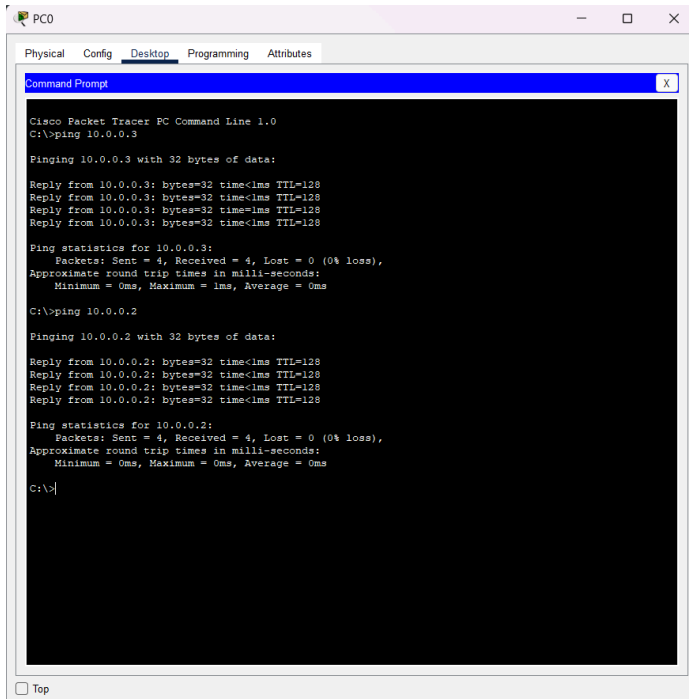


EXPERIMENT – 10

AIM: - a) Internetworking with routers in CISCO PACKET TRACER simulator.

OUTPUT: -



The screenshot shows the 'PC0' window in Cisco Packet Tracer. The 'Desktop' tab is active, displaying a 'Command Prompt' window. The command prompt shows the following output:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.0.0.3

Pinging 10.0.0.3 with 32 bytes of data:

Reply from 10.0.0.3: bytes=32 time<1ms TTL=128
Reply from 10.0.0.3: bytes=32 time<1ms TTL=128
Reply from 10.0.0.3: bytes=32 time<1ms TTL=128
Reply from 10.0.0.3: bytes=32 time<1ms TTL=128

Ping statistics for 10.0.0.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

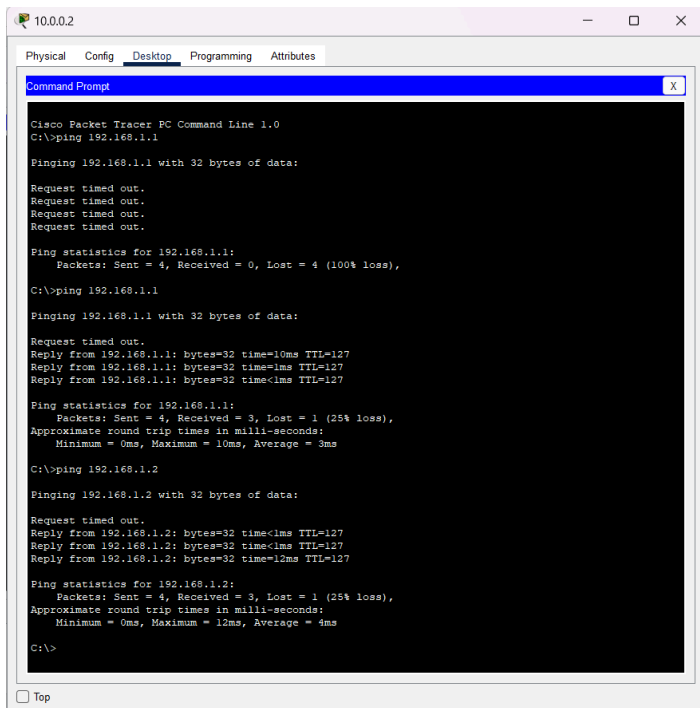
C:\>ping 10.0.0.2

Pinging 10.0.0.2 with 32 bytes of data:

Reply from 10.0.0.2: bytes=32 time<1ms TTL=128
Reply from 10.0.0.2: bytes=32 time<1ms TTL=128
Reply from 10.0.0.2: bytes=32 time<1ms TTL=128
Reply from 10.0.0.2: bytes=32 time<1ms TTL=128

Ping statistics for 10.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```



The screenshot shows the '10.0.0.2' window in Cisco Packet Tracer. The 'Desktop' tab is active, displaying a 'Command Prompt' window. The command prompt shows the following output:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

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

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Request timed out.
Reply from 192.168.1.1: bytes=32 time=10ms TTL=127
Reply from 192.168.1.1: bytes=32 time=1ms TTL=127
Reply from 192.168.1.1: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 10ms, Average = 3ms

