

COURSE: CLOUD AND NETWORK SECURITY

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GETTING STARTED WITH CISCO PACKET TRACER

INTRODUCTION

In this assignment, I had the opportunity to explore the fundamentals of Cisco Packet Tracer, a versatile and widely-used network simulation tool designed to support networking education and practical skills development. The assignment was based on the “Getting Started with Cisco Packet Tracer” module offered by NetAcad.com, which provides learners with a step-by-step guide through the installation, setup, and basic use of the software.

As someone pursuing a career in IT and cybersecurity, gaining hands-on experience with simulation tools like Packet Tracer is essential. This module served as an entry point into the world of network configuration and troubleshooting, which are foundational skills for any network or systems-related profession.

Throughout the module, I learned how to download and install Cisco Packet Tracer, navigate its user-friendly interface, and build simple network topologies using different networking devices such as routers, switches, and end devices like PCs and laptops. I also practiced basic tasks such as assigning IP addresses, testing connectivity using tools like ping, and switching between real-time and simulation modes to observe how packets move through a network.

Downloading and Installing Packet Tracer

What operating system did you install Cisco Packet Tracer on?

Windows 11

Were there any issues during installation?

No, the installation was smooth after downloading from the official NetAcad site

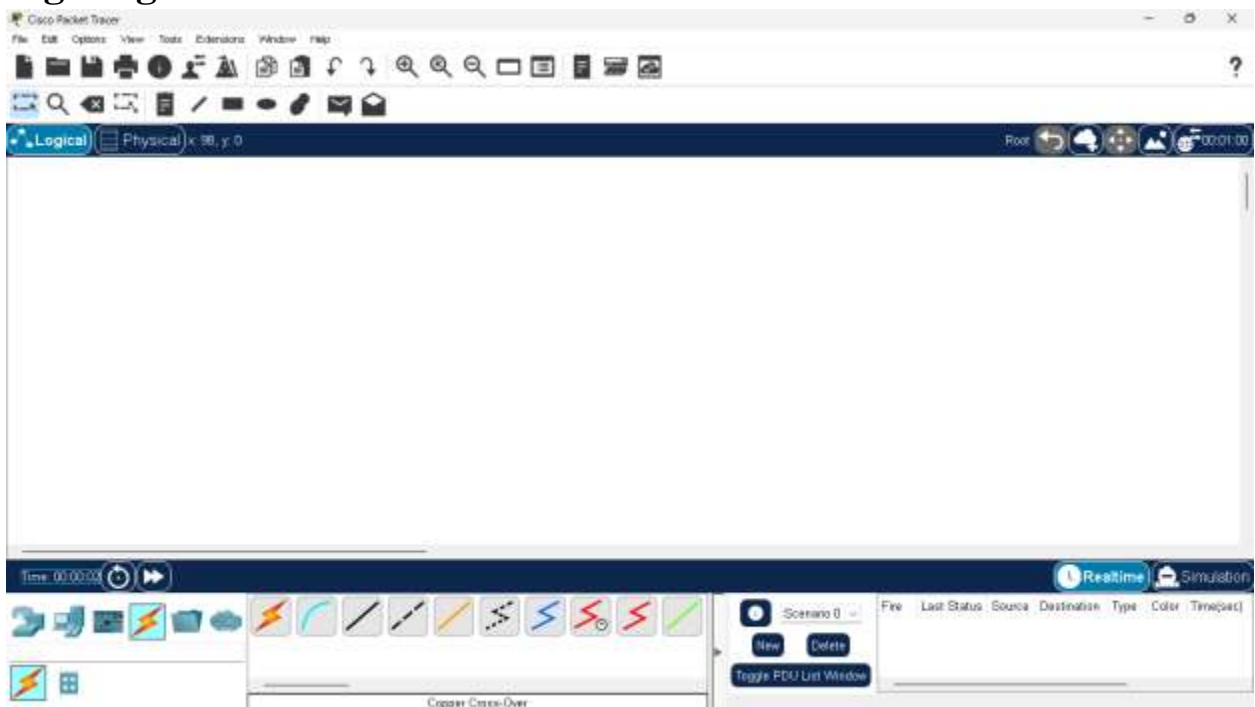
1.0.3 Download Cisco Packet Tracer



To obtain and install your copy of Cisco Packet Tracer, please follow the instructions from the link below: <https://www.netacad.com/resources/lab-downloads>



