INFO603 Practical project documentation template (Engineering journal)

Section number: 5

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When doing practical work it is common practice and extremely useful to document the steps you took. This assists you make your learning more tangible and organise it. The more detail you can provide the better it is so that if ever you want to configure it in the future you have a personal record documented.

The project book gives the main implementation steps. However this documentation report requires you document what you did at each implementation step as you are doing the practical project. It is not advised to do this at the end otherwise you are likely to forget what you did.

Please write this in your own words as it is a record of your work. Copied material is not accepted.

| Adding a new network adapter.	Adding a second network adapter allows our VM to connect to the internet without disrupting our internal network that've set up. VMware workstation->VM settings-> click -> add -> select Network adapter-> select NAT option
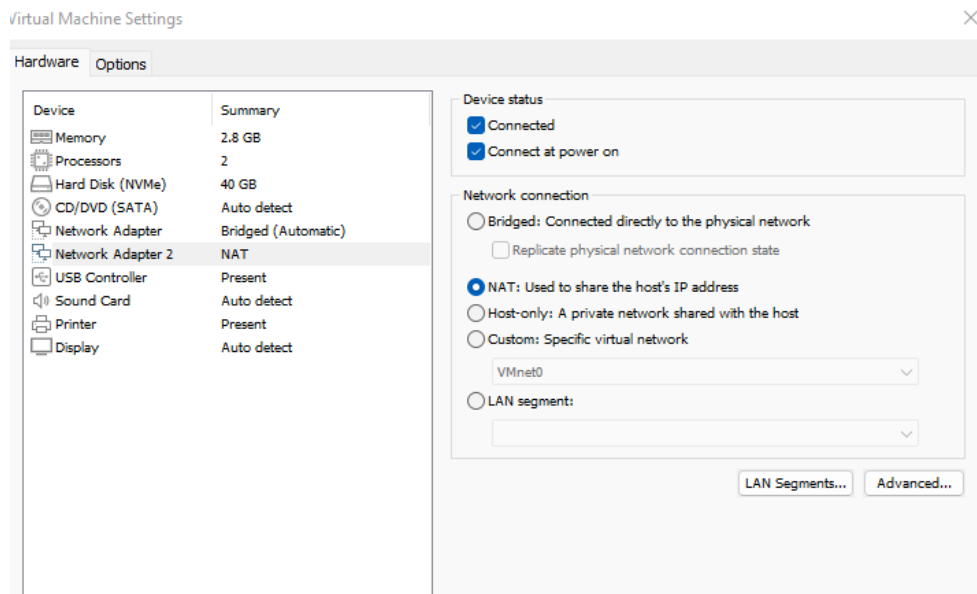
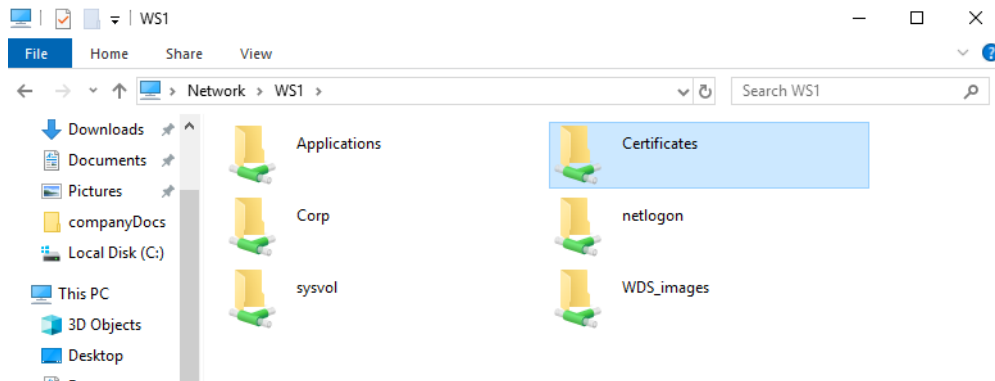| Creating a shared folder	Creating a shared file allows users on the domain access to any resources contained within that file, admins can control what users have access to shared files as all resources may not want to be shared.
	Open file explorer on WS1 -> click local C: drive -> right click some blank space -> select new -> select folder -> enter folder name.
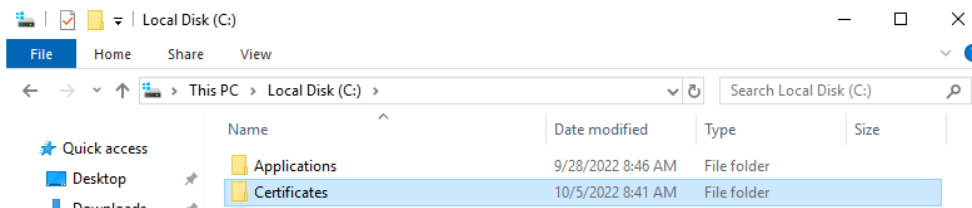
Right click your newly created file -> select properties -> select the "share" tab.
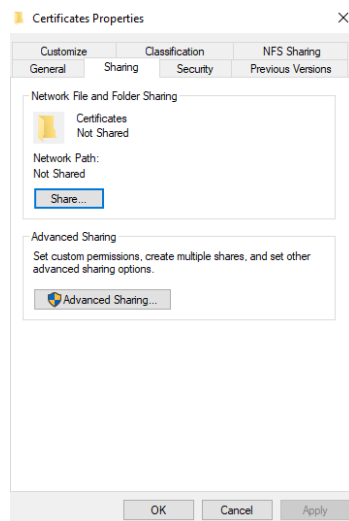
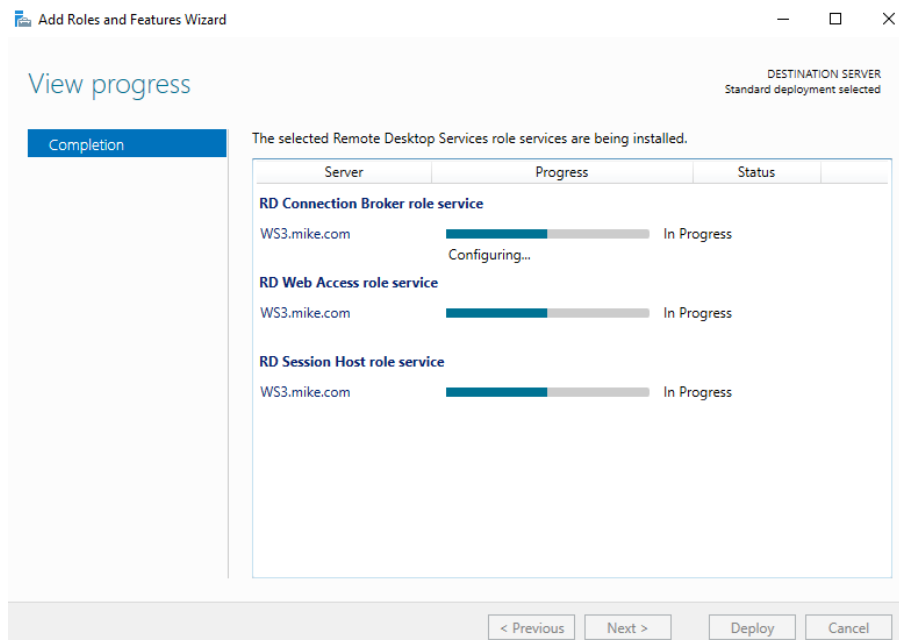Click share -> select everyone from the drop-down menu -> click add -> click share.
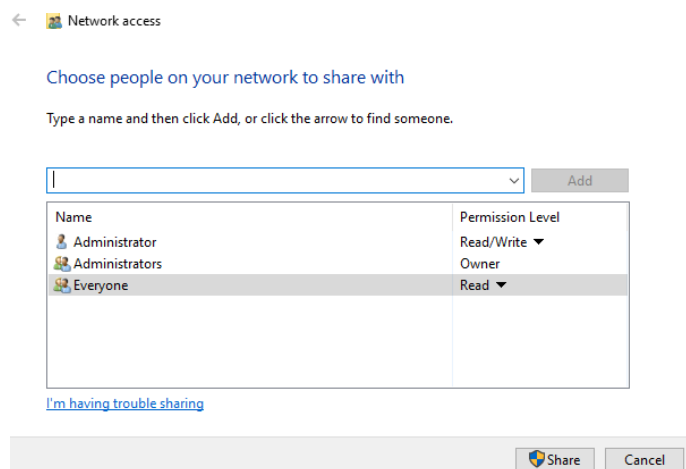
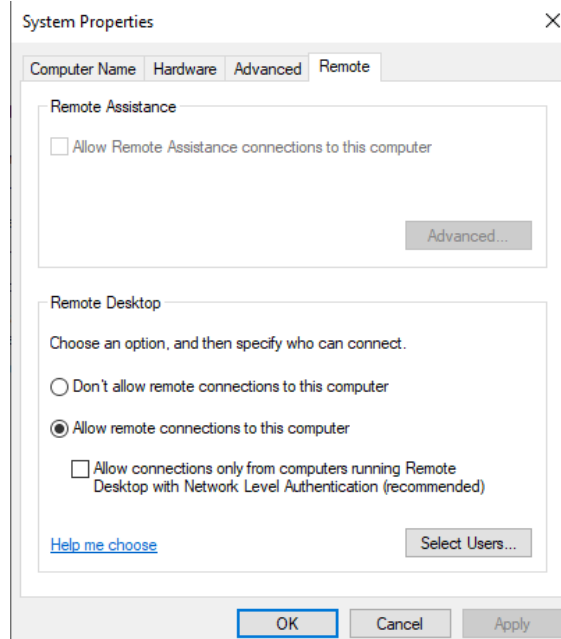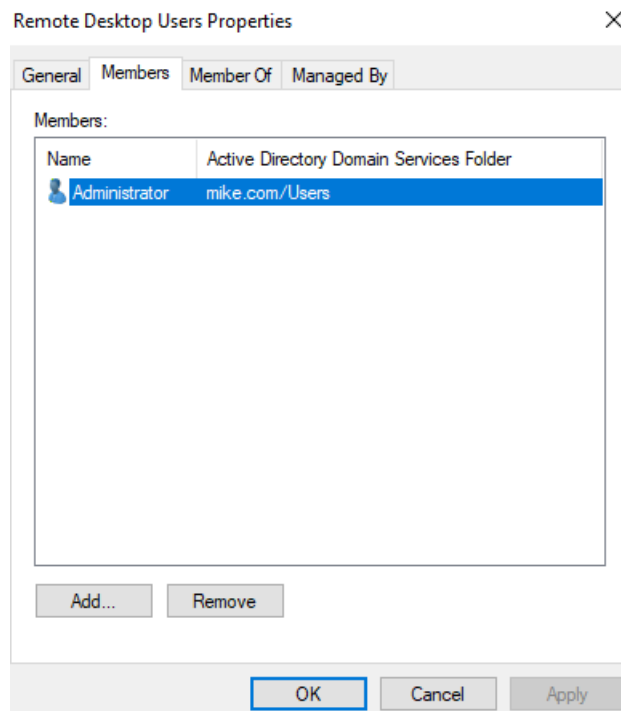|	
	Login to WS2 -> open file explorer -> type in the network path to see if you can access the certificates folder.
Adding remote desktop	A remote desktop is a program or a feature of an operating system that enables a user to connect to a computer in another place. This feature/program is very useful when troubleshoot and providing remote support. Open server manager -> click add roles & features -> click next -> select remote desktop installation-> click next -> select standard deployment -> click next -> select session-based deployment -> click next -> click next -> click black and grey arrow to add your server from the server pool -> click next -> click black and grey arrow to add your server from the server pool for RD Web Access -> click next -> click black and grey arrow to add your server from the server pool for RD Session Host -> click next -> select Restart if required -> click deploy -> once the server has restarted & it shows that it is successful click close.