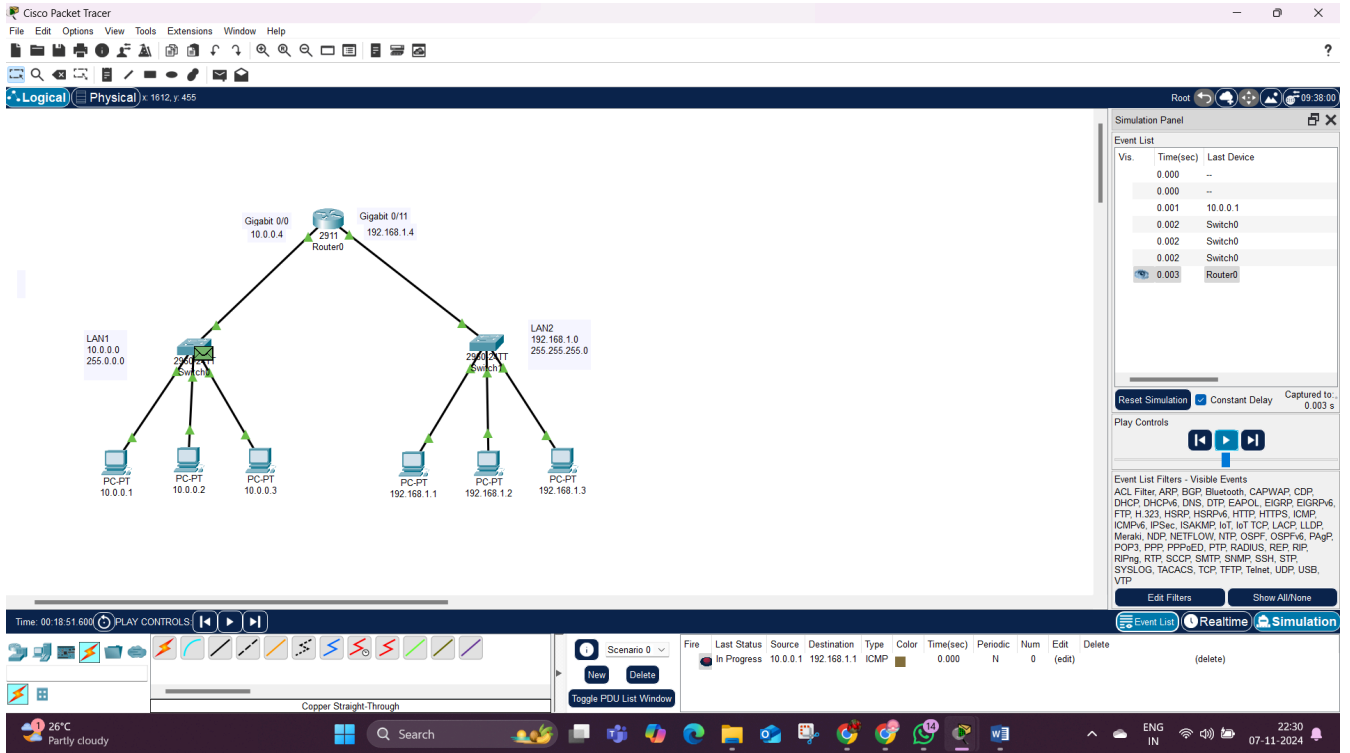
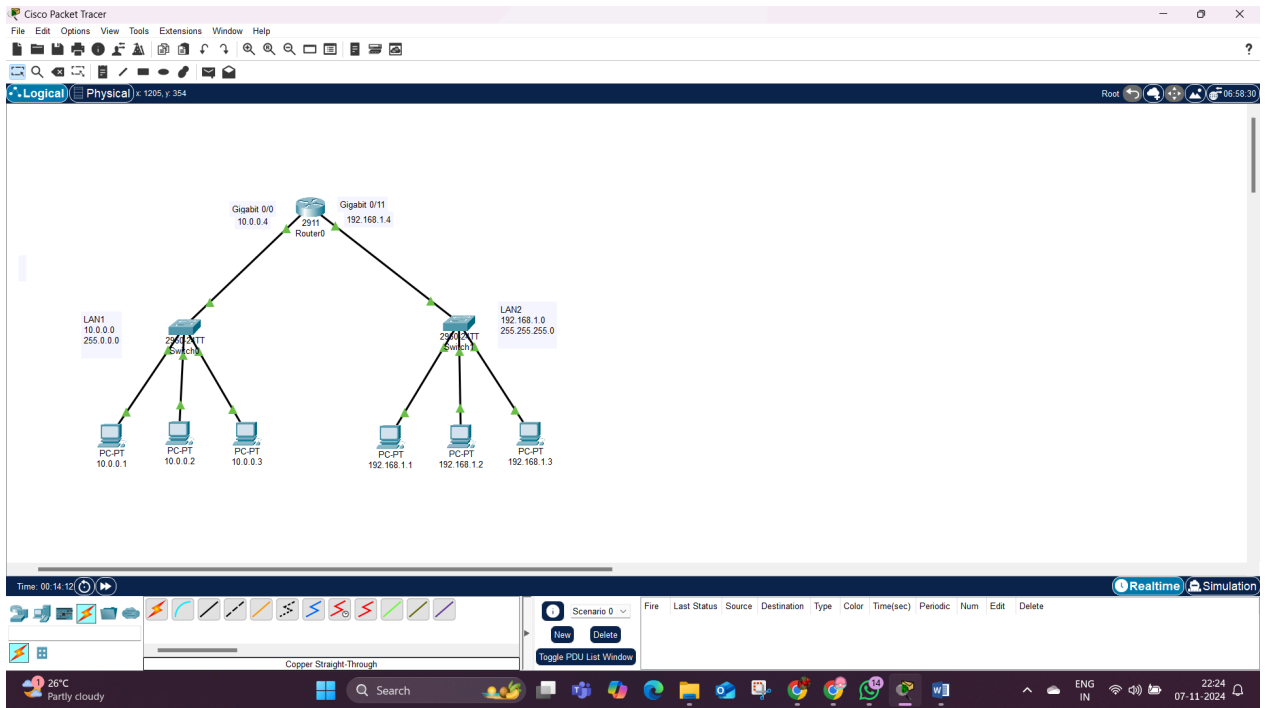
C:\>ping 192.168.1.2

