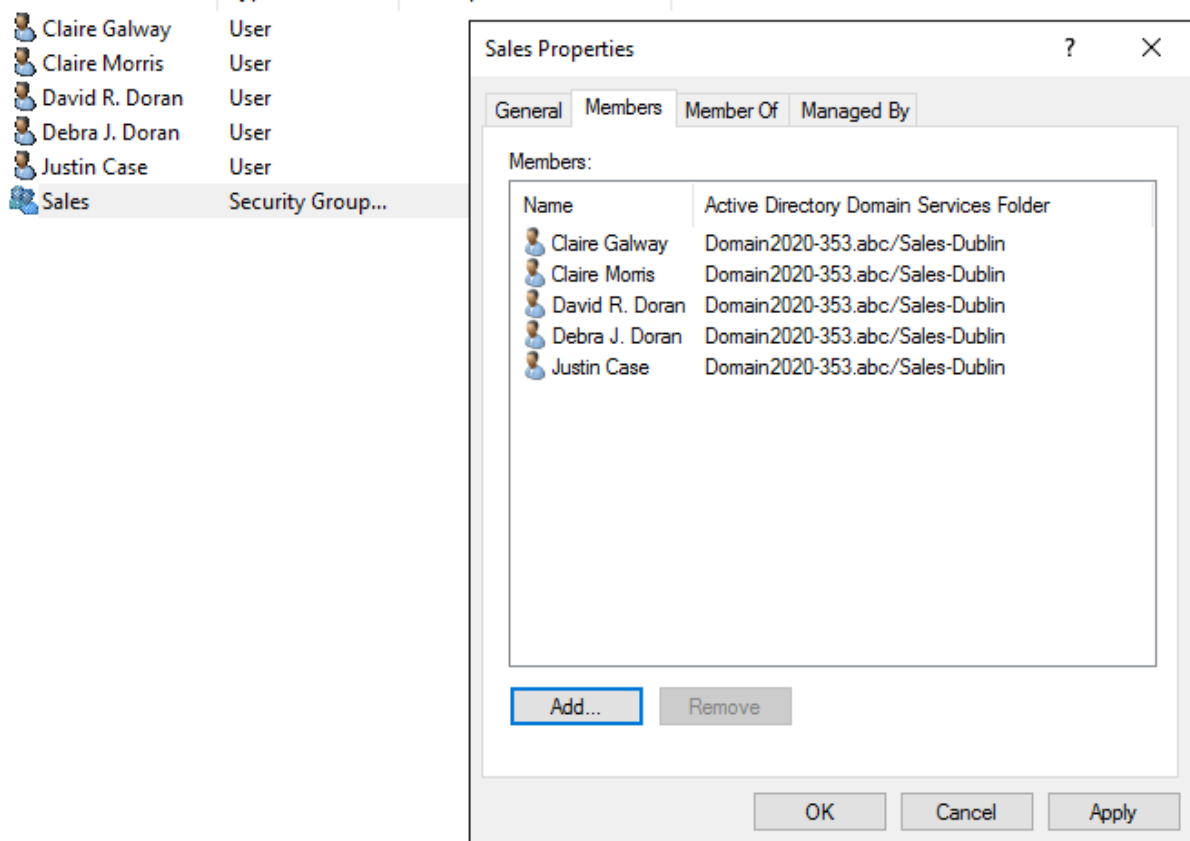
Adding users to the Accounting department created using Active Directory Users and Computers (ADUC).



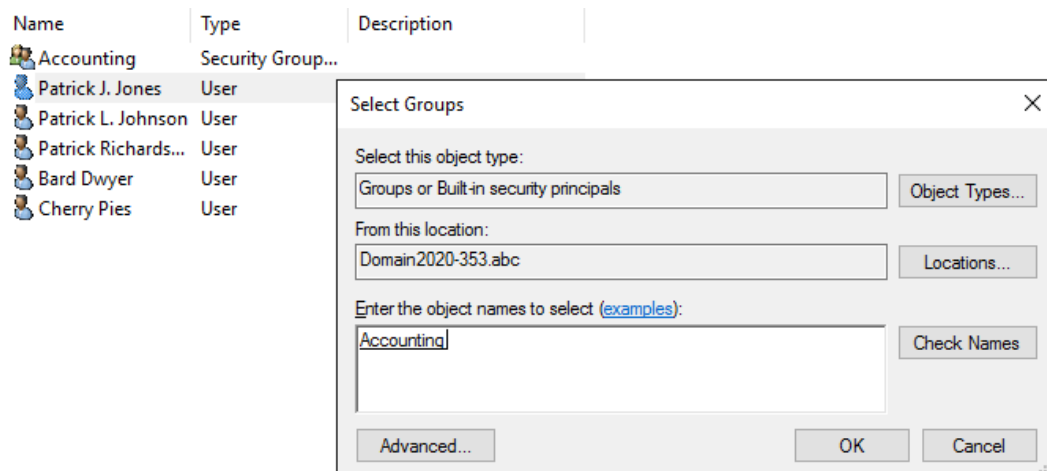
All the users added on the department.



