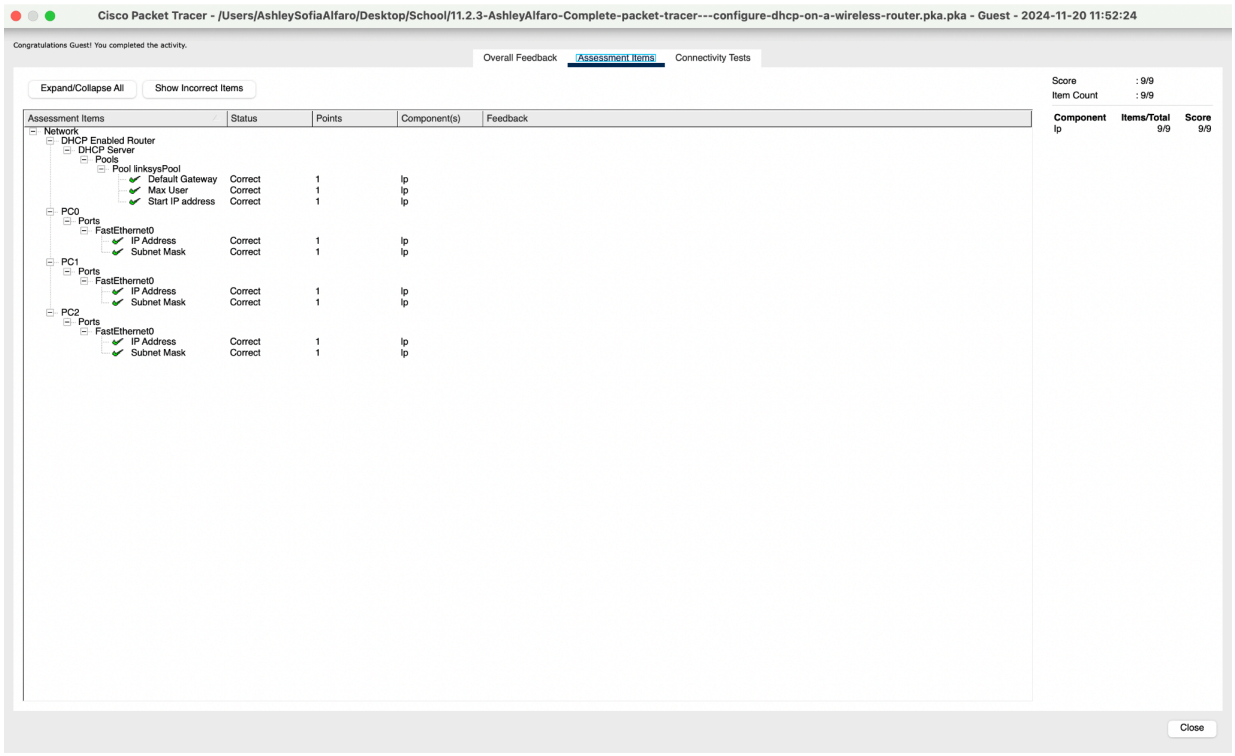
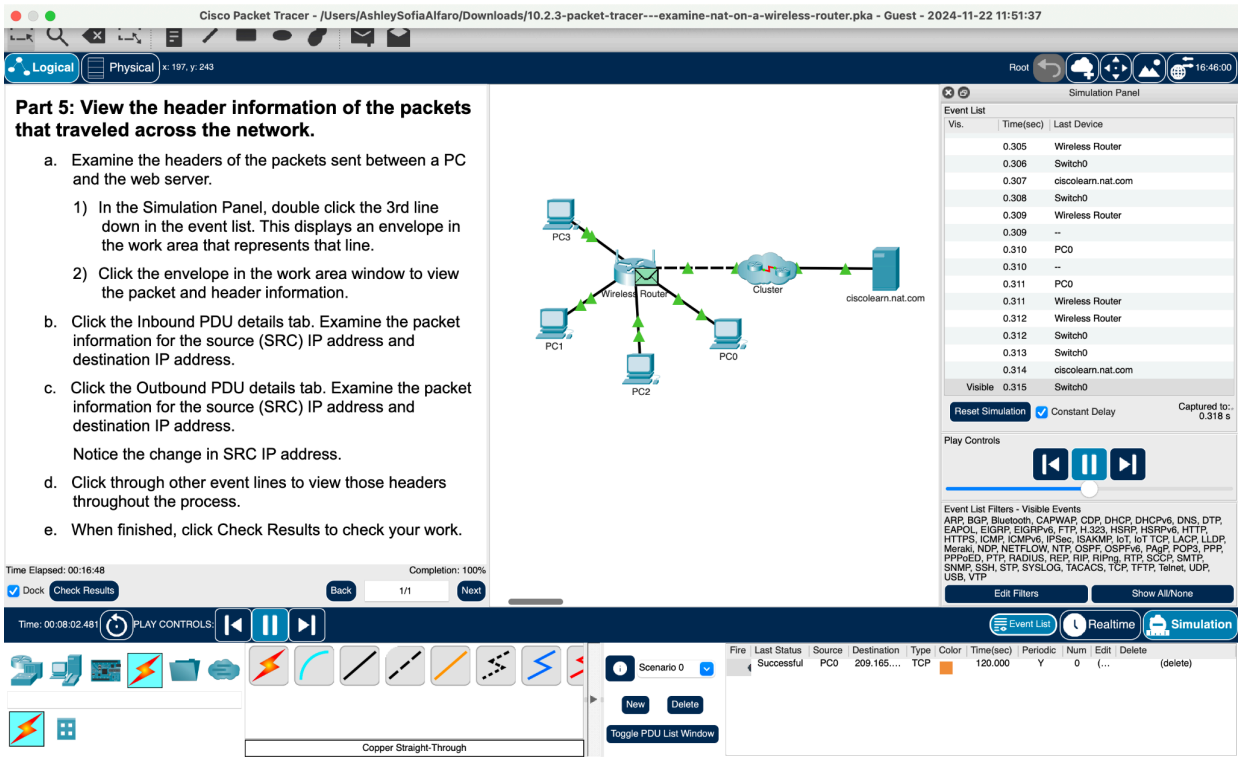
Networking Basics

