Computer Networks

CS361 Lab6

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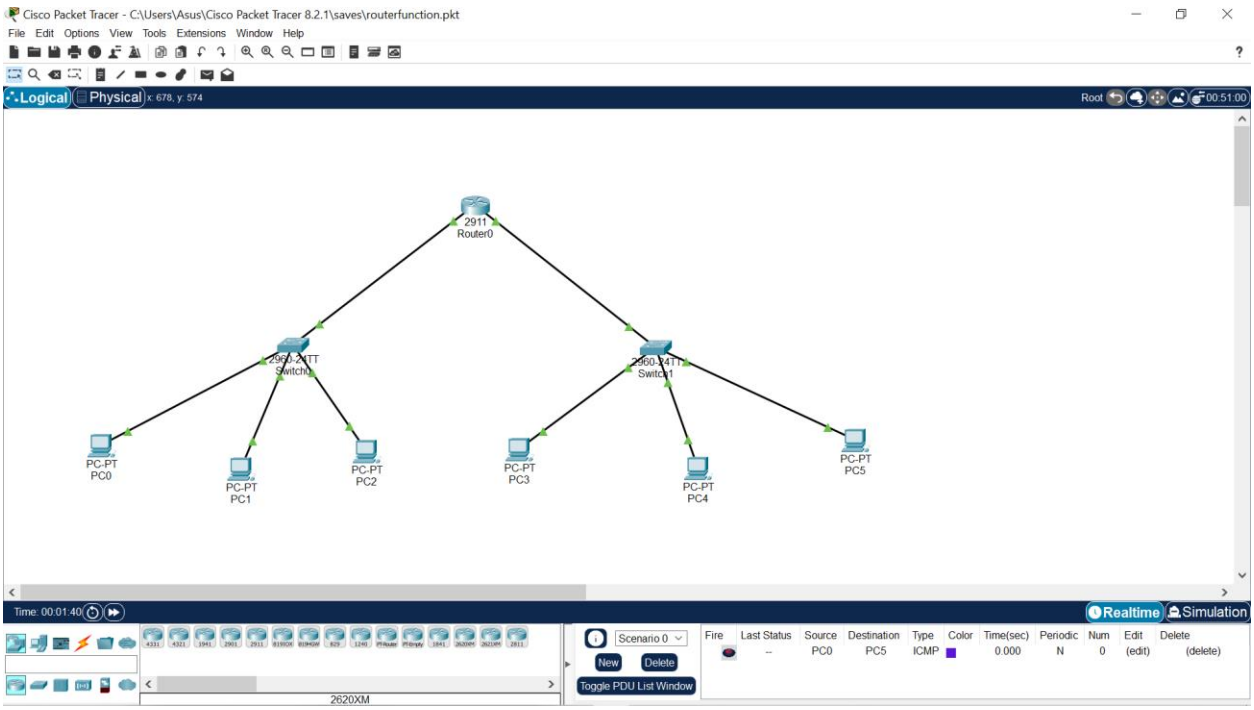
Task1: Make a network and transfer messages from one PC to another as demonstrated in the lab.

