LAB EXAM

By Gayathri Jayamohan

RA2211030050001

CSE Cyber Security III year

LAN CONNECTION

Creating a New Packet Tracer Project

1. **Launch Packet Tracer:**

- Open the Packet Tracer application on your computer.

2. **Create a New Project:**

- Click on "File" and then select "New" to start a new Packet Tracer project.

Designing the LAN Topology

In this example, we'll configure a simple LAN consisting of two computers connected to a switch. Follow these steps to design the topology:

1. **Add Devices:**

- From the left panel, drag and drop devices onto the workspace. For our basic LAN, use PCs as end devices and a switch to connect them.

2. **Connect Devices:**

- Use copper straight-through cables to connect the PCs to the switch. Click on the "Connections" button on the left panel, select the copper straight-through cable, and connect the devices by clicking on the desired interfaces on the switch and PCs.

3. **Arrange Devices:**

- Organize the devices on the workspace for a clear and logical layout.

Configuring IP Addresses on PCs

For devices in a LAN to communicate, each device must have a unique IP address within the same subnet. Follow these steps to configure IP addresses on the PCs:

1. **Select a PC:**

- Click on one of the PCs to select it.

1. **Access Configuration Tab:**

- Click on the "Config" tab at the bottom of the screen to access the configuration options for the selected PC.

1. **Assign IP Address:**

- Manually assign an IP address to the PC. For example: left side

  o PC0: IP – 10.0.0.1

  o PC1: IP – 10.0.0.2   and so on..

- Set the subnet mask, such as 255.255.255.0.

1. **Repeat for Other PCs:**

- Repeat the process for the other PCs, ensuring that each PC has a unique IP address within the same subnet.
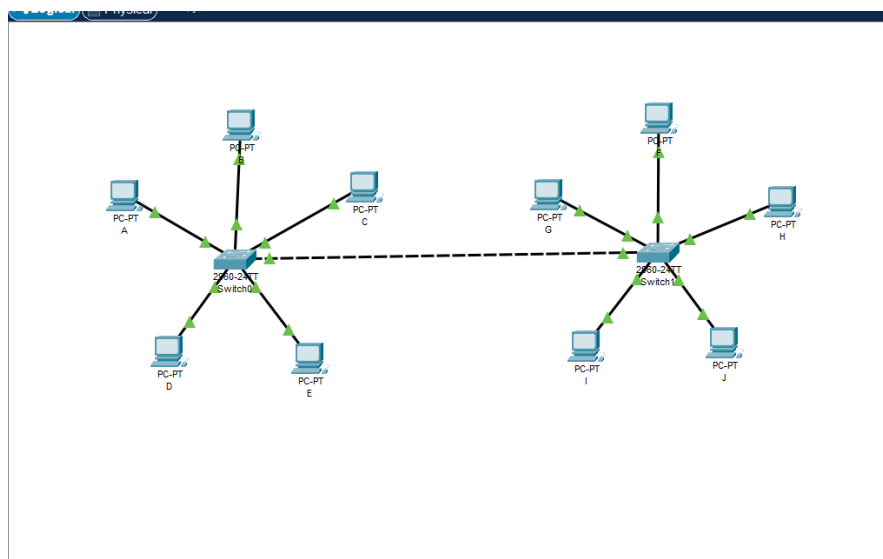

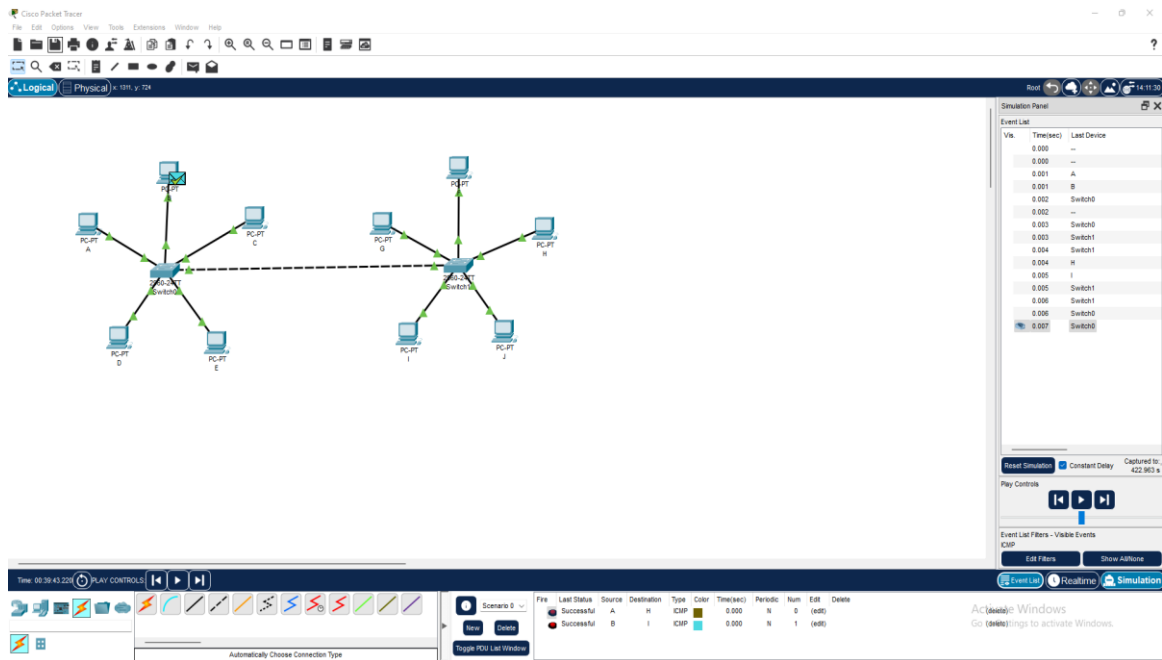Figure 1: LAN Connection using 2 switches and 10 pcs with ip addresses configured

4. Simulation:

o Send a Message:

1. Use the simulation mode in Cisco Packet Tracer.

 Configure and send a message from a computer in one network to a

computer in another network.