Packet Tracer **11.2.3**

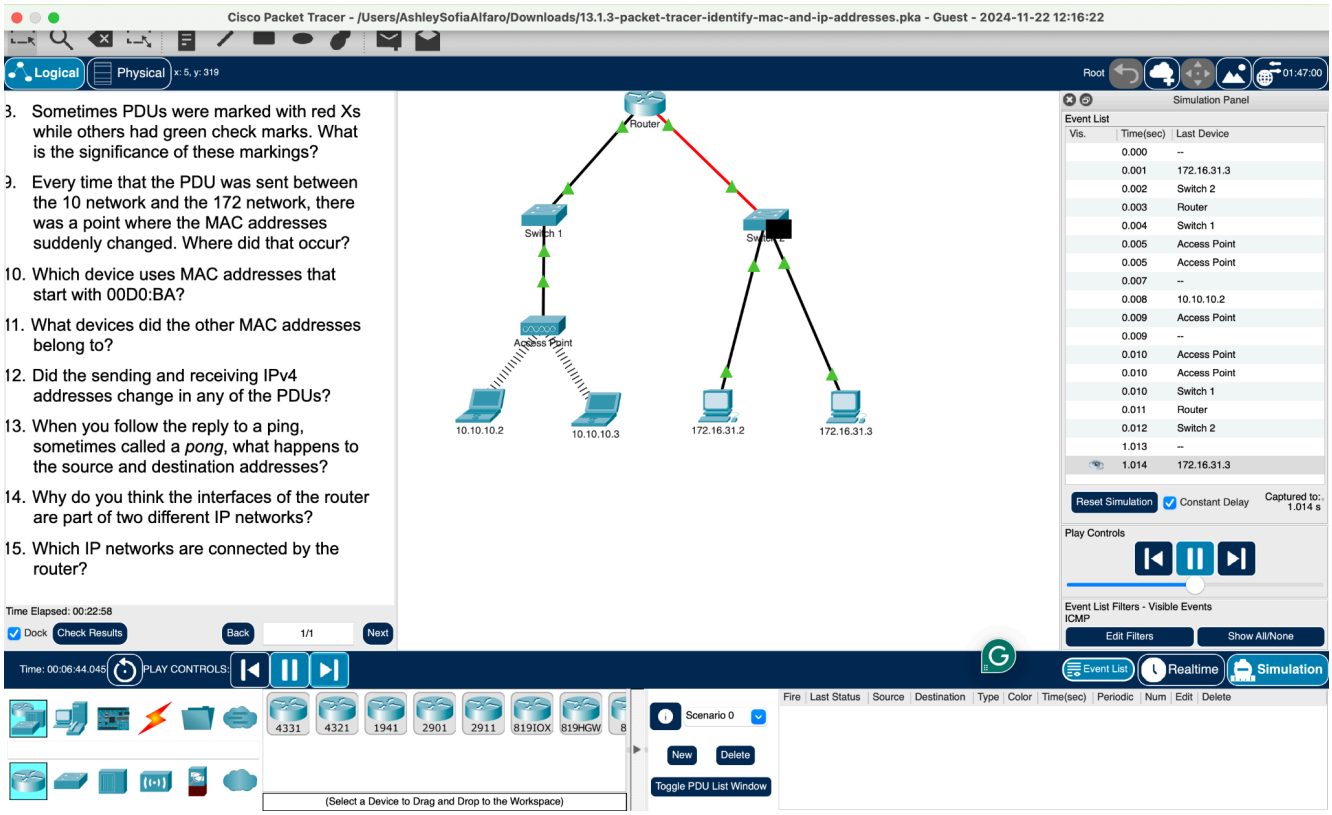


Packet Tracer **12.2.2**

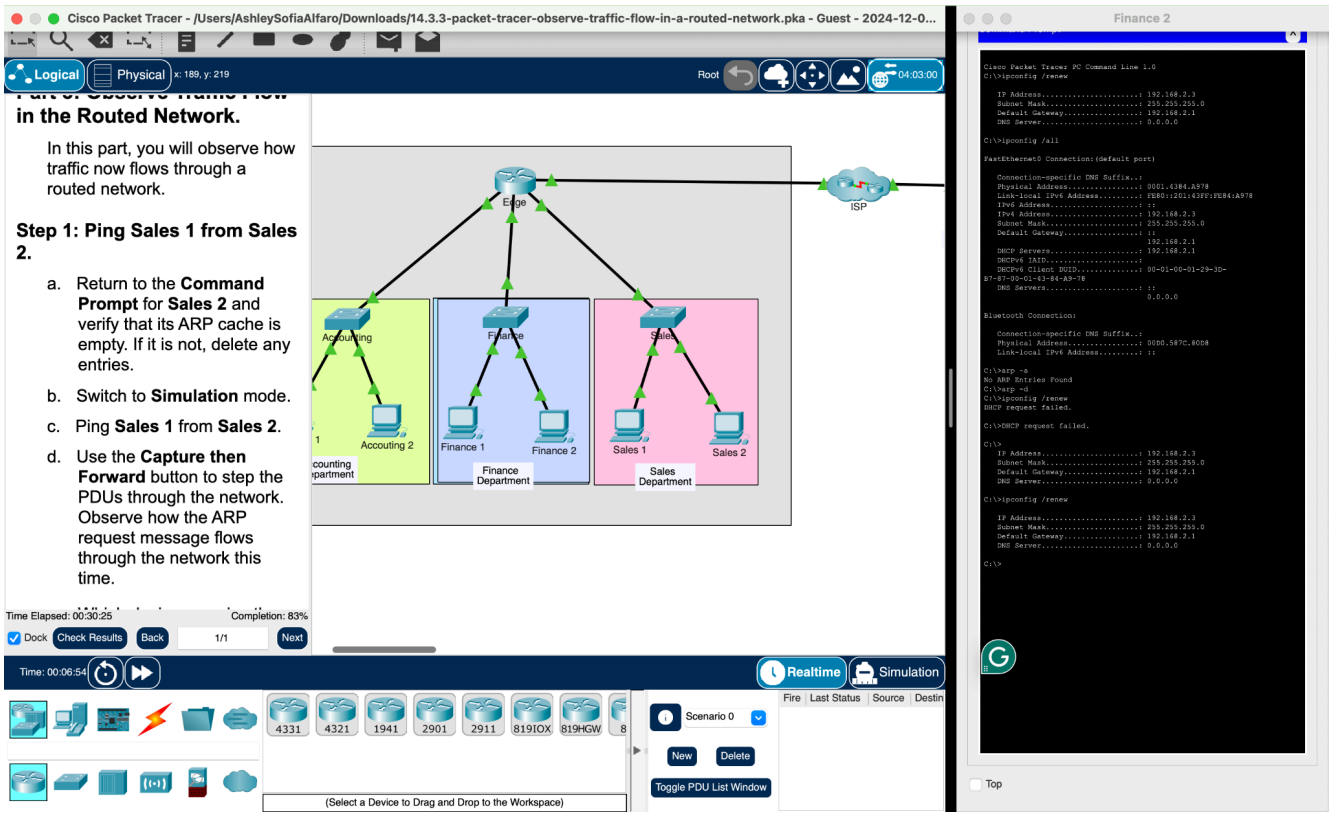


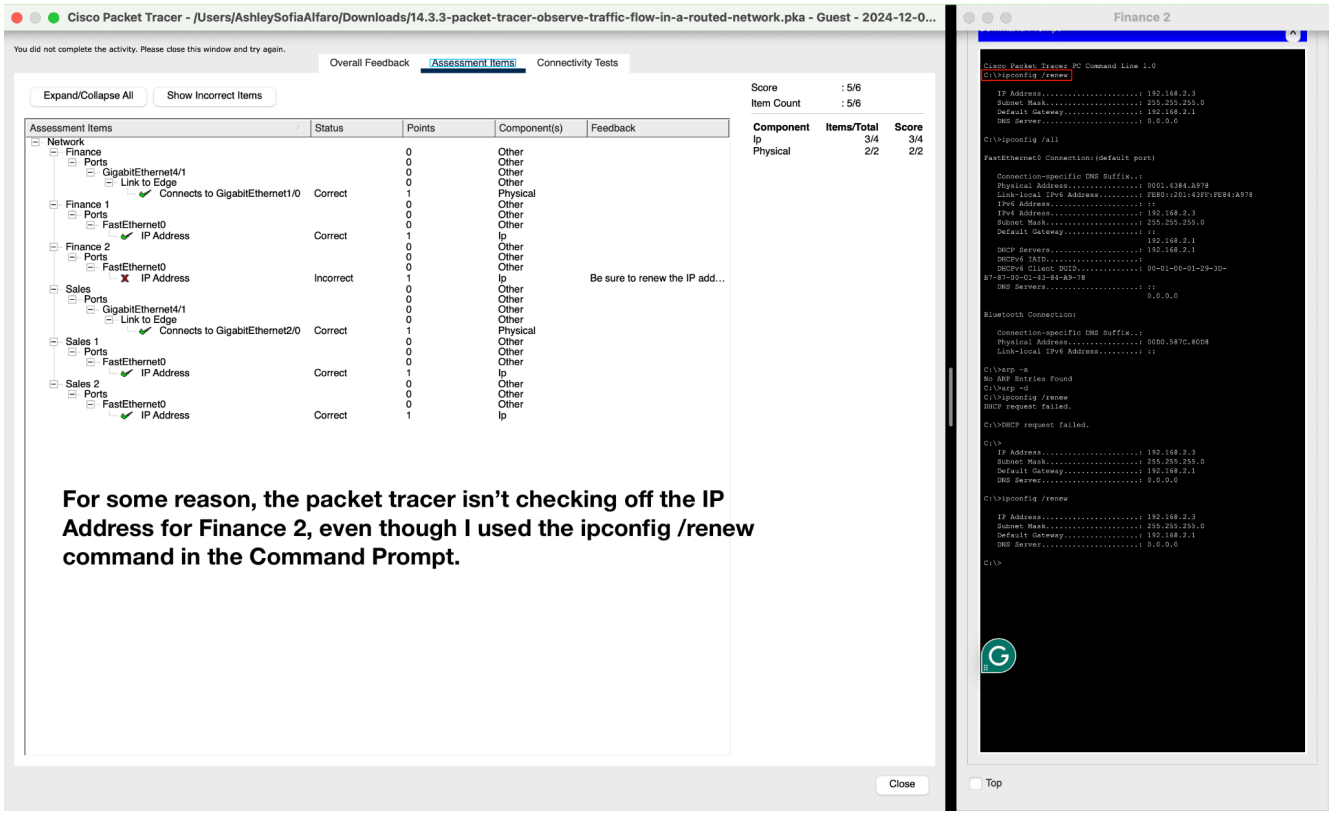
[Course Completion Screenshots]

