

ASSIGNMENT

You work as an unpaid helpdesk person in a multinational company Help and Go.

One fine day, I receive the following email from a workplace instructor:

Vastaa Vasta kaikille Lähetä edelleen
Väisänen Pekka helpandgo@edu.bc
Pasilan Koulutus Oy infaprojekti

Hi!

Based on our offer, Pasilan Koulutus Oy has ordered an IT environment for the student network from our company

The environment should be installed on the customer's physical server, but now, due to the coronavirus, we will first install it in the VirtualBox environment so that everything goes smoothly when we get to the customer's premises and the customer can make sure that everything goes smoothly from us based on the documentation.

The following are the specifications for implementation.

The project must be completed as soon as possible, at which point the installation documentation has been returned to the location specified by the customer's contact person. (= itsLearning assignment)

The customer attaches particular importance to the very careful documentation of the testing project.

- The documentation must show practically everything that has been done (e.g. created ou's, groups, usernames, defined passwords, IP addresses used and work steps), because the documentation goes to the customer and is also the basis for invoicing to us.

Server features:

Installing Windows Server 2019 Standard server as well as testing on a Windows 10 workstation. Arska has prepared the necessary documentation from the web, which is attached to the message.

Configure the ip addresses used on the edu.local network so that active devices, servers, printers, dhcp on the network have their own assigned address spaces.

A plan for how you plan to configure IP address spaces must be included in the documentation.

- Note that 100 addresses must be reserved for DHCP at the end of the address space.

The domain name should be: edu.local and the server name should be Education1.

The Education1 server must act as a name server (DNS) on the student network.

The Teaching1 server is configured in the DHCP service to share addresses with computers on the network

- The devices must receive the addresses of both the router and DNS servers from the service.
- The equipment must renew its loans once a day.
- The principal's computer must always receive the same IP address (MAC address: 00:0c:29:33:fd:46)

Assign roles and features to the server that you consider necessary for the system to work as intended.

The appendix also contains a list of user IDs to be created provided by the customer.

- You need to create user accounts for these and make all the necessary configurations in the account information.
 - The standard format firstname.lastname is used to create user accounts. e.g. pekka.väisänen
 - Pre Windows name (sam account) 3 letters of last name and 3 letters of first name.
e.g. Vaipek
 - When logging in to the computer for the first time, the user MUST NOT receive a password change request.

Home folders (K drive) are assigned to the administration and teachers.

Two shared folders are created for students: Storage and Read.

- The storage folder (T-drive) gives students and teachers the right to change.
- The chapter folder (L drive) is given change permissions for teachers and read permissions for students

Department-specific folders are also created for the administration and Teachers (Administration, Teachers).

- Users should only be able to access folders in their own department with change rights.
- When logging in to the workstation, the folder in your department must appear as a W drive.

Install the following printers connected directly to the network for sharing from the server:

- Administration: Canon LBP5970, ip address according to your plan (you can change model)
- Teachers: HP Color LaserJet CP4005 PCL6, ip address according to your plan (you can change model)
- Students: HP LaserJet 4250 PCL6, ip address according to your plan.(you can change model)
 - Teachers must be able to clear print queues if necessary
- The printers must automatically connect to the workstations according to the user ID.

The company has a strict security policy, which means that special needs have been defined for passwords.

- Passwords must be changed every ninety (90) days.
- Passwords must be at least 16 characters long.

In order to track data breach attempts, the server's Event Viewer must record incorrect login attempts.

All workstations in the domain must be forced to turn on Windows Firewall.

User documents (home folders and shared folders) must automatically be backed up on the server on their own partition every day.

Test that the backed up data can be restored.

Instruments to be used:

- Laptop
- Windows Server 2019 installation media as an ISO file from the network.
- Windows 10 installation media as an ISO file from the web.

Deployment shall include at least:

- Define how IP addresses are shared over a network. N.B! Document this right from the start.
- Install computers (Windows Server 2016 Standard and Windows 10 workstation virtually).
- Set up a domain, create organizational units, groups, and users.
- Create and share specified folders with broadly correct sharing permissions.
- produce really good documentation.

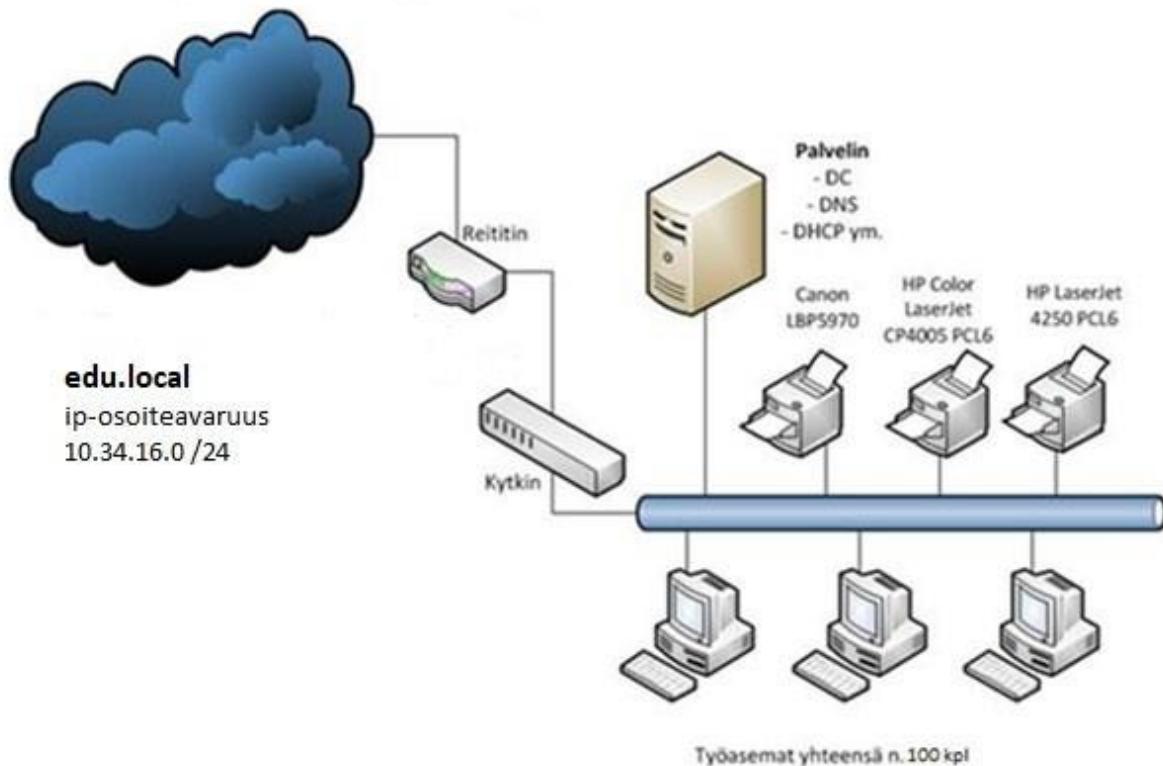
regards

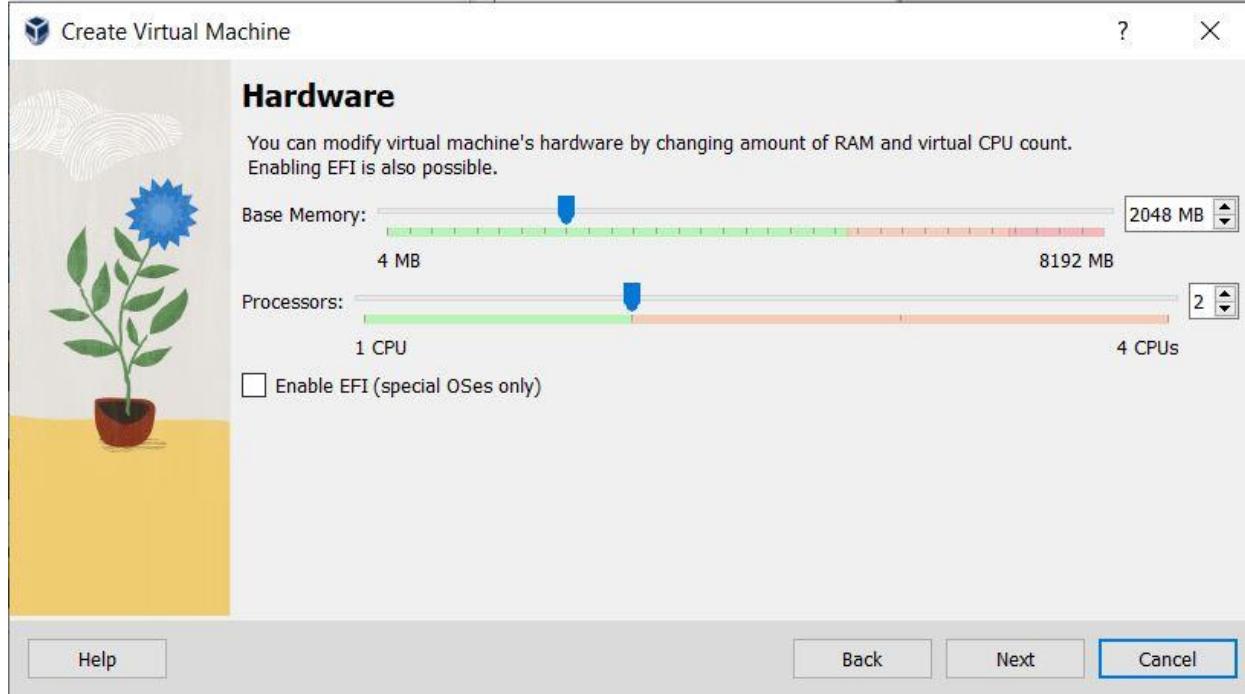
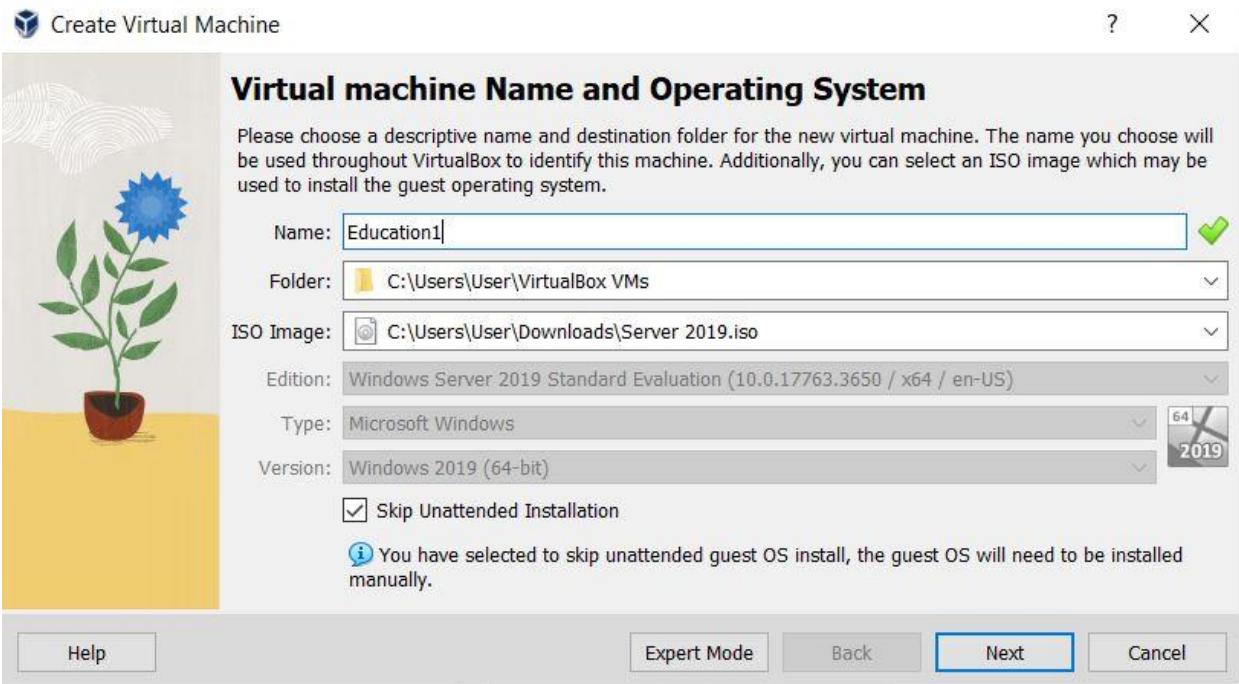
Old Maid

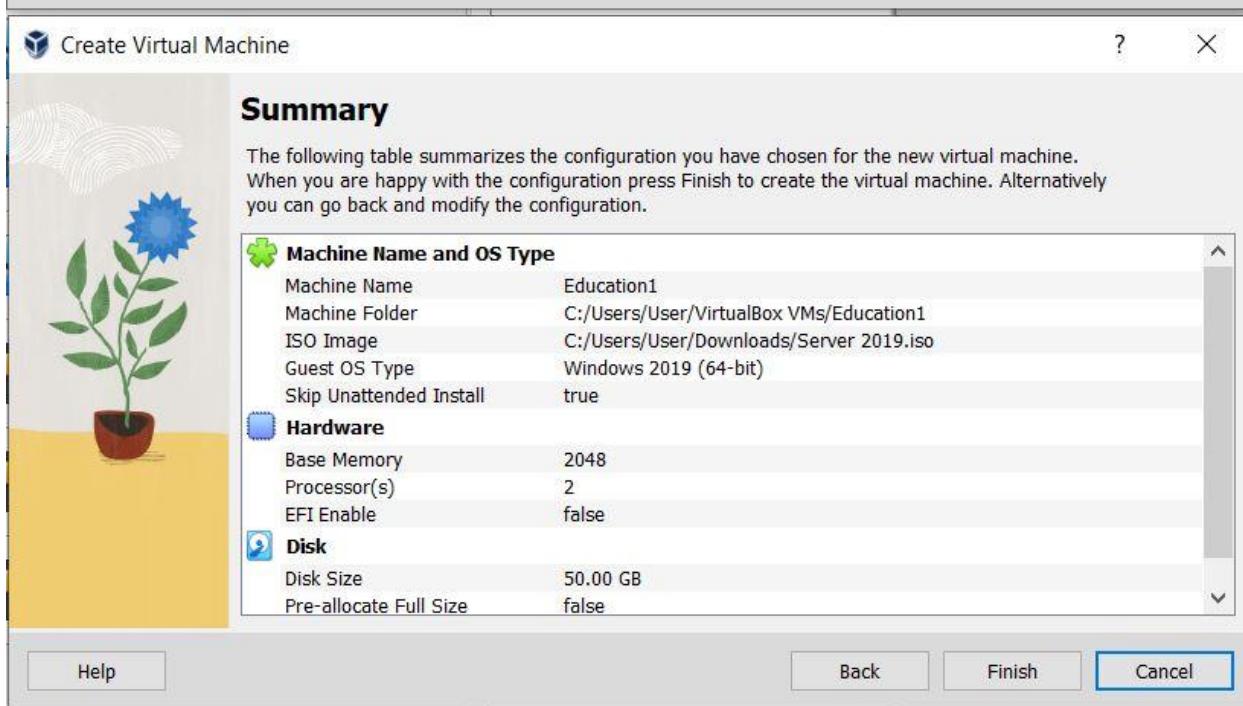
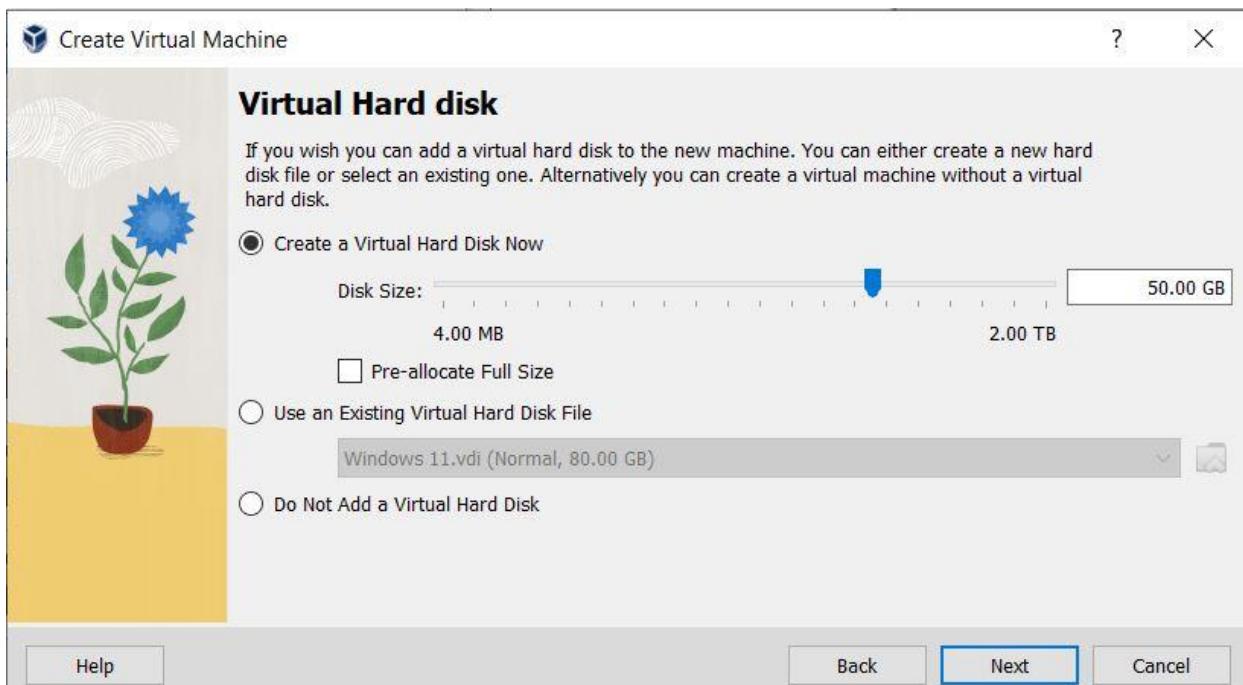
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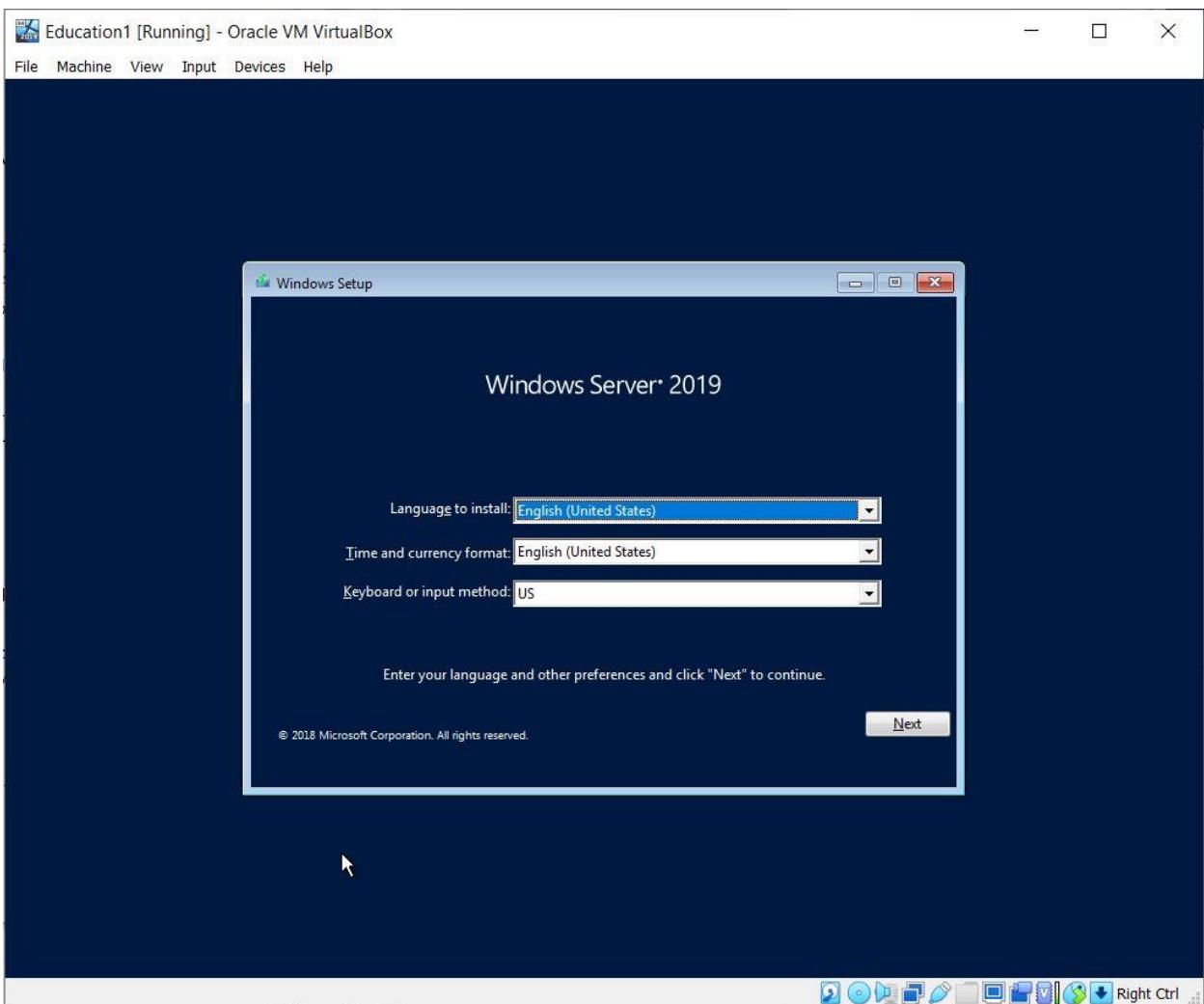
USER LIST

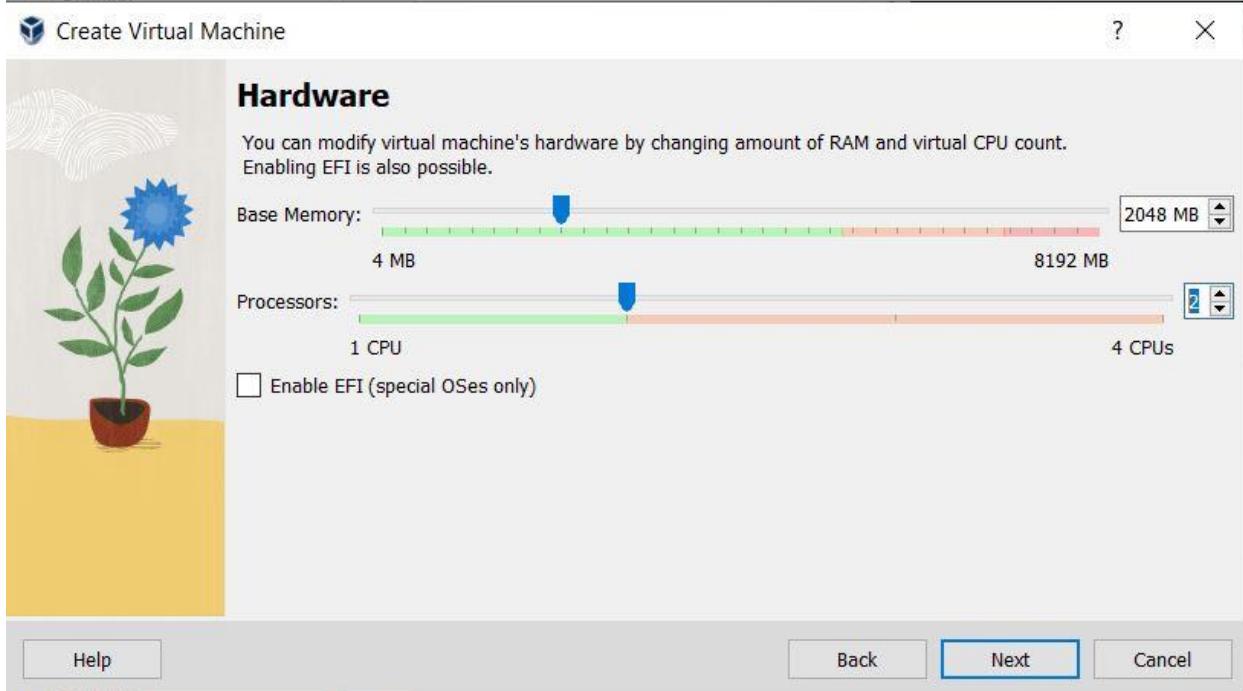
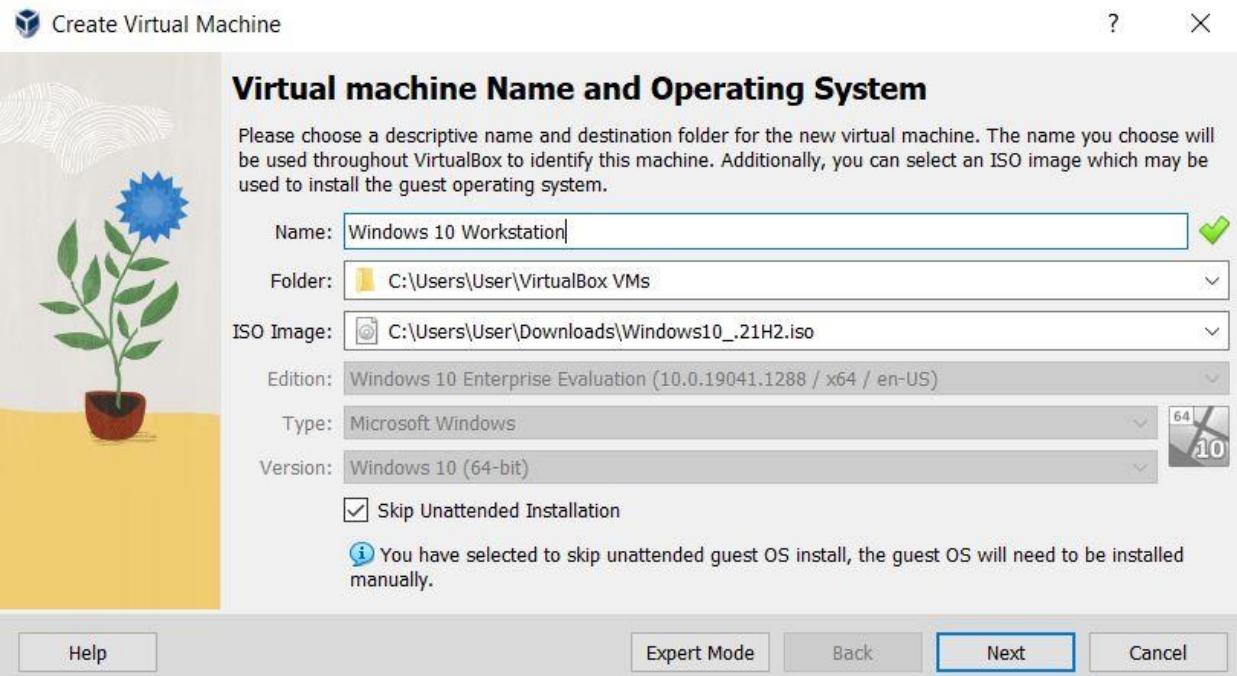
Name	Department	Title	N.B
Your name	IT	Micro support	Administrator
Alexander House	Administration	HR	
Taru Paavola	Administration	Principal	
Aukusti Aalto	Administration	Trainee	Trainee until 3.6.2026
Immanuel Heather	Teachers	Head trainer	
Hemmo Jussila	Teachers	Trainer	
Heini Laukkanen	Students	Student	Check-in from 07:00 - 03:00 AM
Sulevi Saarinen	Students	Student	

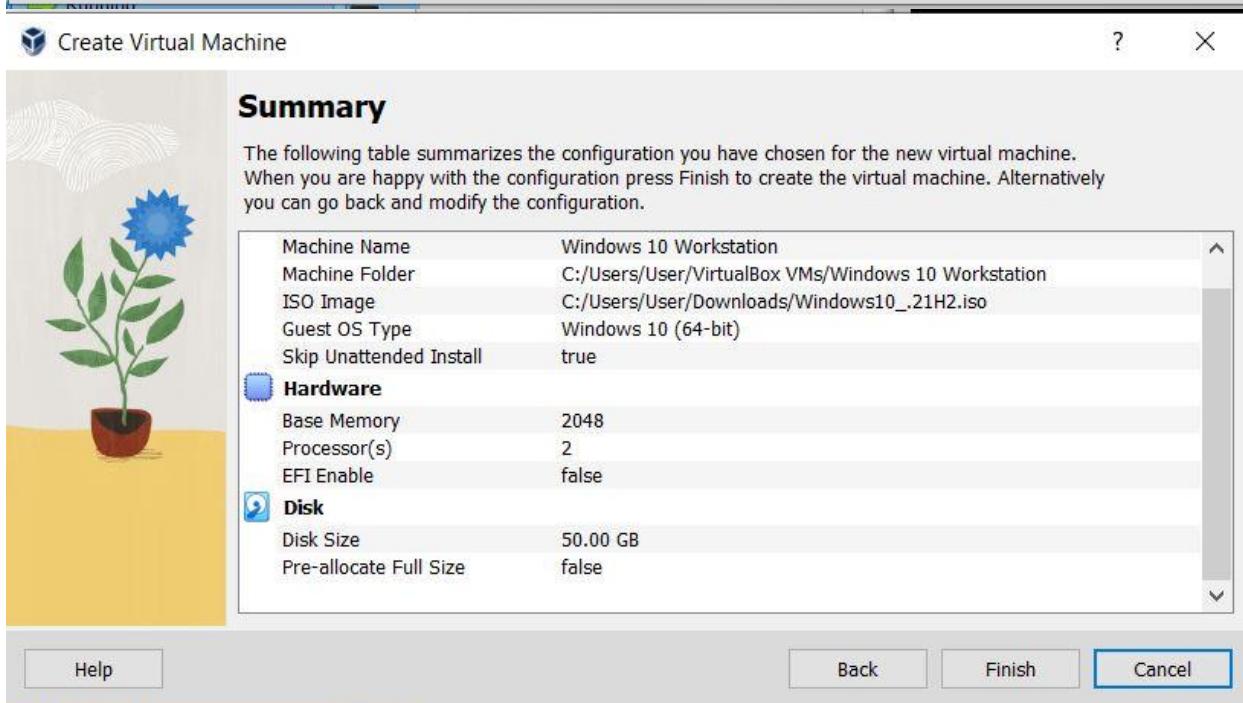
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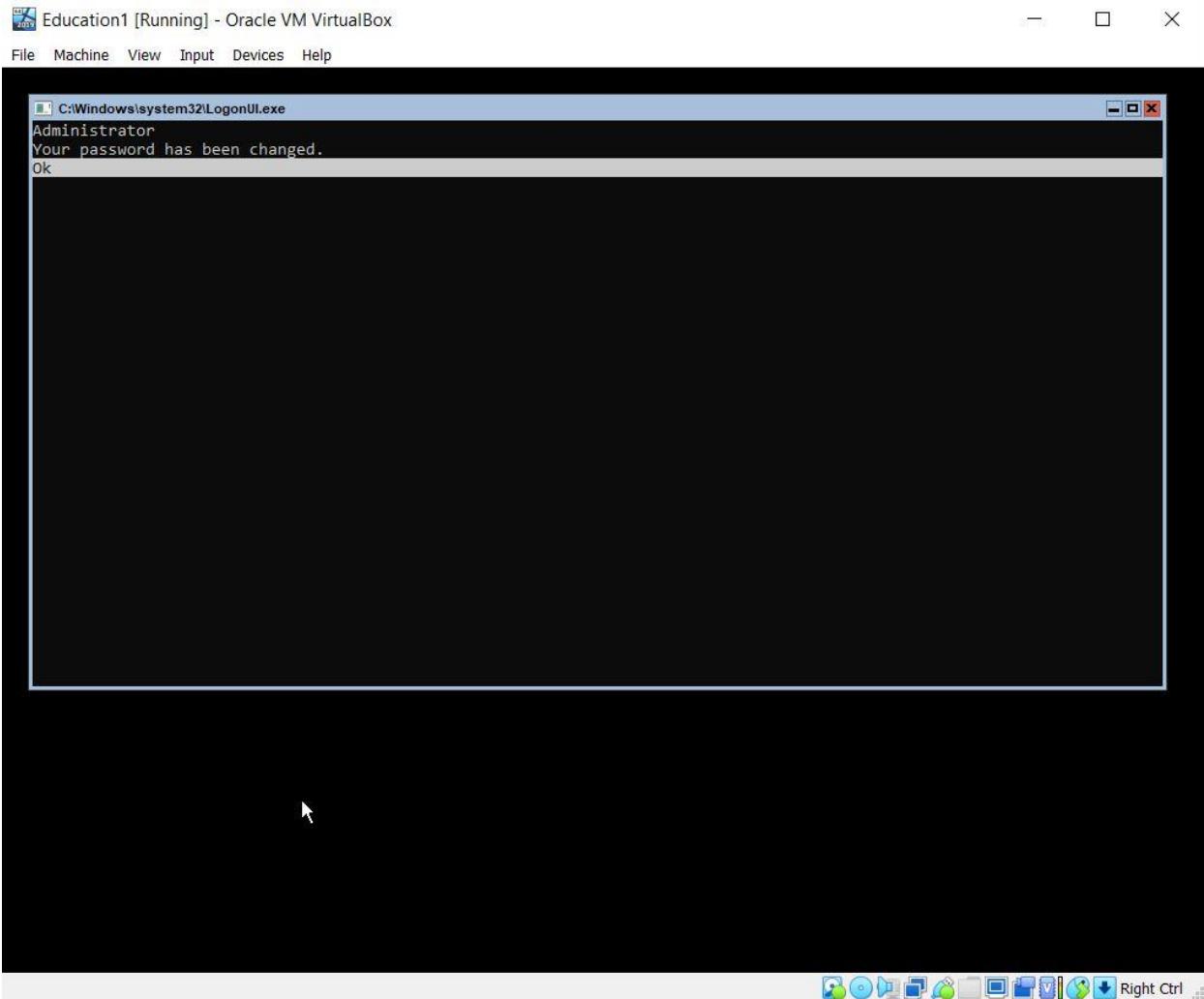