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=12ms 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 = 12ms, Average = 4ms

C:\>
```



Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 100, y 67

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	--
	0.000	--
	0.001	10.0.0.1
	0.002	Switch0
	0.002	Switch0
	0.002	Switch0
	0.003	Router0
	0.004	Switch0
	0.004	--

Reset Simulation Constant Delay Captured to: 0.004 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, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPv2, RIPv3, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Event List Realtime Simulation

Time: 00:18:51.601 PLAY CONTROLS

Scenario 0

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

In Progress 10.0.0.1 192.168.1.1 ICMP 0.000 N 0 (edit) (delete)

Toggle PDU List Window

Copper Straight-Through

26°C Partly cloudy

ENG IN 22:30 07-11-2024

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 935, y 23

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	--
	0.000	--
	0.001	10.0.0.1
	0.002	Switch0
	0.002	Switch0
	0.002	Switch0
	0.003	Router0
	0.004	Switch0
	0.004	--
	0.005	10.0.0.1

Reset Simulation Constant Delay Captured to: 0.005 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, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPv2, RIPv3, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Event List Realtime Simulation

Time: 00:18:51.602 PLAY CONTROLS

Scenario 0

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

In Progress 10.0.0.1 192.168.1.1 ICMP 0.000 N 0 (edit) (delete)

Toggle PDU List Window

Copper Straight-Through

26°C Partly cloudy

ENG IN 22:31 07-11-2024

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 801, y 4

Simulation Panel

Event List

Vis	Time(sec)	Last Device
	0.000	--
	0.000	--
	0.001	10.0.0.1
	0.002	Switch0
	0.002	Switch0
	0.002	Switch0
	0.003	Router0
	0.004	Switch0
	0.004	--
	0.005	10.0.0.1
	0.006	Switch0
	0.007	Router0

Reset Simulation Constant Delay Captured to: 0.007 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, Meraki, 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

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

In Progress 10.0.0.1 192.168.1.1 ICMP 0.000 N 0 (edit) (delete)