Navigating the Interface

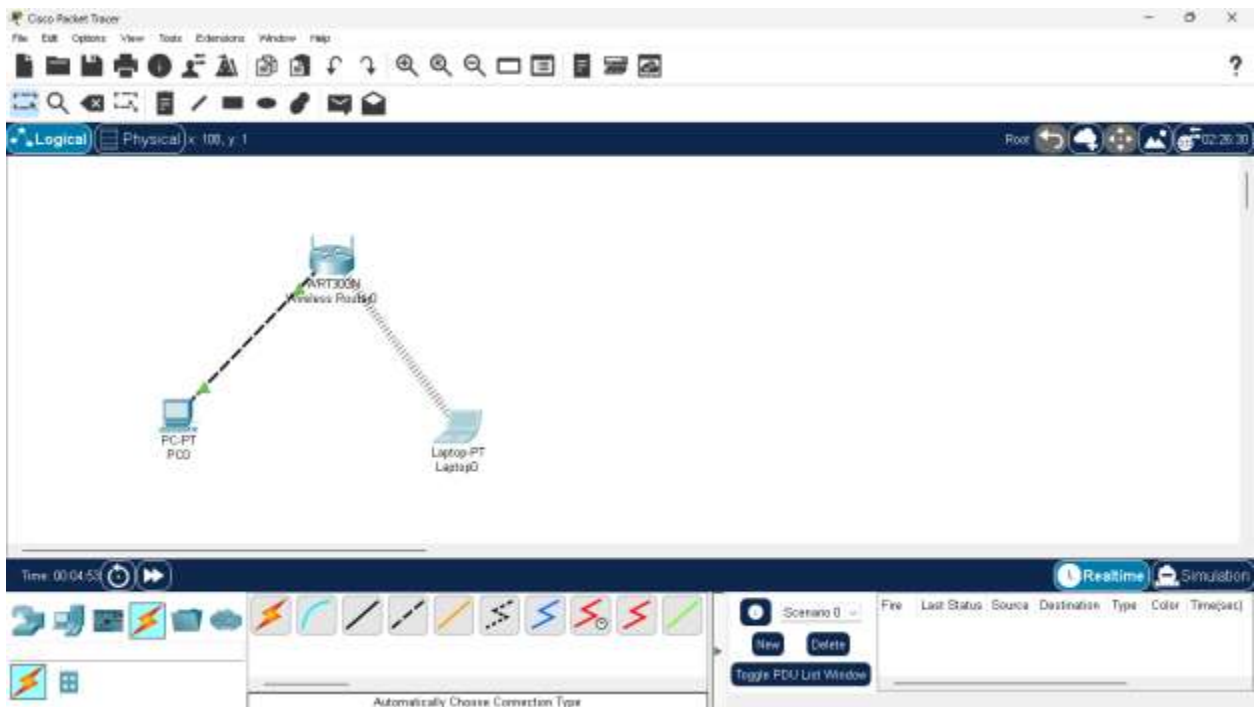


Sections we went through in this:

1. Logical Workspace and Physical workspace
2. Device-Type Selection Box
3. Configuration Panel
4. Real-time/Simulation Mode Toggle
5. Toolbar (Play, Stop, Reset, Delete)