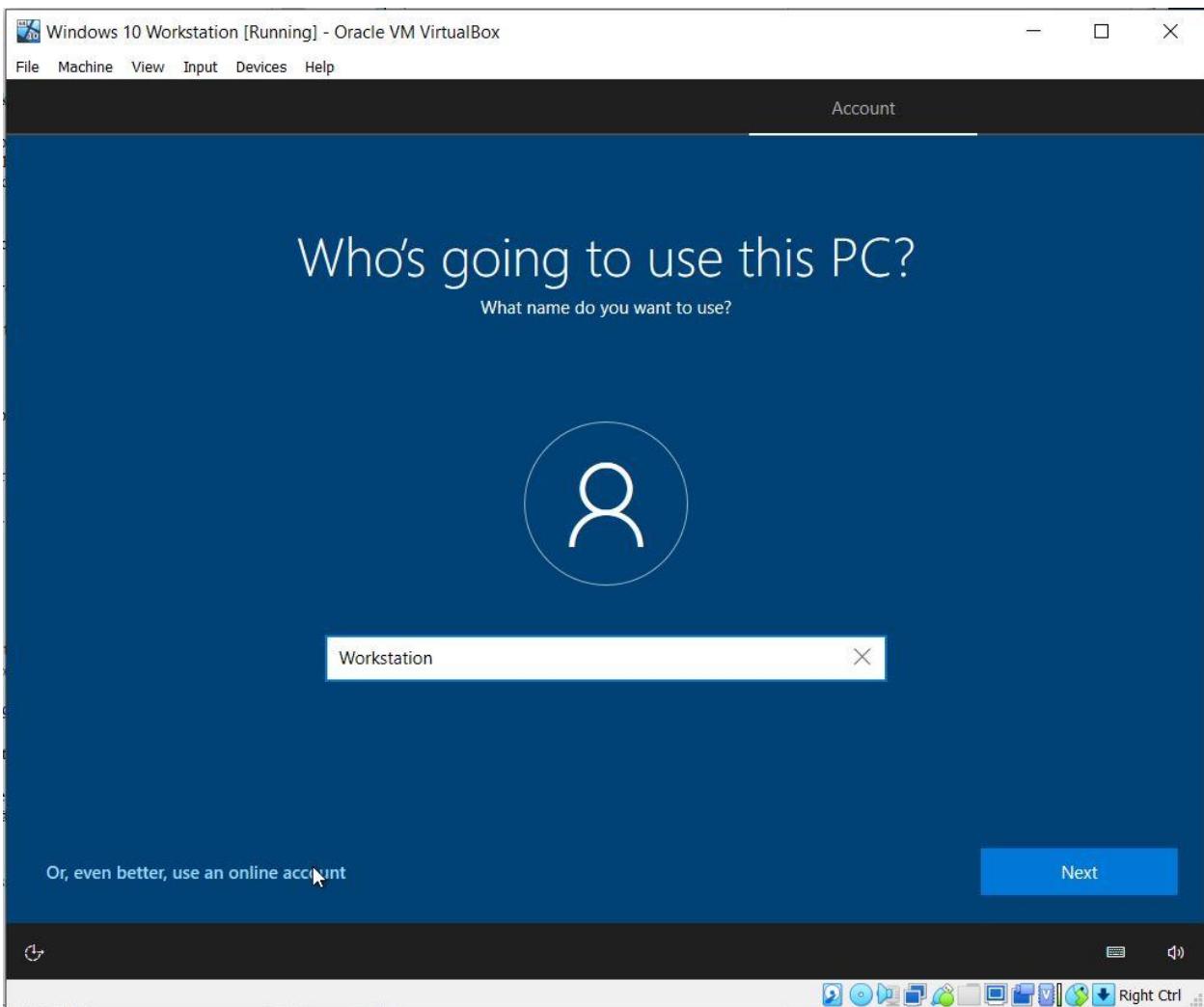


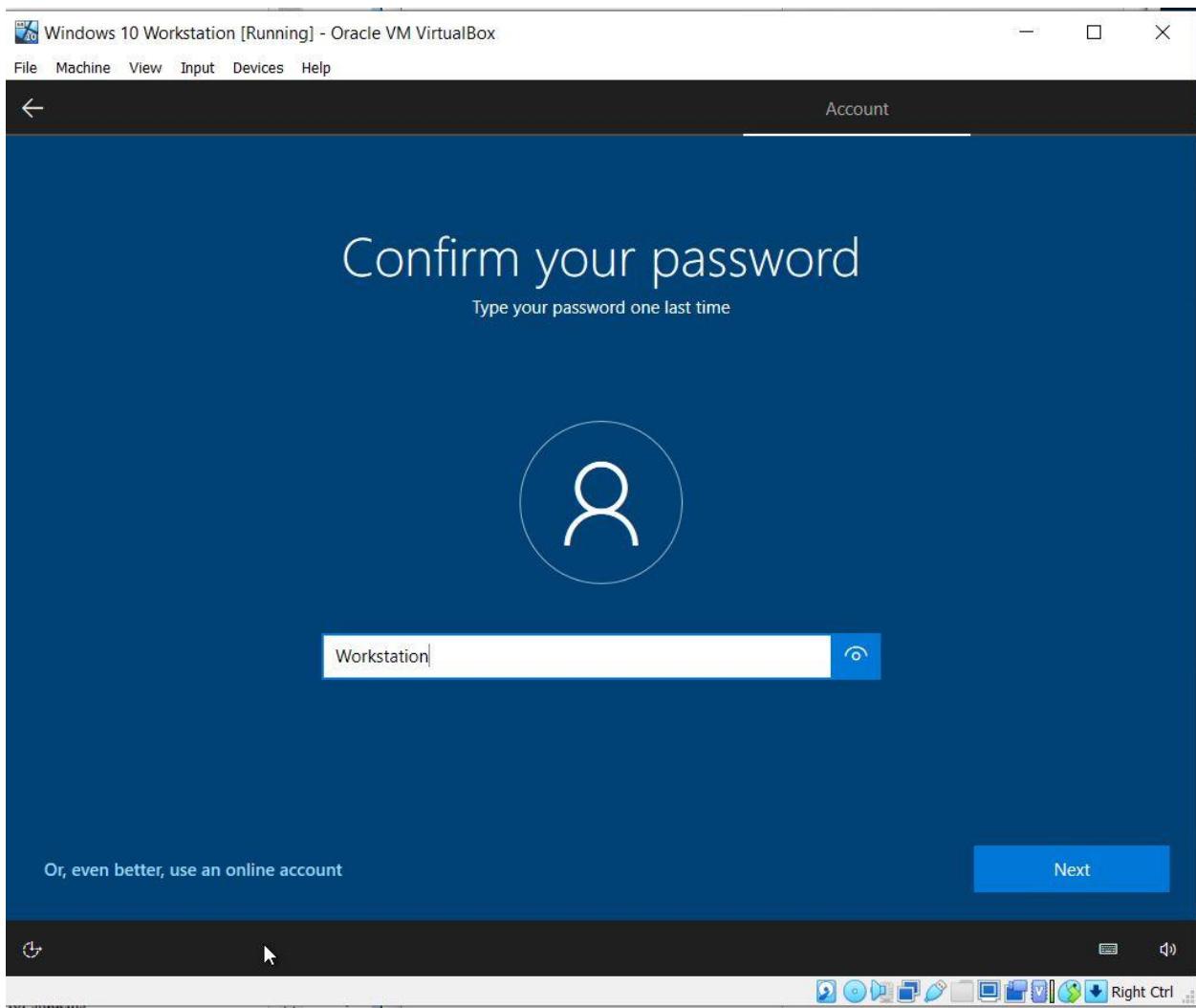


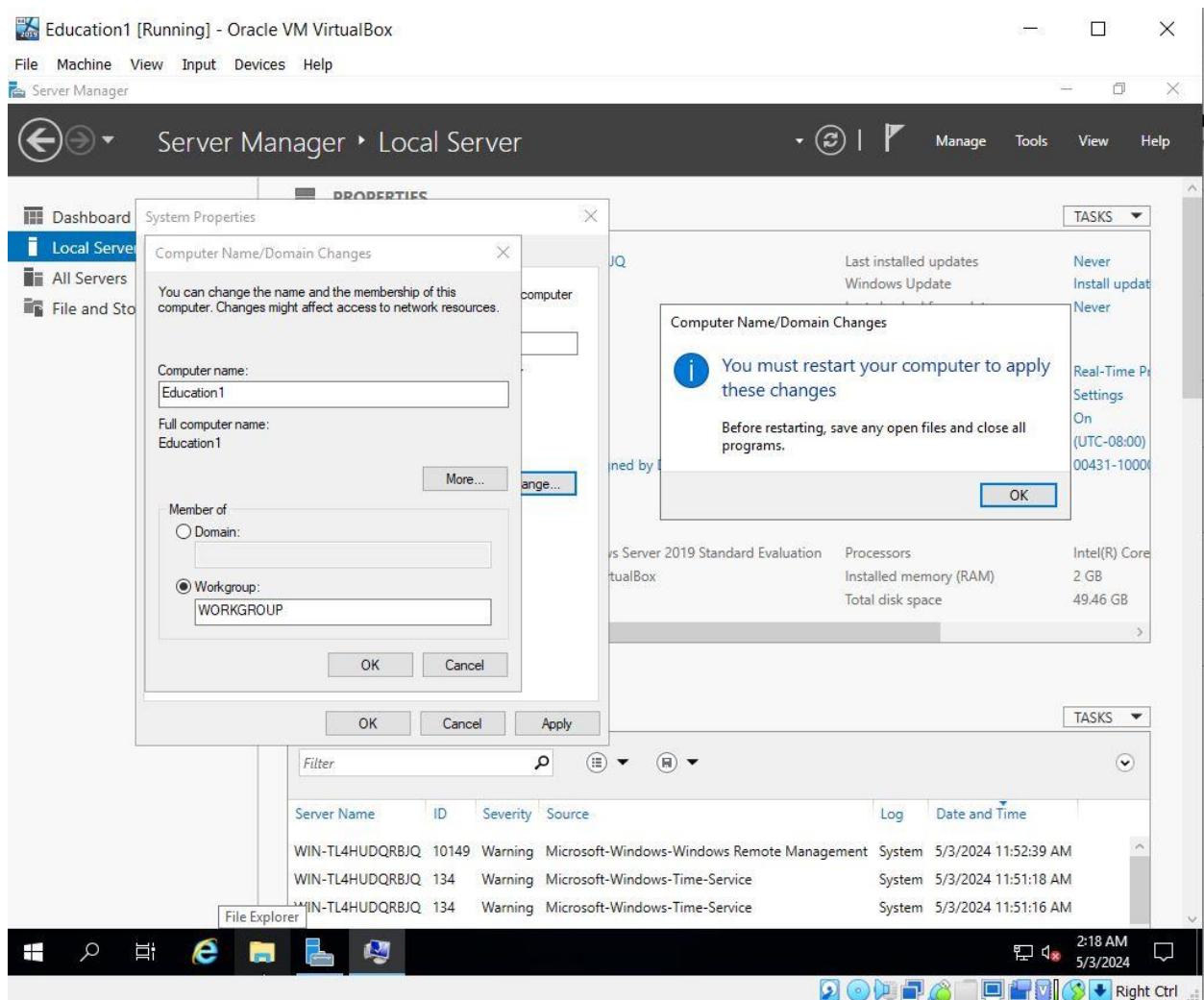


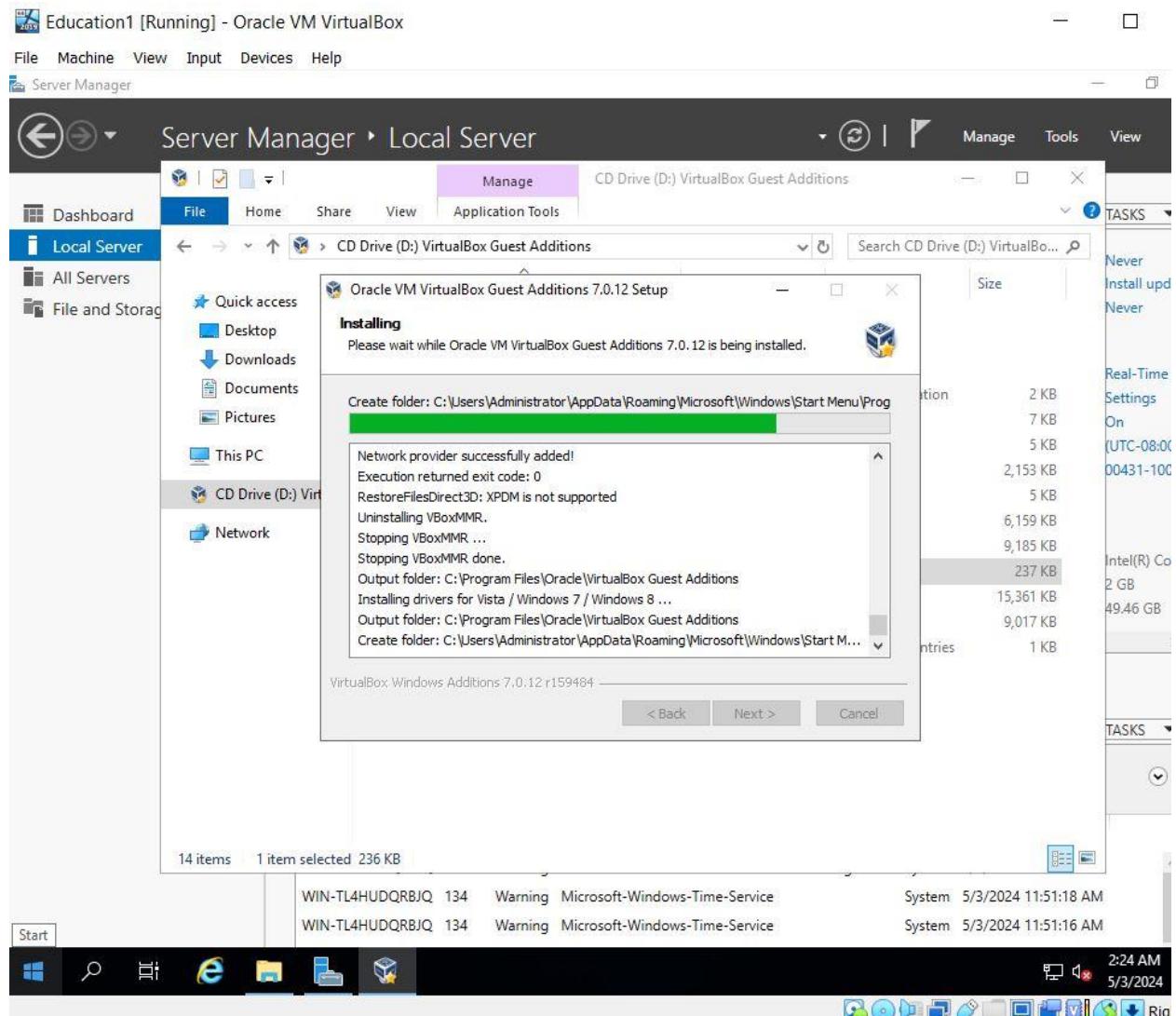


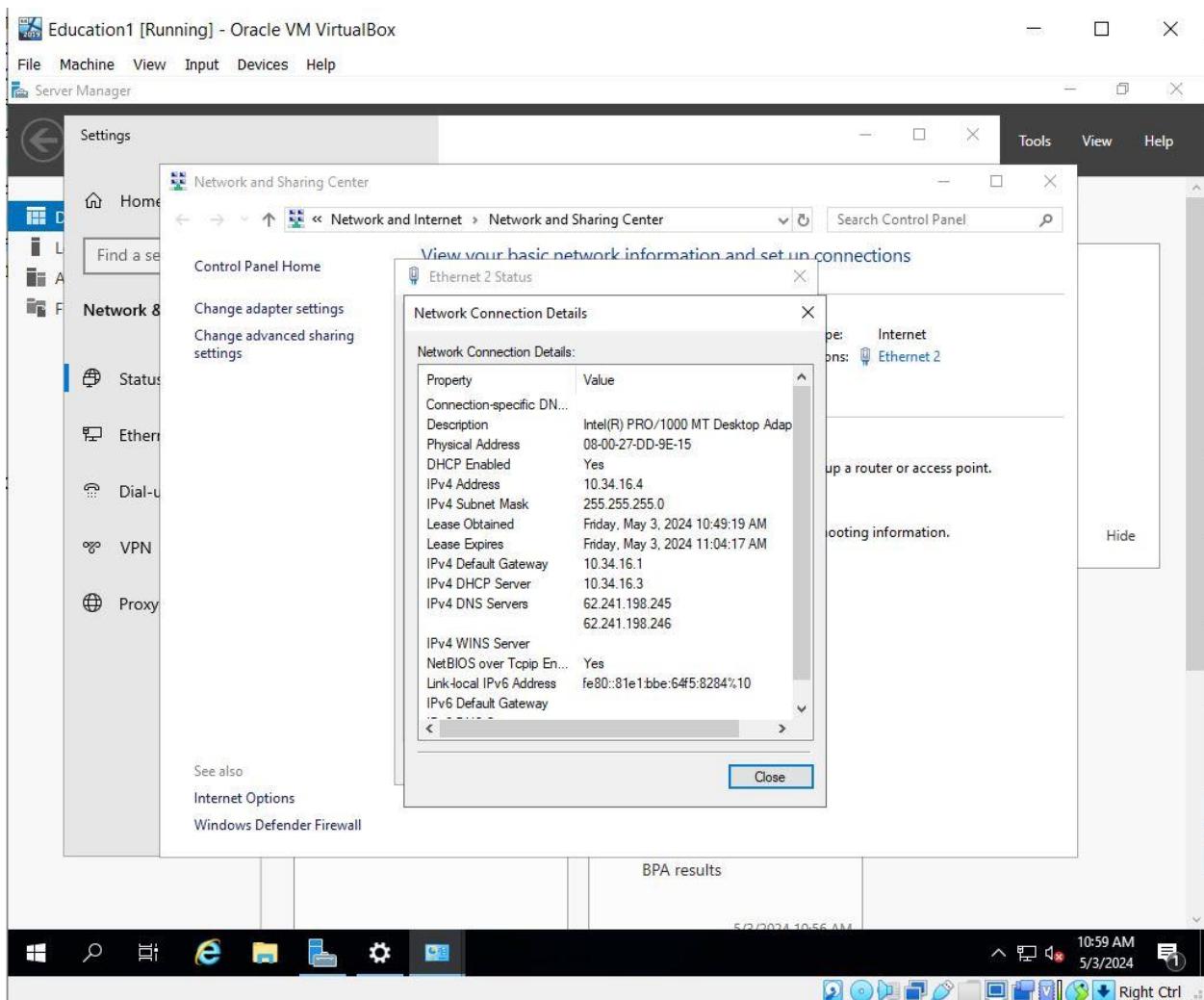


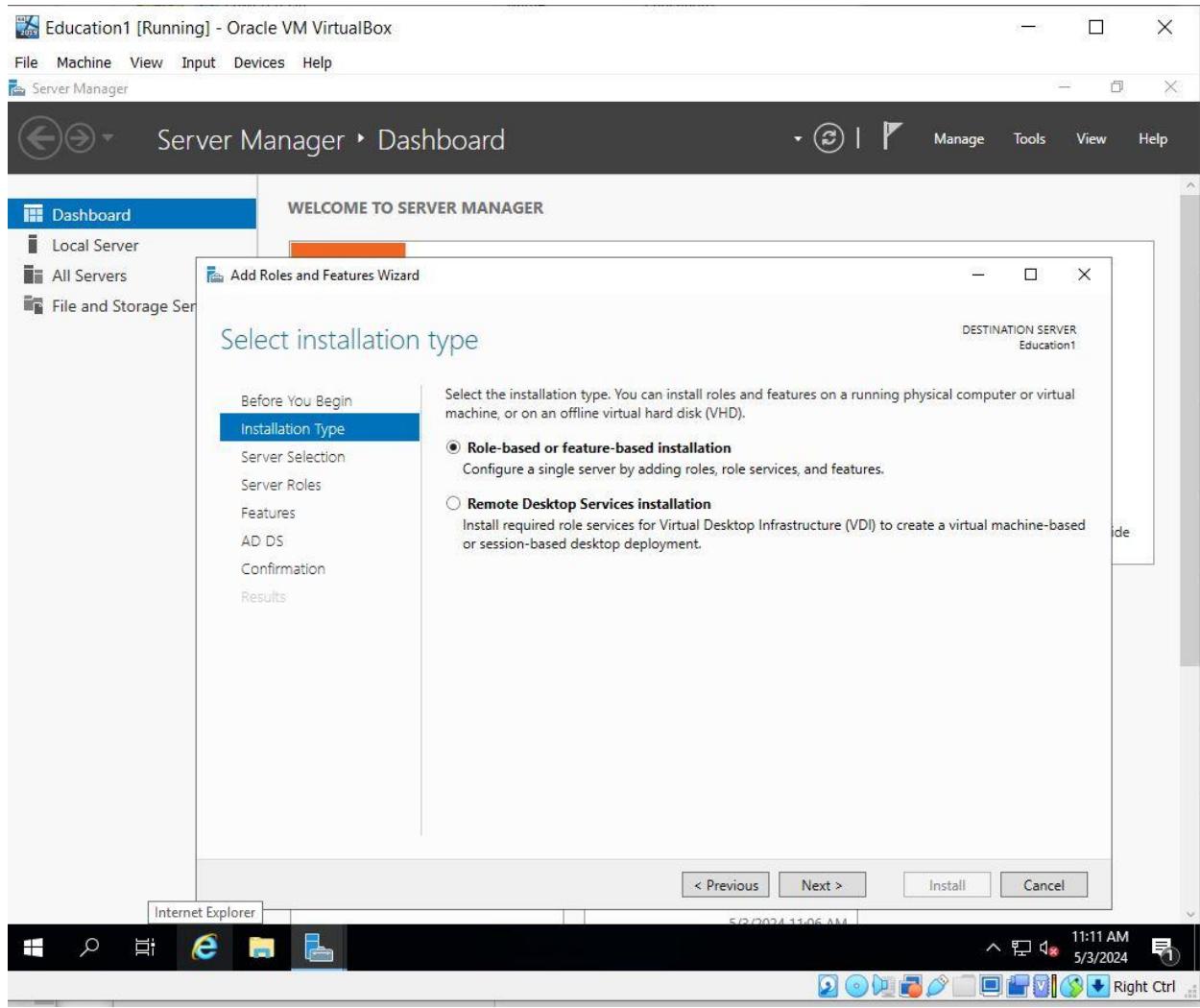


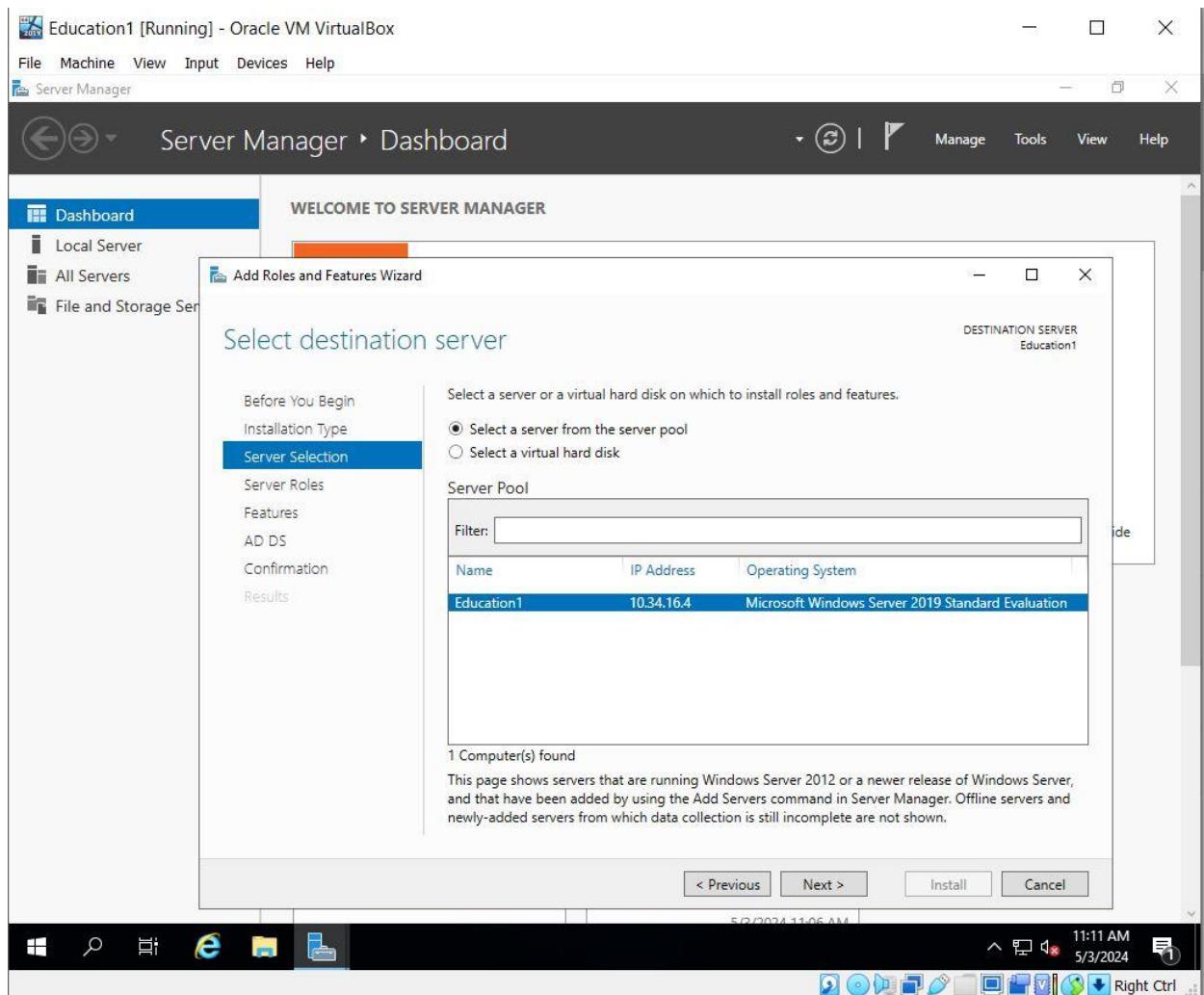


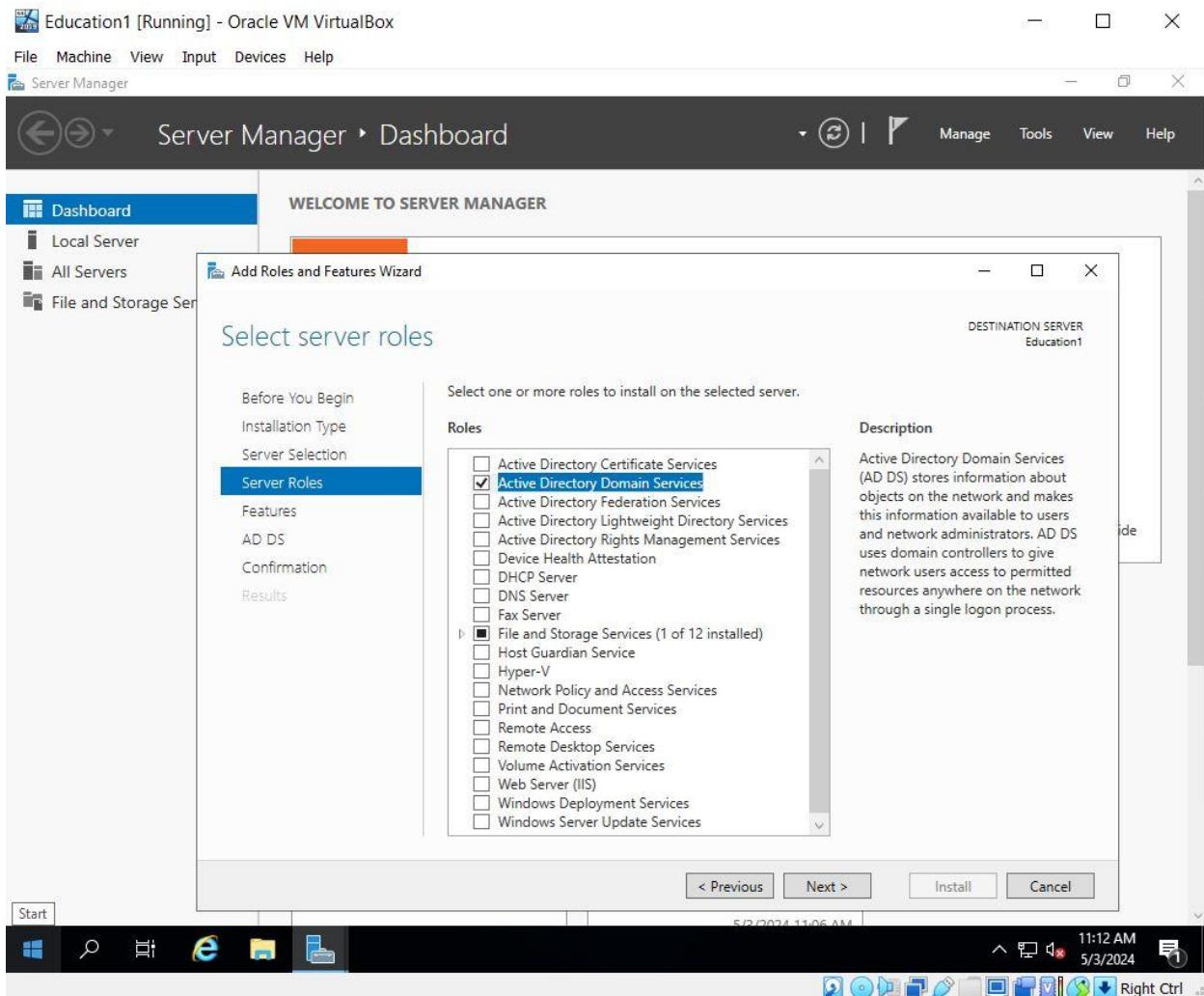


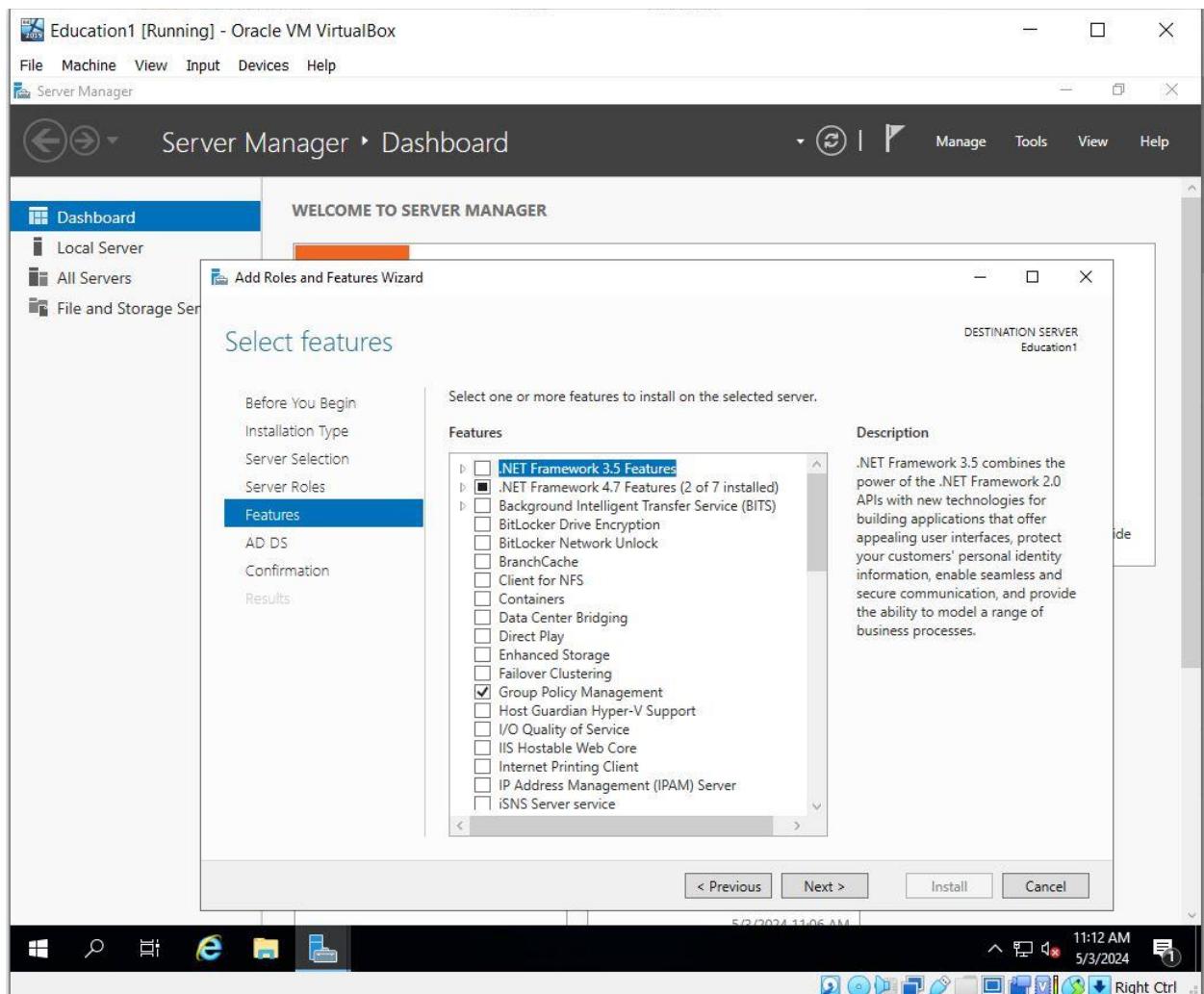


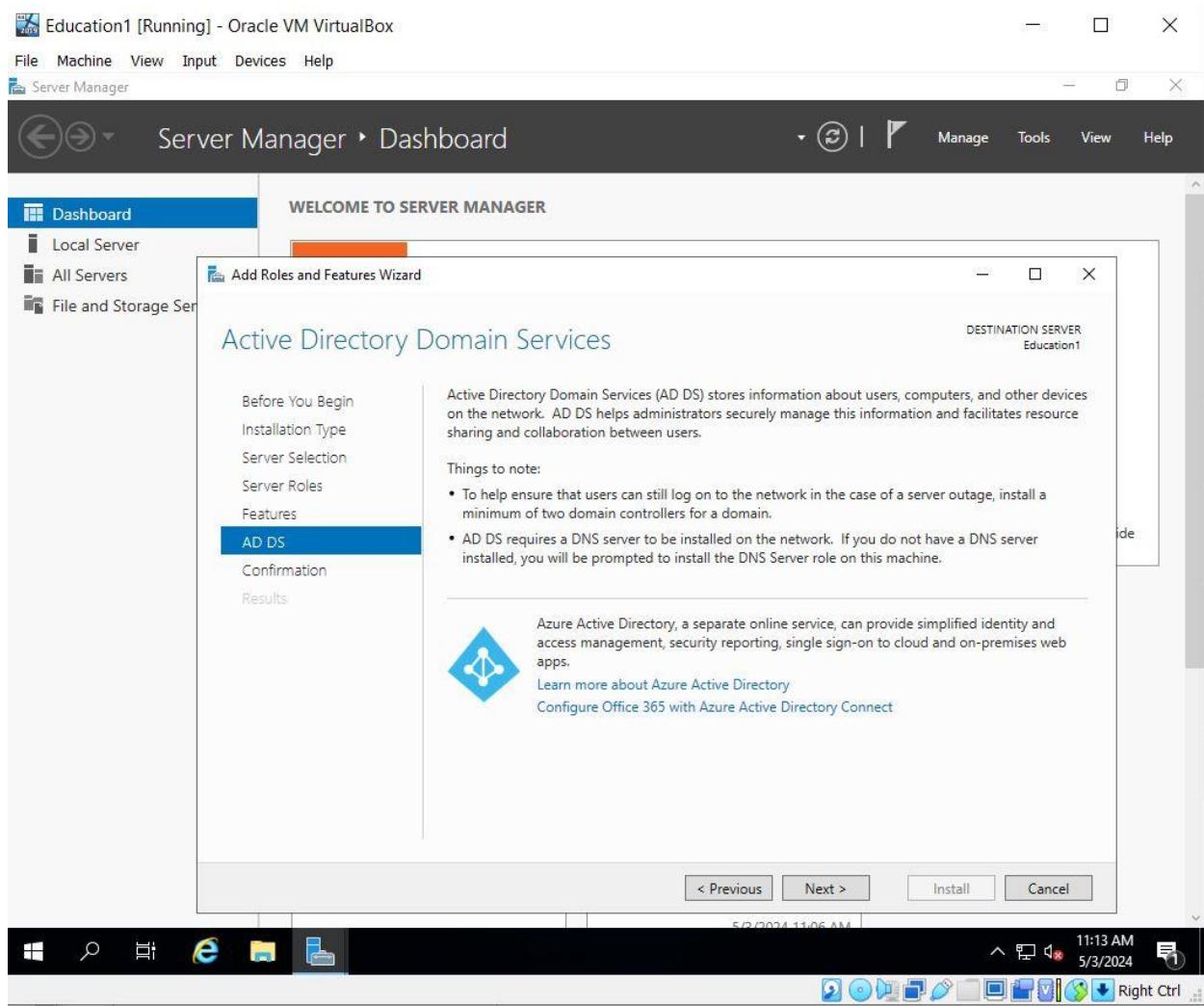


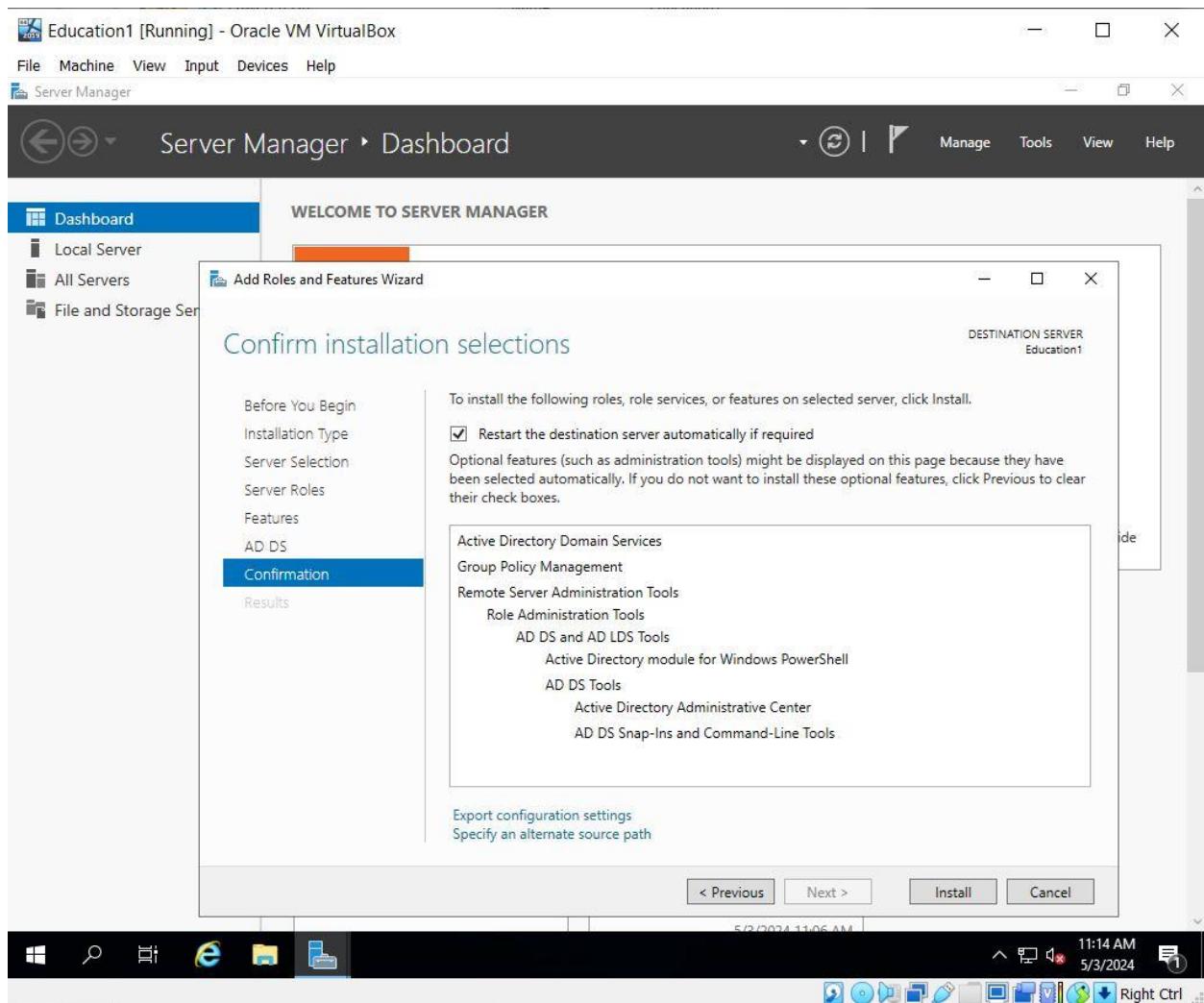


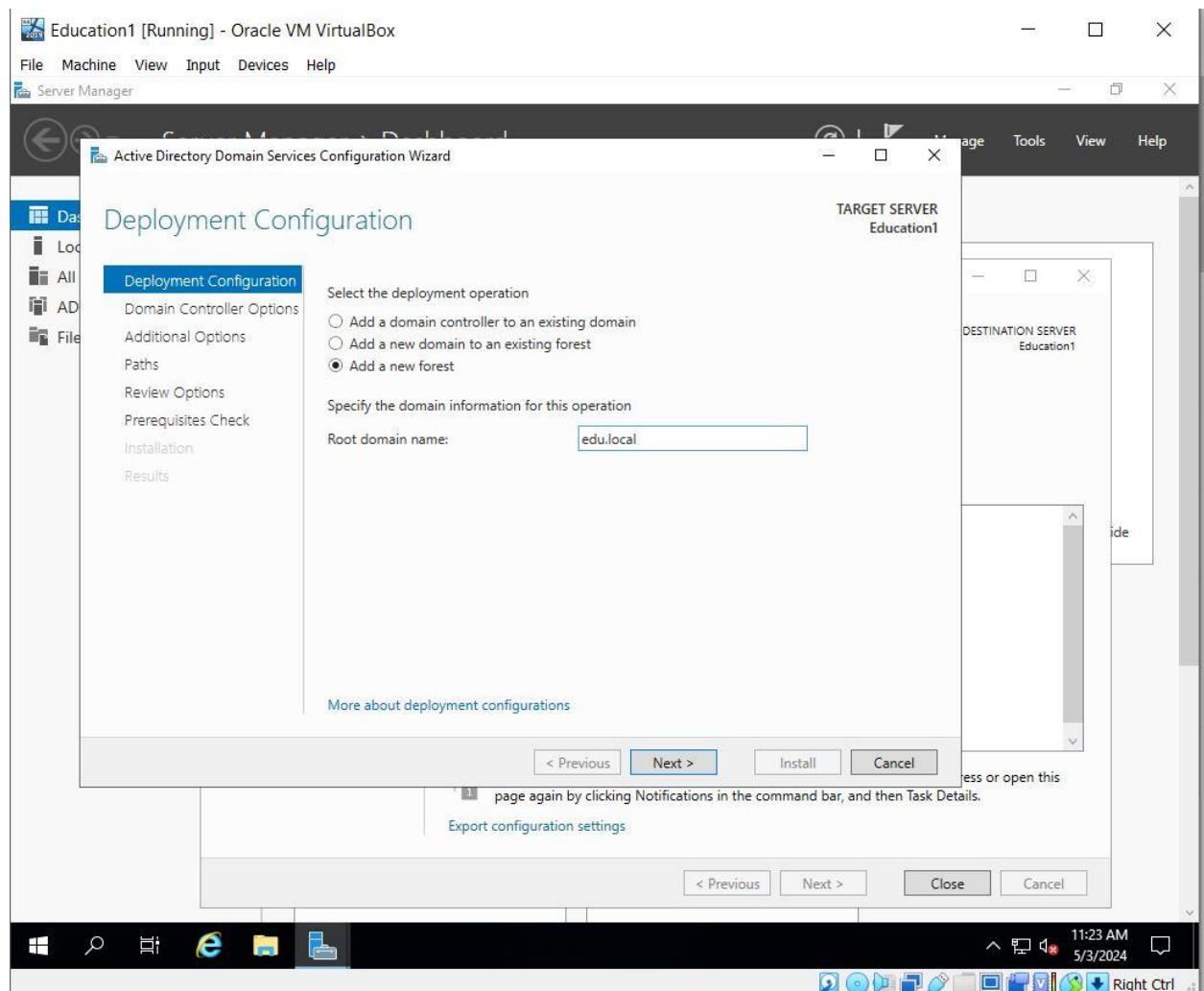


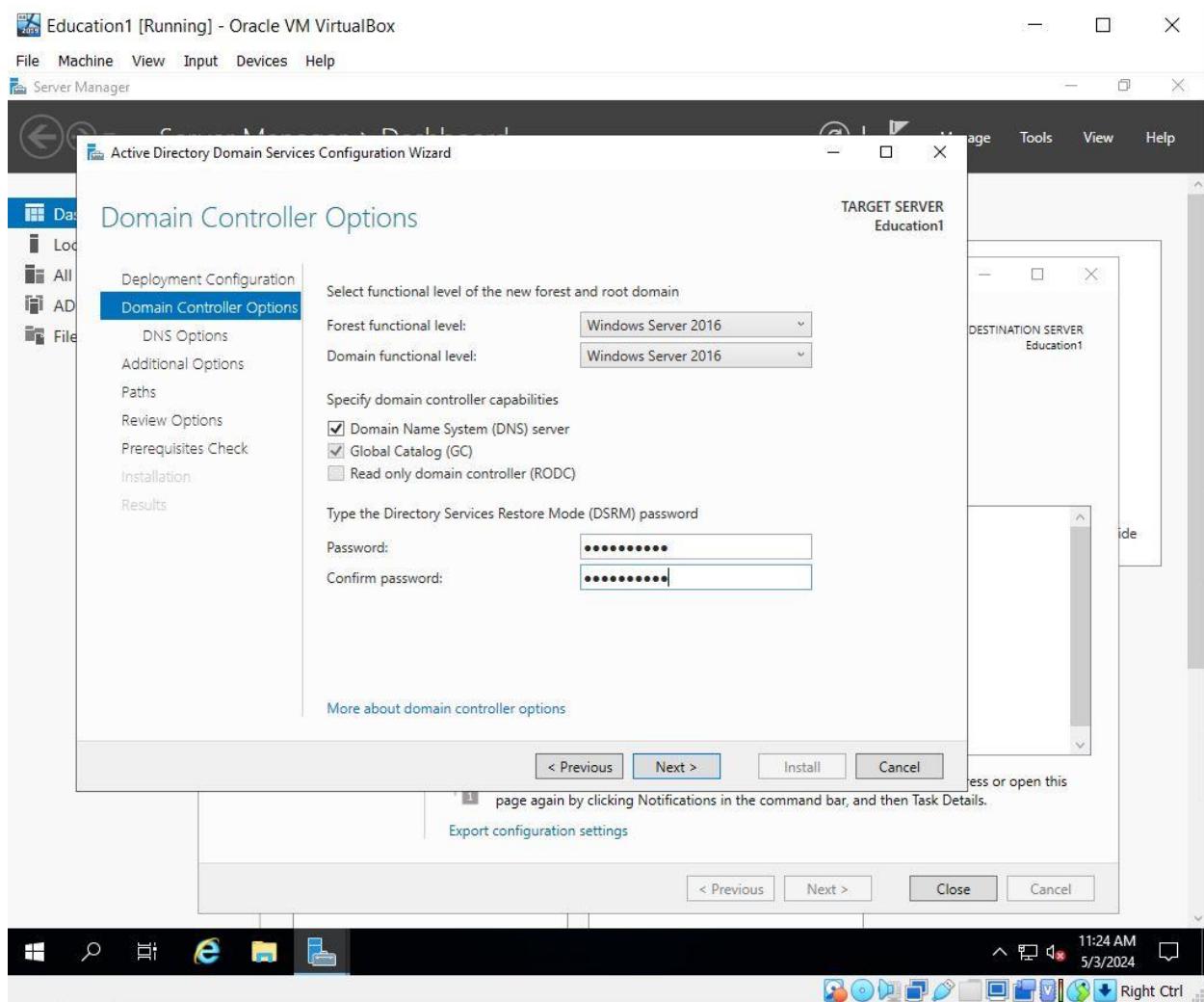


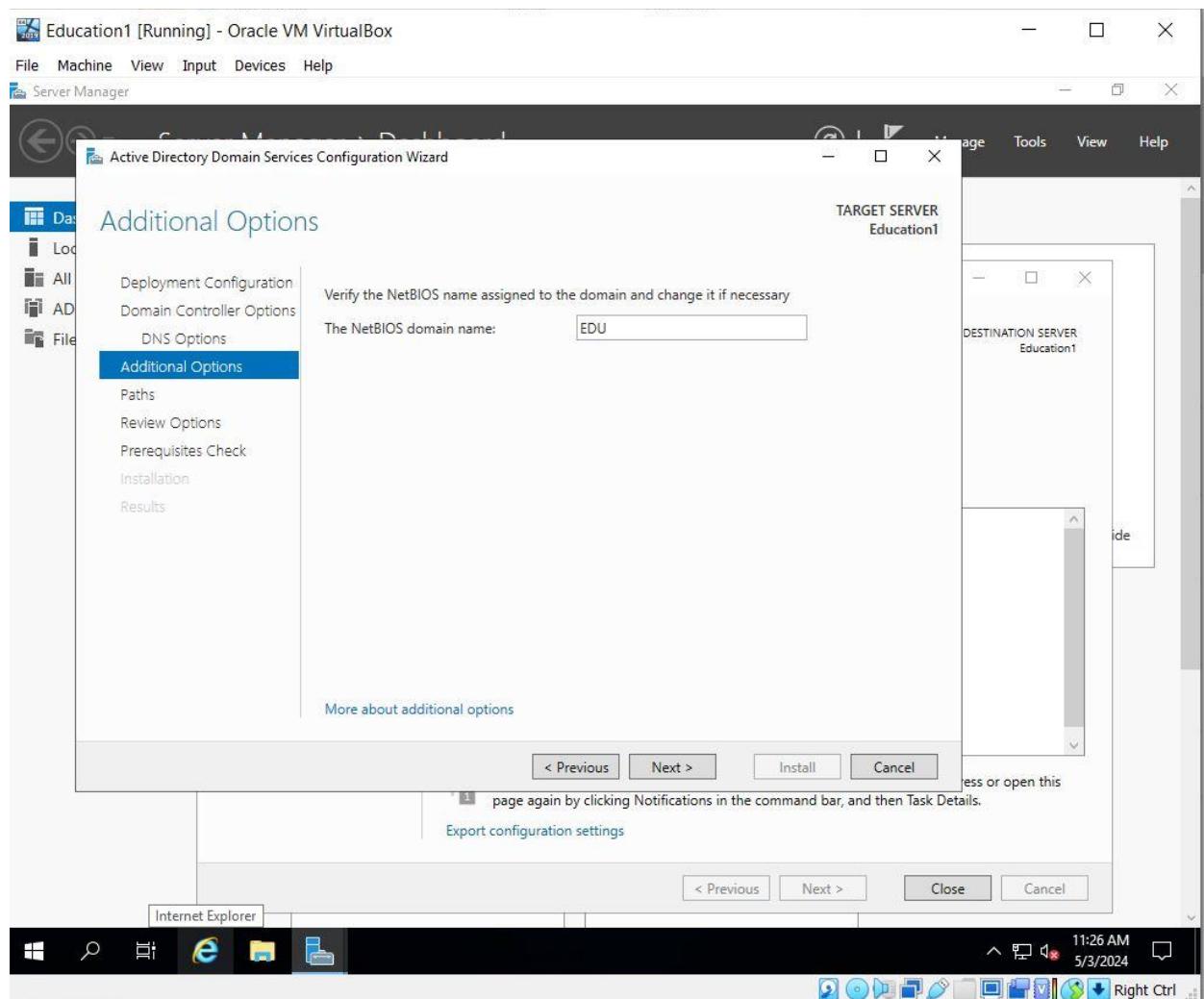


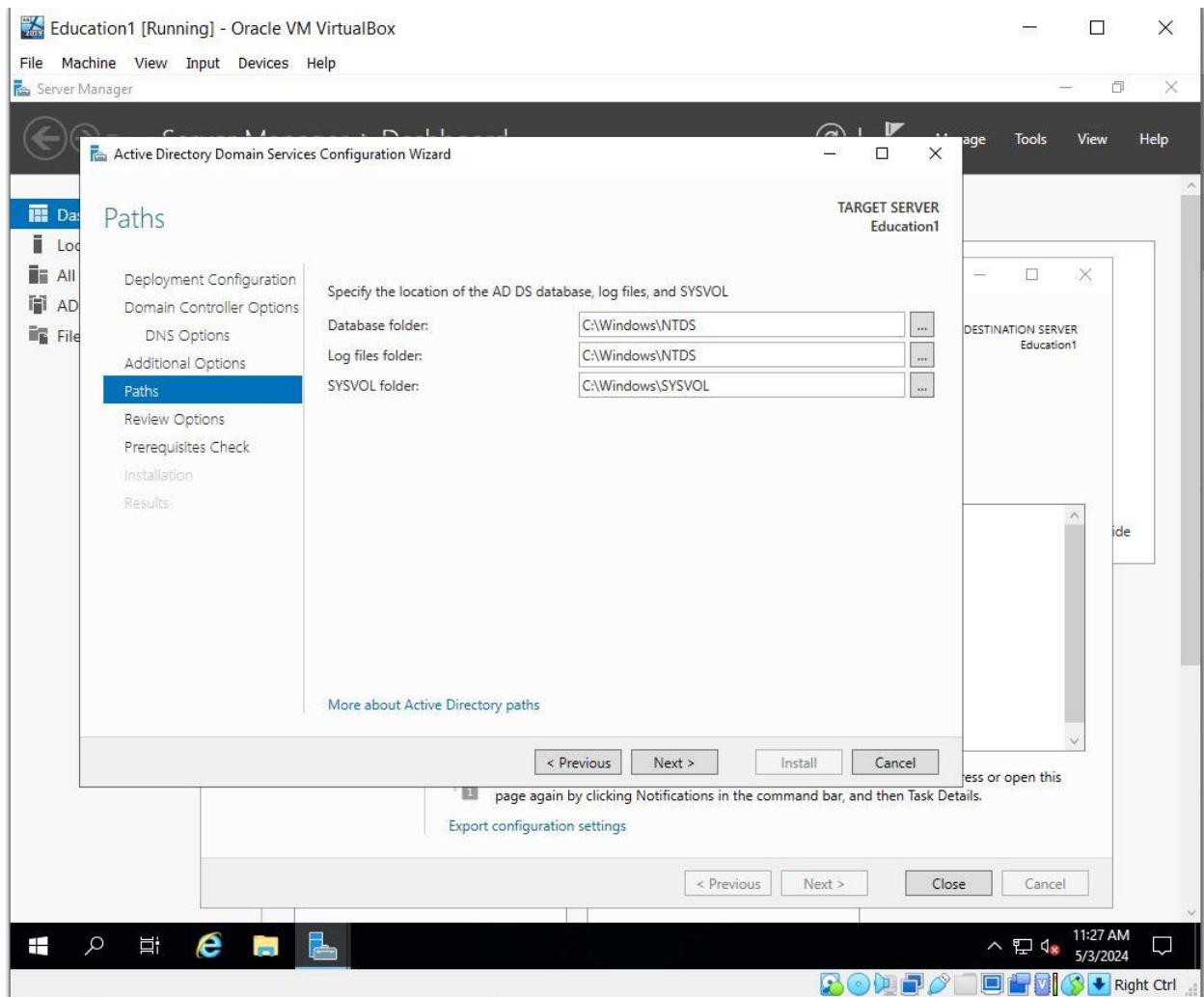


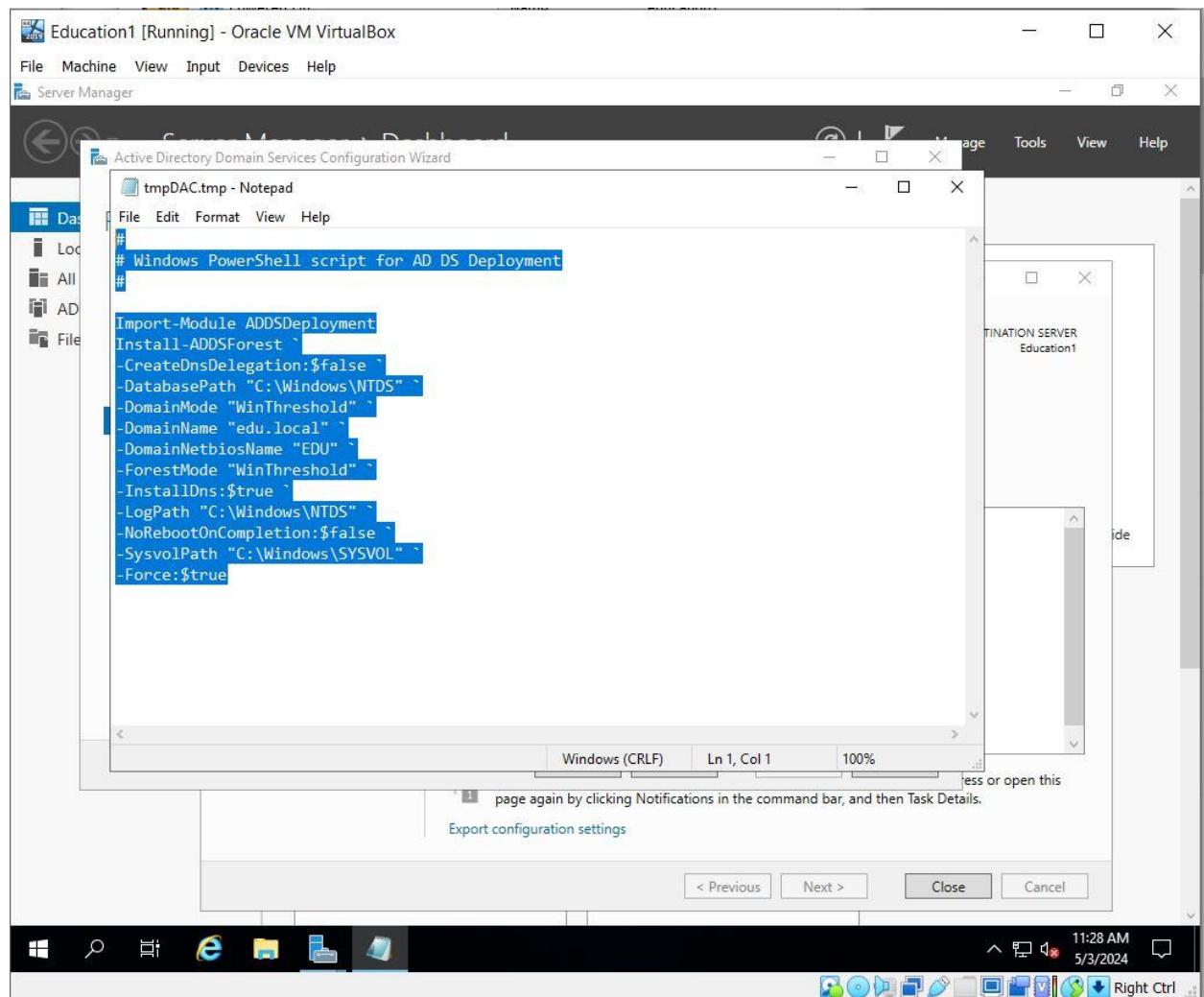


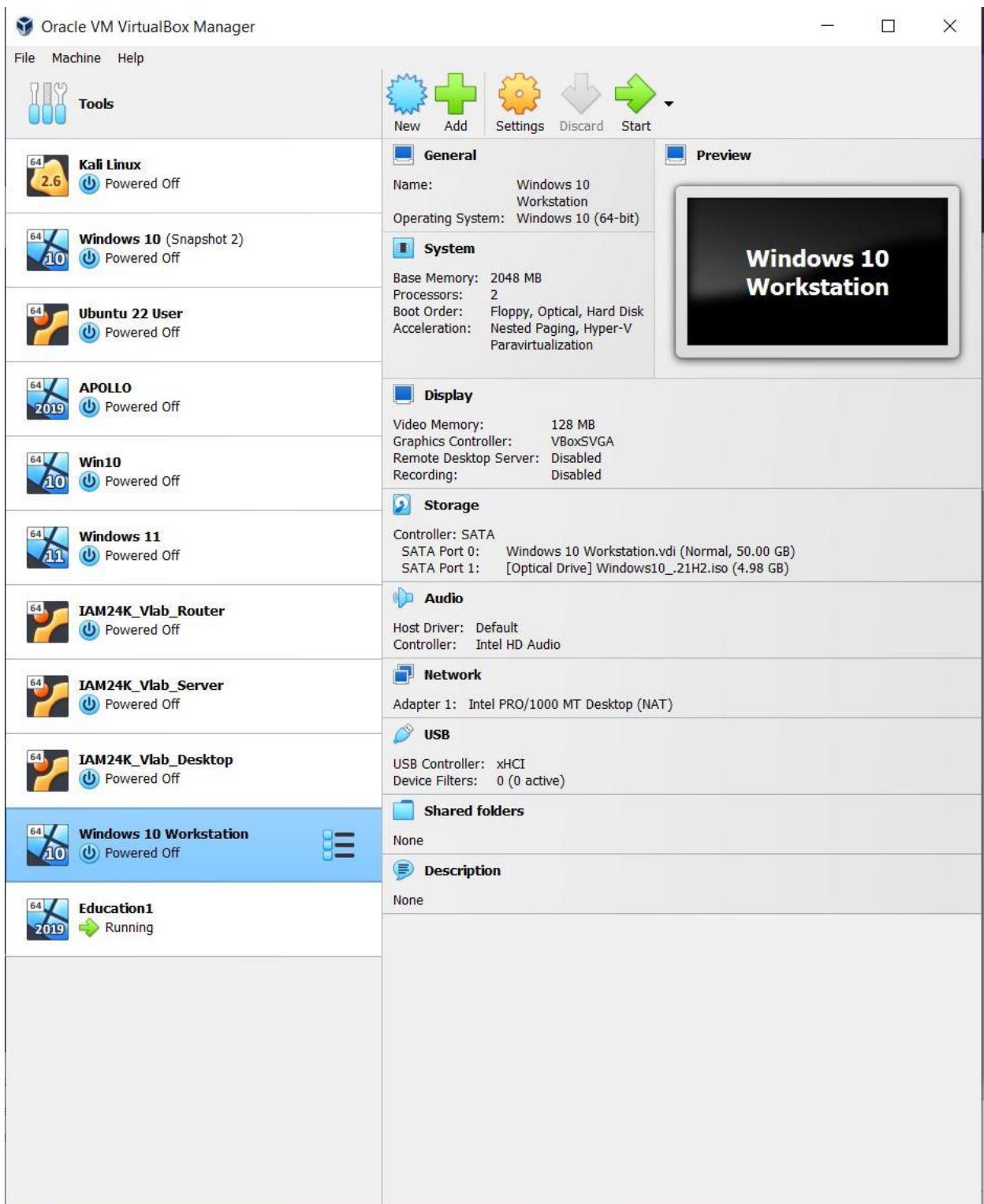












Windows 10 Workstation [Running] - Oracle VM VirtualBox

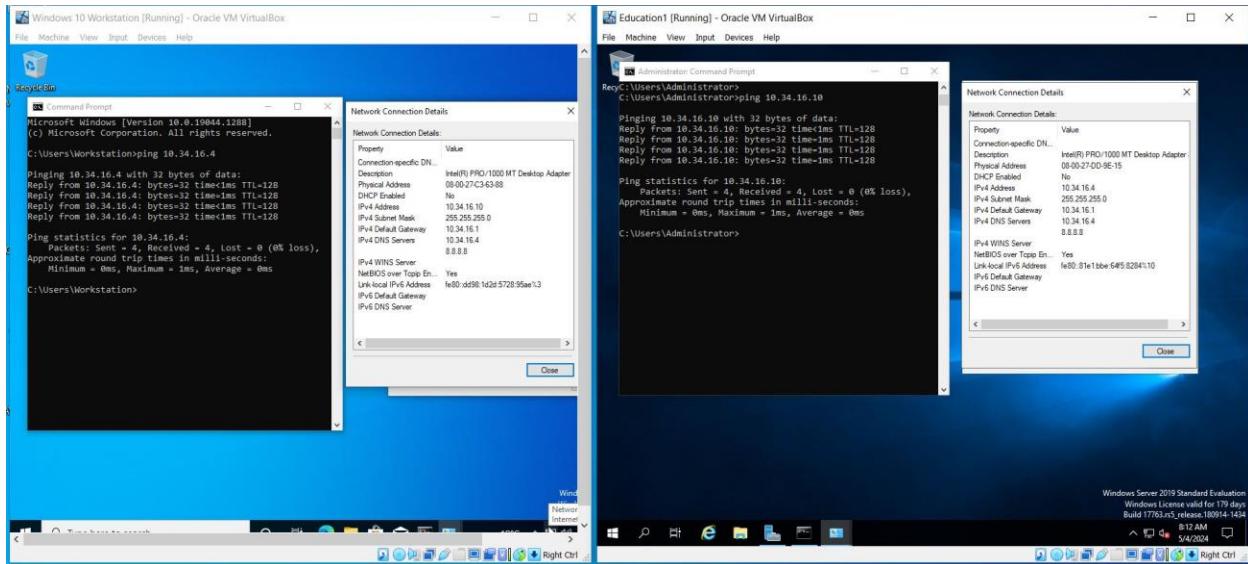
File Machine View Input Devices Help

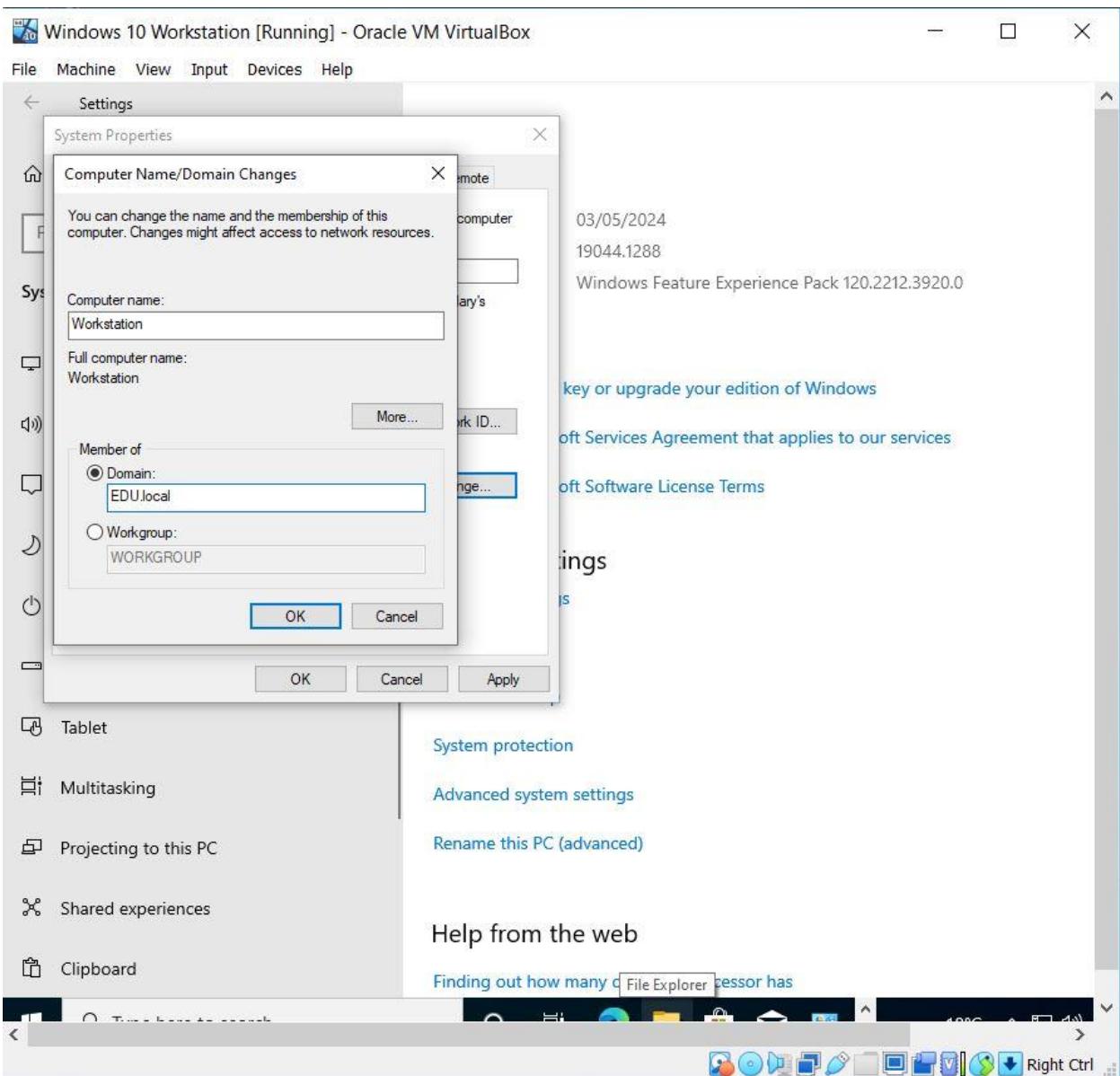
Windows Defender Firewall with Advanced Security

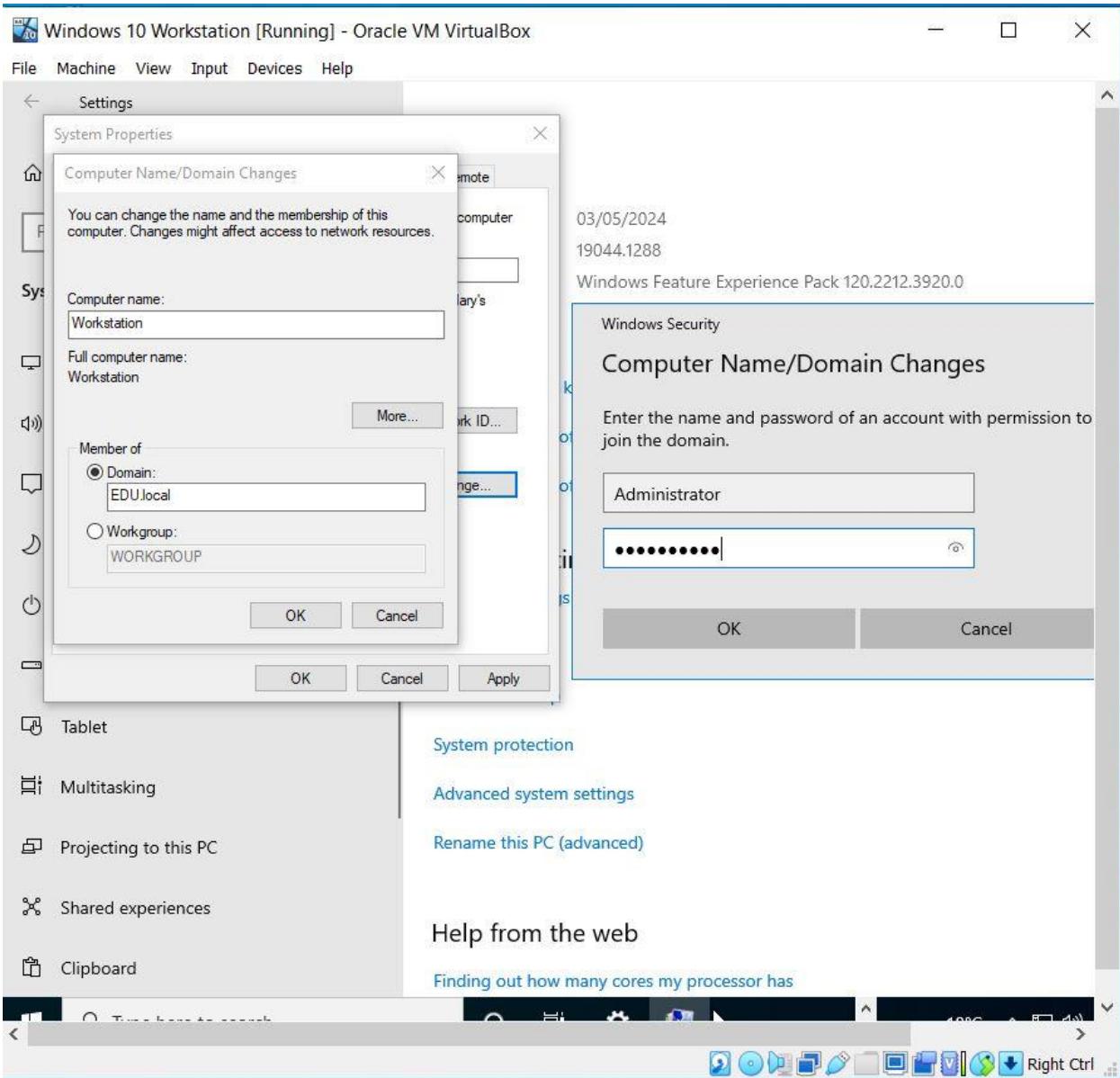
File Action View Help

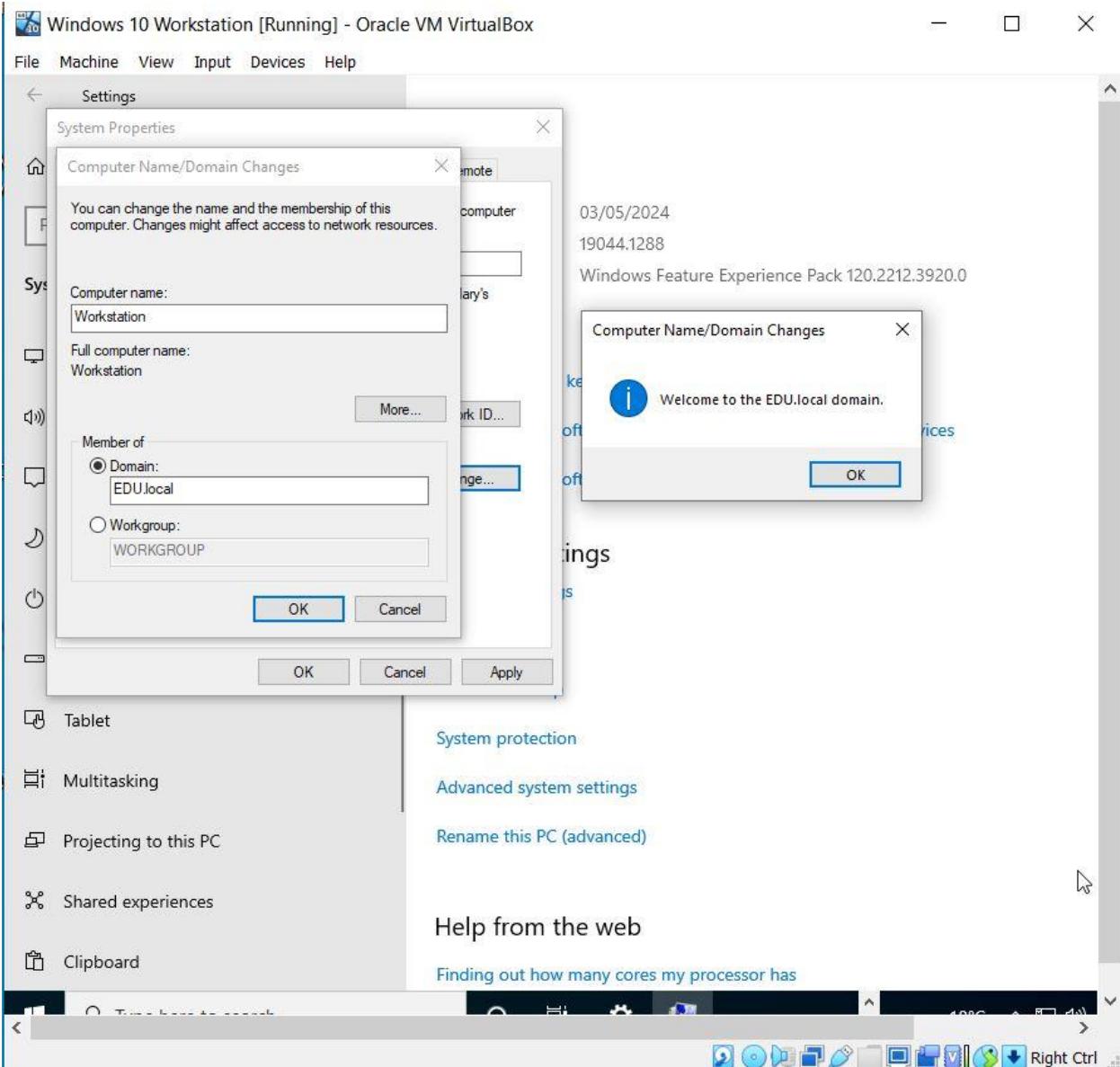
Inbound Rules

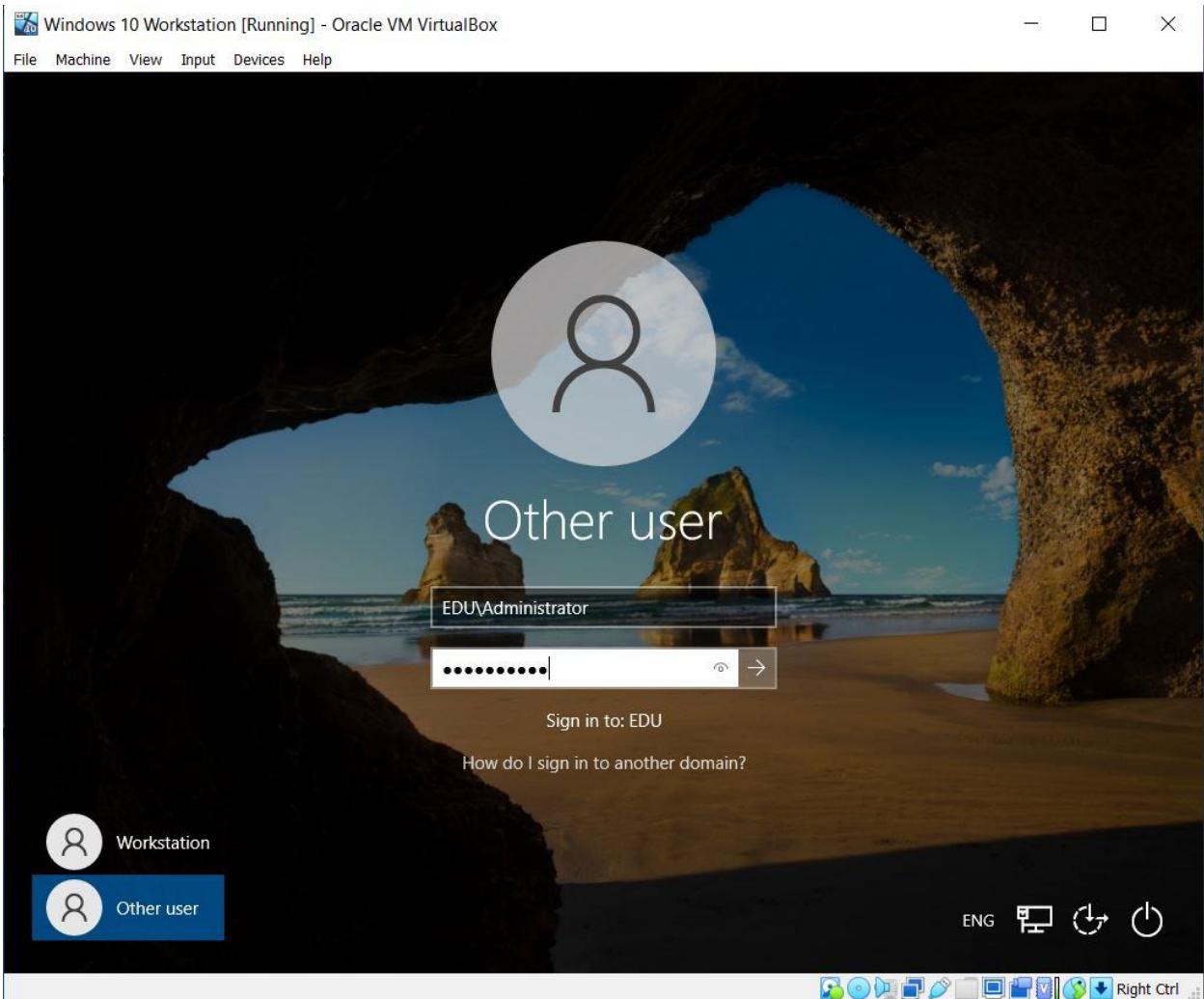
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Distributed Transaction Coordinator (TCP...)	Distributed Transaction Coo...	Private...	No	Allow	No	%
Distributed Transaction Coordinator (TCP...)	Distributed Transaction Coo...	Domain	No	Allow	No	%
File and Printer Sharing (Echo Request - I...	File and Printer Sharing	Domain	Yes	Allow	No	Sy
File and Printer Sharing (Echo Request - I...	File and Printer Sharing	Public	Yes	Allow	No	Sy
File and Printer Sharing (Echo Request - I...	File and Printer Sharing	Private...	No	Allow	No	Sy
File and Printer Sharing (Echo Request - I...	File and Printer Sharing	Domain	No	Allow	No	Sy
File and Printer Sharing (LLMNR-UDP-In)	File and Printer Sharing	All	No	Allow	No	%
File and Printer Sharing (NB-Datagram-In)	File and Printer Sharing	Private...	No	Allow	No	Sy
File and Printer Sharing (NB-Datagram-In)	File and Printer Sharing	Domain	No	Allow	No	Sy
File and Printer Sharing (NB-Name-In)	File and Printer Sharing	Domain	No	Allow	No	Sy
File and Printer Sharing (NB-Name-In)	File and Printer Sharing	Private...	No	Allow	No	Sy
File and Printer Sharing (NB-Session-In)	File and Printer Sharing	Private...	No	Allow	No	Sy
File and Printer Sharing (NB-Session-In)	File and Printer Sharing	Domain	No	Allow	No	Sy
File and Printer Sharing (SMB-In)	File and Printer Sharing	Domain	No	Allow	No	Sy
File and Printer Sharing (SMB-In)	File and Printer Sharing	Private...	No	Allow	No	Sy
File and Printer Sharing (Spooler Service - ...)	File and Printer Sharing	Domain	No	Allow	No	%
File and Printer Sharing (Spooler Service - ...)	File and Printer Sharing	Private...	No	Allow	No	%
File and Printer Sharing (Spooler Service - ...)	File and Printer Sharing	Domain	No	Allow	No	%
File and Printer Sharing over SMBDirect (i...)	File and Printer Sharing over...	All	No	Allow	No	Sy
Groove Music	Groove Music	Domai...	Yes	Allow	No	Ar
HomeGroup In	HomeGroup	Private	No	Allow	No	%
HomeGroup In (PNRP)	HomeGroup	Private	No	Allow	No	%
iSCSI Service (TCP-In)	iSCSI Service	Private...	No	Allow	No	%
iSCSI Service (TCP-In)	iSCSI Service	Domain	No	Allow	No	%
Key Management Service (TCP-In)	Key Management Service	Domain	No	Allow	No	%
Key Management Service (TCP-In)	Key Management Service	Private...	No	Allow	No	%
Mail and Calendar	Mail and Calendar	All	Yes	Allow	No	Ar
mDNS (UDP-In)	mDNS	Domain	Yes	Allow	No	%