Open control panel -> click system & security -> click system -> click allow remote access -> click OK.
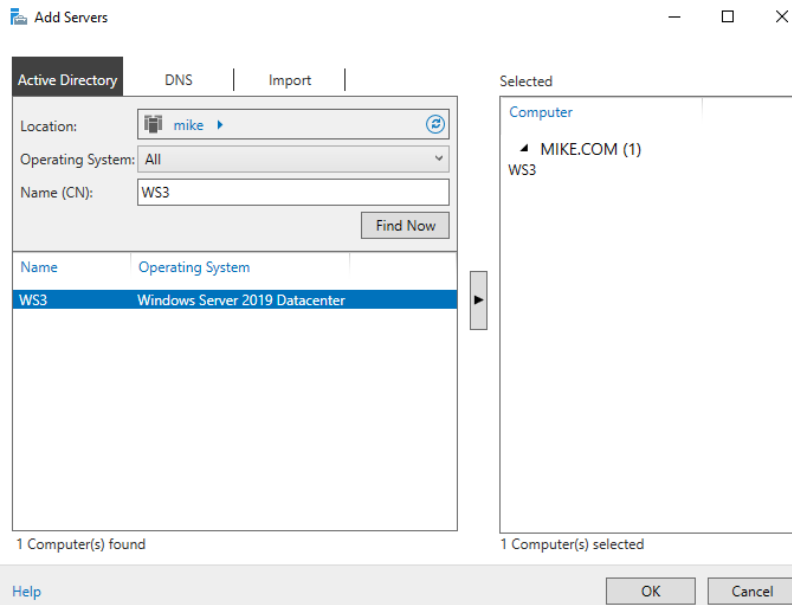
System Properties

Computer Name | Hardware | Advanced | Remote

Remote Assistance

☐ Allow Remote Assistance connections to this computer

Advanced...

