

EXPERIMENT – 10

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

OUTPUT:-

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PC0

Physical Config Desktop Programming Attributes

Command Prompt

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:\>
```

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10.0.0.2

Physical Config Desktop Programming Attributes

Command Prompt

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

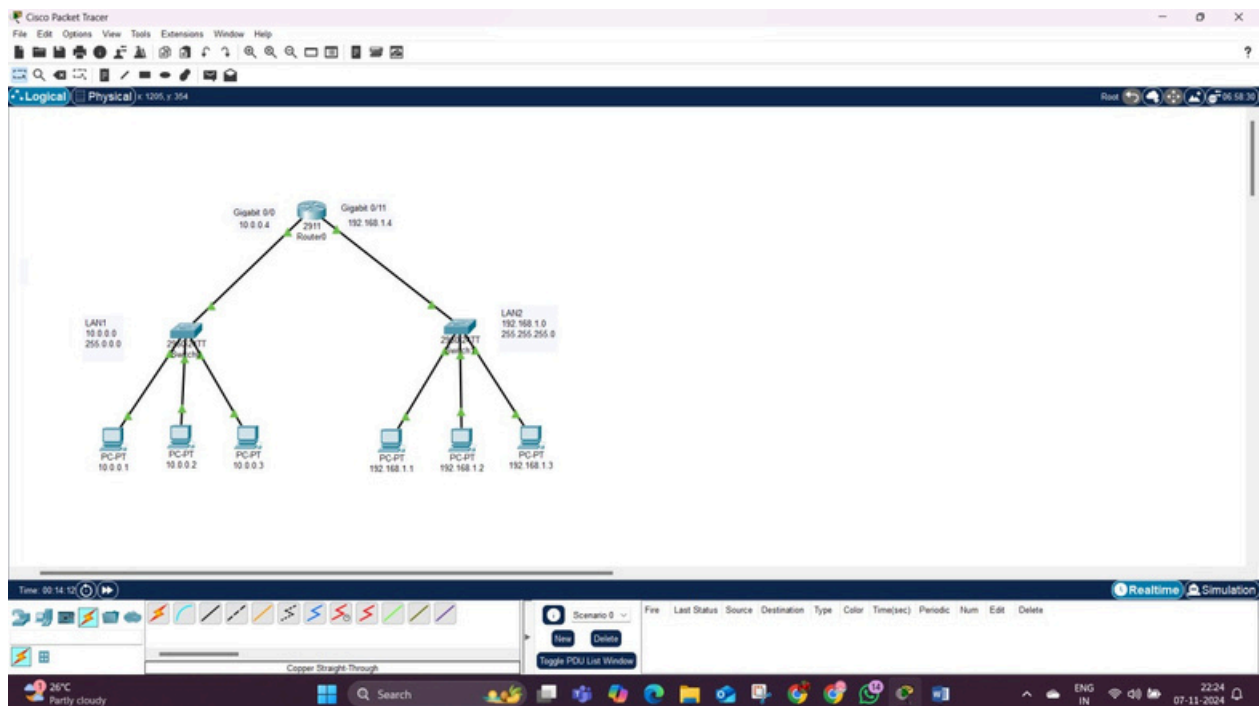
C:\>ping 192.168.1.2

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: 1612, y: 455

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	