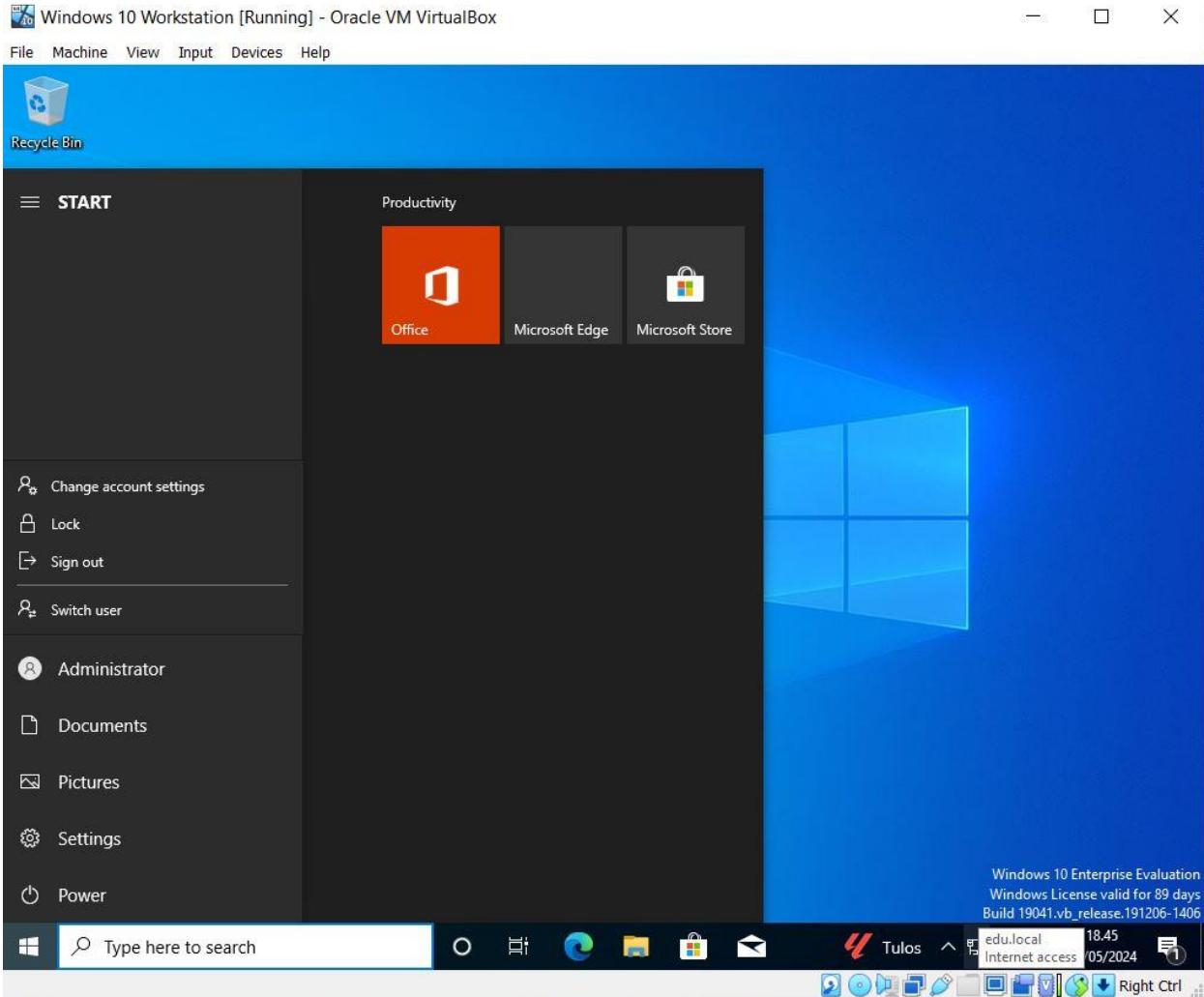


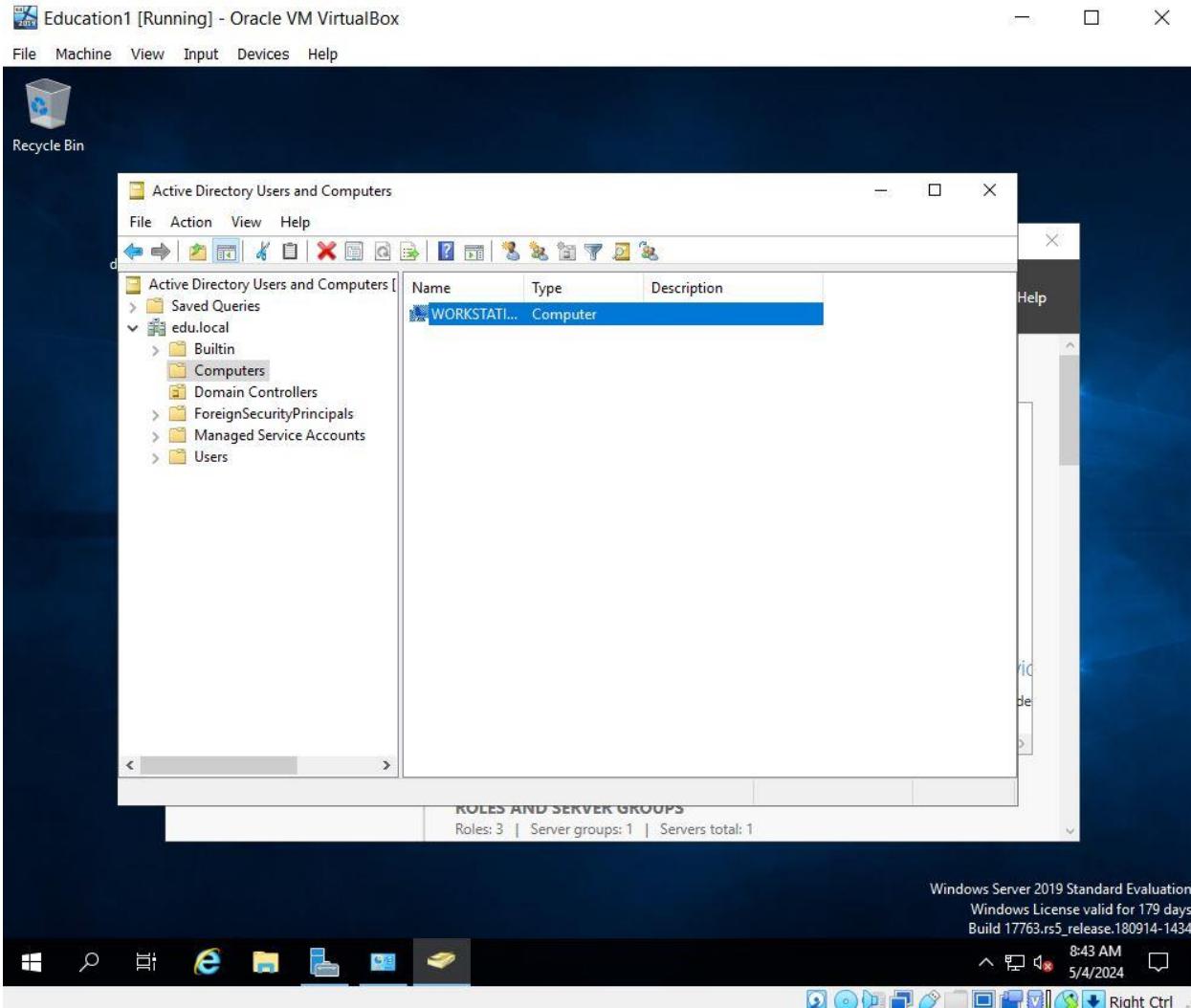


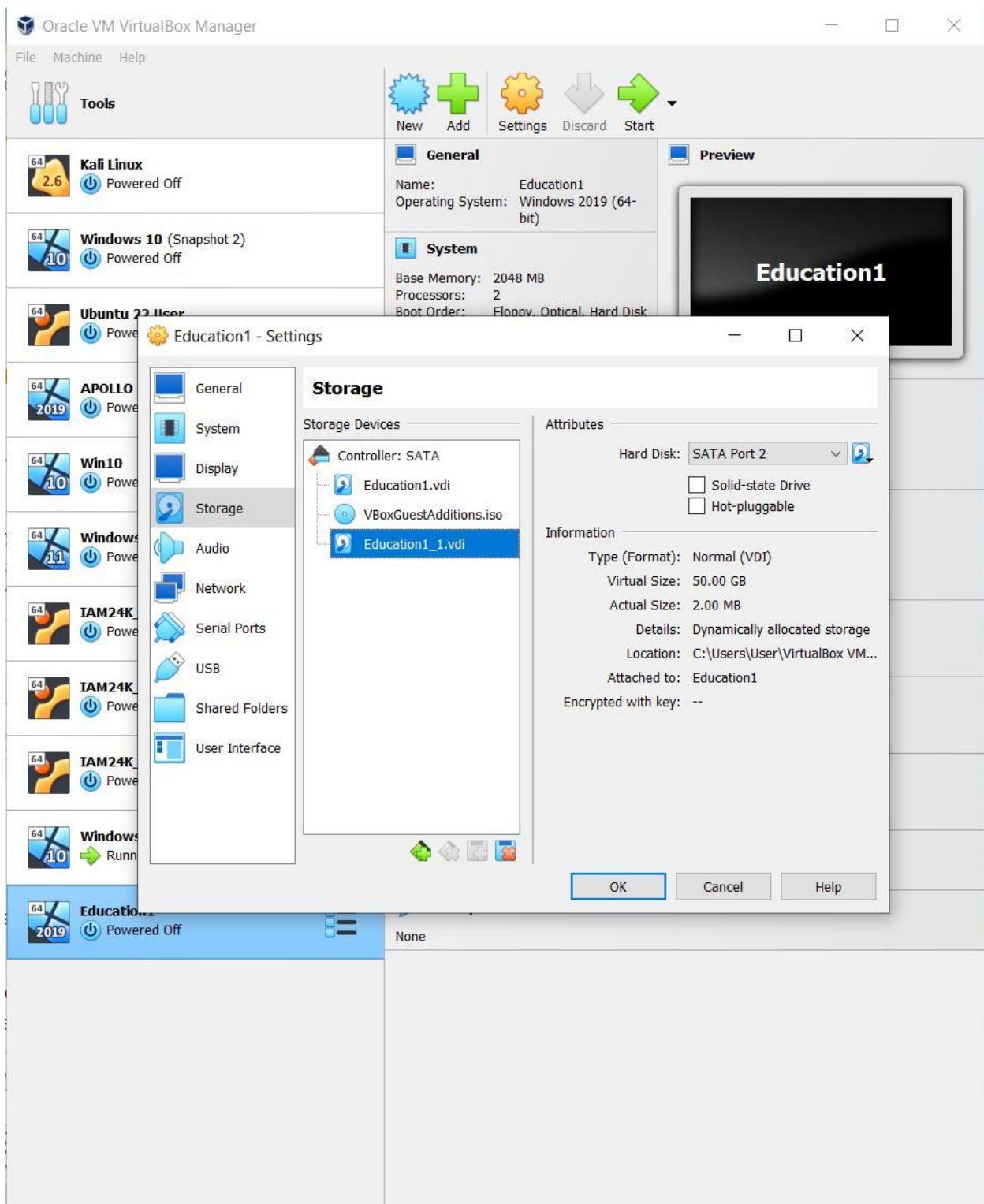


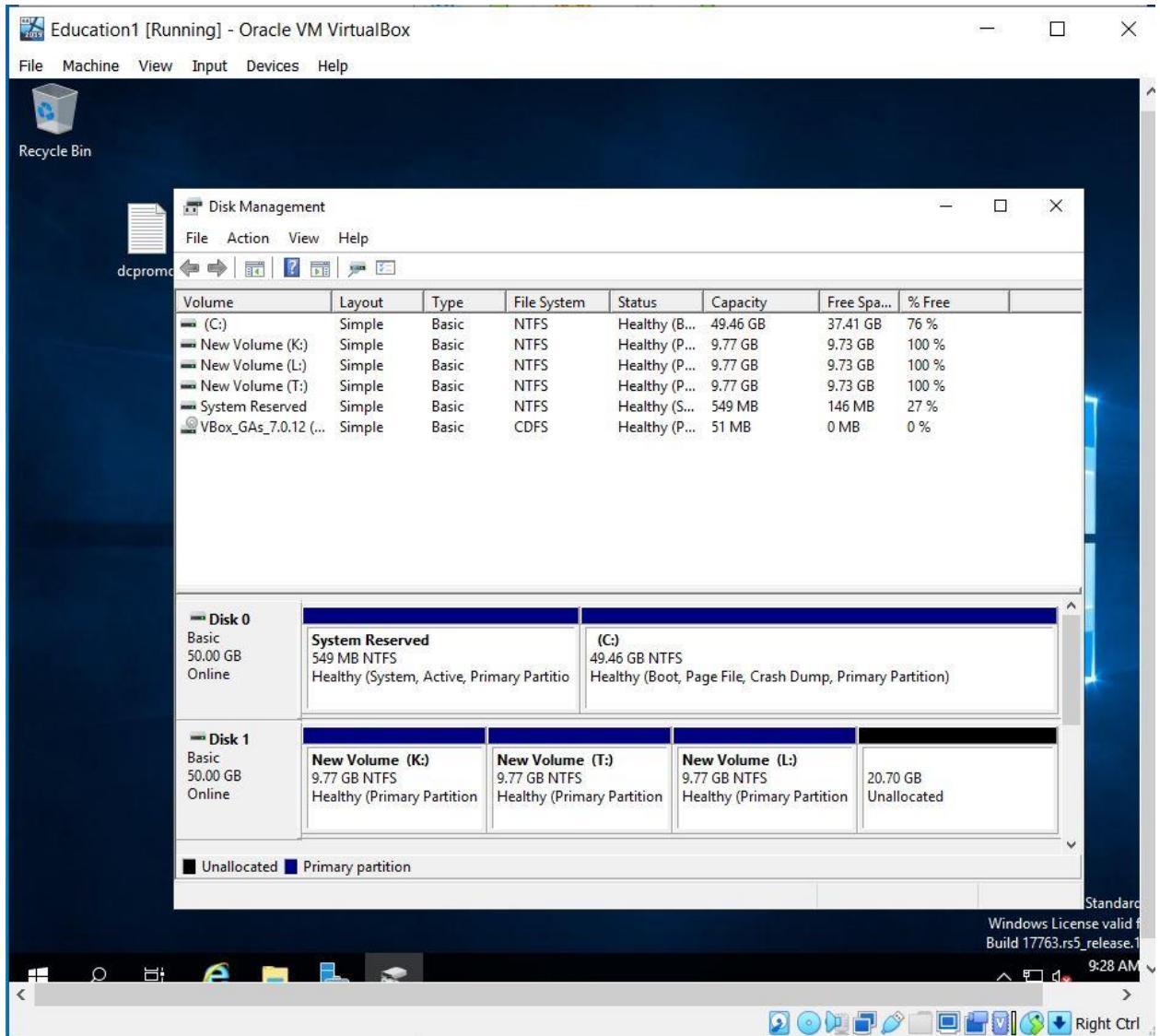


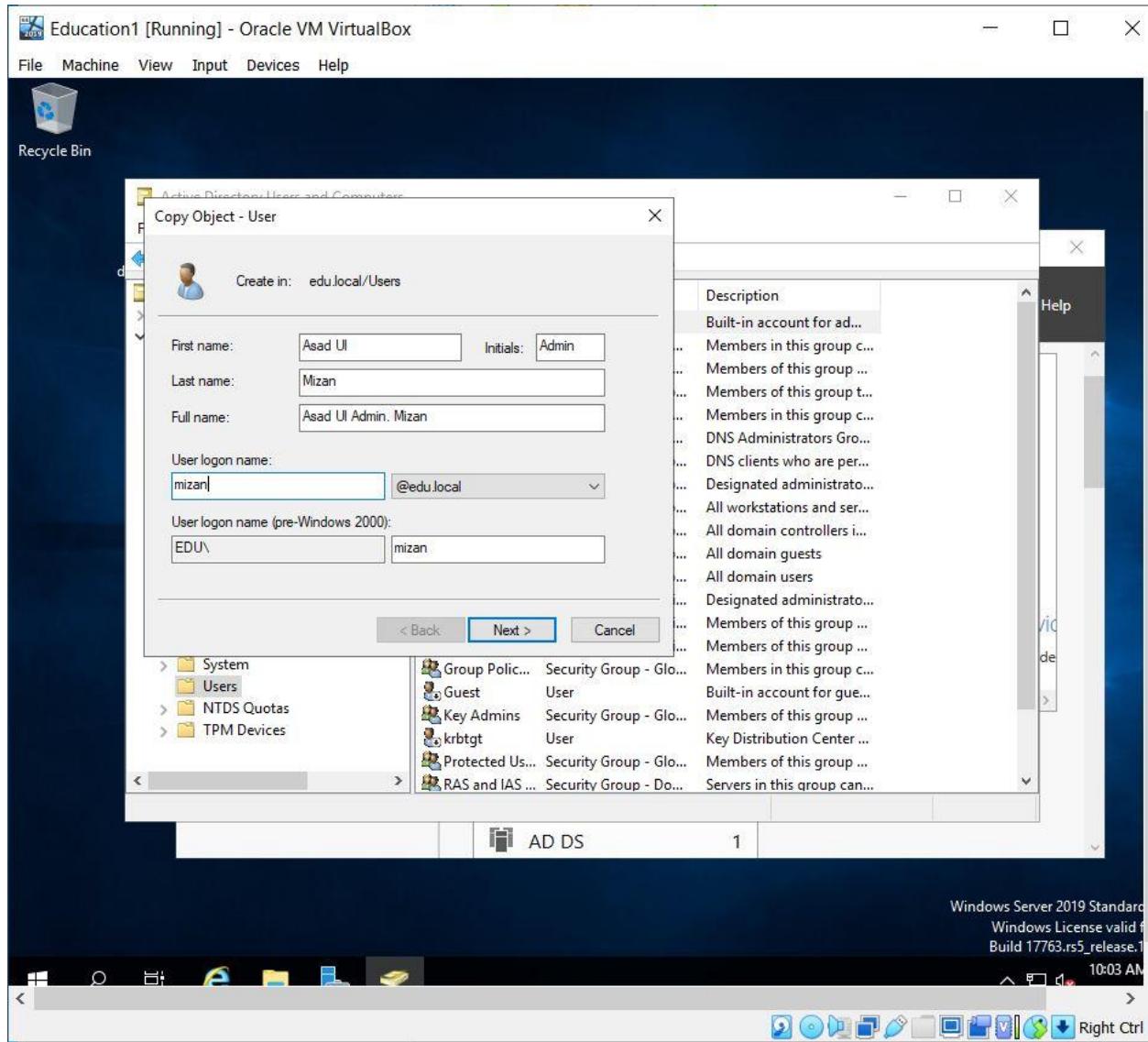


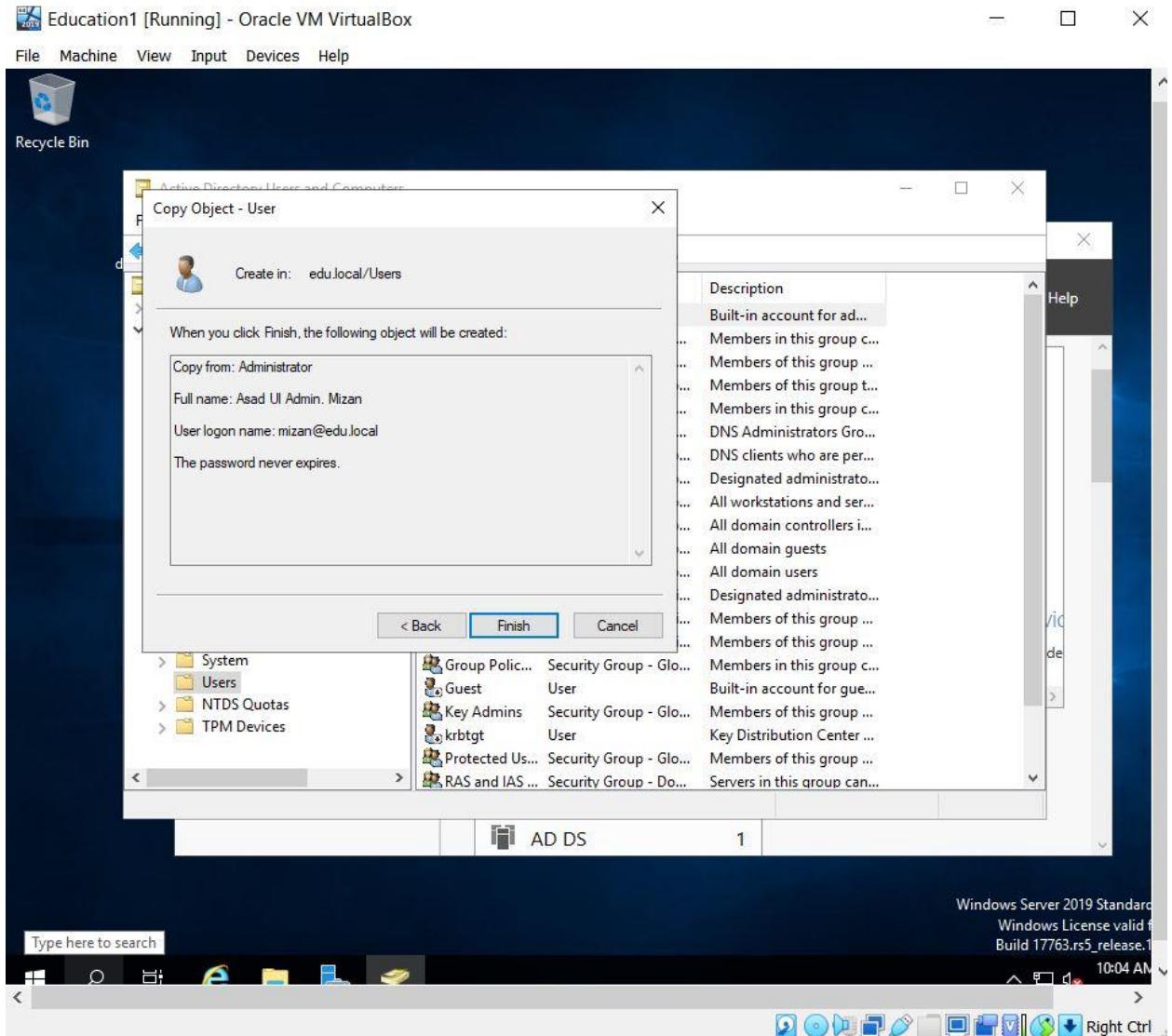


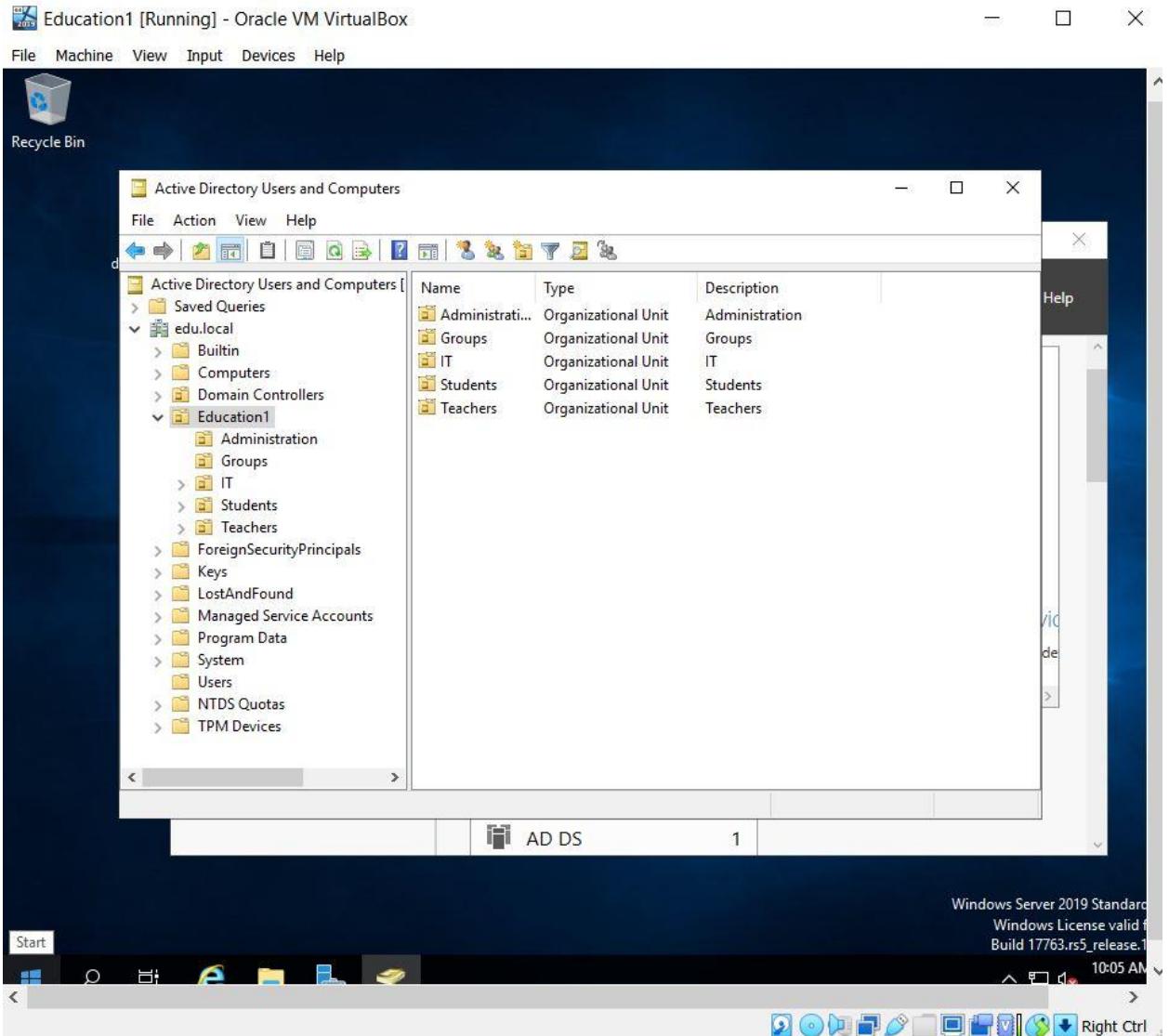


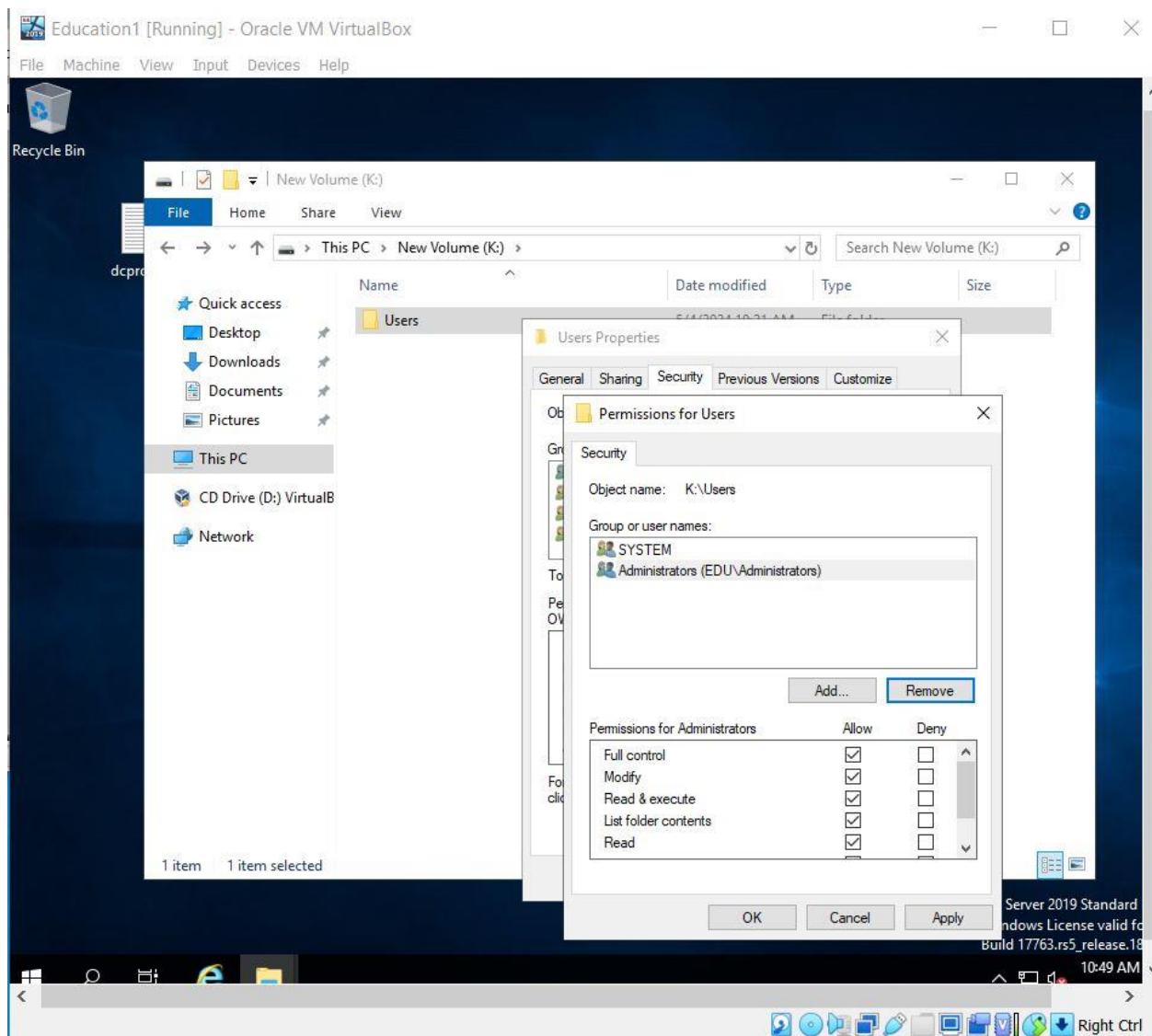


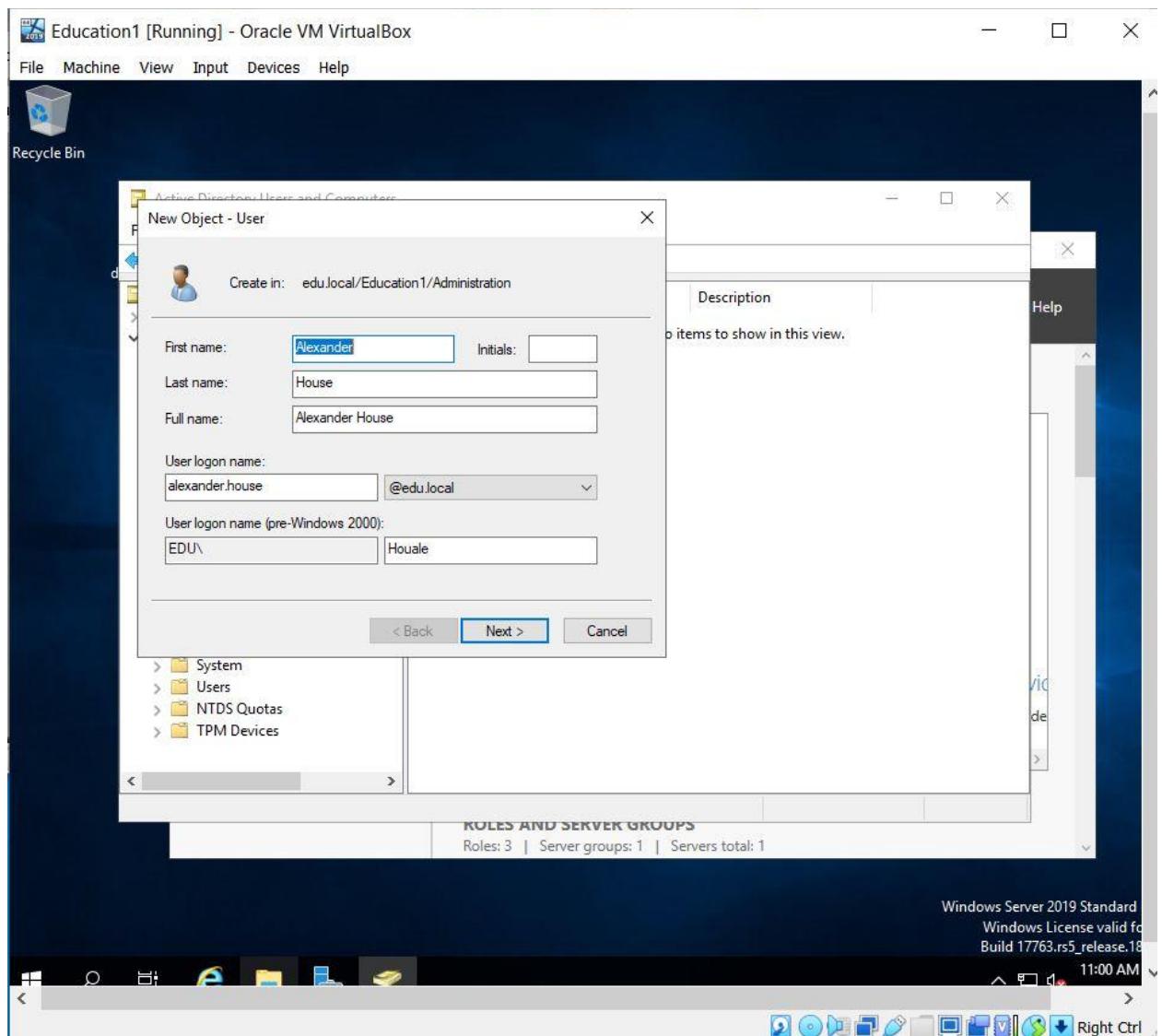


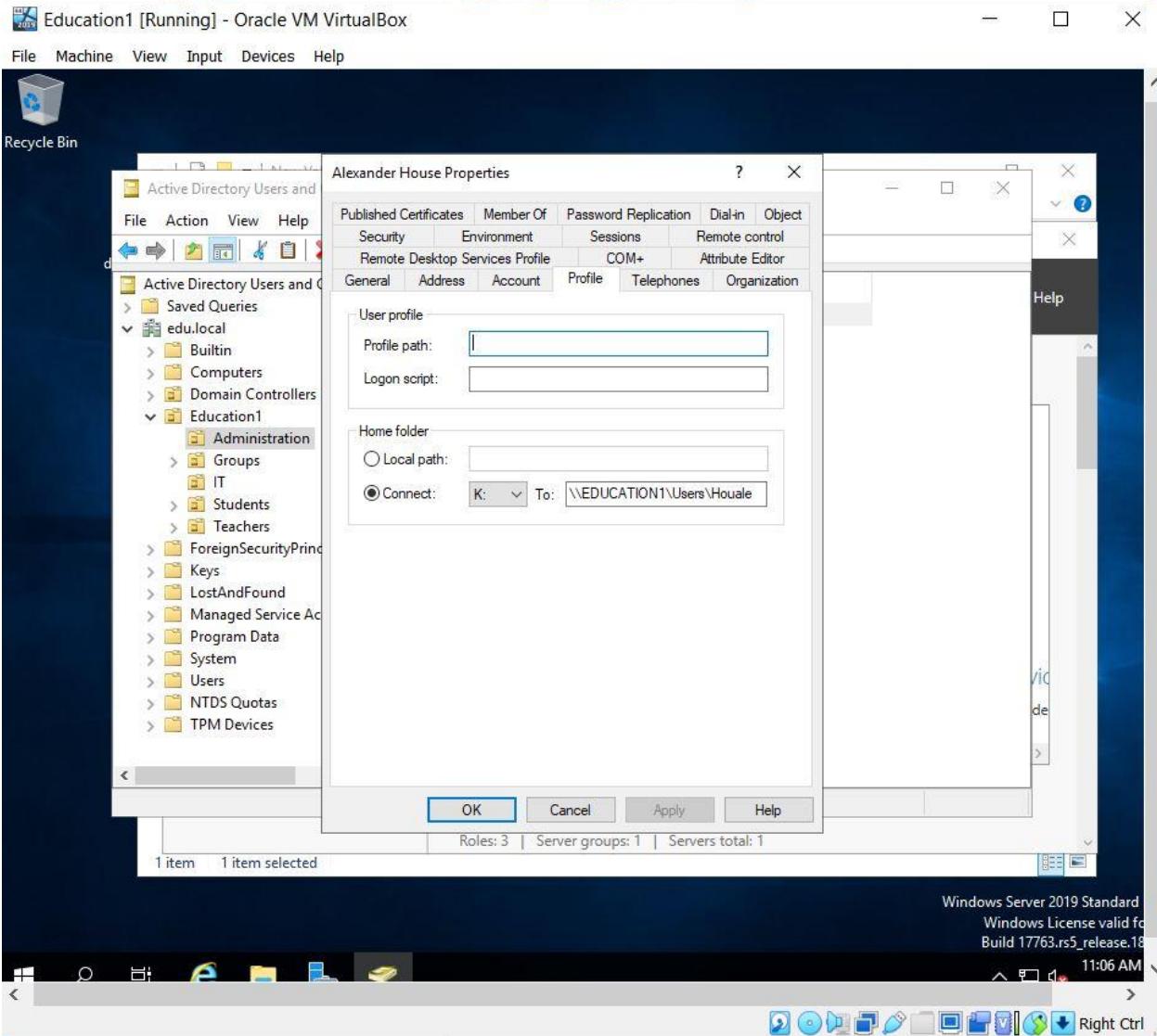


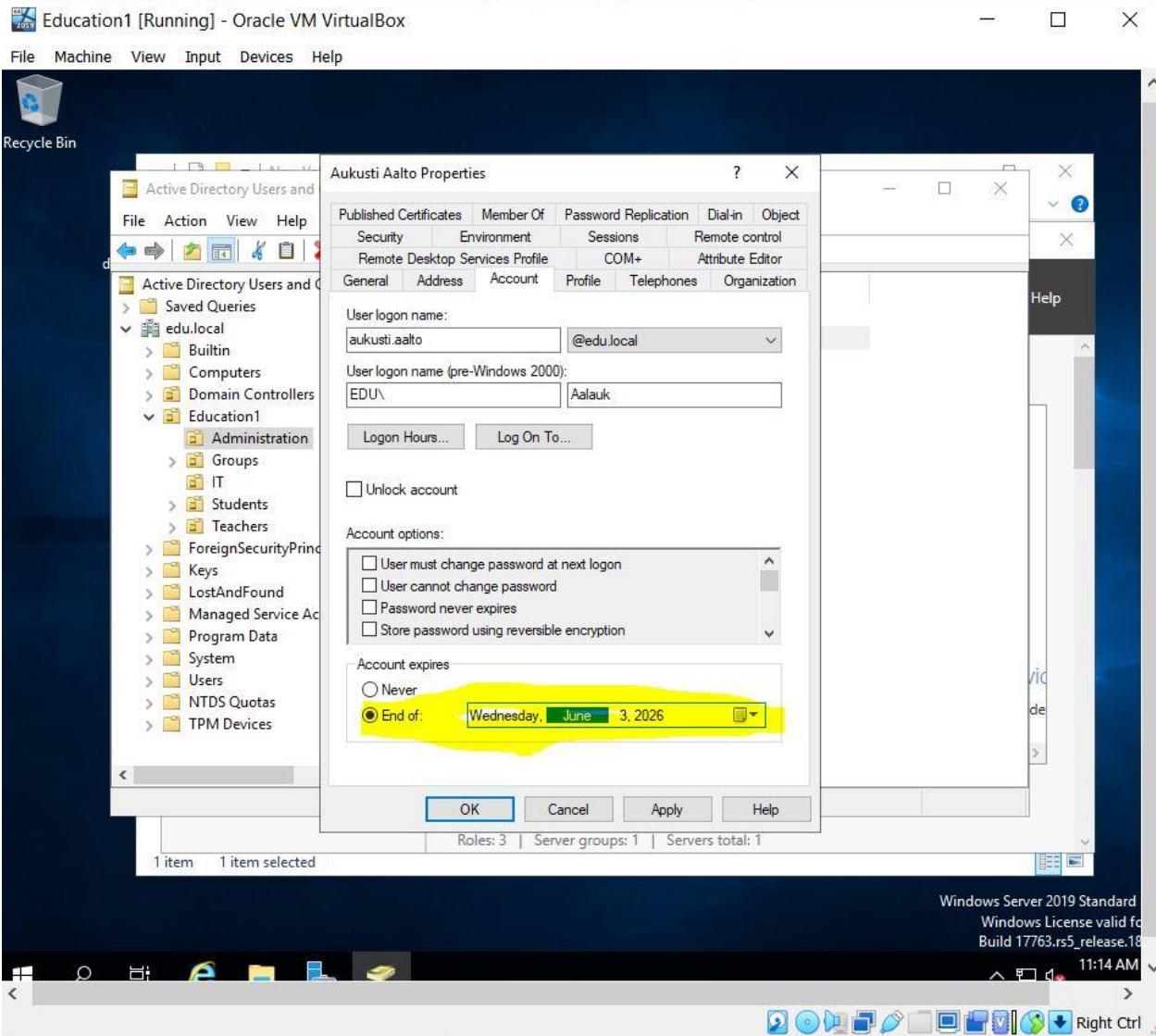


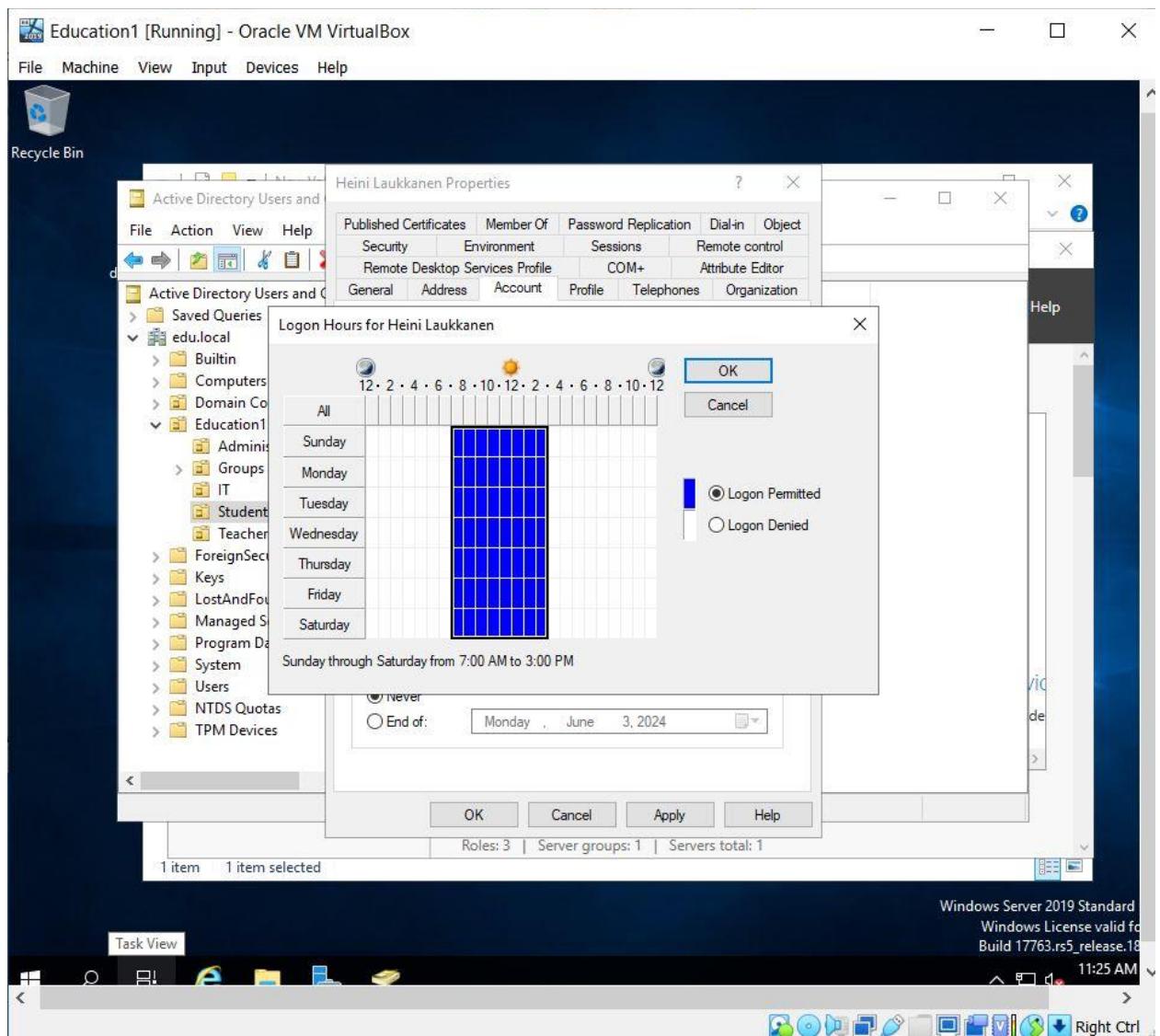


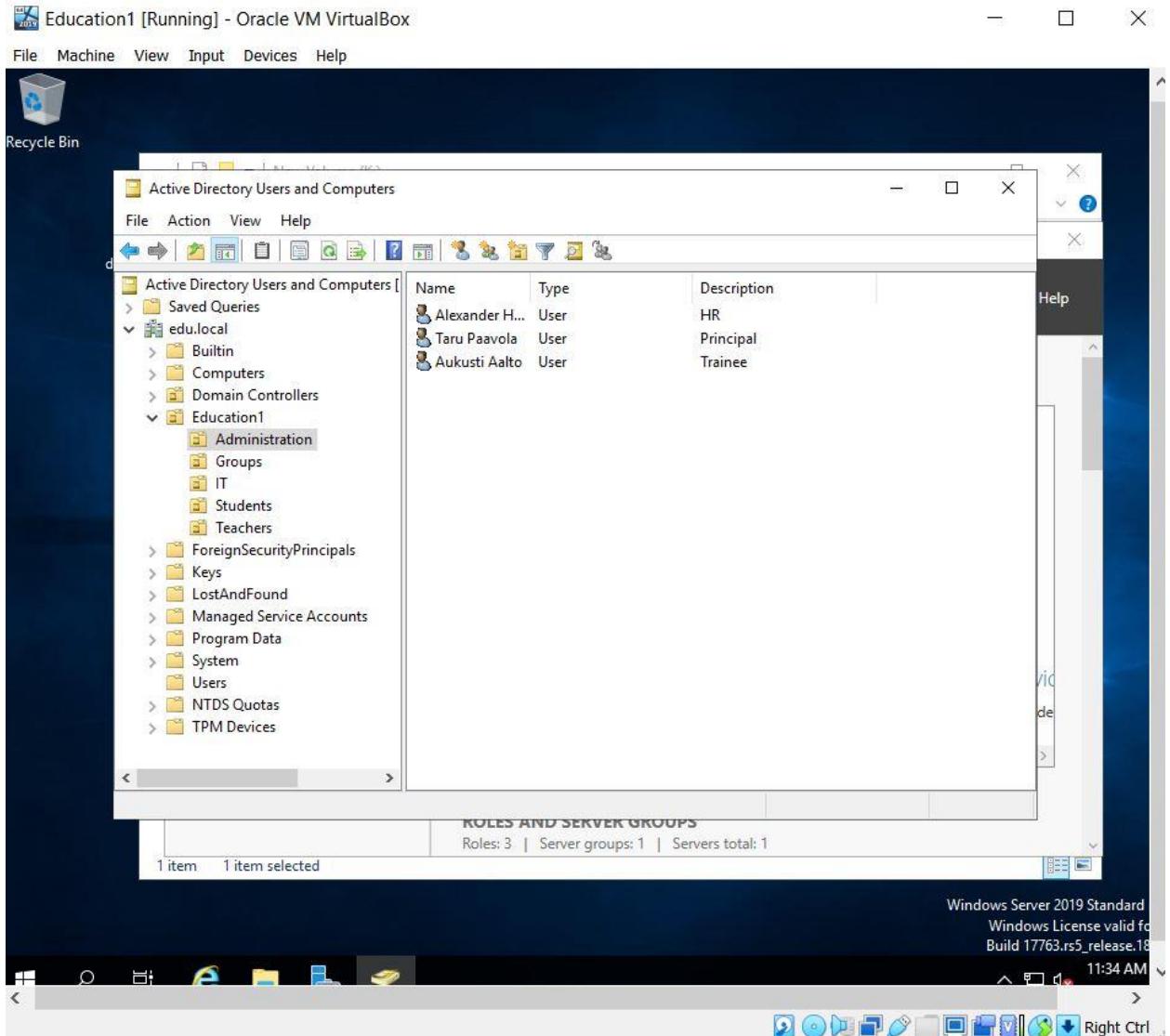


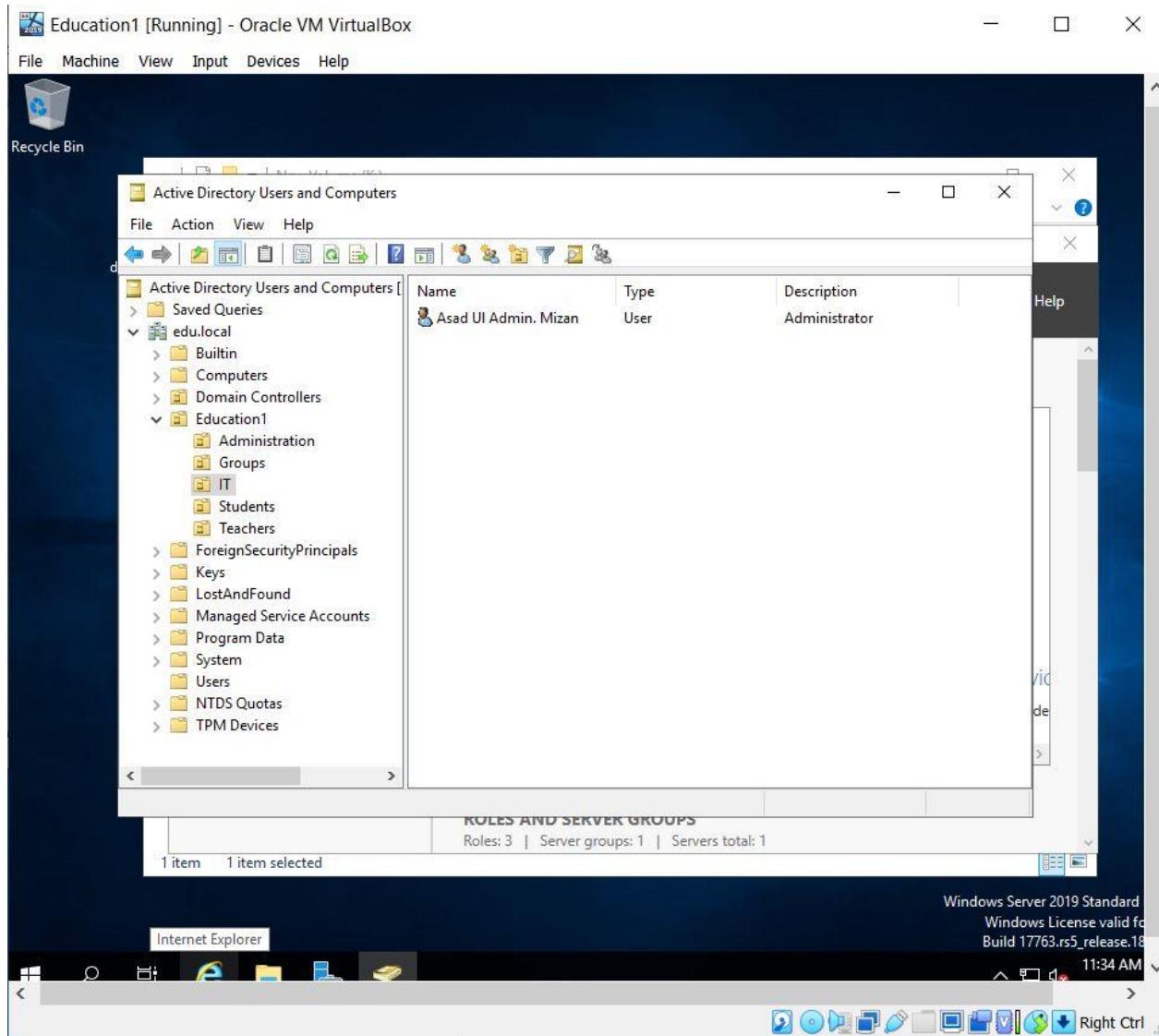


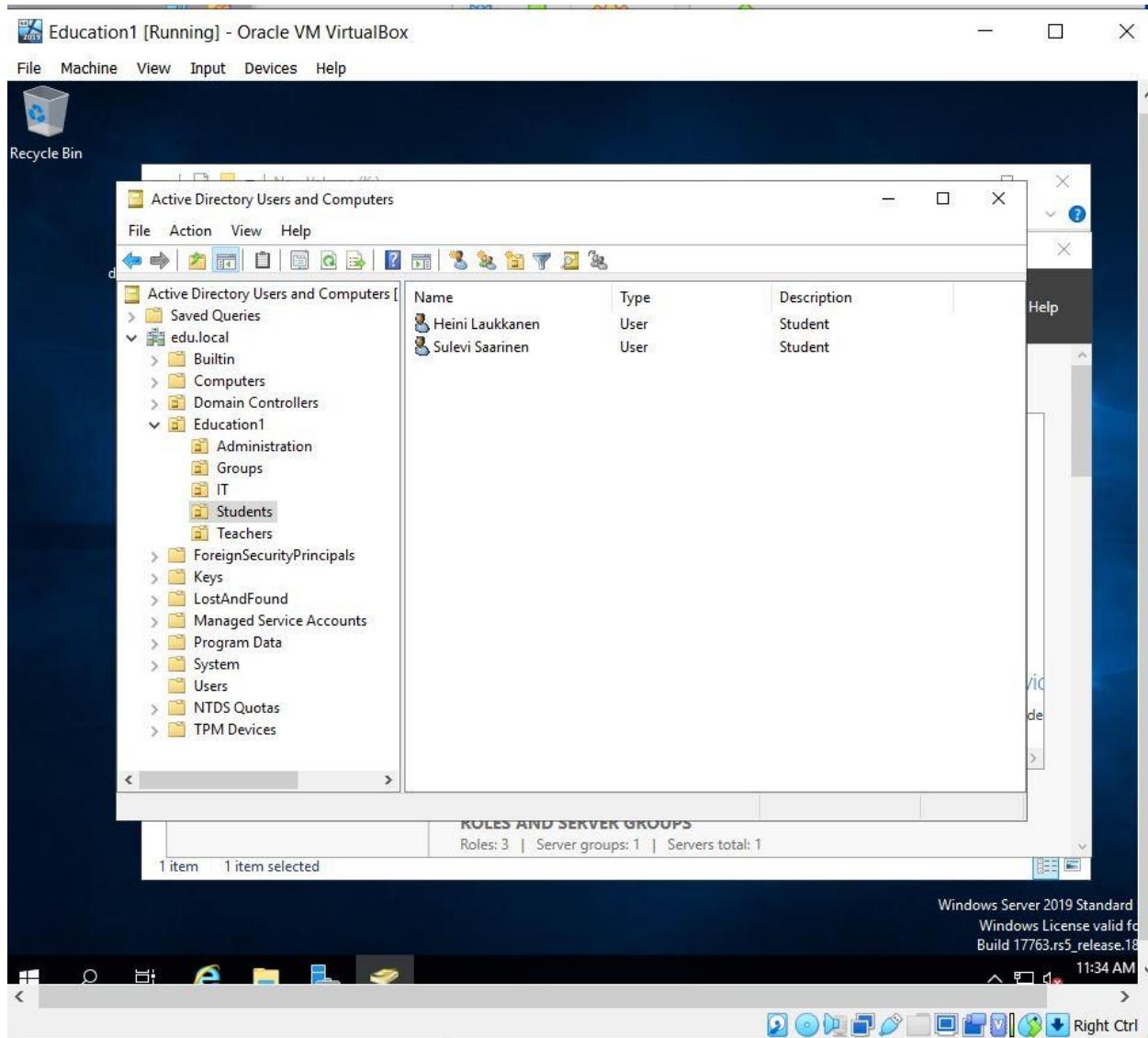


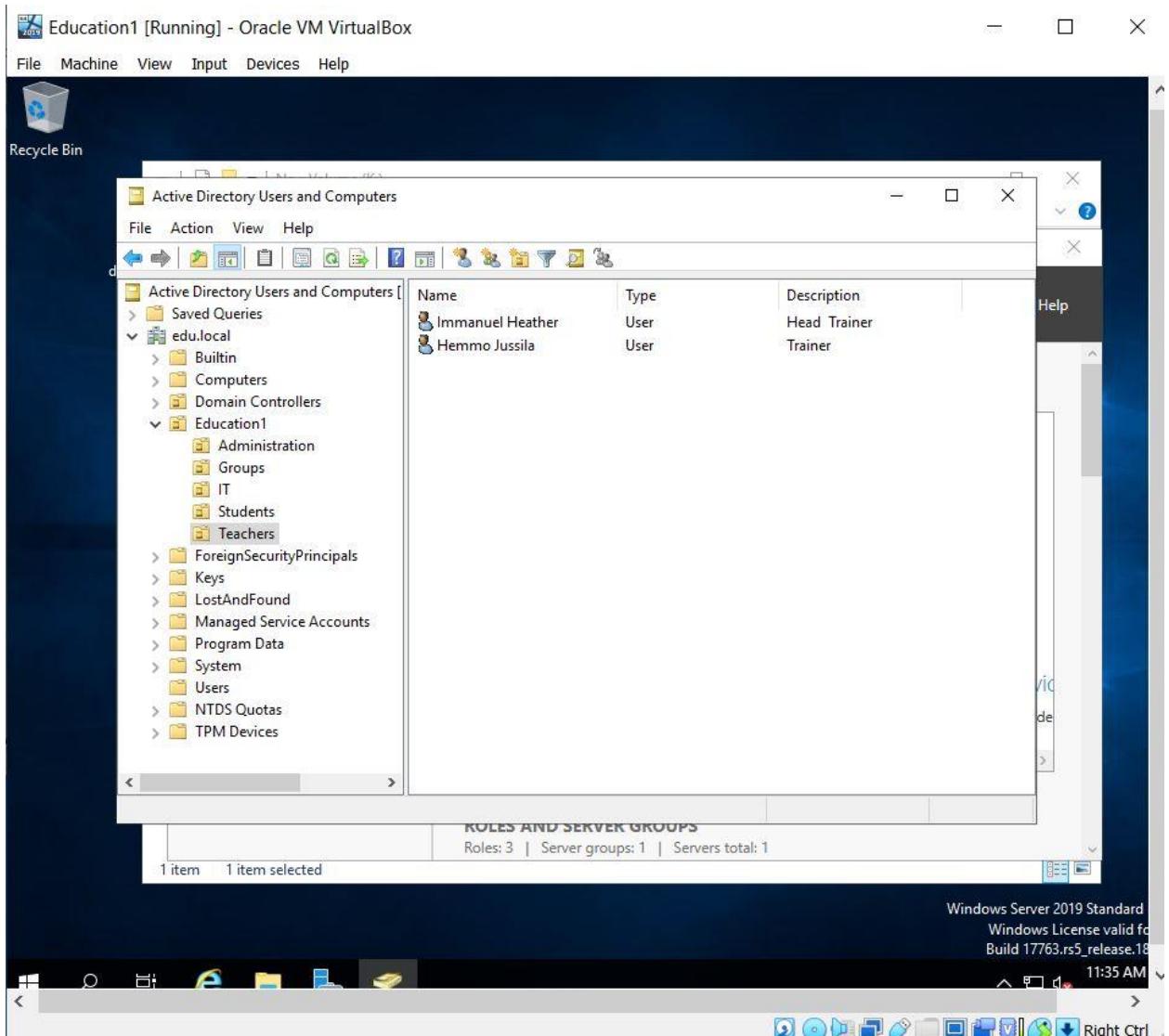












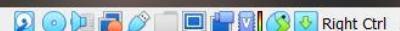
Windows 10 Workstation [Running] - Oracle VM VirtualBox

