

# CSE 5004

## COMPUTER NETWORKS



### Assessment – 5

L1+L2 | SJT418

WINTER SEMESTER 2020-21

by

**SHARADINDU ADHIKARI**

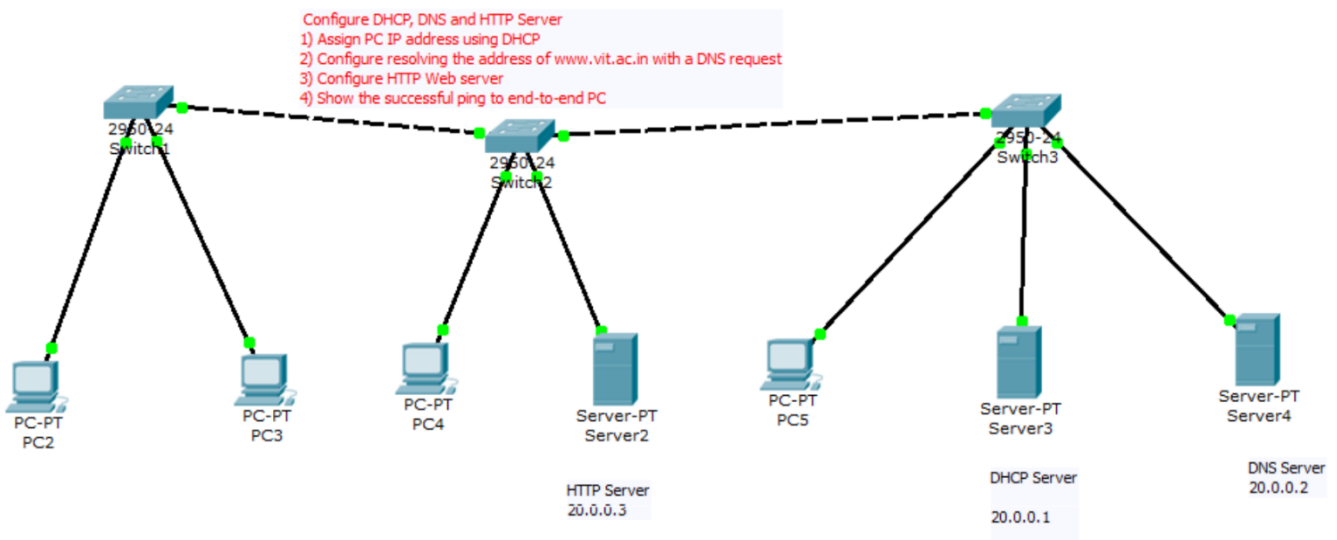
19BCE2105

## Question

*General Instructions :- Simulate in Packet tracer environment(Upload Implementation & execution Snapshot)*

### Configure a given diagram using packet tracer

- Assign PC IP address using DHCP
- Configure resolving the address of www.nptel.ac.in with a DNS request
- Configure HTTP web server
- Show the successful ping to end- to – end PC



## Solution

Cisco Packet Tracer - C:\Users\shara\Cisco Packet Tracer 8.0\saves\Lab 5.pkt

File Edit Options View Tools Extensions Window Help

Logical Physical 1141, 167 [Root] 11:11:00

Sharadindu Adhikari  
19BCE2105

Time: 01:55:35 Realtime Simulation

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful	PC2	PC3	ICMP	0.000	N	0	(edit)	(delete)		
Successful	PC2	PC4	ICMP	0.000	N	1	(edit)	(delete)		
Successful	PC5	Server2	ICMP	0.000	N	2	(edit)	(delete)		

Automatically Choose Connection Type

Scenario 0

New Delete

Toggle PDU List Window

89% 07:32 PM

## 1. Assigning IP addresses using DHCP

- DHCP Server:

The first screenshot shows the 'IP Configuration' window for Server3. The 'DHCP' radio button is selected under 'IP Configuration'. The 'Static' radio button is selected under 'IPv6 Configuration'. The '802.1X' section is expanded, showing 'Use 802.1X Security' is unchecked, 'Authentication' is set to 'MD5', and 'Username' and 'Password' fields are empty.