Reset Simulation Constant Delay Captured to: 0.003 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, iSCSI, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RRP, RSP, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Time: 00:18:51.600 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

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 168, y: 57

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	

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, iSCSI, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RRP, RSP, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

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

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 835, 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	-
0.003	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, Icmp, Icmpv6, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIPv2, RIPv3, RIPv6, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

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

26°C Partly cloudy

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 861, 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, Icmp, Icmpv6, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIPv2, RIPv3, RIPv6, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Time: 00:18:51.604 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

26°C Partly cloudy

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 1152, y: 9

Root 10:33:30

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
0.000	--	
0.001	10.0.0.1	
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, RIPv2, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Event List Realtime Simulation

Time: 00:18:51.600 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 PCU List Window

26°C Partly cloudy

Search

ENG IN 22:32 07-11-2024

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 478, y: 90

Root 10:43:00

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, RIPv2, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Event List Realtime Simulation

Time: 00:18:51.607 PLAY CONTROLS

Scenario 0

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

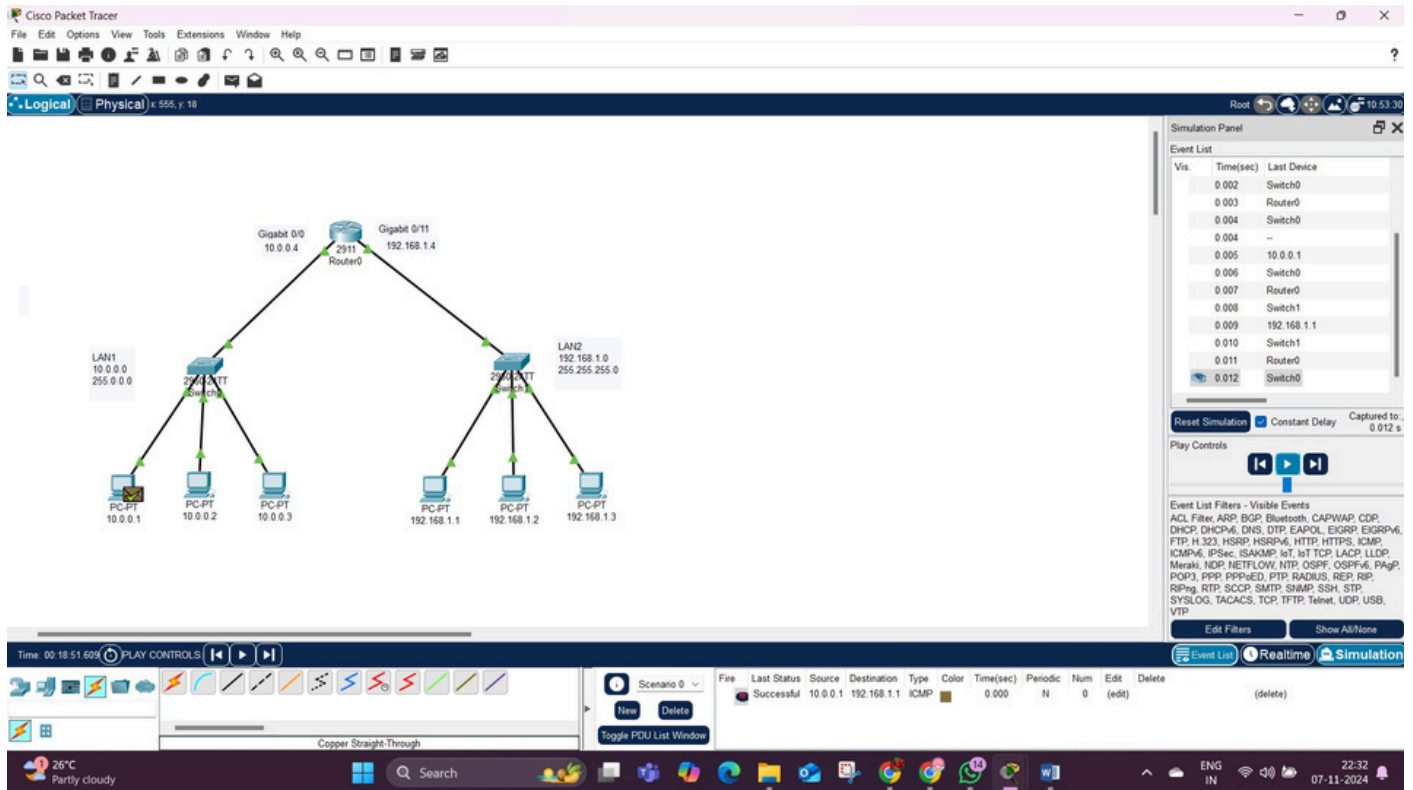
In Progress 10.0.0.1 192.168.1.1 ICMP 0.000 N 0 (edit) (delete)

Toggle PCU List Window

26°C Partly cloudy

Search

ENG IN 22:32 07-11-2024



RESULT: -

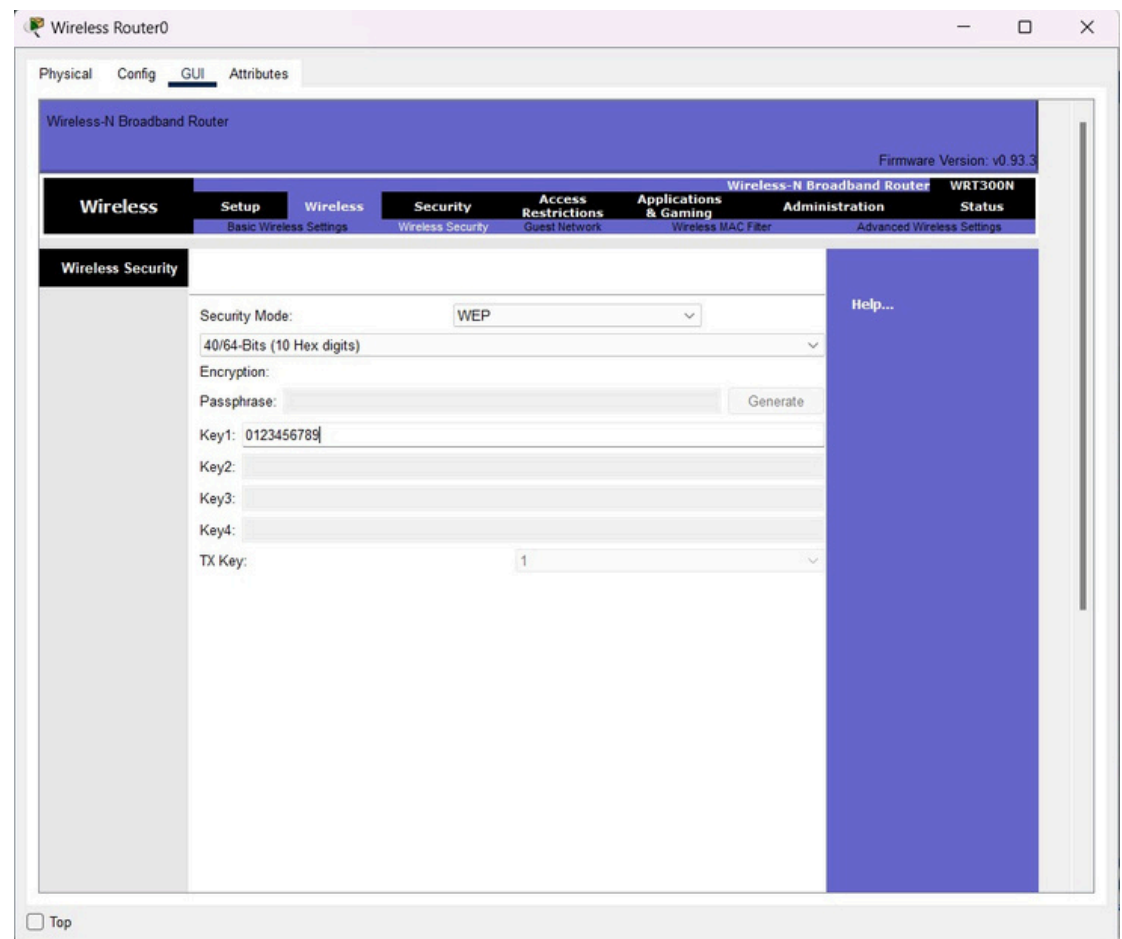
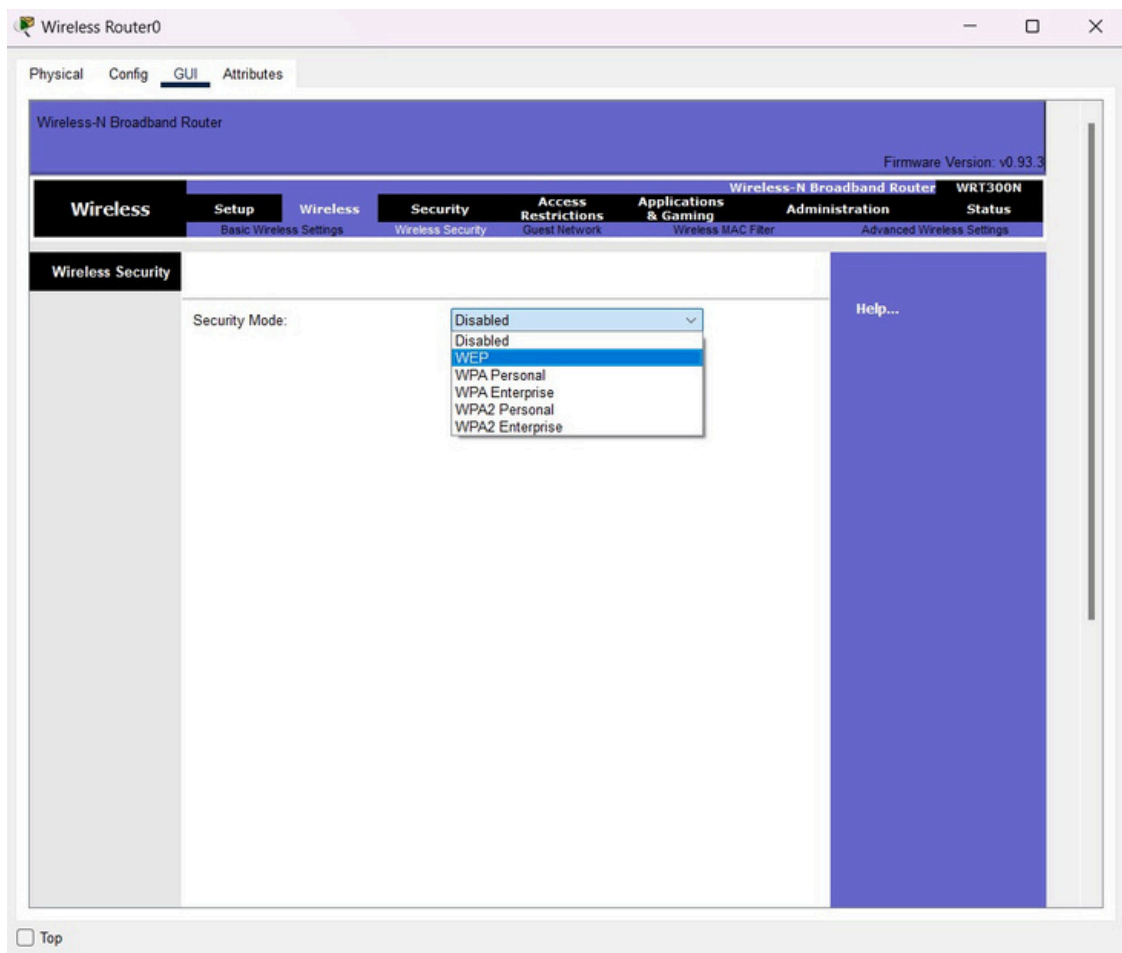
Router have been successfully done in CISCO PACKET TRACER.

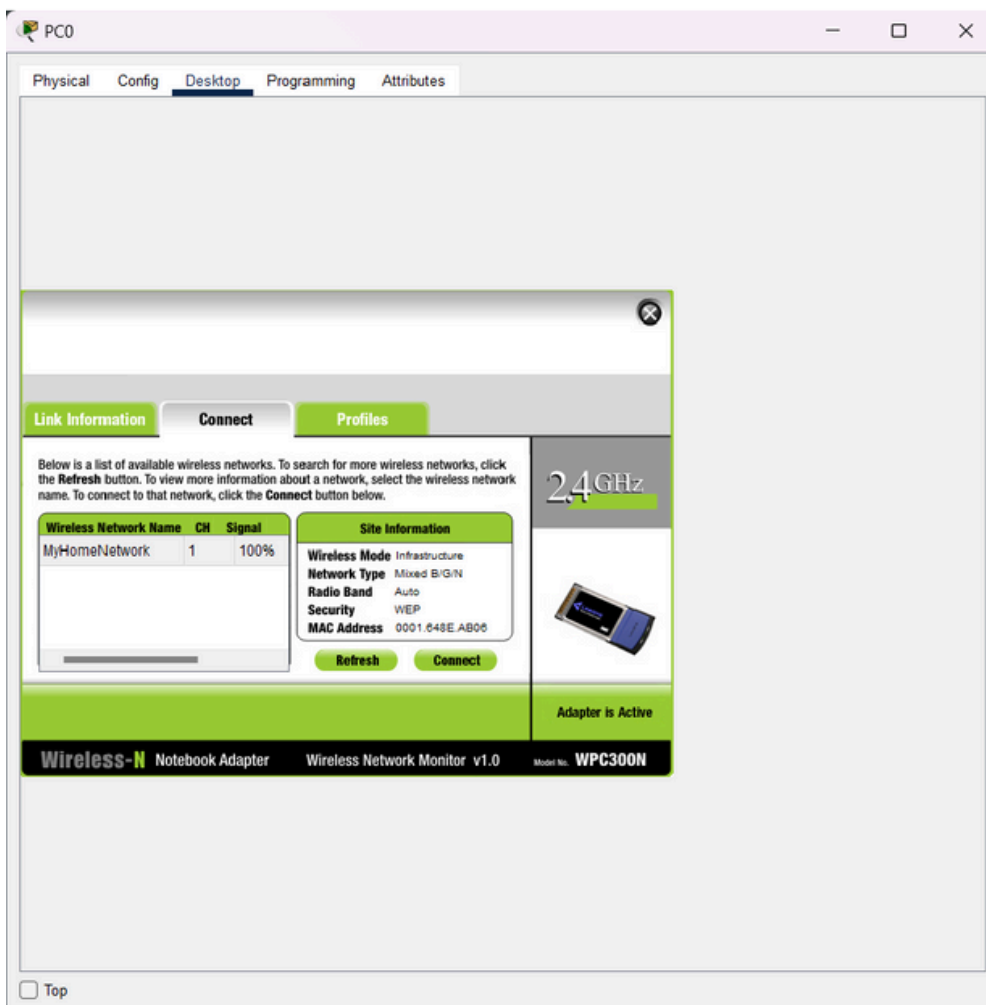
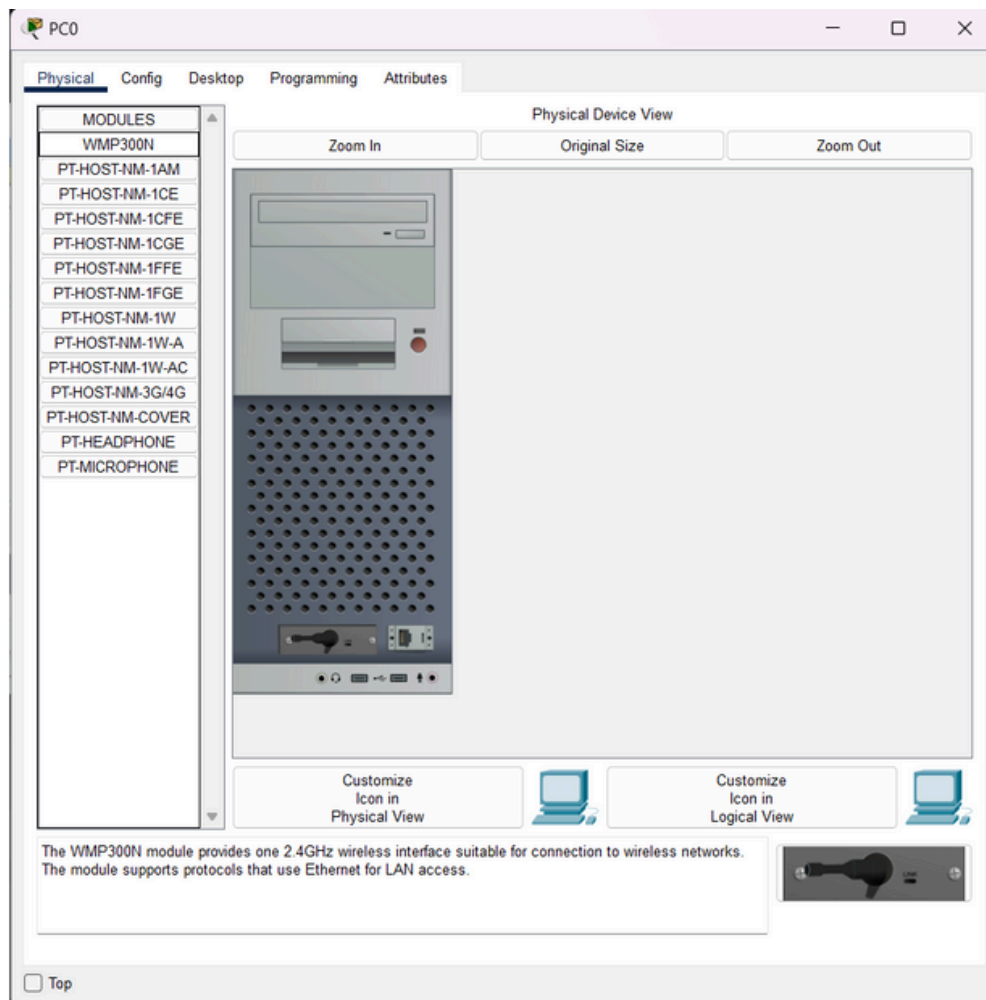
AIM: - b) Design and configure an internetwork using wireless router, DHCP server and internet cloud.