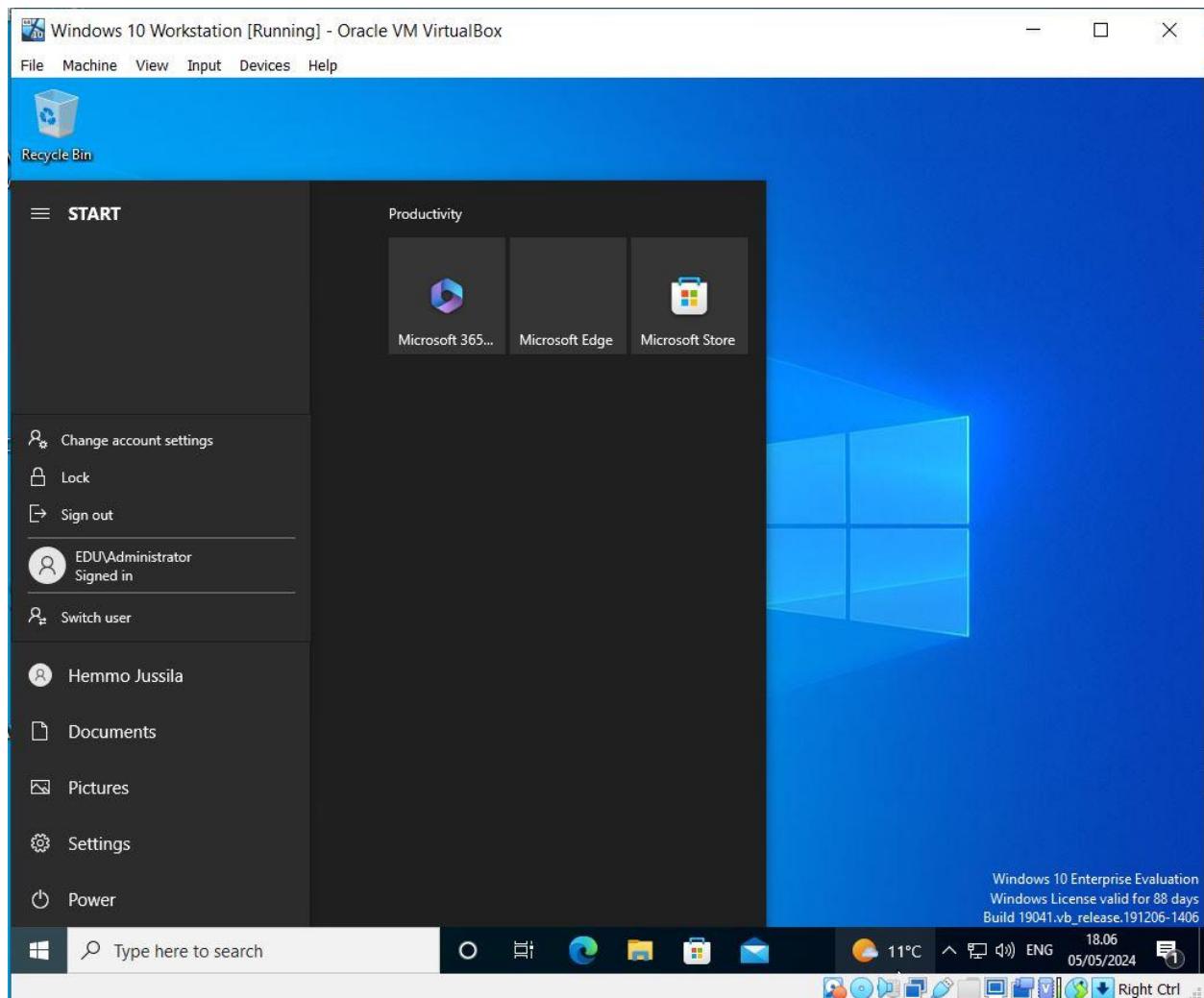
File Machine View Input Devices Help

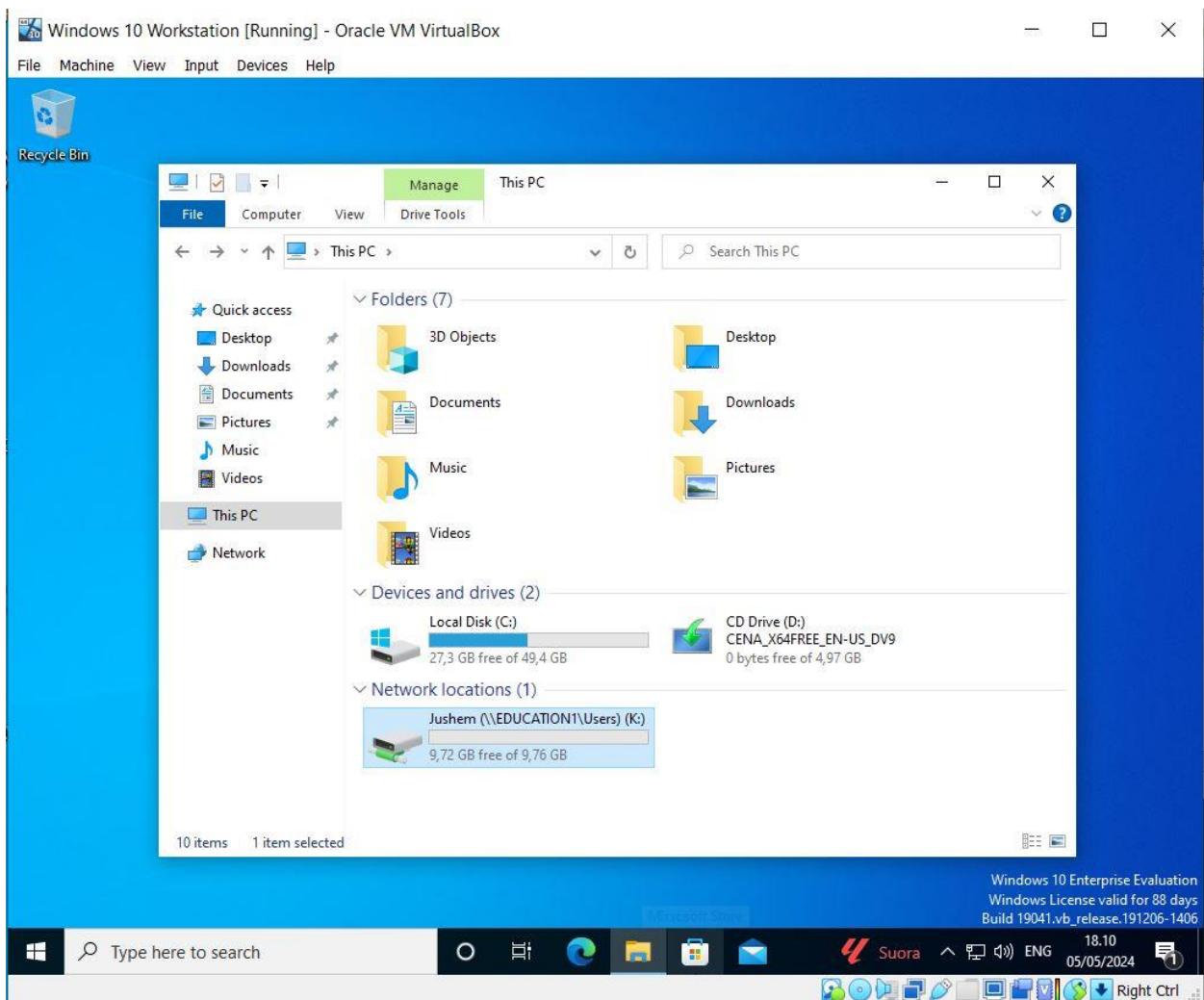


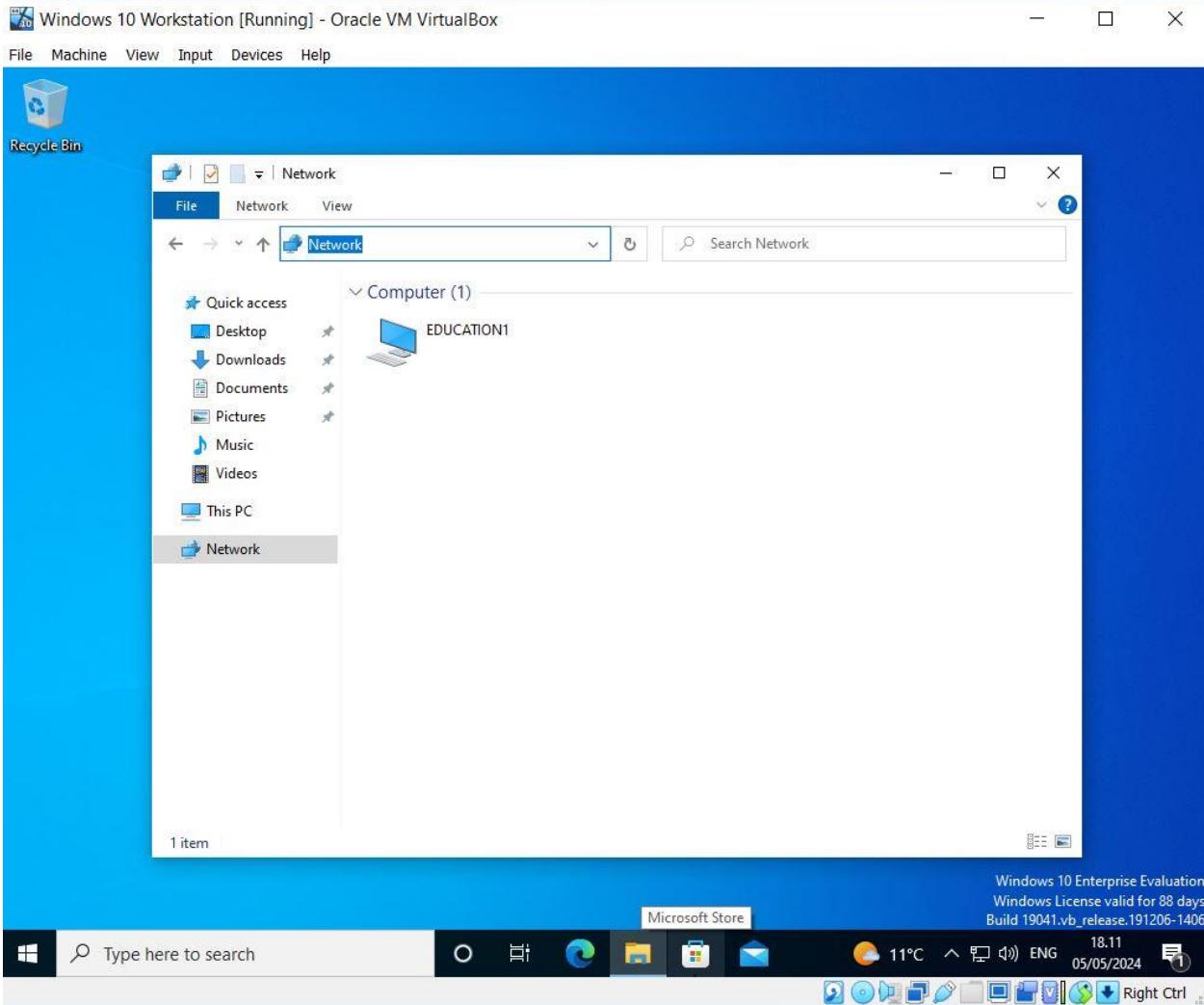
Hemmo Jussila

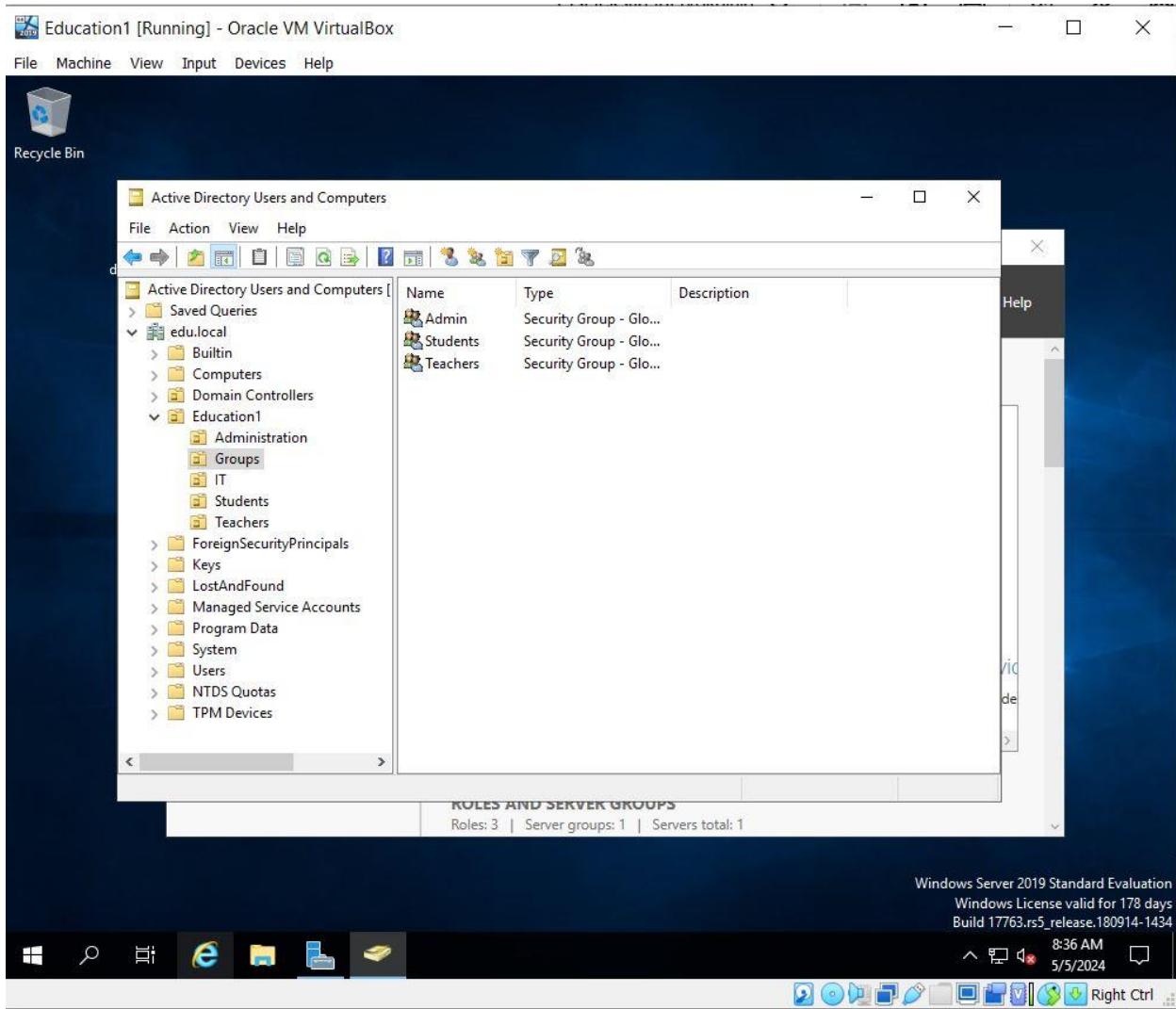
: Welcome

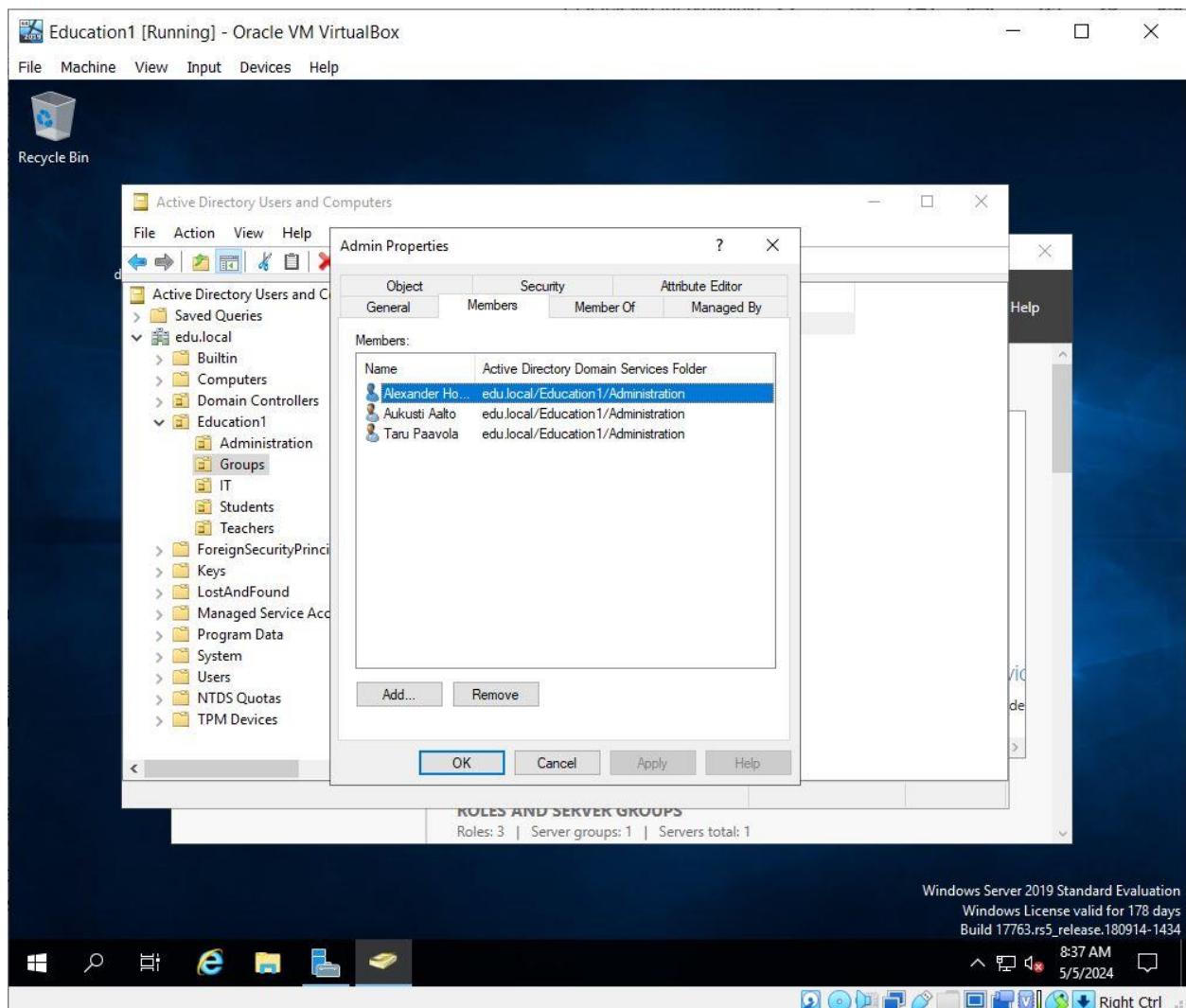


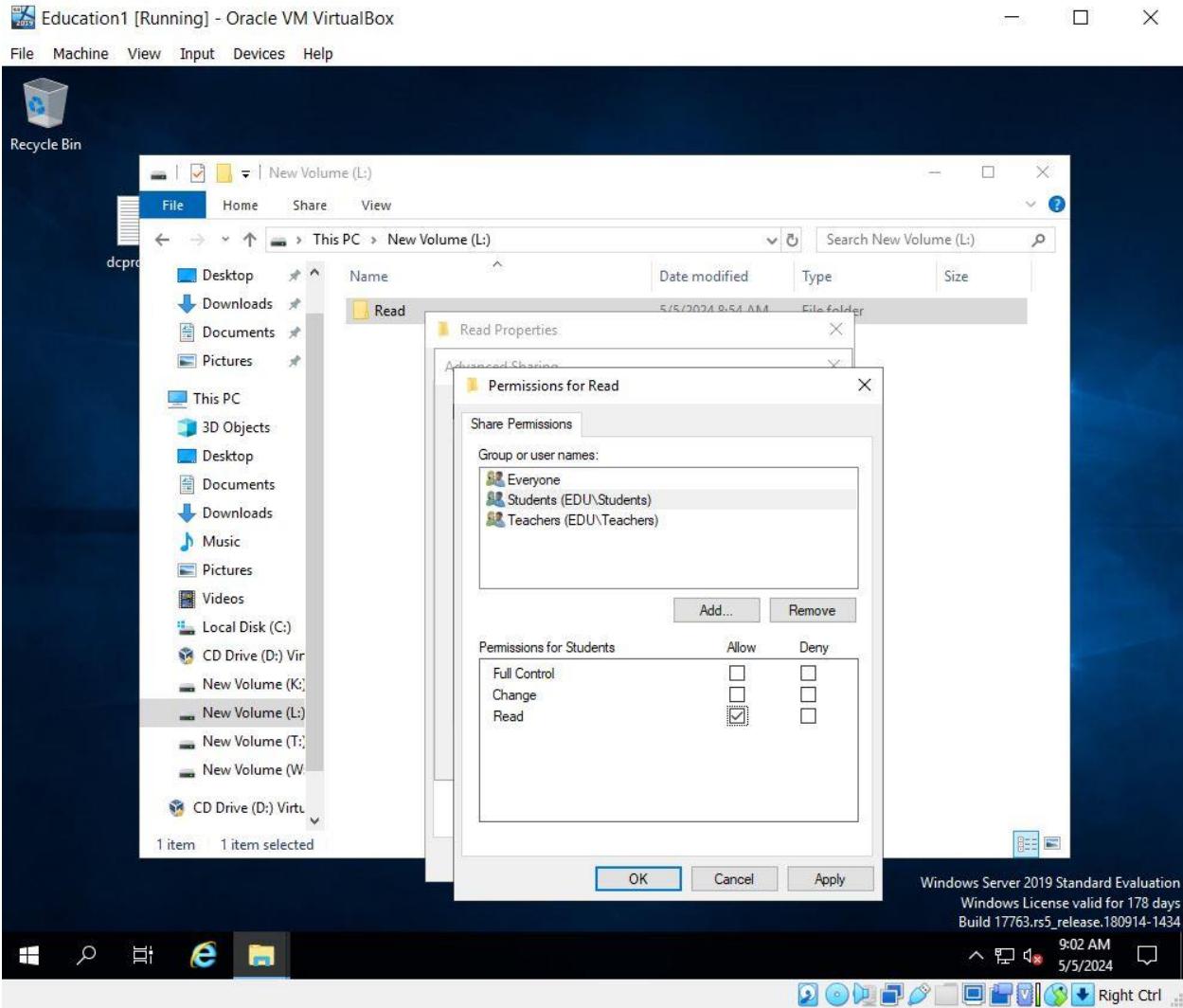


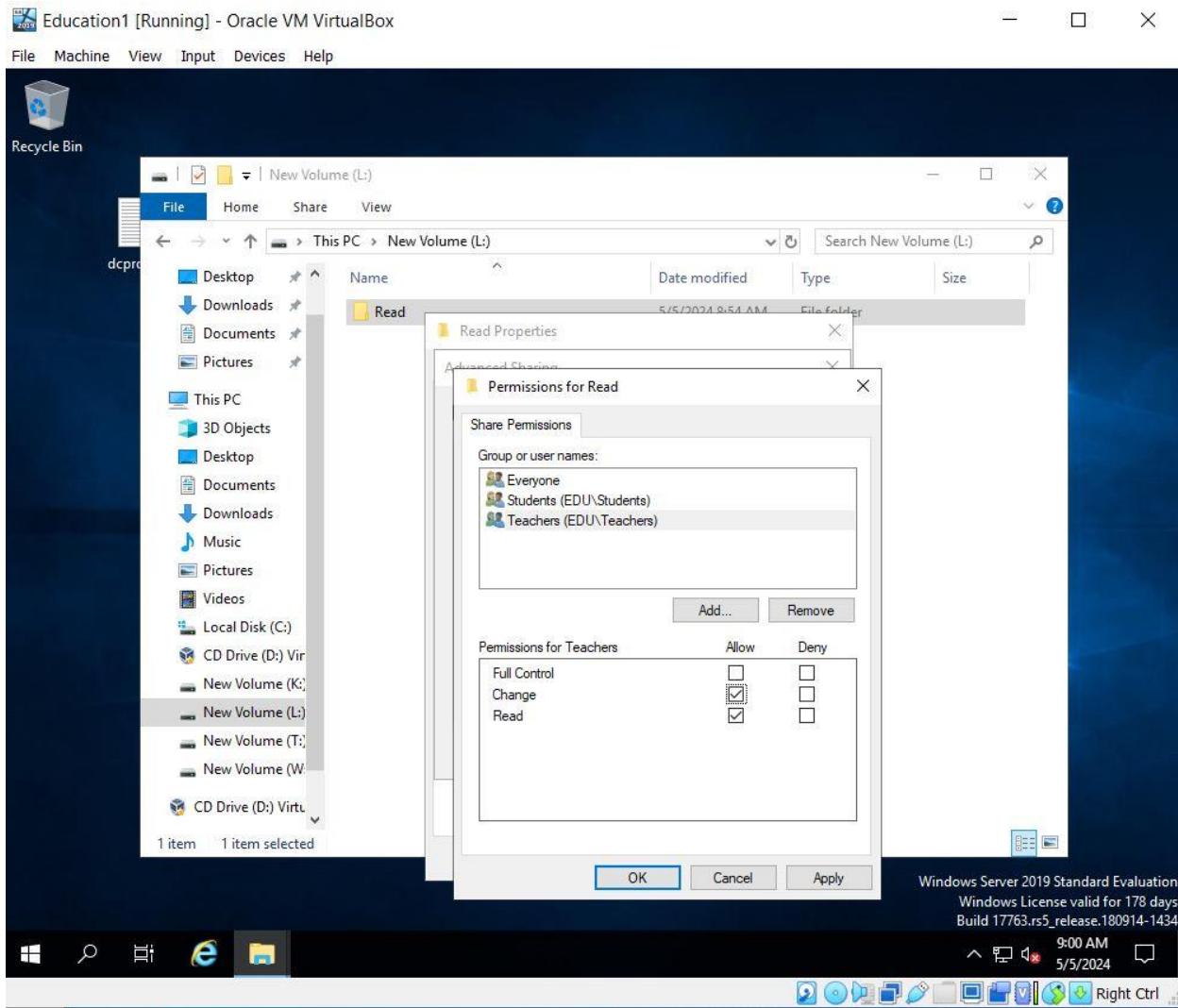


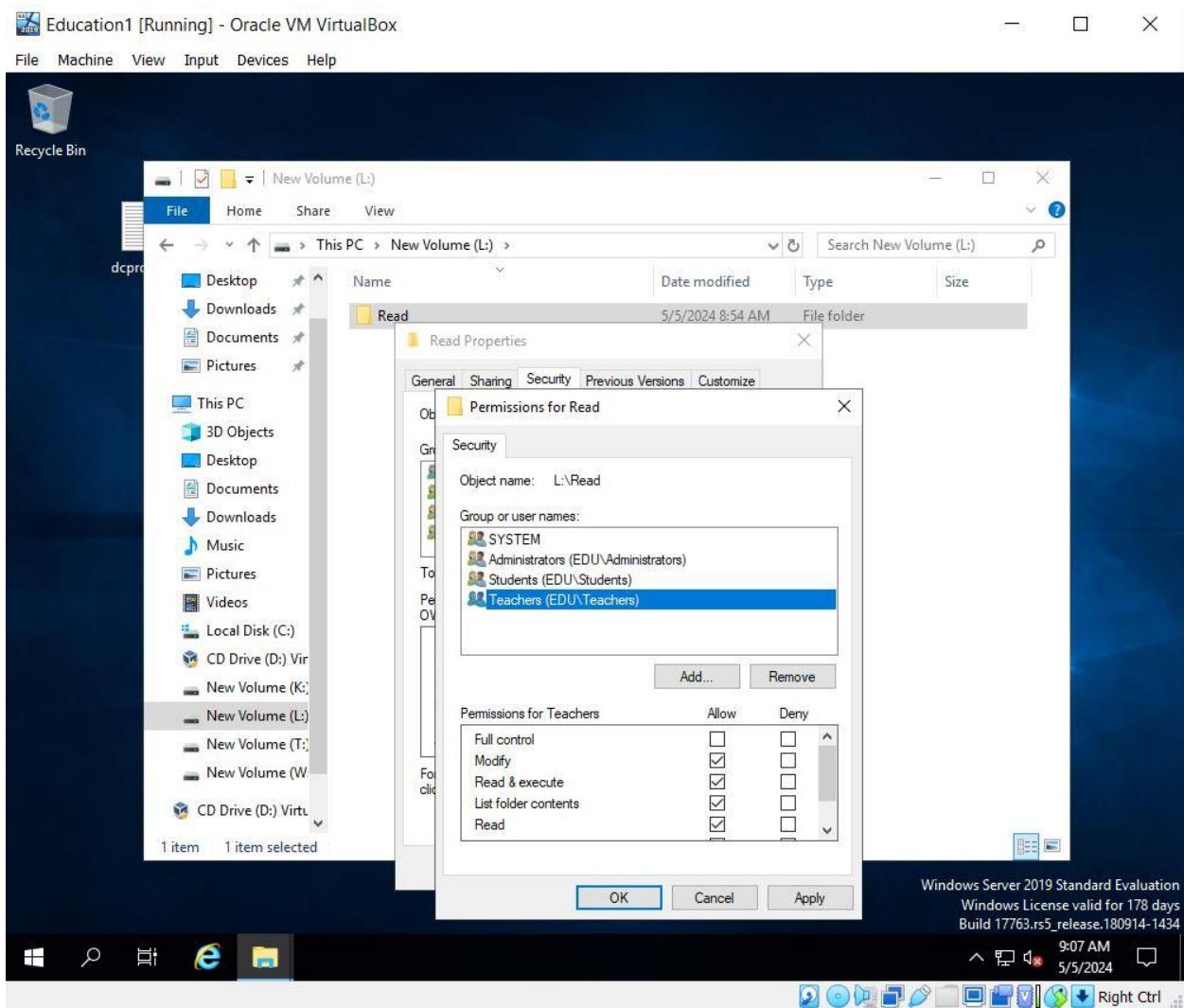


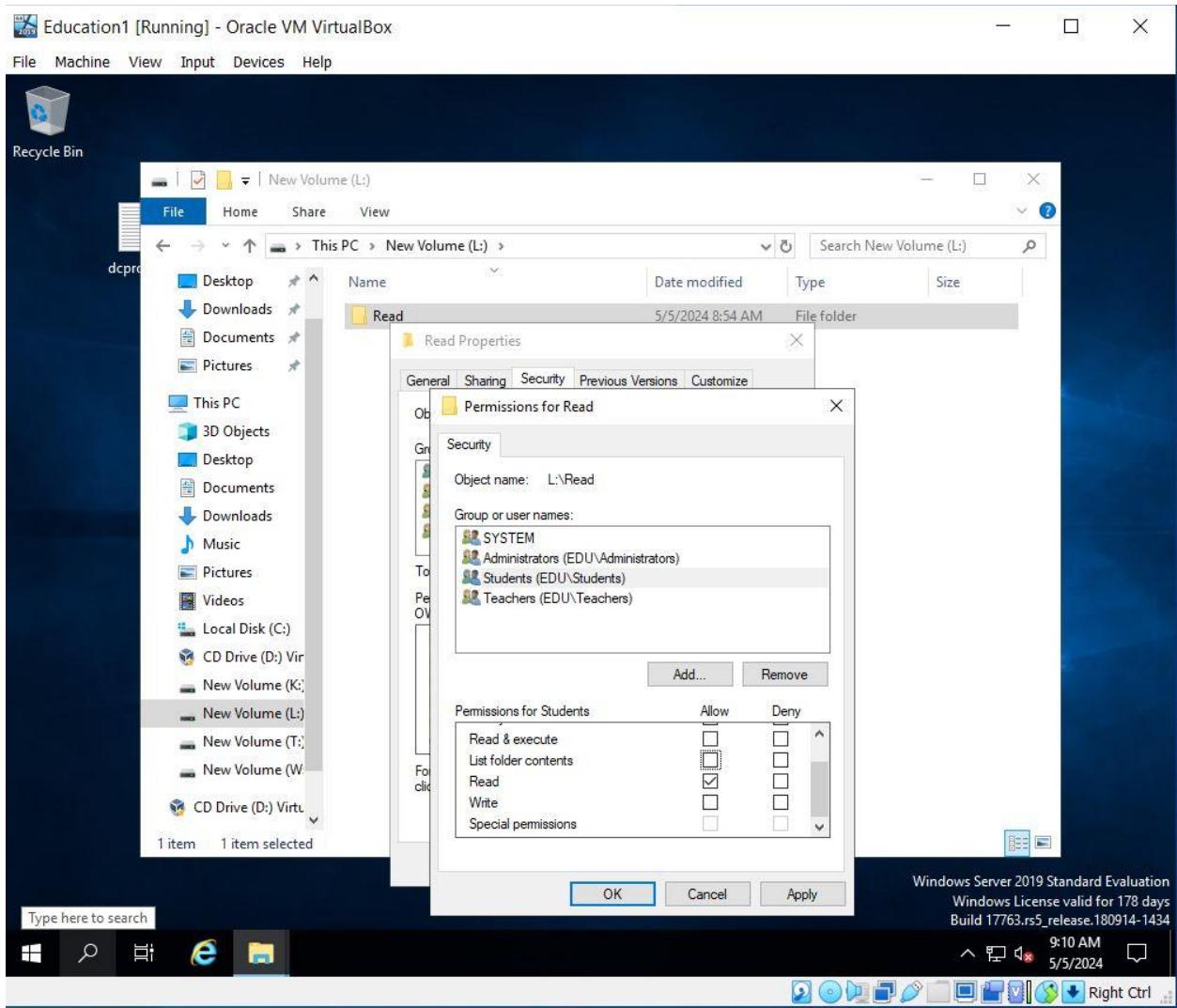


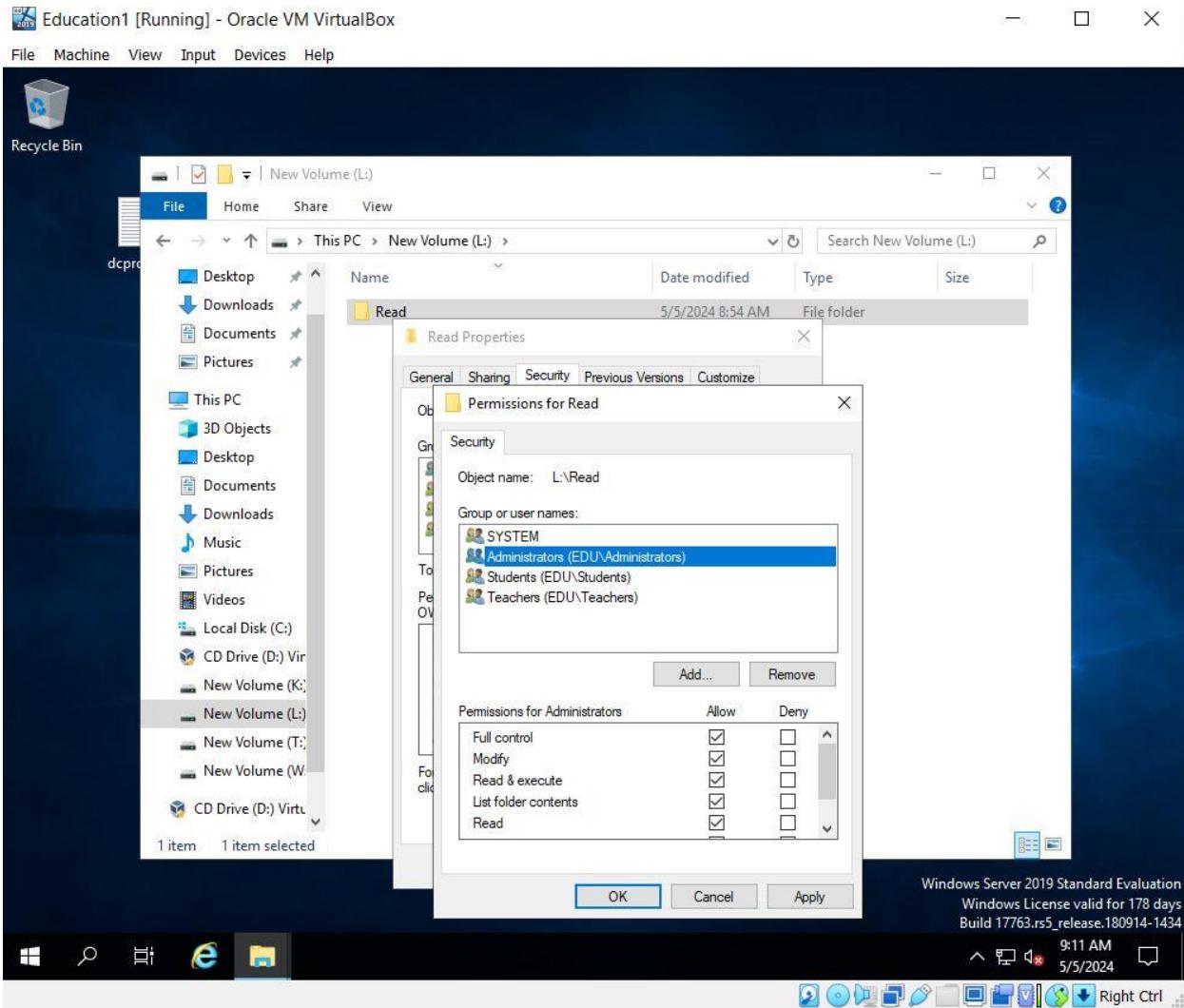


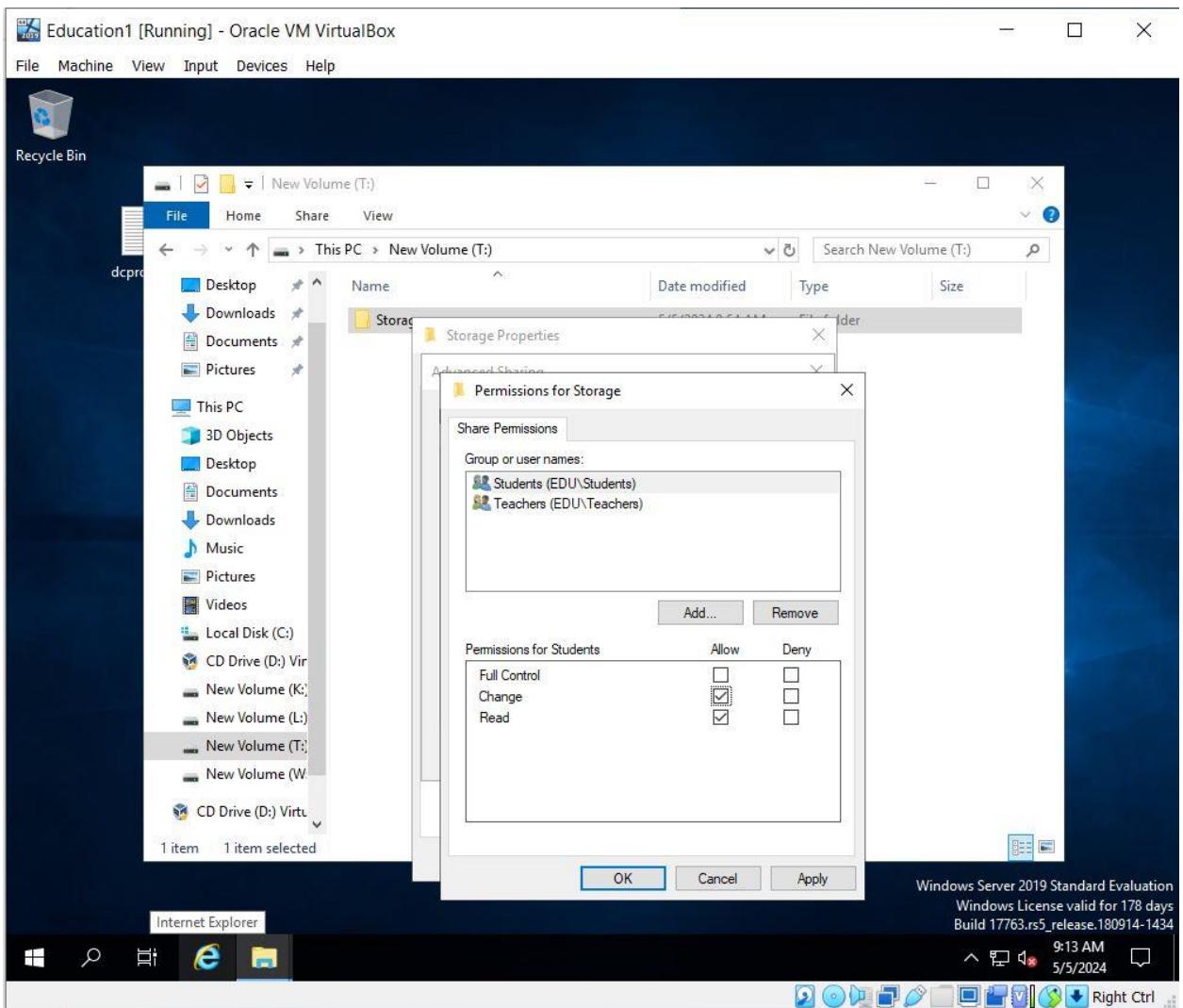


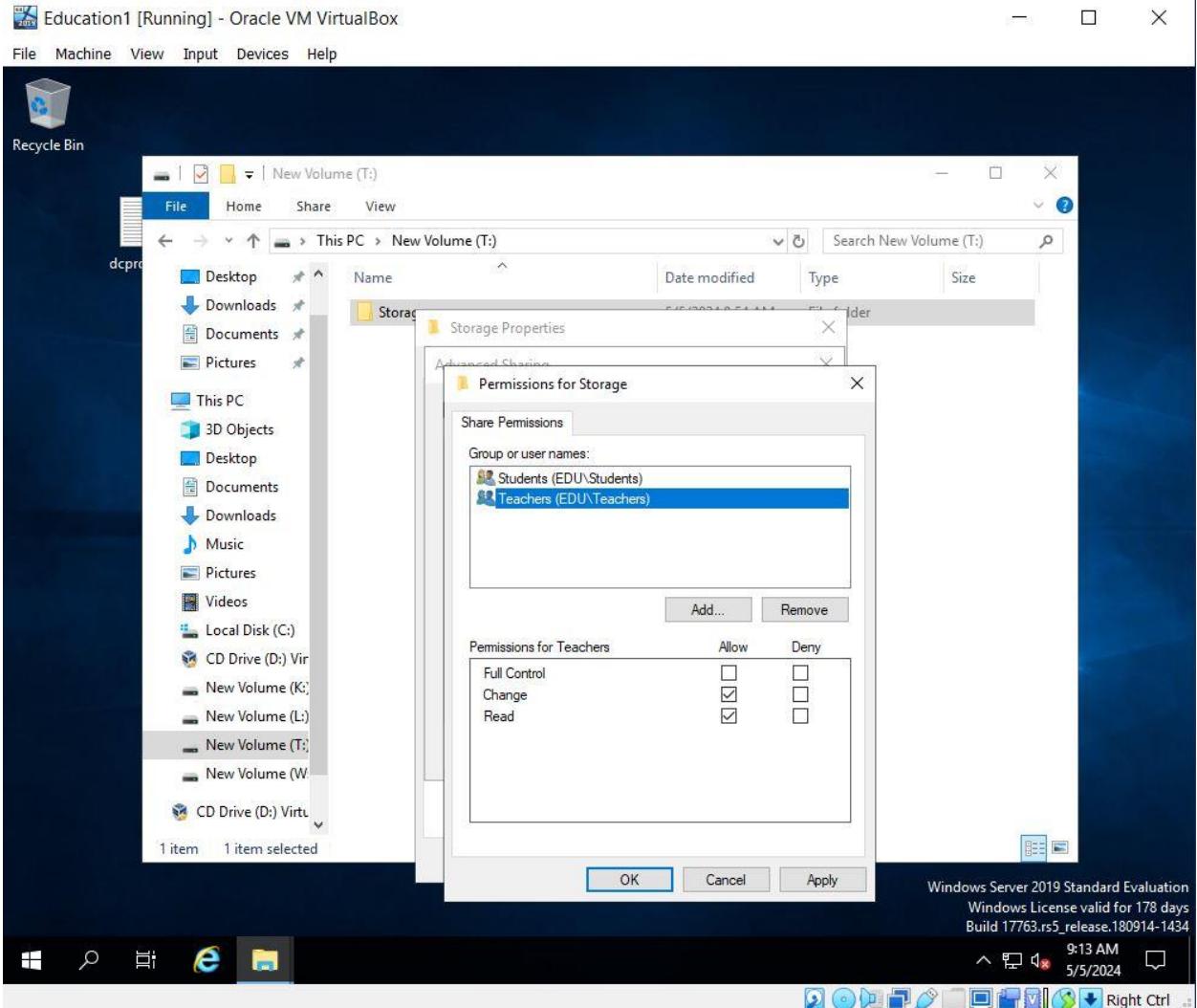


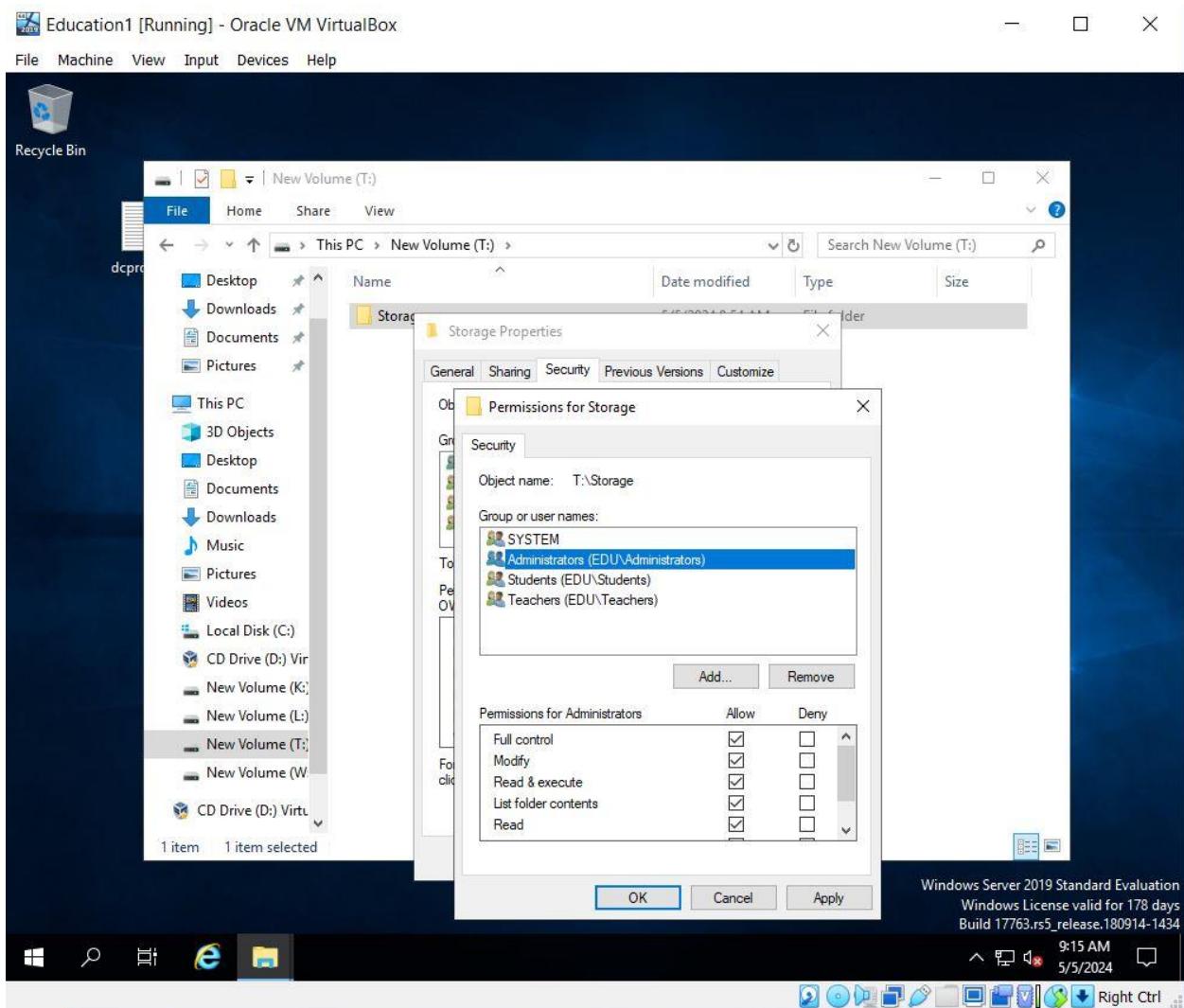


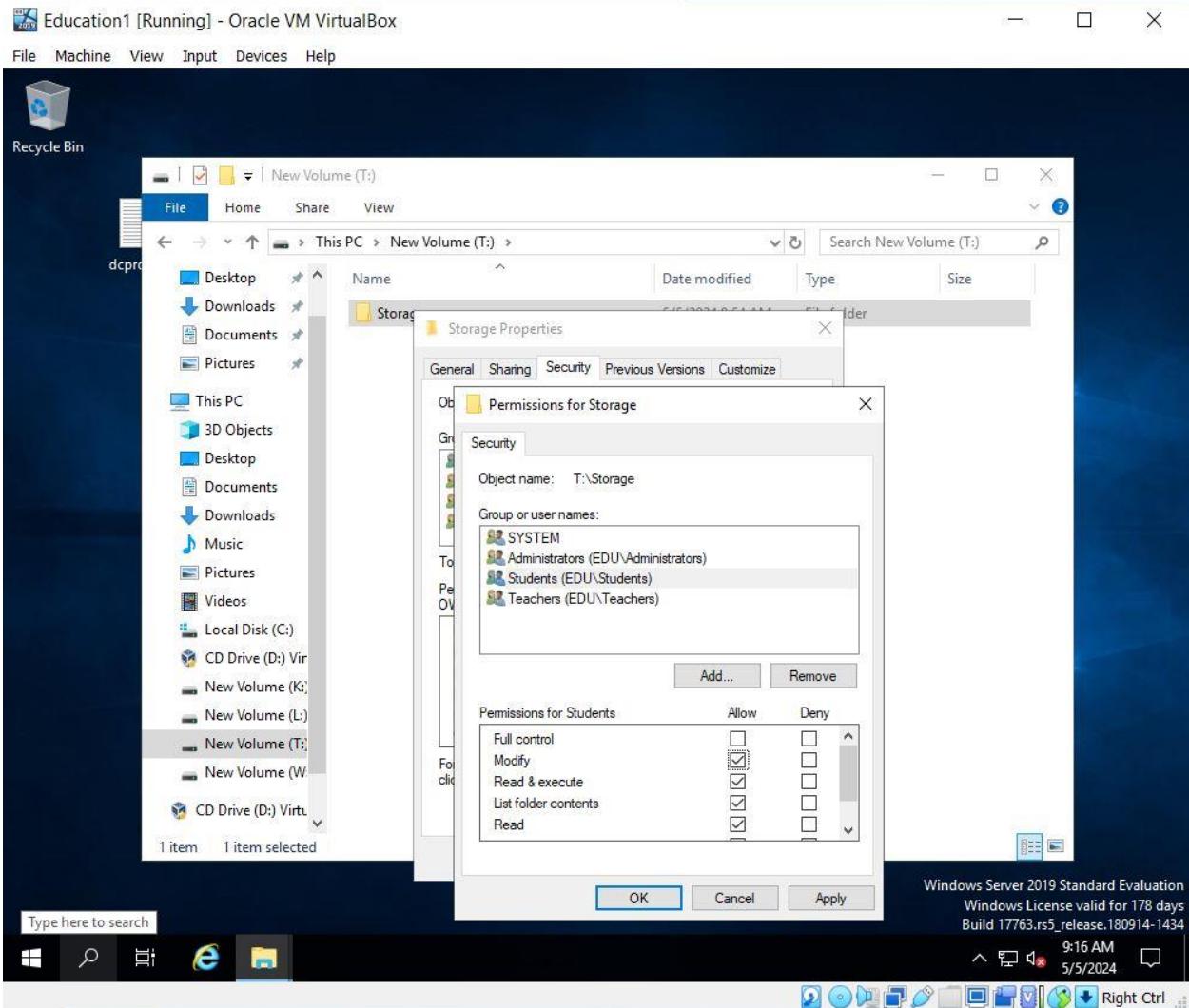


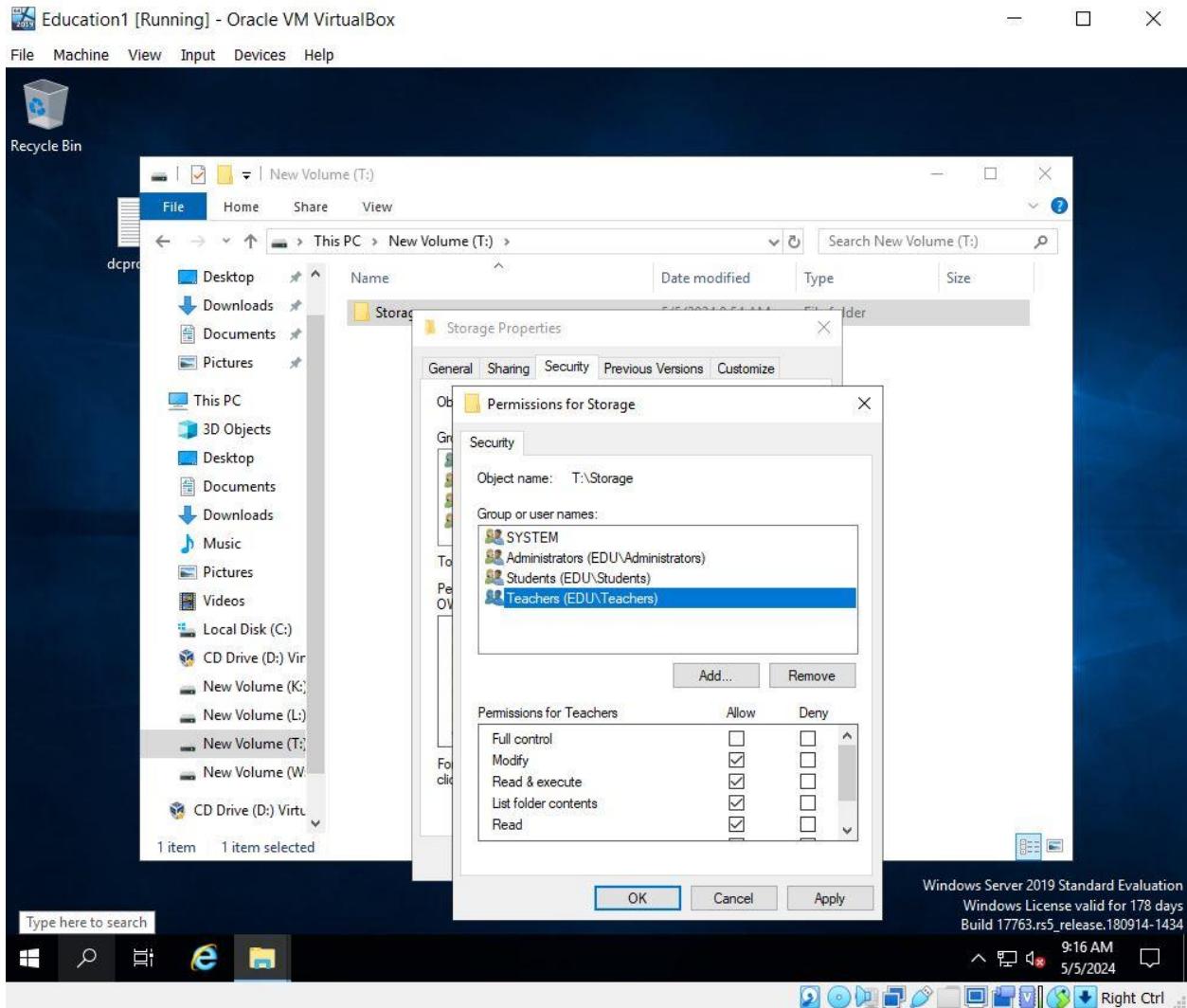


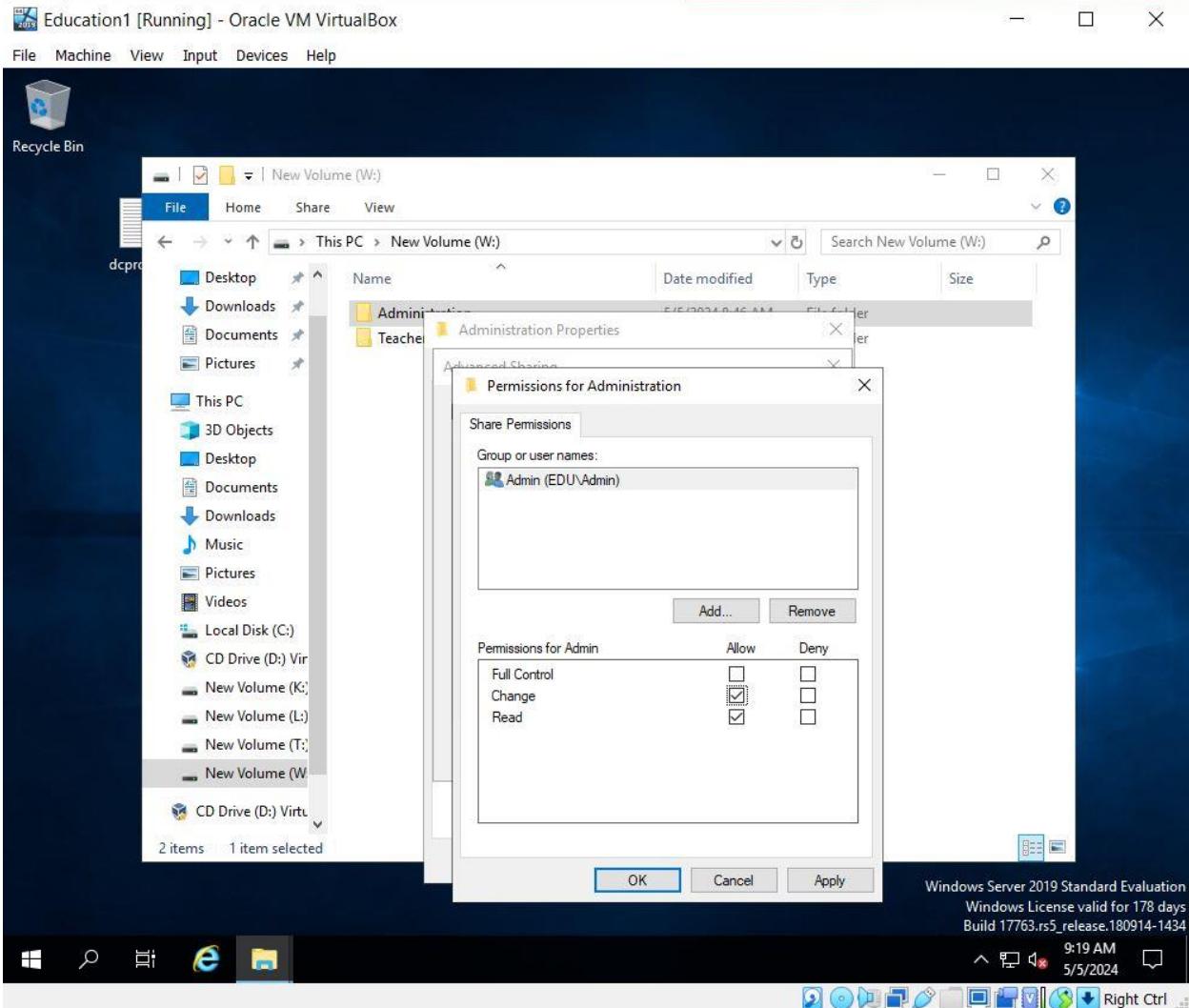


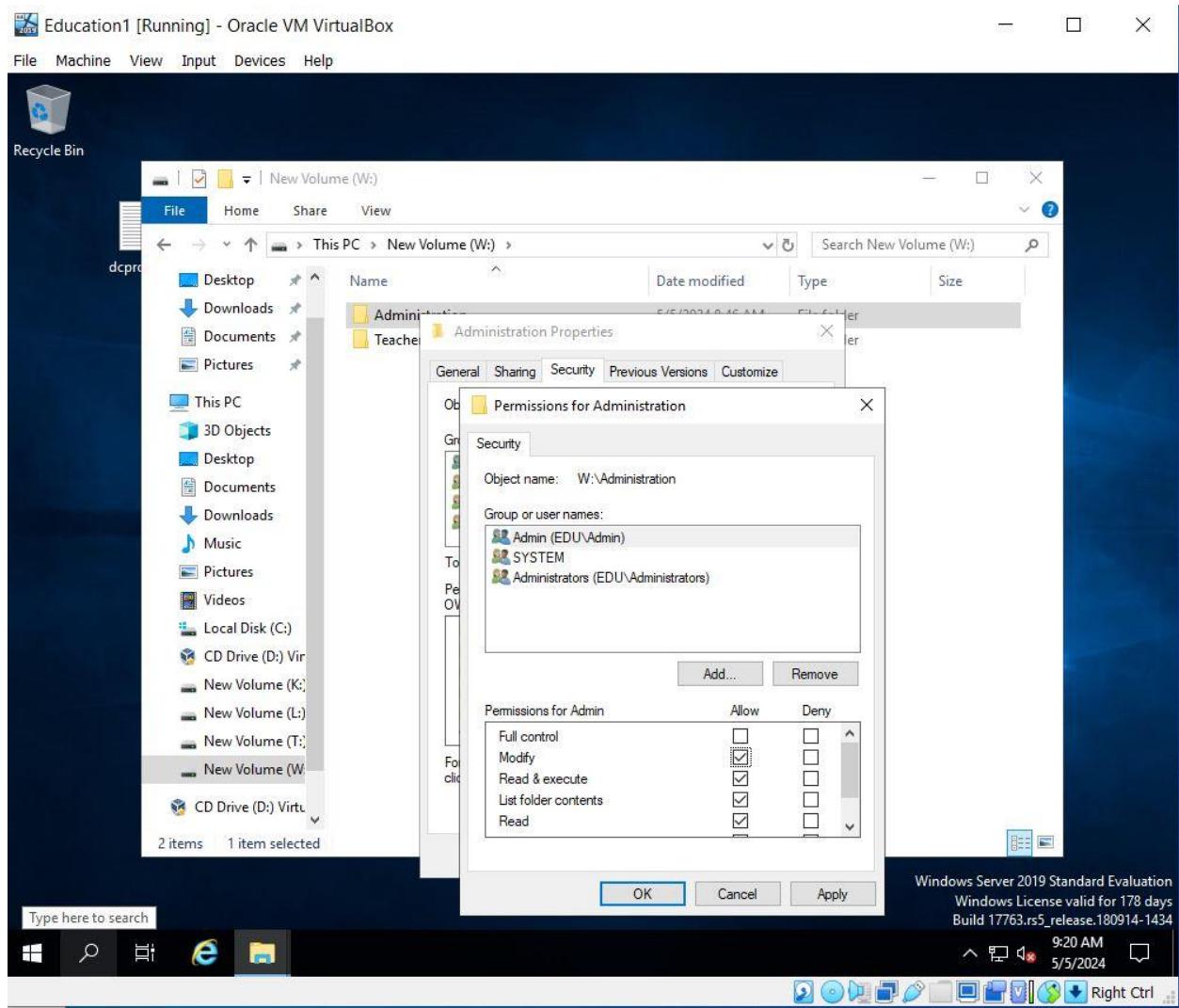


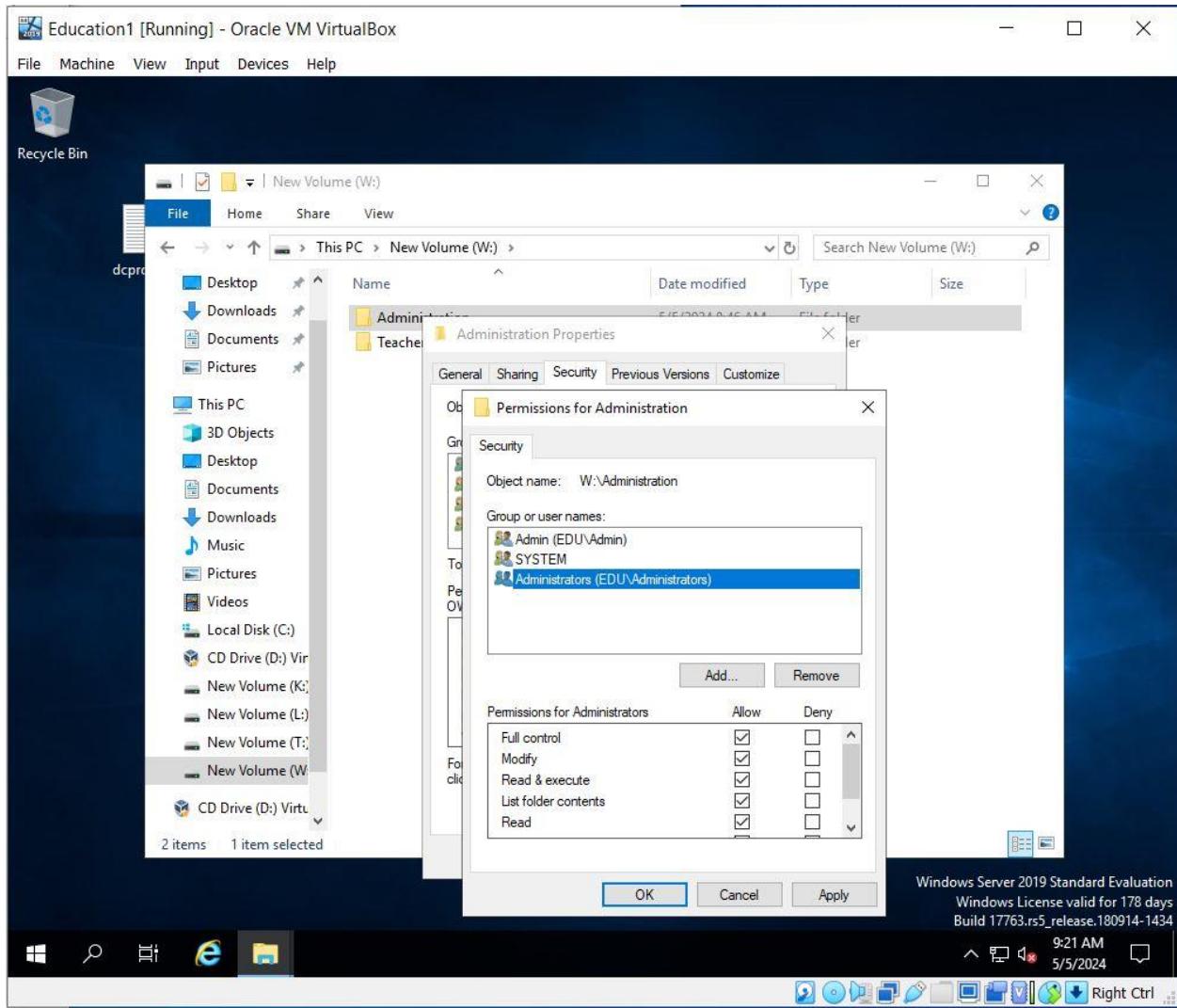


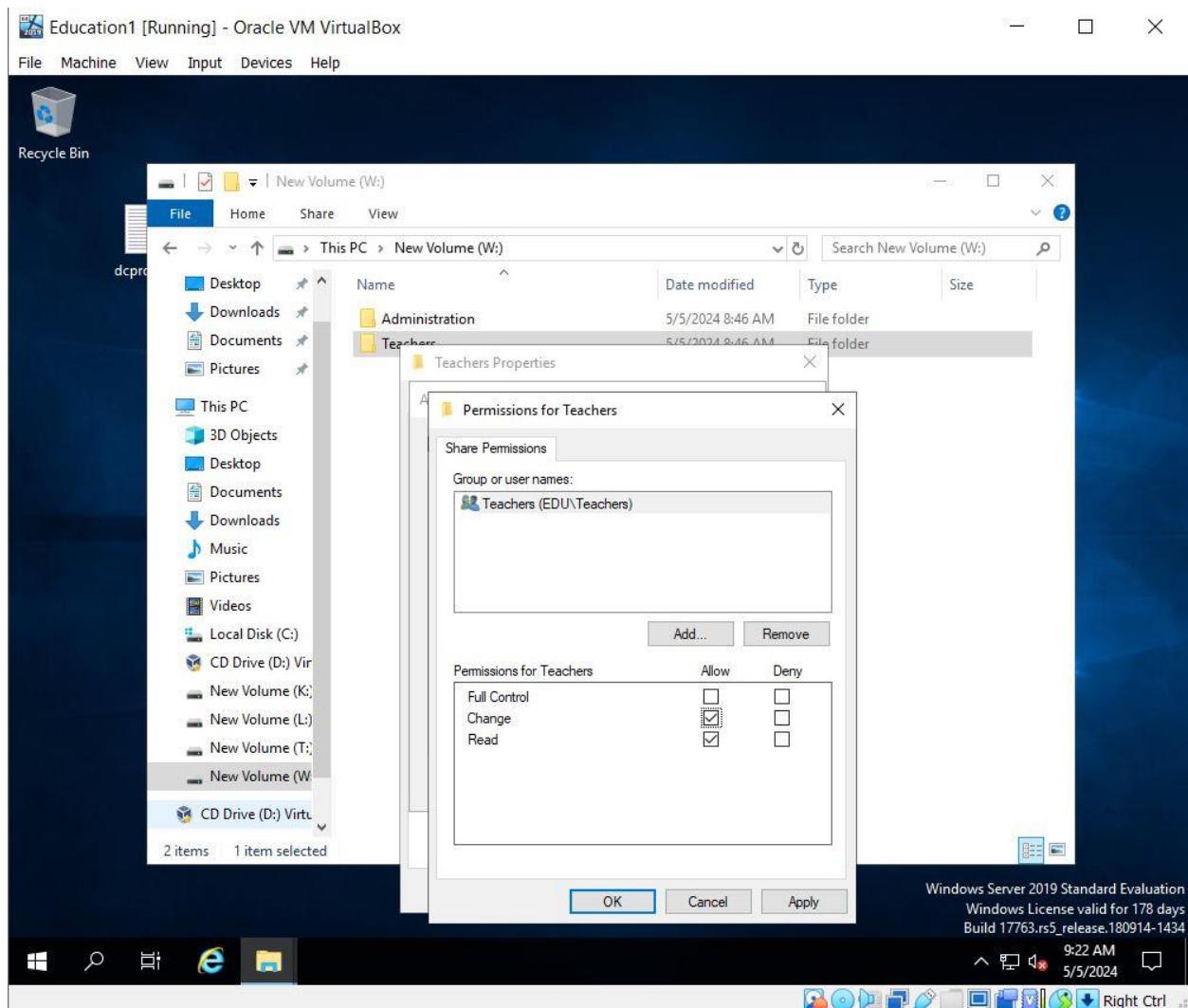


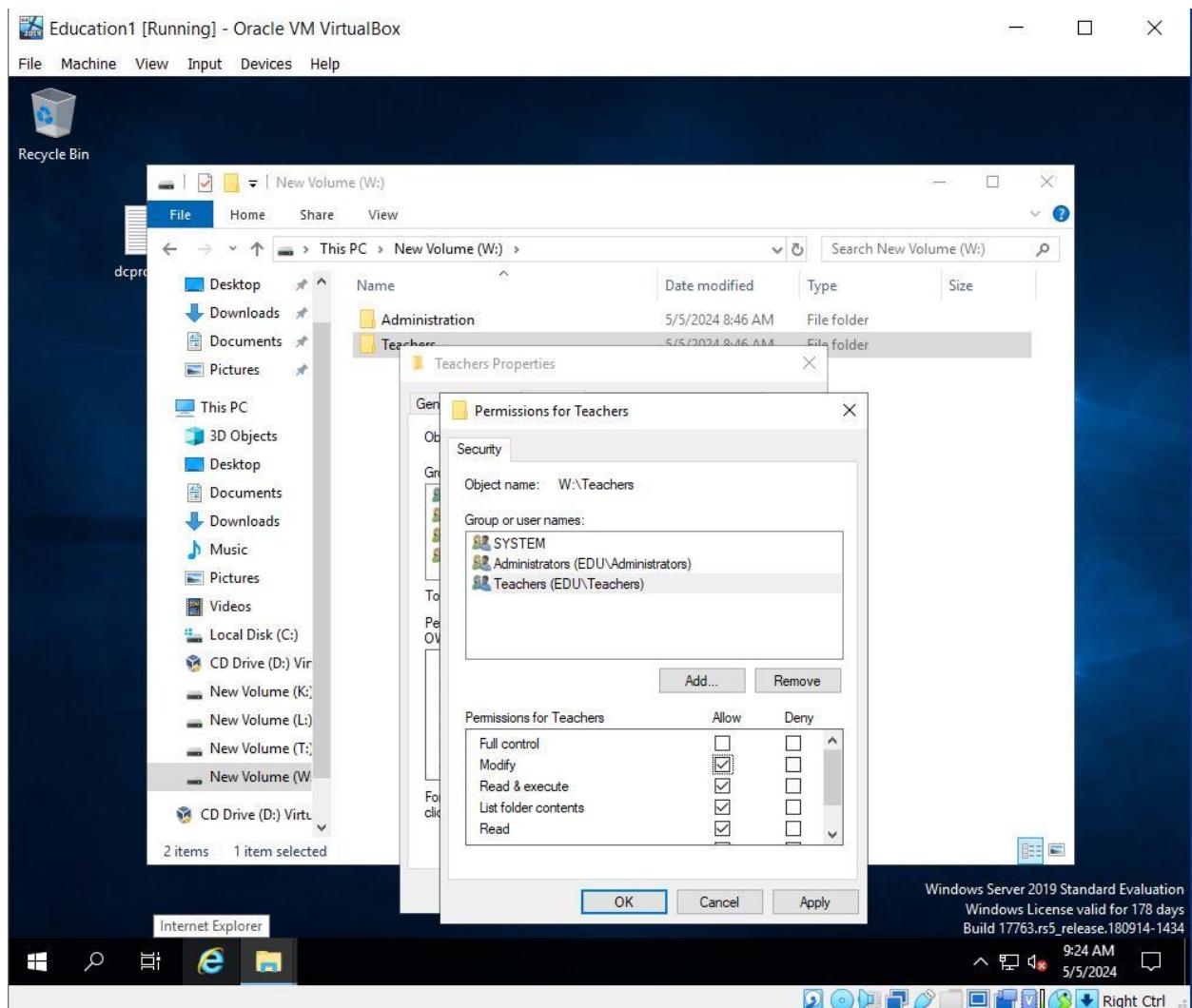


