P20-0457
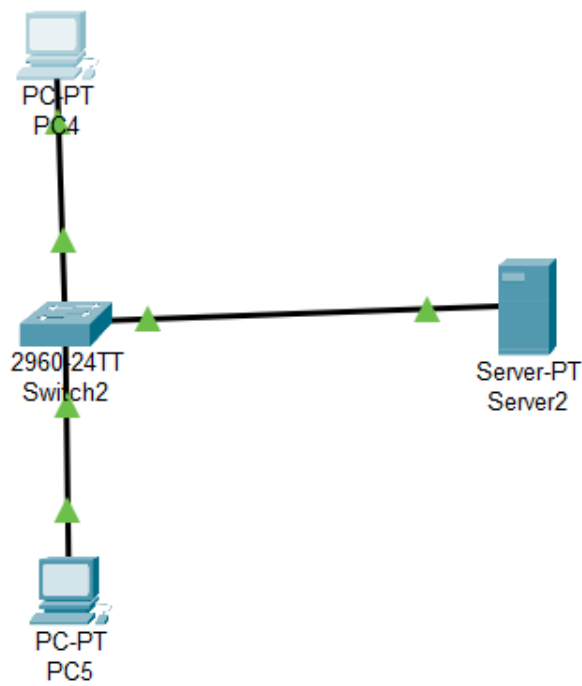
Abdul Rafay Ather

TASK -5

Section 5A

NATIONAL UNIVERSITY OF COMPUTER AND EMERGING SCIENCES

Qno-1

Experiment 1: DNS Server Configuration in Packet Tracer

• Set up a network topology in Packet Tracer that includes a DNS server, client devices, and a local network.

• Configure the DNS server with a static IP address and assign a domain name to the server.

• Configure the client devices to use the DNS server for name resolution.