Creating network…

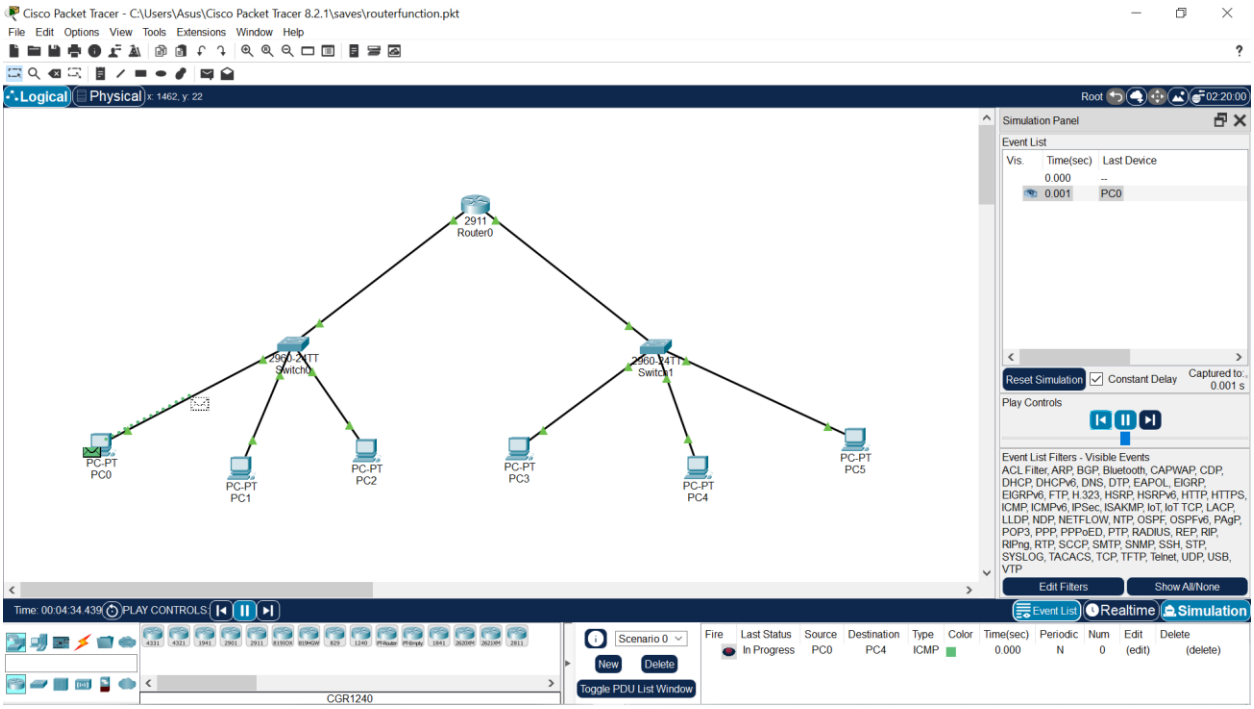


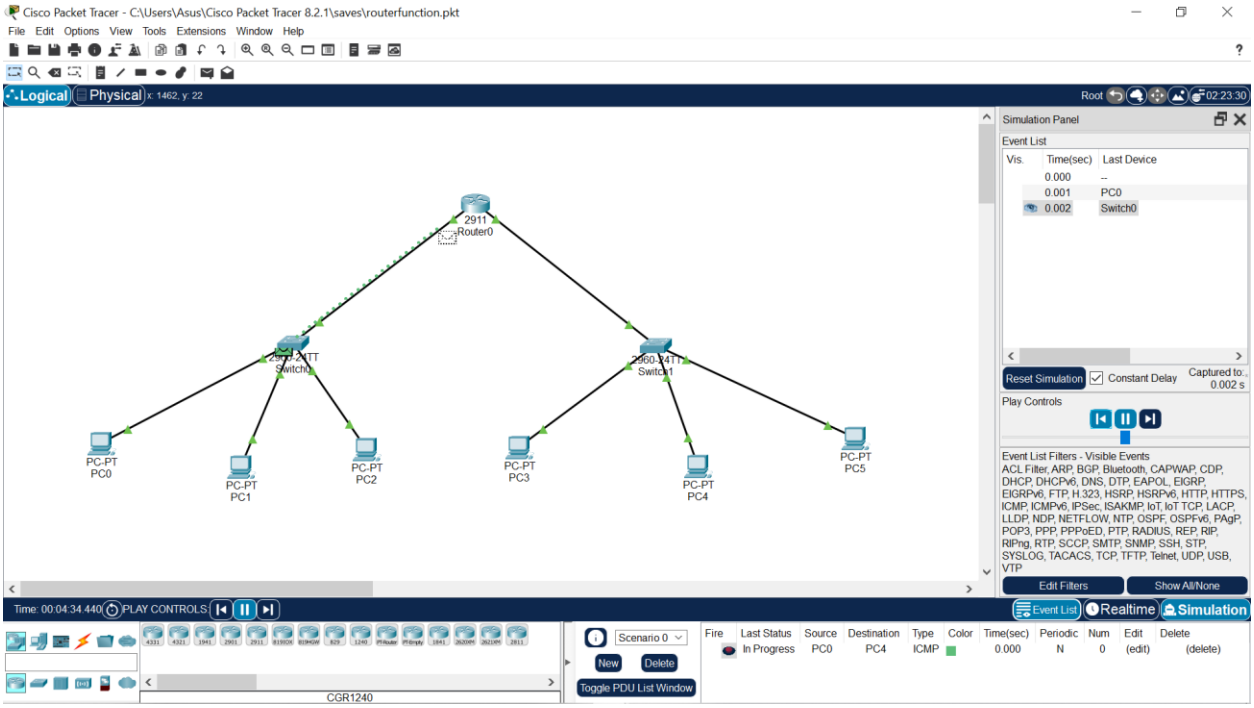
Checking connection…

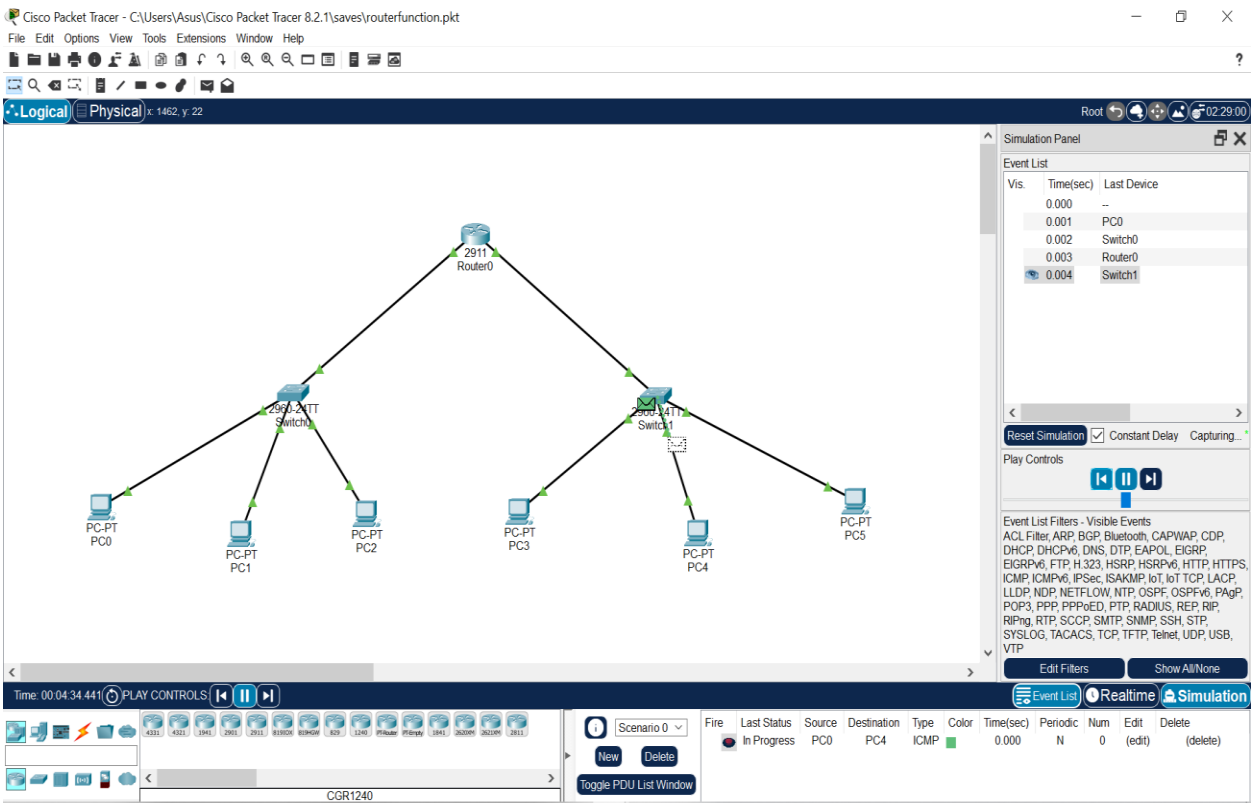
```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Request timed out.
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 = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

Connection established…

Transferring packets...





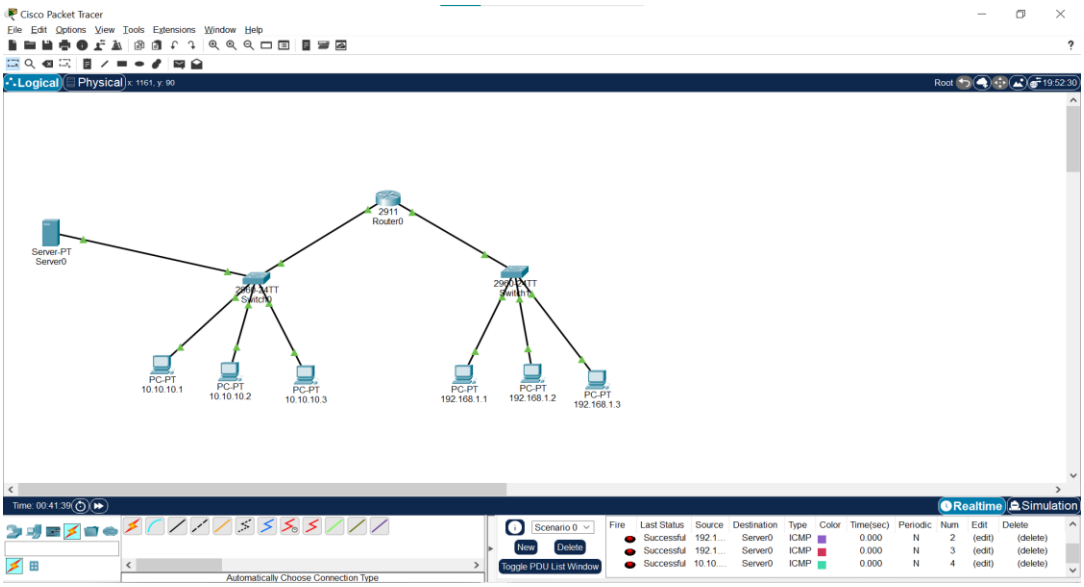


Packet transfer Successful!!