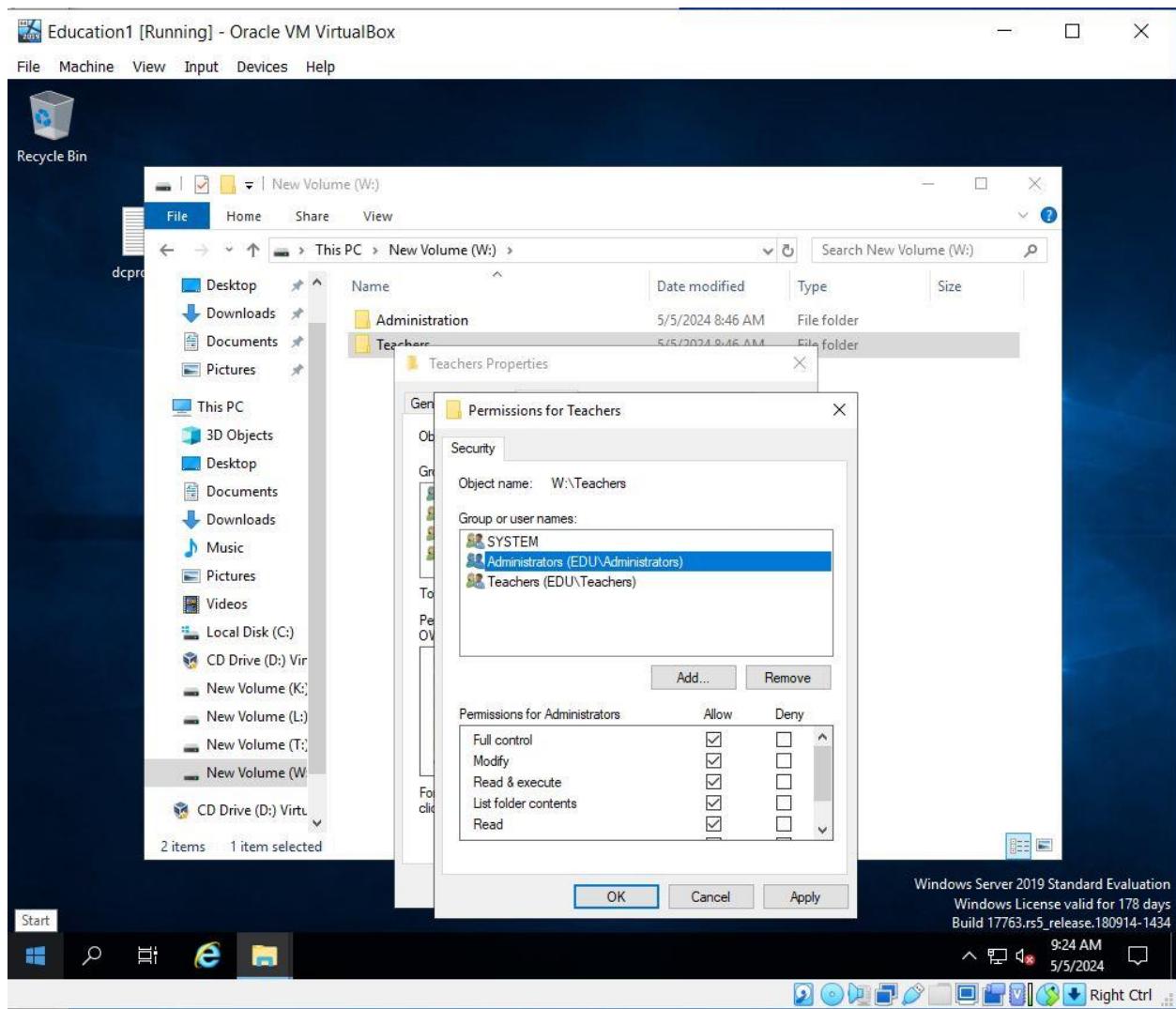


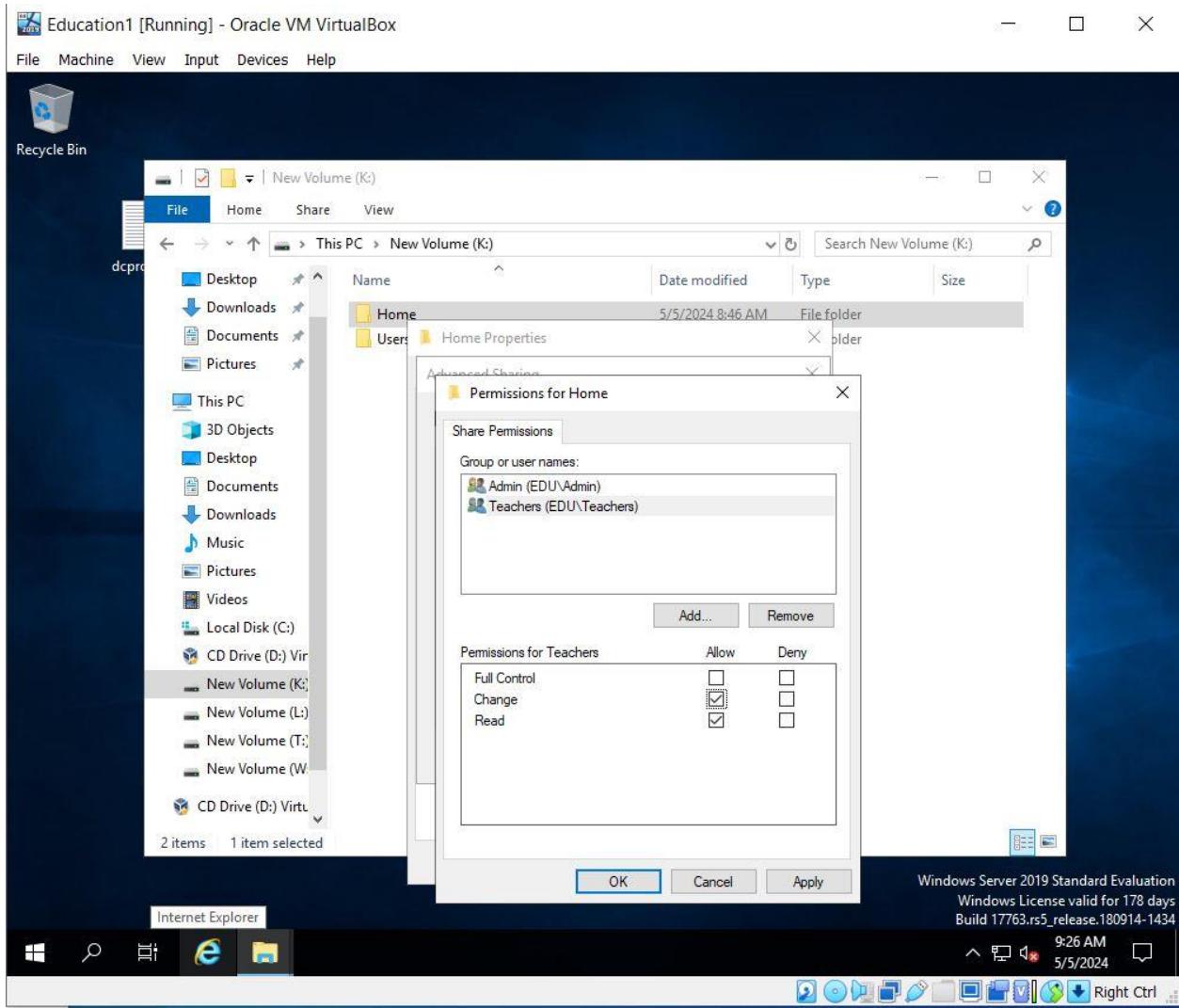


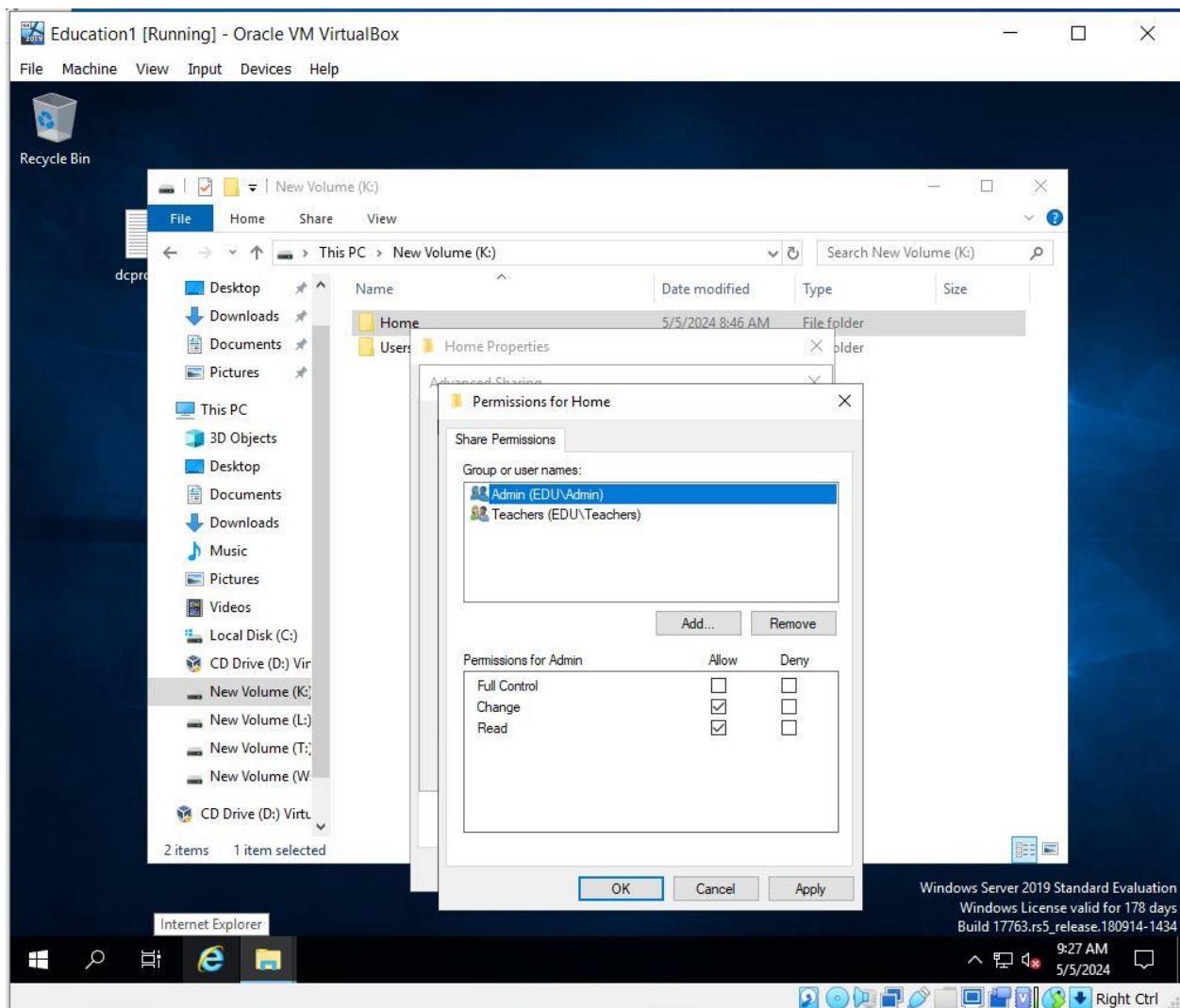


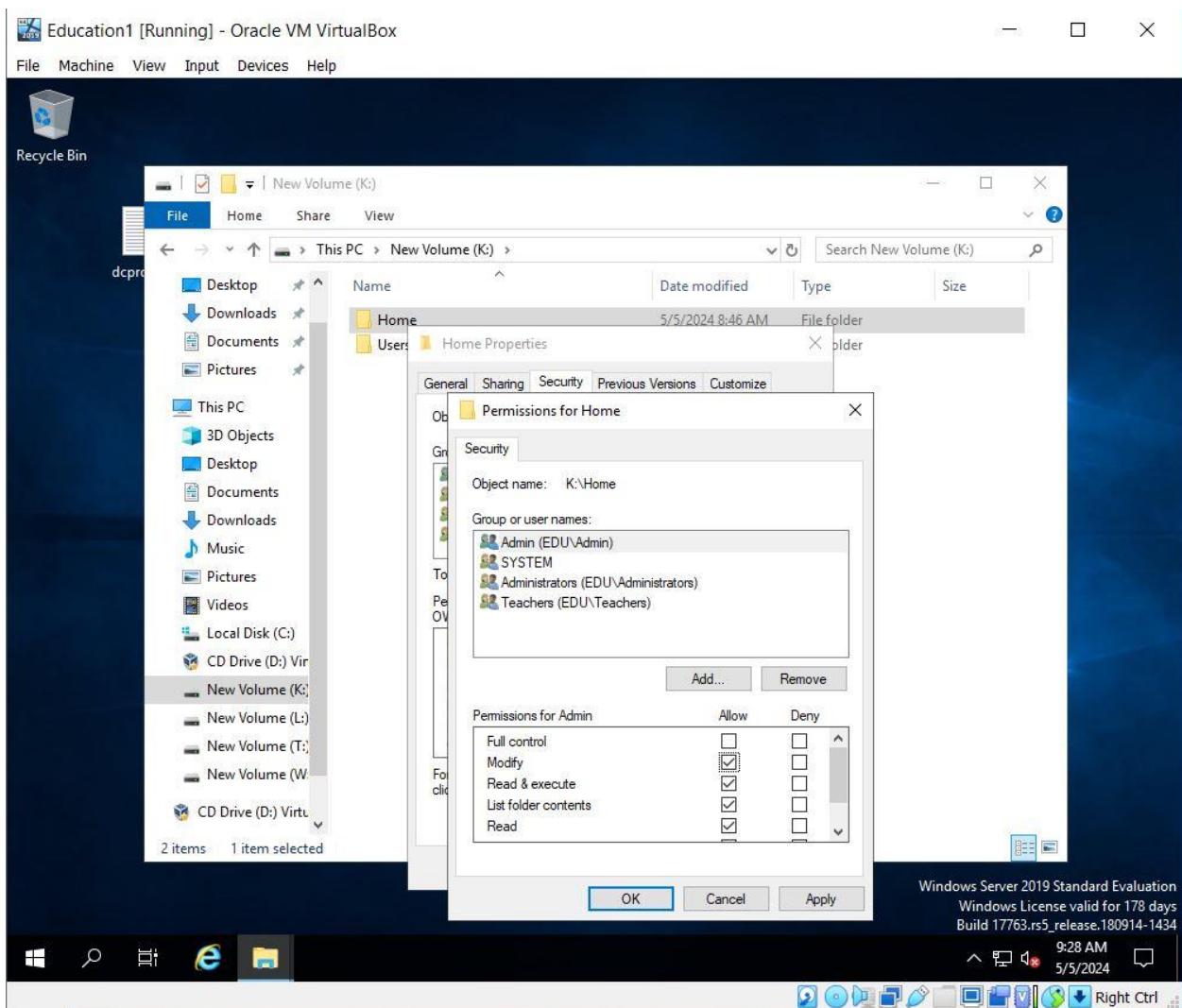


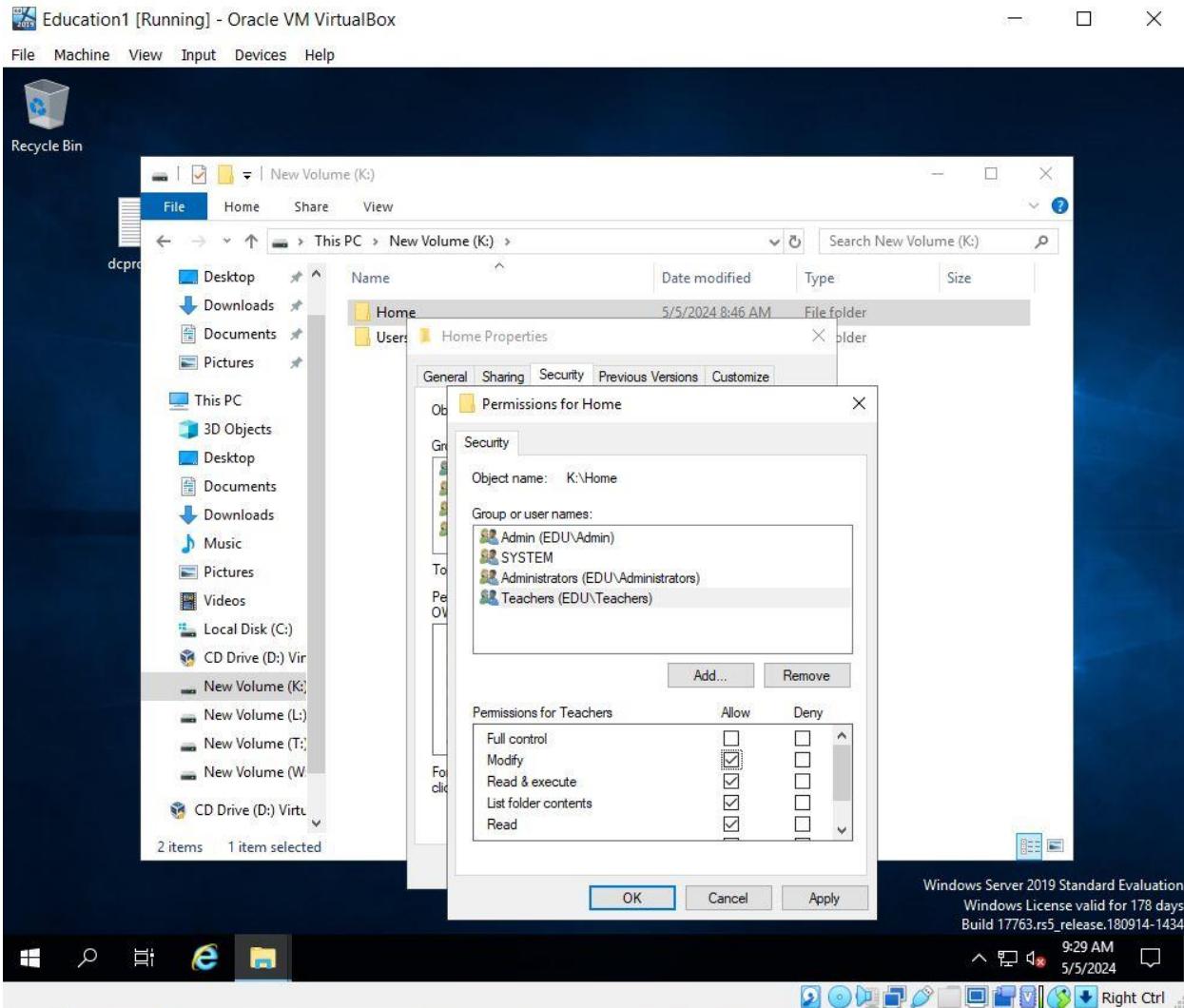


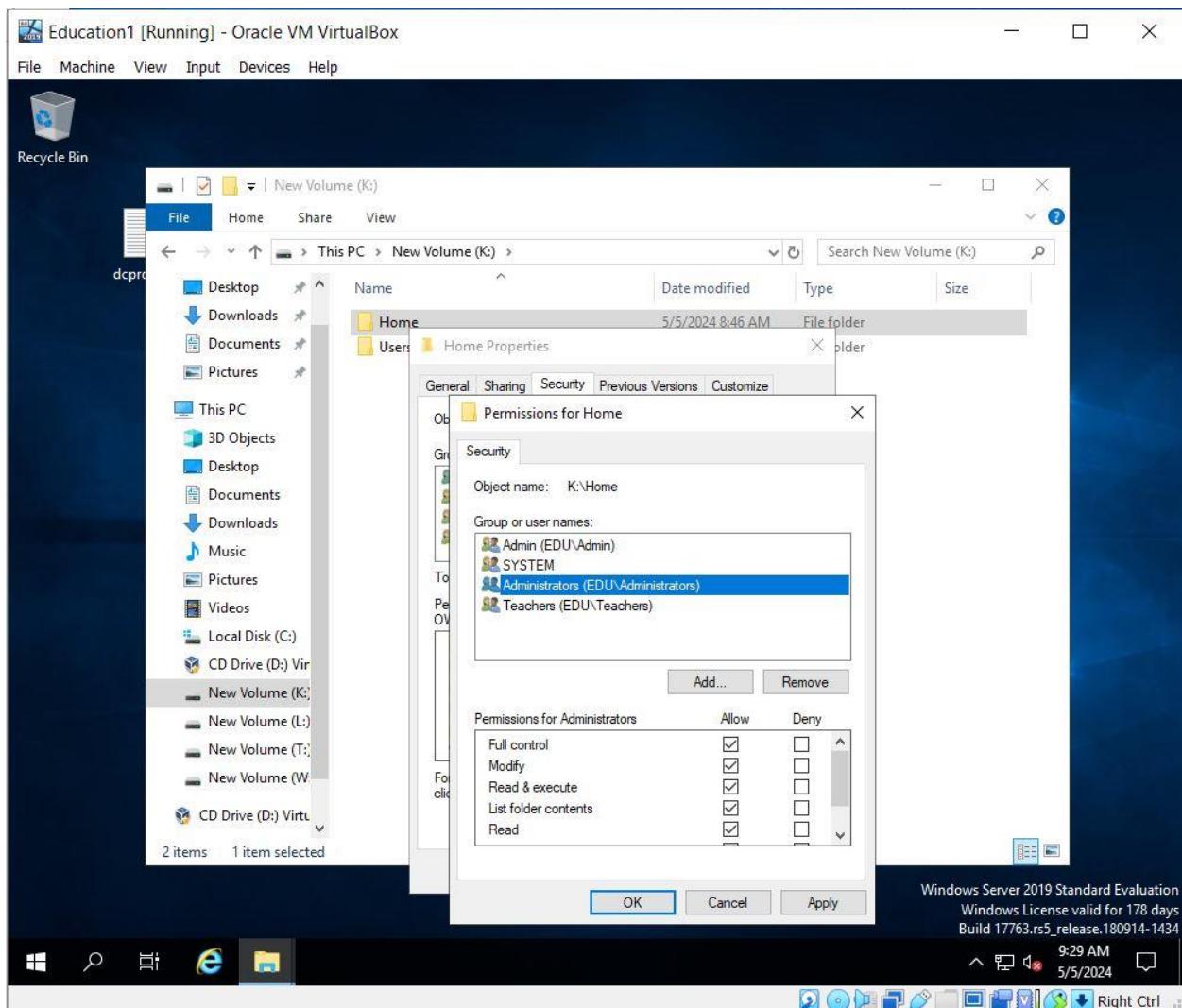


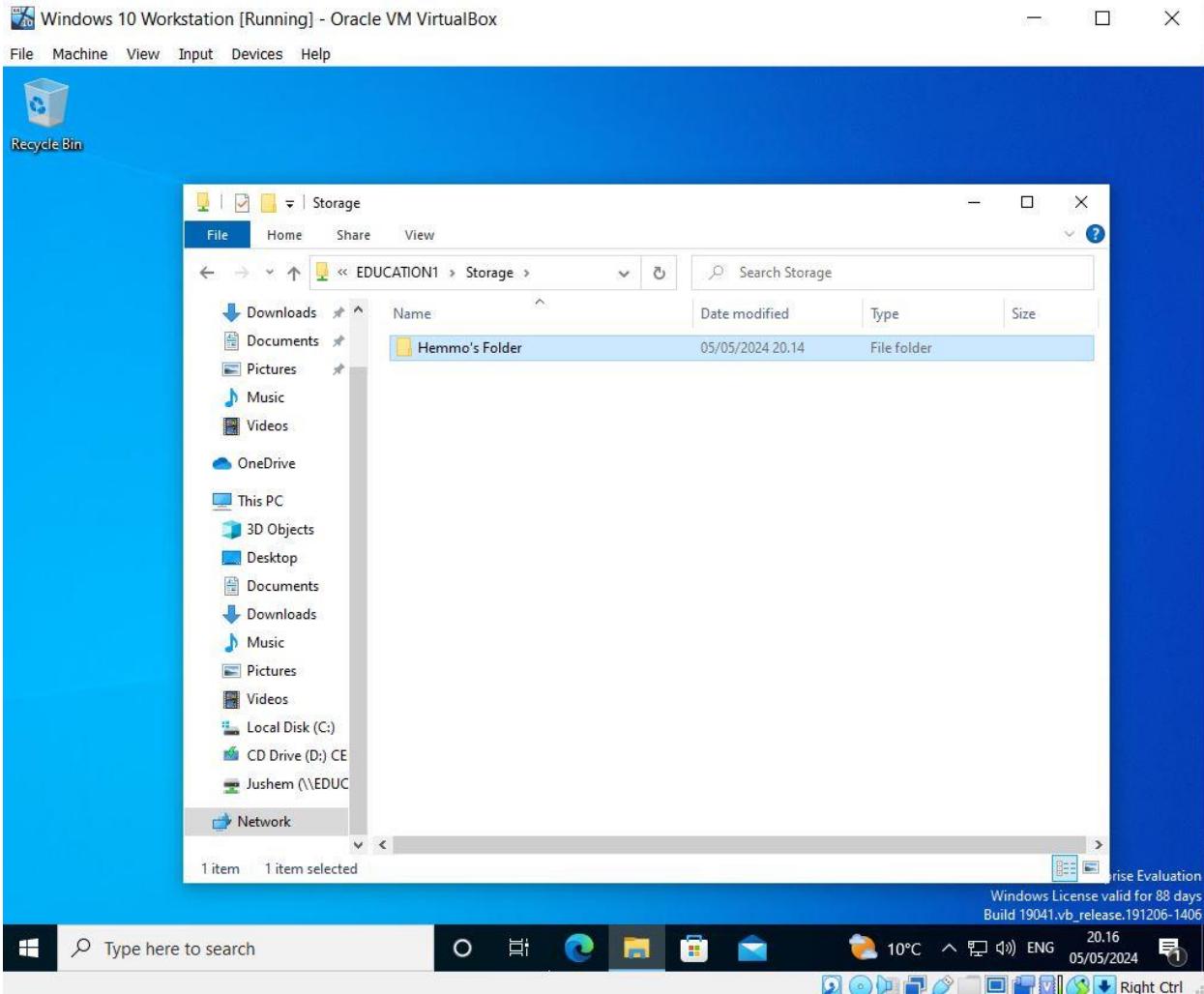


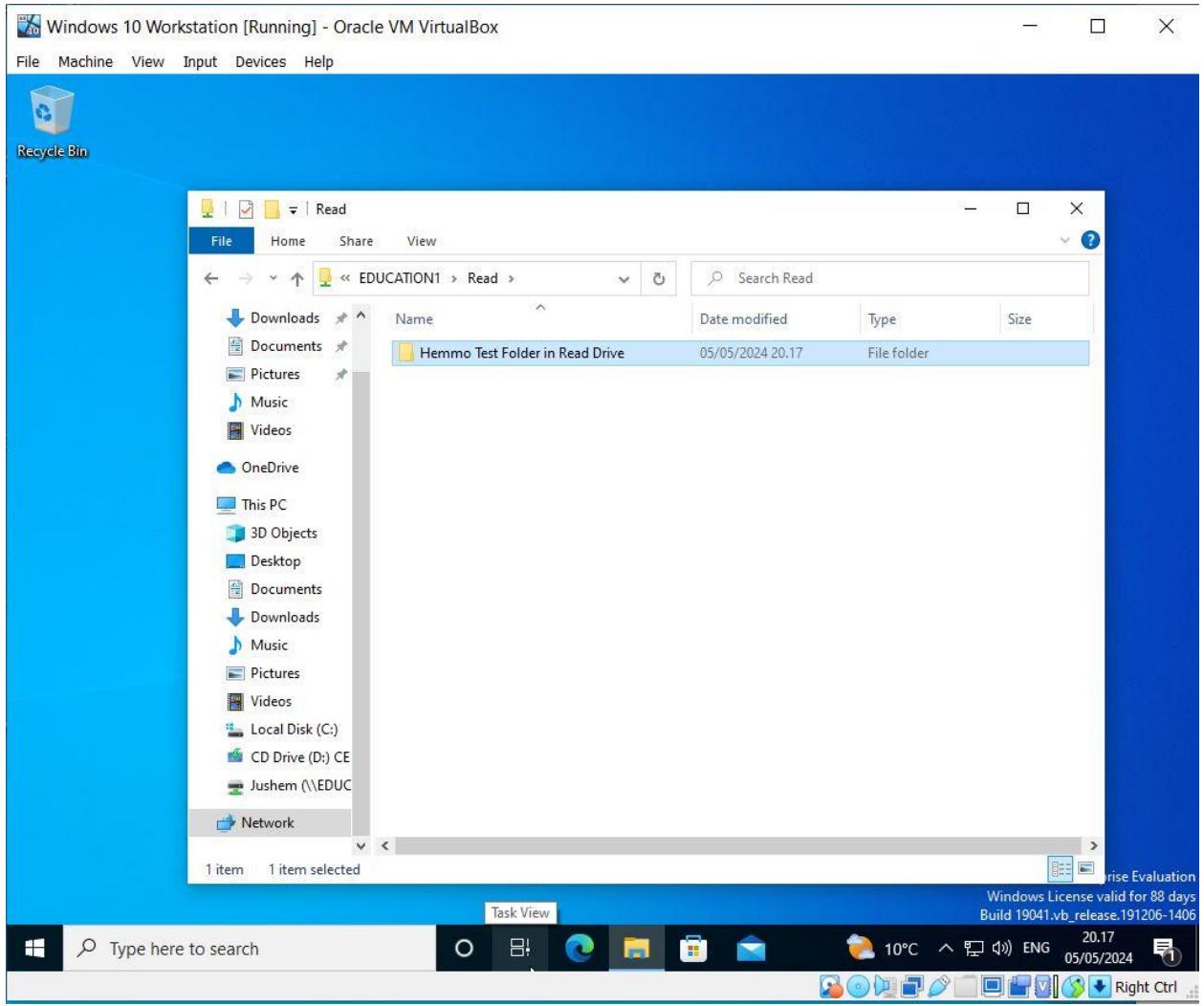


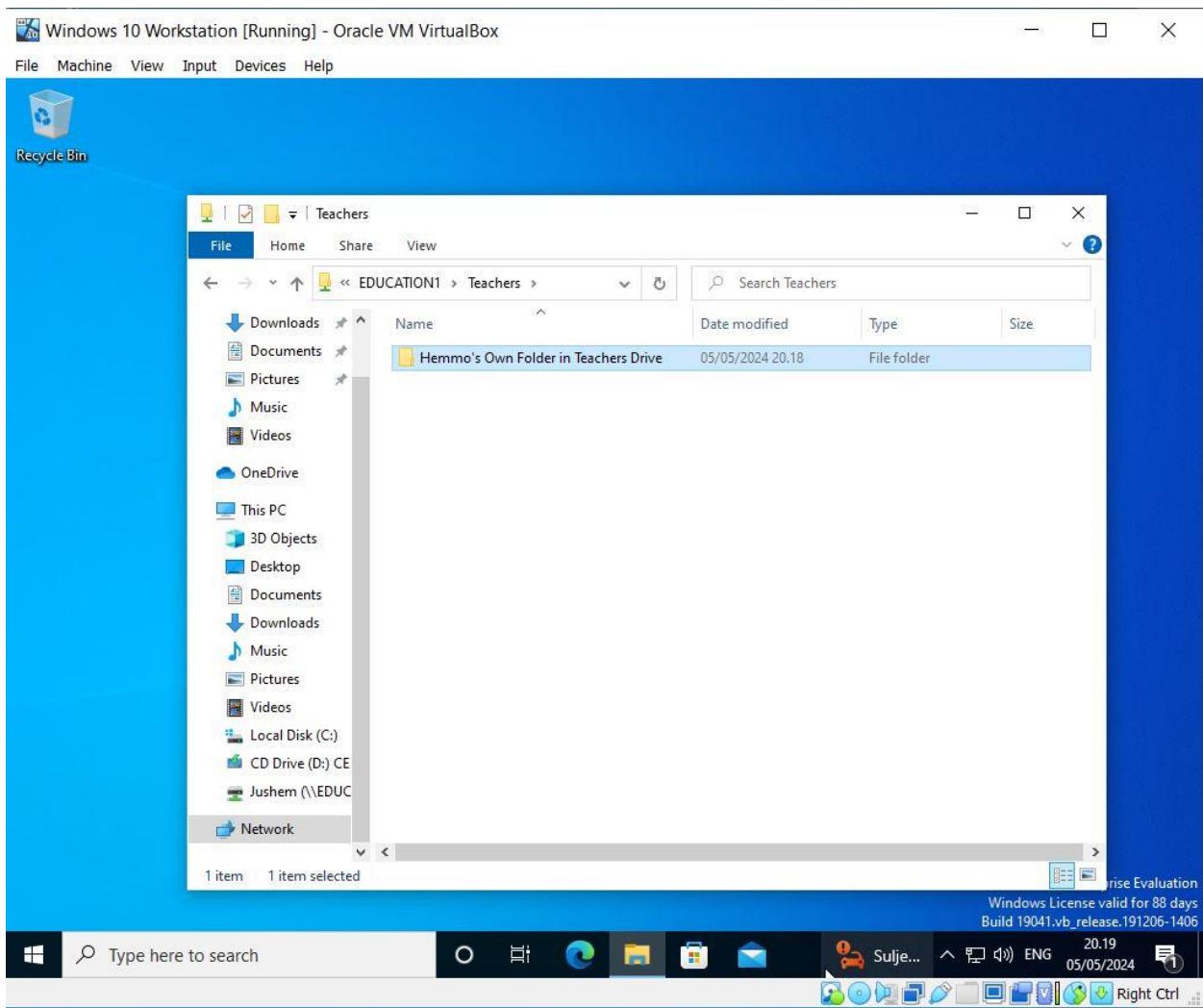


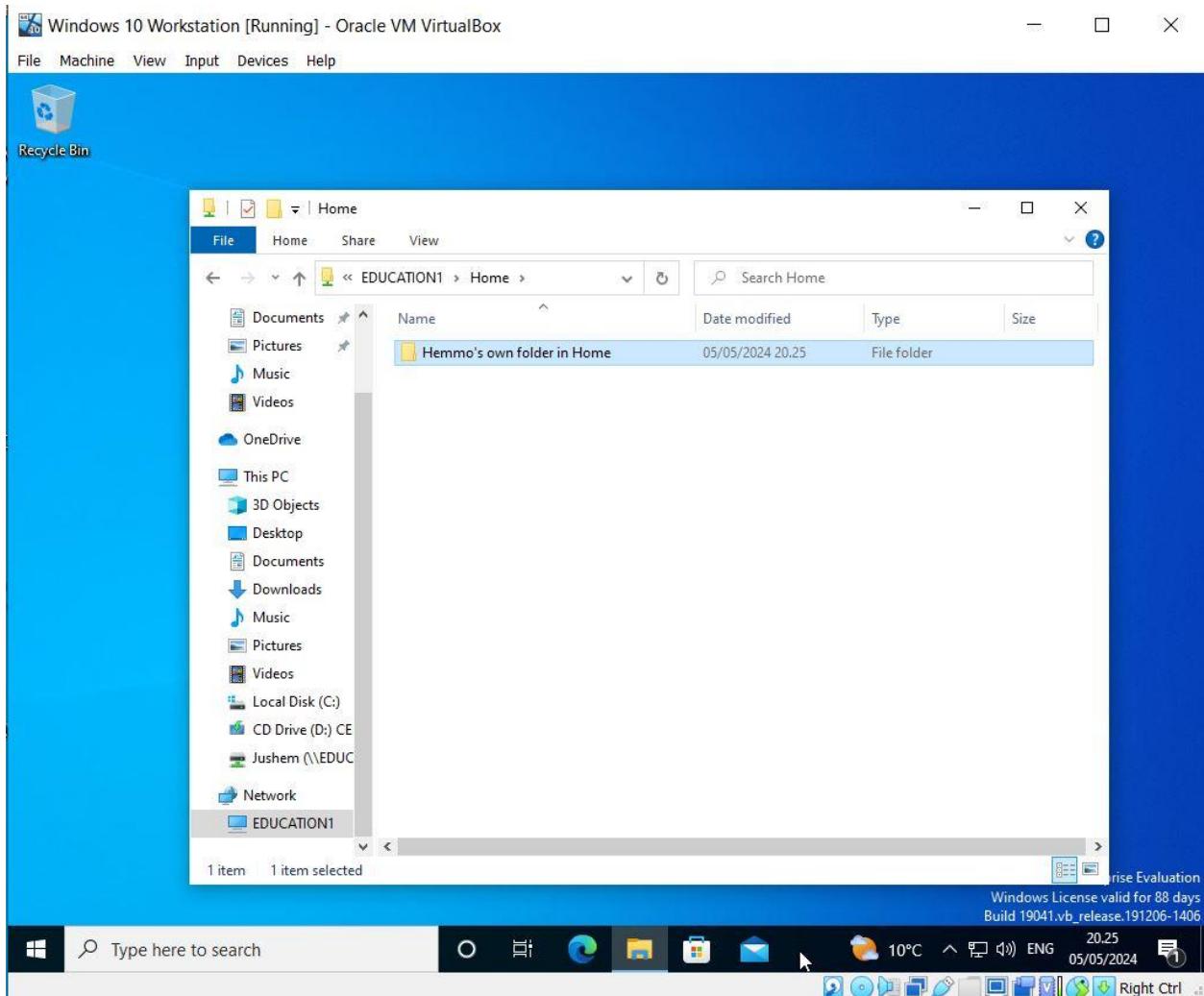


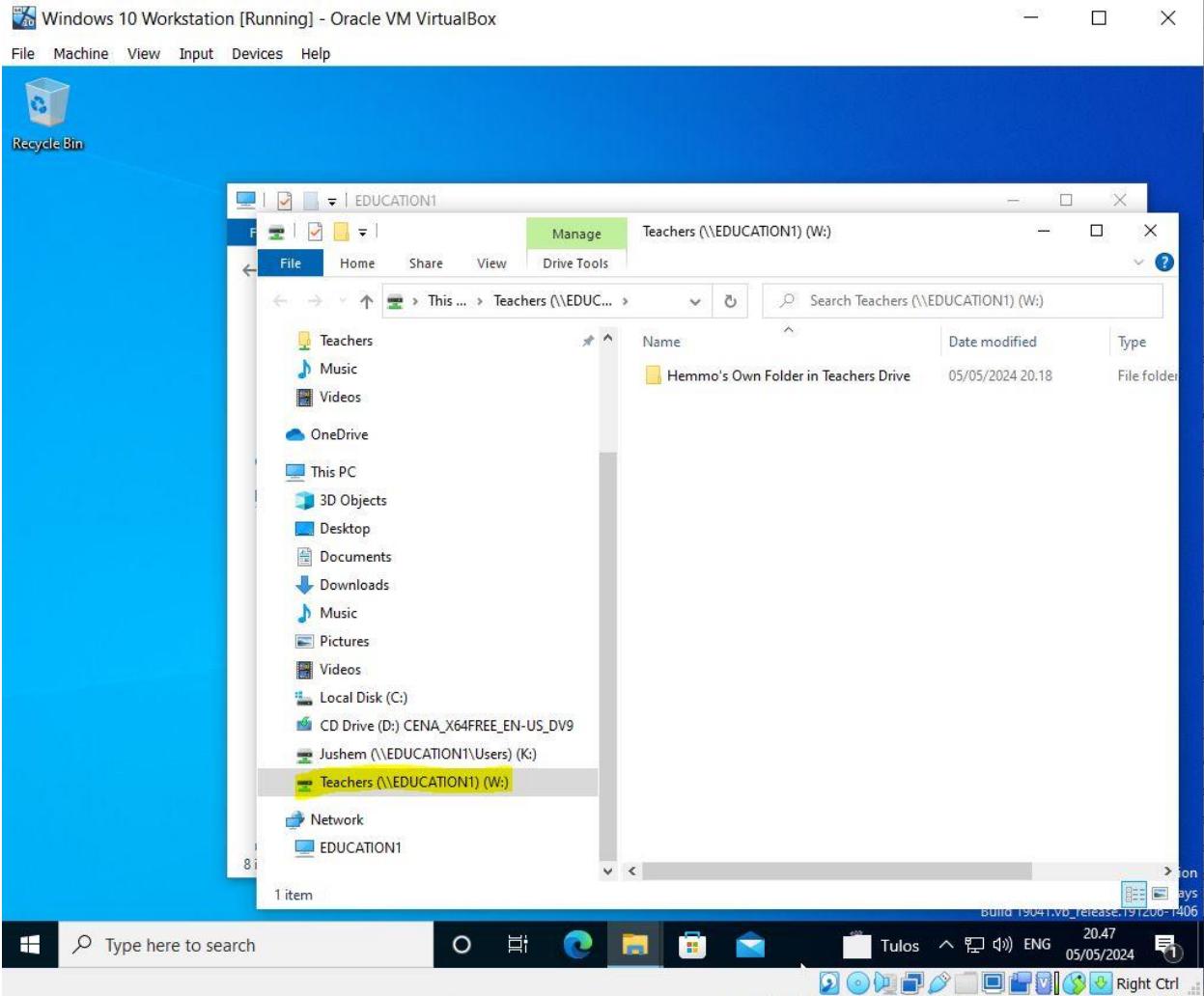


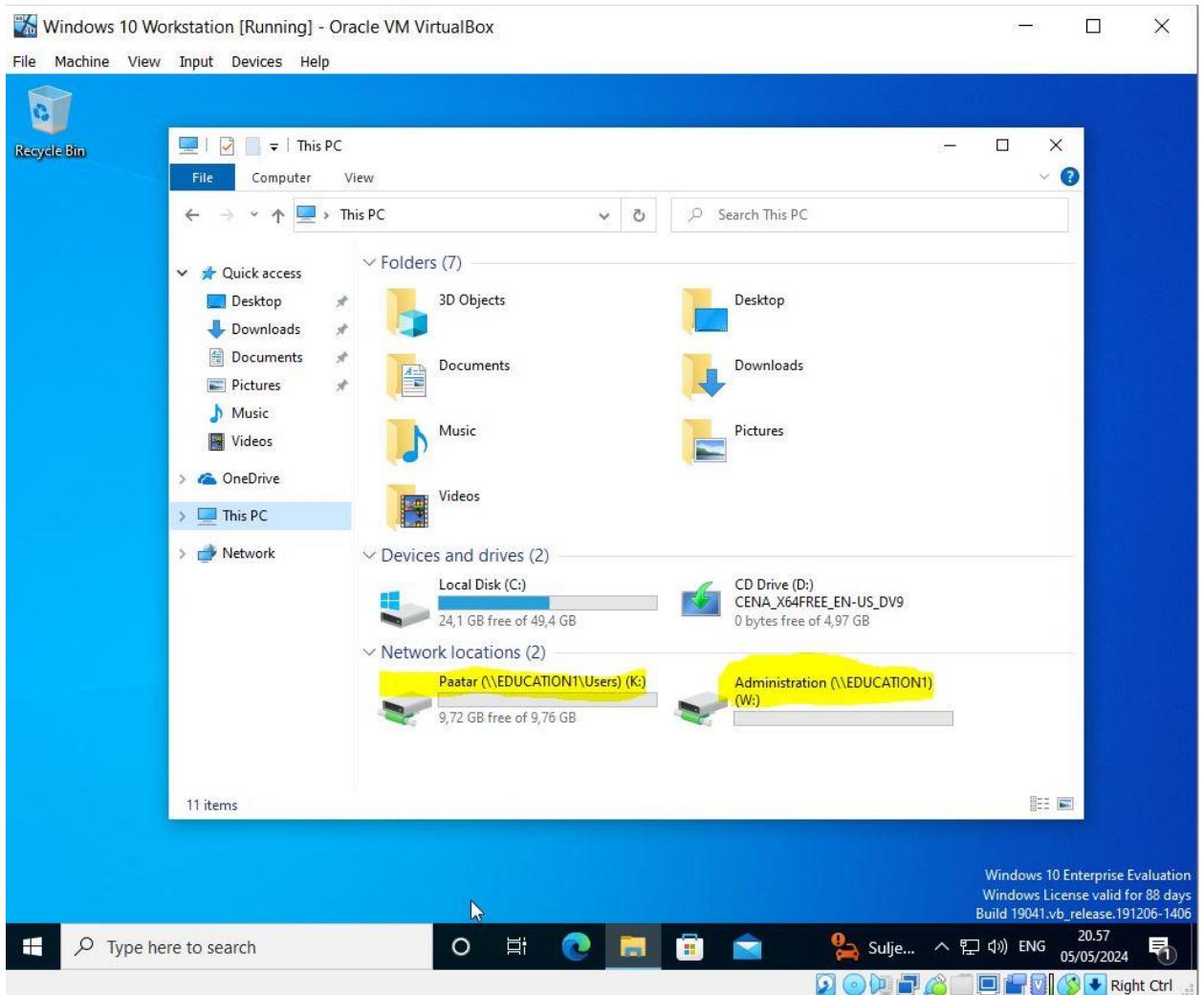


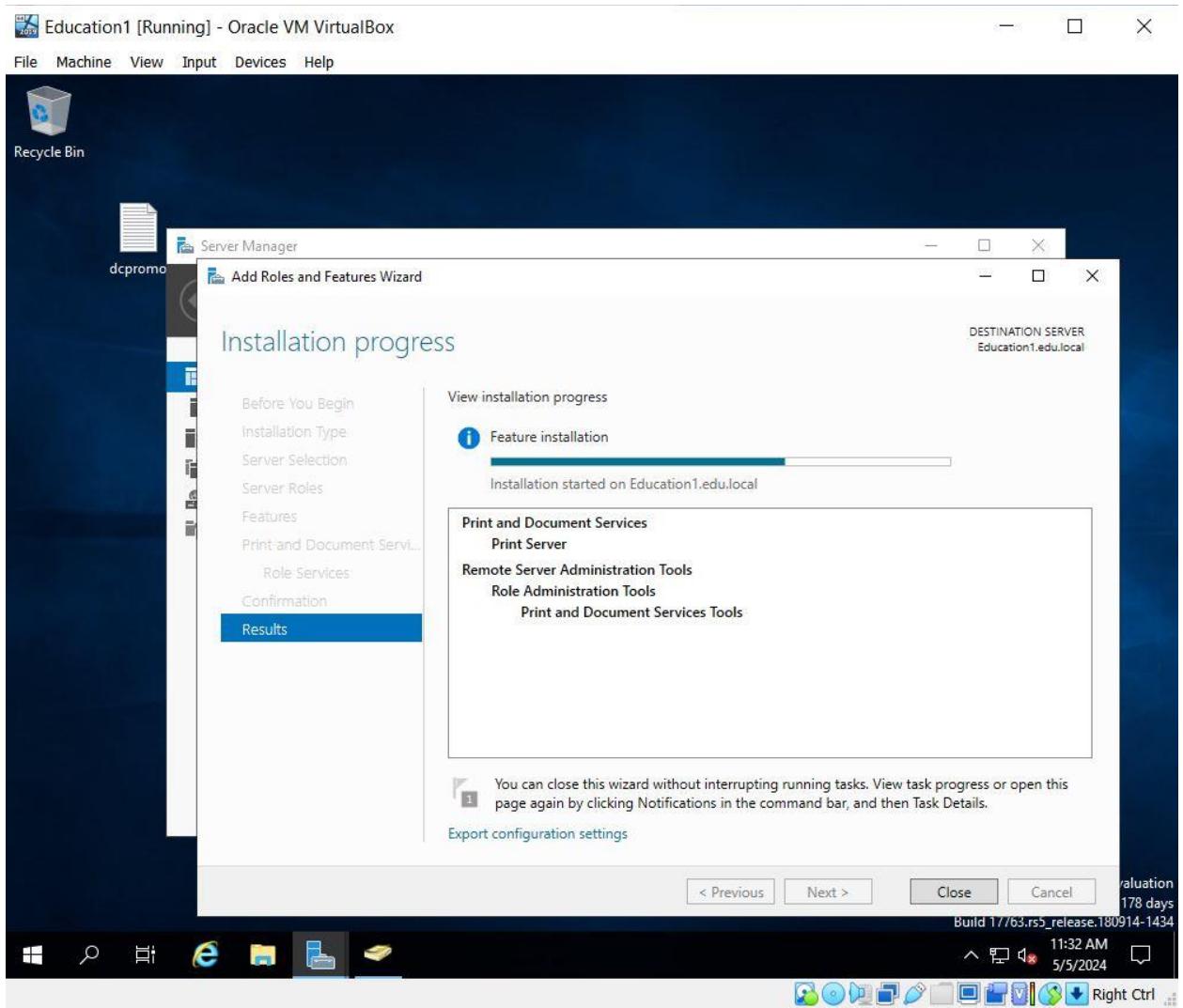


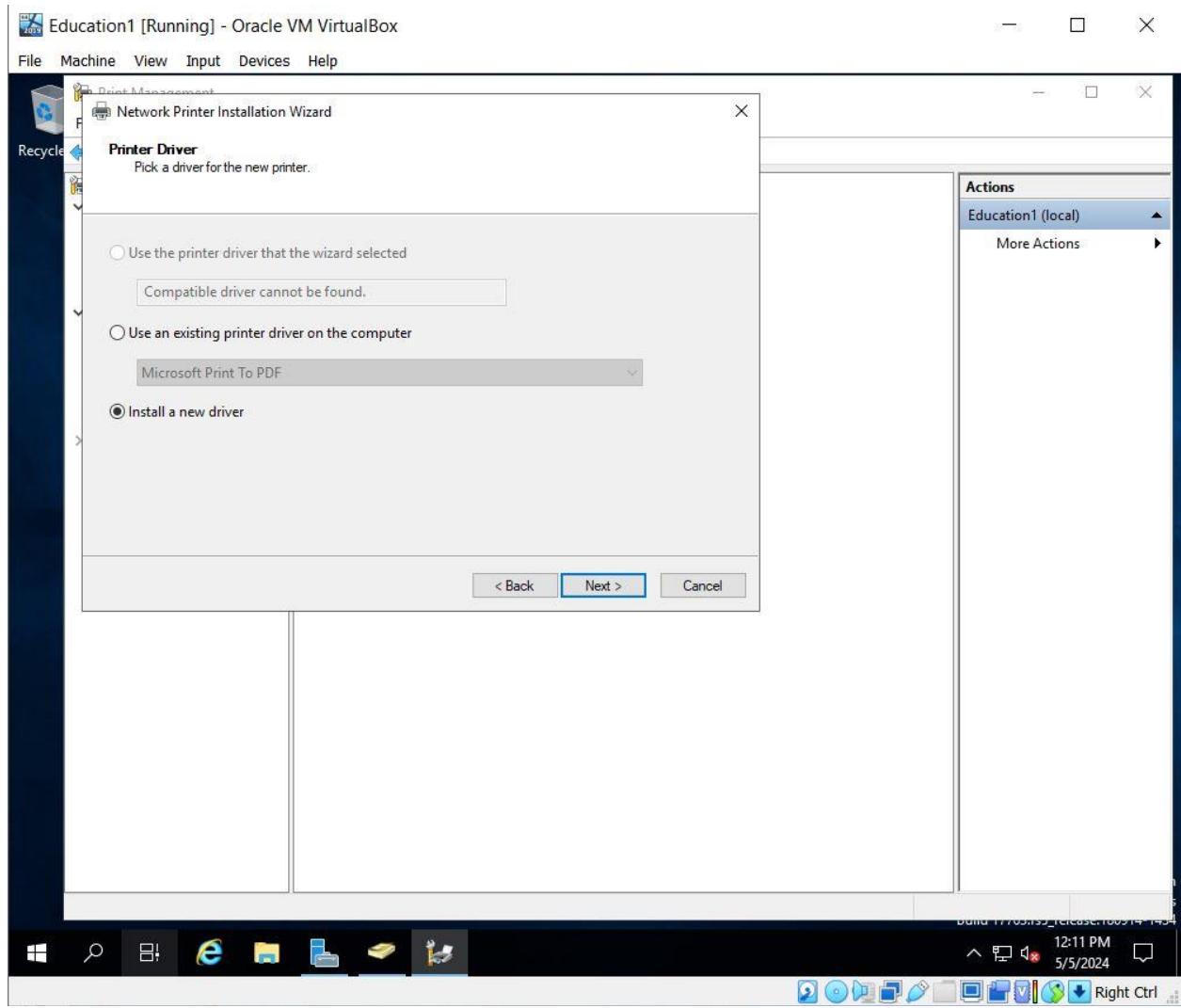


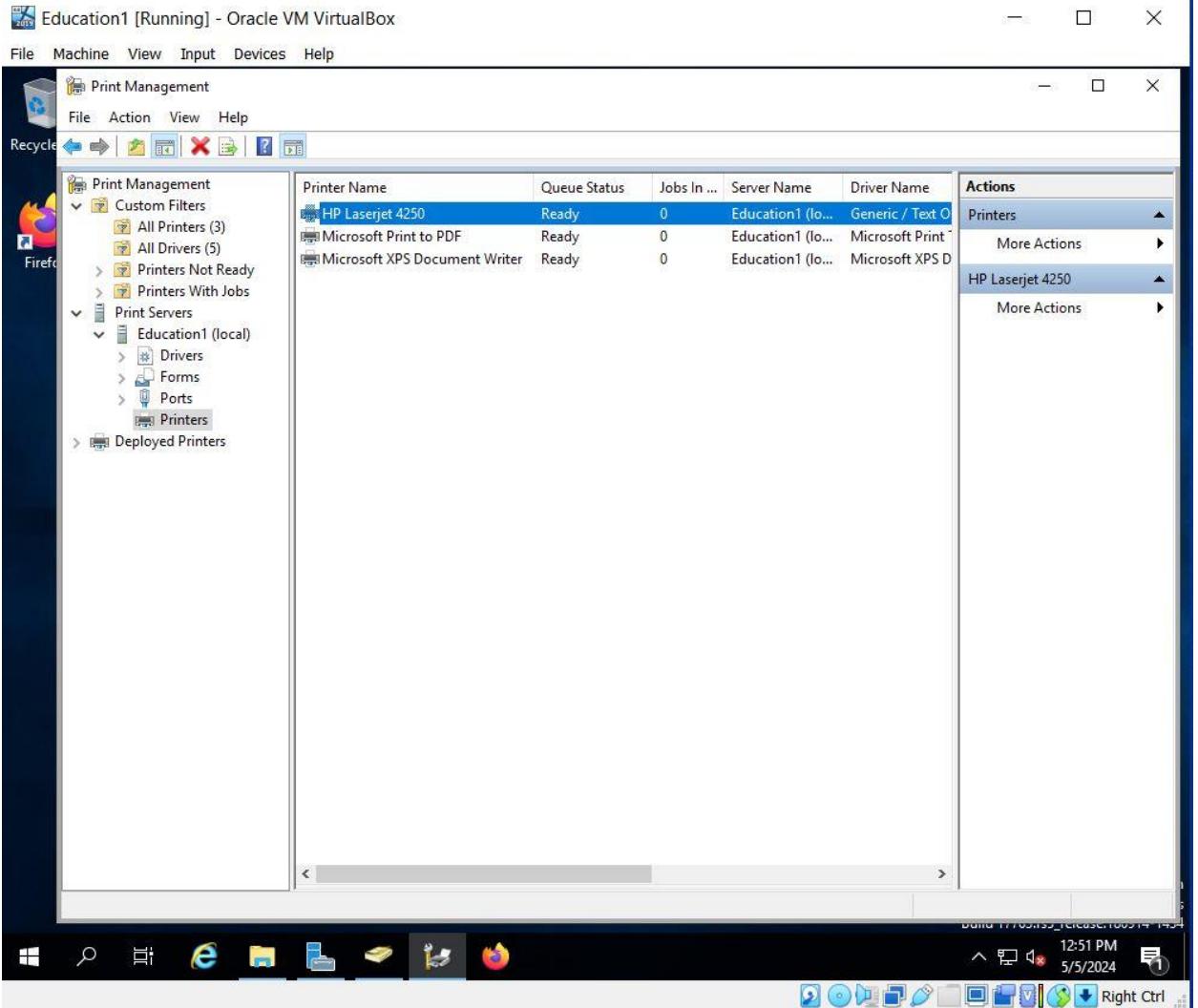


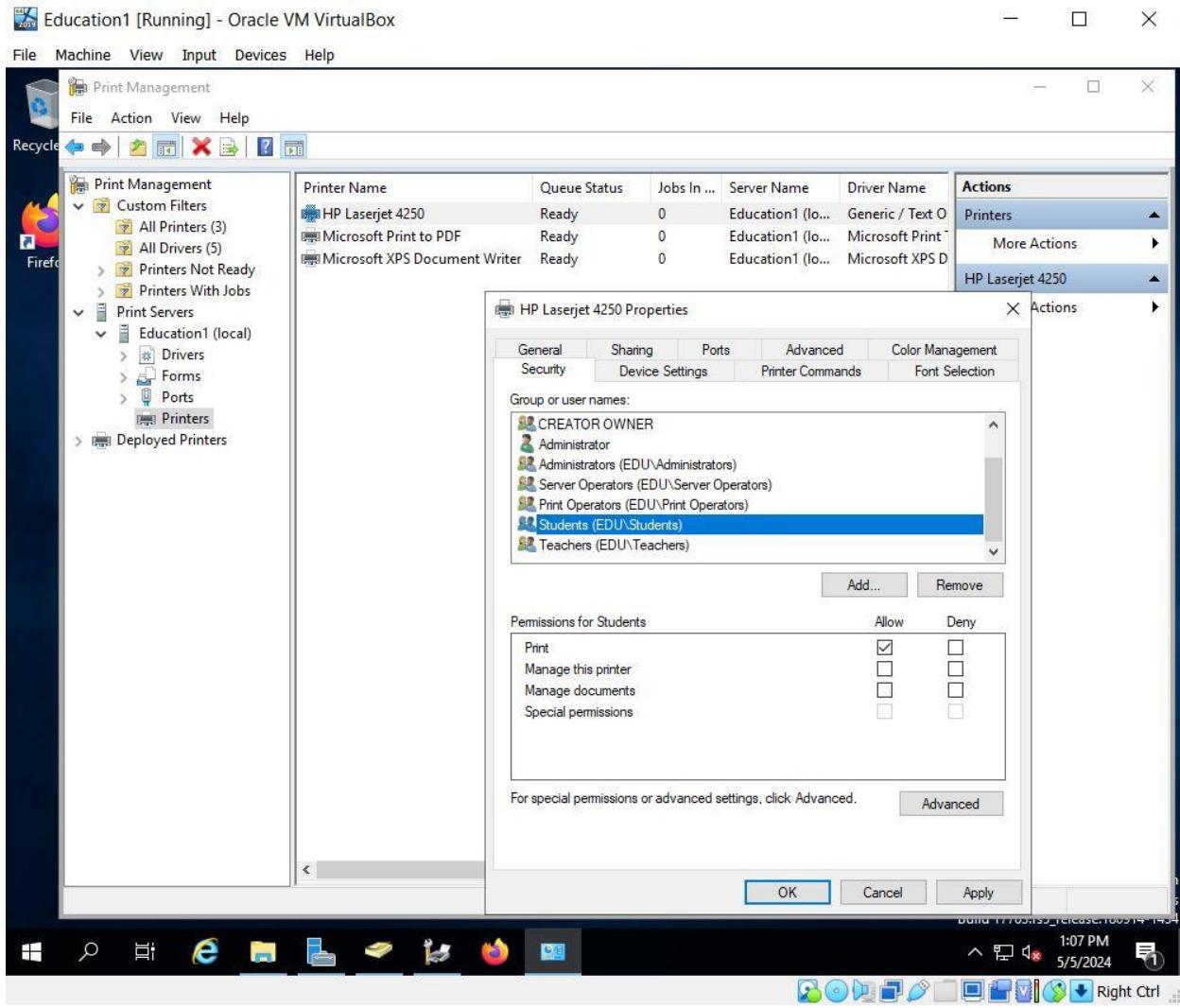


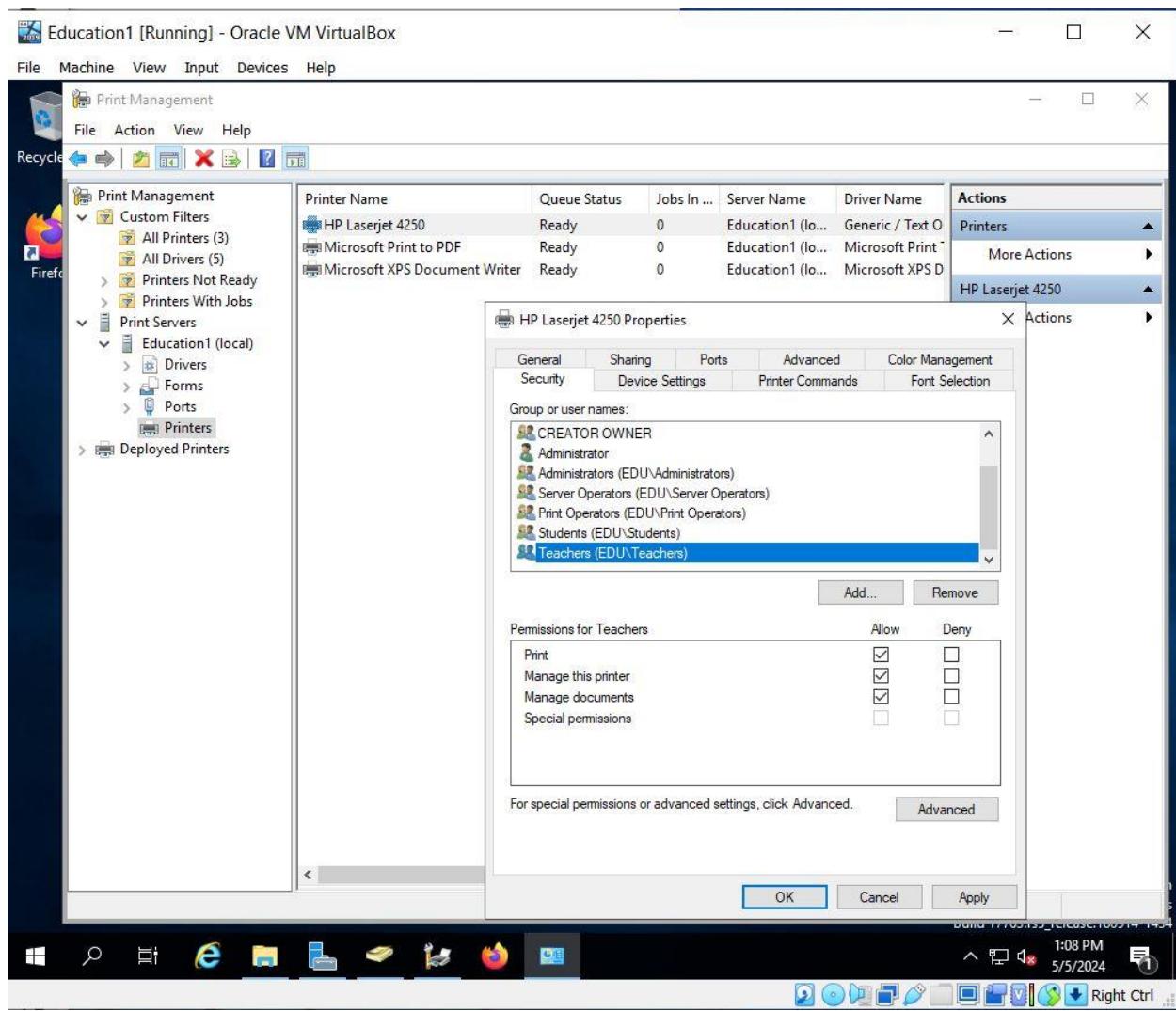


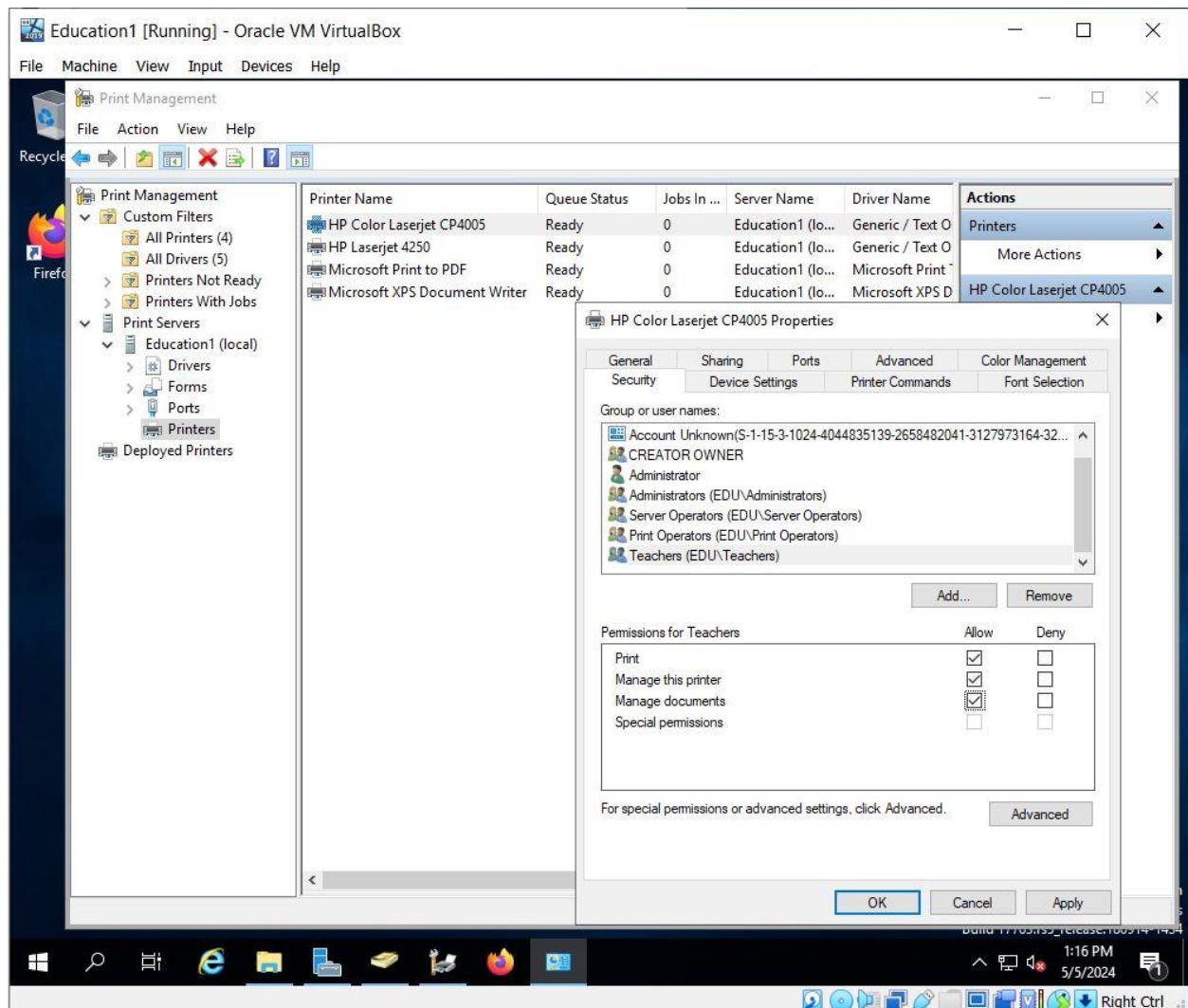


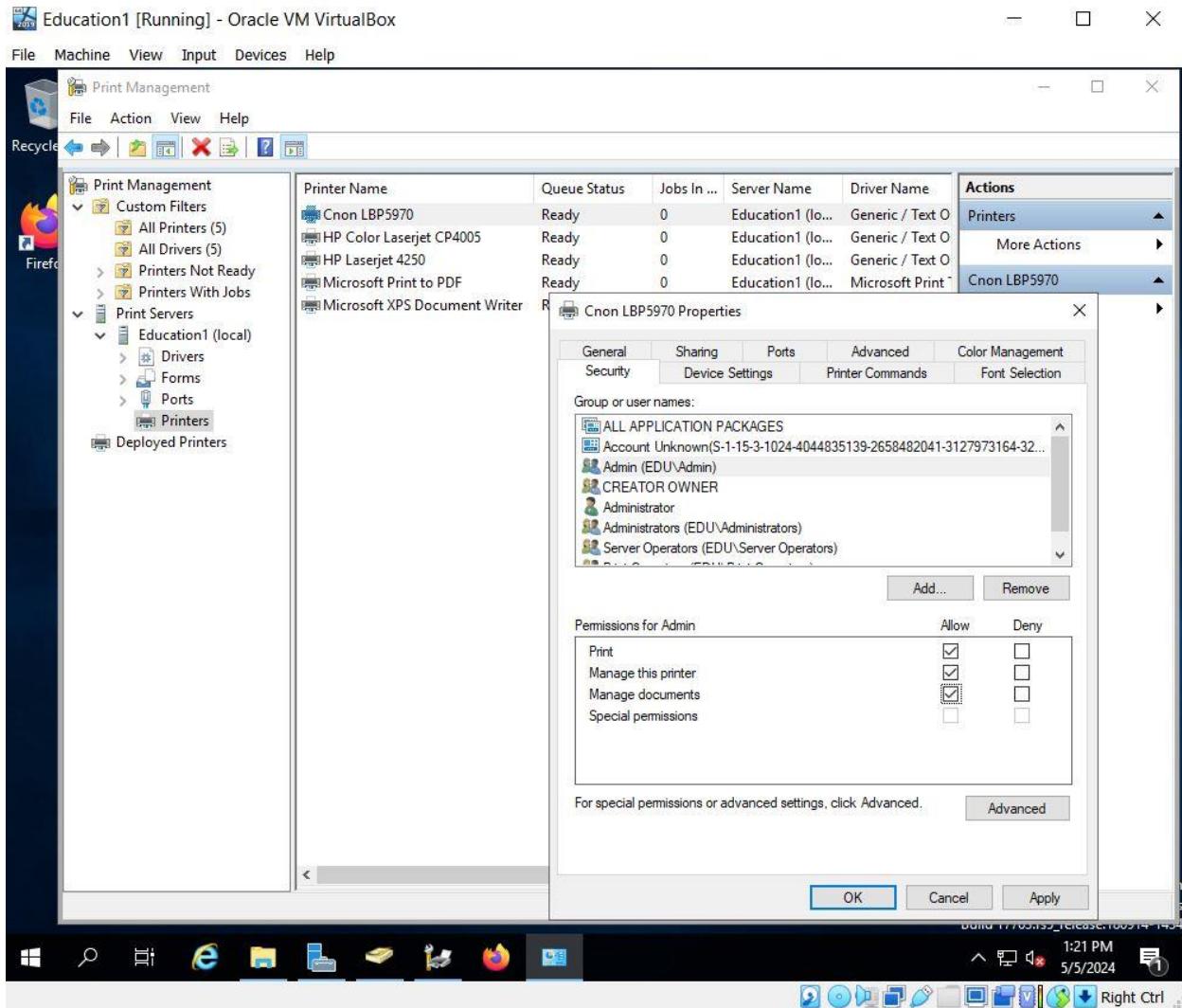


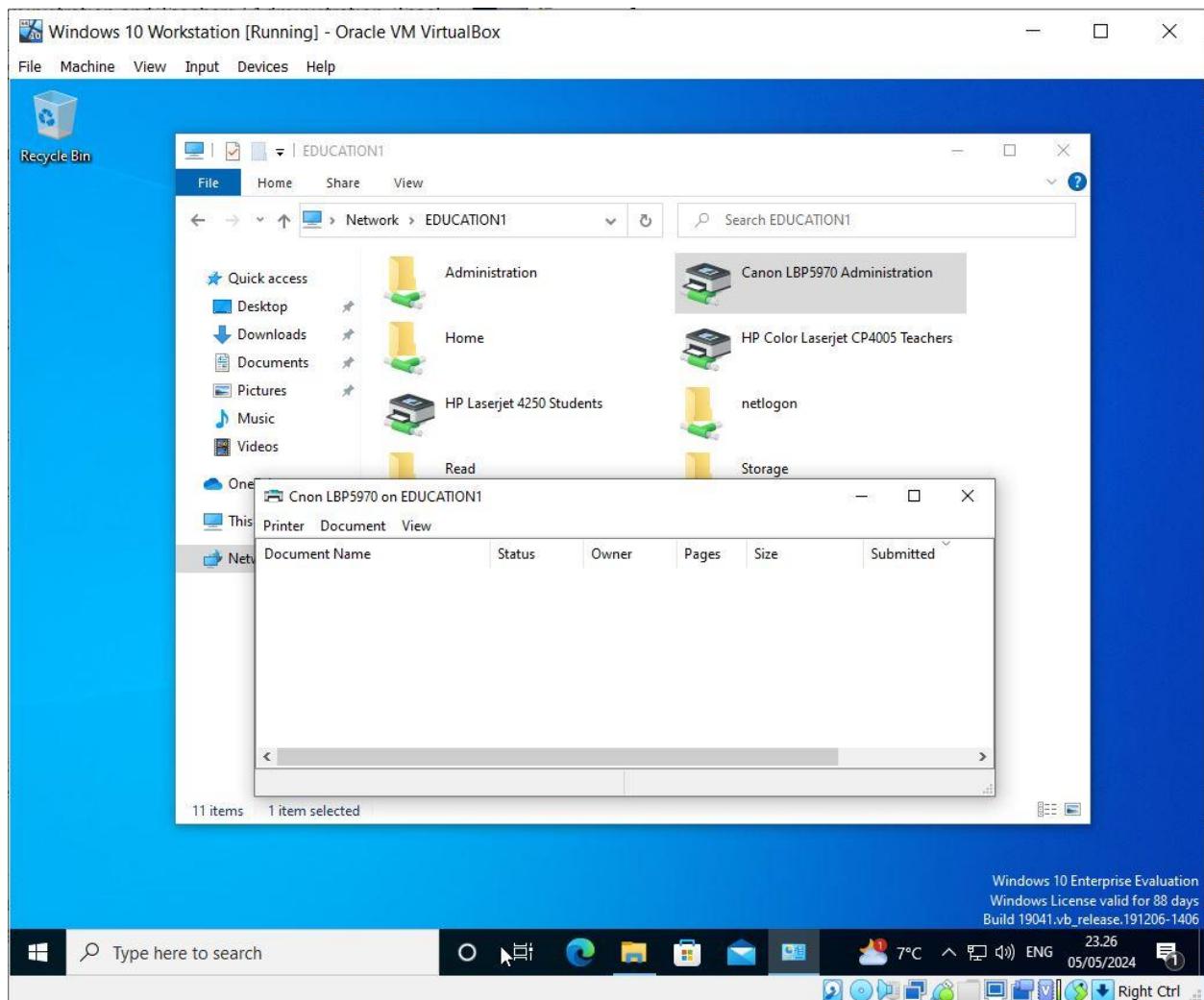