Packet Tracer **13.1.3**

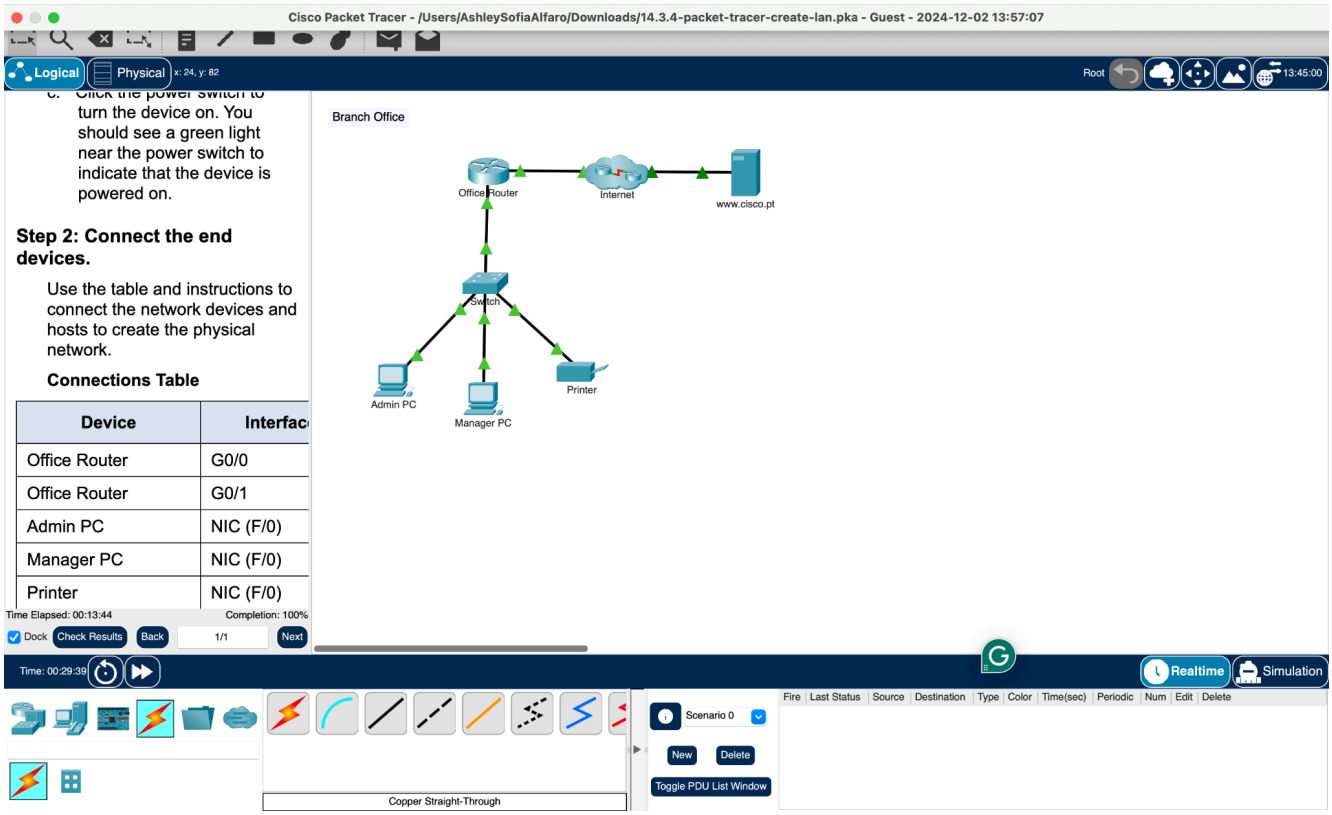


Packet Tracer **14.3.3** **See note on 2nd screenshot**

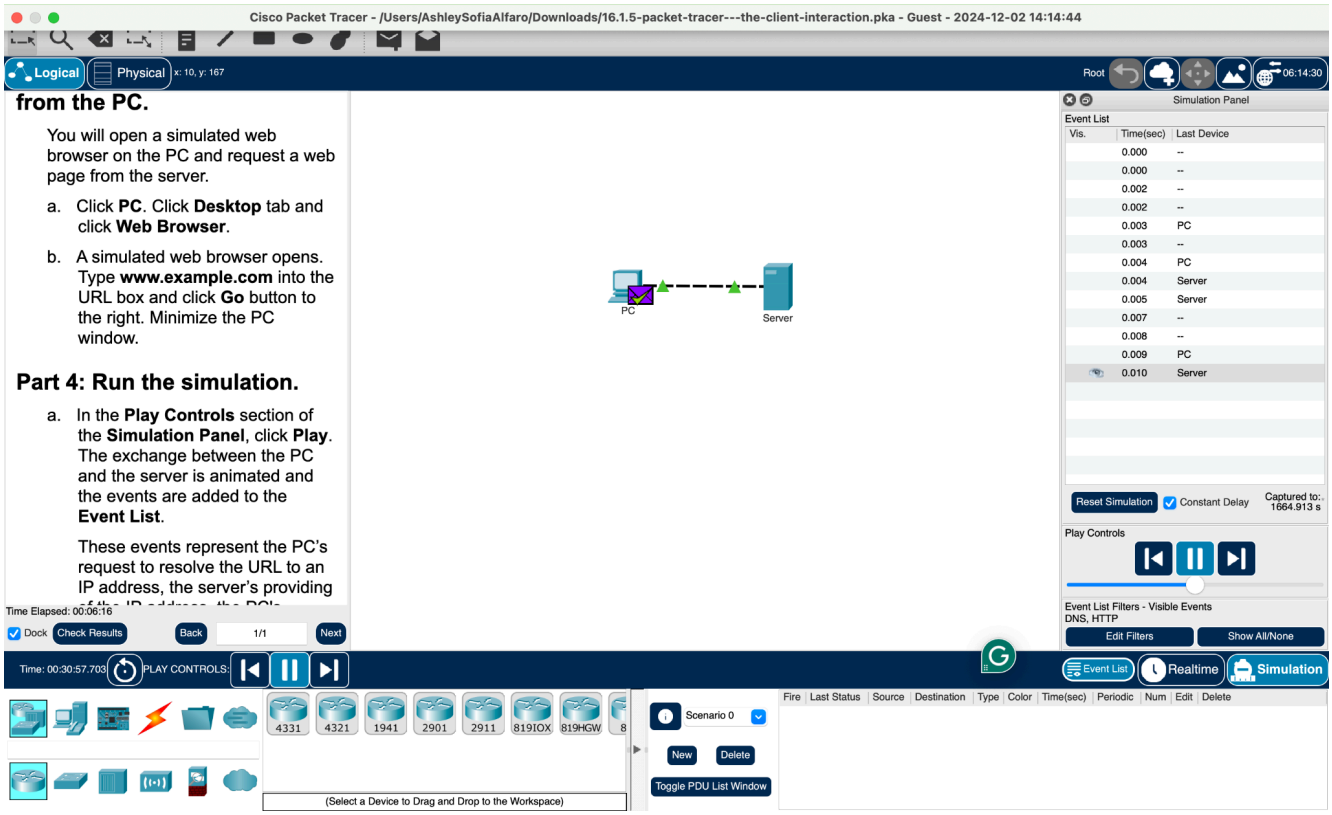




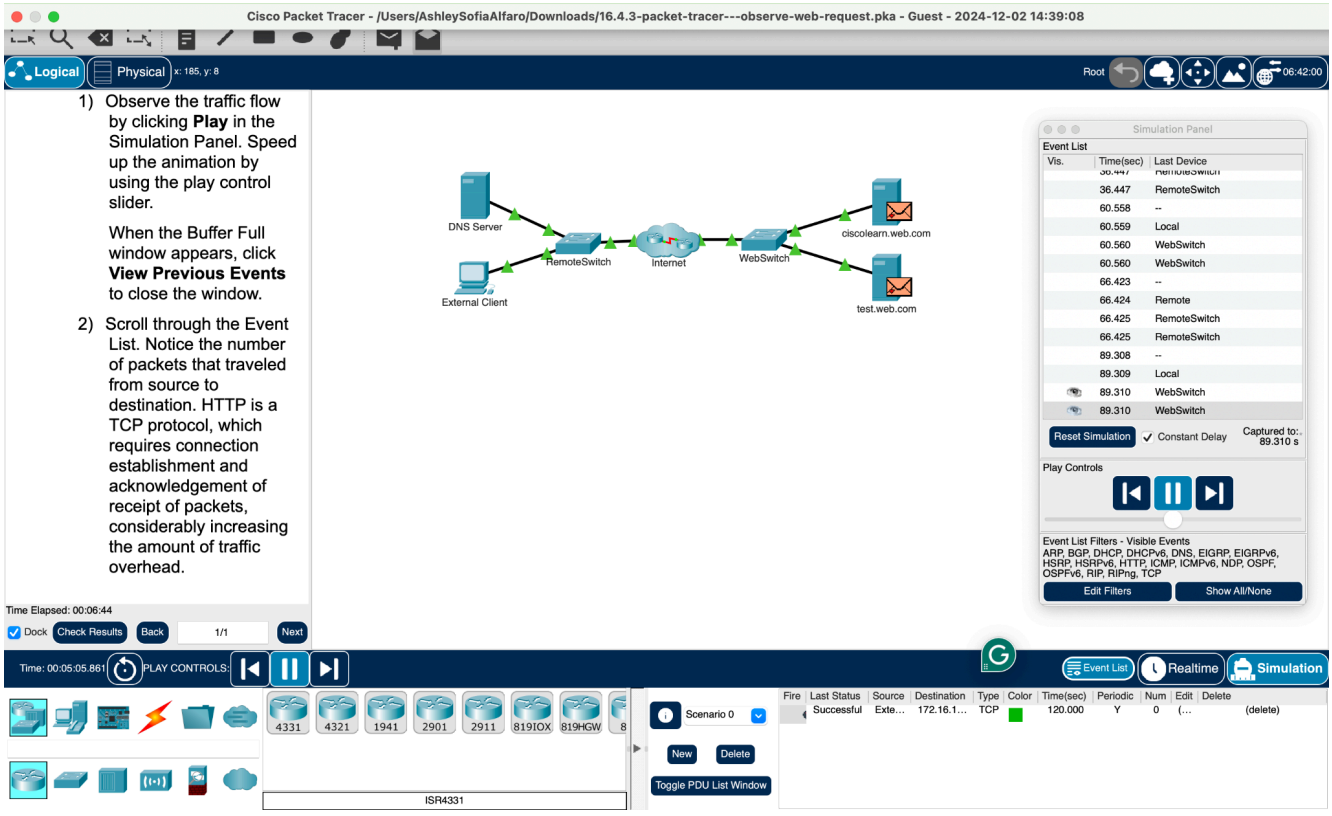
Packet Tracer **14.3.4**



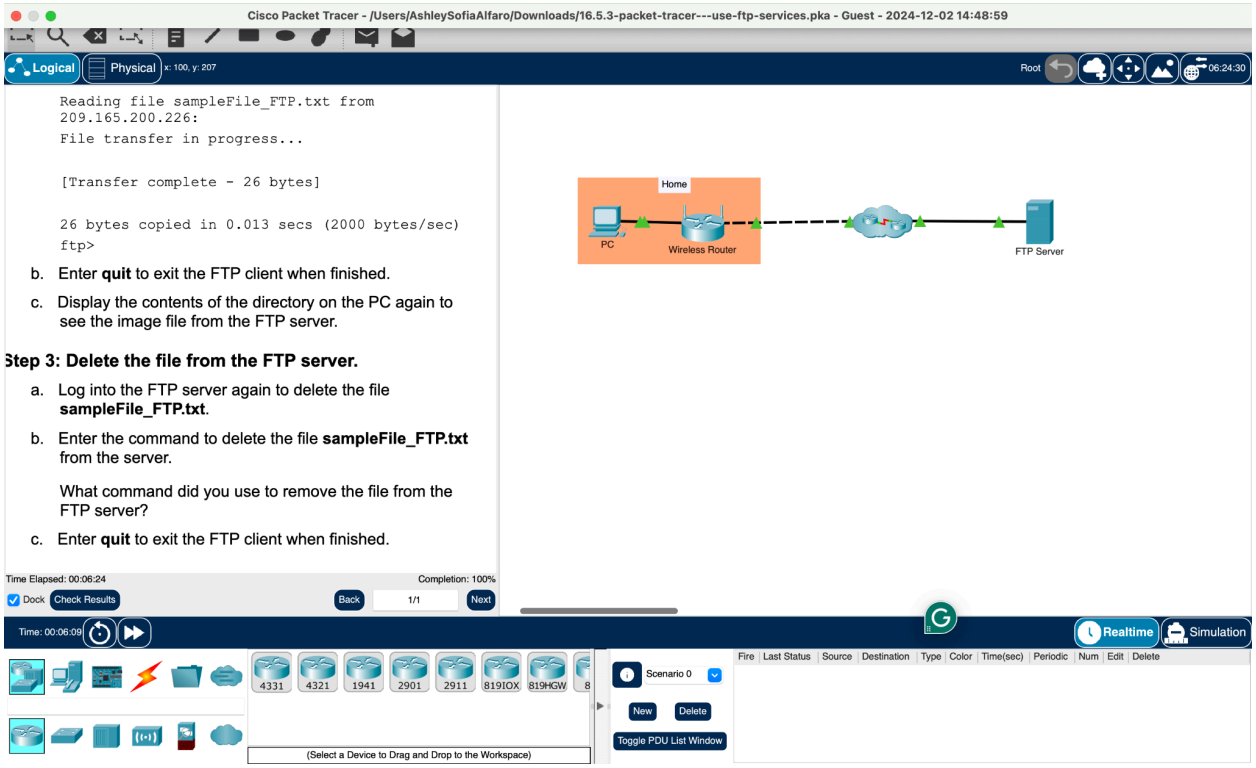
Packet Tracer **16.1.5**



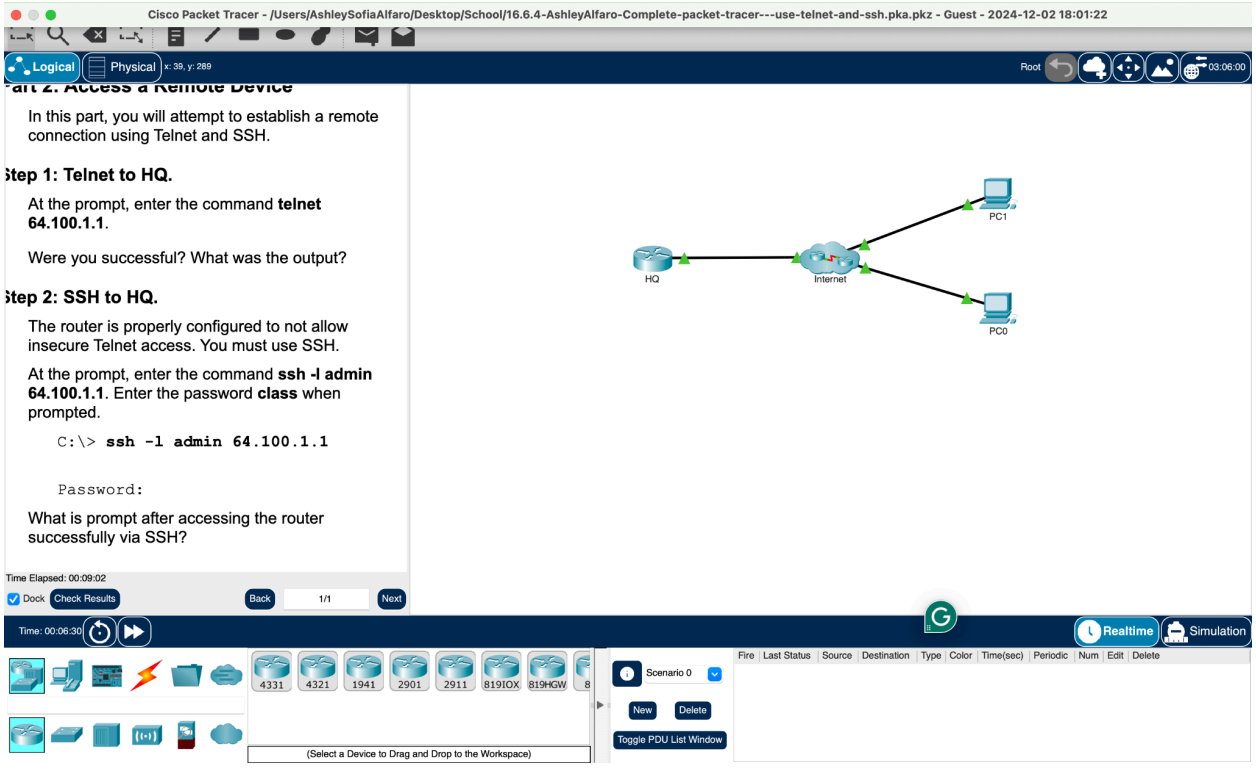
Packet Tracer **16.4.3**



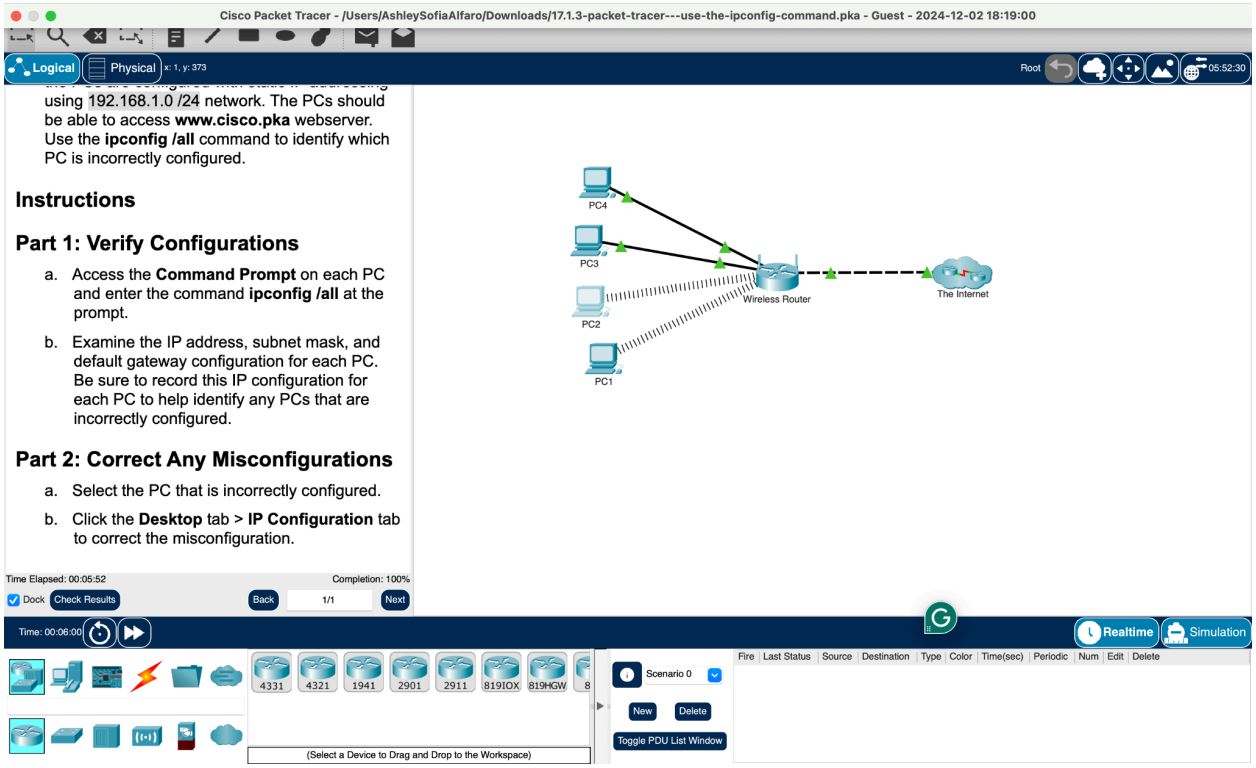
Packet Tracer **16.5.3**



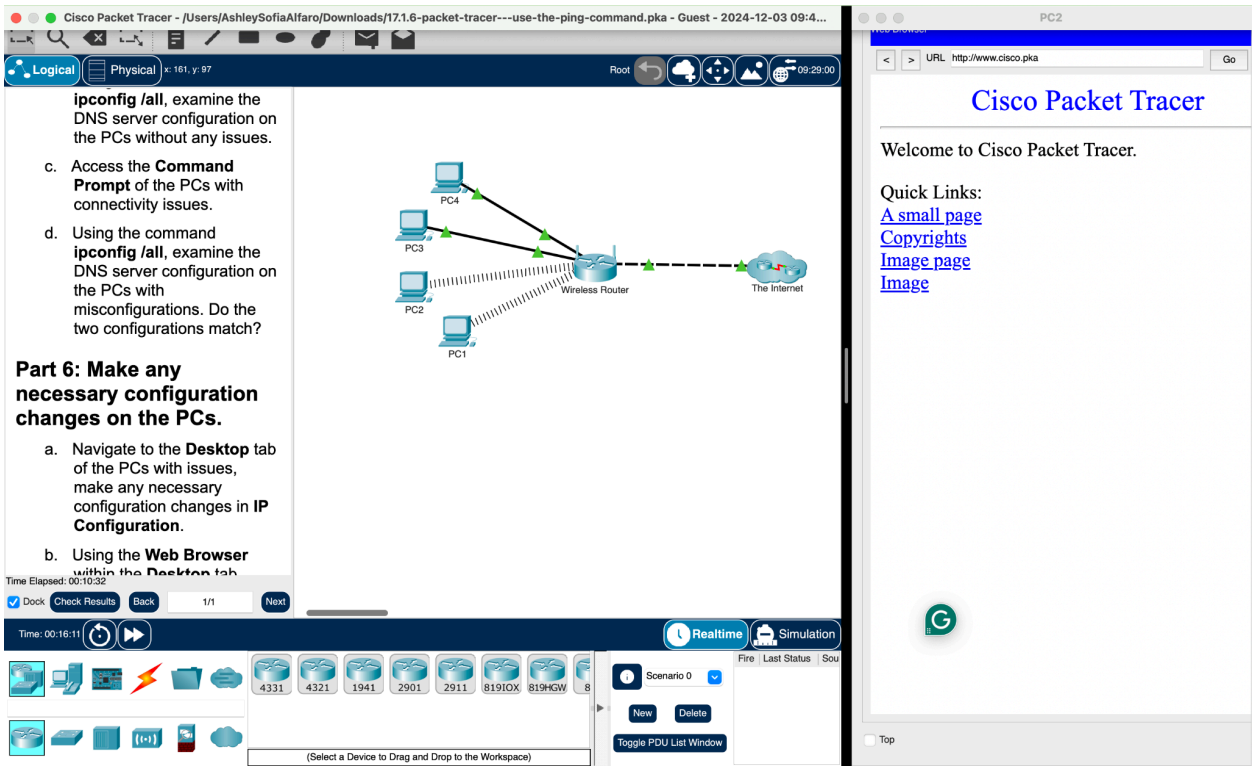
Packet Tracer **16.6.4**



Packet Tracer **17.1.3**