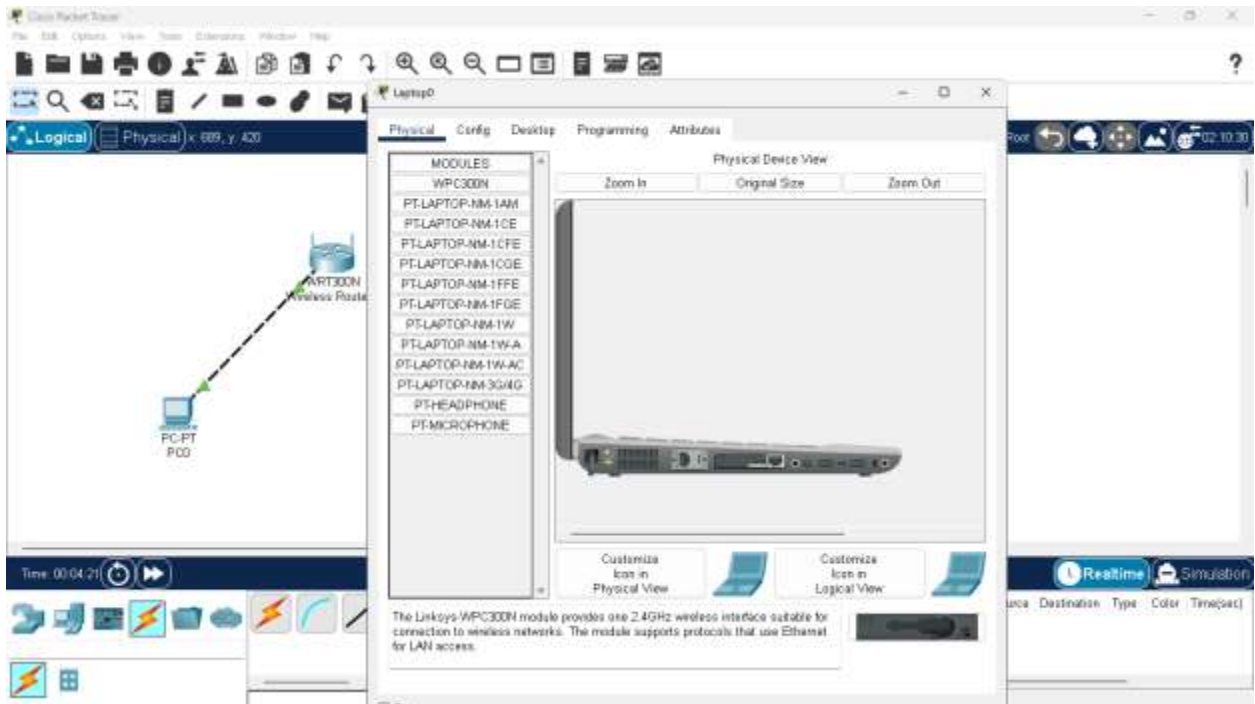
Building a Simple Network

Where we used a router that can easily be found at home, a gaming pc and a typical laptop. We then connected the pc and the router through a wired connection which was easy to navigate.



Configure a laptop to wireless connection.

For the connection between the router and the laptop, we had to replace the connection port of the laptop to a wireless. We turned off the laptop took out the component and replaced it with another, by virtue of the laptop being wireless we seamlessly connected the two devices as shown below.



Basic Configuration

Steps are involved in configuring IP addresses on end devices?

Click on the device.

Select the Desktop tab.

Choose IP Configuration.

Enter the IP address and subnet mask.

COURSE FINAL EXAM

Question 1

What is the IP address for the Laptop?

10.0.0.100



172.16.0.252

255.255.255.0

192.168.0.1



Question 2

What is the default gateway for the PC?



172.16.0.254



172.16.0.1

192.168.0.1

255.255.255.0



Question 3

What is the subnet mask for the PC?

172.16.0.1

255.255.255.225

192.168.200.254



255.255.255.0



Packet Tracer activity

EN

Question 4

From the PC or Laptop, open a web browser and navigate to **cisco.srv**. Open the link titled **A small page**. What is the message displayed on the page?

Welcome to Cisco!

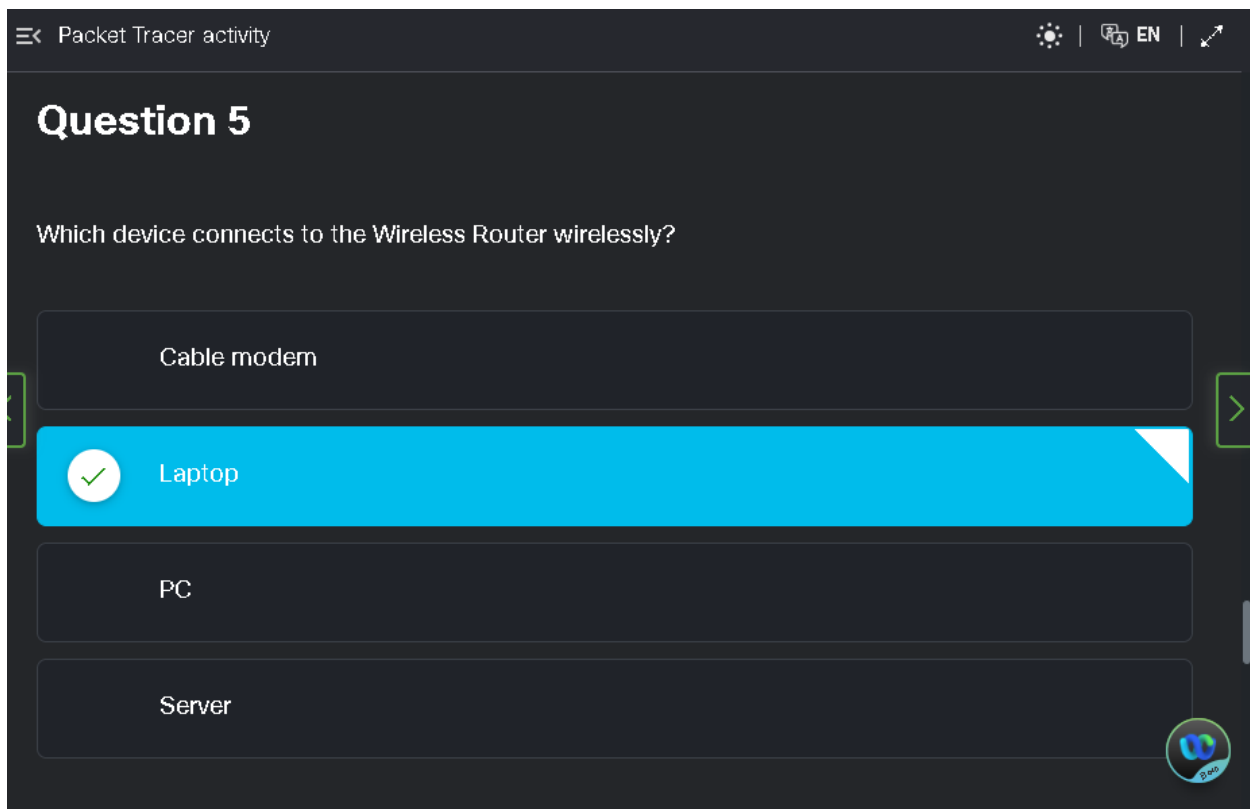
This is a small page.