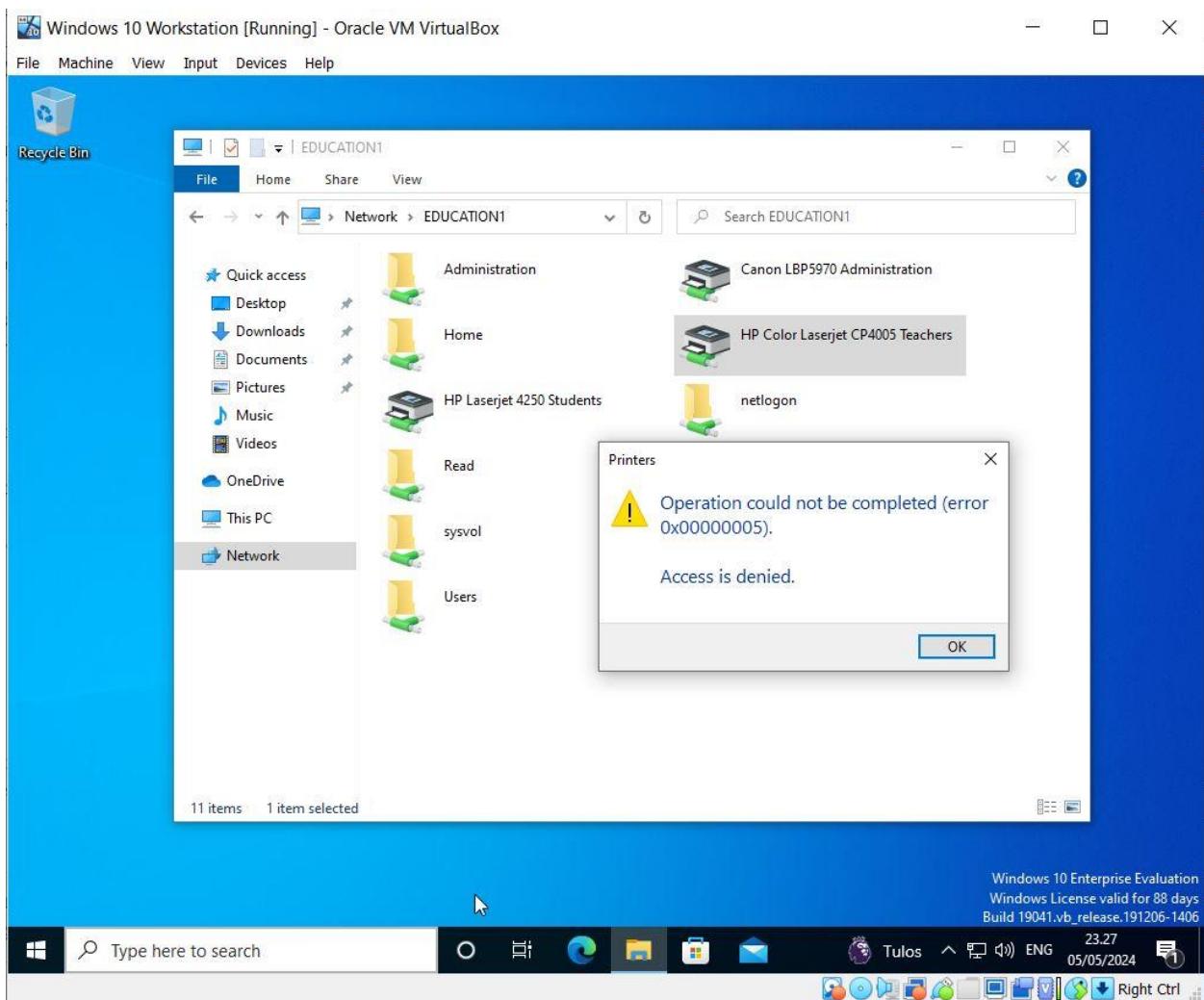


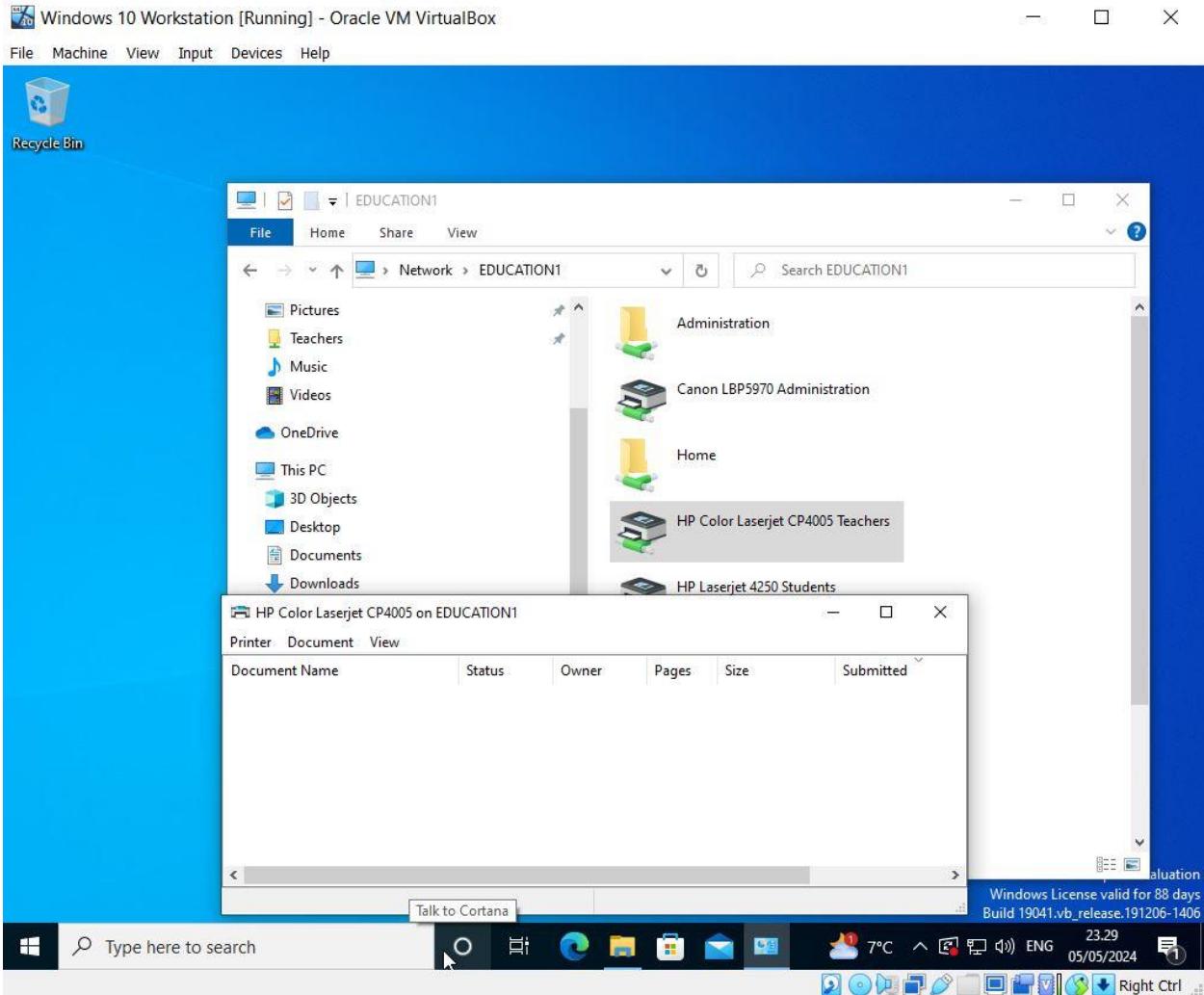


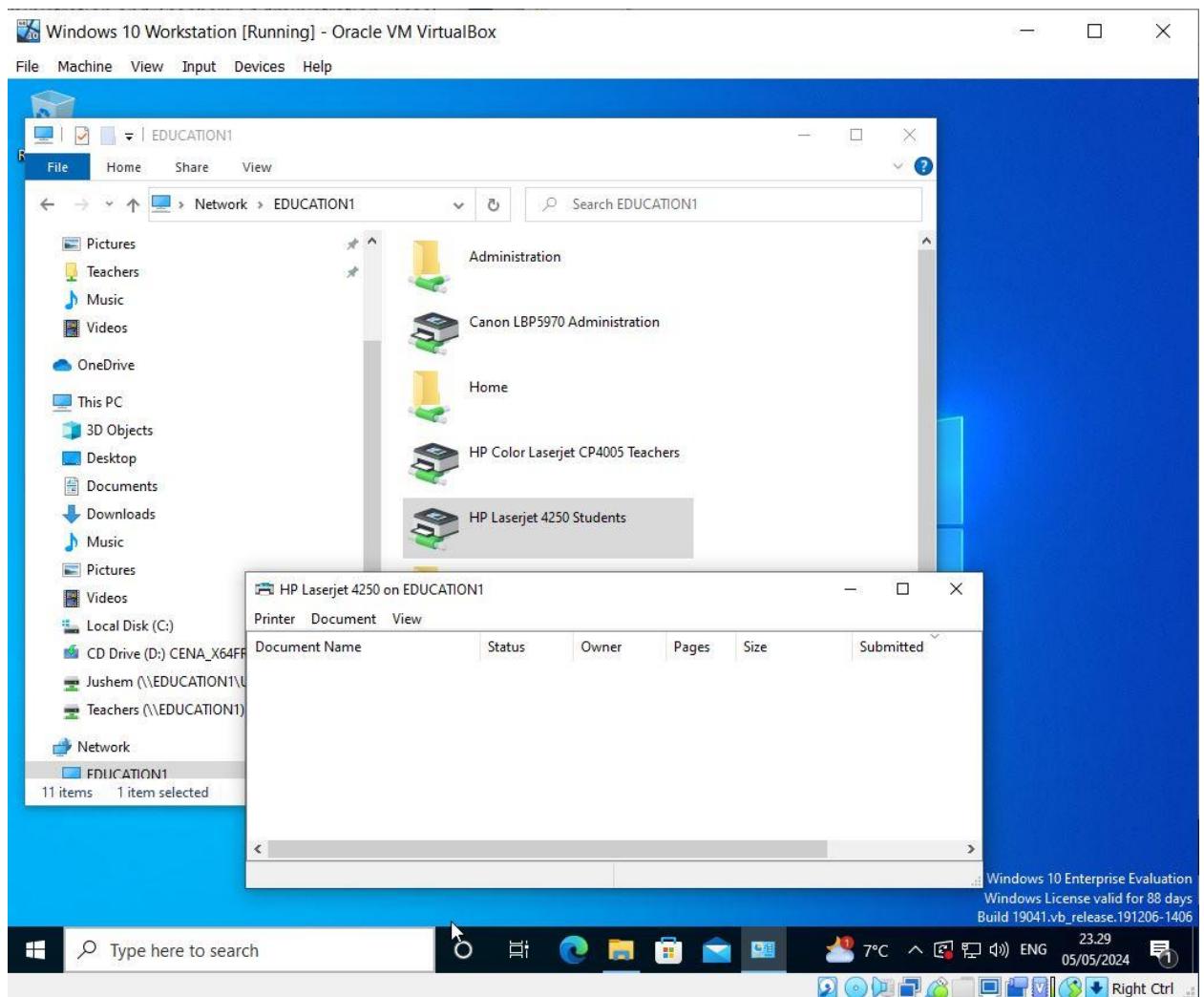


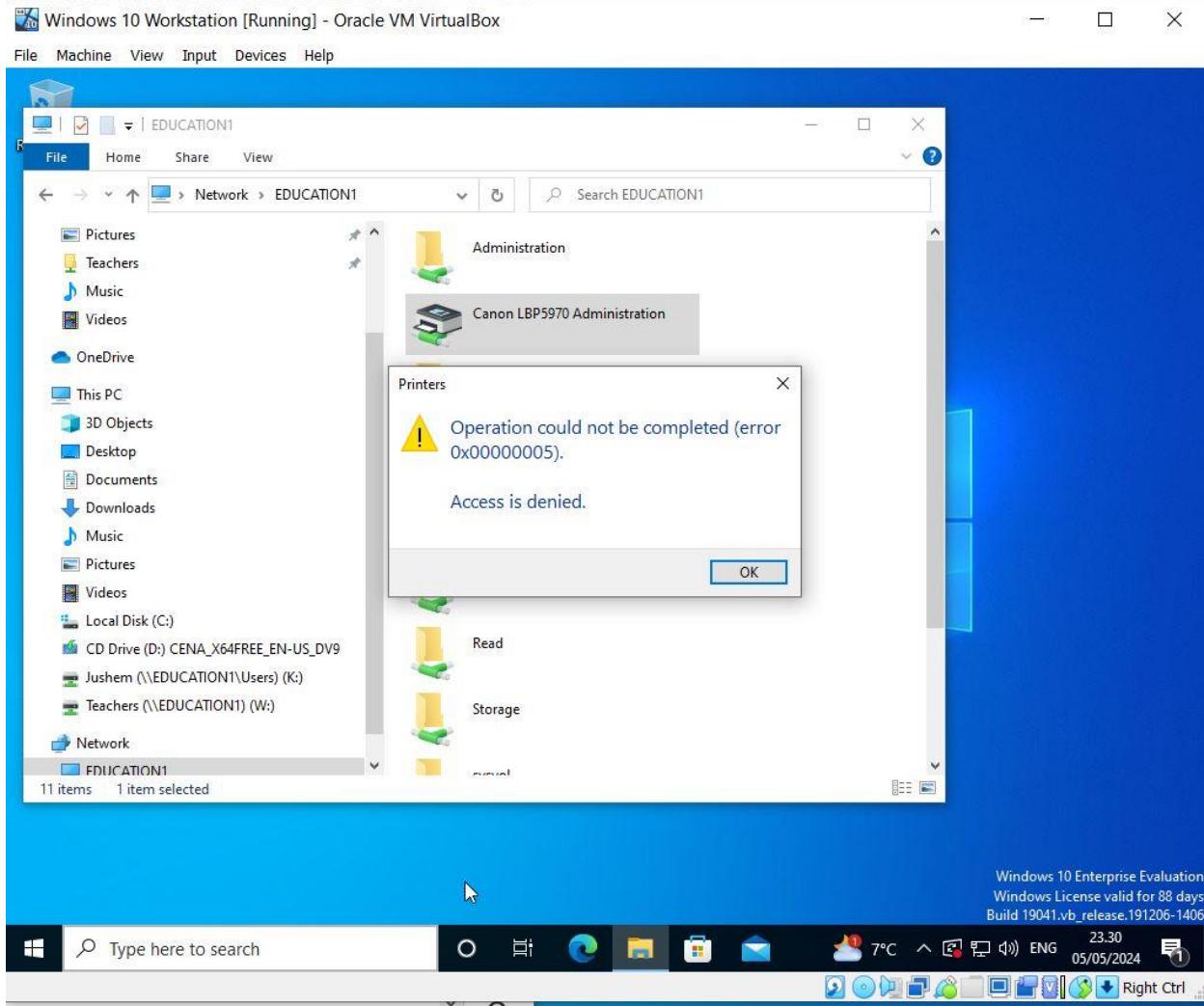


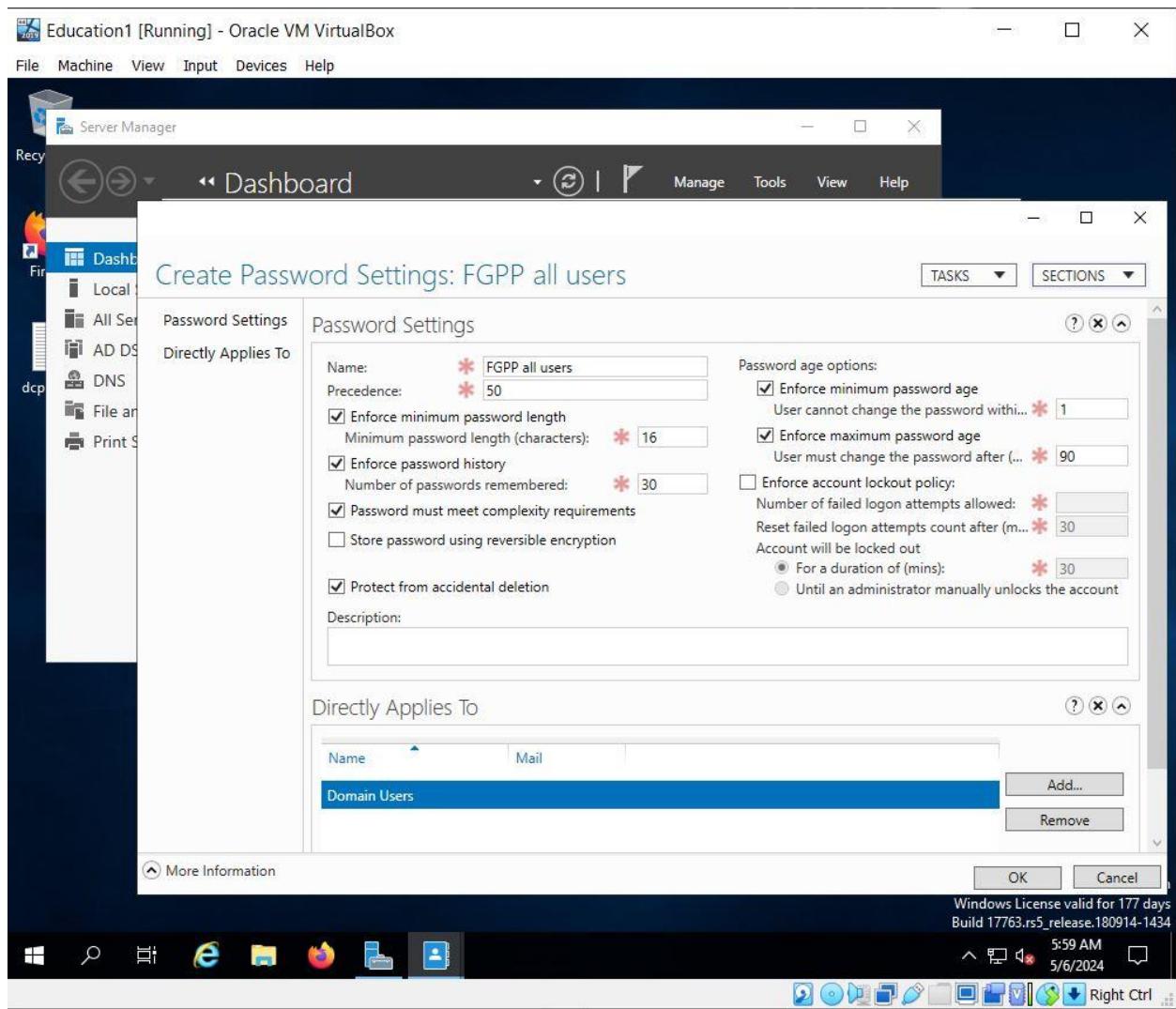


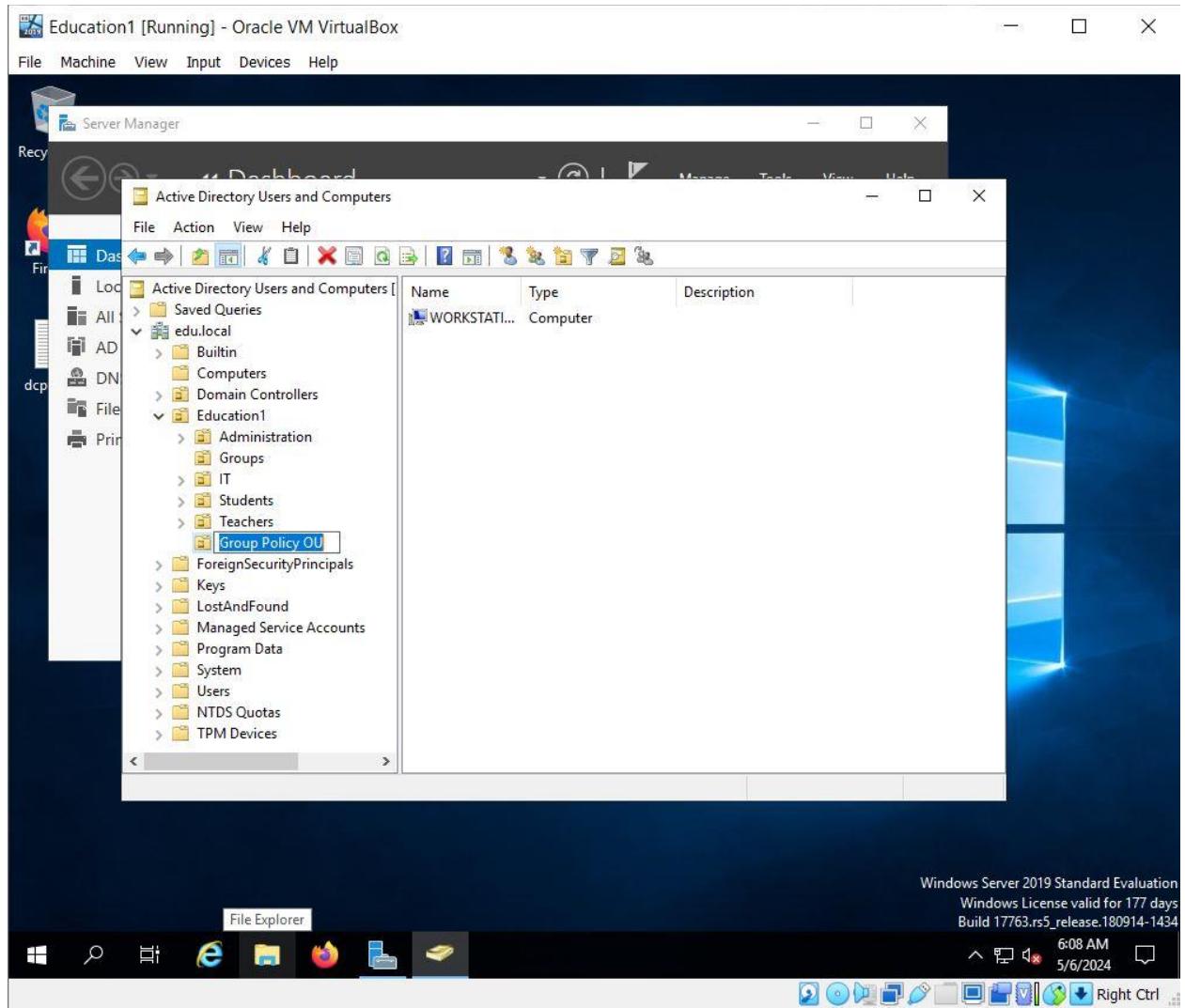


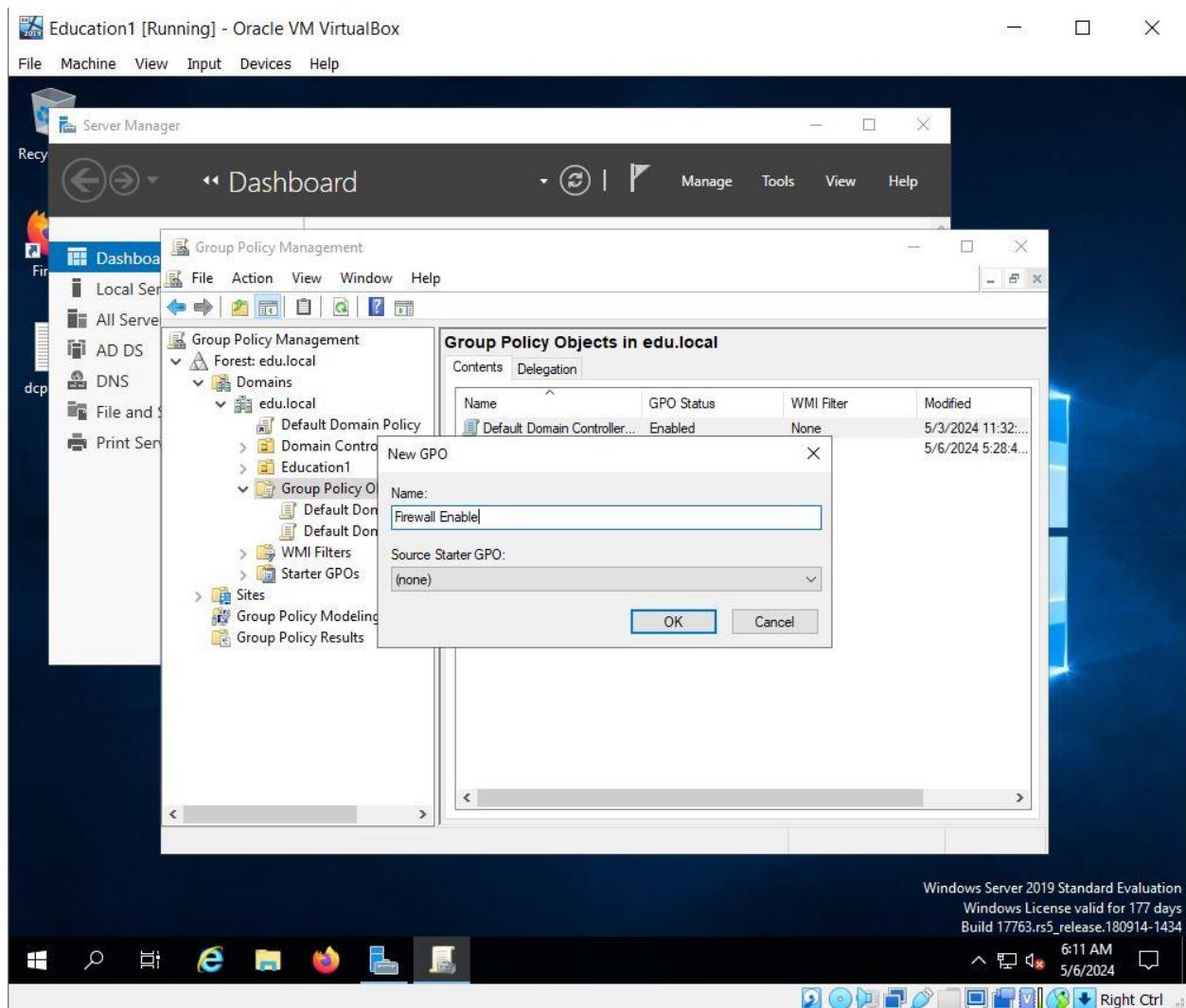


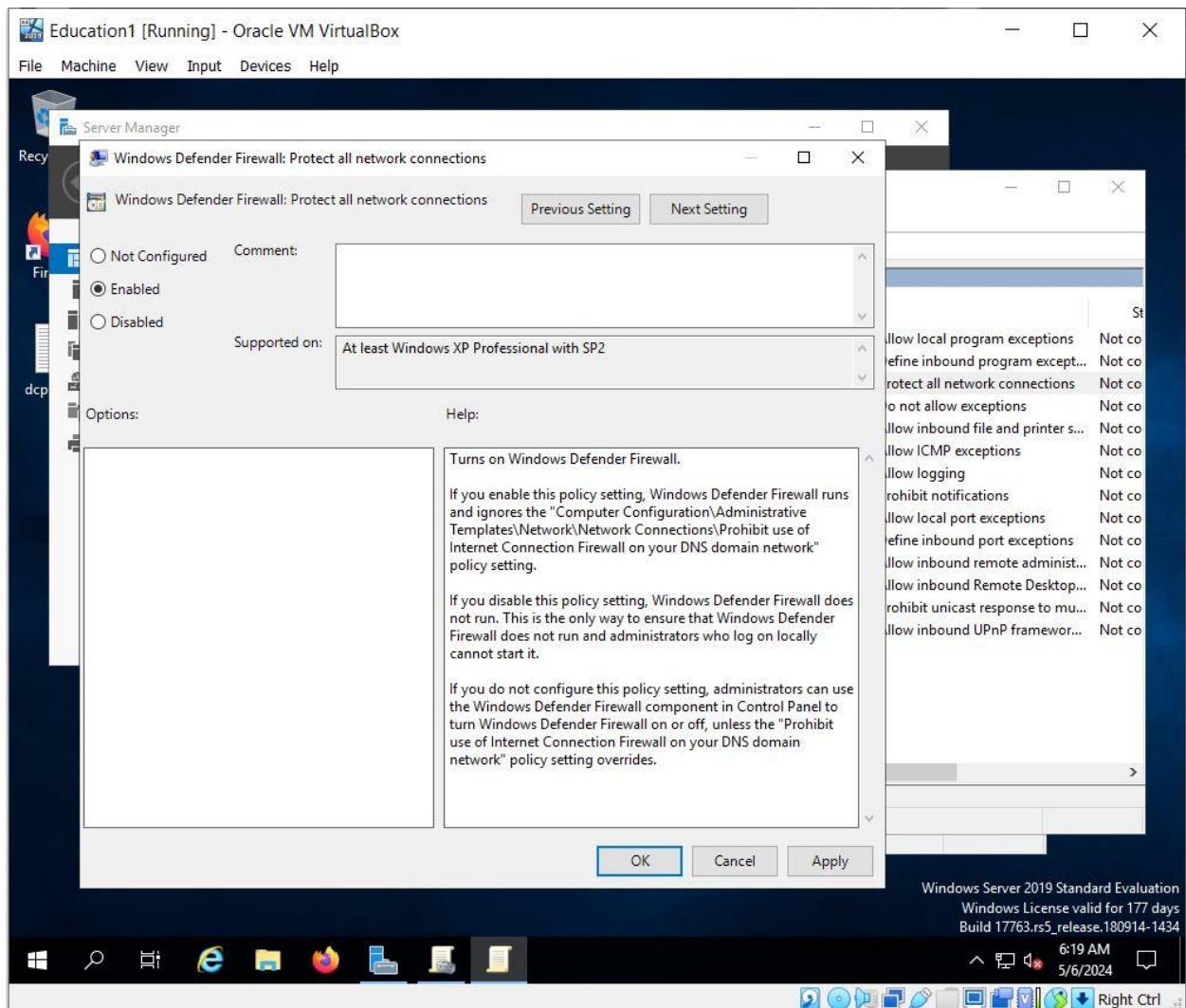


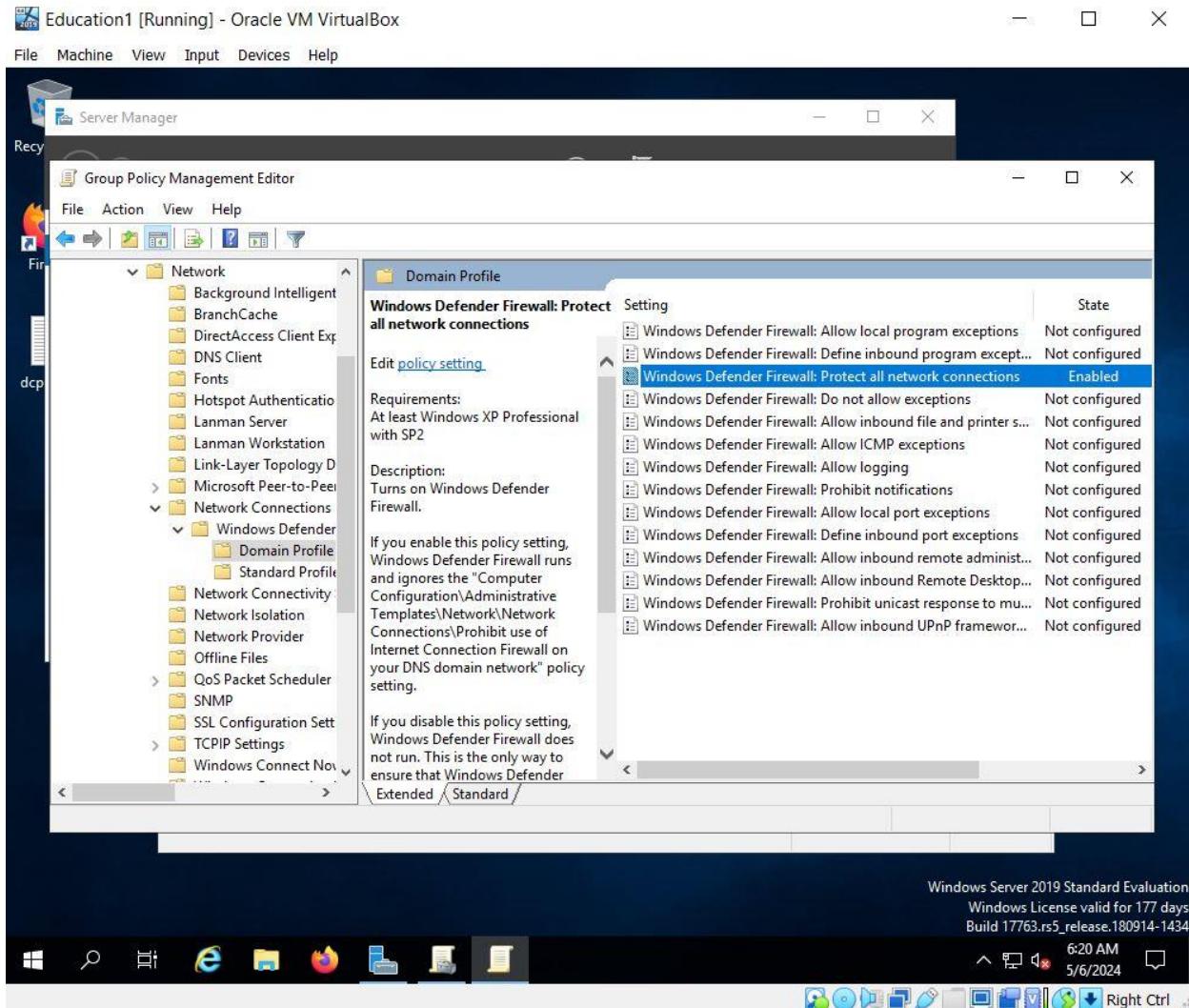


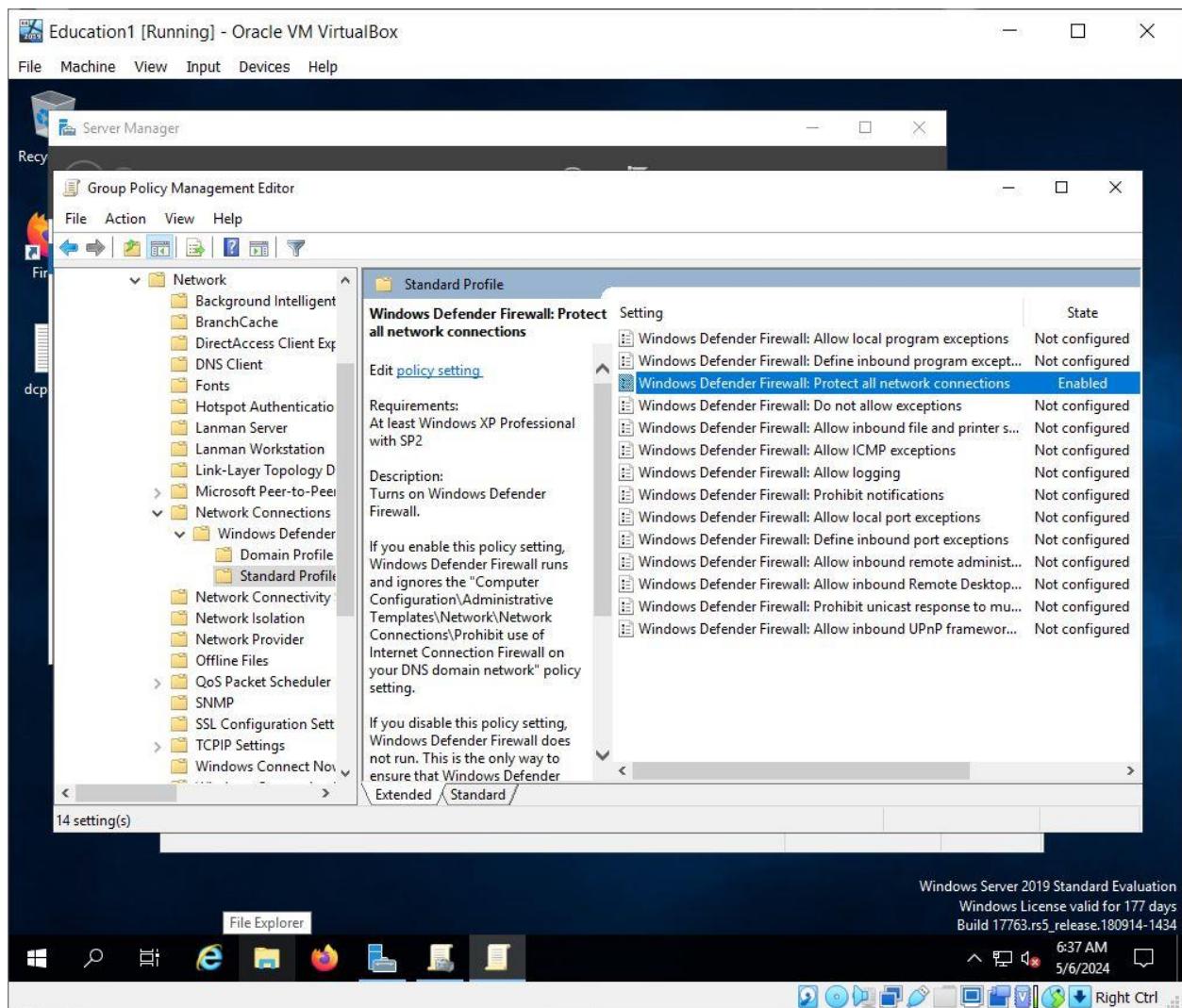


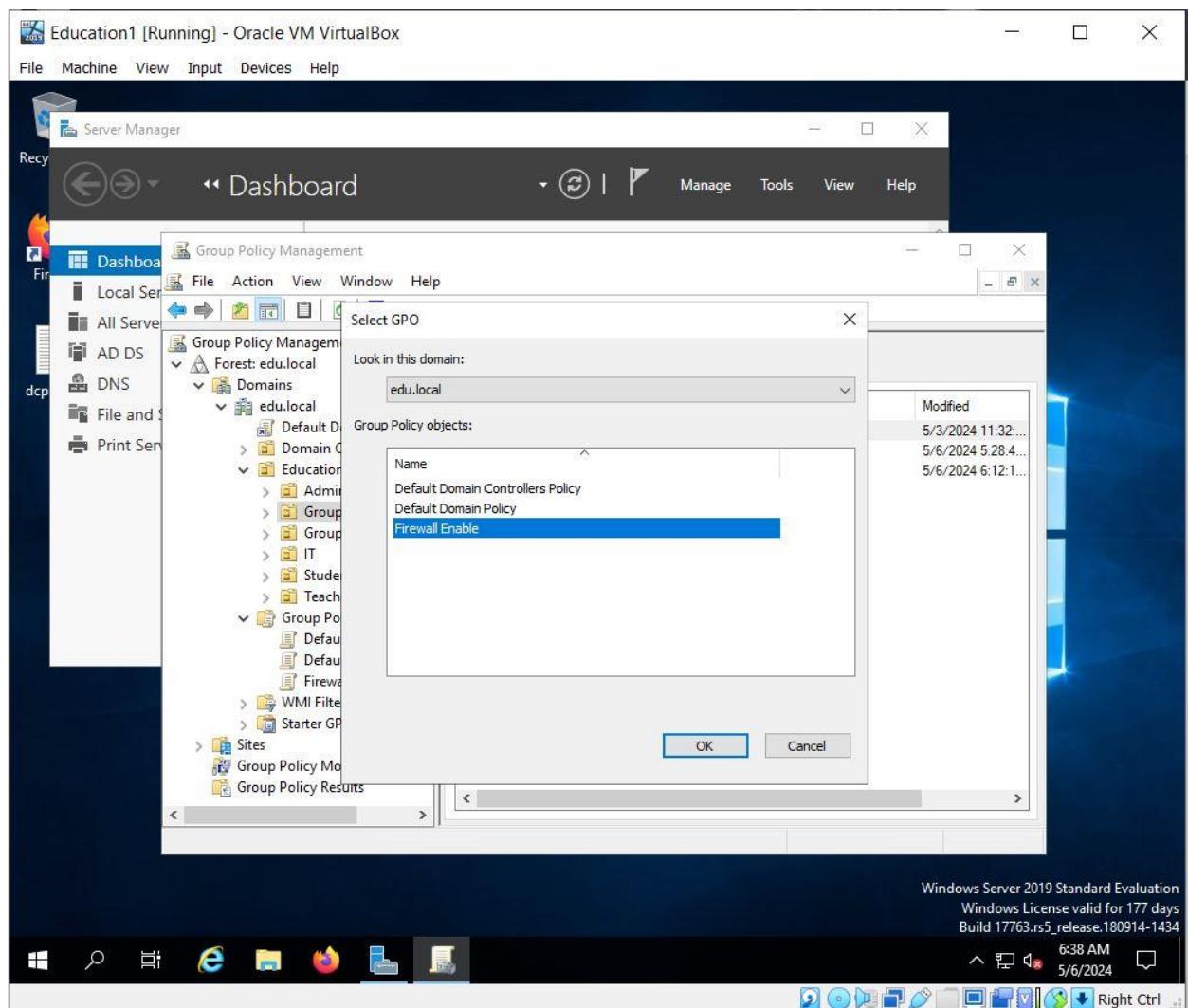


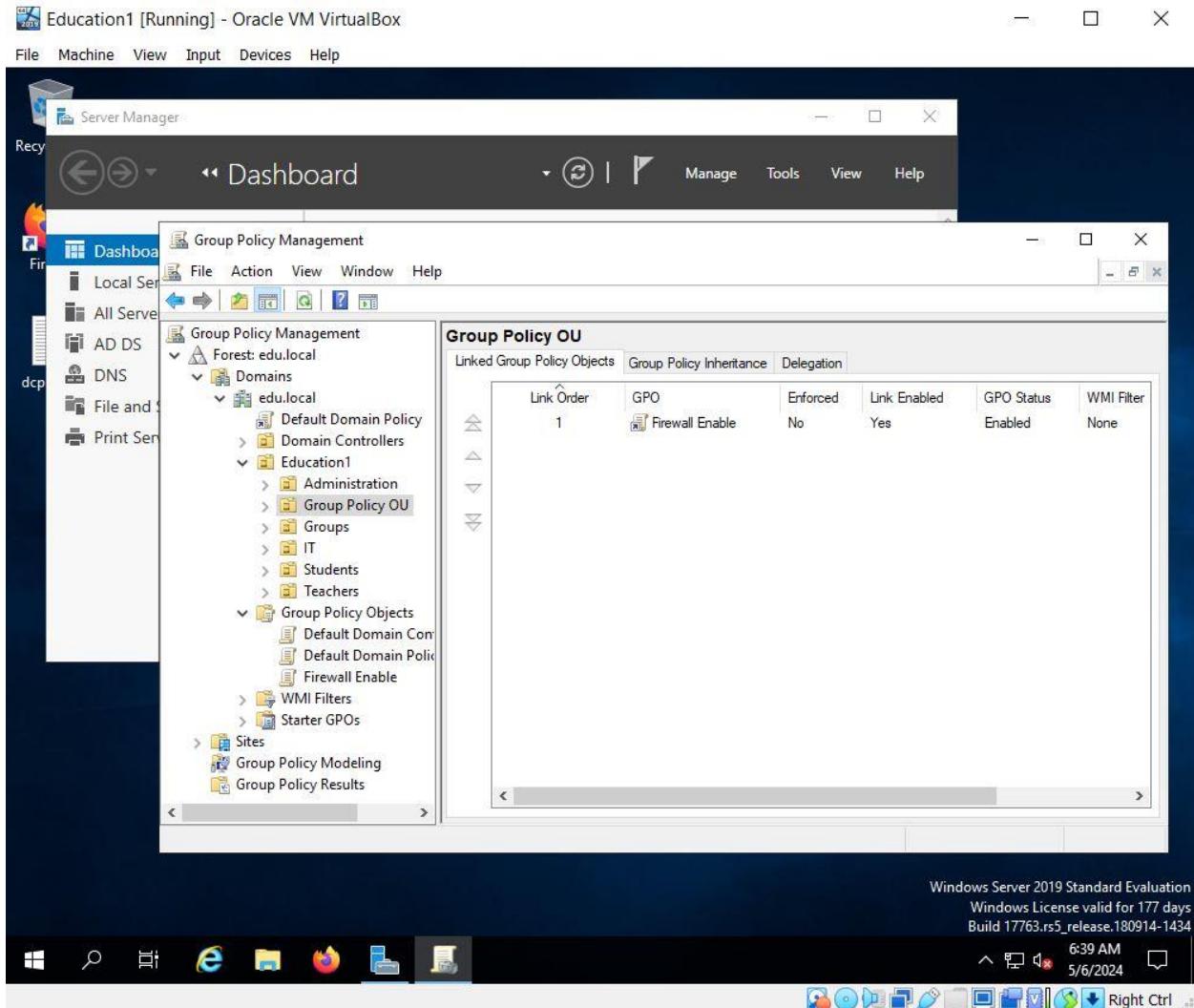


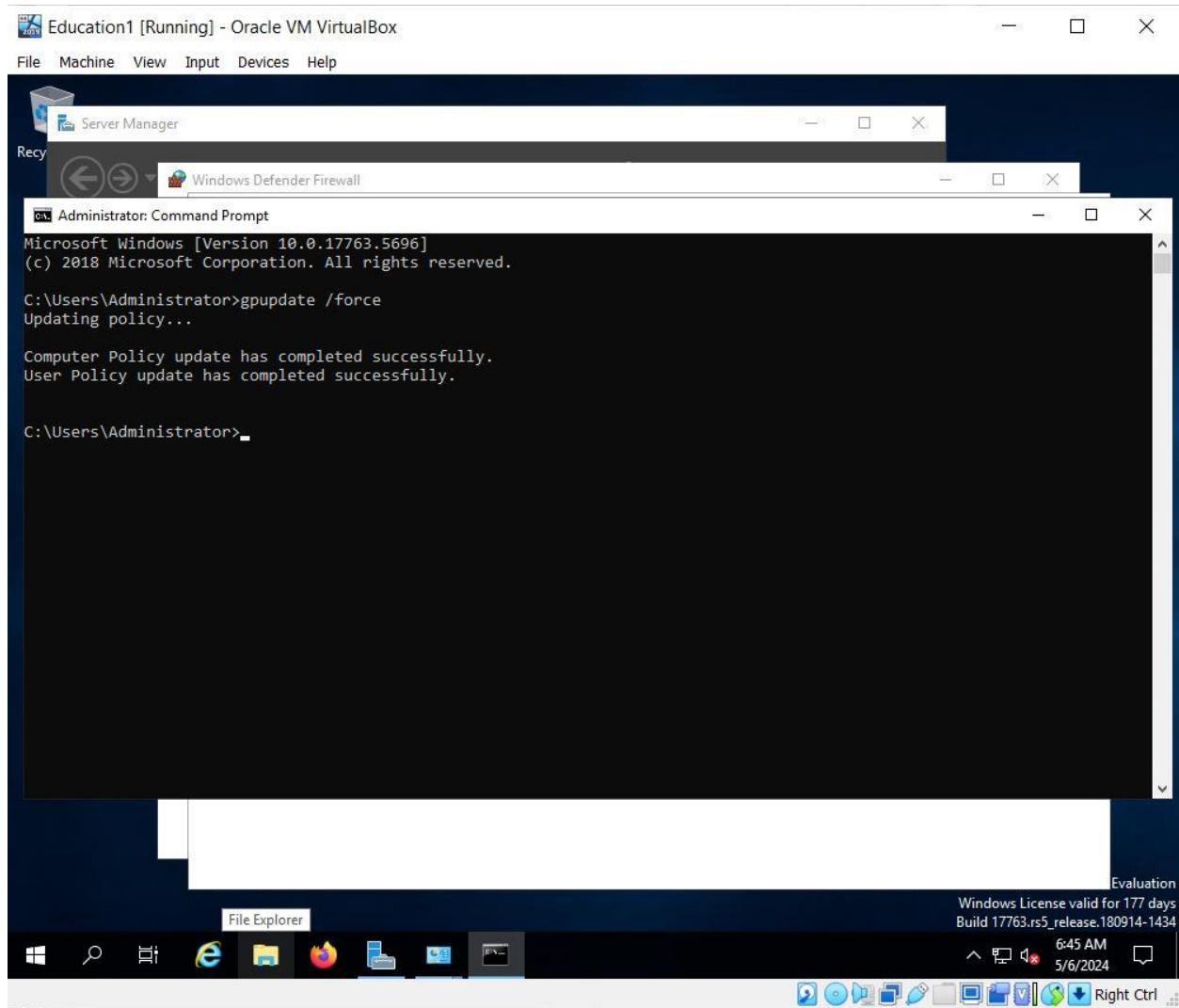


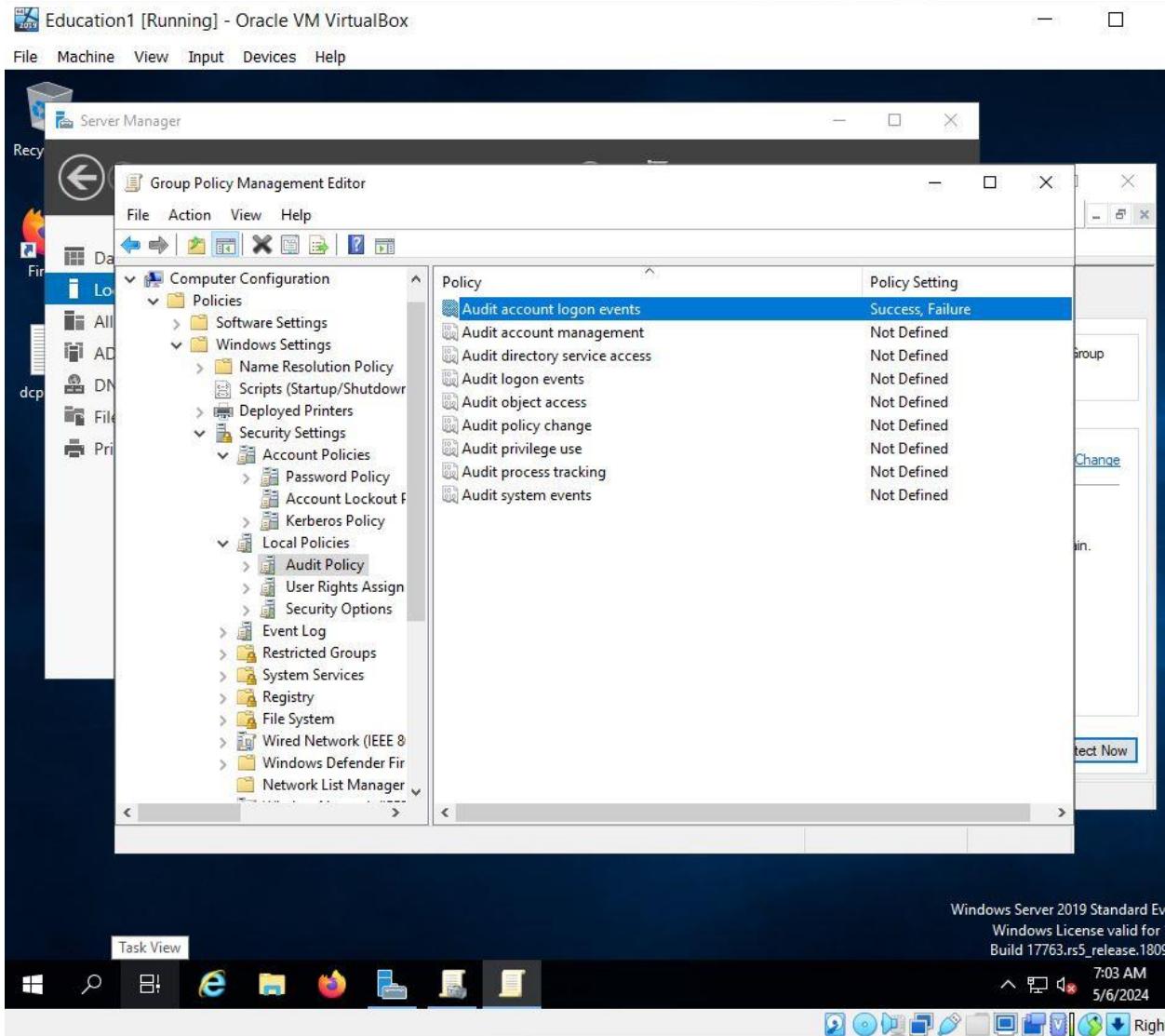


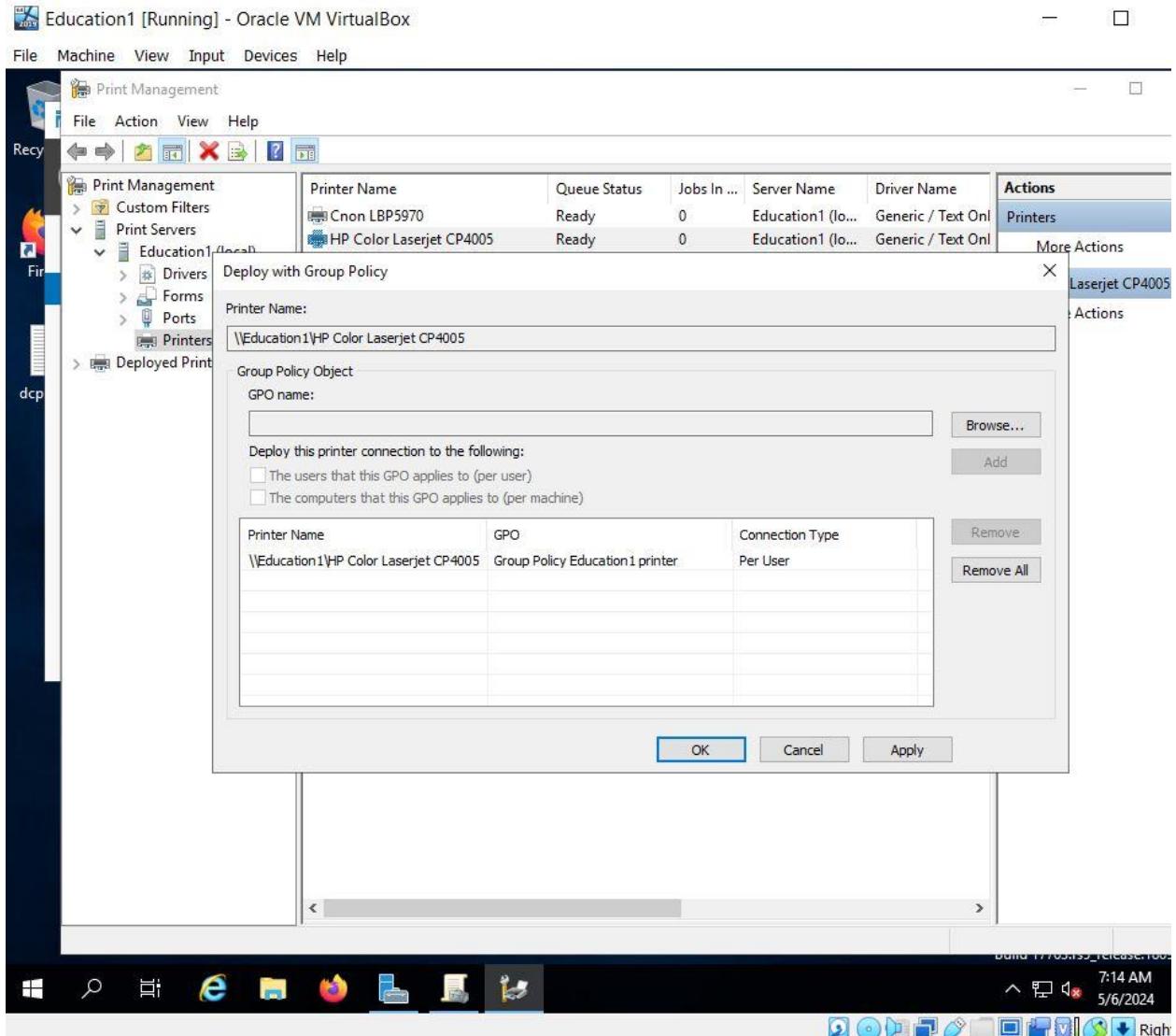


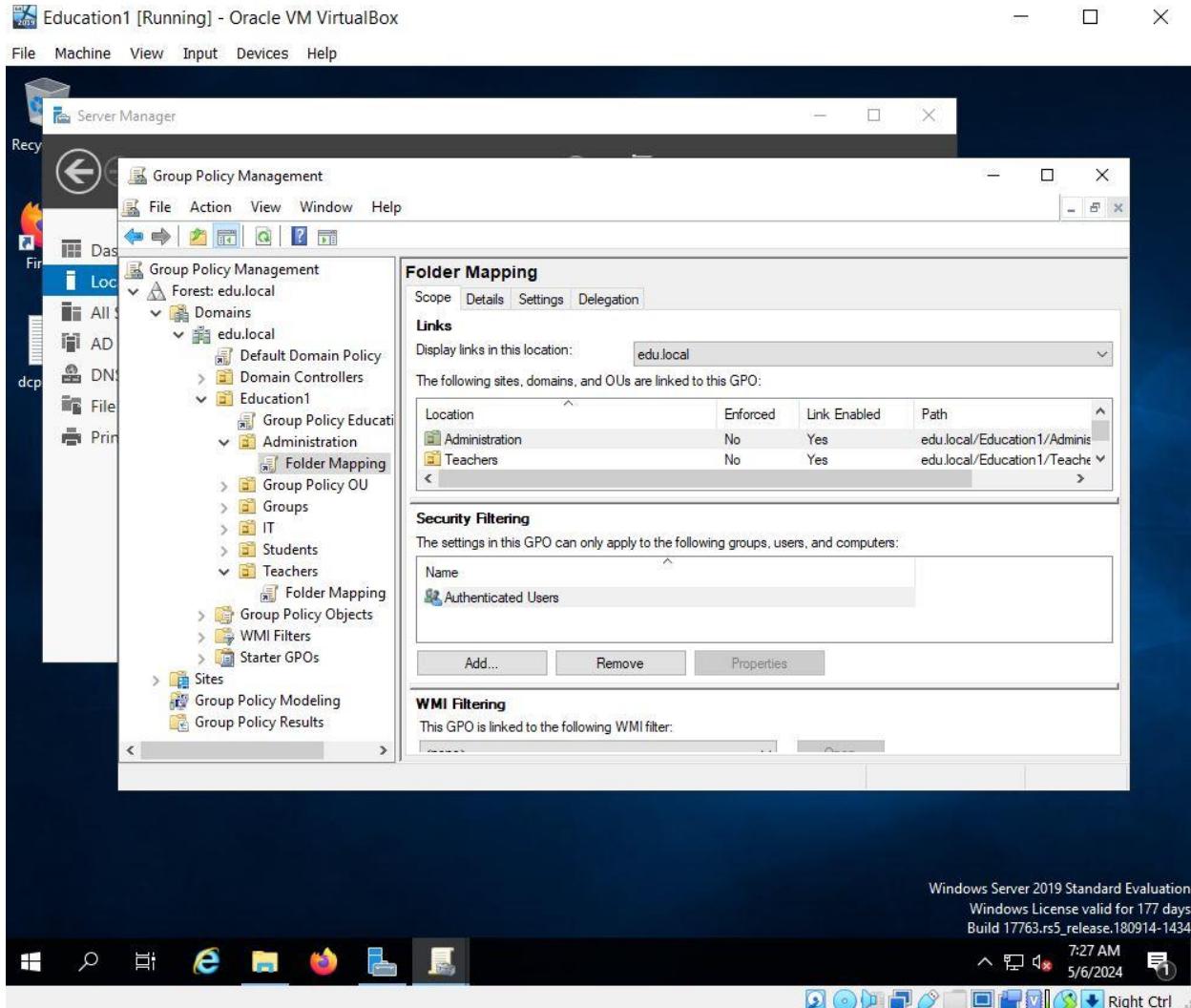


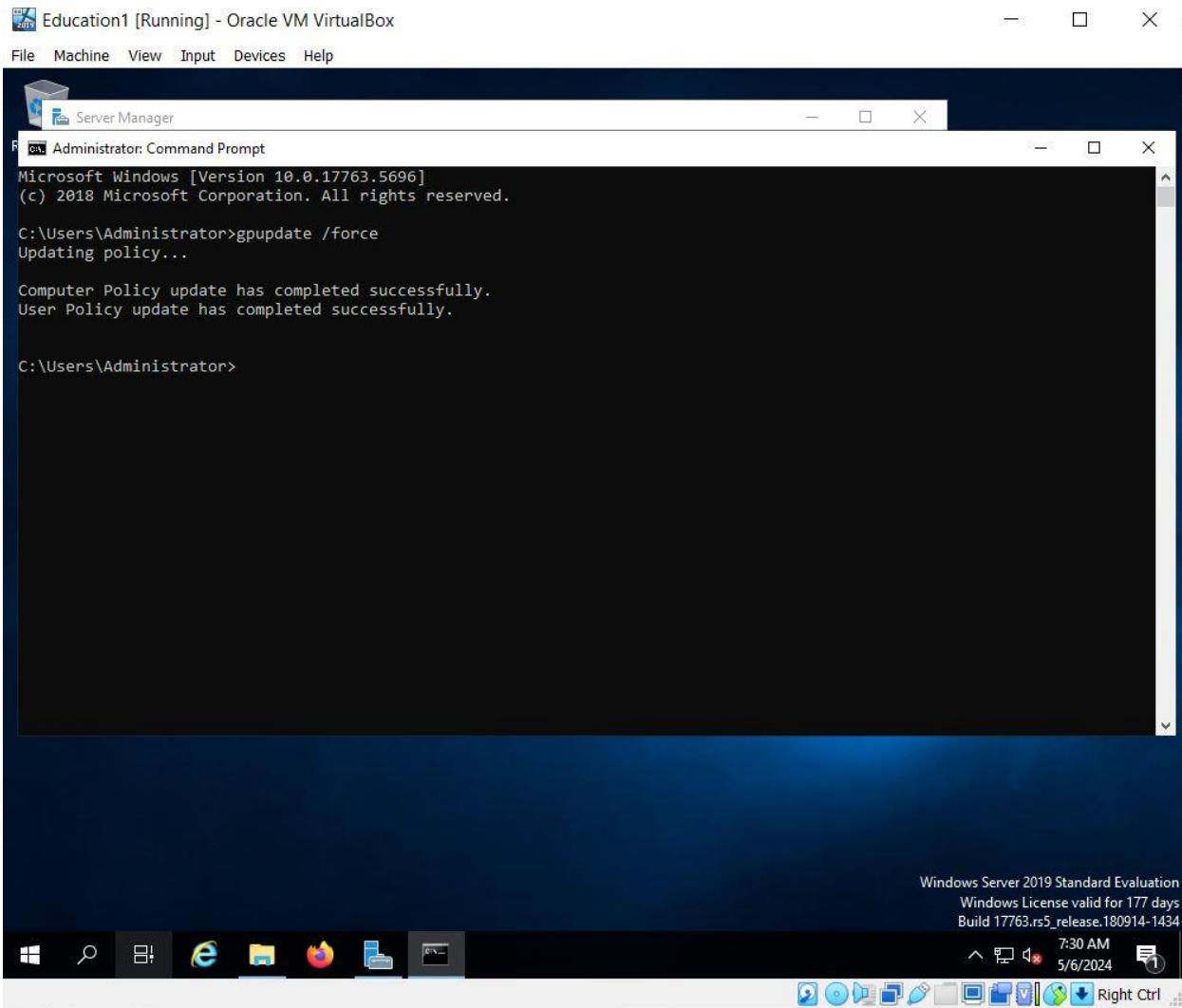


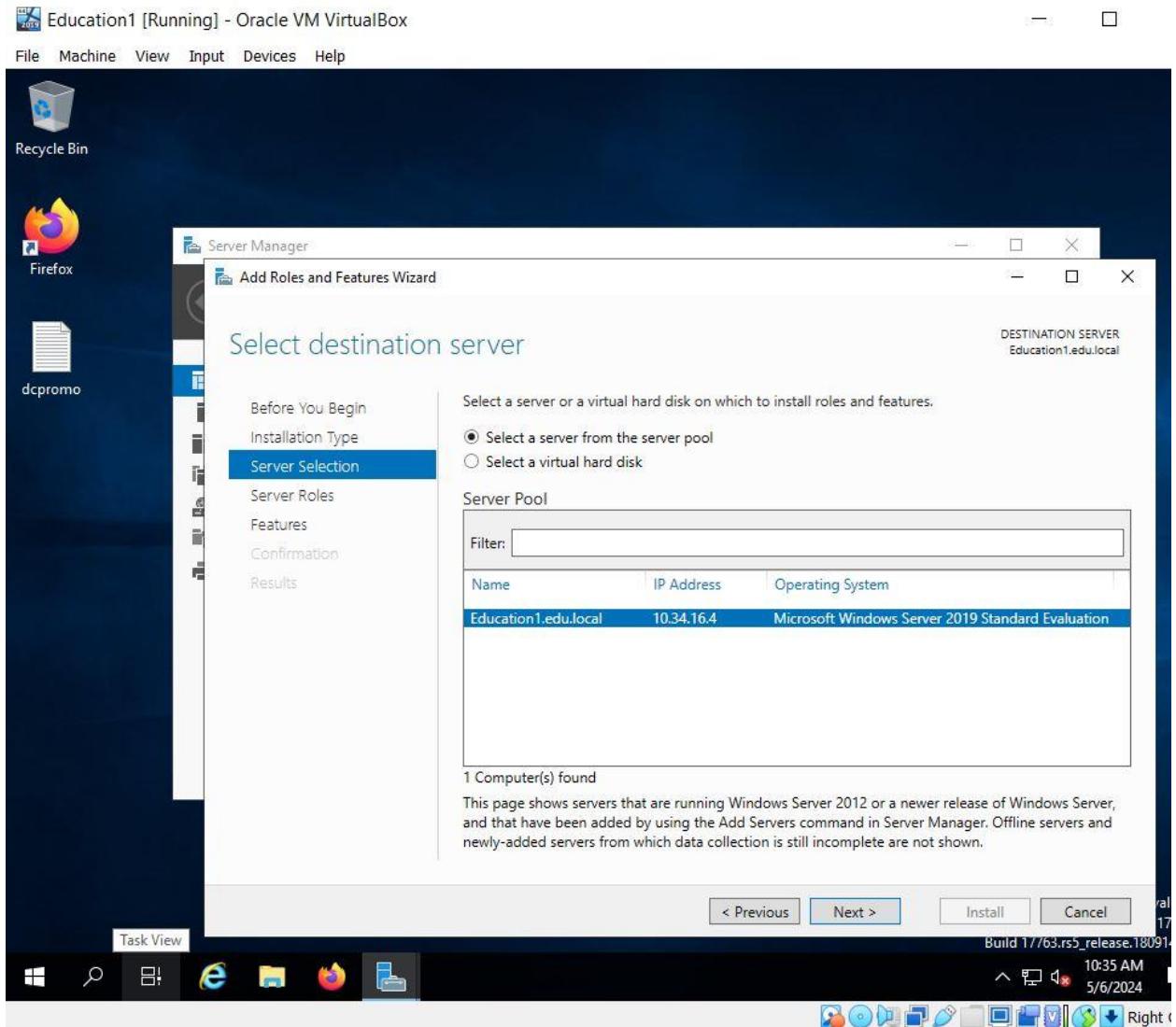


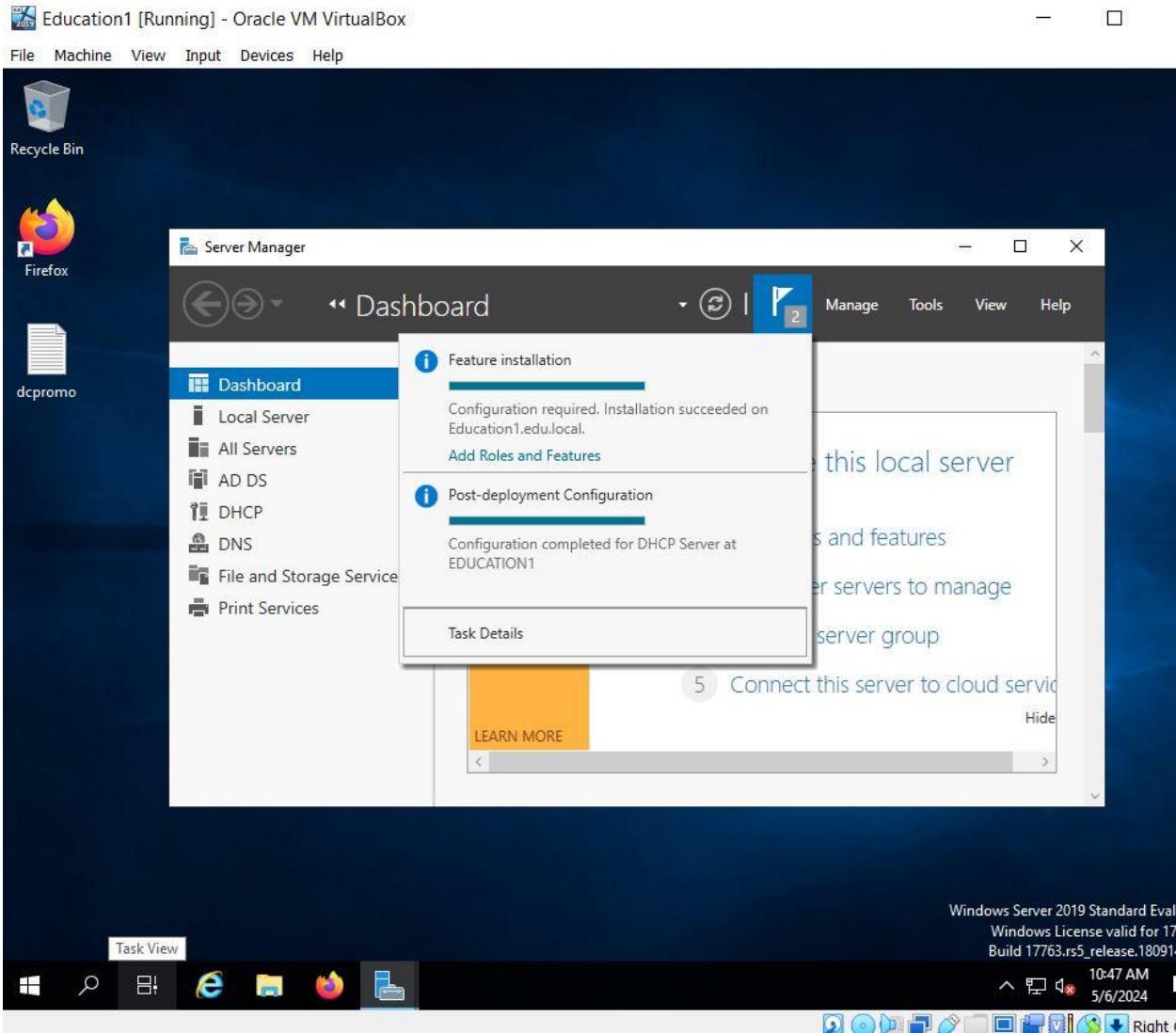


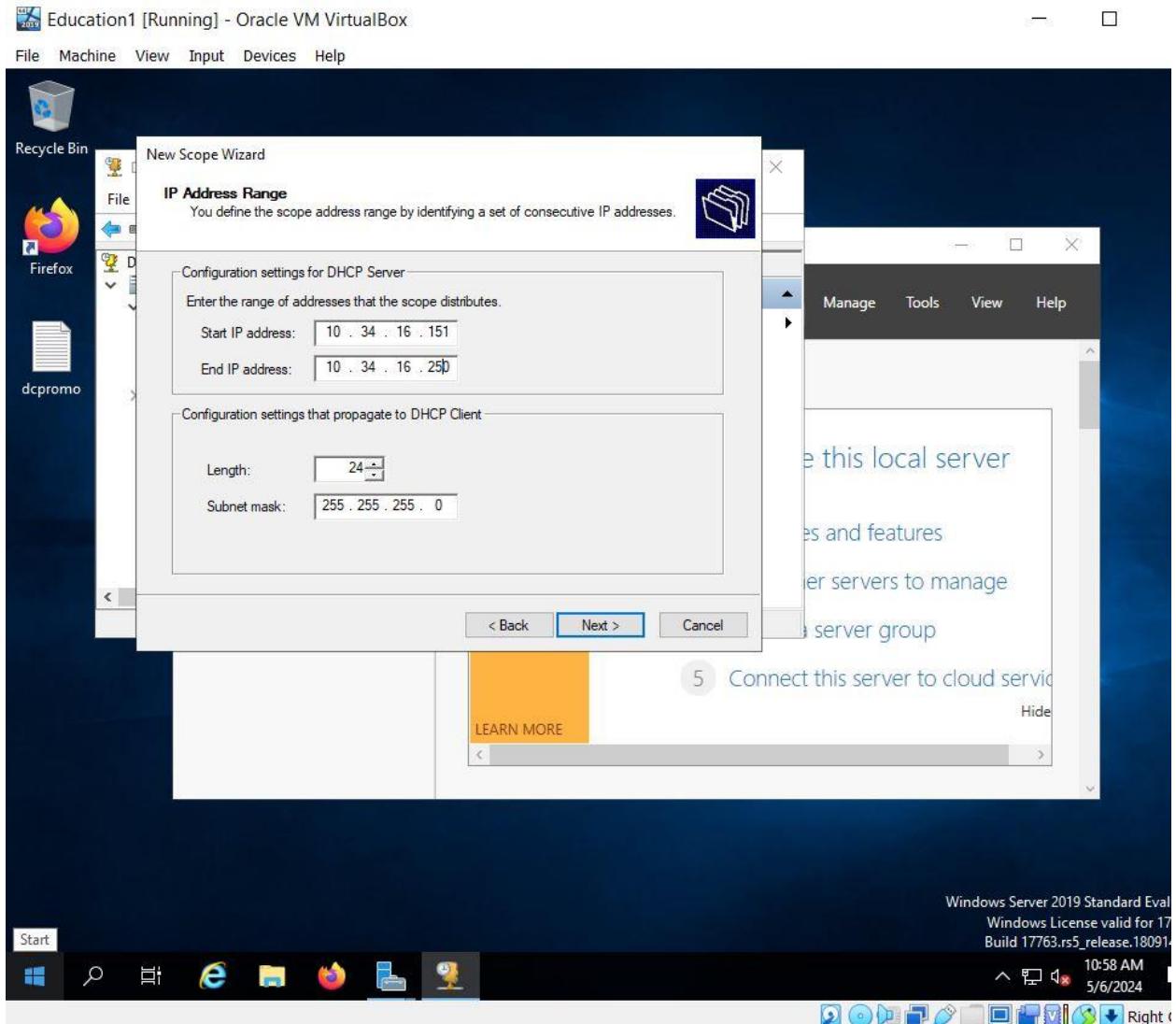


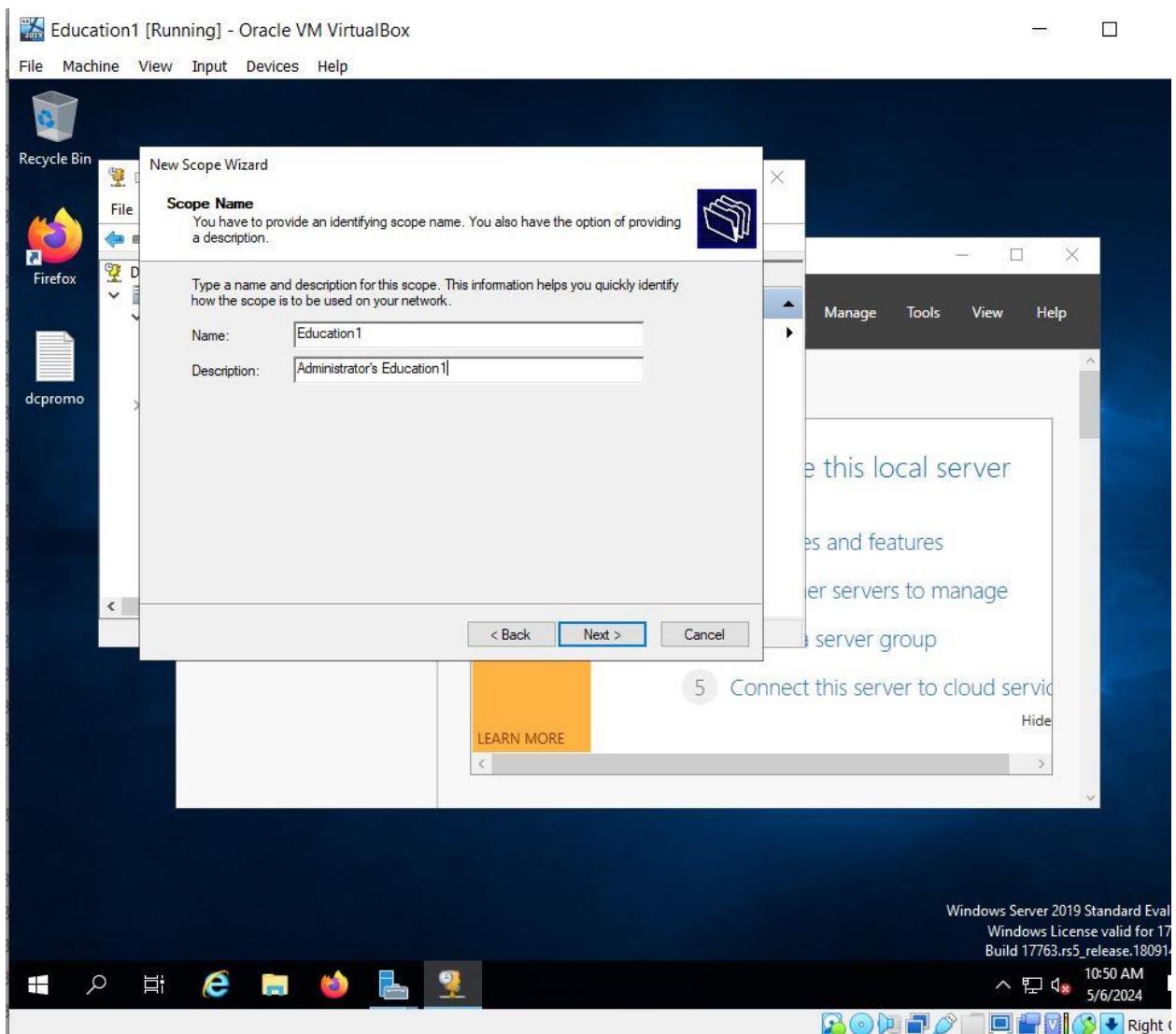


