

NOTE COMMENTS ADDED TO SCREENSHOTS WHERE IT IS REQUIRED.

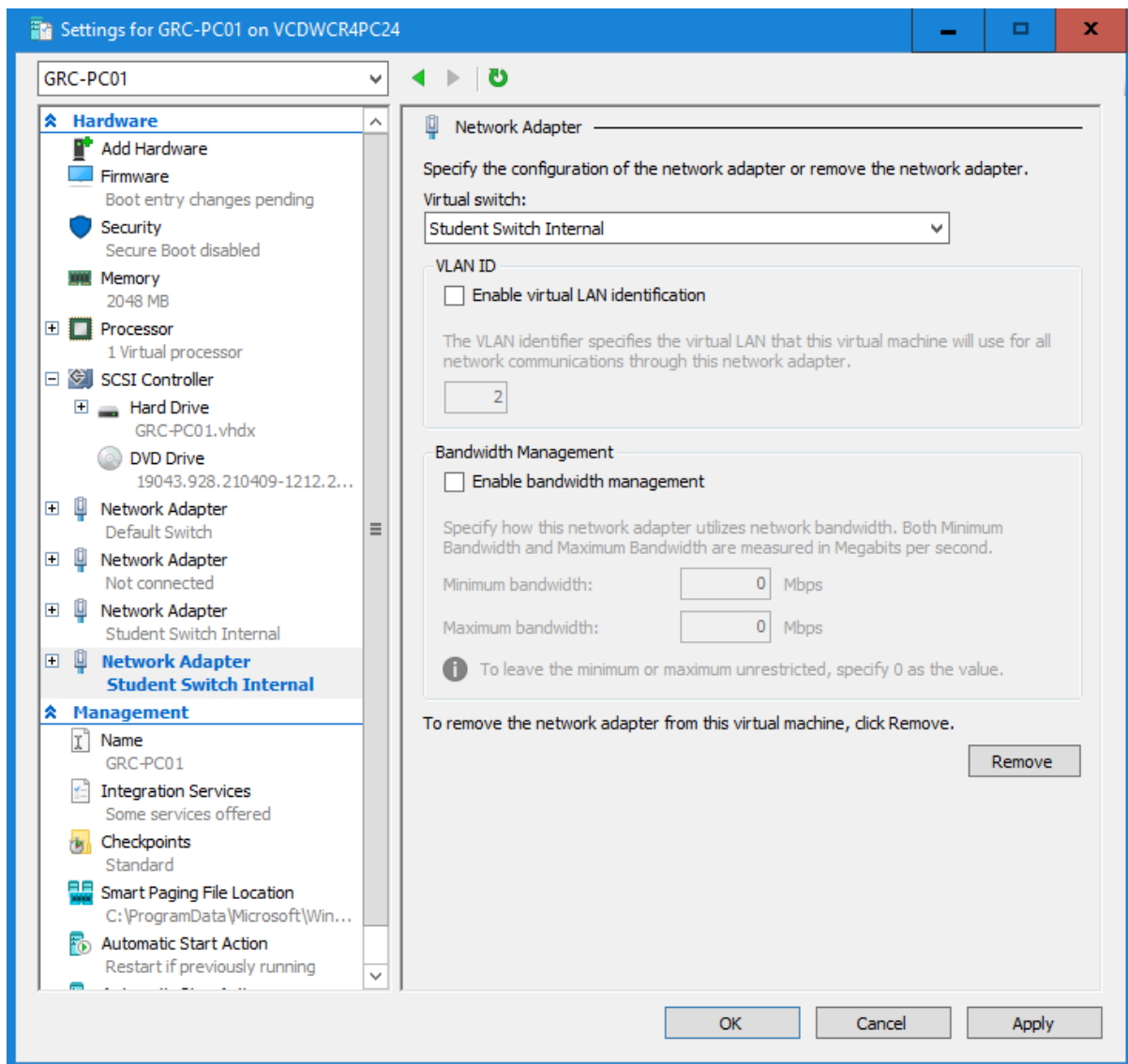
11/10/2021

# Client Network Operating Systems

## Assignment 1

Submitted by: Mohammed Ebrahim  
22353401

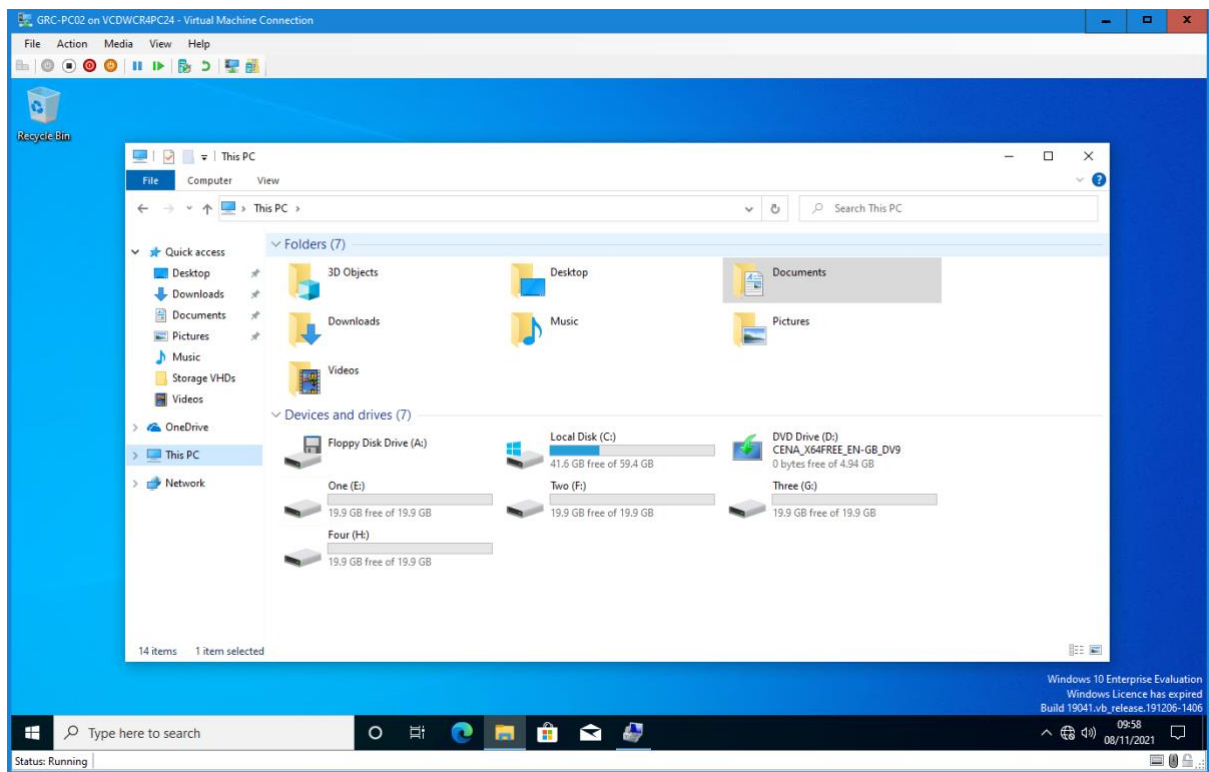
## Question 2.1



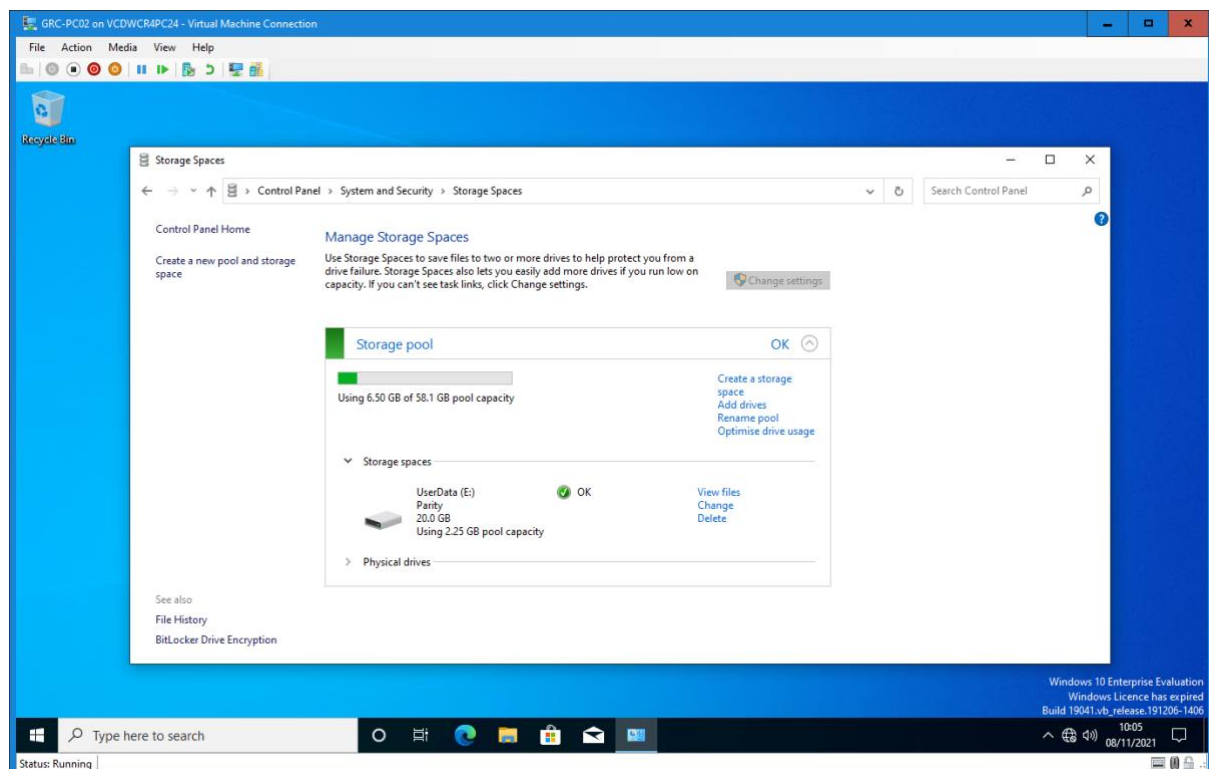