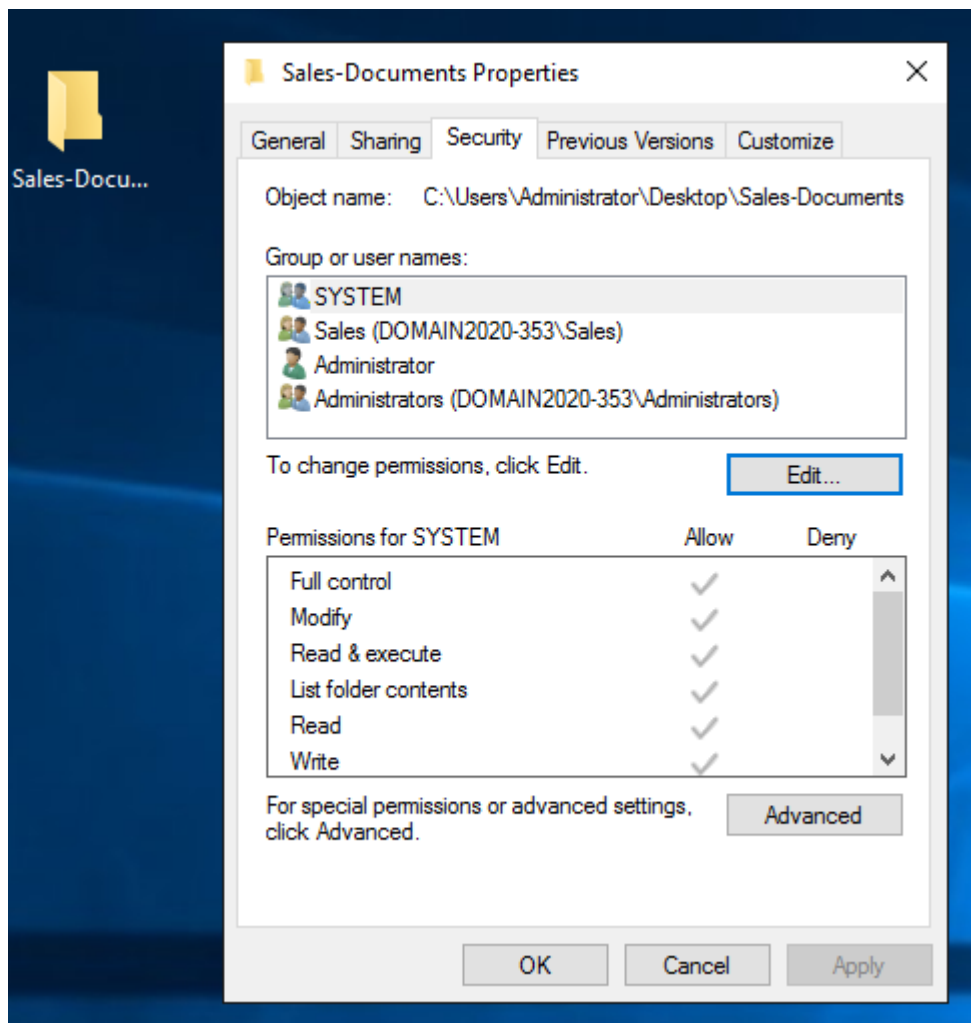
Adding users to the Sale department created using Active Directory Users and Computers (ADUC).



