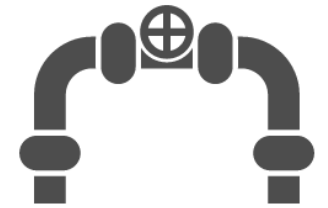


Module 2 Mastery Lab

Introduction



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Fueling The Future.

This is an assessment of a student's knowledge of the Unit's material.

Objectives

In this lab the student will:

- Check the health of your Windows Server using built-in tools.
- Enable Remote Desktop.

Resources Needed

- Computer with Internet access
- VMWare Workstation Pro
- Windows Server and Client VMs created in Unit 1 Mastery Lab

Assignment

- Check the health of your Windows Server using built-in tools.
- Enable Remote Desktop.
- Take screenshots and answer any questions in a separate text document.

Procedure

Check the health of your Windows Server.

1. Start your TXServerXX server.
 - a. Attempt to login as administrator two times with the wrong password.
 - b. Login as administrator with the correct password and note the current time.
2. View the event logs on your server.
 - a. Open the System log.
 - i. Find the first event log entry showing exactly when your server started today. (Look for the gap in the current date and time and when your server was last running.)
 - ii. Open the details of that specific event log entry. Take a **screenshot**.
 - b. Open the application log
 - i. Change the Application log file size to 64MB. Take a **screenshot**.
 - ii. Clear the Application Log. Save a copy to your Documents folder called App_Log. Take a **screenshot**.
 - c. Open the Security log.
 - i. Search for failed login events.
 - ii. Locate a login failure message for administrator, open the details, and take a **screenshot**.
3. Open and maximize Task Manager.
 - a. Sort by memory usage, with the processes using the most memory at the top.
 - b. Take a **screenshot**.
4. View the Services on your server.
 - a. Sort by status, with "Running" at the top.
 - b. Take a **screenshot**.
 - c. Sort by name.
 - d. Look at the details for the Print Spooler service.
 - e. Stop the Print Spooler service.
 - f. Disable the Print Spooler service.
 - g. Take a **screenshot** of the Print Spooler service details.
 - h. Start the Print Spooler service and set it to "Automatic" start.
5. Enable Remote Desktop.
 - a. Select "Allow remote connections to this computer"

- b. By default, who has permissions to Remote Desktop to this server?
 - c. Take a **screenshot**.
 - d. Switch to and login to your Windows 10 VM.
 - e. Remote desktop (by IP address) to your server and login as administrator.
 - f. At the "Enter your credentials screen", take a **screenshot**.
 - g. Ignore the certificate error and select <Yes> to login.
 - h. Make sure the server IP address is visible in the Connection bar at the top and take a **screenshot** of the Connection bar.
 - i. Minimize the remote desktop window and take a **screenshot**.
 - j. Click on the Remote Desktop icon on the taskbar to maximize the window.
 - k. Open a command prompt and type **ipconfig**.
 - l. Click the X in the Connection bar to disconnect your remote session.
 - m. Switch to your server VM and notice this local session was logged out when you connected remotely. Login as administrator again locally on your server VM.
 - n. Switch to your Windows 10 VM and Remote Desktop (by IP address) to your server and login again. Take a **screenshot**.
 - o. Click the Start button, select the user (Administrator) icon and sign out and close your RDP session.
6. Display the properties of the paging file and take a **screenshot**.
7. Open Performance Monitor and Create a Data Collector Set called **Server Health**.
- a. Add the following performance counters:
 - [Processor] "% Processor time" (_Total)**
 - [Memory] "Available MBytes"**
 - [Memory] "Pages/sec"**
 - [Physical Disk] "Avg. Disk Queue Length" for the C volume**
 - [Network interface] "Bytes total/sec"**
 - [Server] "Server Sessions"**
 - b. Start your **Server Health** Data Collector Set. (Let it run for about 5 minutes.)
 - c. Generate some server activity by doing the following:

- i. Open a command prompt on the client VM and start a continuous ping of the server by typing **ping [server IP address] -t**
 - ii. Take a **screenshot** of your continuous ping.
 - iii. Open a command prompt on the server and start a continuous ping of the client VM.
 - iv. Open 3 or 4 apps from the Tools Menu
 - v. Remote Desktop from your Client VM to your server.
- d. Wait 5 minutes.
- e. Stop your Data Collector Set.
- f. Stop both of your continuous pings.
- g. Close the apps you opened to generate activity.
- h. Close the Remote Desktop session.
- i. Open the **Performance Monitor node** in Performance Monitor.
- j. Select the icon at the top of the graph to **View Log Data**.
- k. Add all 6 counters to the graph.
- l. Select "Pages/Sec" at the bottom.
- m. Type <Ctrl> H to **Bold** the selected line on the graph.
- n. Use the **Up** and **Down** arrows to select **% Processor Time**.
- o. Take a **screenshot** of your graph.
- p. Close Performance Monitor.
- 8. Open Server Manager.
 - a. Take a **screenshot** of the properties screen for your server.
- 9. Open Resource Monitor.
 - a. On the Overview tab, expand CPU and Disk.
 - b. Take a **screenshot**.
- 10. Boot your server into Safe Mode.
 - a. Open System Configuration and set your server to boot into Safe Mode with the default settings and reboot your server.
 - b. Login and take a **screenshot** showing your server in Safe Mode.
 - c. Open System Configuration, uncheck Safe Mode, and reboot.
- 11. Run chkdsk on your server's C volume and take a **screenshot**.
 - a. Open the Application Event log and search for Event ID 26212.

b. Open the Event details and take a **screenshot**.

Rubric

<u>Concerns</u> Working Towards Proficiency	<u>Criteria</u> Standards for This Competency	<u>Accomplished</u> Evidence of Mastering Competency
	Criteria #1: (PrtScr1.png) System Event Log entry showing server starting. (5 points)	
	Criteria #2: (PrtScr2.png) Application Event Log size set to 64MB. (5 points)	
	Criteria #3: (PrtScr3.png) Application Log contents saved to App_Log file. (5 points)	
	Criteria #4: (PrtScr4.png) Security Log Login Failure message for administrator. (5 points)	
	Criteria #5: (PrtScr5.png) Task Manager display of Memory Usage. (5 points)	
	Criteria #6: (PrtScr6.png) Services sorted by Status with "Running" at the top. (5 points)	
	Criteria #7: (PrtScr7.png) Print Spooler service stopped and disabled. (5 points)	
	Criteria #8: (PrtScr8.png) Permissions for Remote Desktop (5 points)	
	Criteria #9: (PrtScr9.png) "Enter your credentials" screenshot (5 points)	

	Criteria #10: (PrtScr10.png) Screenshot of server IP address in Connection Bar (5 points)	
	Criteria #11: (PrtScr11.png) Screenshot of minimized Remote Desktop window (5 points)	
	Criteria #12: (PrtScr12.png) Screenshot of RDP Session with command prompt (5 points)	
	Criteria #13: (PrtScr13.png) Screenshot of server Paging file properties (5 points)	
	Criteria #14: (PrtScr14.png) Screenshot of continuous ping (5 points)	
	Criteria #15: (PrtScr15.png) Screenshot of Perf Monitor graph (5 points)	
	Criteria #16: (PrtScr16.png) Screenshot of Server Manager Server Properties screen (5 points)	
	Criteria #17: (PrtScr17.png) Screenshot of Resource Monitor (5 points)	
	Criteria #18: (PrtScr18.png) Screenshot of Safe Mode (5 points)	
	Criteria #19: (PrtScr19.png) Screenshot of chkdsk (5 points)	
	Criteria #20: (PrtScr20.png) Screenshot of Event ID 26212 (5 points)	