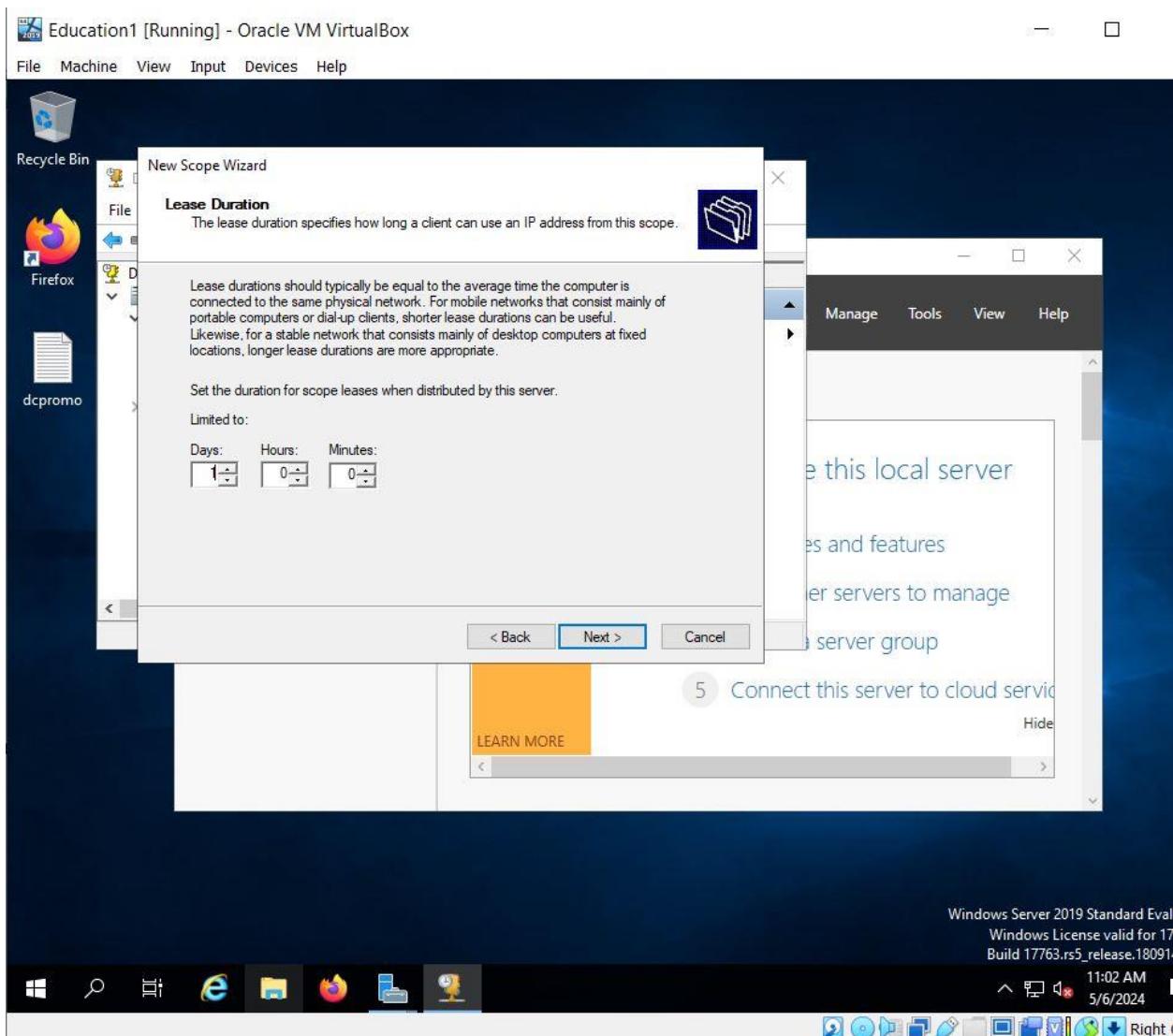


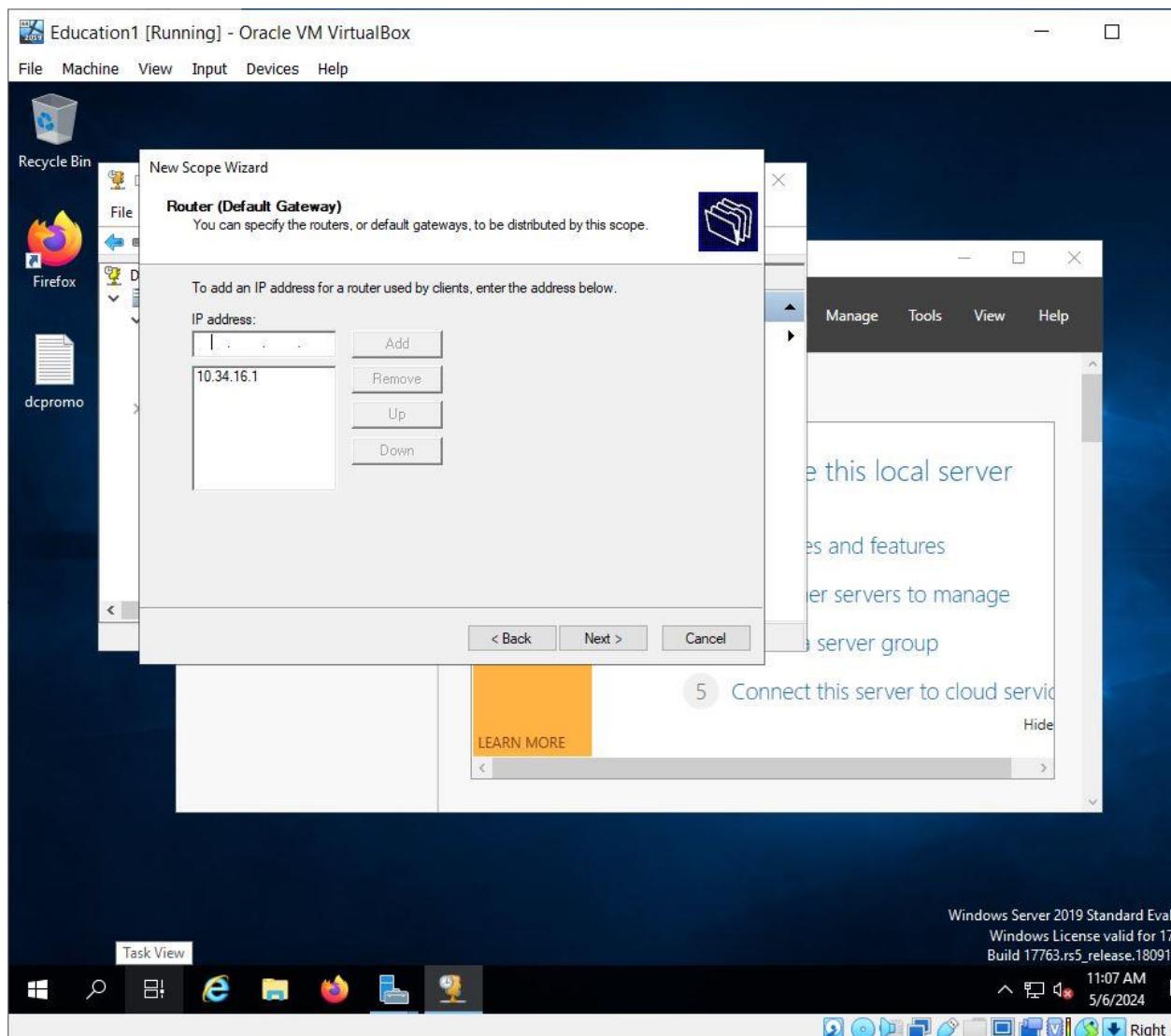


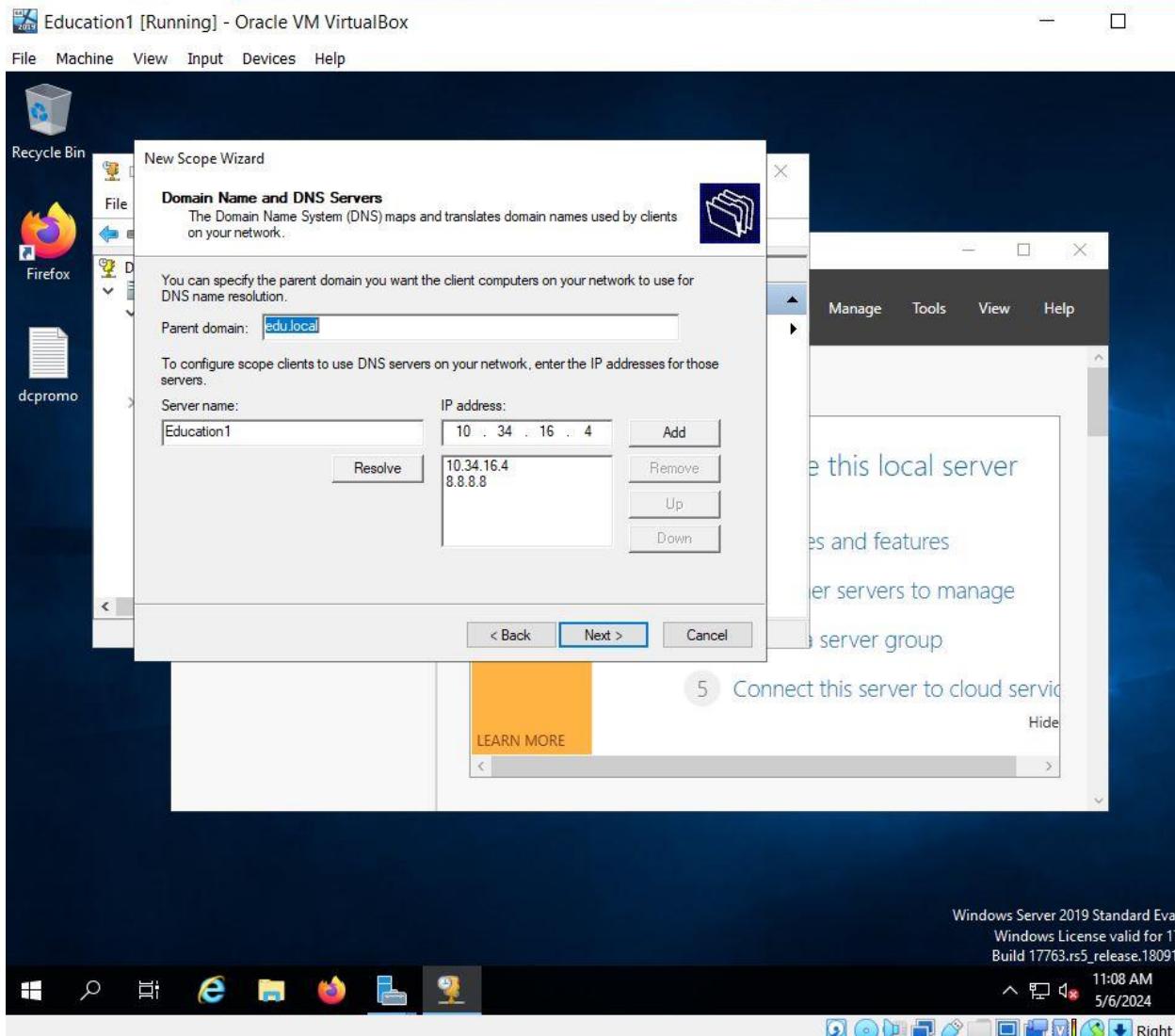


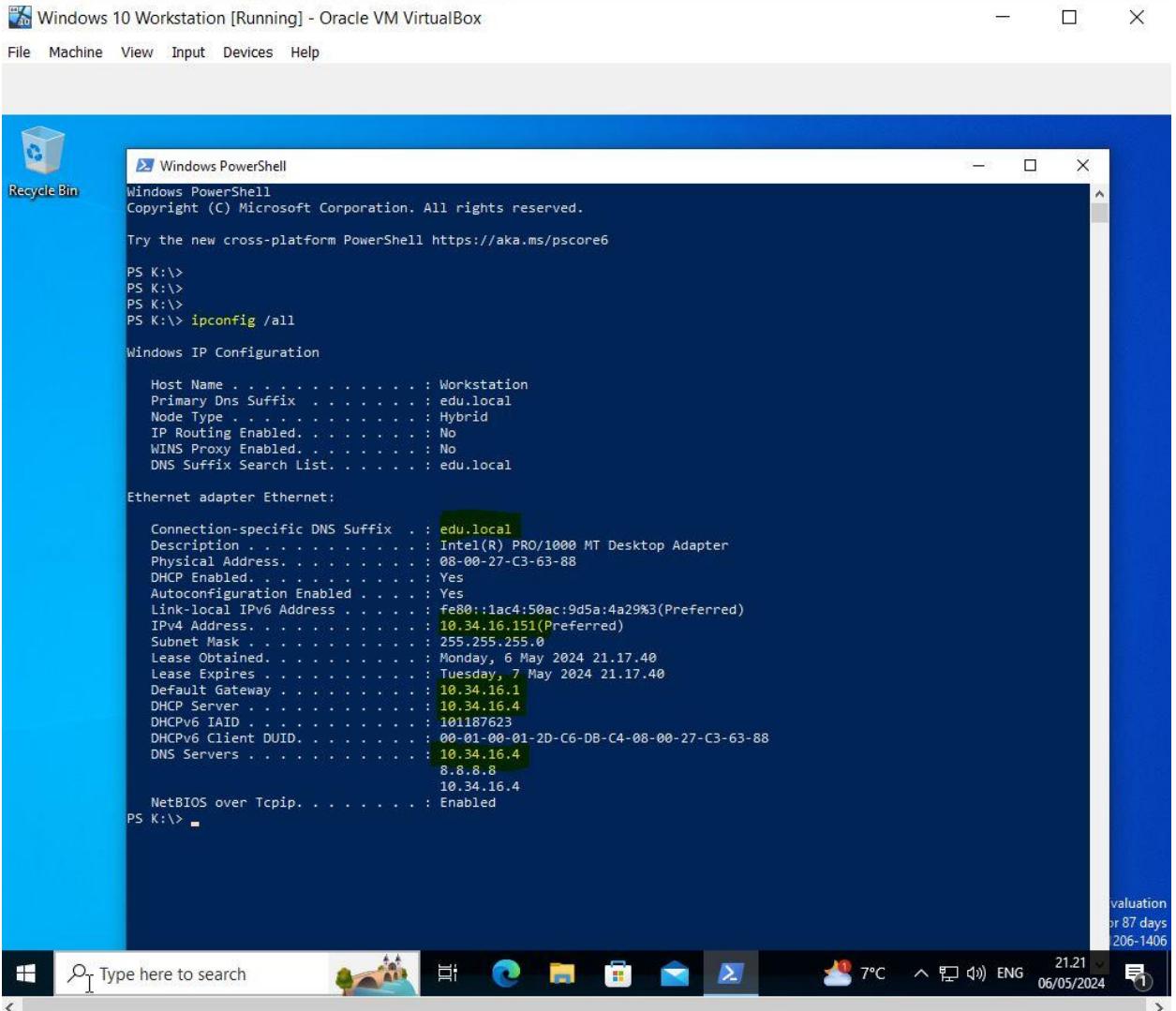


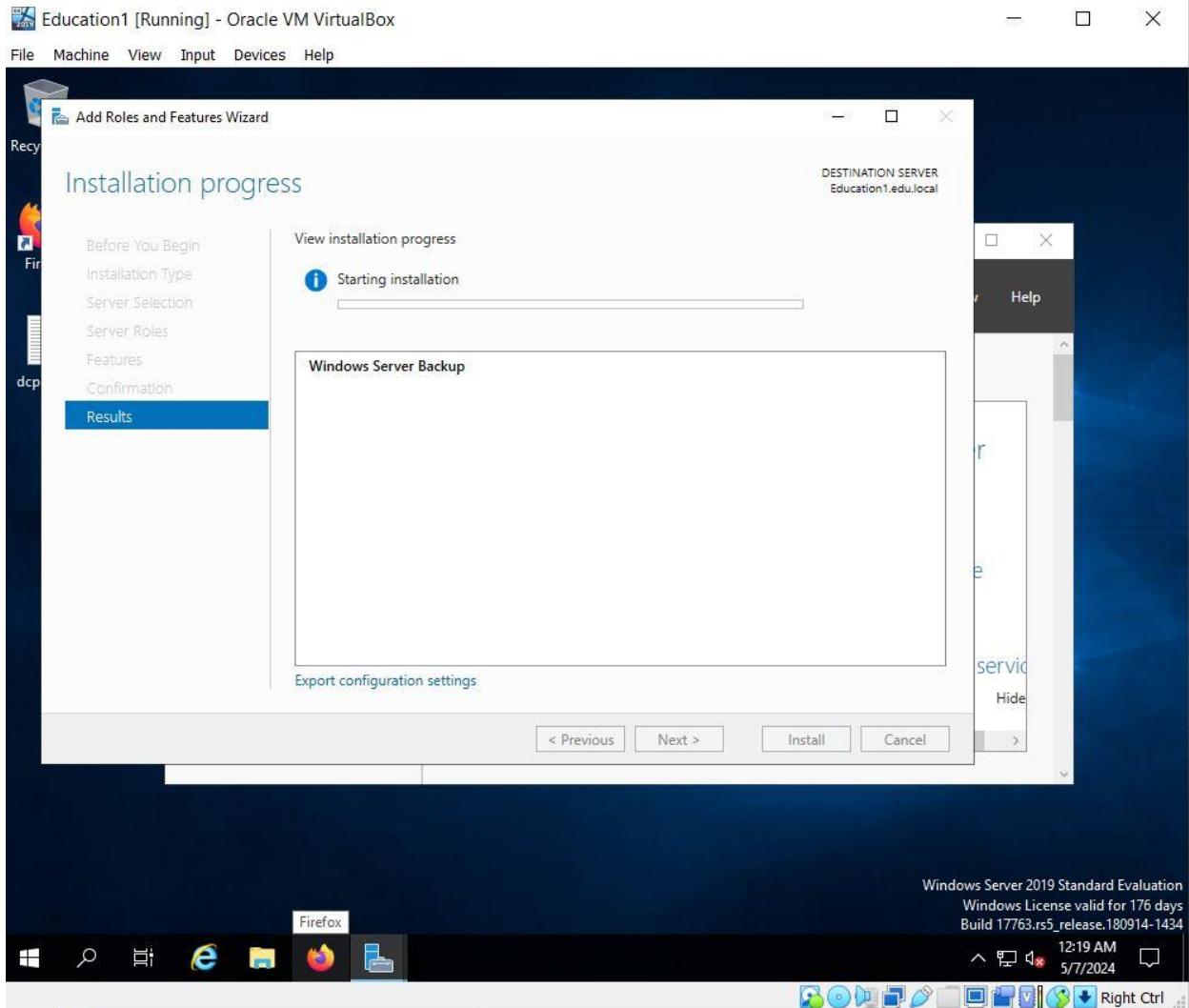


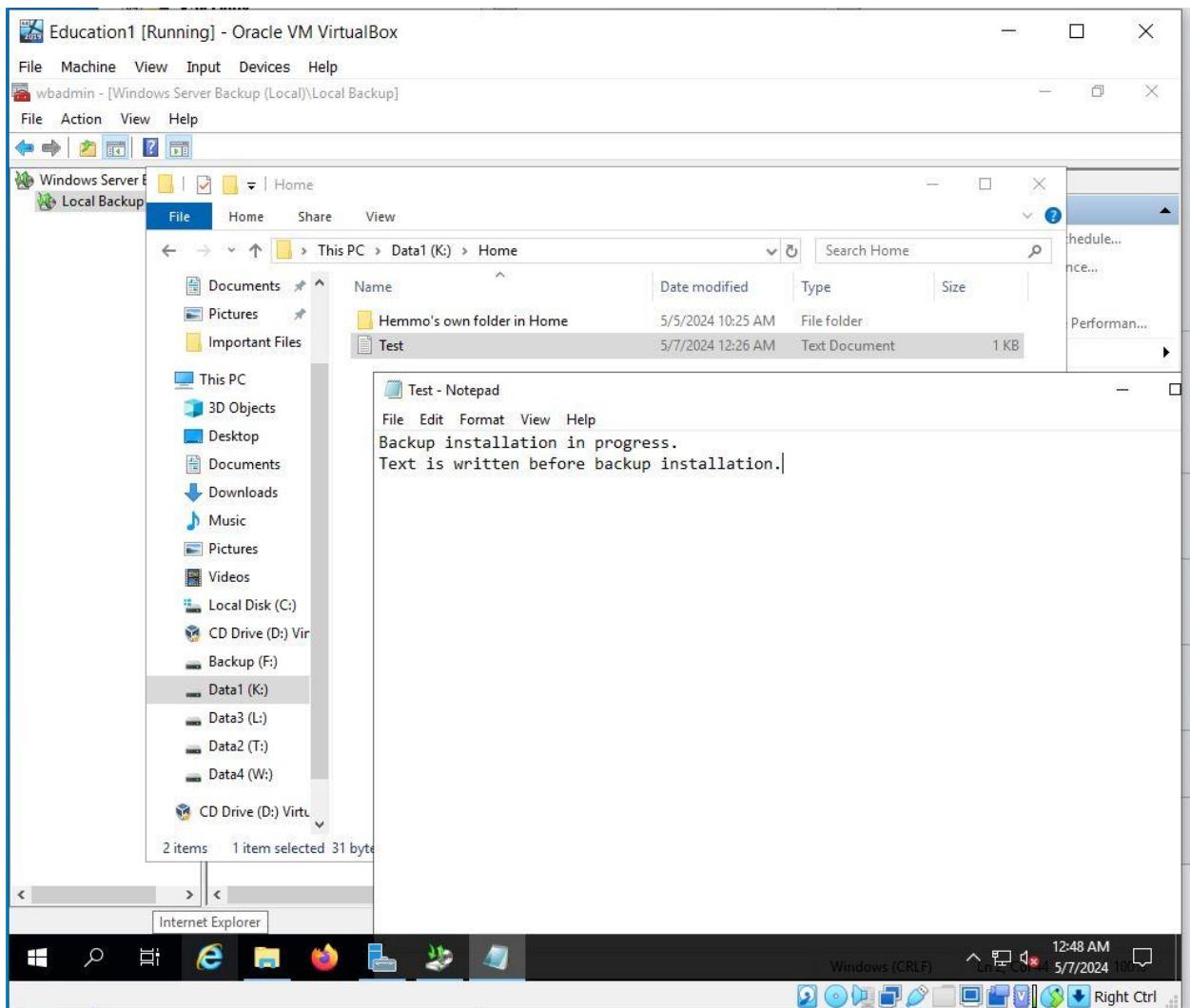


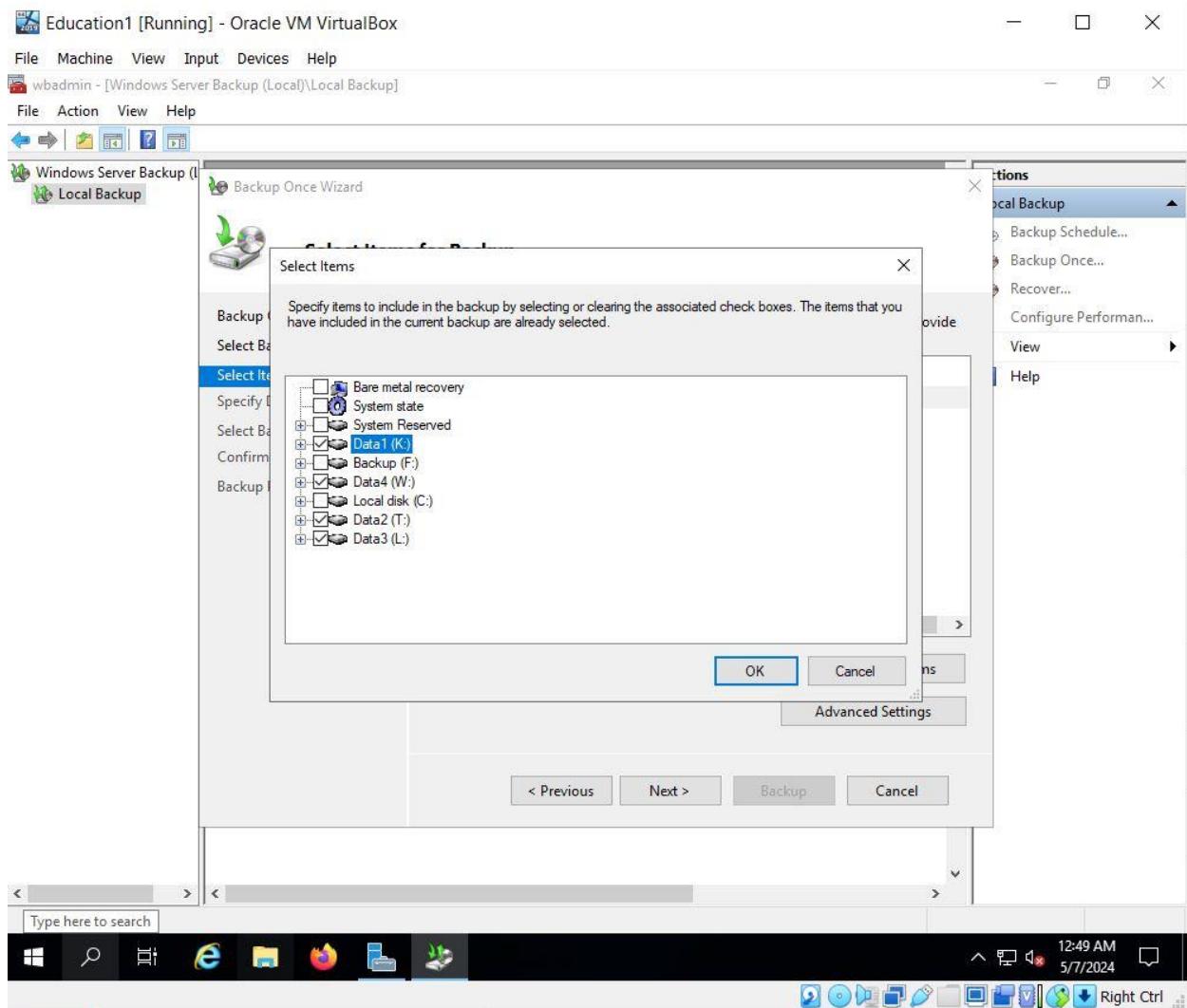


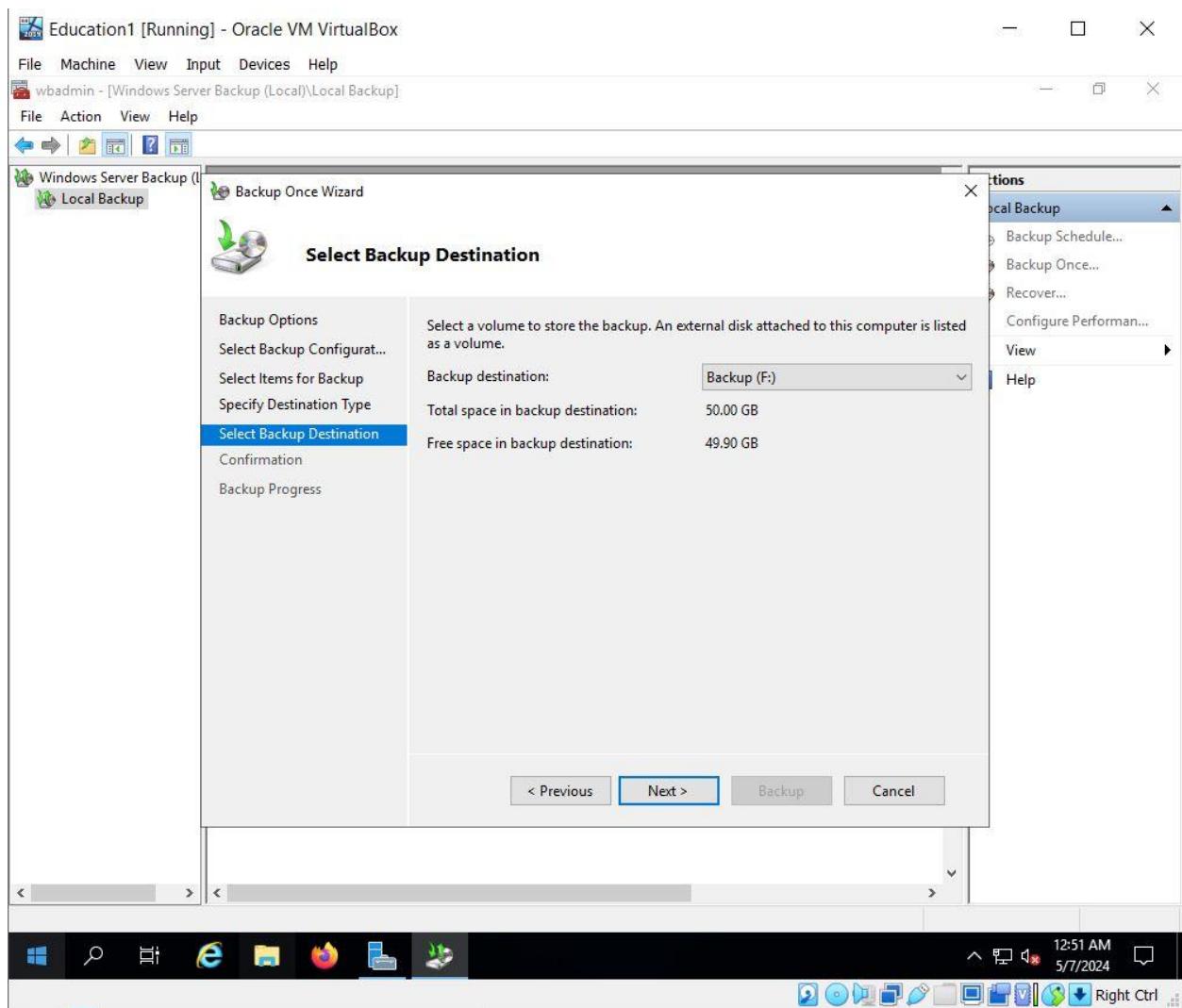


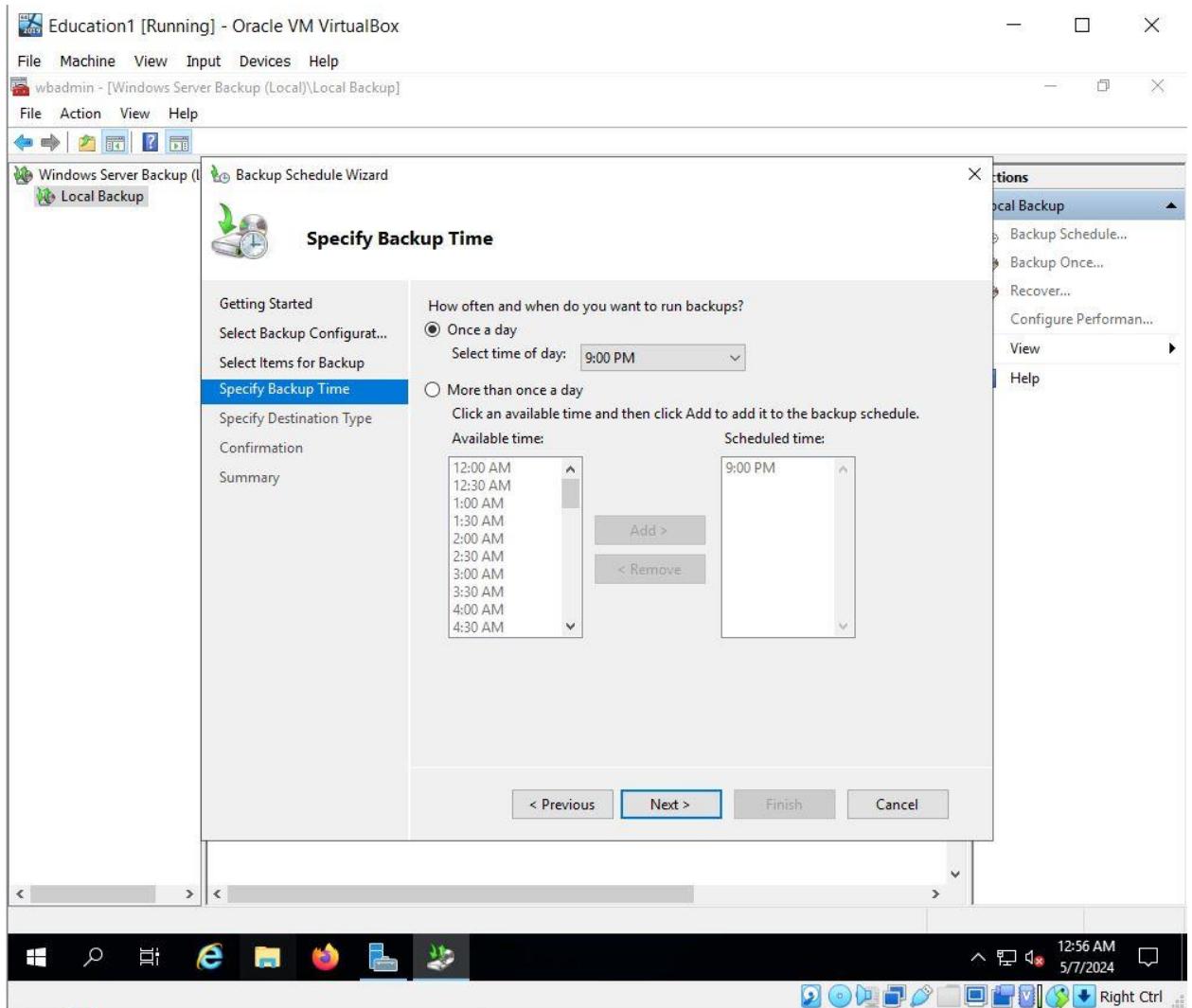


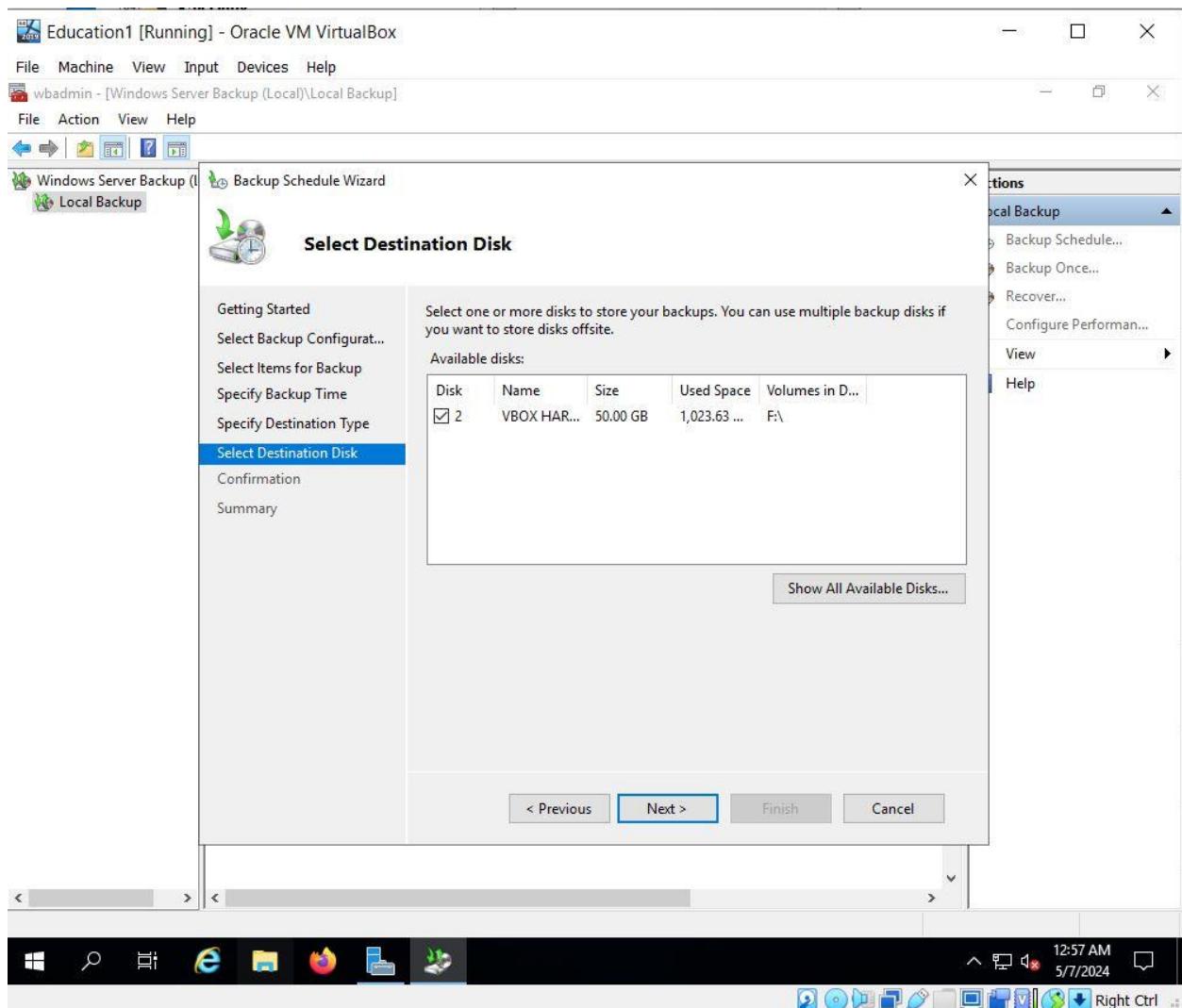


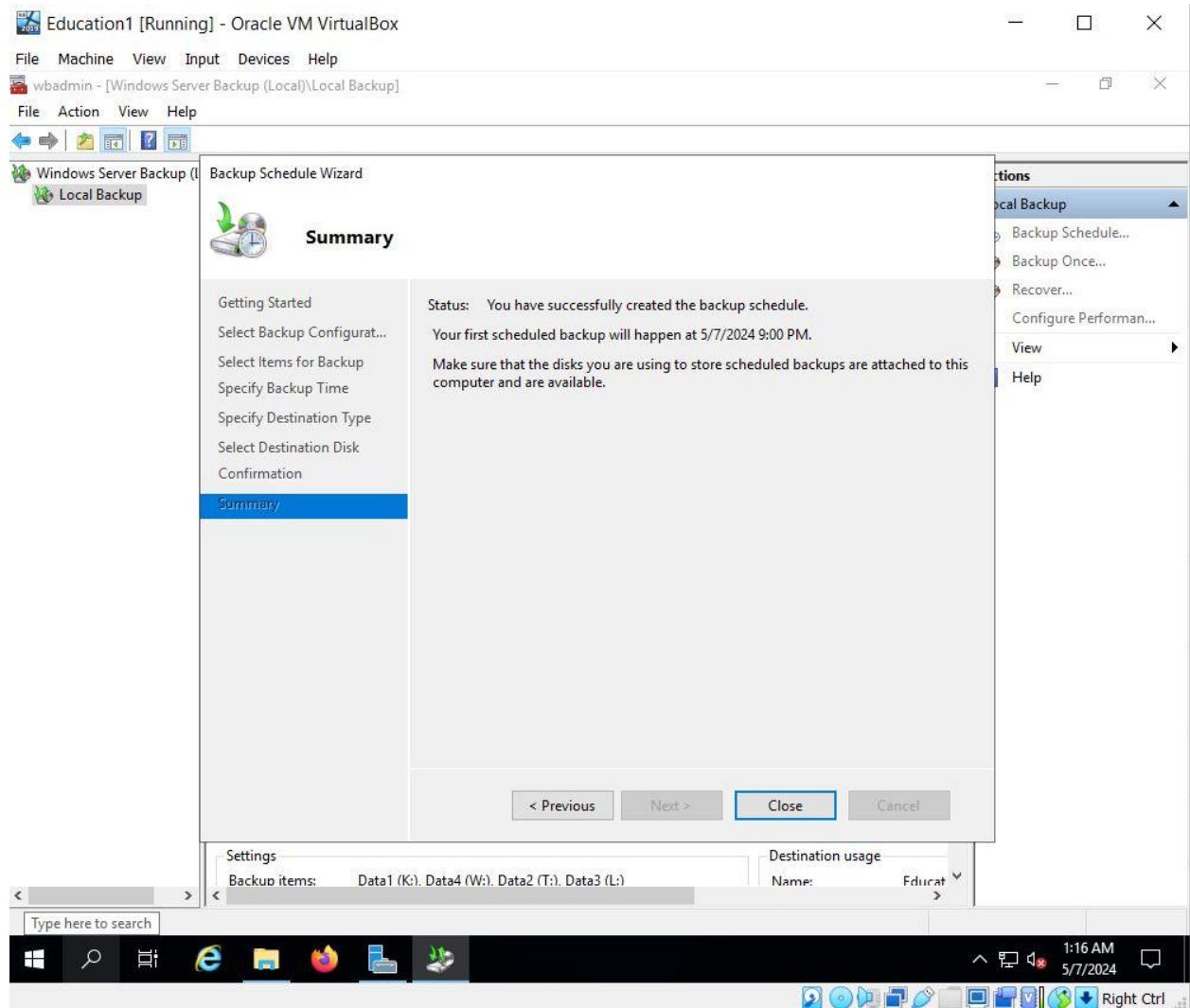


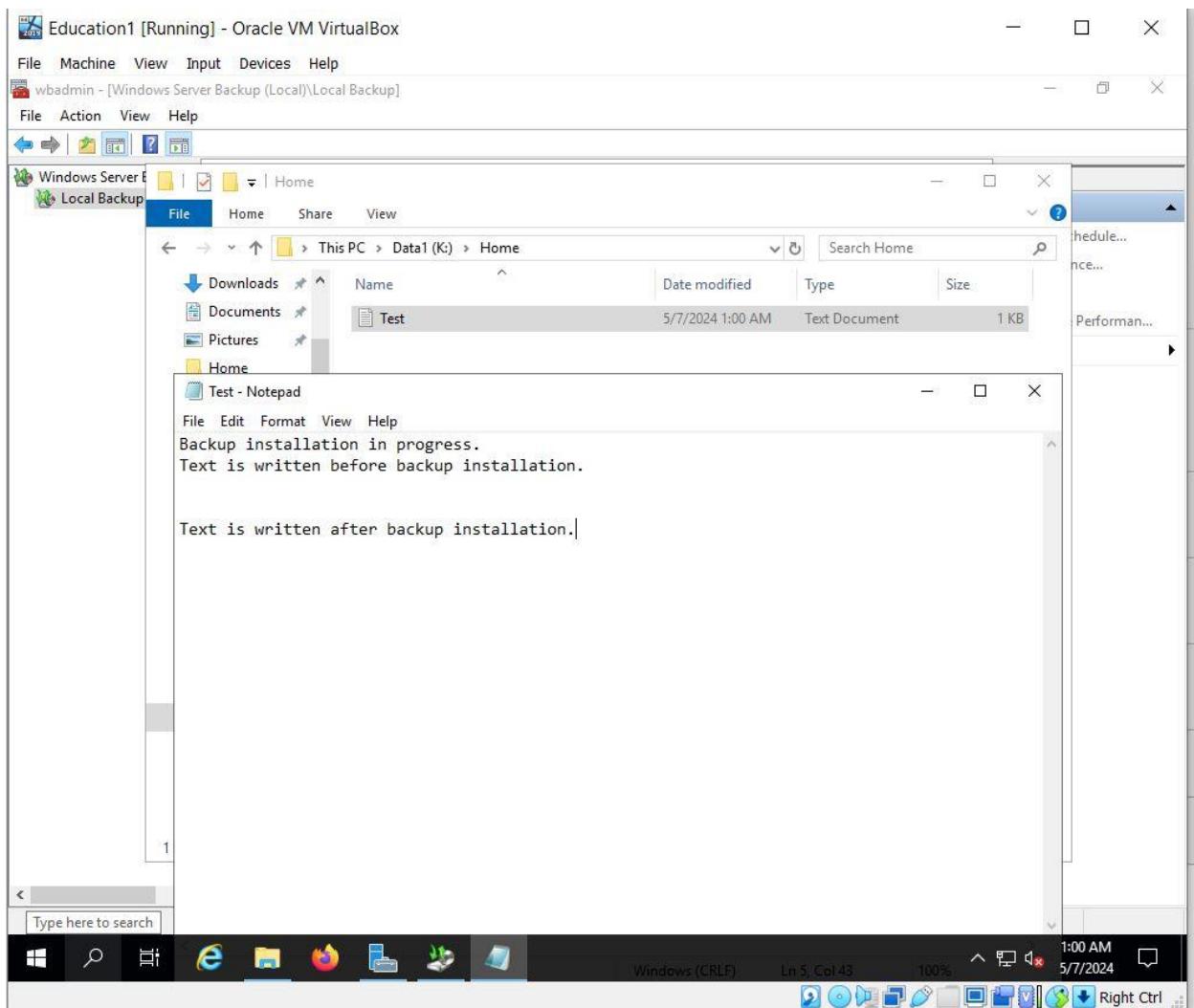


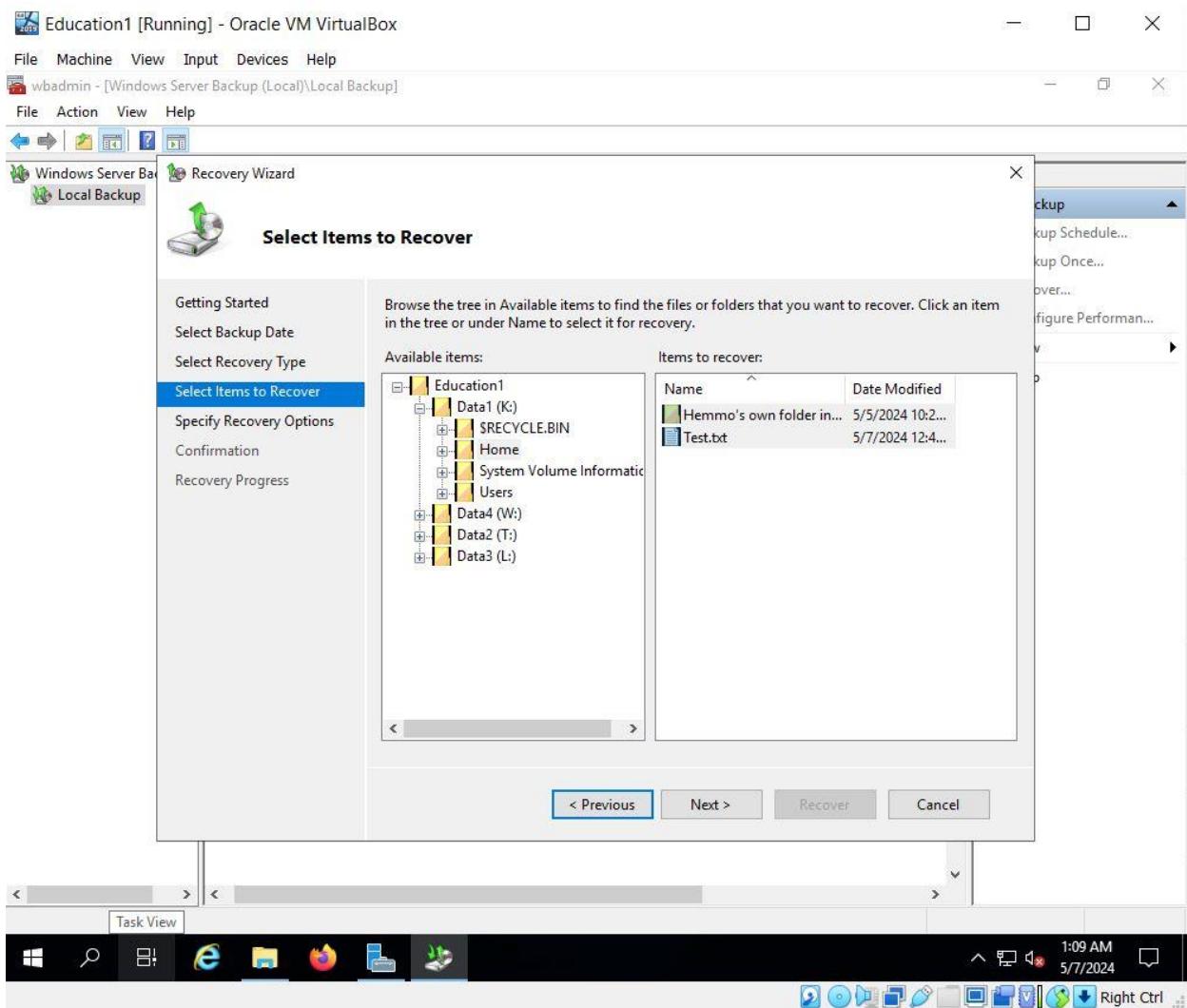


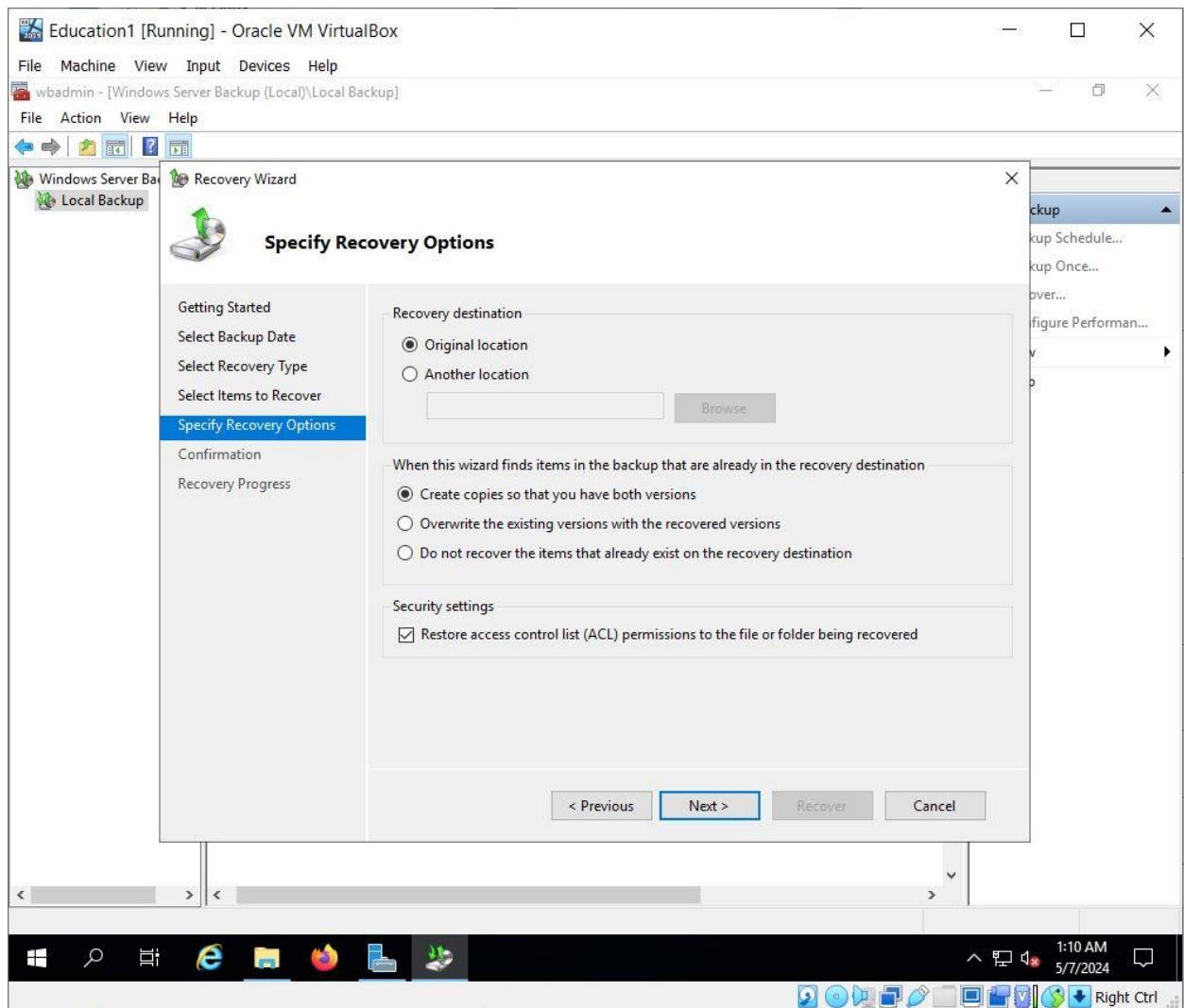


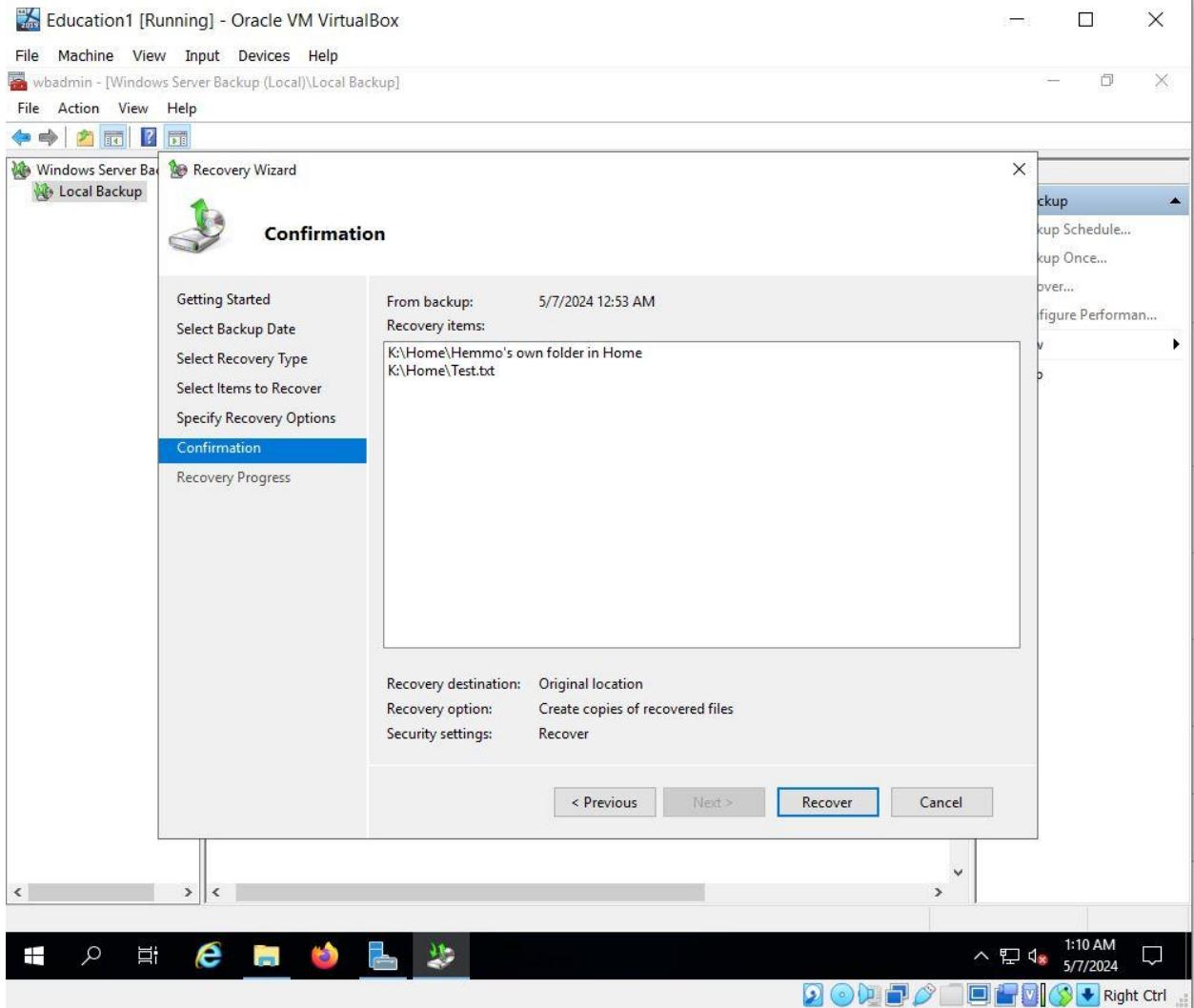


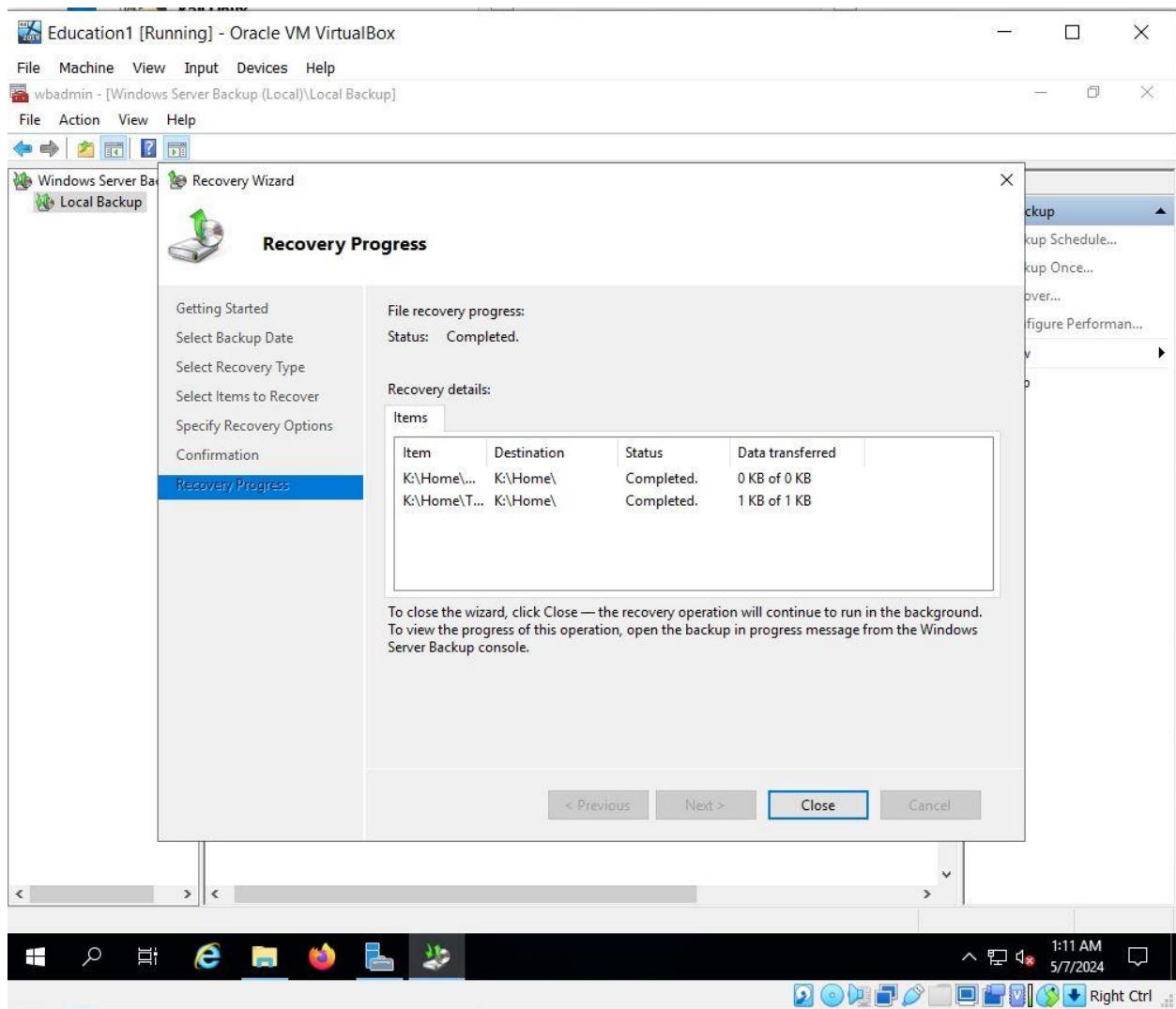


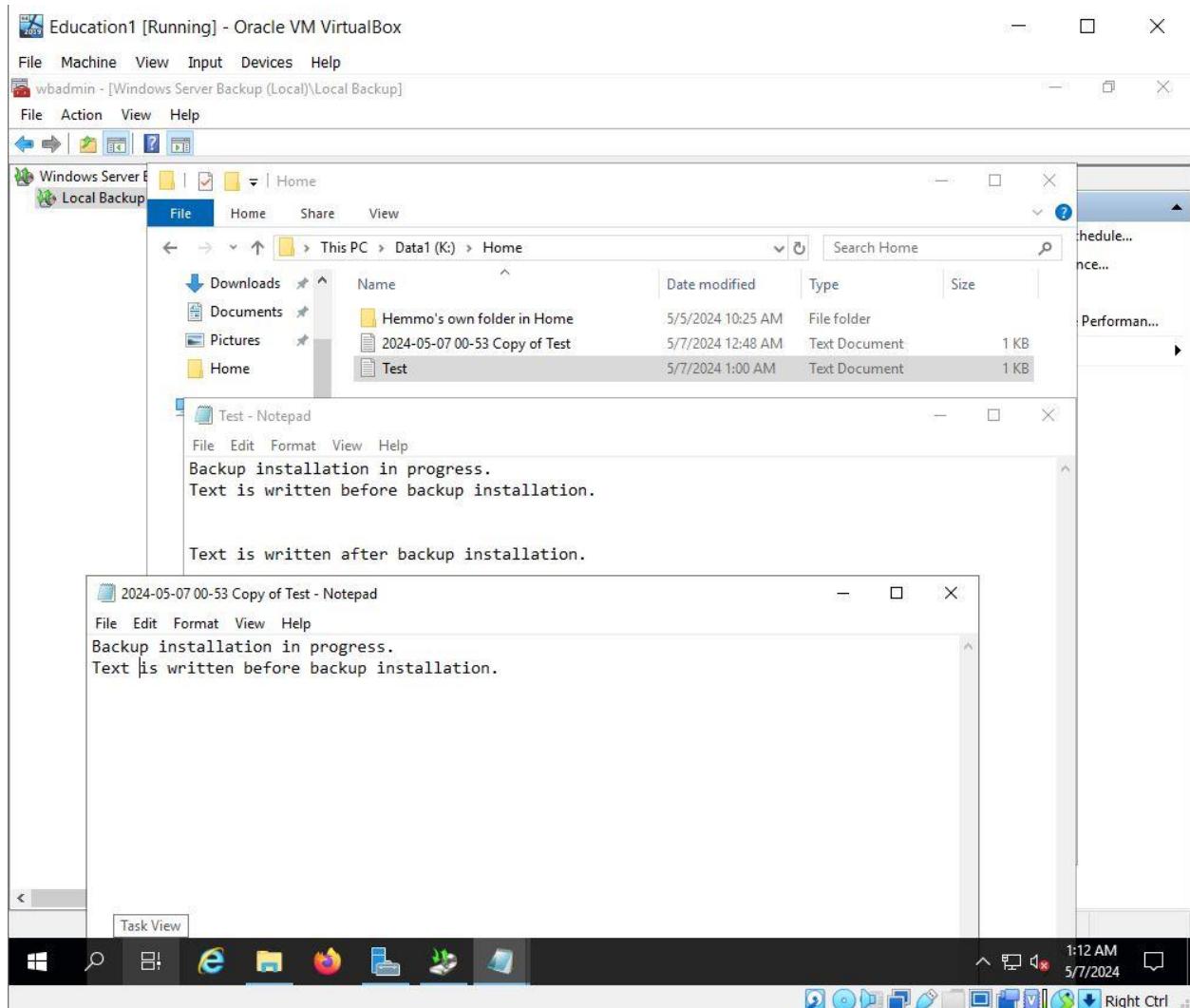












Education1 [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

wbadmin - [Windows Server Backup (Local)\Local Backup]

File Action View Help

Local Backup