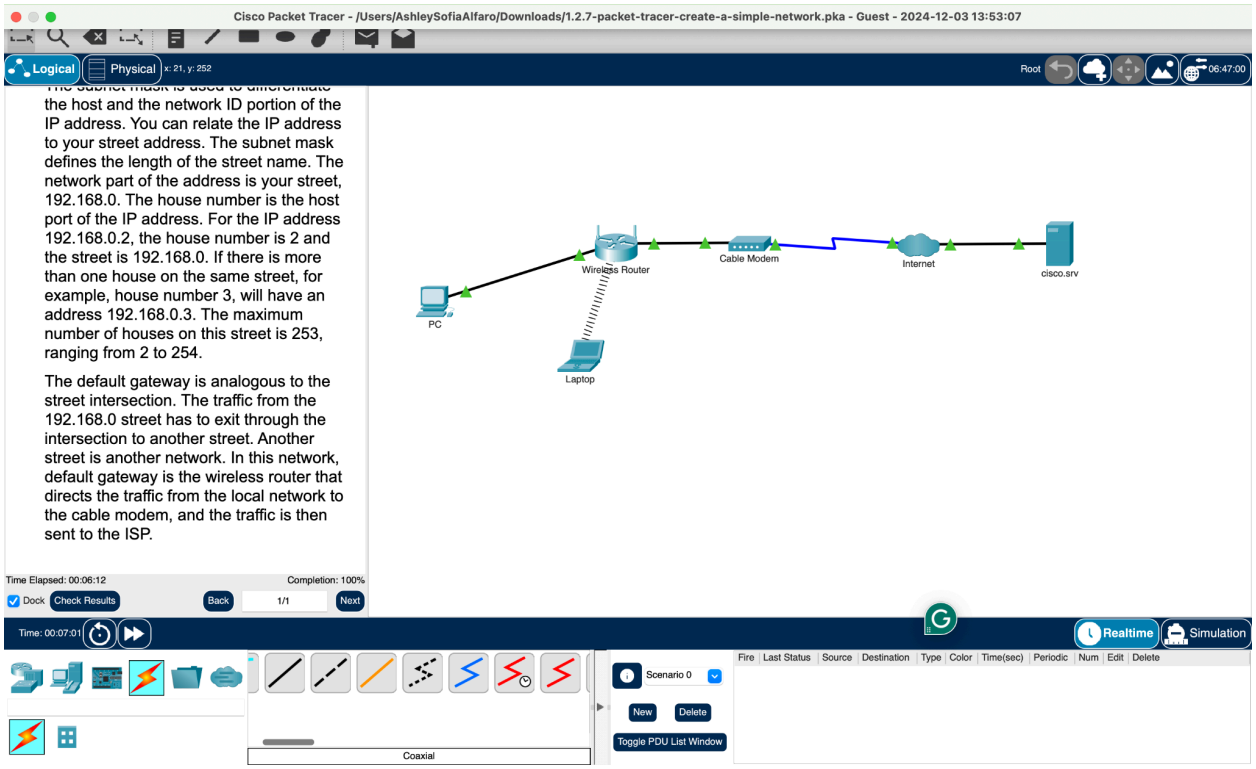


Packet Tracer **17.1.6**

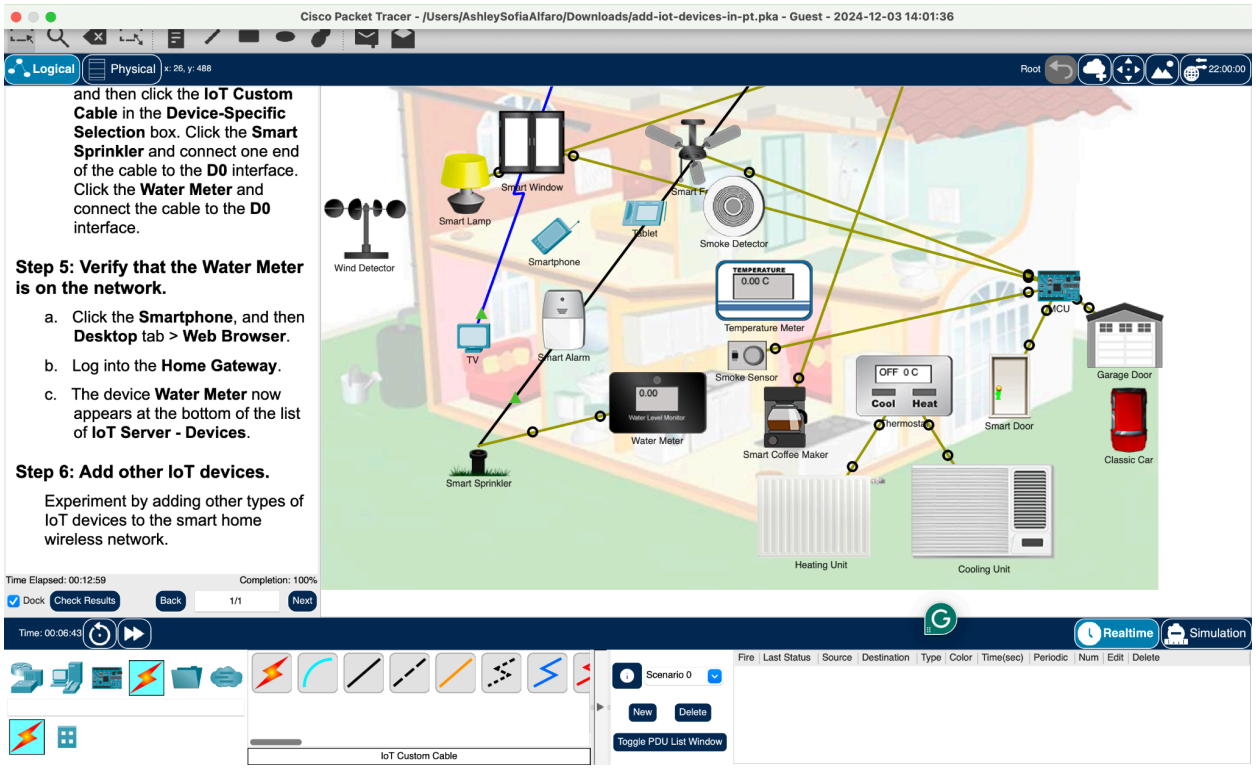


Introduction to IoT and Digital Transformation

Packet Tracer **1.2.7**

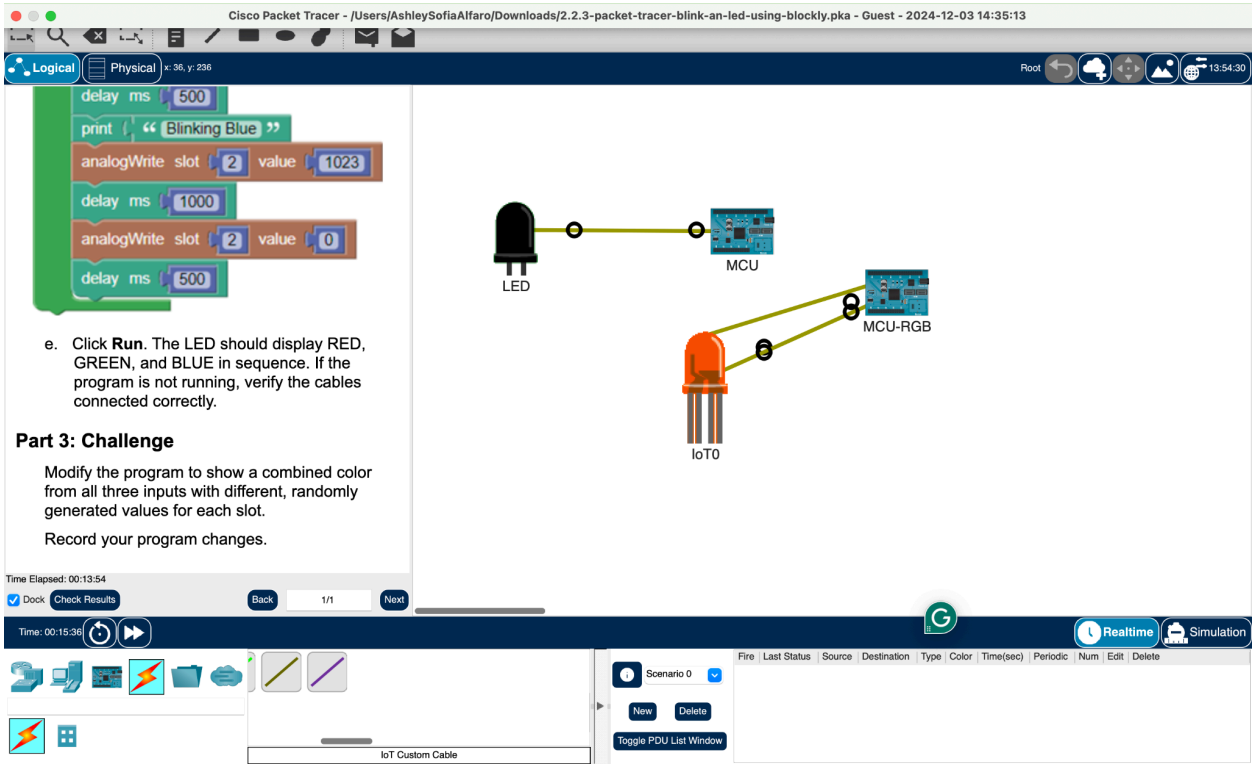


Packet Tracer **1.4.2**

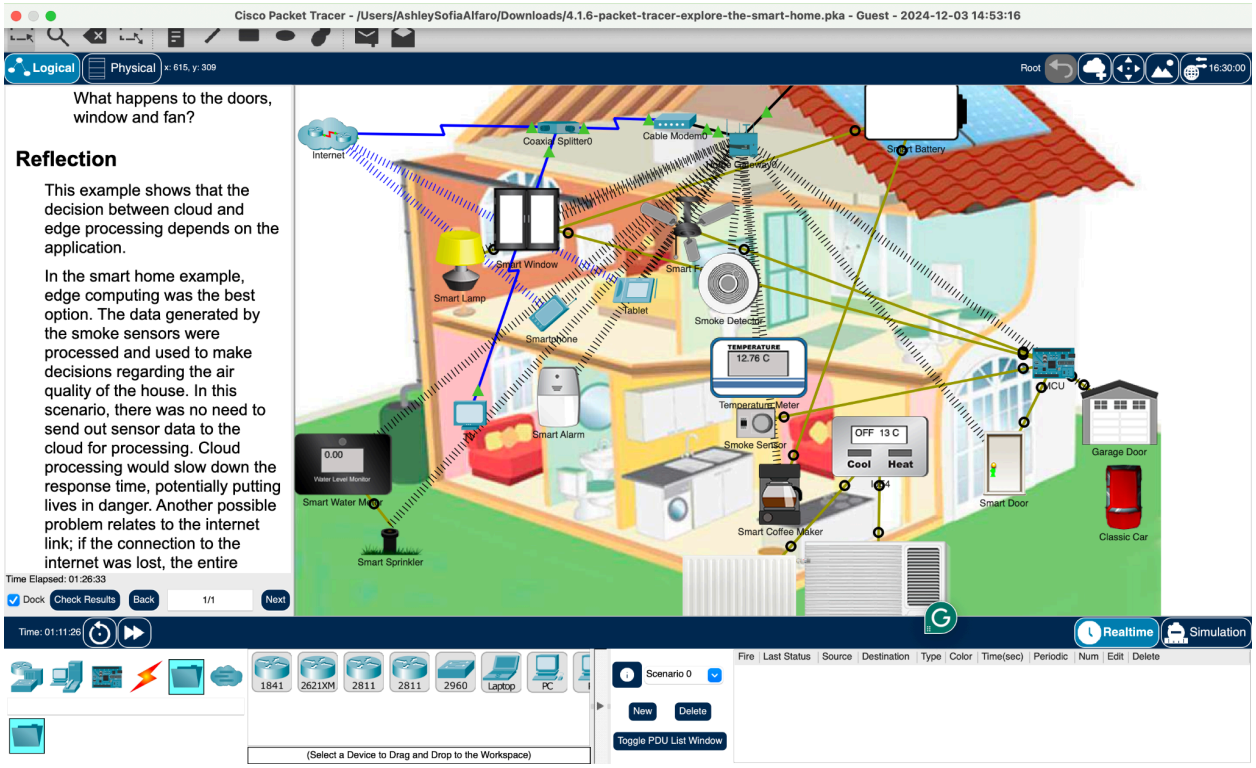


Packet Tracer **1.4.4**

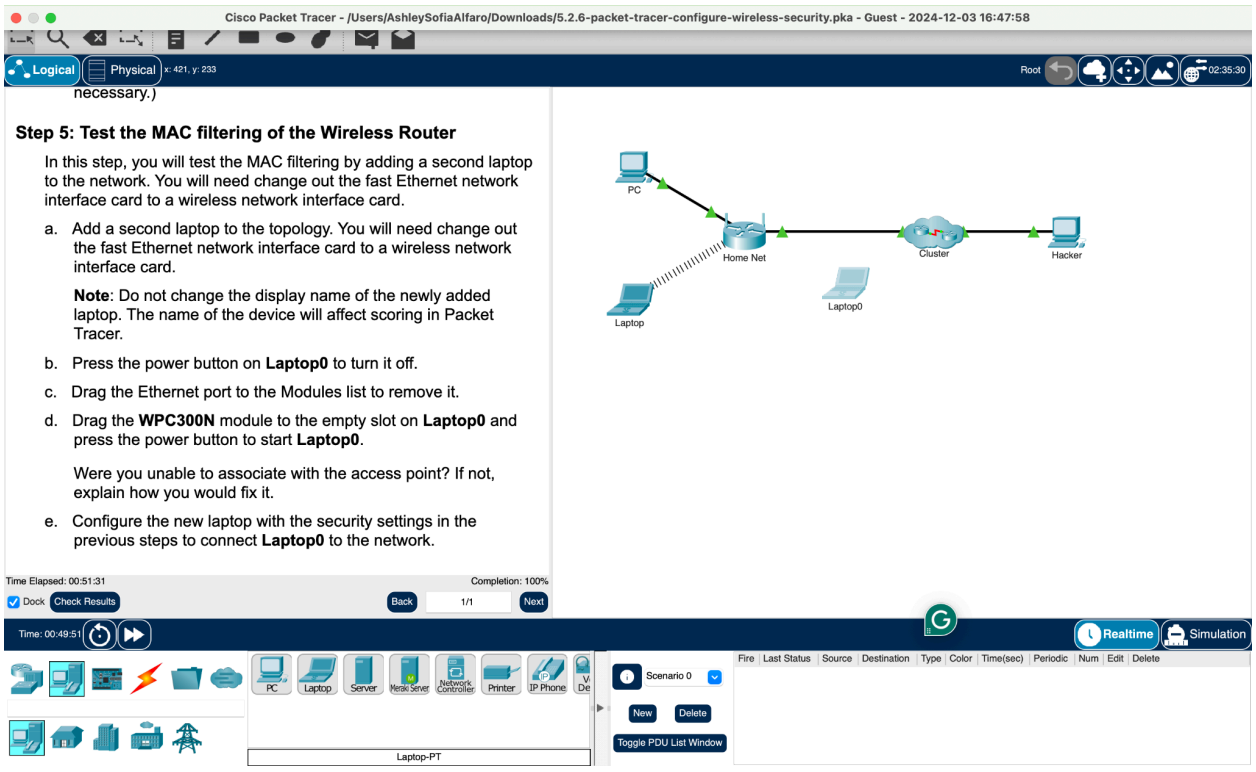
Packet Tracer **2.2.3**



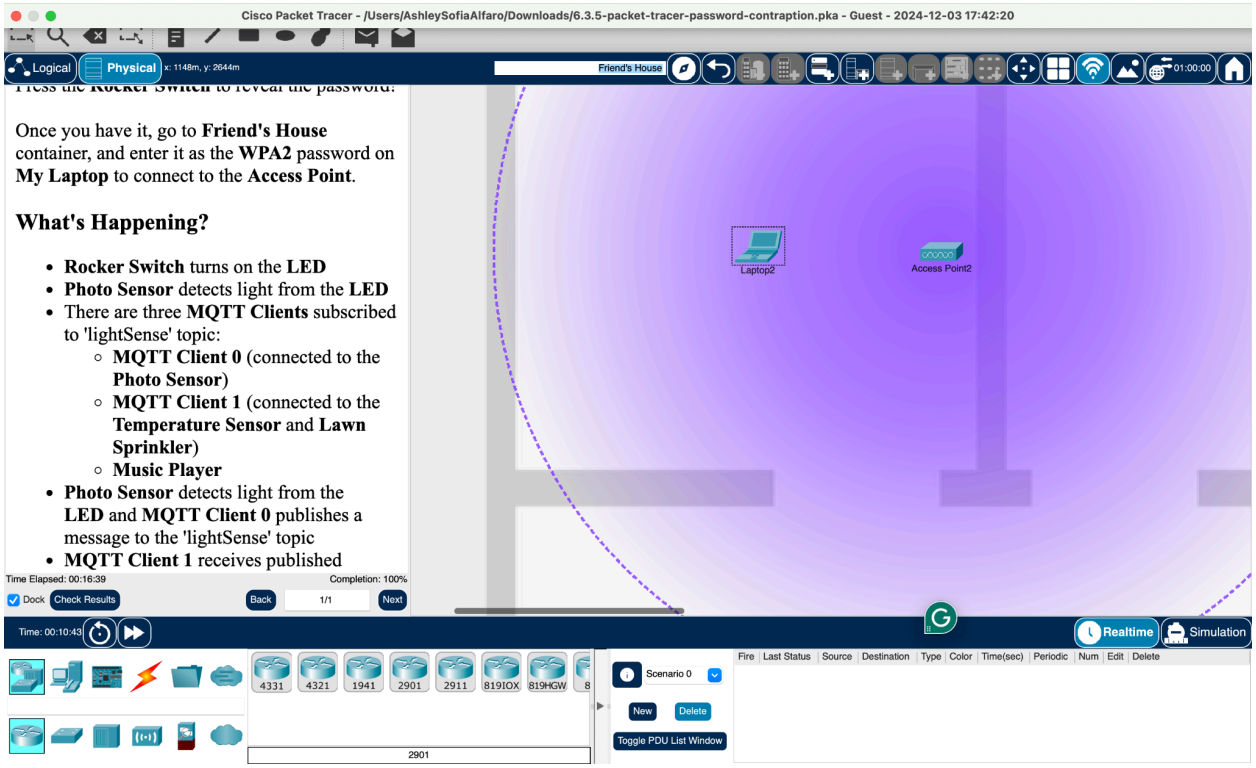
Packet Tracer **4.1.6**



Packet Tracer **5.2.6**



Packet Tracer **6.3.5**



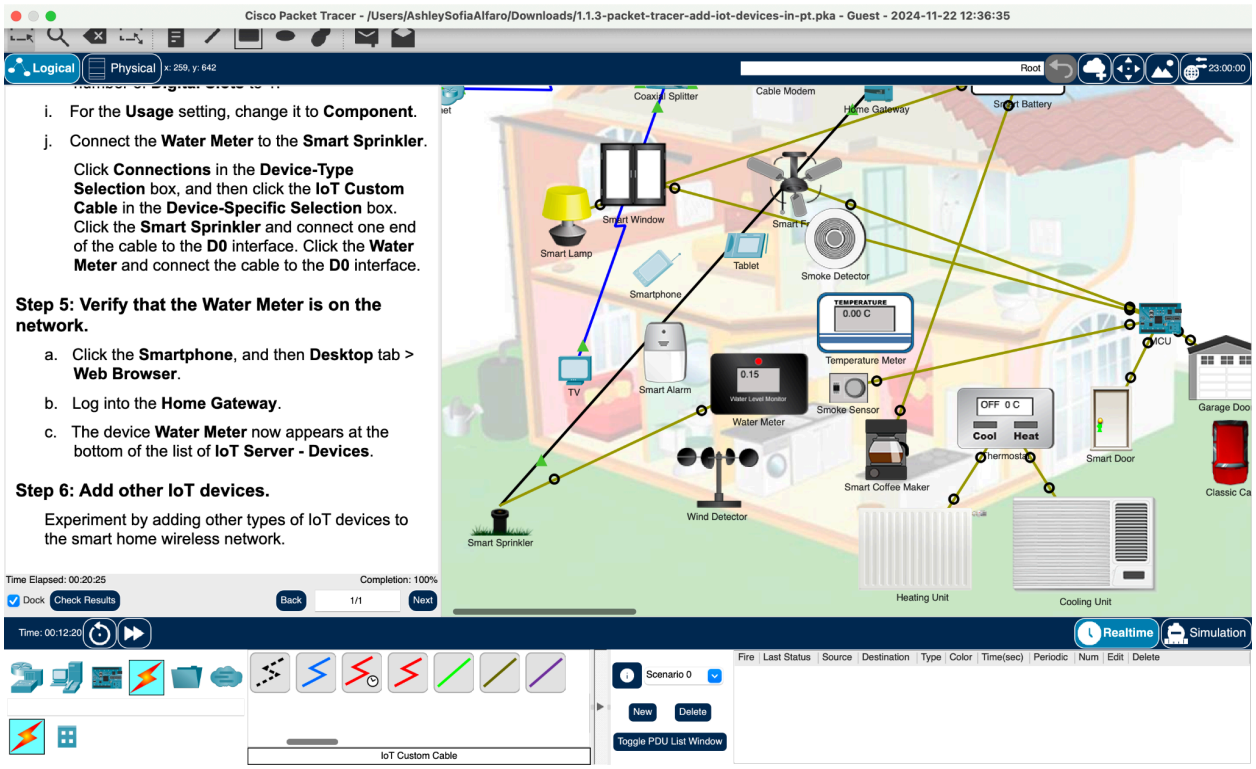
