6.9 Lab: Explore APIPA Addressing in Network Modeler

Candidate: COMPTIA COMPTIA ()
Time Spent: 00:13

Score: 0%

Task Summary

Required Actions and Questions

- ✗ Run ipconfig /all on Home-PC1
- ✗ Ping Home-PC2
- ✗ *Q1*: Which network is the IP address assigned to this computer on?
  - Your answer:
  - Correct answer: 169.254.201.0
- ✗ *Q2*: Which type of IP address is assigned to this computer?
  - Your answer:
  - Correct answer: APIPA
- ✗ *Q3*: Why is the ping to Home-PC2 successful?
  - Your answer:
  - Correct answer: They both have APIPA addresses., They are both on the same network.
- ✗ Run ipconfig /renew on Home-PC1
- ✗ *Q4*: Which IP address is now assigned to Home-PC1?
  - Your answer:
  - Correct answer: 192.168.1.20
- ✗ Ping Home-PC2
- ✗ Ping the Gateway
- ✗ *Q5*: Why is the ping to Home-PC2 no longer successful?
  - Your answer:
  - Correct answer: They are not on the same network.
- ✗ Run ipconfig /renew on Home-PC2
- ✗ Ping Home-PC1

✕ *Q6*: Why can you now ping Home-PC1?

Your answer:

Correct answer: They both received DHCP addresses., They are on the same network.

Explanation

The router in this lab is configured for DHCP and has an assigned gateway of 192.168.1.1 on Port 0.

Complete this lab as follows:

1. Add the computers to the canvas
   a. In the tools tray, select **End Devices**.
   b. Drag all three computers to the modeler canvas.
2. Add the switch to the canvas
   a. In the tools tray, select **Switches**.
   b. Drag the switch to the modeler canvas.
3. Connect the computers to the switch
   a. In the tools tray, select **Create Link**.
   b. Click on **Home-PC1** and select the **Ethernet** port.
   c. Click on the **Switch** and select an open port.
   d. Click on **Home-PC2** and select the **Ethernet** port.
   e. Click on the switch and select an open port.
   f. Click on **Home-Laptop** and select the **Ethernet** port.
   g. Click on the switch and select an open port.
   h. Select **Create Link** to end the link tool.
4. Test connectivity and ping Home-PC2
   a. Right-click **Home-PC1** and select **Launch Windows**.
   b. Right-click **Start** and select **Terminal (Admin)**.
   c. Type **ipconfig /all** and press **Enter**.
   d. Type **ping Home-PC2** and press **Enter**.
   e. Answer questions 1 through 3.
5. Add the router to the canvas
   a. In the upper left, select **Network Modeler** to return to the diagram.
   b. In the tools tray, select **Routers**.
   c. Drag the router to the canvas.
6. Connect the switch to the router
   a. In the tools tray, select **Create Link**.
   b. Click on the **Router** and select **Port 0**.
   c. Click on the switch and select an open port.
   d. Select **Create Link** to end the link tool.
7. Renew the IP address for **Home-PC1**
   a. Right-click **Home-PC1** and select **Launch Windows**.
   b. Right-click **Start** and select **Terminal (Admin)** (if a terminal window is not already open).
   c. In the terminal window, type **ipconfig /renew**.
   d. Type **ipconfig /all**.
   e. Answer question 4.
8. Test connectivity by pinging Home-PC2 and the gateway
   a. In the terminal window, type **ping Home-PC2**.
   b. In the terminal window, type **ping 192.168.1.1**.
   c. Answer question 5.

9. Renew the IP address for **Home-PC2**
    a. In the upper left, select **Network Modeler** to return to the diagram.
    b. Right-click **Home-PC2** and select **Launch Windows**.
    c. Right-click **Start** and select **Windows PowerShell (Admin)**.
    d. In the terminal window, type **ipconfig /renew**.
    e. Type **ipconfig /all**.
10. Test connectivity by pinging Home-PC1 and the gateway
    a. In the terminal window, type **ping Home-PC1**.
    b. In the terminal window, type **ping 192.168.1.1**.
    c. Answer questions 6.