

to the MODULES pane on the left of the laptop window.

- 3) Install the wireless **WPC300N** module by clicking it in the **MODULES** pane and dragging it to the empty module port on the side of the Laptop.
- 4) Power on the **Laptop** by clicking the Laptop power button again.
- c. With the wireless module installed, connect the Laptop to the wireless network. Click the **Desktop** tab and select the **PC Wireless**.
- d. Select the **Connect** tab. After a slight delay, the wireless network **HomeNetwork** will be visible in the list of wireless networks. Click **Refresh** if necessary to see the list of available networks. Select the **HomeNetwork**. Click **Connect**.
- e. Close **PC Wireless**. Select **Web Browser** in the Desktop tab.
- f. In the Web Browser, navigate to **cisco.srv**.

Reflection

Now that you have verified connectivity to cisco.srv, use the command **ipconfig** from the Command Prompt to fill out the IP addressing table below:

Device	IPv4 Address	Subnet Mask	Default Gateway
PC			
Laptop			

Time Elapsed: 00:04:30 Completion: 100%

Check Results Back 1/1 Next

Time: 00:04:22

Realtime Simulation

Copper Straight-Through

Click Connections in the Device-Type Selection box, and then click the IoT Custom Cable in the Device-Specific Selection box. Click the Smart Sprinkler and connect one end of the cable to the D0 interface. Click the Water Meter and connect the cable to the D0 interface.

Step 5: Verify that the Water Meter is on the network.

- a. Click the **Smartphone**, and then **Desktop tab > Web Browser**.
- b. Log into the **Home Gateway**.
- c. The device **Water Meter** now appears at the bottom of the list of **IoT Server - Devices**.

Step 6: Add other IoT devices.

Experiment by adding other types of IoT devices to the smart home wireless network.

Time Elapsed: 00:20:39 Completion: 100%

Dock Check Results Back 1/1 Next

Time: 00:09:29

Realtime Simulation

IoT Custom Cable

Cisco Packet Tracer - /Users/loganlasell/Desktop/CHAMINADE/2024FallSemester/Networking/finalAssignment/DigitalTransPacketTracers/1.4.4-packet-tracer-connect-to-a-home-gateway-and-monitor-network.pka

and then turn Port Status to On.

Step 2: Add a portable media player to the wireless network

- In the Device-Type Selection box, click End Devices > Home. Add a Portable Music Player to the workspace.
- Notice the music player automatically connected to the Home Gateway. After a few minutes, it will be configured with an IP address from the 192.168.25.x network.
- Change the Display Name to Music Player.

Step 3: Pair the music player to Speaker.

- Turn Bluetooth Port Status to On.
- Click Discover under Discoverable Devices, click Speaker, click Pair, and then click Yes.
- Hold down the Alt key and click Music Player. (Hint: Make sure the speakers for your physical computer are on.)

What happens?

Step 4: Explore the network.

Feel free to add more wired and wireless devices to the network. For IoT devices, hold down the Alt key and click the devices to interact with them. With the Alt key depressed, you can turn on the Music Player, open the Door, and turn on the Lamp and Fan. Don't forget that you can also control the IoT devices from the IoT Monitor app on the Smartphone or Tablet.

Cisco Packet Tracer - /Users/loganlasell/Desktop/CHAMINADE/2024FallSemester/Networking/finalAssignment/DigitalTransPacketTracers/2.2.3-packet-tracer-blink-an-led-using-blockly.pka

d. Click Stop to stop the program.

Part 2: Control a RGB LED using Blockly

In this part, you will use Blockly to control an RGB LED. An RGB can display different colors with the combination of red, green, and blue.

Step 1: Add an MCU board and an RGB LED.

In this step, you will add another MCU board and a RGB LED into the workspace.