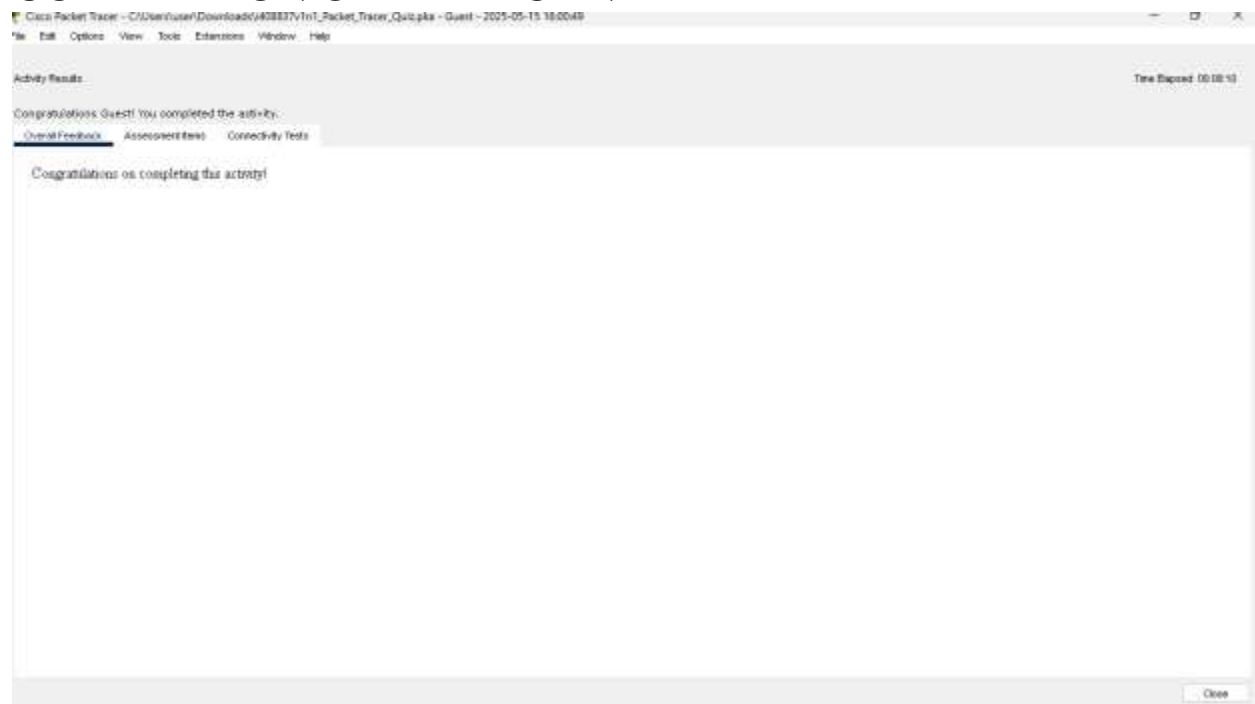
Hello, world!

Enjoy our website!

