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Date / /

## Q2. Problem statement:-

Object: Show <sup>LAN</sup> connection using router.

Description:-

Step 1:- Create two LAN (GEU, GEMU) using switch and make the connections between the end devices and that switch.

Step 2:- Connect both the switches to the router.

Step 3:- Router is connected to switch 0 by the interface Gigabit Ethernet 0/0. Set its IPv4

Address as 10.10.10.3 and switch on the port status. This establishes the connection between Router and switch 0.

Step 4:- Now set the IP address of end devices connected to switch 0 (GEU) set the default gateway of all the end devices connected to switch 0 as 10.10.10.3 which is



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the IPv4 address of Router.

Step 5:- Perform Step 3 and Step 4 for GENU Network. Router is connected to GENU by Interface Gigabit Ethernet 0/1. Set its IPv4 address as ~~192.168.1.4~~ 192.168.1.4 set the port status.

Step 6:- Now set the IP address of end devices connected to switch 1. Set default gateway as 192.168.1.4.

Step 7:- Check all the collection are done properly. Green arrows would indicate proper connection.

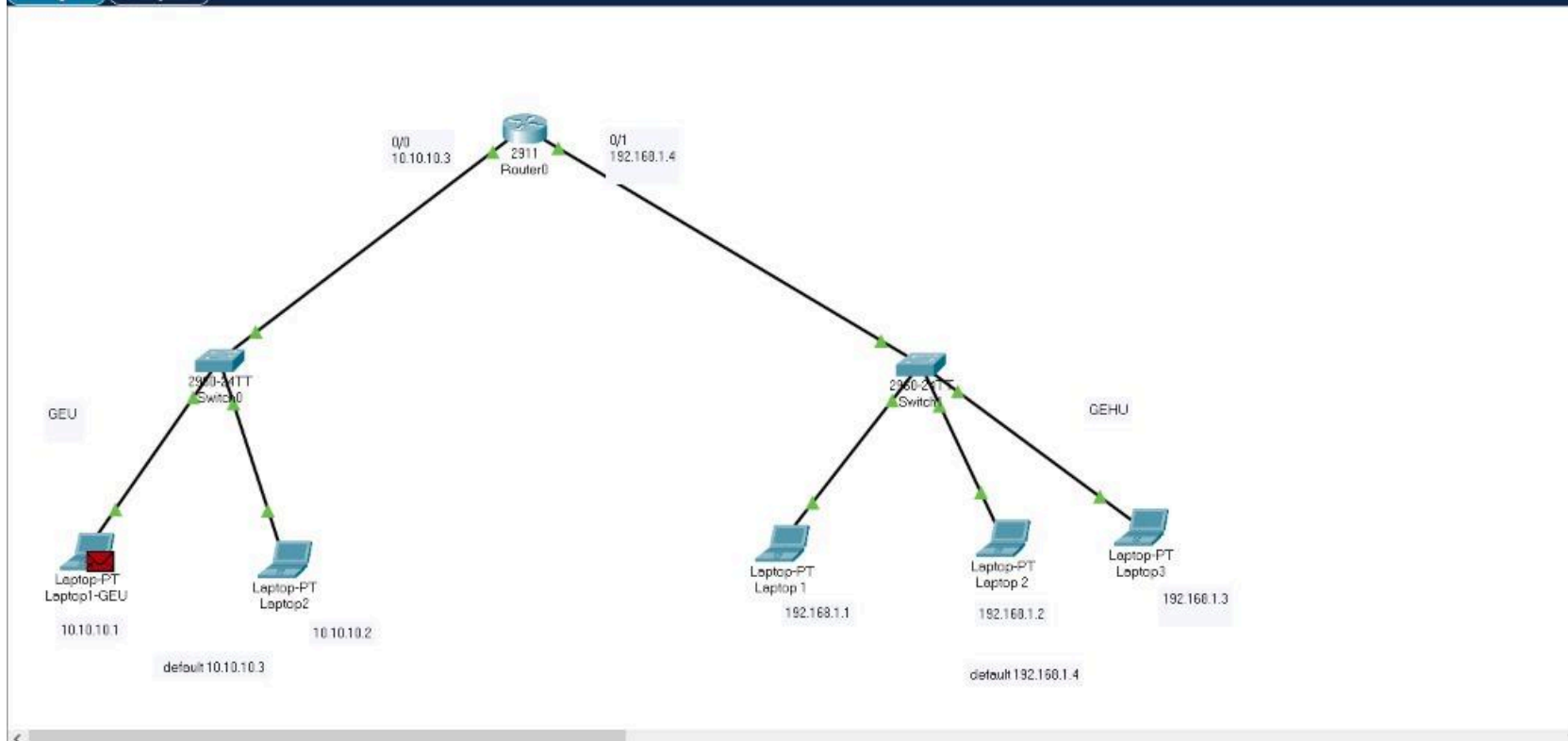
Cisco Packet Tracer - C:\Users\saurabh\Desktop\router.pkt