• Verify the DNS resolution of domain names to IP addresses and vice versa.

```
Command Prompt                                                              X

Cisco Packet Tracer SERVER Command Line 1.0
C:\>ping 192.168.1.3

Pinging 192.168.1.3 with 32 bytes of data:

Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.1.4

Pinging 192.168.1.4 with 32 bytes of data:

Reply from 192.168.1.4: bytes=32 time<1ms TTL=128
Reply from 192.168.1.4: bytes=32 time<1ms TTL=128
Reply from 192.168.1.4: bytes=32 time<1ms TTL=128
Reply from 192.168.1.4: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

TASK-2

Experiment 2: Design, label and configure the following topology in cisco packet tracer

• Set up a network topology in Packet Tracer
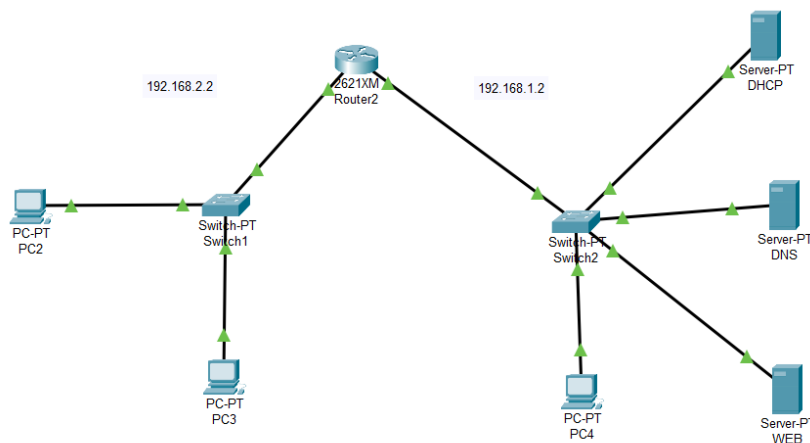
• Configure a generic server as centralized DHCP server to provide IP addresses to Network 192.168.1.0 /24 and 192.168.2.0/24

DHCP

Interface		FastEthernet0	Service ● On	○ Off
Pool Name			serverPool	
Default Gateway			0.0.0.0	
DNS Server			0.0.0.0	
Start IP Address :	192	168	3	0
Subnet Mask:	255	255	255	0
Maximum Number of Users :			256	
TFTP Server:			0.0.0.0	
WLC Address:			0.0.0.0	

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	0.0.0.0	0.0.0.0	192.168.3.0	255.255.2...	256	0.0.0.0	0.0.0.0
P1	192.168.1.2	192.168.1.9	192.168.1.11	255.255.2...	245	0.0.0.0	0.0.0.0
P2	192.168.2.2	192.168.1.9	192.168.2.11	255.255.2...	245	0.0.0.0	0.0.0.0

• Configure the client devices to use the DNS server for name resolution.

PC2

IP Configuration

Interface: FastEthernet0

IP Configuration
- ● DHCP   ○ Static

IPv4 Address: 192.168.2.12
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.2.2
DNS Server: 192.168.1.9

IPv6 Configuration
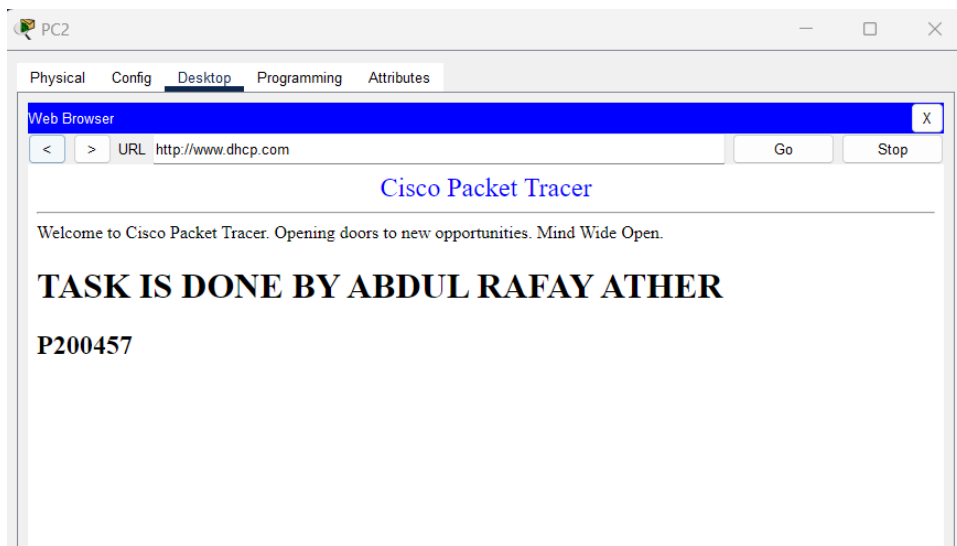- ○ Automatic   ● Static

IPv6 Address: /
Link Local Address: FE80::201:97FF:FED6:5398
Default Gateway:
DNS Server:

• Validate that the DNS resolution process correctly translates domain names into IP addresses for the web server.

PC2 — Physical | Config | Desktop | Programming | Attributes

Web Browser   X

< | > | URL http://www.dhcp.com | Go | Stop

Cisco Packet Tracer

Welcome to Cisco Packet Tracer. Opening doors to new opportunities. Mind Wide Open.

TASK IS DONE BY ABDUL RAFAY ATHER

P200457

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
●	Successful	PC2	DNS	ICMP		0.000	N	0	(edit)	(delete)
●	Successful	PC3	DHCP	ICMP		0.000	N	1	(edit)	(delete)
●	Successful	PC4	WEB	ICMP		0.000	N	2	(edit)	(delete)
●	Successful	PC2	DHCP	ICMP		0.000	N	3	(edit)	(delete)
●	Successful	PC2	DNS	ICMP		0.000	N	4	(edit)	(delete)
●	Successful	PC4	DHCP	ICMP		0.000	N	5	(edit)	(delete)
●	Successful	PC4	DNS	ICMP		0.000	N	6	(edit)	(delete)

```
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=255
Reply from 192.168.1.2: bytes=32 time<1ms TTL=255
Reply from 192.168.1.2: bytes=32 time<1ms TTL=255
Reply from 192.168.1.2: bytes=32 time<1ms TTL=255

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 = 0ms, Average = 0ms

C:\>ping 192.168.1.9

Pinging 192.168.1.9 with 32 bytes of data:

Reply from 192.168.1.9: bytes=32 time<1ms TTL=127
Reply from 192.168.1.9: bytes=32 time<1ms TTL=127
Reply from 192.168.1.9: bytes=32 time<1ms TTL=127
Reply from 192.168.1.9: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.1.9:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.1.7

Pinging 192.168.1.7 with 32 bytes of data:

Reply from 192.168.1.7: bytes=32 time<1ms TTL=127
Reply from 192.168.1.7: bytes=32 time<1ms TTL=127
Reply from 192.168.1.7: bytes=32 time<1ms TTL=127
Reply from 192.168.1.7: bytes=32 time=1ms TTL=127

Ping statistics for 192.168.1.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

Done, Tested Successfully!