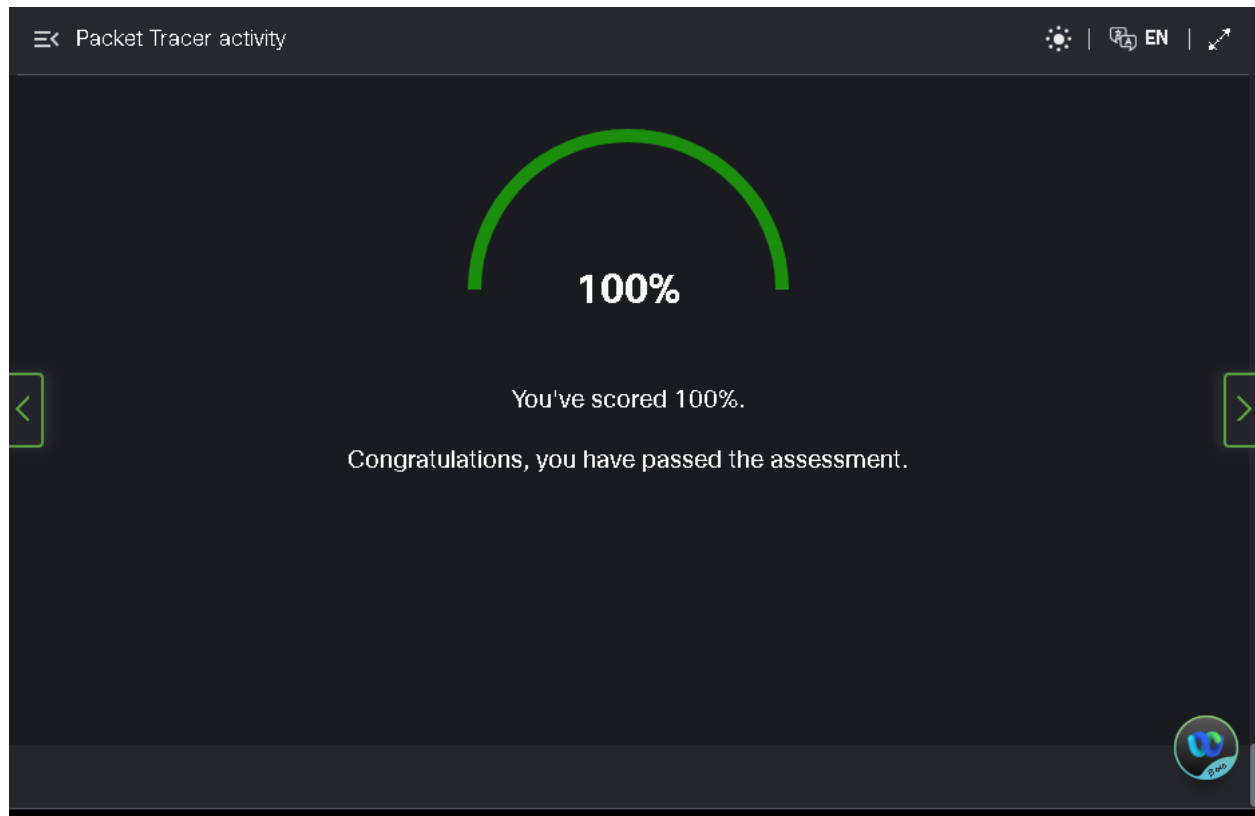




COMPLETION OF THE ACTIVITY



ASSESSMENT



CONCLUSION

Completing the "**Getting Started with Cisco Packet Tracer**" module was not just an academic requirement — it was a transformative entry point into the world of network simulation. Before diving into this module, I had only a theoretical understanding of networking principles, but Packet Tracer helped bring those concepts to life in a dynamic, interactive way.

Through this hands-on experience, I learned how to install and navigate the Packet Tracer interface, configure different network devices, and simulate real-world connectivity between hosts. I practiced tasks such as assigning IP addresses, using different types of cabling, enabling wireless connections, and observing how data flows through a simple network. Each challenge along the way helped me think like a network technician — testing configurations, identifying errors, and applying troubleshooting logic.

One of the most rewarding parts was understanding how **logical and physical modes** interact, and seeing how device placement (on racks, shelves, or tables) can mirror actual network environments. This bridged the gap between digital abstraction and real-life setups, giving me a deeper appreciation for how networks function in practical settings.

Now, I feel significantly more confident using Packet Tracer as a sandbox for experimenting with networking ideas. It has also opened my eyes to broader topics such as **VLANs, routing protocols (like RIP, OSPF), wireless security, and network segmentation**, which I am eager to explore in future modules.

Most importantly, this experience has sparked a genuine interest in **network design and cybersecurity**, both of which are rapidly evolving fields. I now see Packet Tracer not just as a learning tool, but as a launchpad for continuous discovery and professional growth.

As I move forward, I'm excited to dive deeper into building complex topologies, configuring multi-layer networks, and applying these skills in both academic projects and real-world scenarios.