Installed windows 10 on GRC-PC01 & GRC-PC02.

Created switches [Network Adapter], Default Switch-Student Switch Internal

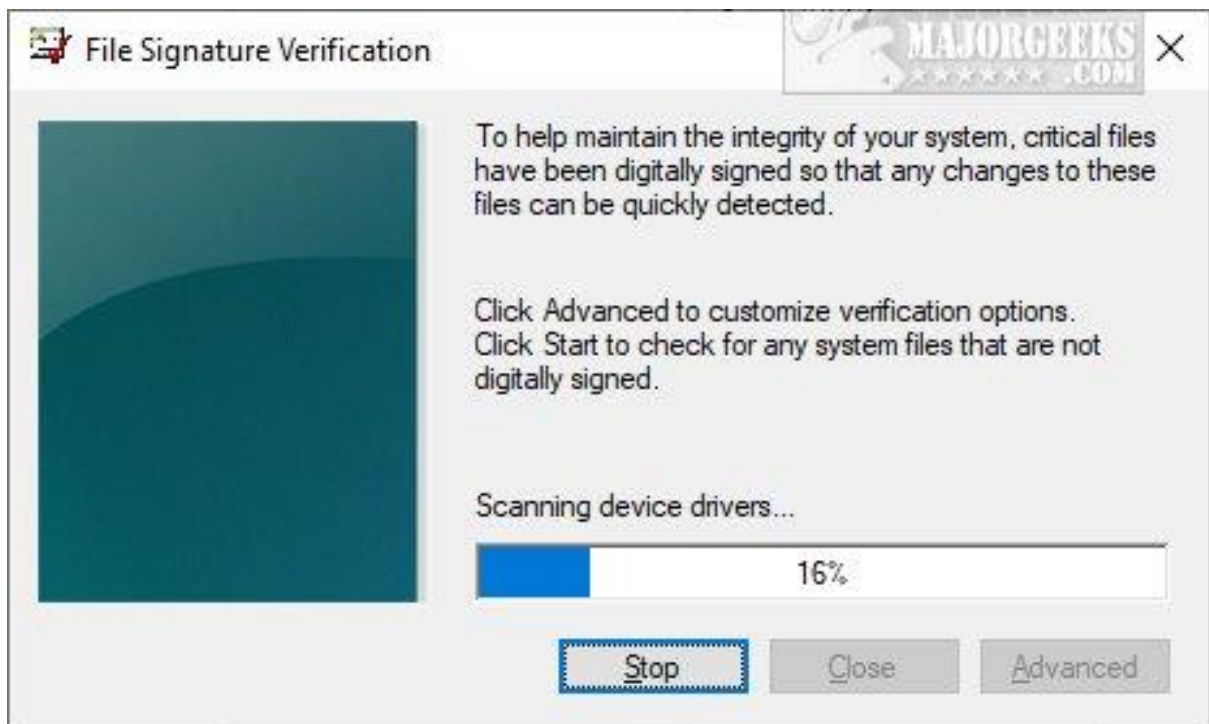
## Question 2.2



Configuring two-way mirror storages [created:4], enabled and formatted. And shared/mapped them. Also note that an extra HDD was created as required.