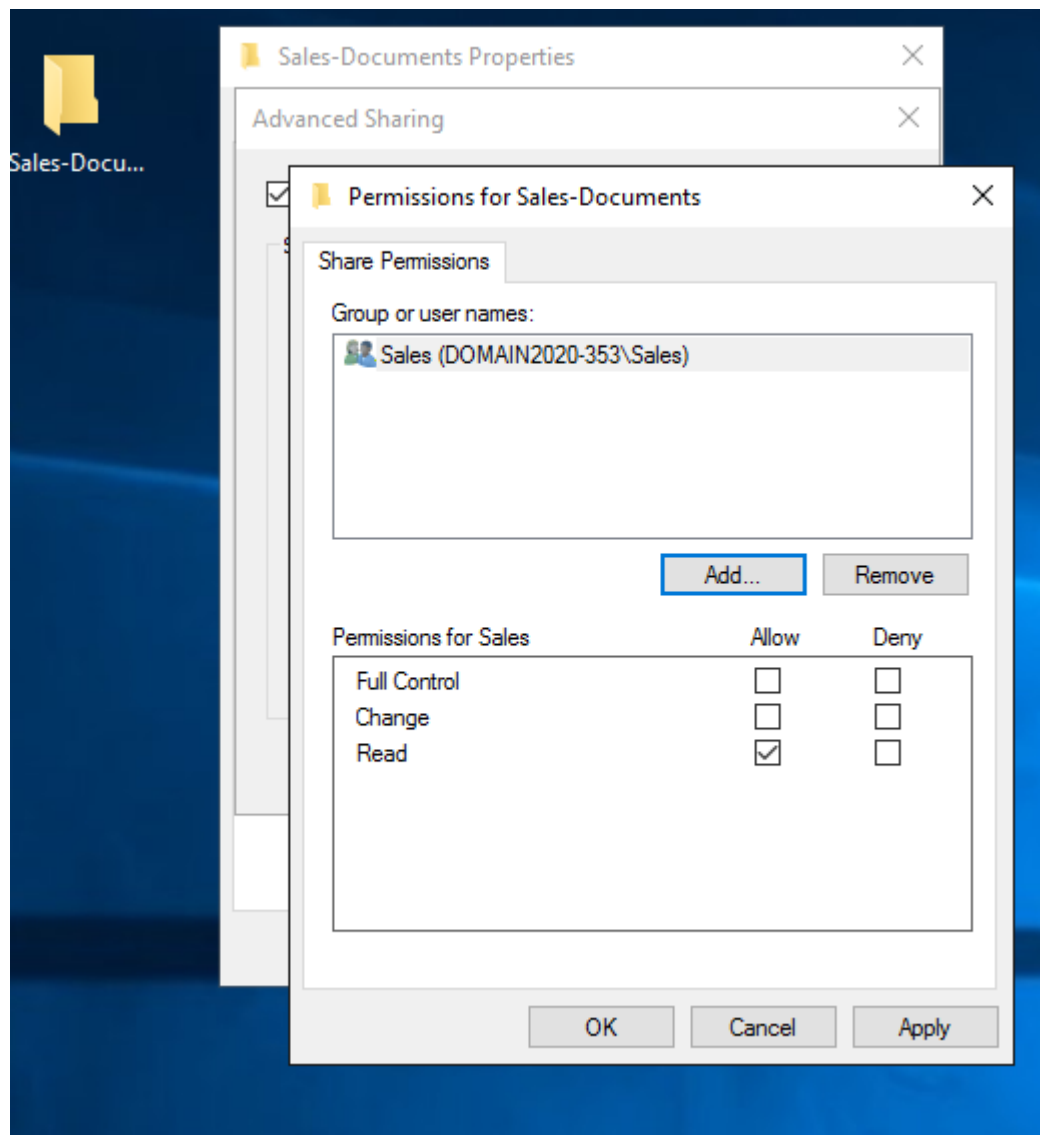
All the users added on the department.



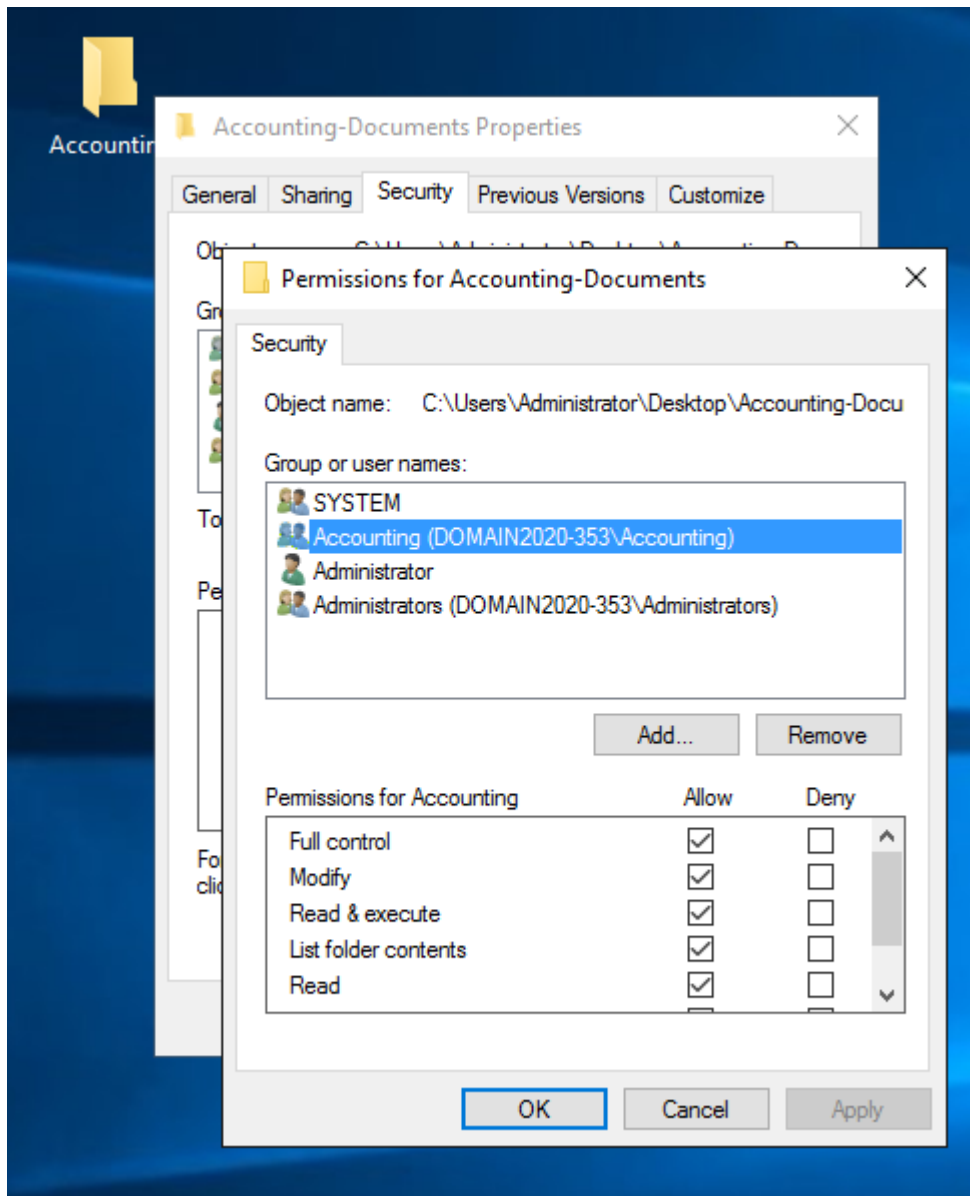
Adding the users to their group on the Domain VM.