- Copy MCU on the workspace. With the MCU highlighted, copy (Ctrl + C) and paste (Ctrl + V) it onto the workspace. Double click the display name of the copied board and rename MCU(1) to MCU-RGB.
- Click Components and

Time Elapsed: 00:24:35

Time: 00:24:13

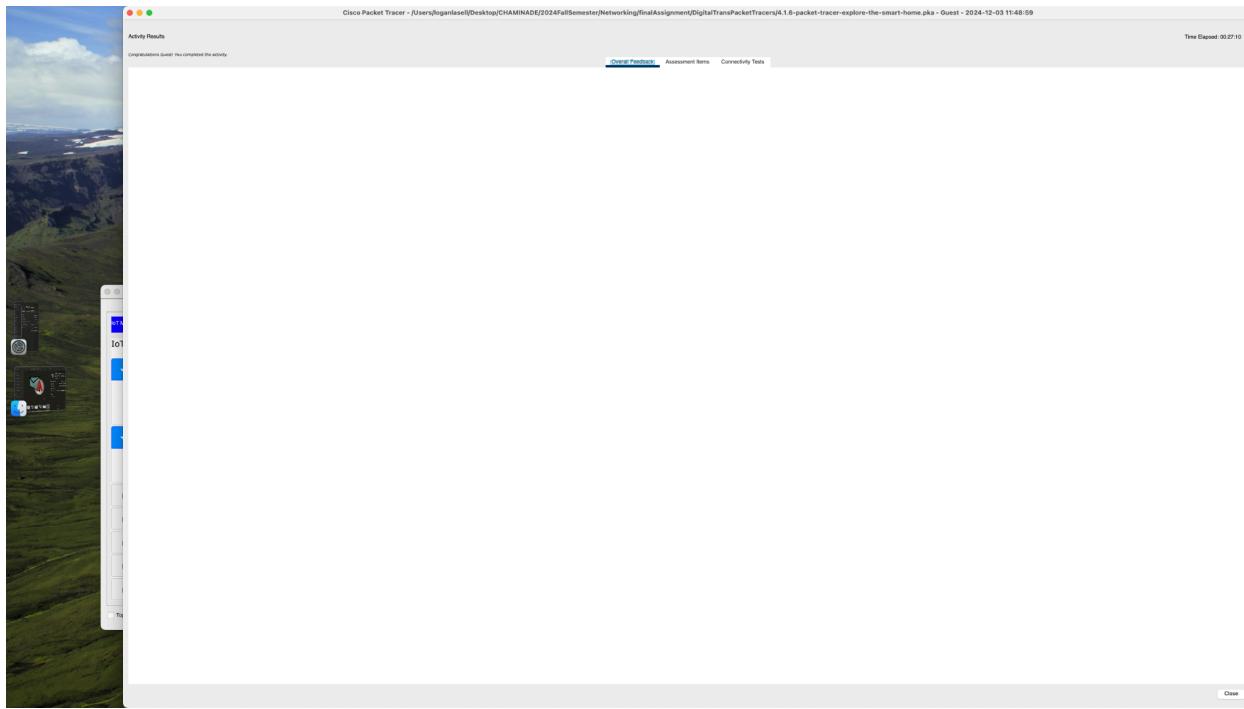
Completion: 100%

Realtime Simulation

Scenario 0

New Delete Toggle PDU List Window

Outputs Help



Congratulations! You completed the activity.

[Overall Feedback](#) [Assessment Items](#) [Connectivity Tests](#)

Step 4: Close the PC Wireless window when connected.

Step 4: Configure the Wireless Router to support MAC filtering.

- From the Desktop, click Command Prompt.
- At the prompt, enter ipconfig /all and take note of the IPv4 address and Physical (MAC) addresses for the Wireless0 Connection.
- Return to the PC and log into the configuration page of the Home Net wireless router as needed.
- Navigate to Wireless > Wireless MAC Filter.
- Under the Access Resolution heading, select Enabled and Permit PCs listed below to access wireless network.
- Enter the MAC address for the Wireless0 connection on Laptop0 in the MAC 01: field. Notice the MAC address must be in the XXXXXX-XX-XX format. Click Save Settings and click Continue.
- Reconnect Laptop0 to the wireless network. (Laptop0 > click PC Wireless > Profile > select aCompany > click Connect if necessary.)

Step 5: Test the MAC filtering of the Wireless Router

In this step, you will test the MAC filtering by adding a second laptop to the network. You will need to change out the fast Ethernet network interface card to a wireless network interface card.