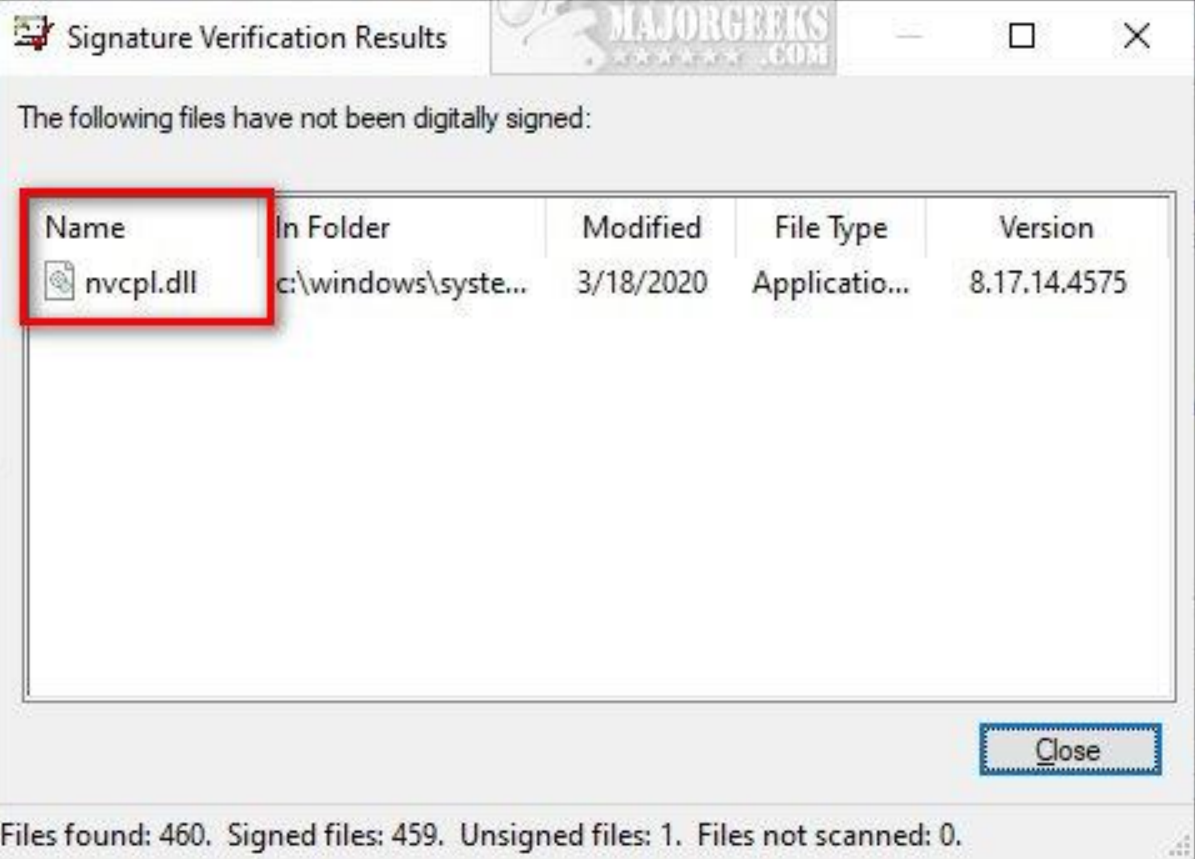


## Question 2.3

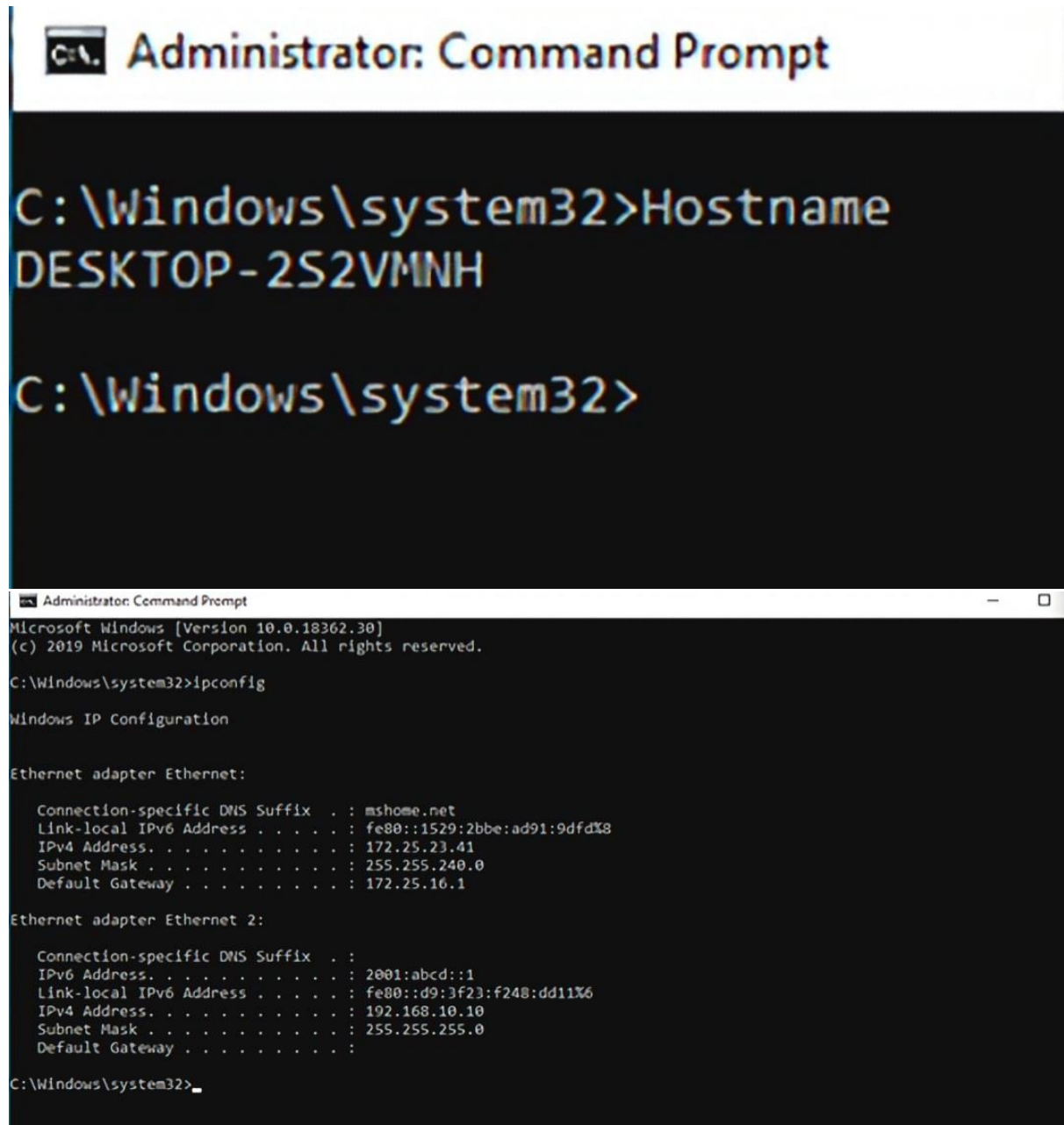


Verification that drivers have been installed and have been digitally signed by Microsoft. SOURCED.





## Question 2.4



The screenshot shows a Windows Command Prompt window titled "Administrator: Command Prompt". The command prompt is at the directory `C:\Windows\system32`. The user enters the command `hostname`, which returns `DESKTOP-2S2VMNH`. Then, the user enters `ipconfig`, which displays the IP configuration for two Ethernet adapters. The first adapter, "Ethernet", has an IPv4 address of 172.25.23.41 and a default gateway of 172.25.16.1. The second adapter, "Ethernet 2", has an IPv4 address of 192.168.10.10 and a default gateway of 255.255.255.0.

```
Administrator: Command Prompt

C:\Windows\system32>hostname
DESKTOP-2S2VMNH

C:\Windows\system32>

Administrator: Command Prompt
Microsoft Windows [Version 10.0.18362.30]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Windows\system32>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : mshome.net
    Link-local IPv6 Address . . . . . : fe80::1529:2bbe:ad91:9dfd%8
    IPv4 Address. . . . . : 172.25.23.41
    Subnet Mask . . . . . : 255.255.240.0
    Default Gateway . . . . . : 172.25.16.1

Ethernet adapter Ethernet 2:

    Connection-specific DNS Suffix  . : 
    IPv6 Address. . . . . : 2001:abcd::1
    Link-local IPv6 Address . . . . . : fe80::d9:3f23:f248:dd11%6
    IPv4 Address. . . . . : 192.168.10.10
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 

C:\Windows\system32>
```

Implementing TCP/IP Networking. [CMD], Host name. [Sourced  
Images as stated above [reasoning]

```
File Action Media Clipboard View Help
Administrator: Command Prompt
Persistent Routes:
None

C:\Windows\system32>route print -6
=====
Interface List
 8...00 15 5d 01 83 18 .....Microsoft Hyper-V Network Adapter
 6...00 15 5d 01 83 19 .....Microsoft Hyper-V Network Adapter #2
 1.....Software Loopback Interface 1
=====

IPv6 Route Table
=====
Active Routes:
If Metric Network Destination Gateway
1 331 ::1/128 On-link
6 271 2001:abcd::/64 On-link
6 271 2001:abcd::1/128 On-link
8 271 fe80::/64 On-link
6 271 fe80::/64 On-link
6 271 fe80::d9:3f23:f248:dd11/128 On-link
8 271 fe80::1529:2bbe:ad91:9dfd/128 On-link
1 331 ff00::/8 On-link
8 271 ff00::/8 On-link
6 271 ff00::/8 On-link
=====
Persistent Routes:
None

C:\Windows\system32>
```

Printing, routing table. Configurations IPV4-IPV6 [THIS POINT IS INDICATING FOR ALL IMAGES FOLOWING.



```
File Action Media Clipboard View Help
[Icons]
Administrator: Command Prompt