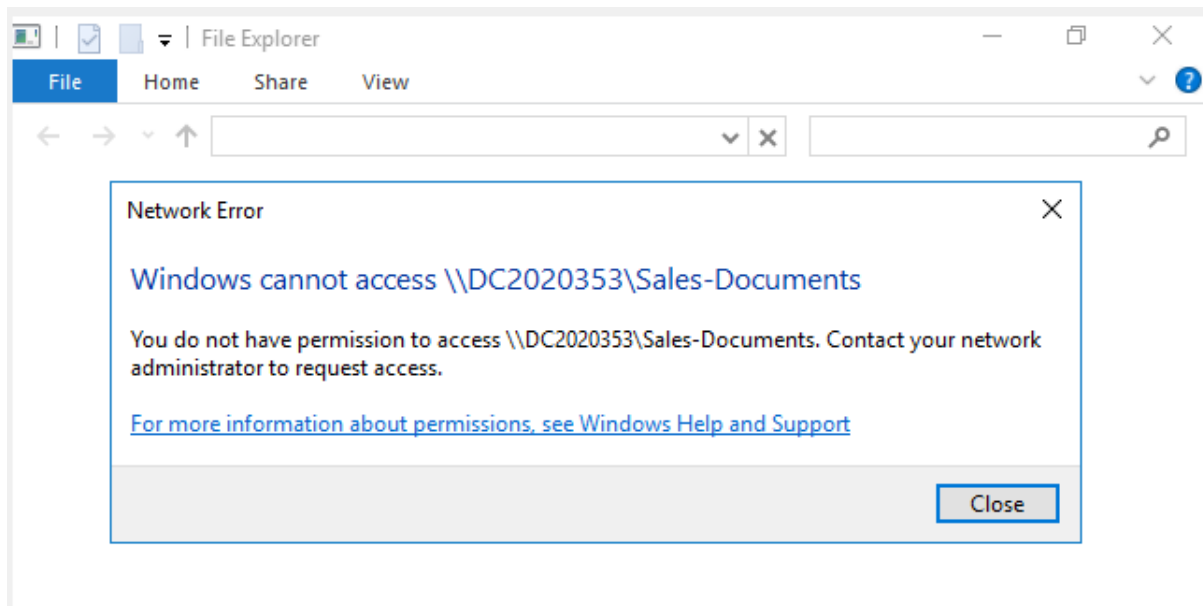
Giving permissions to the Sales users.