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC4	ICMP		0.000	N	0	(edit)	(delete)

Task2: Connect a server to the network designed in the previous problem and transfer mail between pcs or open a web page.

Creating Network:

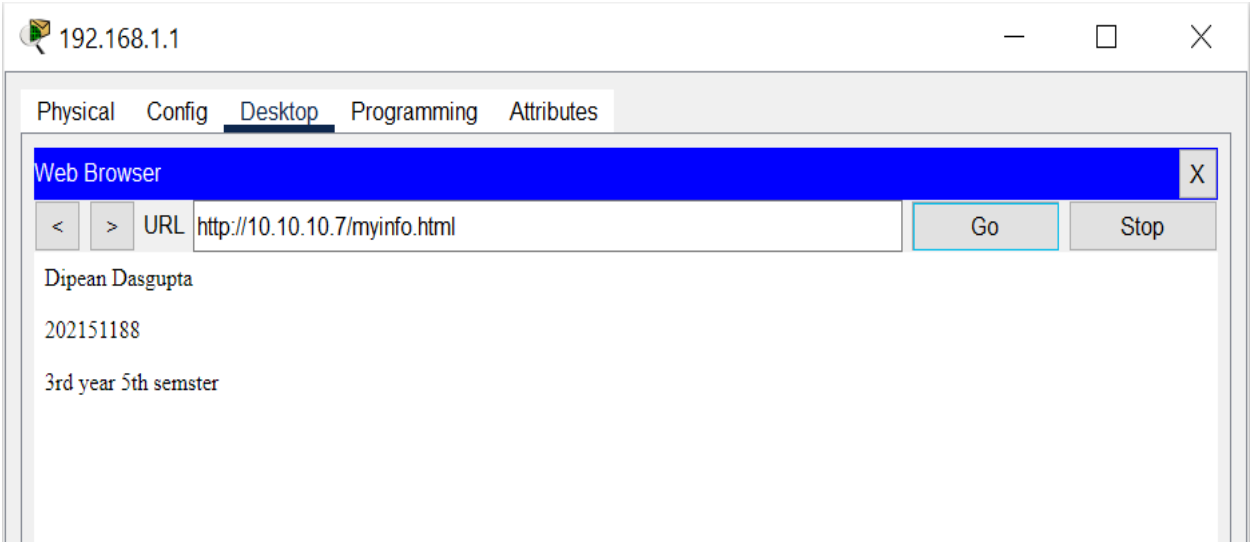


Establishing and checking connection...

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	192.1...	Server0	ICMP		0.000	N	2	(edit)	(delete)
	Successful	192.1...	Server0	ICMP		0.000	N	3	(edit)	(delete)
	Successful	10.10....	Server0	ICMP		0.000	N	4	(edit)	(delete)