-p      Ping a Hyper-V Network Virtualization provider address.
-4      Force using IPv4.
-6      Force using IPv6.

C:\Windows\system32>route print -4
=====
Interface List
 8...00 15 5d 01 83 18 .....Microsoft Hyper-V Network Adapter
 6...00 15 5d 01 83 19 .....Microsoft Hyper-V Network Adapter #2
 1.....Software Loopback Interface 1
=====

IPv4 Route Table
=====
Active Routes:
Network Destination        Netmask          Gateway           Interface        Metric
0.0.0.0                    0.0.0.0          172.25.16.1       172.25.23.41     15
127.0.0.0                  255.0.0.0        On-link           127.0.0.1        331
127.0.0.1                  255.255.255.255  On-link           127.0.0.1        331
127.255.255.255            255.255.255.255  On-link           127.0.0.1        331
172.25.16.0                255.255.240.0    On-link           172.25.23.41     271
172.25.23.41               255.255.255.255  On-link           172.25.23.41     271
172.25.31.255              255.255.255.255  On-link           172.25.23.41     271
192.168.10.0               255.255.255.0    On-link           192.168.10.10    271
192.168.10.10              255.255.255.255  On-link           192.168.10.10    271
192.168.10.255             255.255.255.255  On-link           192.168.10.10    271
224.0.0.0                  240.0.0.0        On-link           127.0.0.1        331
224.0.0.0                  240.0.0.0        On-link           172.25.23.41     271
224.0.0.0                  240.0.0.0        On-link           192.168.10.10    271
255.255.255.255            255.255.255.255  On-link           127.0.0.1        331
255.255.255.255            255.255.255.255  On-link           172.25.23.41     271
255.255.255.255            255.255.255.255  On-link           192.168.10.10    271
=====
Persistent Routes:
None

C:\Windows\system32>
```



```
File Action Media Clipboard View Help
[Icons]
Administrator: Command Prompt

Persistent Routes:
None

C:\Windows\system32>route print -6
=====
Interface List
 8...00 15 5d 01 83 18 .....Microsoft Hyper-V Network Adapter
 6...00 15 5d 01 83 19 .....Microsoft Hyper-V Network Adapter #2
 1.....Software Loopback Interface 1
=====

IPv6 Route Table
=====
Active Routes:
| If Metric Network Destination Gateway
|-----|-----|-----|-----|
| 1 331 ::1/128 On-link
| 6 271 2001:abcd::/64 On-link
| 6 271 2001:abcd::1/128 On-link
| 8 271 fe80::/64 On-link
| 6 271 fe80::/64 On-link
| 6 271 fe80::d9:3f23:f248:dd11/128 On-link
| 8 271 fe80::1529:2bbe:ad91:9dfd/128 On-link
| 1 331 ff00::/8 On-link
| 8 271 ff00::/8 On-link
| 6 271 ff00::/8 On-link
=====
Persistent Routes:
None

C:\Windows\system32>_
```