Time: 00:18:51.604 PLAY CONTROLS

26°C Partly cloudy

ENG IN 22:31 07-11-2024

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1152, y 9

Simulation Panel

Event List

Vis	Time(sec)	Last Device
	0.000	--
	0.001	10.0.0.1
	0.002	Switch0
	0.002	Switch0
	0.002	Switch0
	0.003	Router0
	0.004	Switch0
	0.004	--
	0.005	10.0.0.1
	0.006	Switch0
	0.007	Router0
	0.008	Switch1

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, Meraki, 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

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

In Progress 10.0.0.1 192.168.1.1 ICMP 0.000 N 0 (edit) (delete)

Time: 00:18:51.605 PLAY CONTROLS

26°C Partly cloudy

ENG IN 22:32 07-11-2024

Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help

Logical Physical
x 478, y 90

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.002	Switch0
	0.002	Switch0
	0.002	Switch0
	0.003	Router0
	0.004	Switch0
	0.004	--
	0.005	10.0.0.1
	0.006	Switch0
	0.007	Router0
	0.008	Switch1
	0.009	192.168.1.1
	0.010	Switch1

Reset Simulation Constant Delay Captured to: 0.010 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, Meraki, 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

Time: 00:18:51.607 PLAY CONTROLS

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

In Progress 10.0.0.1 192.168.1.1 ICMP 0.000 N 0 (edit) (delete)

26°C Partly cloudy

Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help

Logical Physical
x 555, y 18

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.002	Switch0
	0.003	Router0
	0.004	Switch0
	0.004	--
	0.005	10.0.0.1
	0.006	Switch0
	0.007	Router0
	0.008	Switch1
	0.009	192.168.1.1
	0.010	Switch1
	0.011	Router0
	0.012	Switch0

Reset Simulation Constant Delay Captured to: 0.012 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, Meraki, 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

Time: 00:18:51.609 PLAY CONTROLS

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

Successful 10.0.0.1 192.168.1.1 ICMP 0.000 N 0 (edit) (delete)

26°C Partly cloudy

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	10.0.0.1	192.168.1.1	ICMP		0.000	N	0	(edit)	(delete)

RESULT: -

Router have been successfully done in CISCO PACKET TRACER.

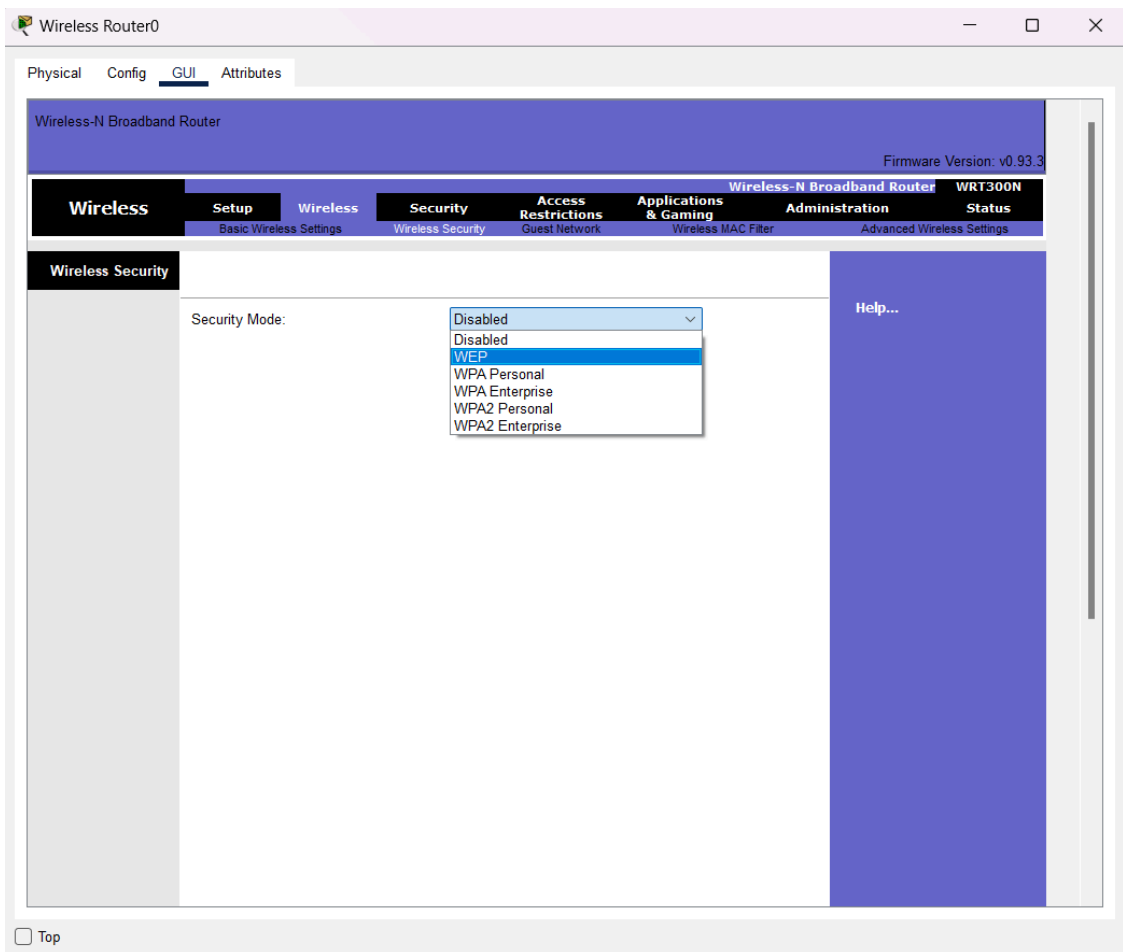
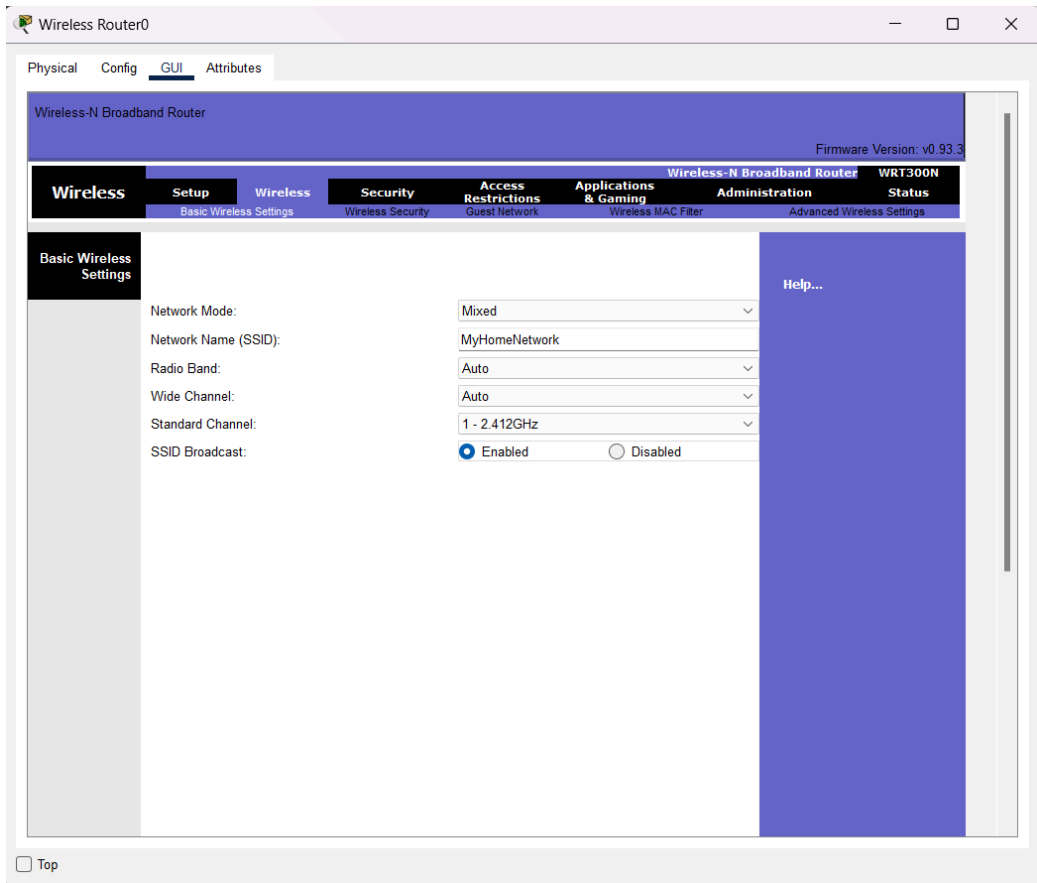