File Edit Options View Tools Extensions Window Help



Logical Physical x: 484, y: 714

[Root] 06:30:00



Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	T
	0.000	-	Laptop1-GI	
	0.001	Laptop1-GEU	Switch0	
	0.002	Switch0	Router0	
	0.003	Router0	Switch1	
	0.004	Switch1	Laptop 2	
	0.005	Laptop 2	Switch1	
	0.006	Switch1	Router0	
	0.007	Router0	Switch0	
	0.008	Switch0	Laptop1-GI	

Reset Simulation ☒ Constant Delay Captured to: 0.008 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Time: 00:11:45.700 PLAY CONTROLS

Scenario 0

New Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Laptop1	Laptop 2	ICMP		0.000	N	0	(edit)	(delete)



Cisco Packet Tracer - C:\Users\saurabh\Desktop\router.pkt

File Edit Options View Tools Extensions Window Help

Logical Physical x: 1599, y: 546 [Root] 05:32:00

```
graph TD
    Router0[Router0] ---|0/0 10.10.10.3| Switch0[Switch0]
    Router0 ---|0/1 192.168.1.4| Switch1[Switch1]
    Switch0 --- Laptop1GEU[Laptop-PT Laptop1-GEU 10.10.10.1]
    Switch0 --- Laptop2[Laptop-PT Laptop2 10.10.10.2]
    Switch1 --- Laptop1[Laptop-PT Laptop1 192.168.1.1]
    Switch1 --- Laptop2[Laptop-PT Laptop2 192.168.1.2]
    Switch1 --- Laptop3[Laptop-PT Laptop3 192.168.1.3]
```

Time: 00:10:42 Realtime Simulation

Scenario 0

New Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful		Laptop1	Laptop 2	ICMP		0.000	N	0	(edit)	(delete)

2811 IOS15

28°C AQI 44 09:45 22-06-2021

Cisco Packet Tracer - C:\Users\saurabh\Desktop\router.pkt

File Edit Options View Tools Extensions Window Help

Logical Physical x 599 y 319 [Root] 05:54:30

Laptop1-GEU

Physical Config Desktop Programming Attributes

Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time<1ms TTL=127
Reply from 192.168.1.2: bytes=32 time<1ms TTL=127
Reply from 192.168.1.2: bytes=32 time<1ms TTL=127
Reply from 192.168.1.2: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

GEU

Laptop-PT Laptop1-GEU

10.10.10.1

default 1

GEHU

Laptop-PT Laptop 2

192.168.1.2

Laptop-PT Laptop3

192.168.1.3

default 192.168.1.4

Time: 00:11:25

Realtime Simulation

Scenario 0

New Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful		Laptop1	Laptop 2	ICMP		0.000	N	0	(edit)	(delete)

2811 IOS15

28°C AQI 44 09:45 22-06-2021