You can perform a single backup or schedule a regular backup using this application.

Messages (Activity from last week, double click on the message to see details)

Time	Message	Description
5/7/2024 1:11 AM	File recovery	Successful
5/7/2024 12:53 AM	Backup	Successful

Status

Last Backup

Status: Successful
Time: 5/7/2024 12:53 AM
[View details](#)

Next Backup

Status: Scheduled
Time: 5/7/2024 9:00 PM
[View details](#)

All Backups

Total backups: 1 copies
Latest copy: 5/7/2024
Oldest copy: 5/7/2024
[View details](#)

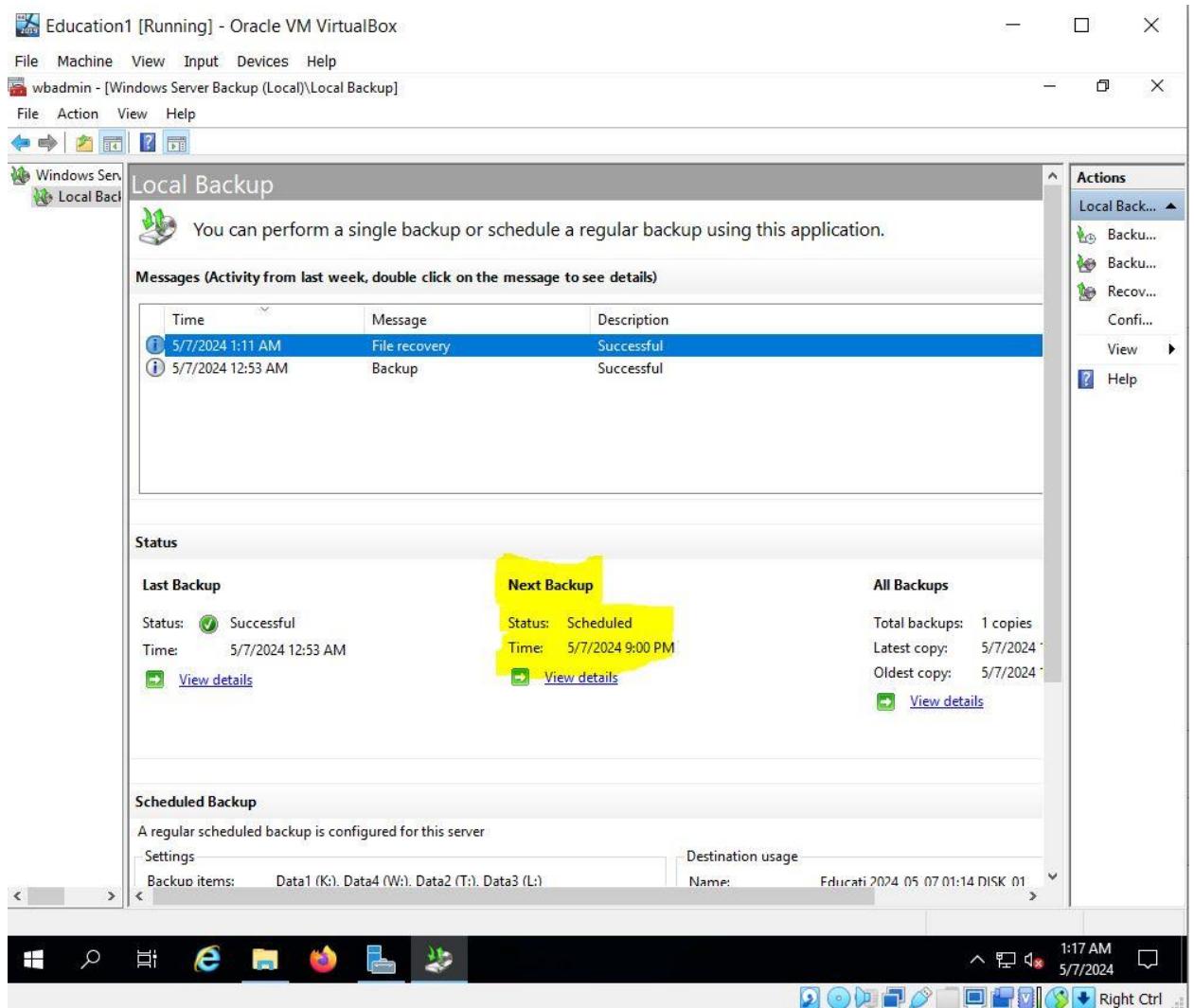
Scheduled Backup

A regular scheduled backup is configured for this server

Settings
Backup items: Data1 (K:), Data4 (W:), Data2 (T:), Data3 (L:)
Destination usage
Name: Education 2024 05 07 01:14 DISK 01

Actions

Local Back... ▾
Backu...
Backu...
Recov...
Conf...
View ▶
Help





Hemmo Jussila

The password is incorrect. Try again.

OK