AIM: - b) Design and configure an internetwork using wireless router, DHCP server and internet cloud.

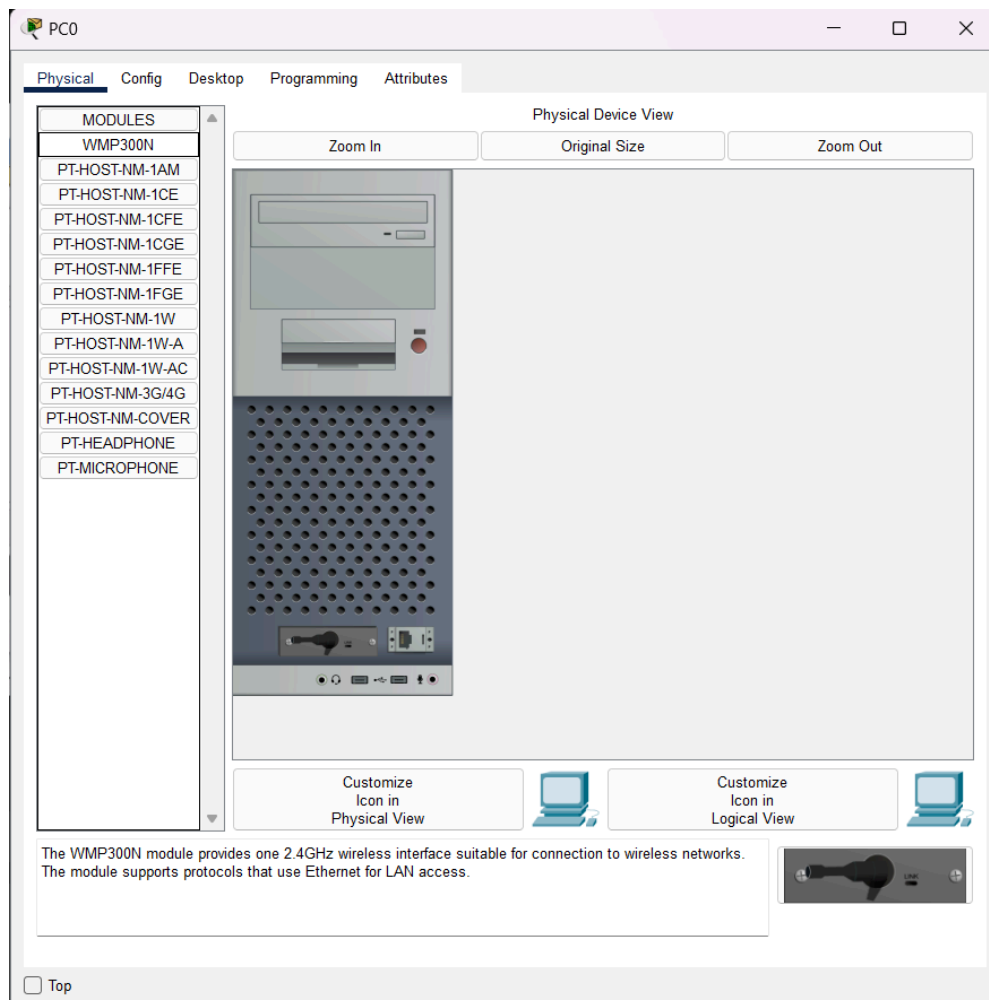
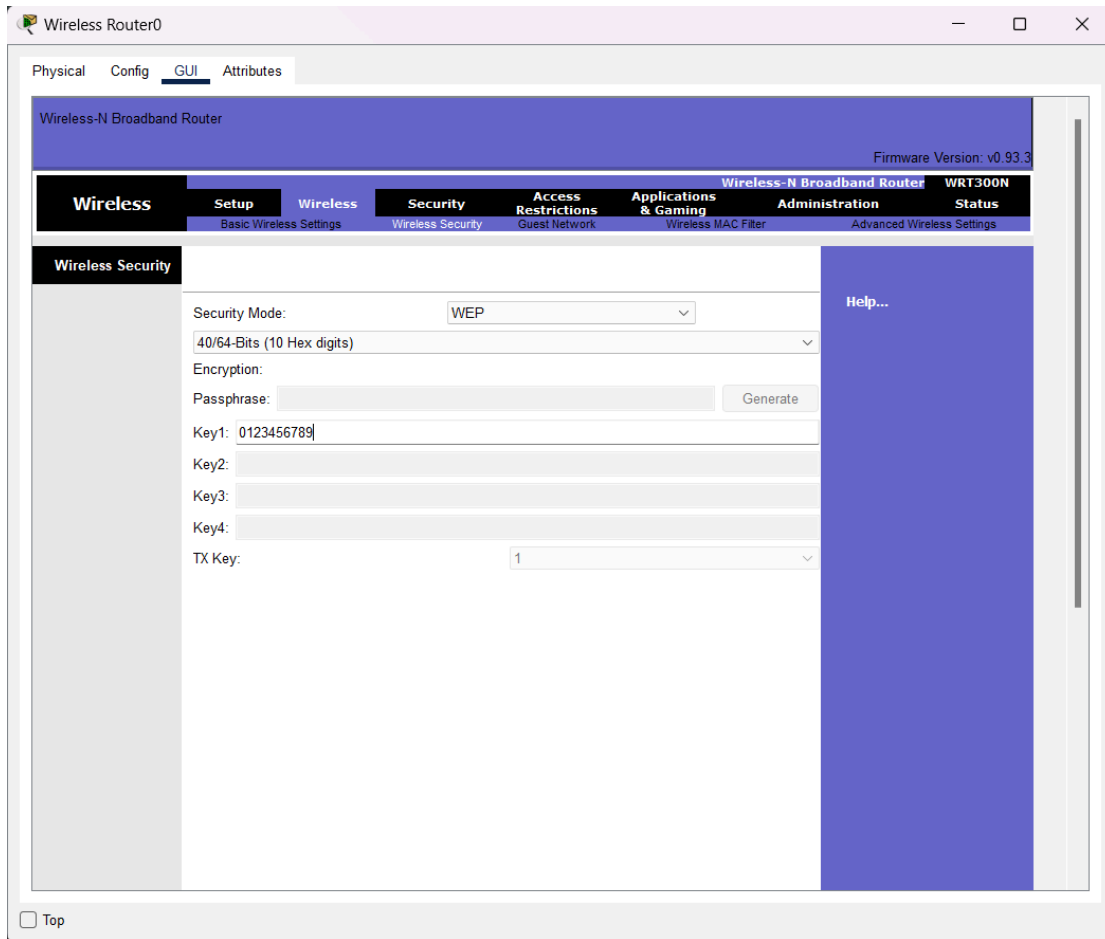
OUTPUT: -

The screenshot displays the configuration interface for a Wireless-N Broadband Router (WRT300N) in Cisco Packet Tracer. The interface is titled "Wireless Router0" and includes tabs for Physical, Config, GUI (selected), and Attributes. The main configuration area is divided into several sections:

- Setup:** Includes tabs for Setup, Wireless, Security, Access Restrictions, Applications & Gaming, Administration, and Status. The Setup tab is active, showing the "Basic Setup" sub-tab.
- Internet Setup:** Contains the "Internet Connection type" dropdown set to "Automatic Configuration - DHCP". Below this are "Optional Settings" for Host Name, Domain Name, and MTU (set to 1500).
- Network Setup:** Contains the "Router IP" section with IP Address (192.168.0.1) and Subnet Mask (255.255.255.0). Below this is the "DHCP Server Settings" section, where the DHCP Server is set to "Disabled".