Administrator: Command Prompt

Microsoft Windows [Version 10.0.18362.30]  
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C:\Windows\system32>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

Connection-specific DNS Suffix . :  
Link-local IPv6 Address . . . . . : fe80::9039:7d0c:58df:cb6d%6  
Autoconfiguration IPv4 Address. . : 169.254.203.109  
Subnet Mask . . . . . : 255.255.0.0  
Default Gateway . . . . . :

Ethernet adapter Ethernet 2:

Connection-specific DNS Suffix . :  
IPv6 Address. . . . . : 2001:abcd::2  
Link-local IPv6 Address . . . . . : fe80::19bd:b039:4e11:fd72%7  
IPv4 Address. . . . . : 192.168.10.20  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . : 2001:abcd::1  
192.168.10.10

C:\Windows\system32>\_

C:\Windows\system32>Hostname  
GRC-PC02

C:\Windows\system32>

Select Administrator: Command Prompt

C:\Windows\system32>route print -6

Interface List

6...00 15 5d 01 83 11 .....Microsoft Hyper-V Network Adapter  
7...00 15 5d 01 83 10 .....Microsoft Hyper-V Network Adapter #2  
1.....Software Loopback Interface 1

IPv6 Route Table

Active Routes:

If	Metric	Network	Destination	Gateway
7	271	::/0		2001:abcd::1
1	331	::1/128		On-link
7	271	2001:abcd::/64		On-link
7	271	2001:abcd::2/128		On-link
7	271	fe80::/64		On-link
6	271	fe80::/64		On-link
7	271	fe80::19bd:b039:4e11:fd72/128		On-link
6	271	fe80::9039:7d0c:58df:cb6d/128		On-link
1	331	ff00::/8		On-link
7	271	ff00::/8		On-link
6	271	ff00::/8		On-link

Persistent Routes:

If	Metric	Network	Destination	Gateway
0	4294967295	::/0		2001:abcd::1

C:\Windows\system32>ping 192.168.10.10

Pinging 192.168.10.10 with 32 bytes of data:

Reply from 192.168.10.20: Destination host unreachable.  
Reply from 192.168.10.20: Destination host unreachable.  
Reply from 192.168.10.20: Destination host unreachable.  
Reply from 192.168.10.20: Destination host unreachable.

Ping statistics for 192.168.10.10:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

C:\Windows\system32>



```
C:\Windows\system32>route print -4
```

```
=====
```

Interface List

```
6...00 15 5d 01 83 11 .....Microsoft Hyper-V Network Adapter
7...00 15 5d 01 83 10 .....Microsoft Hyper-V Network Adapter #2
1.....Software Loopback Interface 1
=====
```

```
=====
```

Pv4 Route Table

```
=====
```

Active Routes:

Network	Destination	Netmask	Gateway	Interface	Metric
	0.0.0.0	0.0.0.0	192.168.10.10	192.168.10.20	271
	127.0.0.0	255.0.0.0	On-link	127.0.0.1	331
	127.0.0.1	255.255.255.255	On-link	127.0.0.1	331
	127.255.255.255	255.255.255.255	On-link	127.0.0.1	331
	169.254.0.0	255.255.0.0	On-link	169.254.203.109	271
	169.254.203.109	255.255.255.255	On-link	169.254.203.109	271
	169.254.255.255	255.255.255.255	On-link	169.254.203.109	271
	192.168.10.0	255.255.255.0	On-link	192.168.10.20	271
	192.168.10.20	255.255.255.255	On-link	192.168.10.20	271
	192.168.10.255	255.255.255.255	On-link	192.168.10.20	271
	224.0.0.0	240.0.0.0	On-link	127.0.0.1	331
	224.0.0.0	240.0.0.0	On-link	192.168.10.20	271
	224.0.0.0	240.0.0.0	On-link	169.254.203.109	271
	255.255.255.255	255.255.255.255	On-link	127.0.0.1	331
	255.255.255.255	255.255.255.255	On-link	192.168.10.20	271
	255.255.255.255	255.255.255.255	On-link	169.254.203.109	271