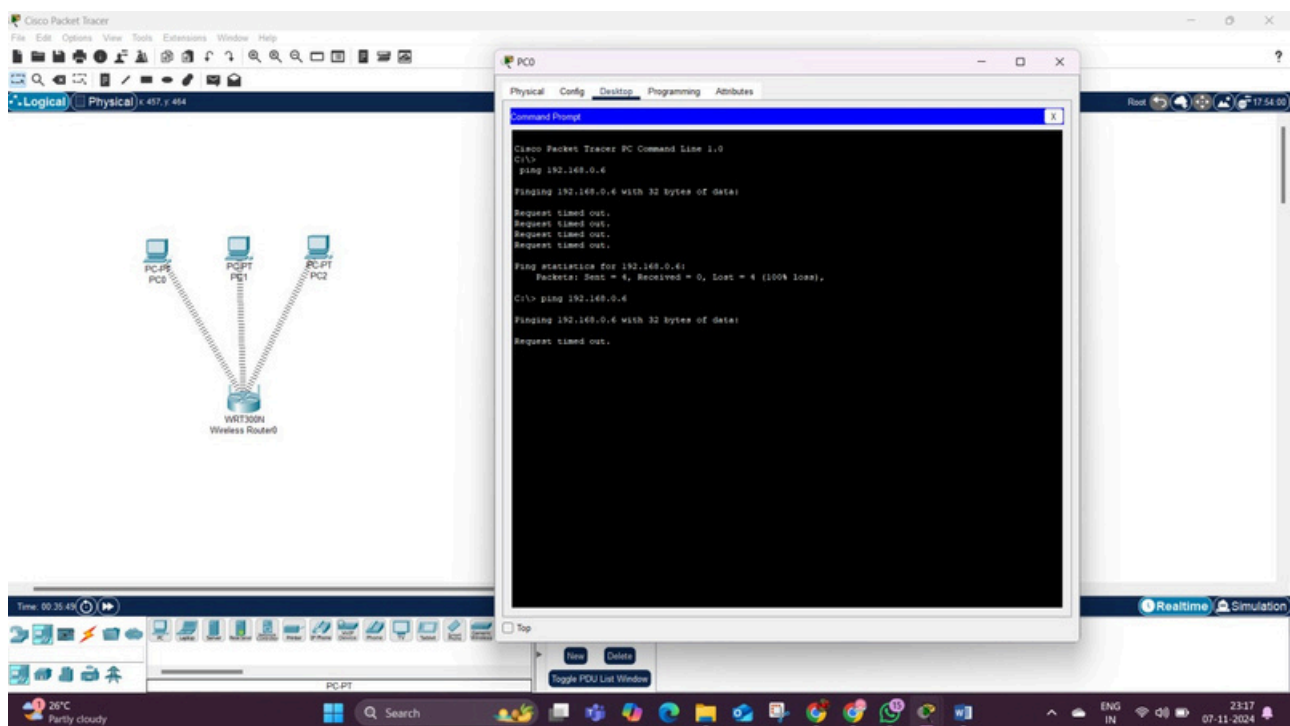
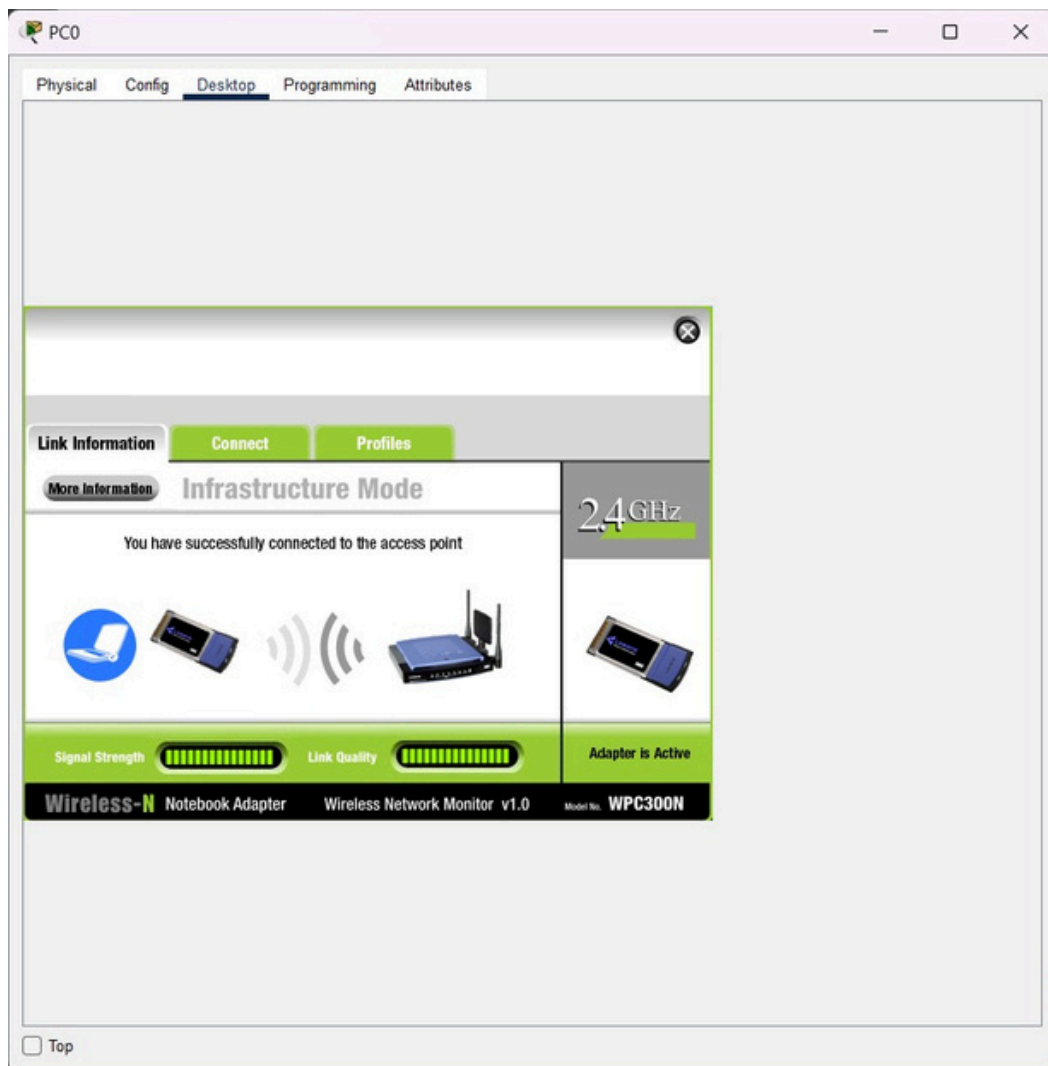
OUTPUT:-

The screenshot shows the 'Internet Setup' configuration page for a 'Wireless-N Broadband Router' (WRT300N) with firmware version v0.93.3. The 'Setup' menu is active, and the 'Internet Setup' tab is selected. The 'Internet Connection type' is set to 'Automatic Configuration - DHCP'. Under 'Optional Settings', the 'Host Name' and 'Domain Name' fields are empty, and the 'MTU' is set to 1500. The 'Network Setup' section shows the 'Router IP' as 192.168.0.1 with a subnet mask of 255.255.255.0. The 'DHCP Server Settings' are configured with the DHCP server disabled, a start IP address of 192.168.0.100, a maximum number of users of 50, and an IP address range of 192.168.0.100 - 149. The client lease time is set to 0 minutes. Static DNS settings are all set to 0.0.0.0, and the WAN is set to 0.0.0.0. A 'Help...' link is visible on the right side of the page.

The screenshot shows the 'Wireless' configuration page for the same 'Wireless-N Broadband Router' (WRT300N) with firmware version v0.93.3. The 'Wireless' menu is active, and the 'Basic Wireless Settings' tab is selected. The 'Basic Wireless Settings' section shows the 'Network Mode' set to 'Mixed', the 'Network Name (SSID)' set to 'MyHomeNetwork', the 'Radio Band' set to 'Auto', the 'Wide Channel' set to 'Auto', and the 'Standard Channel' set to '1 - 2.412GHz'. The 'SSID Broadcast' is set to 'Enabled'. A 'Help...' link is visible on the right side of the page.







RESULT:-

Wireless Router have been successfully done in CISCO PACKET TRACER.