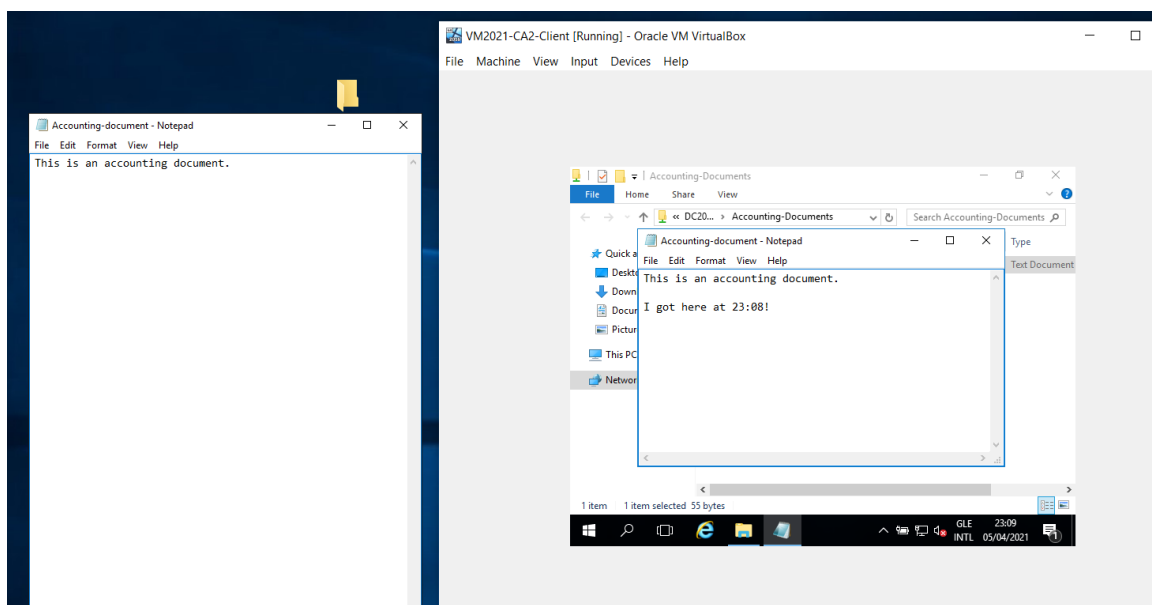
Accessing and making changes on the folder.



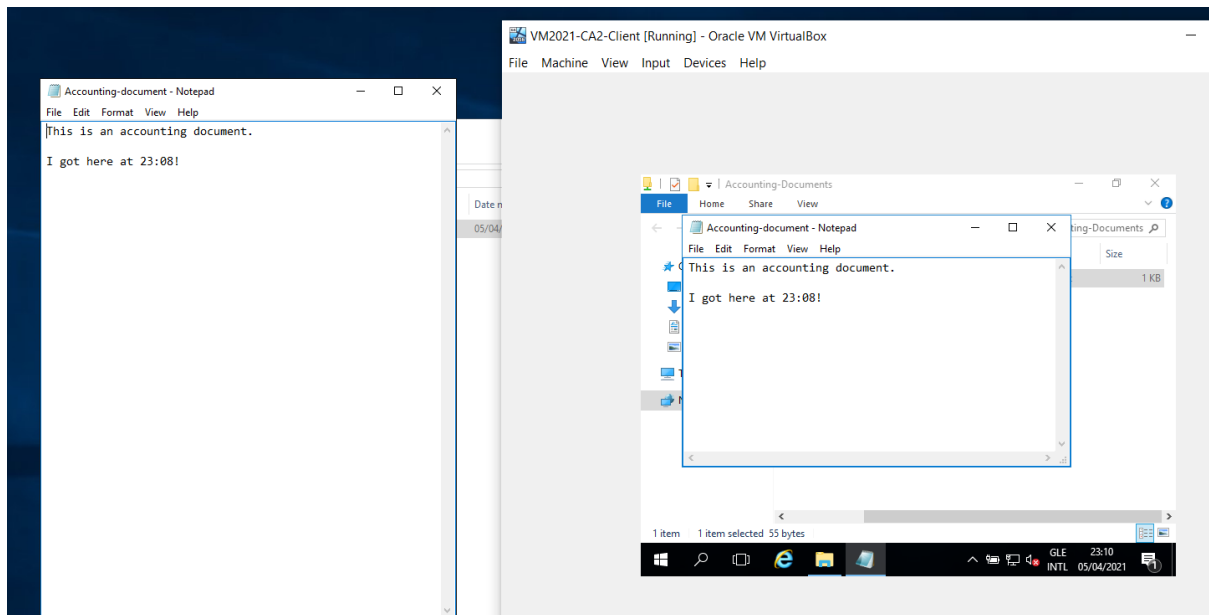
Giving permissions to the Accounting users.