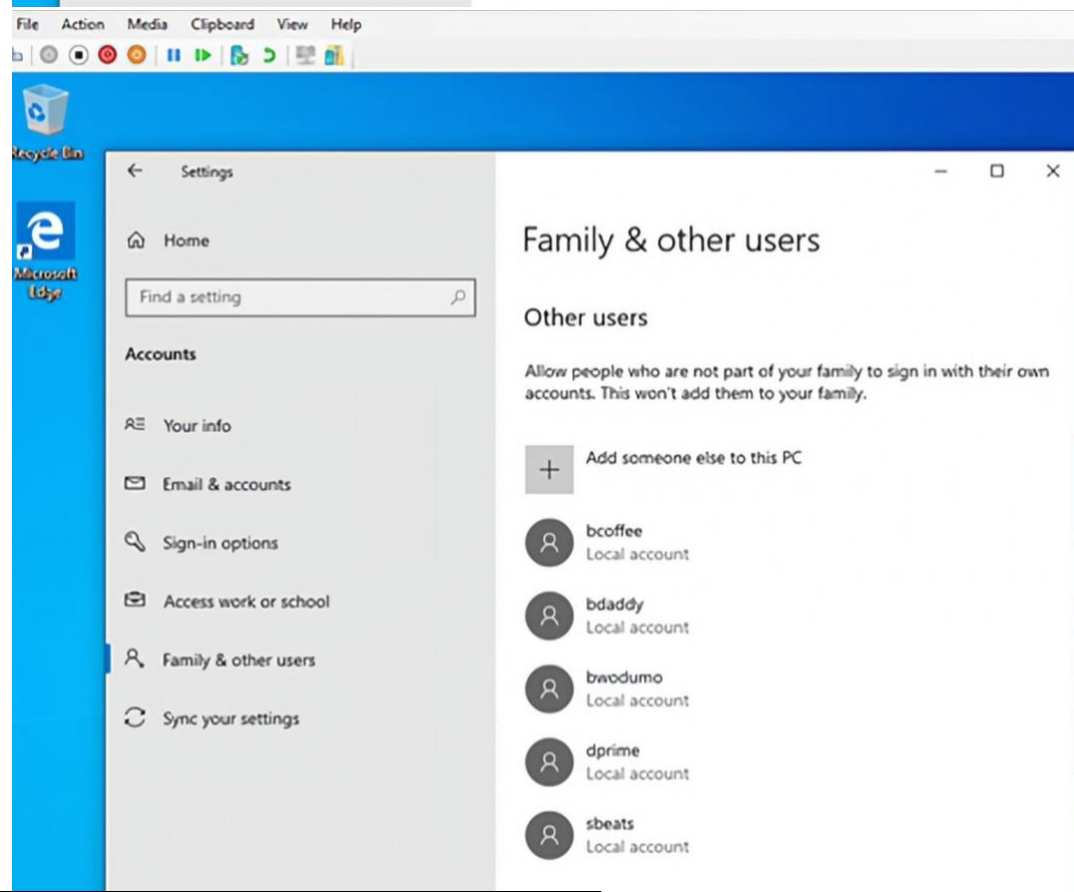
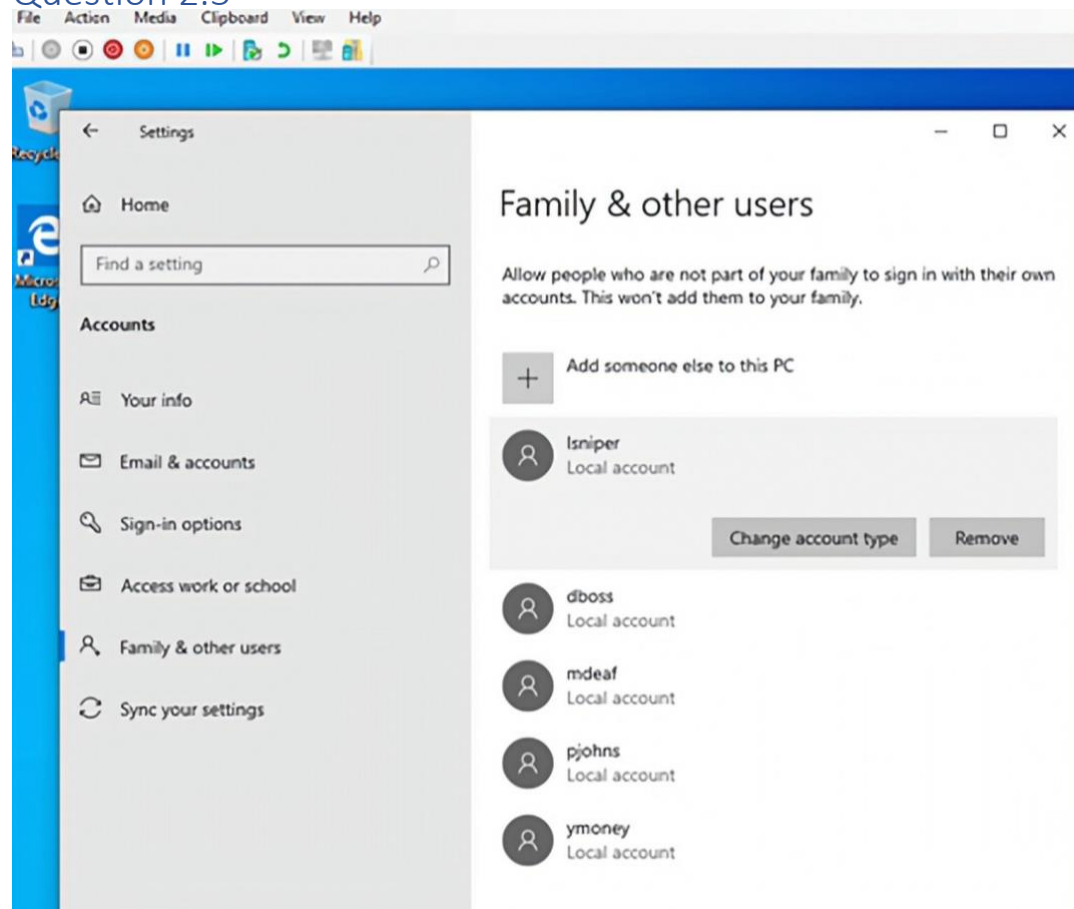
```
=====
```

Persistent Routes:

Network	Address	Netmask	Gateway Address	Metric
	0.0.0.0	0.0.0.0	192.168.10.10	Default