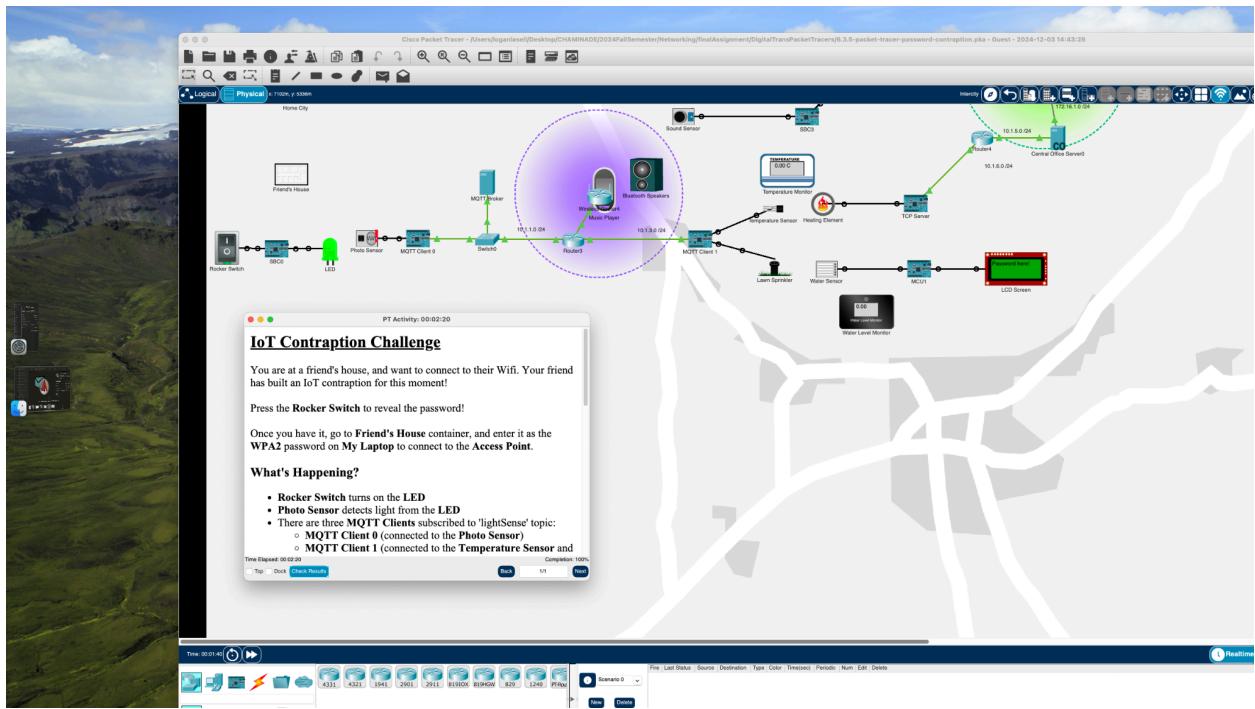
- Add a second laptop to the topology. You will need to change out the fast Ethernet network interface card to a wireless network interface card.
- Note: Do not change the display name of the newly added laptop. The name of the device will affect scoring in Packet Tracer.
- Press the power button on Laptop0 to turn it off.
- Drag the Ethernet port to the Modules list to remove it.
- Drag the WPC300N module to the empty slot on Laptop0 and press the power button to start Laptop0.

Were you unable to associate with the access point? If not, explain how you would fix it.