Remote Desktop

Choose an option, and then specify who can connect.

○ Don't allow remote connections to this computer

◉ Allow remote connections to this computer

☐ Allow connections only from computers running Remote
   Desktop with Network Level Authentication (recommended)

Help me choose   Select Users...

OK   Cancel   Apply

Open tools -> select users and computers -> search for the group remote desktop users -> click members tab -> click add -> add your administrator to the group.
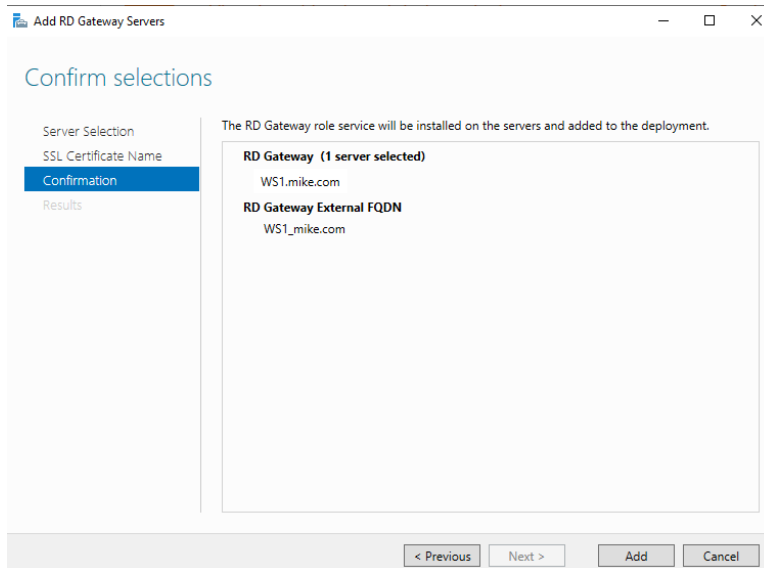
Remote Desktop Users Properties

General | Members | Member Of | Managed By

Members:

Name	Active Directory Domain Services Folder
Administrator	mike.com/Users

Add...   Remove

OK   Cancel   Apply

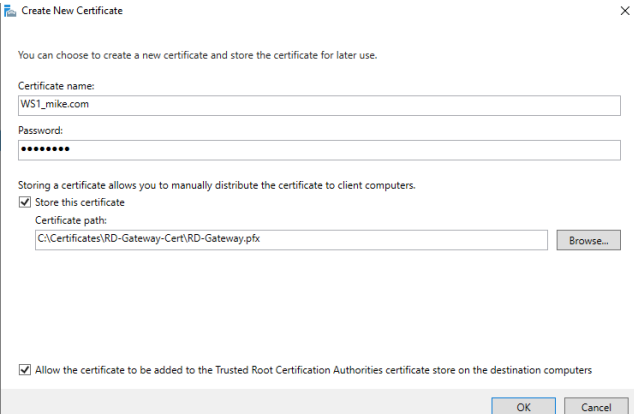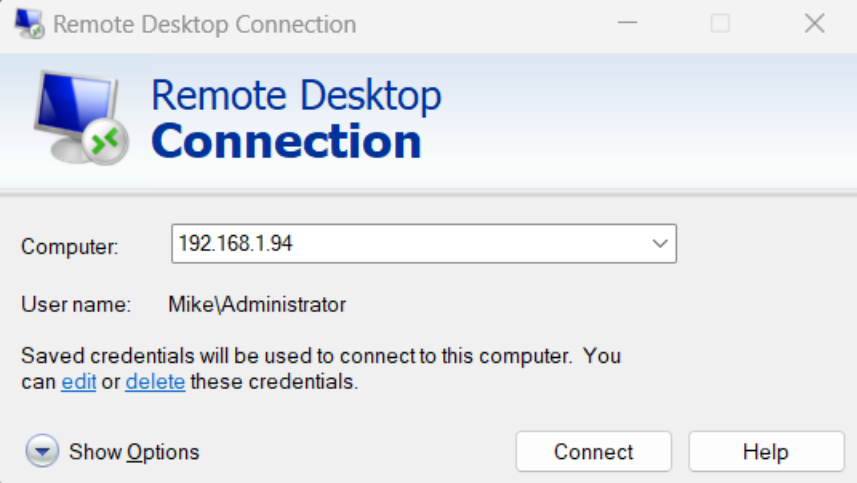|	
Adding Servers	Open server manager -> click manage -> click add server -> enter server manager -> click the grey and black arrow -> click OK.
Adding RD gateway	Open server manger on WS1 -> click Remote desktop services -> click the + above RD gateway -> select WS1 -> click the black & grey arrow -> click next -> enter SSL certificate name -> click next -> click add

