Definions

① LAN - Local Area Network (LAN) is a collection of devices connected together in a physical location, such as a building, office etc.

② WAN - Wide Area Network (WAN) is a large network of information not tied to one location. WANs facilitate communication & sharing of information between devices from around the world.

③ Ethernet - it is the technology for connecting devices in a wired local area network or Wide Area Network. Enables devices to communicate with each other.

④ IP Address - it is a unique address that identifies a device on the internet or local network. Stands for Internet Protocol.

⑤ Hub - it is a physical layer networking device used to connect multiple devices in a network. Generally connect computers in a LAN.

⑥ Switch - it is a data link layer networking device which connects devices in a network & uses packet switching to send & receive data over the network.

⑦ Server - it is a computer program/device that provides functionality for clients. This architecture is called client-server model.

⑧ End Device - a source or destination device in a networked system is called an end-device.

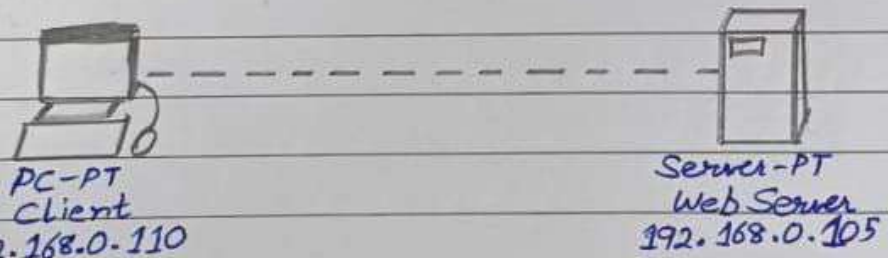
⑨ Node - a node is the connection point among network devices such as routers, printers or switches that can receive & send data from one end point to the other.

09.06.2023

WEEK - 1

STEPS TO SEND A SIMPLE TEXT MESSAGES

1. Add a client end-device & a web server end-device.
2. Connect both using a Copper Cross-over cable
3. Set the client's DNS server to 192.168.0.105. Set the IP Address under the FastEthernet to 192.168.0.110.
4. Select the Web Server & IP address is to be set to 192.168.0.105.
5. Select the DNS services & set the domain name as "www.firstlab.com" & IP address as 192.168.0.105 & add.
6. Ensure DNS service is ON.
7. Add Simple PDU tool is used to send a simple one-time message from PC to the server & vice-versa
8. The log values are displayed in the PDU List Window




```
PC > ping 192.168.0.110
Pinging 192.168.0.110 with 32 bytes of data:

Reply from 192.168.0.110: bytes = 32 time = 4ms TTL = 128
Reply from 192.168.0.110: byte = 32 time = 2ms TTL = 128
Reply from 192.168.0.110: byte = 32 time = 4ms TTL = 128
Reply from 192.168.0.110: byte = 32 time = 4ms TTL = 128
```

Ping Statistics for 192.168.0.110:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milliseconds:
Minimum = 2ms, Maximum = 4ms, Average = 3ms