Once you have it, go to **Friend's House** container, and enter it as the **WPA2** password on **My Laptop** to connect to the **Access Point**.

What's Happening?

- **Rocker Switch** turns on the **LED**
- **Photo Sensor** detects light from the **LED**
- There are three **MQTT Clients** subscribed to 'lightSense' topic:
  - **MQTT Client 0** (connected to the **Photo Sensor**)
  - **MQTT Client 1** (connected to the **Temperature Sensor** and **Lawn Sprinkler**)
  - **Music Player**
- **Photo Sensor** detects light from the **LED** and **MQTT Client 0** publishes a message to the 'lightSense' topic
- **MQTT Client 1** receives published

Exploring IoT with Cisco Packet Tracer

Packet Tracer **1.1.3**



i. For the **Usage** setting, change it to **Component**.

j. Connect the **Water Meter** to the **Smart Sprinkler**.

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**.

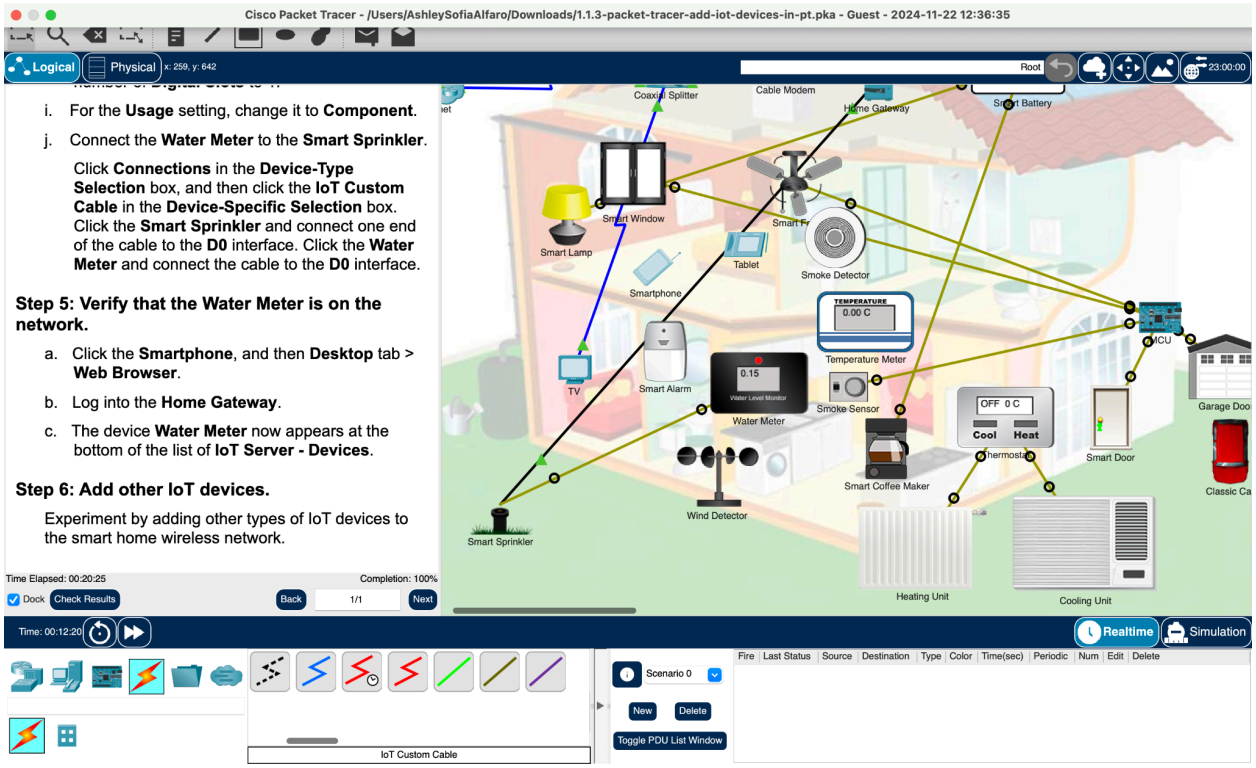
b. Log into the **Home Gateway**.

c. The device **Water Meter** now appears at the bottom of the list of **IoT Server - Devices**.

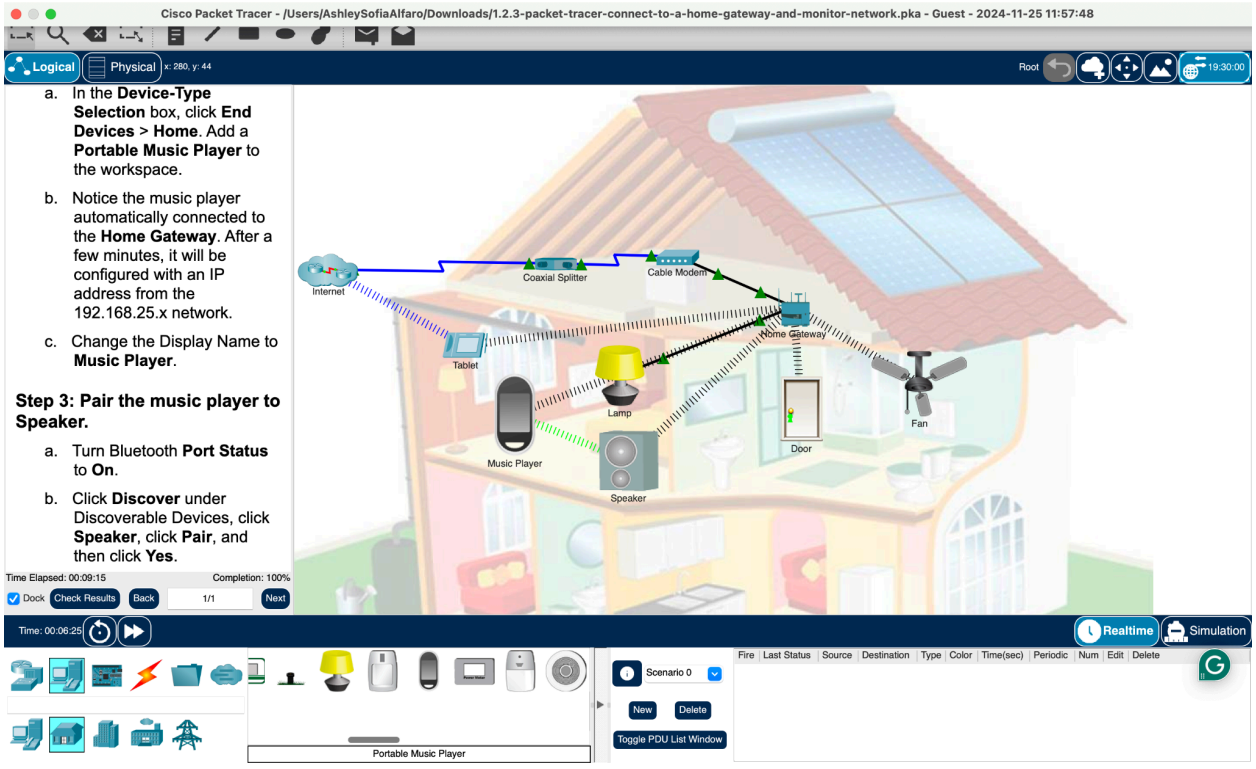
Step 6: Add other IoT devices.