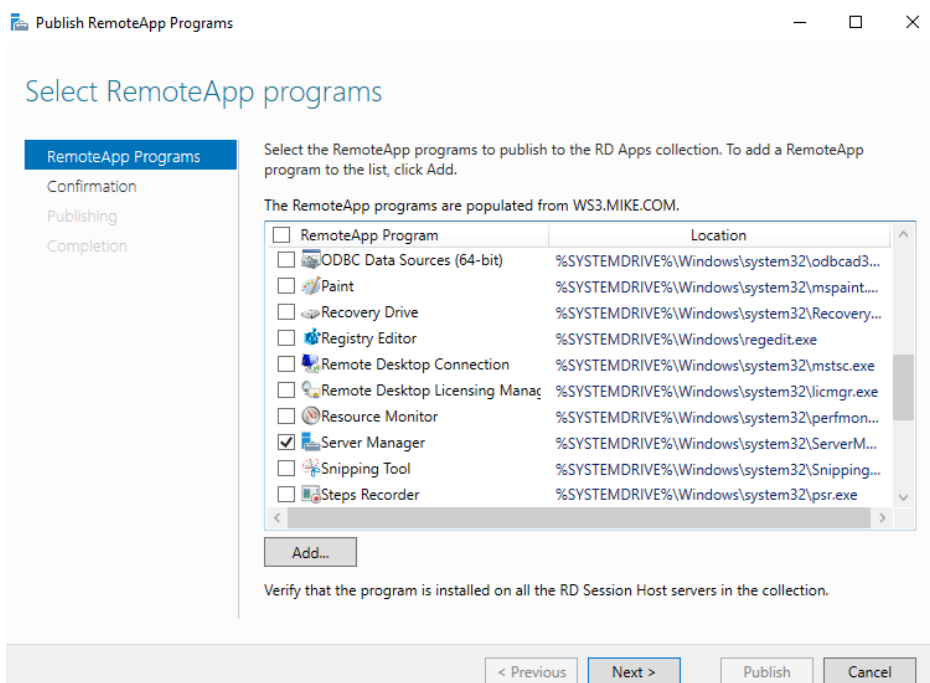|	
Creating SSL cert	Open server manager -> click remote desktop services -> click tasks -> click edit deployment options -> click certificates -> click RD gateway -> click create new certificate -> enter name -> enter password -> browse to where you want to save it -> click the check box at the bottom of the page -> click OK -> click apply.
Remote desktop	Remote desktop allows user to remotely connect to other machines, this can be handy when troubleshooting or as shown below can be used to remote into one machine and then remote into another as the second machine can only be accessed from the internal network. Open remote desktop on you client machine -> enter the IP address of WS1 -> enter your credentials -> click connect. Once you've logged into WS1 open remote desktop again -> type the IP address of WS2 -> enter your credentials -> click connect.
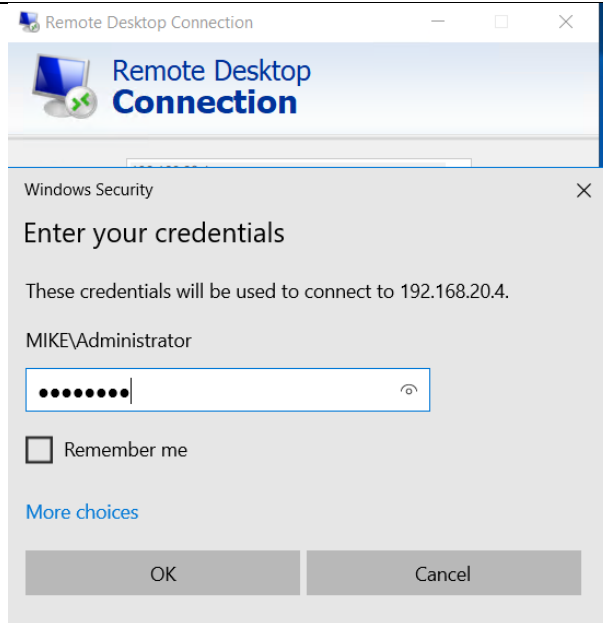
You now have access to WS2.
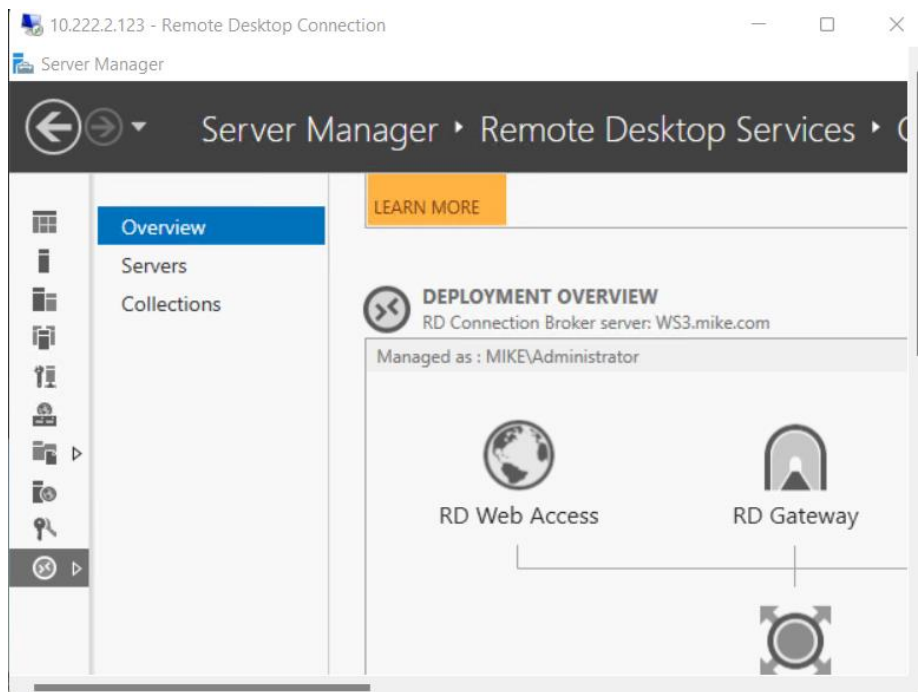
| RD Web Access	Open remote desktop services -> click collections -> click "Create session collection"
	Enter your collection name -> click next -> select WS2 as your RD host-> click next -> select which user group you'd like to have access -> click next -> uncheck the check box -> click next -> click create.
	Once your collection has been created you will see it appear under the collections tab as shown above.
	Click on your collection -> click "Publish remoteApps Programs" under RemoteApp programs -> select the apps you'd like to install -> click next.
	Click -> publish -> wait for it to install -> click close.
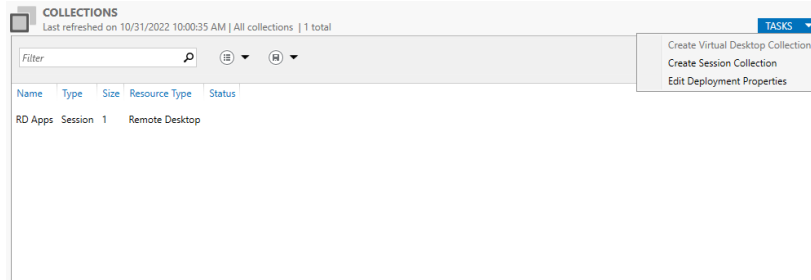
Log into your client machine -> open internet explorer -> enter
"https://hostname.domain/rdweb
Or https://serverIPaddress/rdweb" -> login with your credentials.
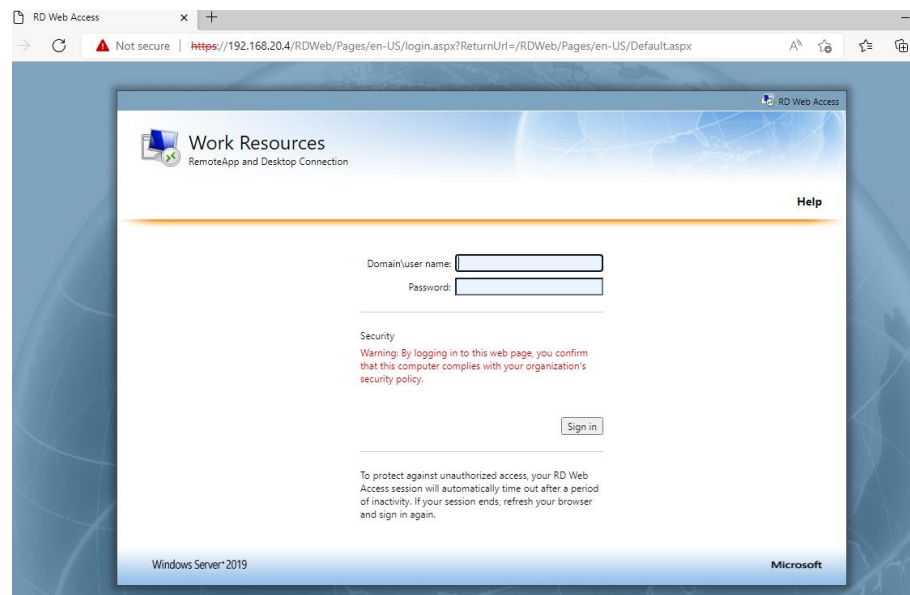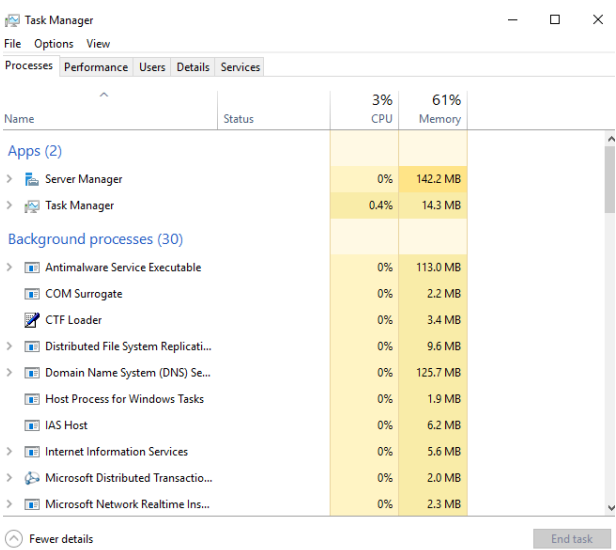