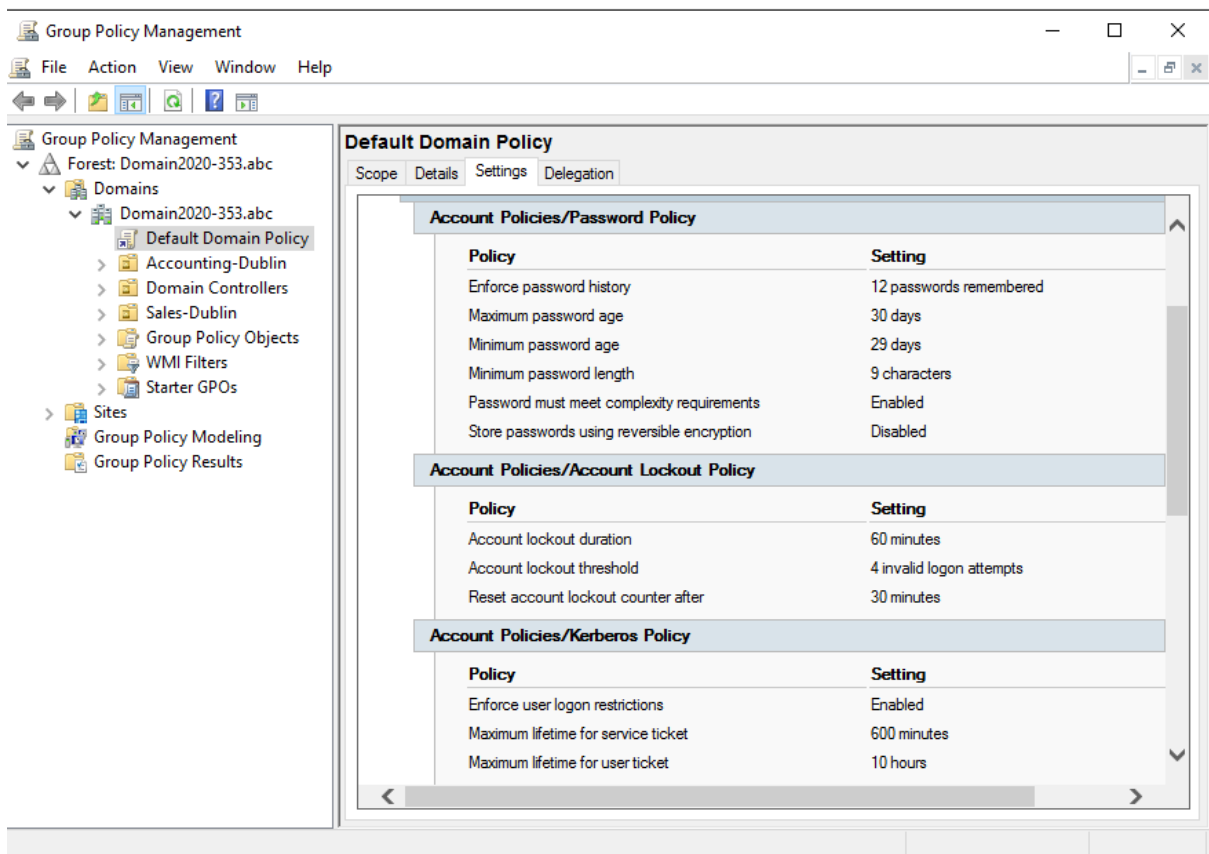
Trying to access Sales Documents from an Accounting user.



Accessing the Accounting folder from the Accounting user, and making modifications.