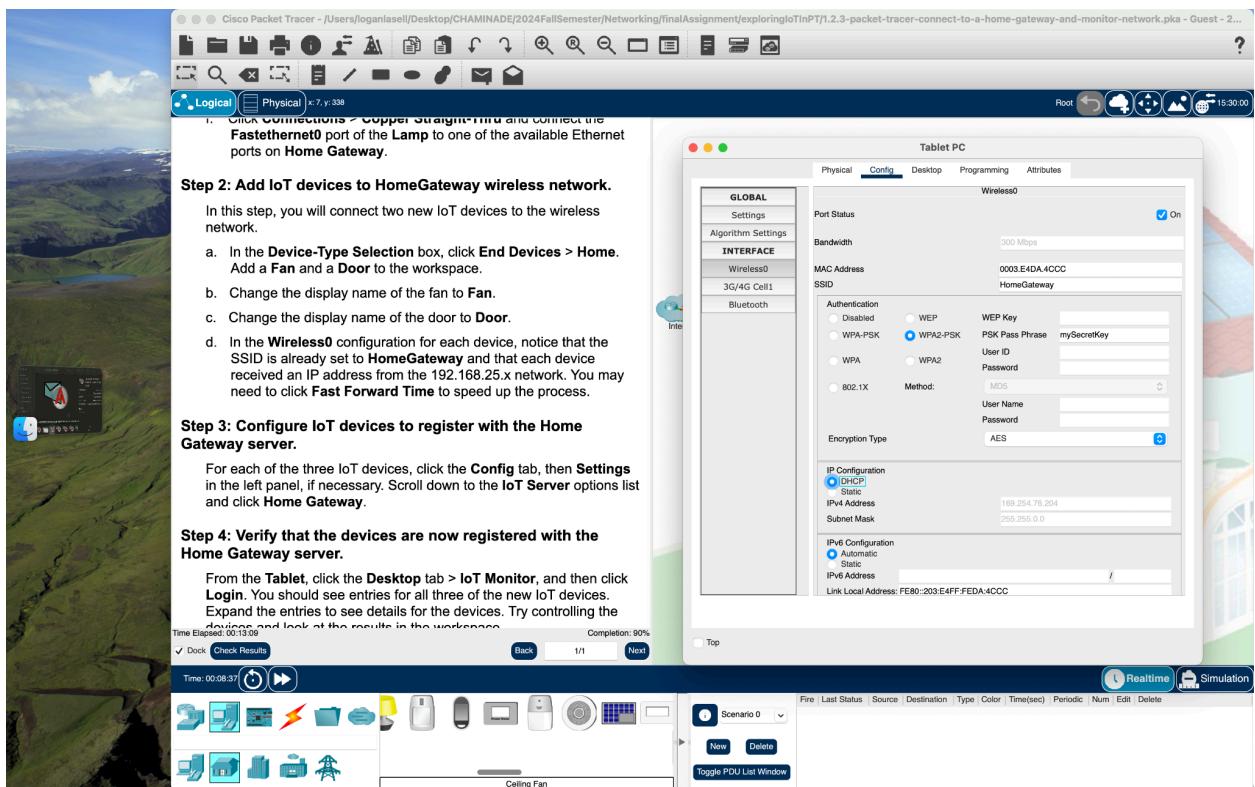
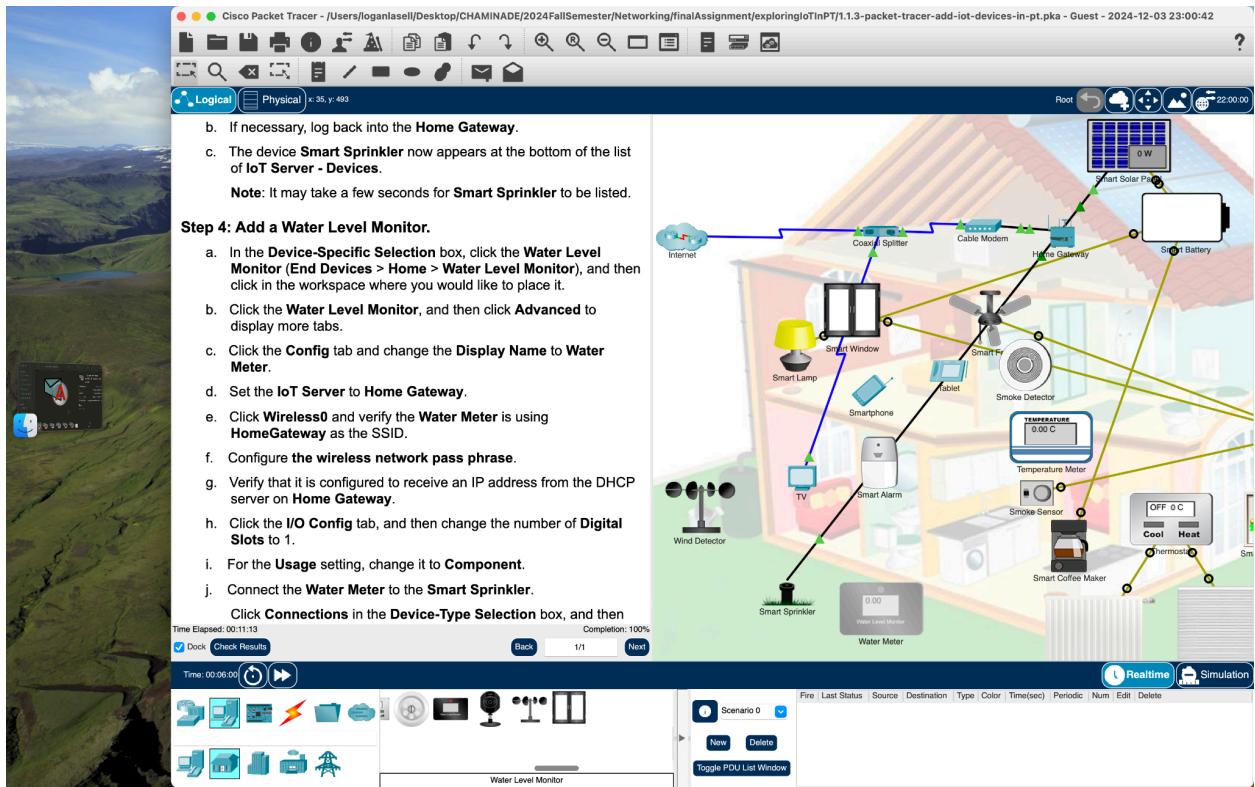
- Configure the new laptop with the security settings in the previous steps to connect Laptop0 to the network.