You'll then be able to use the apps we installed earlier.
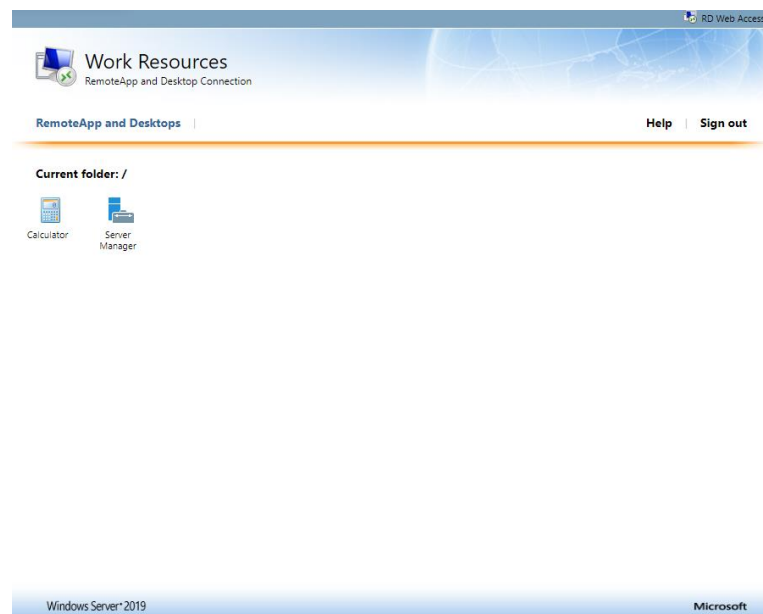
Click on the app you wish to open -> it'll then begin to download in the browser -> click
open file once the download is finished -> click connect -> enter your credentials.
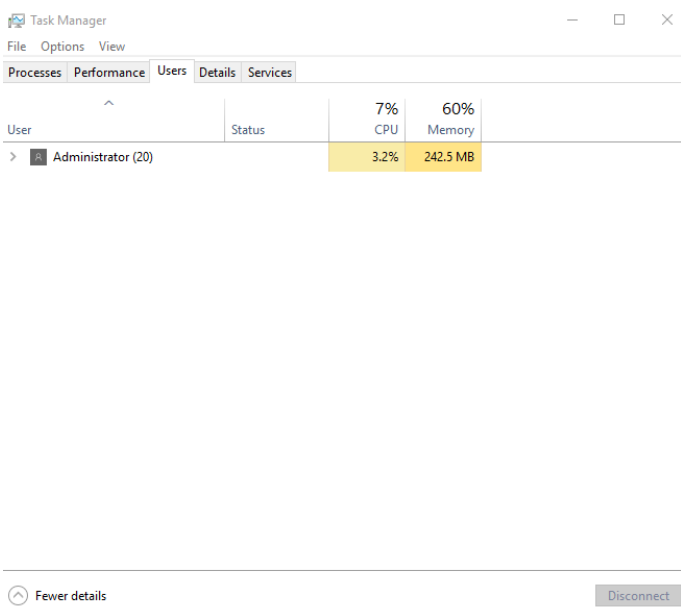
Task manager WS1	Server manager is using the most memory sitting at 142.2MB and Task manager is using 0.4% of the CPU.
	Task Manager — □ ×
	File Options View
	Processes Performance Users Details Services

Apps (2) and process table:

Name	Status	3% CPU	61% Memory
Apps (2)			
Server Manager		0%	142.2 MB
Task Manager		0.4%	14.3 MB
Background processes (30)			
Antimalware Service Executable		0%	113.0 MB
COM Surrogate		0%	2.2 MB
CTF Loader		0%	3.4 MB
Distributed File System Replicati...		0%	9.6 MB
Domain Name System (DNS) Se...		0%	125.7 MB
Host Process for Windows Tasks		0%	1.9 MB
IAS Host		0%	6.2 MB
Internet Information Services		0%	5.6 MB
Microsoft Distributed Transactio...		0%	2.0 MB
Microsoft Network Realtime Ins...		0%	2.3 MB

Fewer details   End task

The administrator is using the most memory at 242.5MB and 3.2% of the CPU
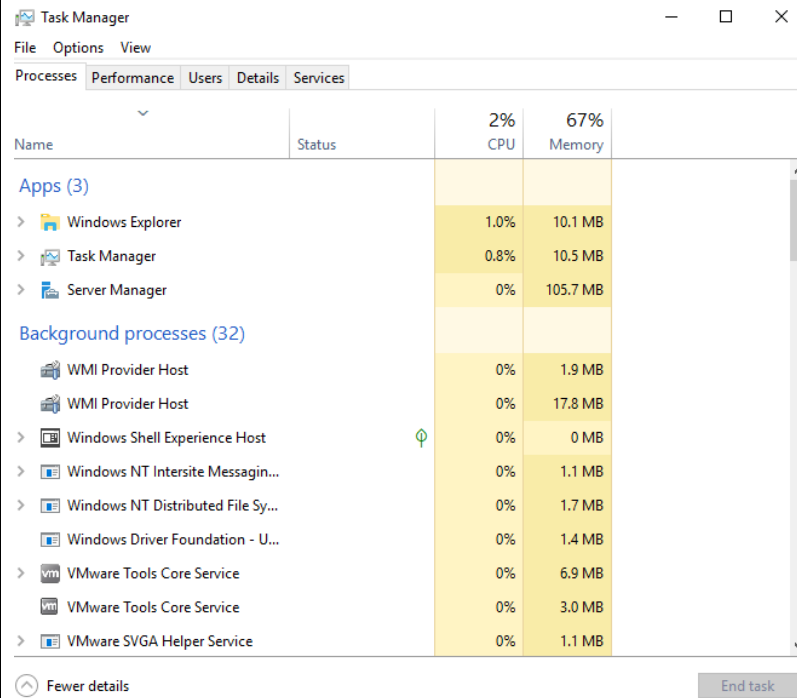
Task Manager — □ ×
File Options View
Processes Performance Users Details Services

User	Status	7% CPU	60% Memory
Administrator (20)		3.2%	242.5 MB

Fewer details   Disconnect
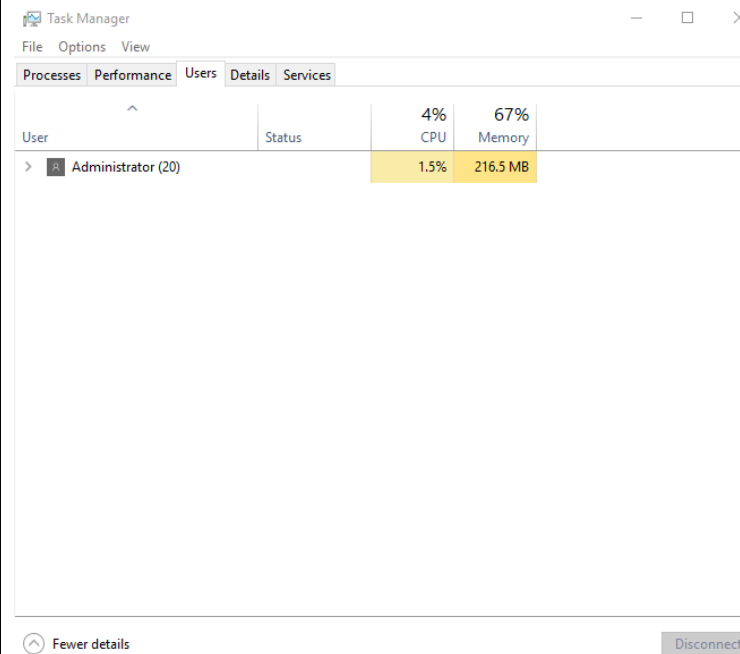
Task manager WS2	Server manager is using the most memory sitting at 105.7MB and Windows explorer is using 1% of the CPU.
	The administrator is using the most memory at 216.5MB of memory and 1.5% of the CPU

Resource manager WS1	Disk usage stats

Disk usage stats
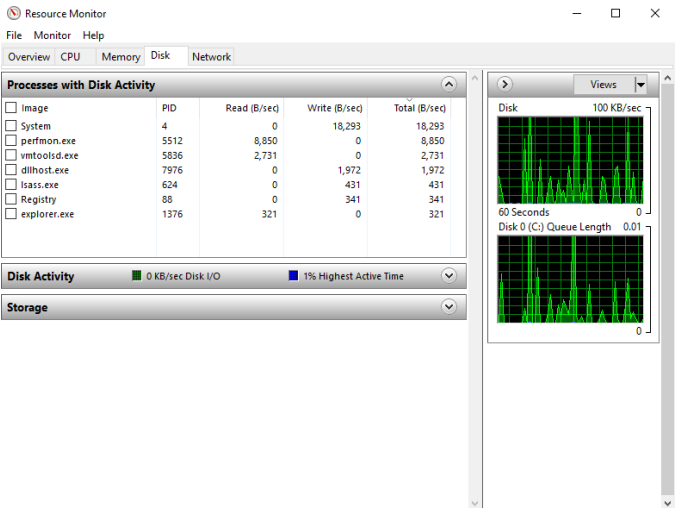
Network TCP connections