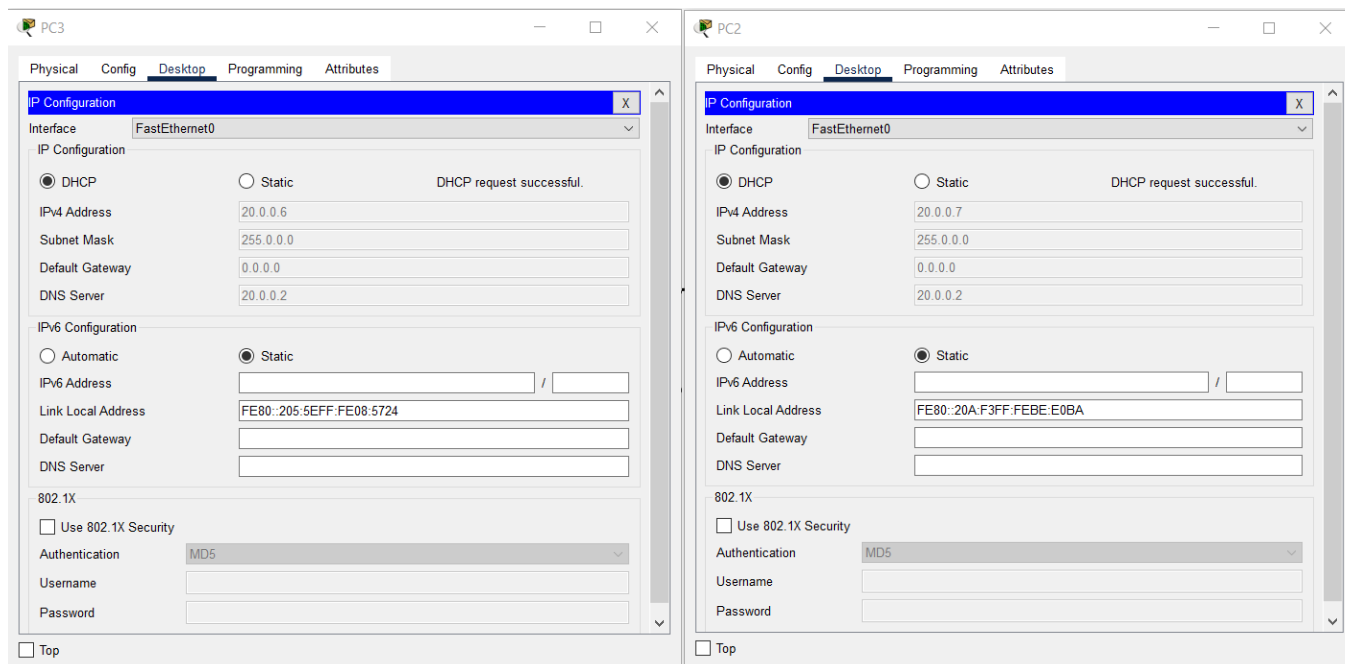
The second screenshot shows the 'Services' window for Server3. The 'DHCP' service is selected. The 'Interface' is set to 'FastEthernet0' and 'Service' is 'On'. The 'Pool Name' is 'serverPool 1'. The 'Default Gateway' is '0.0.0.0'. The 'DNS Server' is '20.0.0.2'. The 'Start IP Address' is '20.0.0.0' and the 'Subnet Mask' is '255.0.0.0'. The 'Maximum Number of Users' is '512'. The 'TFTP Server' is '0.0.0.0' and the 'WLC Address' is '0.0.0.0'. A table at the bottom lists the DHCP pools:

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool 1	0.0.0.0	20.0.0.2	20.0.0.0	255.0.0.0	512	0.0.0.0	0.0.0.0
serverPool	0.0.0.0	0.0.0.0	20.0.0.0	255.0.0.0	512	0.0.0.0	0.0.0.0