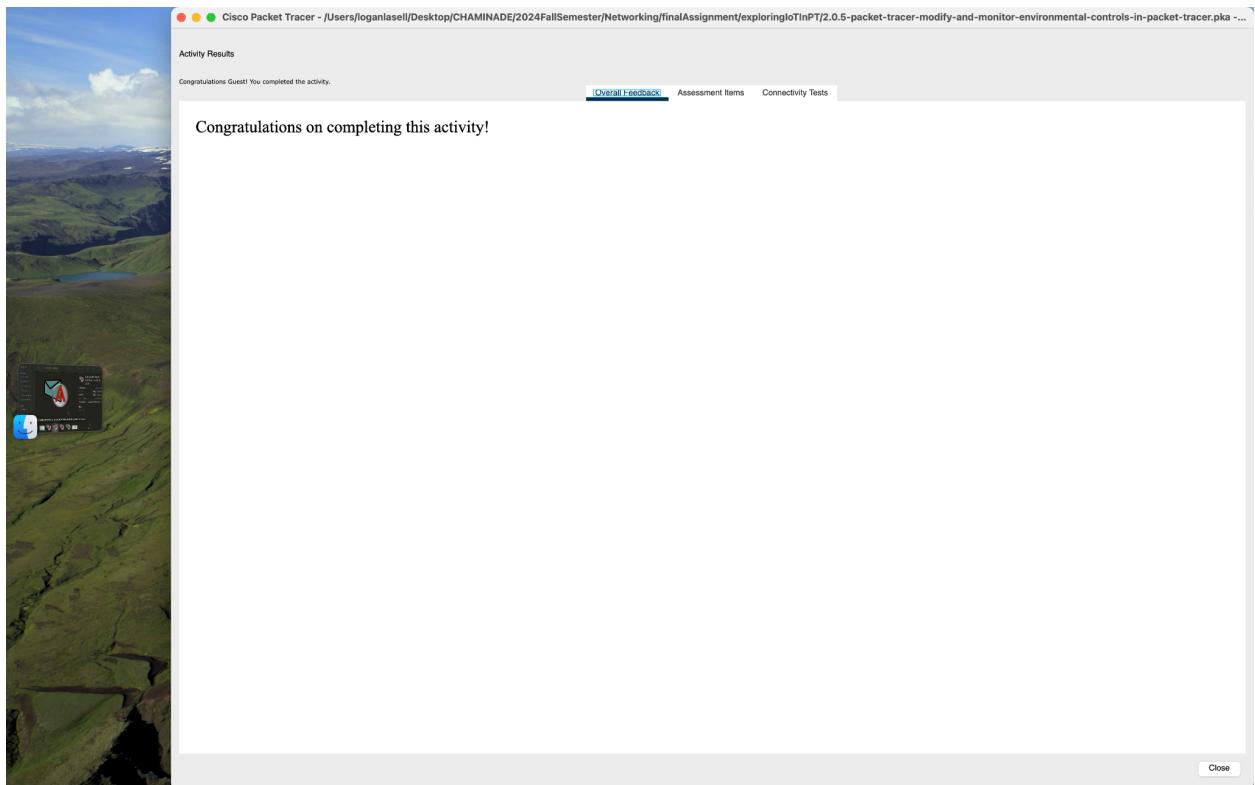
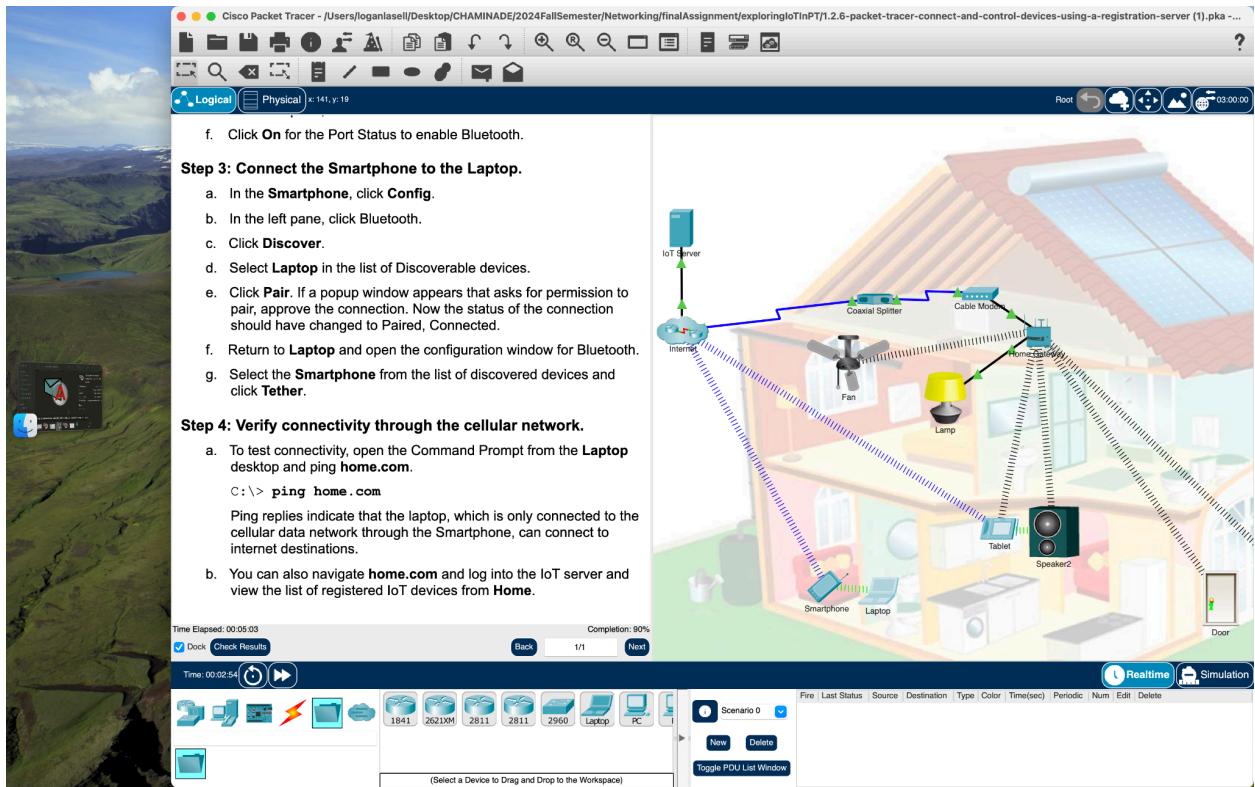
Completion: 100% Time Elapsed: 00:36:11