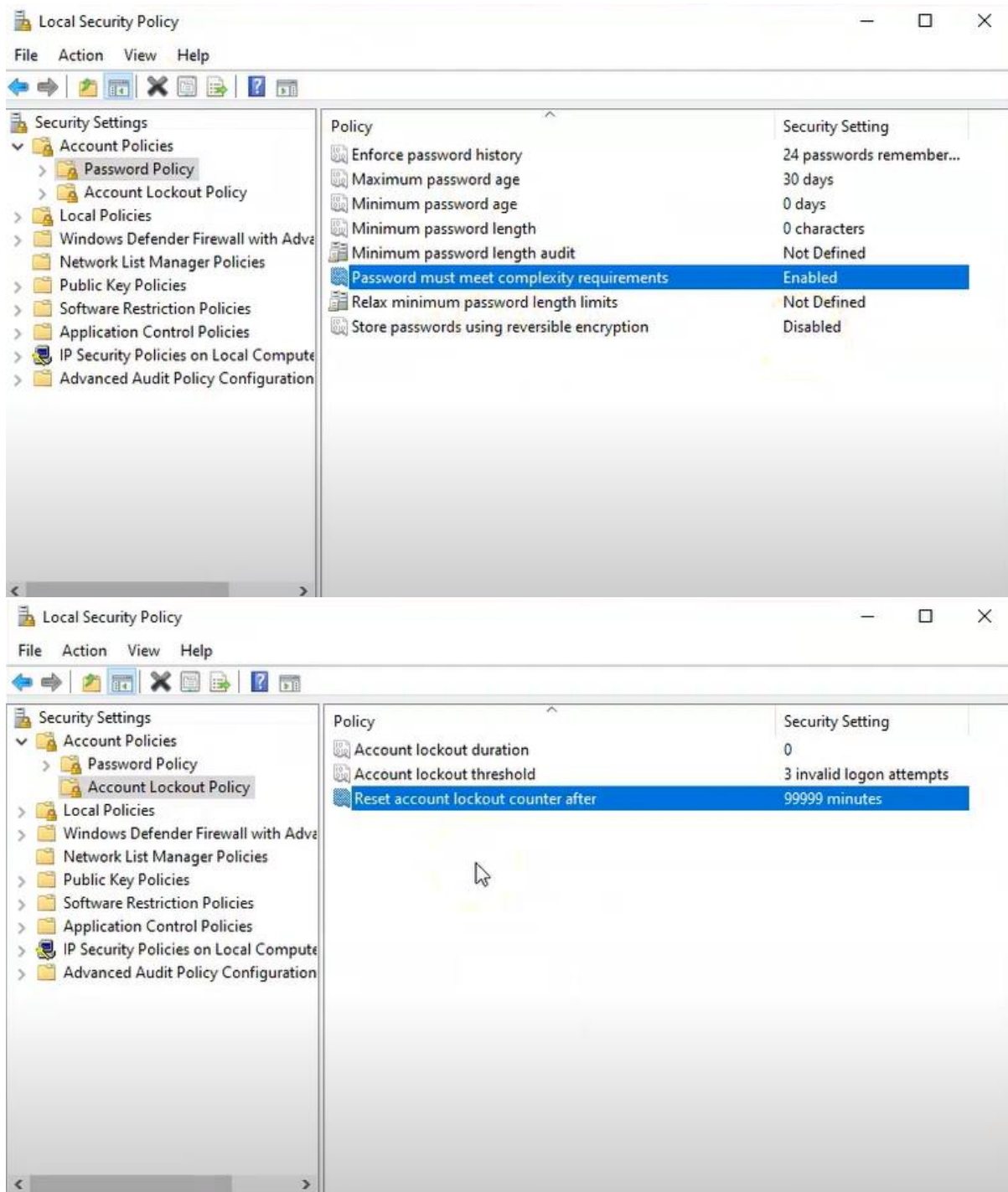
```
=====
```

## Question 2.5



User accounts created on windows machines [2] Names as given.

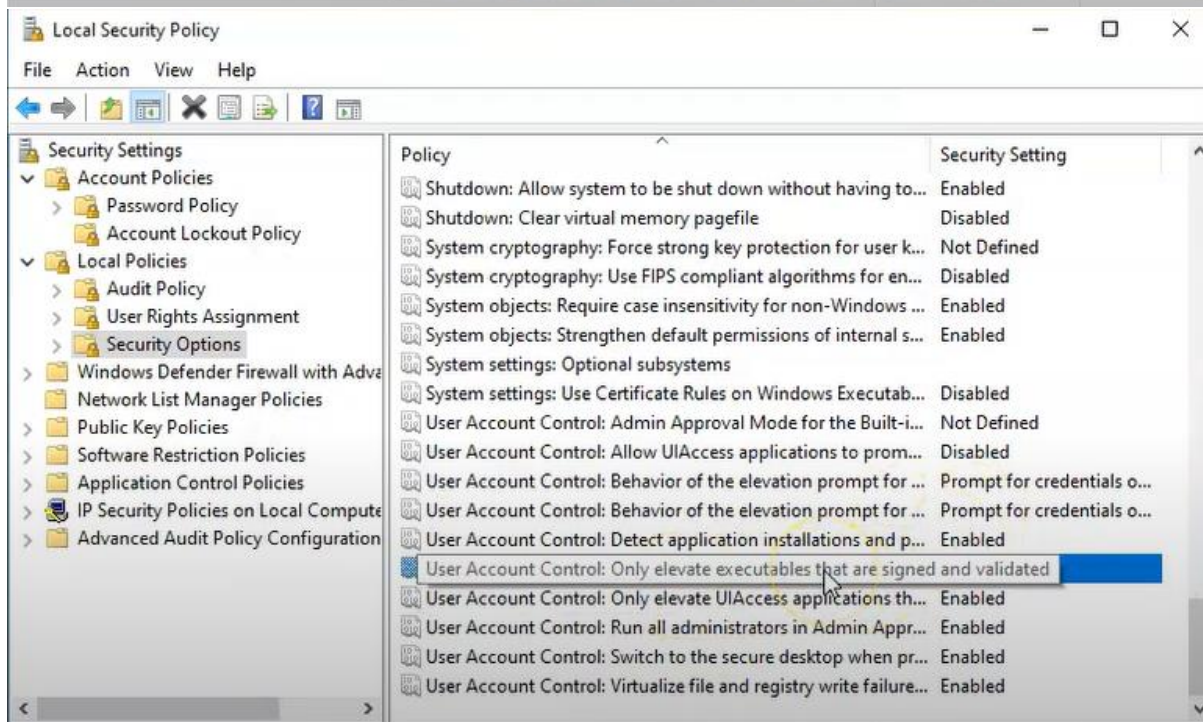
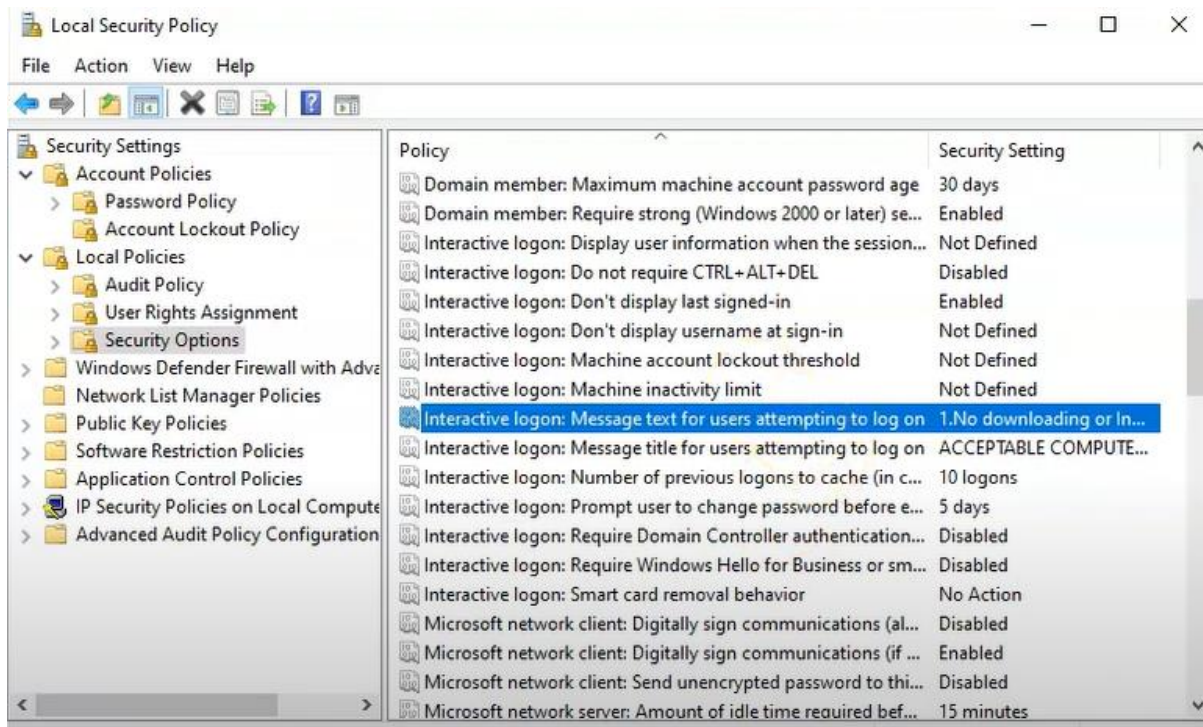
## Question 2.6