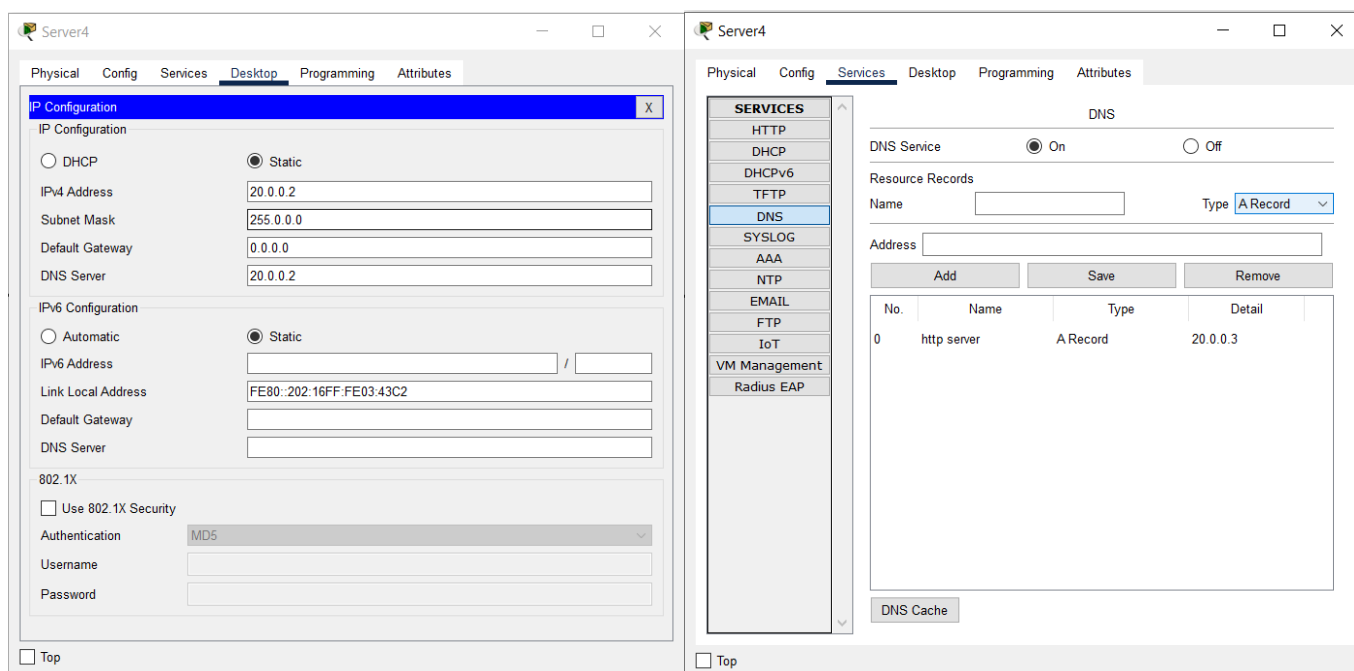
- PCs:

The first screenshot shows the 'IP Configuration' window for PC5. The 'DHCP' radio button is selected under 'IP Configuration'. The 'Static' radio button is selected under 'IPv6 Configuration'. The '802.1X' section is expanded, showing 'Use 802.1X Security' is unchecked, 'Authentication' is set to 'MD5', and 'Username' and 'Password' fields are empty. The 'DHCP request successful' message is displayed.