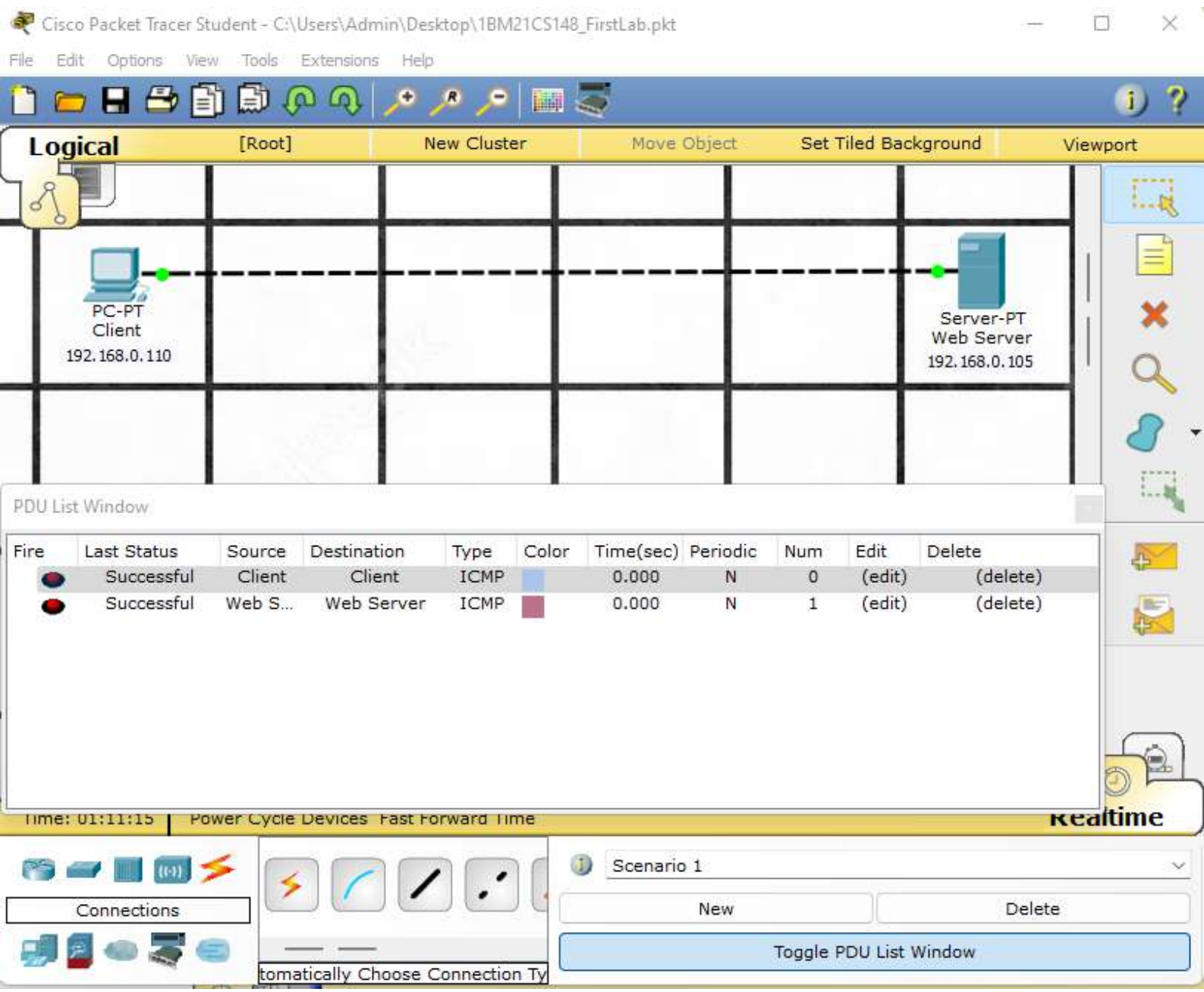
PC > ping 10.0.0.2

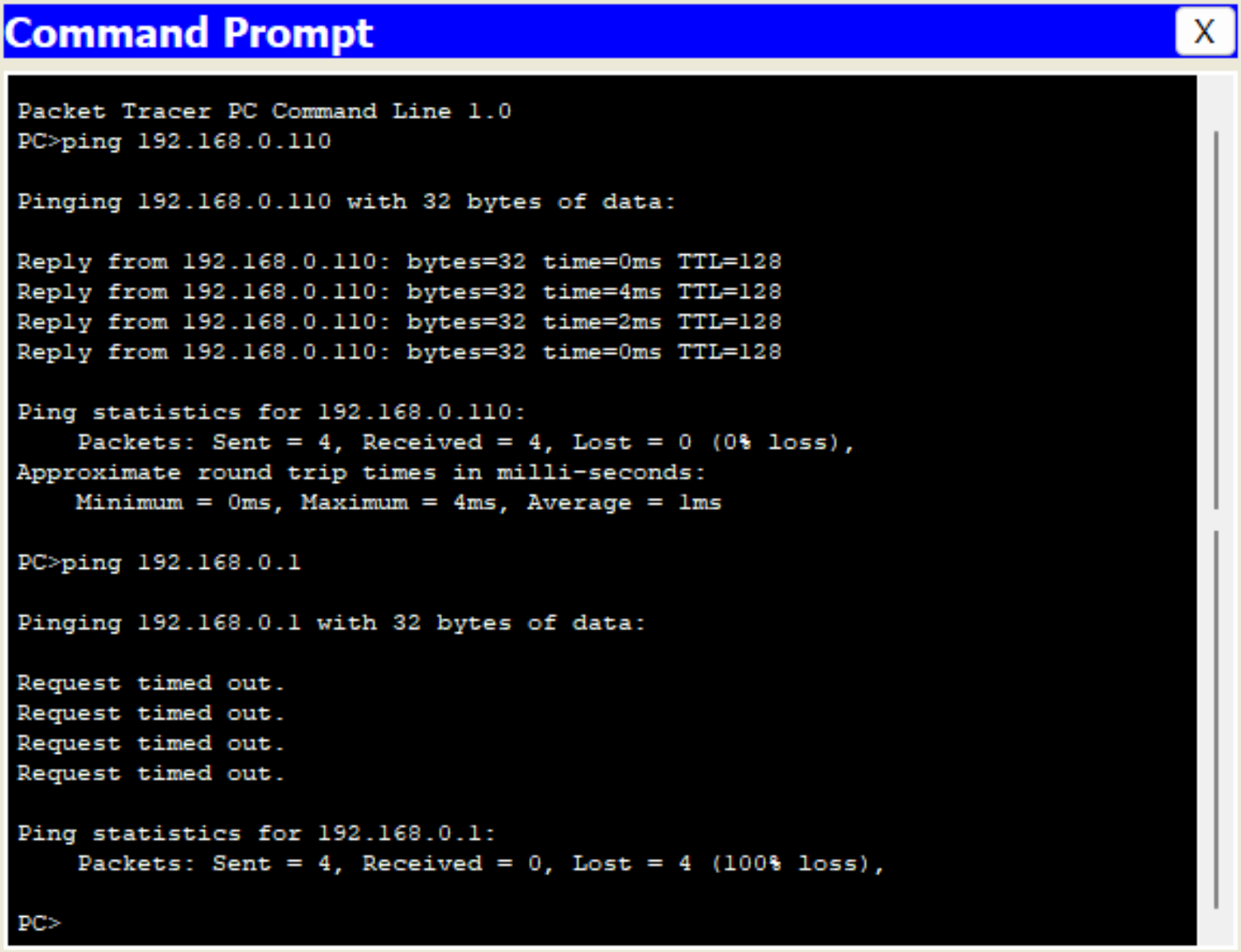
Pinging 10.0.0.2 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 10.0.0.2:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

N
9/6/23


Cisco Packet Tracer Student - C:\Users\Admin\Desktop\1BM21CS148_FirstLab.pkt
File Edit Options View Tools Extensions Help
Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
PC-PT
Client
192.168.0.110
Server-PT
Web Server
192.168.0.105
PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete
Successful Client Client ICMP 0.000 N 0 (edit) (delete)
Successful Web S... Web Server ICMP 0.000 N 1 (edit) (delete)
Time: 01:11:15
Power Cycle Devices
Fast Forward Time
Realtime
Connections
Scenario 1
New
Delete
Toggle PDU List Window
tomatically Choose Connection Ty


Command Prompt
X
Packet Tracer PC Command Line 1.0
PC>ping 192.168.0.110
Pinging 192.168.0.110 with 32 bytes of data:
Reply from 192.168.0.110: bytes=32 time=0ms TTL=128
Reply from 192.168.0.110: bytes=32 time=4ms TTL=128
Reply from 192.168.0.110: bytes=32 time=2ms TTL=128
Reply from 192.168.0.110: bytes=32 time=0ms TTL=128
Ping statistics for 192.168.0.110:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 4ms, Average = 1ms
PC>ping 192.168.0.1
Pinging 192.168.0.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.0.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
PC>