1.Password Policy, Enforcing password history [24]. Maximum Password Age [30], Minimum Password Age [21], Minimum Password Length [8], Complexity Requirements [Enabled] Reversible Encryption [disabled].

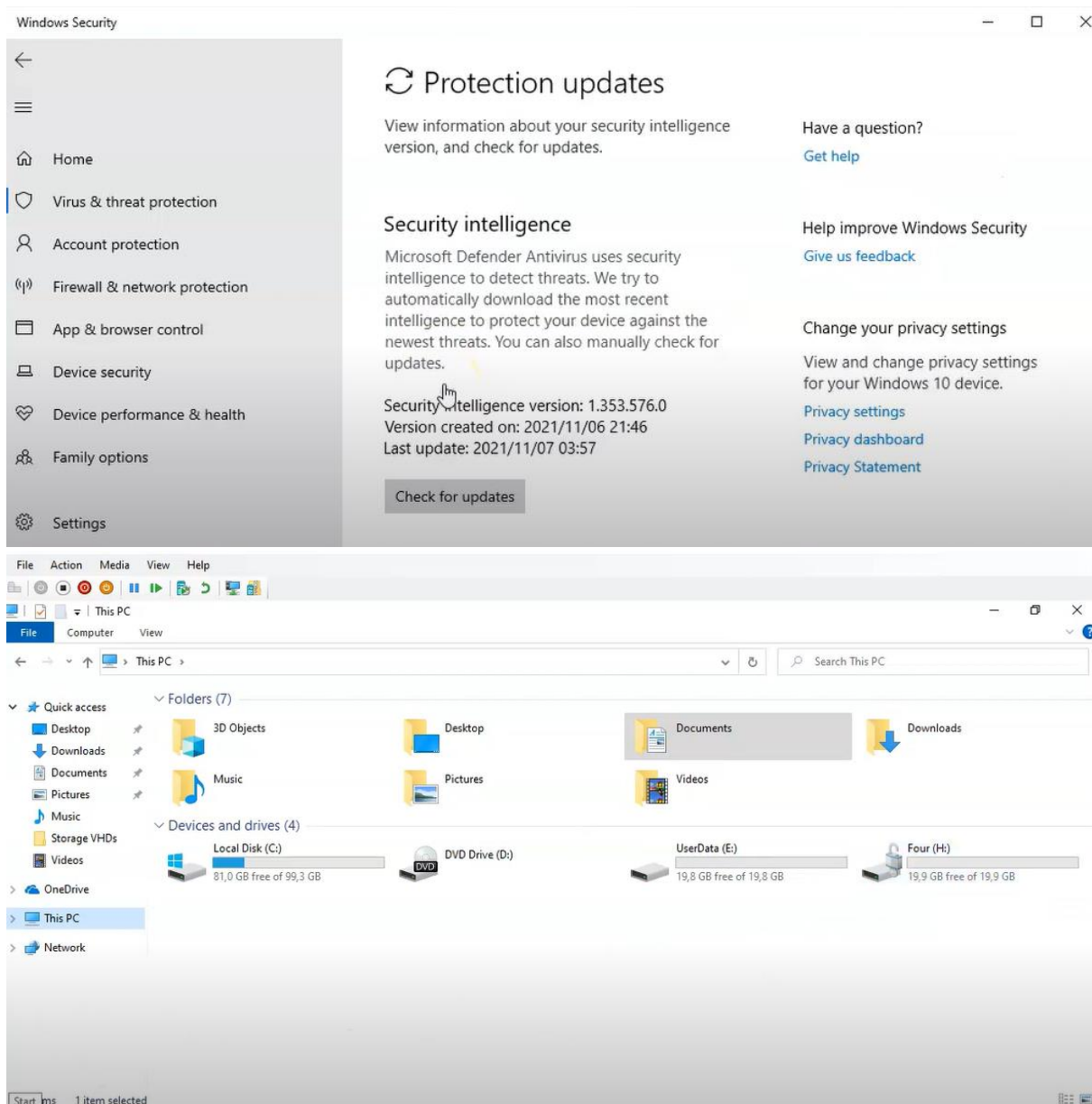
2.Lockout Policy, Duration [0], Threshold [3], Lockout Counter [99999]





1.Disabling Interactive logon. Do not display last username [Enabled]. Logon message [ENTERED]. TEXT ENTERED.

2. As indicated Prompts as required & validation.



Windows security [Extra security] Update check.

Created BitLocker [H]

## Question 2.7

Note screenshot were used due to my pc crashing after trying to install hyperV I had no choice.