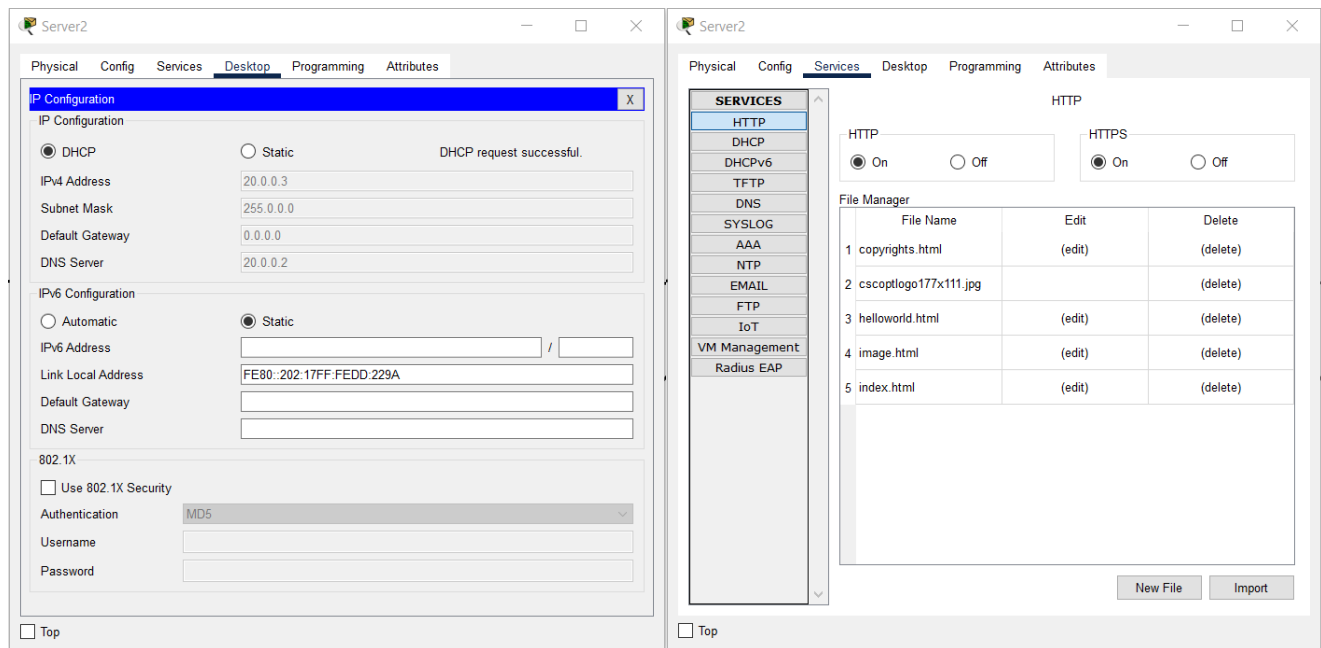
The second screenshot shows the 'IP Configuration' window for PC4. The 'DHCP' radio button is selected under 'IP Configuration'. The 'Static' radio button is selected under 'IPv6 Configuration'. The '802.1X' section is expanded, showing 'Use 802.1X Security' is unchecked, 'Authentication' is set to 'MD5', and 'Username' and 'Password' fields are empty. The 'DHCP request successful' message is displayed.



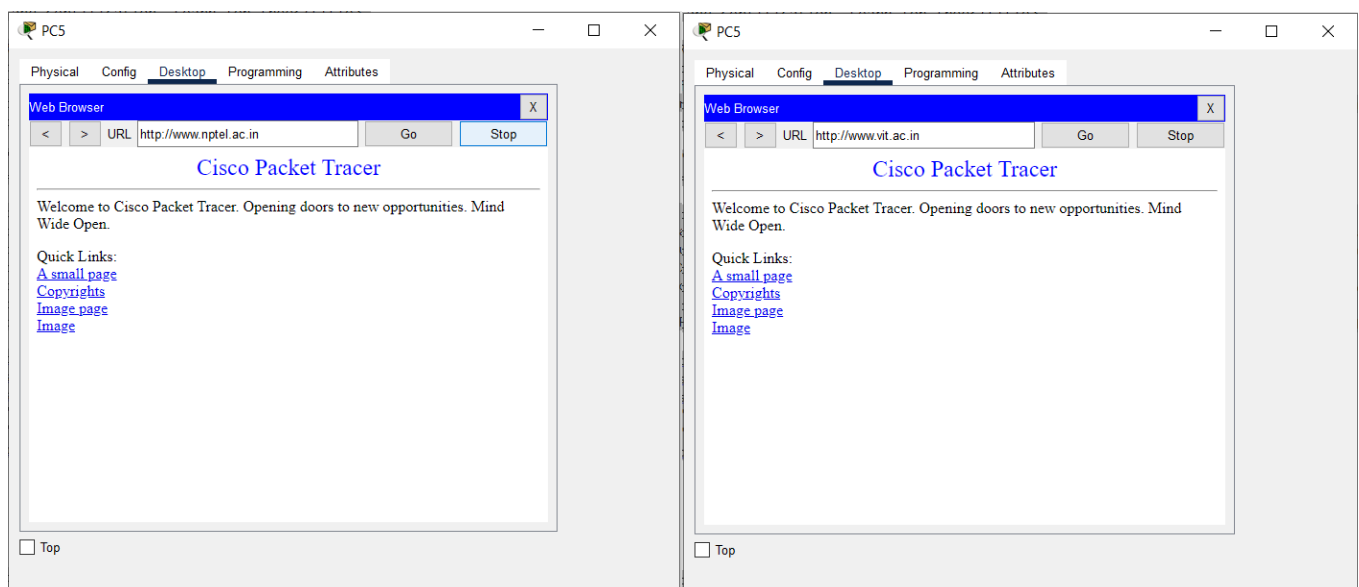
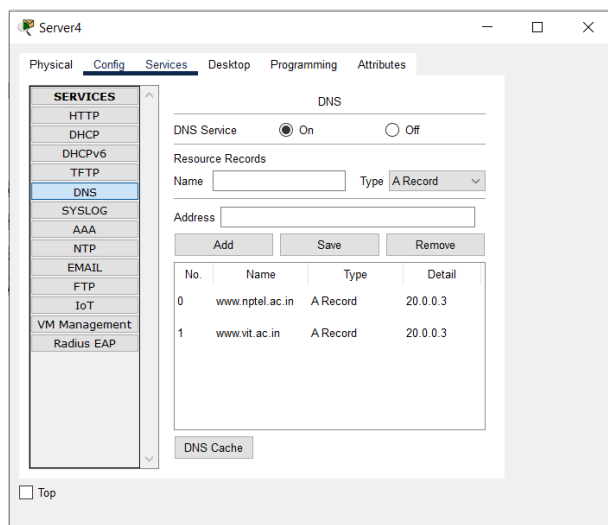
## 2. Setting up DNS Server