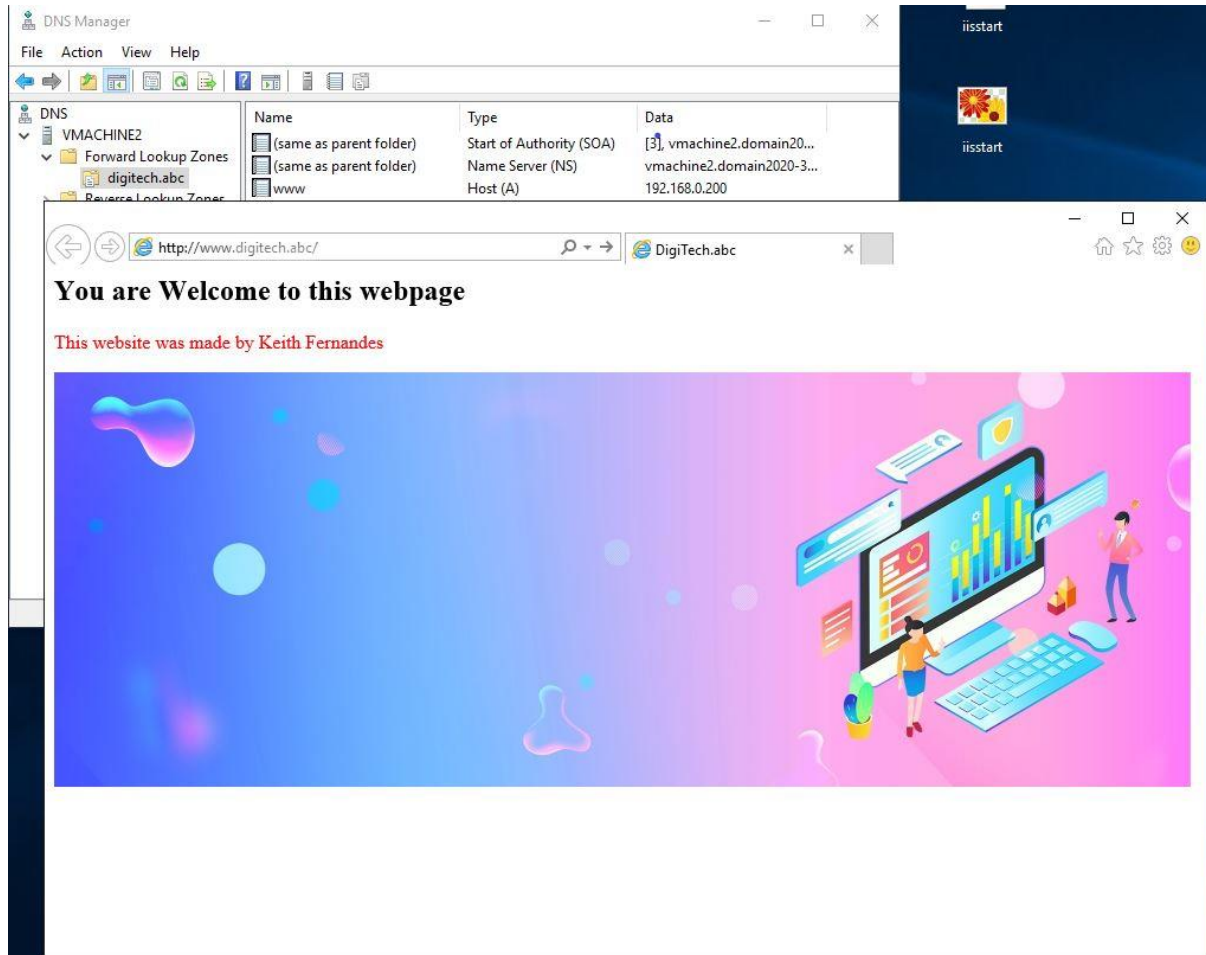
Modifications made.



A password policy applied on the domain.

Setting up and testing a simple web site.

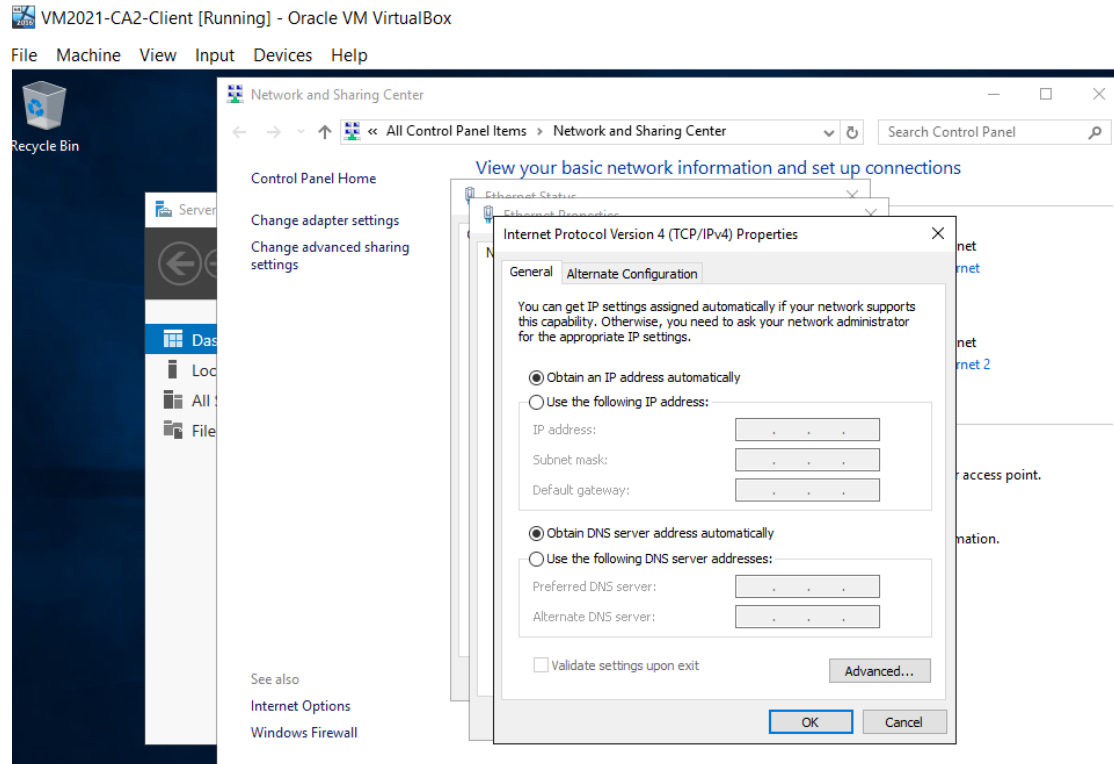
This was not an easy step as it got uncountable errors before being figured out. Successfully made after 2 days trying the Web Site could work on the Client Server but unfortunately could not be reached from the Domain controller.