Image	PID	Local ...	Local ...	Remo...	Remo...	Packe...	Laten...
lsass.exe	624	192.1...	389	192.1...	58962	0	47
-	-	fe80:...	55452	fe80:...	135	0	2
lsass.exe	624	fe80:...	49667	fe80:...	49791	0	1
dns.exe	2764	IPv6 I...	52507	IPv6 I...	389	0	0
dfsrs.exe	2688	fe80:...	52519	fe80:...	389	0	0
dfsrs.exe	2688	fe80:...	52518	fe80:...	389	0	0
dfsrs.exe	2688	fe80:...	49791	fe80:...	49667	0	0
lsass.exe	624	fe80:...	389	fe80:...	52518	0	0
lsass.exe	624	fe80:...	389	fe80:...	52519	0	0
lsass.exe	624	IPv6 I...	389	IPv6 I...	52507	0	0
dns.exe	2764	fe80:...	53912	fe80:...	389	0	0
lsass.exe	624	fe80:...	389	fe80:...	53912	0	0
System	4	fe80:...	55464	fe80:...	445	-	-
System	4	fe80:...	445	fe80:...	55464	-	-
-	-	192.1...	55461	192.1...	135	-	-
-	-	IPv6 I...	55460	IPv6 I...	47001	-	-
lsass.exe	624	192.1...	55458	192.1...	49668	-	-
lsass.exe	624	192.1...	49667	192.1...	59978	-	-
-	-	192.1...	55451	192.1...	135	-	-
dfssvc.exe	2880	fe80:...	59373	fe80:...	49667	-	-
lsass.exe	624	fe80:...	59124	fe80:...	49667	-	-
ismserv.exe	2772	IPv6 I...	49684	IPv6 I...	389	-	-
ismserv.exe	2772	IPv6 I...	49673	IPv6 I...	389	-	-
lsass.exe	624	fe80:...	49667	fe80:...	59373	-	-
lsass.exe	624	fe80:...	49667	fe80:...	59124	-	-
lsass.exe	624	IPv6 I...	389	IPv6 I...	49684	-	-
lsass.exe	624	IPv6 I...	389	IPv6 I...	49673	-	-
-	-	192.1...	55412	192.1...	49668	-	-
dfsrs.exe	2688	192.1...	52526	192.1...	57015	-	-
dfsrs.exe	2688	192.1...	49803	192.1...	57015	-	-
dfsrs.exe	2688	192.1...	49794	192.1...	58996	0	-

Resource manager WS2	Disk Usage

Network TCP connections
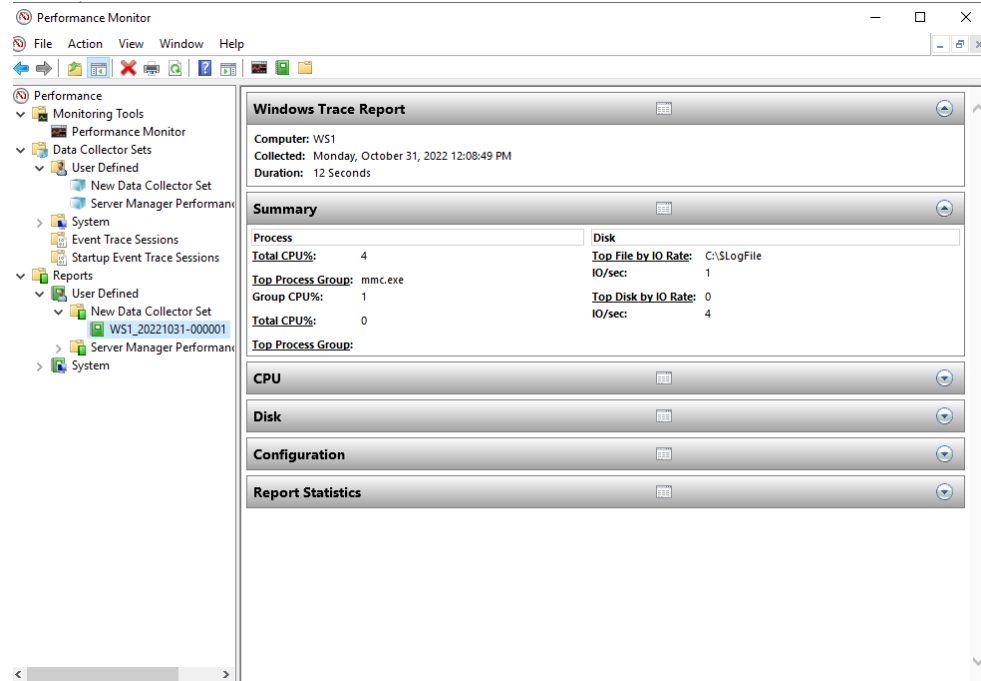
Performance Monitor WS1	

I added Processor time, Disk read time and bytes Received per second, the reason I added these is because I wanted to see how long it would take for my server to process and read information sent/input to it.

