Q2 Screenshoots:

A screen shot of a computer

AI-generated content may be incorrect.  
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A screenshot of a computer program

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I attempted to establish connectivity to the target server IP 192.168.1.100 from my testing machine ( 192.168.1.5 ) using the Test-NetConnection command:

Test-NetConnection -ComputerName 192.168.1.100 -Port 80

The command failed with the following key results:

- PingSucceeded : False

- PingReplyDetails: DestinationHostUnreachable

- TcpTestSucceeded : False

This DestinationHostUnreachable error indicates a fundamental network layer problem. My testing machine cannot find a valid route to the target IP address 192.168.1.100 . This prevents not only the TCP connection test on port 80 but also basic ICMP (ping) communication.

Conclusion: This foundational network connectivity issue (Potential Cause #5: Network Connectivity Issue, or potentially #7/#8 if a firewall is blocking all traffic including ICMP) must be resolved before proceeding with the scenario's subsequent steps, such as detailed DNS resolution comparisons ( dig / nslookup ) for internal.example.com or checking if the web service is specifically listening on ports 80/443 using curl or telnet . The current state prevents validating whether a DNS issue or a service-specific problem exists because the target host itself is unreachable at the IP level from this client.