Creating a webpage in server...

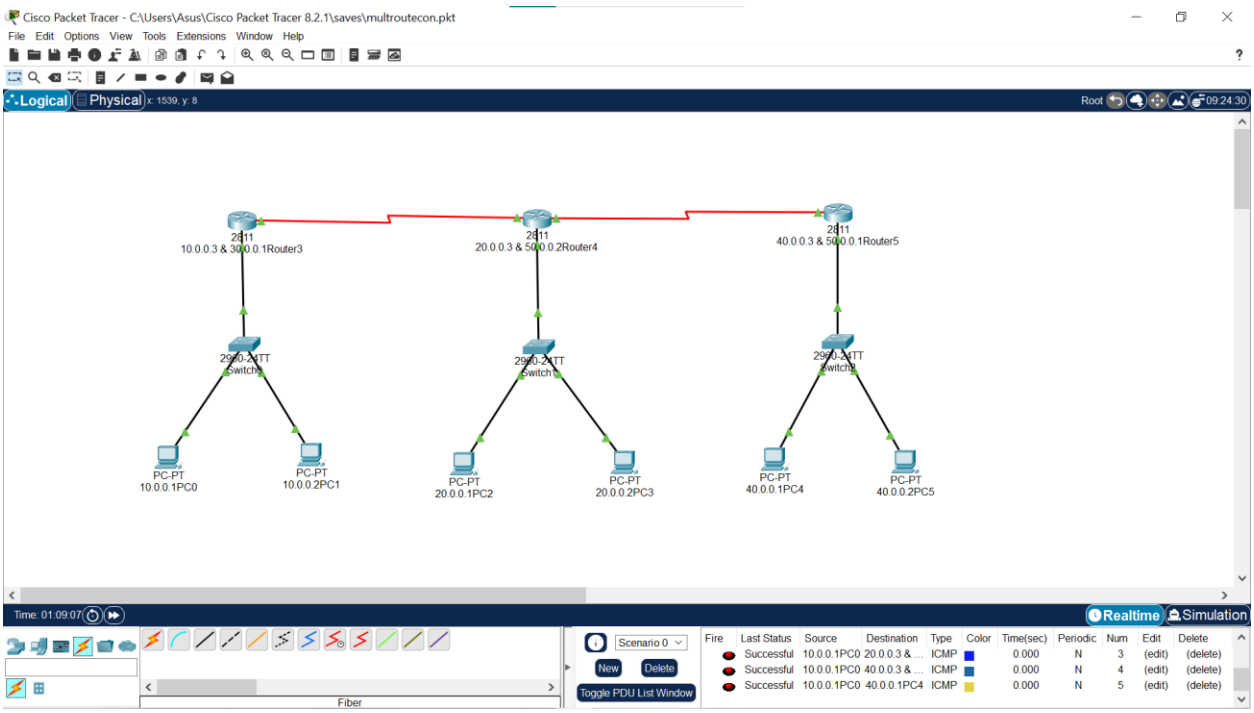
Accessing that file from server from a distant PC...



Here, the webpage is opened in pc with IP 192.168.1.1 which belongs to different network but is connected to server through a router. The webpage is successfully being displayed.

Task3: Create a complex network using three or more routers and transfer messages from one network to another.

Creating network...



Configuring routers...

1st router