Ran system diagnostics check

Created a new user-defined data set, generated, and collected data

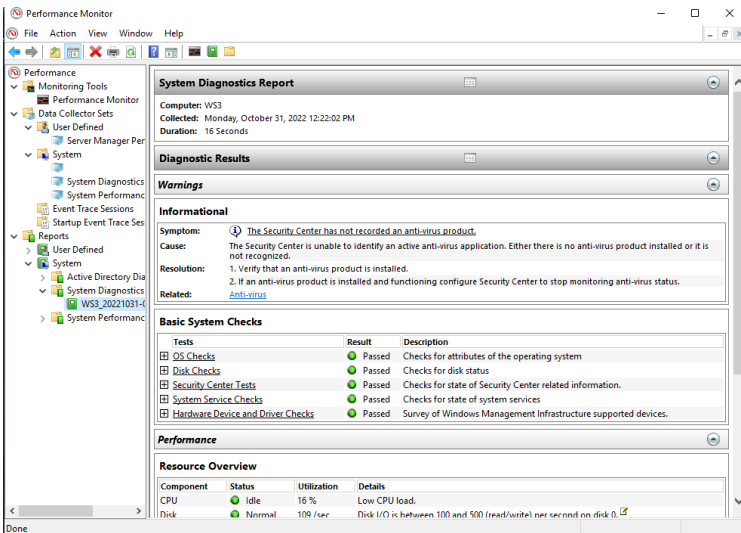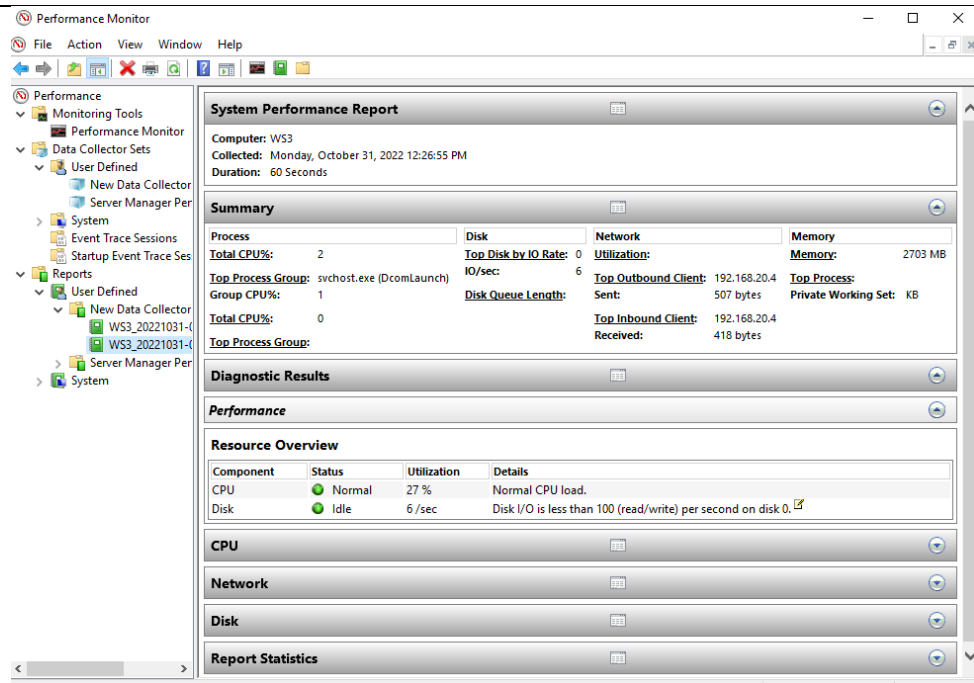| Performance Monitor WS2	I added Current bandwidth as I wanted to see what how much bandwidth was being used, I also added disk write as I wanted to see how fast the disks were writing, and finally I added datagrams for IPv4 as I wanted to see what information it would display.
	Systems diagnostics report.
	Report for new user defined set
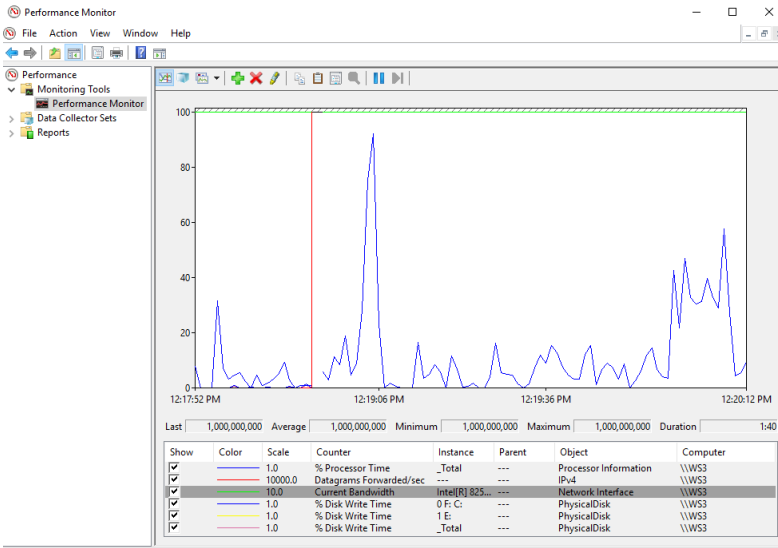
	Performance Monitor — □ × File Action View Window Help **System Performance Report** **Computer:** WS3 **Collected:** Monday, October 31, 2022 12:26:55 PM **Duration:** 60 Seconds **Summary** 	Process		Disk		Network		Memory	
---	---	---	---	---	---	---	---
Total CPU%:	2	Top Disk by IO Rate:	0	Utilization:		Memory:	2703 MB
Top Process Group:	svchost.exe (DcomLaunch)	IO/sec:	6			Top Process:	
Group CPU%:	1	Disk Queue Length:		Top Outbound Client:	192.168.20.4	Private Working Set:	KB
				Sent:	507 bytes		
Total CPU%:	0			Top Inbound Client:	192.168.20.4		
				Received:	418 bytes		
Top Process Group:							| **Diagnostic Results** *Performance* **Resource Overview** | Component	Status	Utilization	Details
---	---	---	---
CPU	● Normal	27 %	Normal CPU load.
Disk	● Idle	6 /sec	Disk I/O is less than 100 (read/write) per second on disk 0.	 **CPU** **Network** **Disk** **Report Statistics**
Reliability monitor WS1	The average rating is 10 and there were no major fluctuations on WS1. **Reliability Monitor** — □ × ← → ↑ « System and Security › Security and Maintenance › Reliability Monitor Search Co... 🔍 **Review your computer's reliability and problem history** The stability index assesses your system's overall stability on a scale from 1 to 10. By selecting a specific period in time, you may review the specific hardware and software problems that have impacted your system. View by: **Days**	Weeks Last updated: 10/31/2022 12:00 PM Application failures Windows failures Miscellaneous failures Warnings Information Reliability details for: 10/29/2022 	Source	Summary	Date	Action
---	---	---	---
There are no reports in this view.				 📄 Save reliability history... View all problem reports OK

Reliability monitor WS2	The average rating is around 7 and there were major fluctuations on WS2 when my remote desktop wasn't working on the 27/10/2022.

List At the three most useful Internet resources that you used (provided by the tutor)

https://www.youtube.com/watch?v=CagTiRYmj58&ab_channel=RobertMcMillen
https://www.youtube.com/watch?v=h080znhuj8o
https://www.youtube.com/watch?v=oIos0TbZfjY

List all (at least three) Internet resources that you found and used that were not provided by the tutor)

https://www.blackice.com/Help/Internet/Print2RDP%20webhelp/WebHelp/How_to_connect_RD_Web_Access_on_the_Client_system.htm
https://www.youtube.com/watch?v=5vcOSAR8m5s&ab_channel=MSFTWebCast
https://learn.microsoft.com/en-us/answers/questions/288664/easy-way-to-create-alerts-in-scom-2019-installed-m.html

Reflect on at least two significant problems you came across during the implementation of this section and the solution you found. Use at least five sentence to describe each problem and five sentences to describe each solution. Demonstrate your critical thinking and problem-solving abilities.

Problem	Solution
When I was trying to connect to my remote desktop, I couldn't connect to my server.	My solution this was to first restart my server as I thought that might be the issue, this didn't end up working, I then talked to a couple of my classmate that had the same problem and they suggest I try entering a different IP address which fixed my problem.
I had issue where I couldn't connect to my RD web access.	The problem was that I was entering the domain name wrong, my solution was to enter the IP

	address of my server instead of the domain name and this seemed to provide a stable connection.