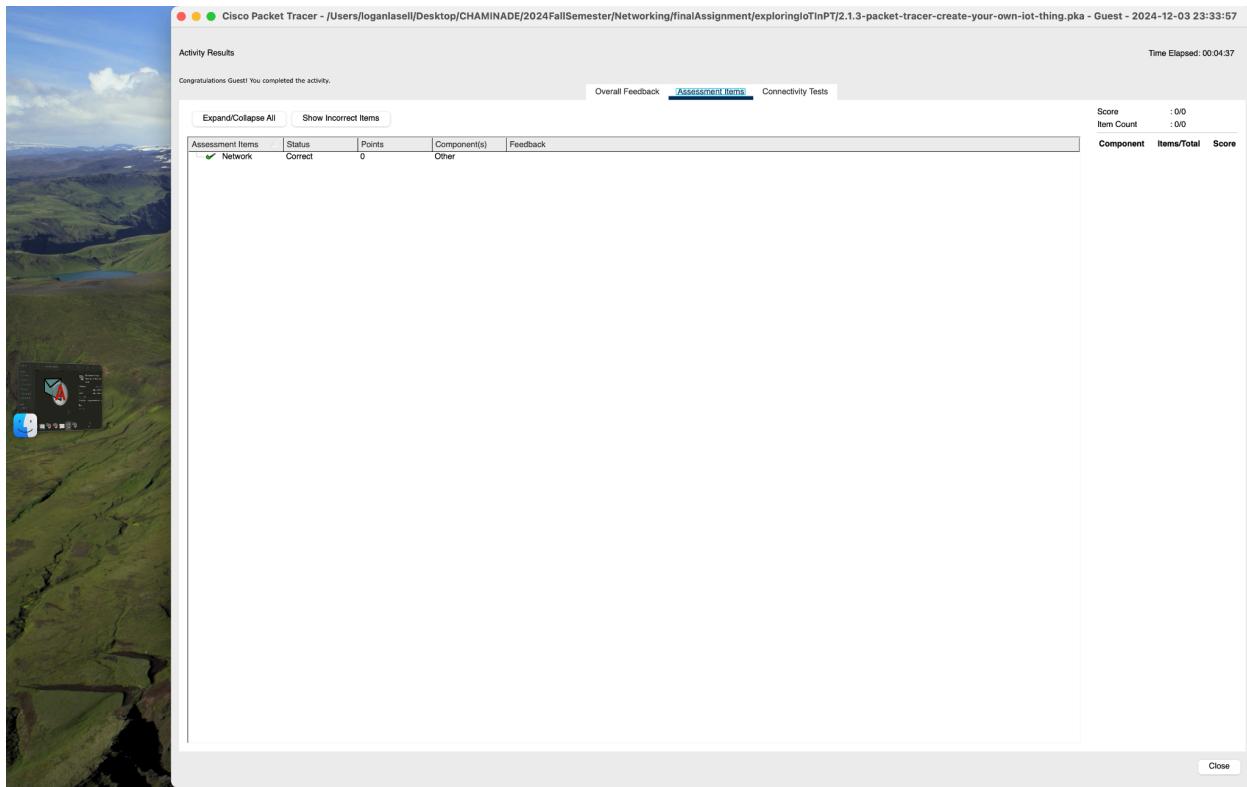
File Last Status Source Destination Type Color Timed Select All Delete