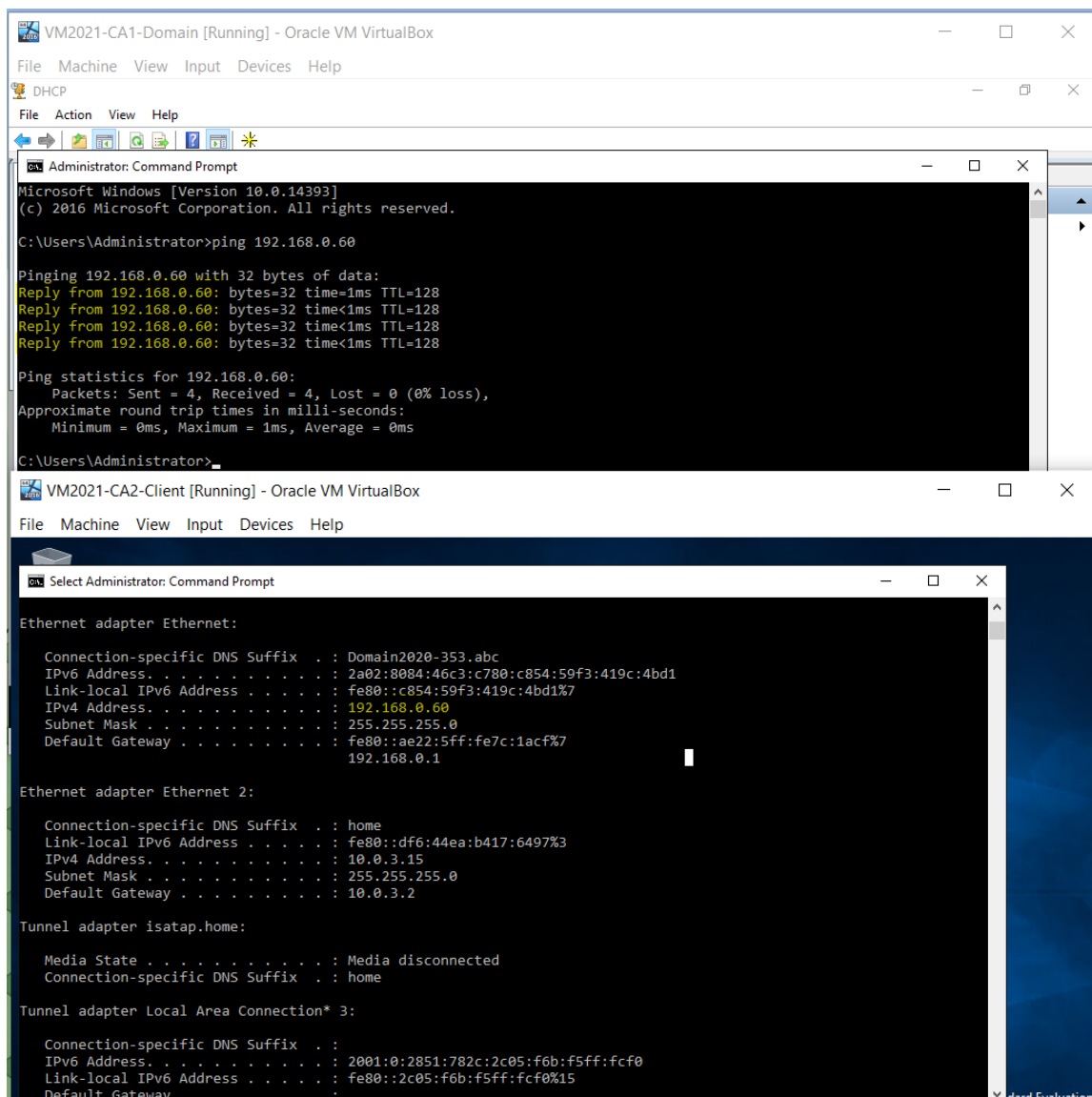
Web site set on the Web server computer.

Setting Up a DHCP Server for the Domain

As aforementioned using different IP and DNS numbers the configuration of the reserved address was also different, but it worked really well as it can be shown bellow.



Letting the Web computer to get the dynamic IP address from the reservation.



Pinging the computers from the address reservation.

Even with few troubles that could be solved at the end, it could be learned so many ways of doing steps, and it could be added large numbers of apprenticeship and getting myself rich of knowledge.

References

Active Directory or local machine groups, © Microsoft 2021. < <https://docs.microsoft.com/en-us/windows-server/manage/windows-admin-center/configure/user-access-control> >