2. Captured and verified the message transmission.

WAN CONNECTION

Creating a New Packet Tracer Project

3. **Launch Packet Tracer:**

- Open the Packet Tracer application on your computer.

4. **Create a New Project:**

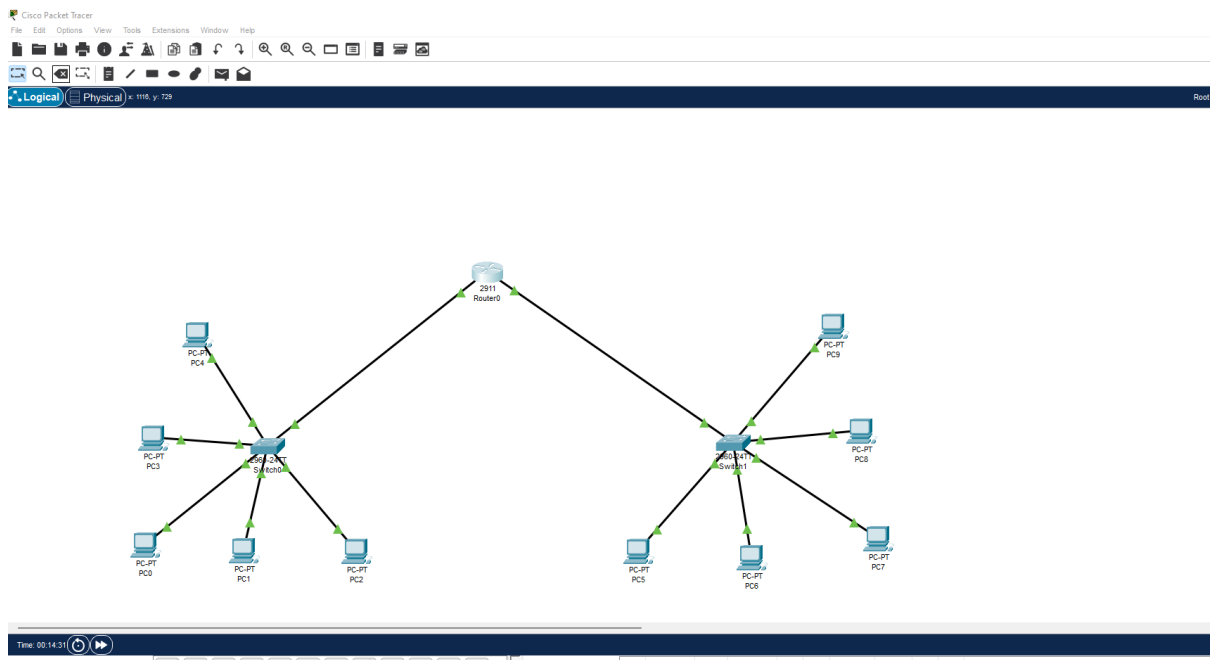Click on "File" and then select "New" to start a new Packet Tracer project.

Build the WAN topology

We build WAN topology using 2 switches with 5 pcs connected on either side of them with a router in between

Configured the wireless router with IP addresses

Configured the PC with IP addresses

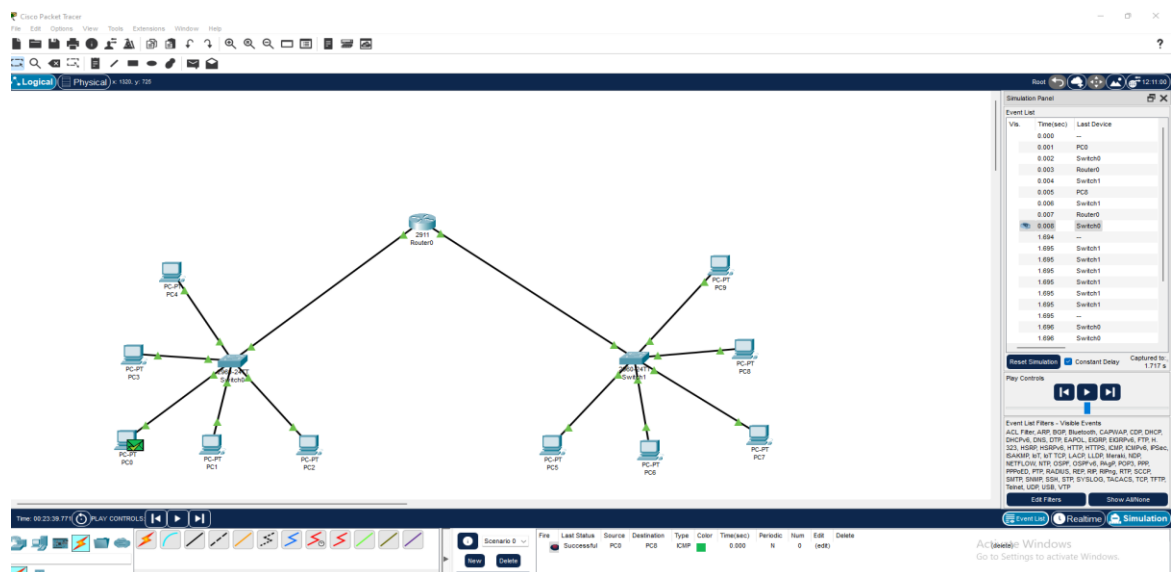**Save the file as a Packet Tracer Activity File (*.pkt)**

. Simulation:

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