```
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface Serial0/0/0
Router(config-if)#exit
Router(config)#ip route 0.0.0.0 0.0.0.0 30.0.0.2
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

2nd router

```
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface Serial0/0/0
Router(config-if)#ip address 30.0.0.2 255.0.0.0
Router(config-if)#exit
Router(config)#ip route 0.0.0.0 0.0.0.0 30.0.0.1
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

```
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface Serial0/0/0
Router(config-if)#ip address 30.0.0.2 255.0.0.0
Router(config-if)#exit
Router(config)#ip route 0.0.0.0 0.0.0.0 30.0.0.1
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Router 3

```
Router(config-if)#exit
Router(config)#interface Serial0/0/0
Router(config-if)#exit
Router(config)#ip route 0.0.0.0 0.0.0.0 50.0.0.2
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Checking Data Transfer and connection...

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit
	Successful	10.0.0.1PC0	40.0.0.3 & 50.0.0.1Router5	ICMP		0.000	N	0	(edit)
	Successful	10.0.0.1PC0	40.0.0.1PC4	ICMP		0.000	N	1	(edit)
	Successful	10.0.0.1PC0	10.0.0.3 & 30.0.0.1Router3	ICMP		0.000	N	2	(edit)

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit
	Successful	10.0.0.1PC0	20.0.0.3 & 50.0.0.2Router4	ICMP		0.000	N	3	(edit)
	Successful	10.0.0.1PC0	40.0.0.3 & 50.0.0.1Router5	ICMP		0.000	N	4	(edit)
	Successful	10.0.0.1PC0	40.0.0.1PC4	ICMP		0.000	N	5	(edit)

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit
	Successful	20.0.0.2PC3	40.0.0.2PC5	ICMP		0.000	N	9	(edit)
	Successful	10.0.0.2PC1	20.0.0.2PC3	ICMP		0.000	N	10	(edit)

Connection established and cross network data transfer all complete