end







Step 1: Register the security camera thing with the IoT Registration Server.

- In the security camera configuration window, click the **Config** tab.
- In the **IoT Server** section of the pane on the right, click the **Remote Server** radio button. The IoT Registration Server is remote because it is connected to a network that is outside of the home network.
- Enter the **Server Address** as **203.0.0.3**.
- Enter the **User Name** as **home** and the **Password** as **home**.
- Click the **Connect** or **Refresh** button to initiate the connection.

Step 2: Monitor and test the thing from the IoT Server.

- Access the IoT Registration Server from the **Tablet**. To do so, click the **Tablet** to open the configuration window. Click the **Desktop** tab and select the **Web Browser** icon. In the web browser window, enter the URL of the IoT Registration Server, **home.com**, and click **Go**.
- In the **Registration Server Login** pane type in the following credentials and click **Connect**.
 - o Username: **home**
 - o Password: **home**
- In the **IoTServer - Devices** pane, click the **Security Camera** to expand the device information. Notice the **Security Camera** is **On** but not activated, as indicated by the red dot.
- Move the **Tablet** configuration window out of the way. It should be visible next to the PT workspace.

The Cisco Packet Tracer workspace shows a 3D model of a house with various IoT devices connected to an external IoT Registration Server via a network of routers, switches, and cables. The interface includes toolbars, a status bar at the bottom, and a timeline at the top.

End