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

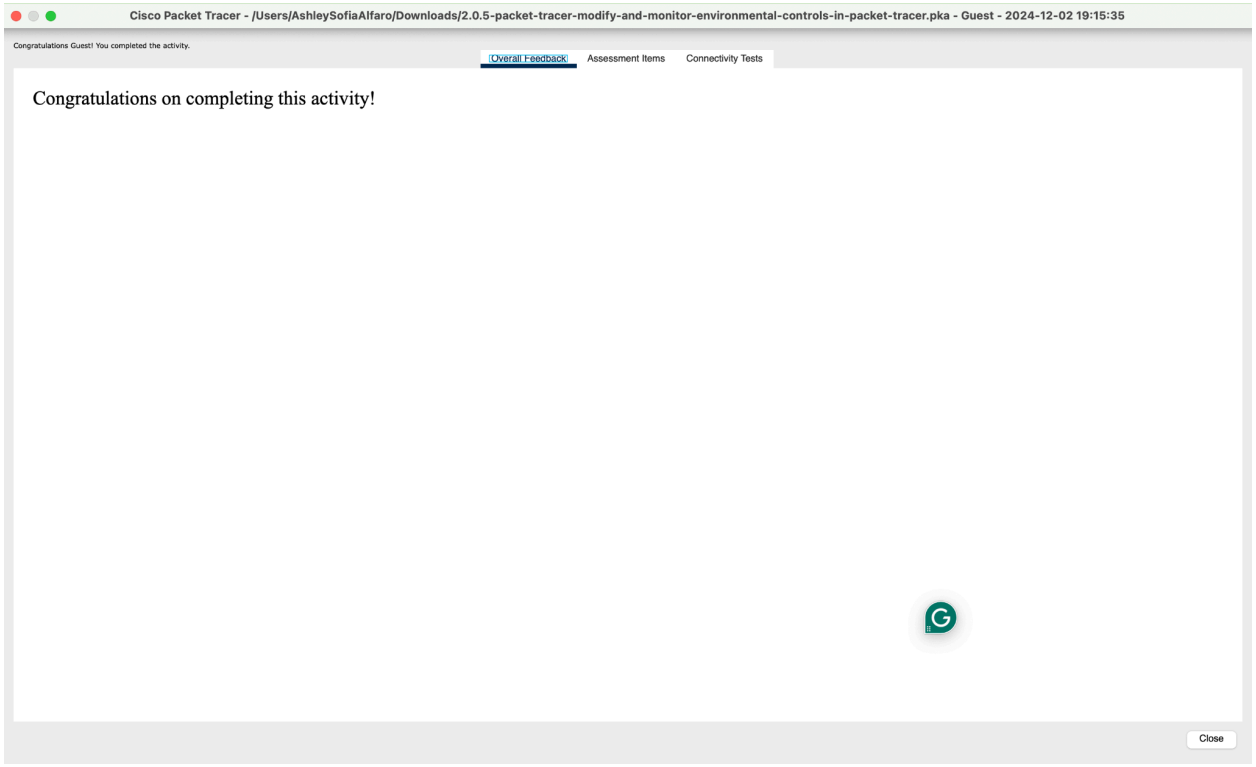
Packet Tracer **1.2.3**



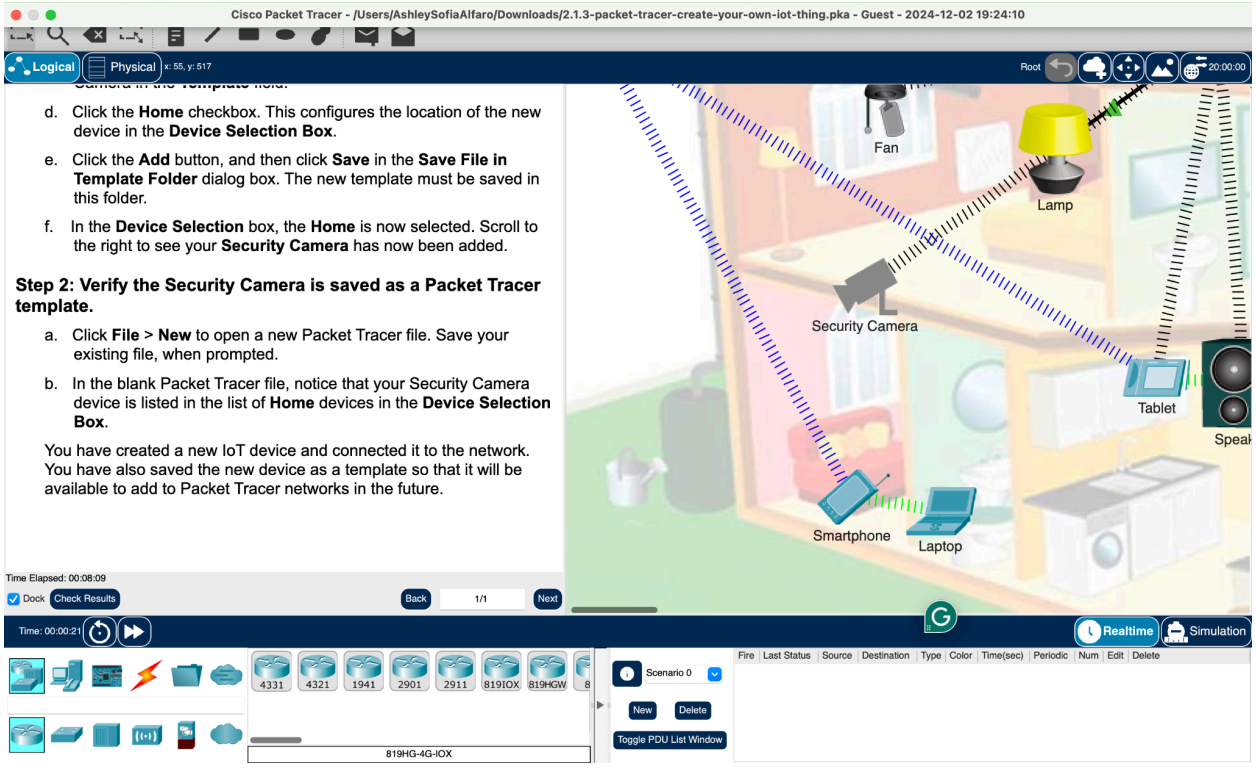
Packet Tracer **1.2.6**



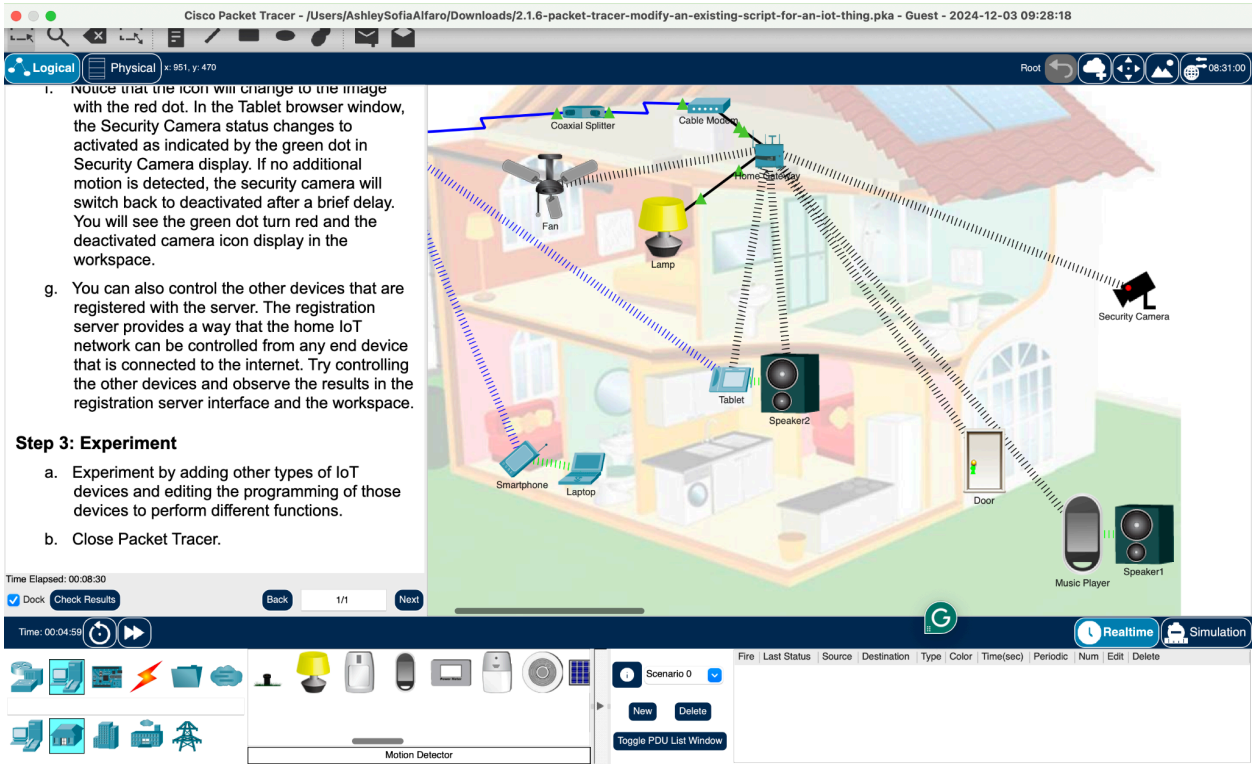
Packet Tracer **2.0.5**



Packet Tracer **2.1.3**



Packet Tracer **2.1.6**



i. Notice that the icon will change to the image with the red dot. In the Tablet browser window, the Security Camera status changes to activated as indicated by the green dot in Security Camera display. If no additional motion is detected, the security camera will switch back to deactivated after a brief delay. You will see the green dot turn red and the deactivated camera icon display in the workspace.

g. You can also control the other devices that are registered with the server. The registration server provides a way that the home IoT network can be controlled from any end device that is connected to the internet. Try controlling the other devices and observe the results in the registration server interface and the workspace.

Step 3: Experiment

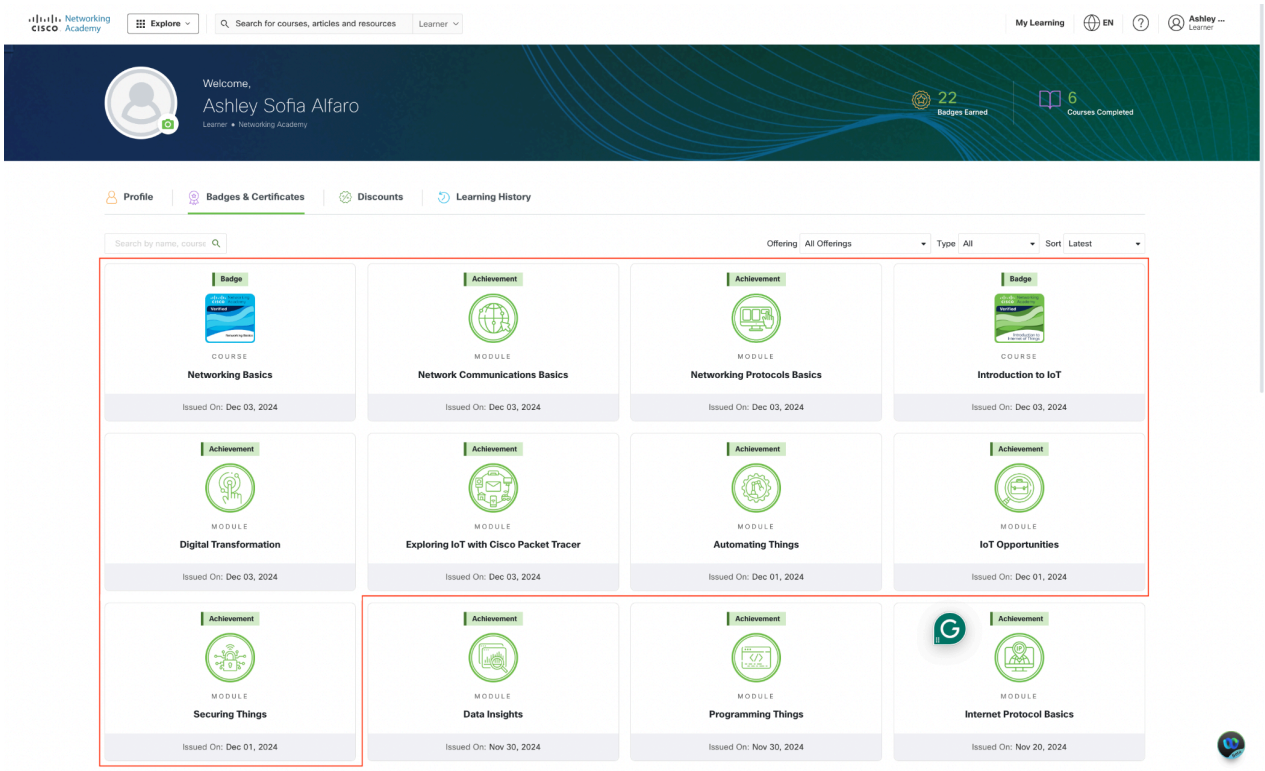
a. Experiment by adding other types of IoT devices and editing the programming of those devices to perform different functions.