The DHCP Server Settings section includes fields for Start IP Address (192.168.0.100), Maximum number of Users (50), IP Address Range (192.168.0.100 - 149), Client Lease Time (0 minutes), and Static DNS 1, 2, and 3 (all set to 0.0.0.0). A "Help..." button is visible on the right side of the configuration area.





PC0

Physical

Config

Desktop

Programming

Attributes

Link Information

Connect

Profiles

Below is a list of available wireless networks. To search for more wireless networks, click the **Refresh** button. To view more information about a network, select the wireless network name. To connect to that network, click the **Connect** button below.

Wireless Network Name	CH	Signal
MyHomeNetwork	1	100%

Site Information

Wireless Mode

Infrastructure

Network Type

Mixed B/G/N

Radio Band

Auto

Security

WEP


MAC Address

0001.648E.AB06

Refresh

Connect

2.4GHz



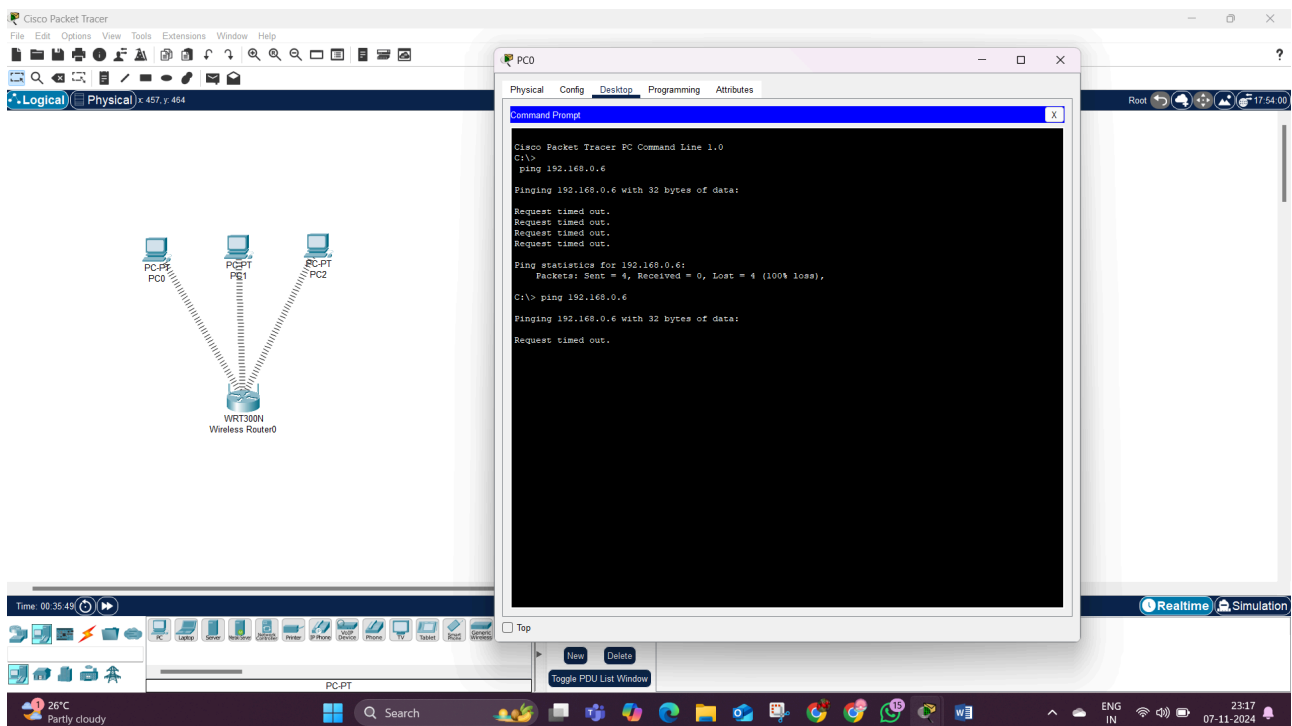
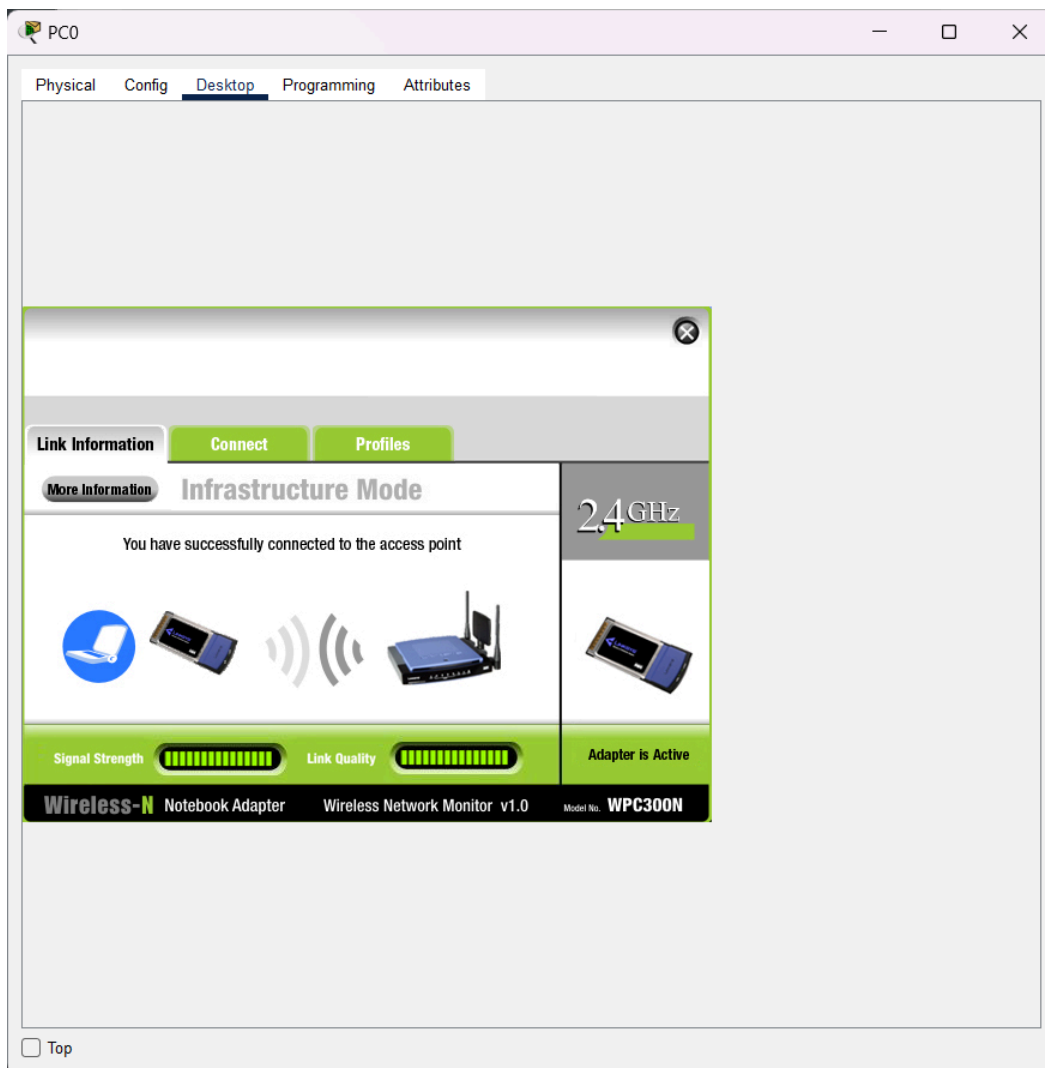
Adapter is Active

Wireless-N Notebook Adapter

Wireless Network Monitor v1.0

Model No. WPC300N

☐ Top



RESULT: -

Wireless Router have been successfully done in CISCO PACKET TRACER.