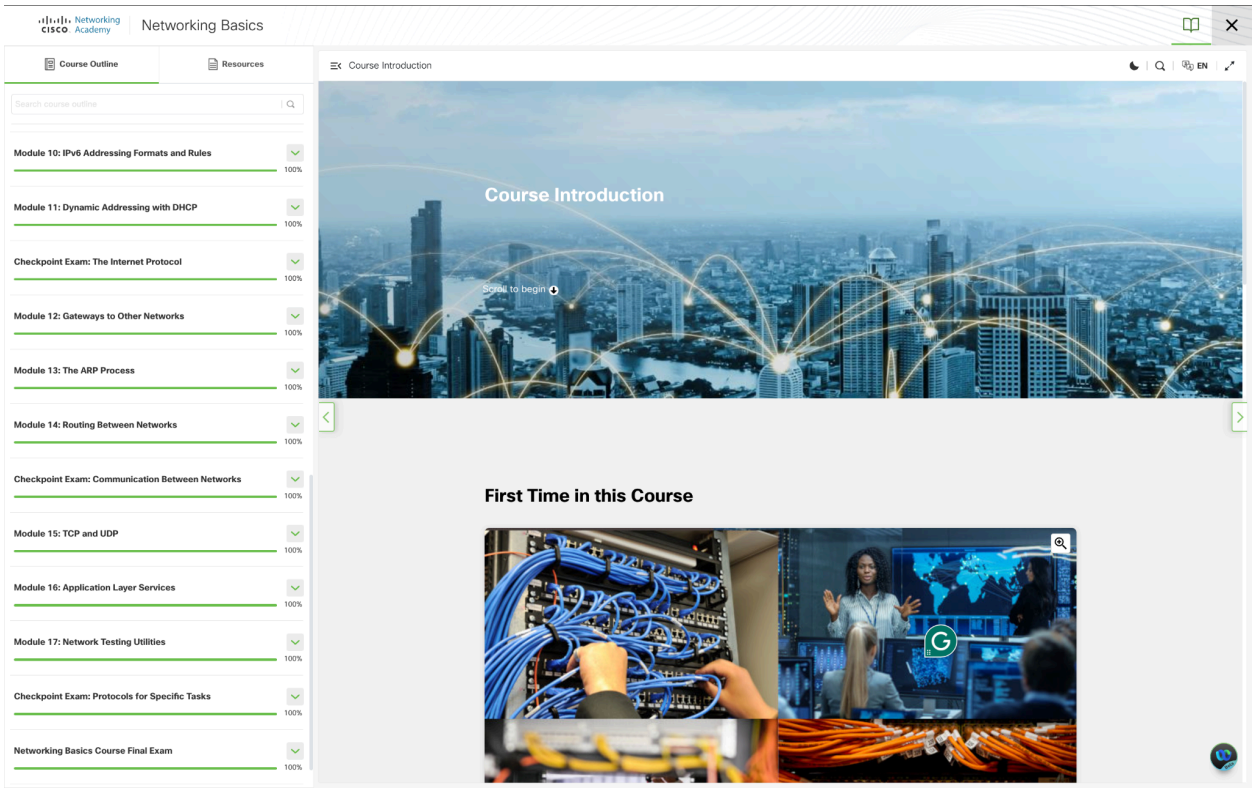
b. Close Packet Tracer.

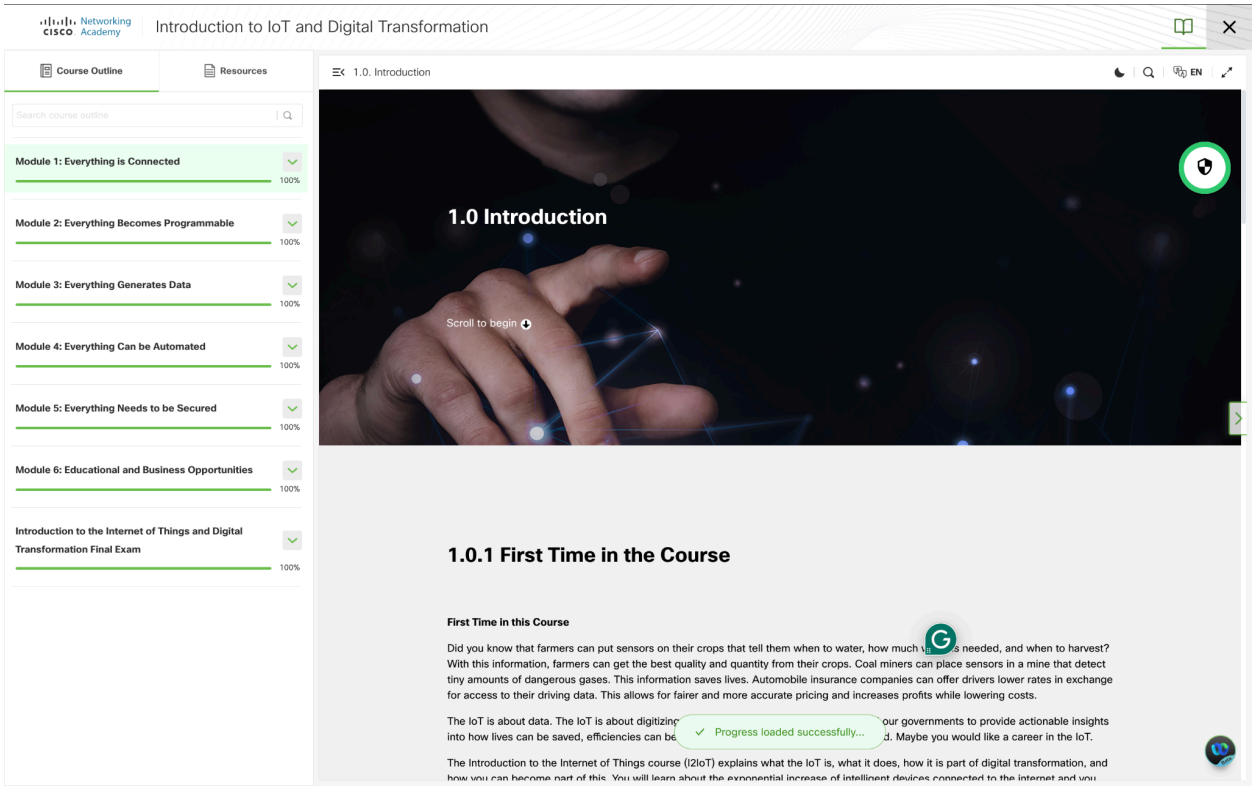
CS-300: FINAL PROJECT

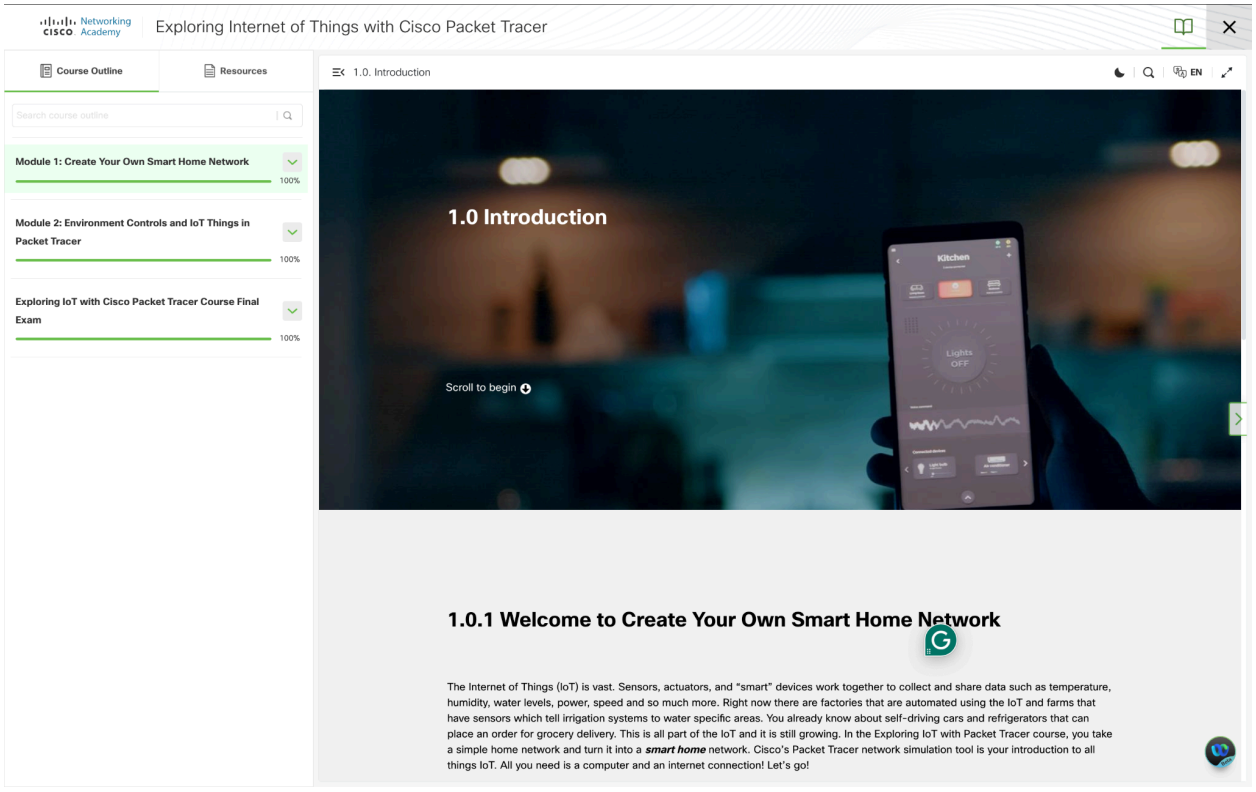
Ashley Sofia Alfaro

Course Completion






Networking Academy
Introduction to IoT and Digital Transformation
Course Outline
Resources
1.0. Introduction
EN
Search course outline
Module 1: Everything is Connected 100%
Module 2: Everything Becomes Programmable 100%
Module 3: Everything Generates Data 100%
Module 4: Everything Can be Automated 100%
Module 5: Everything Needs to be Secured 100%
Module 6: Educational and Business Opportunities 100%
Introduction to the Internet of Things and Digital Transformation Final Exam 100%
1.0 Introduction
Scroll to begin
1.0.1 First Time in the Course
First Time in this Course
Did you know that farmers can put sensors on their crops that tell them when to water, how much is needed, and when to harvest? With this information, farmers can get the best quality and quantity from their crops. Coal miners can place sensors in a mine that detect tiny amounts of dangerous gases. This information saves lives. Automobile insurance companies can offer drivers lower rates in exchange for access to their driving data. This allows for fairer and more accurate pricing and increases profits while lowering costs.
The IoT is about data. The IoT is about digitizing
Progress loaded successfully...
our governments to provide actionable insights into how lives can be saved, efficiencies can be
d. Maybe you would like a career in the IoT.
The Introduction to the Internet of Things course (I2IoT) explains what the IoT is, what it does, how it is part of digital transformation, and


Networking Academy
Exploring Internet of Things with Cisco Packet Tracer
Course Outline
Resources
1.0. Introduction
EN
Search course outline
Module 1: Create Your Own Smart Home Network 100%
Module 2: Environment Controls and IoT Things in Packet Tracer 100%
Exploring IoT with Cisco Packet Tracer Course Final Exam 100%
1.0 Introduction
Scroll to begin
Kitchen
Lights OFF
1.0.1 Welcome to Create Your Own Smart Home Network
The Internet of Things (IoT) is vast. Sensors, actuators, and "smart" devices work together to collect and share data such as temperature, humidity, water levels, power, speed and so much more. Right now there are factories that are automated using the IoT and farms that have sensors which tell irrigation systems to water specific areas. You already know about self-driving cars and refrigerators that can place an order for grocery delivery. This is all part of the IoT and it is still growing. In the Exploring IoT with Packet Tracer course, you take a simple home network and turn it into a smart home network. Cisco's Packet Tracer network simulation tool is your introduction to all things IoT. All you need is a computer and an internet connection! Let's go!