### 3. Configuring HTTP Web Server



### 4. Resolving the addresses of [nptel.ac.in](http://nptel.ac.in) & [vit.ac.in](http://vit.ac.in) with a DNS request



## 5. Ping

```

PC2
Physical  Config  Desktop  Programming  Attributes

Command Prompt

Packet Tracer PC Command Line 1.0
C:\>ping 20.0.0.6

Pinging 20.0.0.6 with 32 bytes of data:

Reply from 20.0.0.6: bytes=32 time=1ms TTL=128
Reply from 20.0.0.6: bytes=32 time=1ms TTL=128
Reply from 20.0.0.6: bytes=32 time=1ms TTL=128
Reply from 20.0.0.6: bytes=32 time=1ms TTL=128

Ping statistics for 20.0.0.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 20.0.0.5

Pinging 20.0.0.5 with 32 bytes of data:

Reply from 20.0.0.5: bytes=32 time=1ms TTL=128
Reply from 20.0.0.5: bytes=32 time=1ms TTL=128
Reply from 20.0.0.5: bytes=32 time=1ms TTL=128
Reply from 20.0.0.5: bytes=32 time=1ms TTL=128

Ping statistics for 20.0.0.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 20.0.0.4

Pinging 20.0.0.4 with 32 bytes of data:

Reply from 20.0.0.4: bytes=32 time=1ms TTL=128
Reply from 20.0.0.4: bytes=32 time=1ms TTL=128
Reply from 20.0.0.4: bytes=32 time=1ms TTL=128
Reply from 20.0.0.4: bytes=32 time=1ms TTL=128

Ping statistics for 20.0.0.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 20.0.0.3

Pinging 20.0.0.3 with 32 bytes of data:

Reply from 20.0.0.3: bytes=32 time=1ms TTL=128
Reply from 20.0.0.3: bytes=32 time=1ms TTL=128
Reply from 20.0.0.3: bytes=32 time=1ms TTL=128
Reply from 20.0.0.3: bytes=32 time=1ms TTL=128

Ping statistics for 20.0.0.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 1ms

C:\>ping 20.0.0.2

Pinging 20.0.0.2 with 32 bytes of data:

Reply from 20.0.0.2: bytes=32 time=1ms TTL=128
Reply from 20.0.0.2: bytes=32 time=1ms TTL=128
Reply from 20.0.0.2: bytes=32 time=1ms TTL=128
Reply from 20.0.0.2: bytes=32 time=1ms TTL=128

Ping statistics for 20.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 20.0.0.1

Pinging 20.0.0.1 with 32 bytes of data:

Reply from 20.0.0.1: bytes=32 time=1ms TTL=128
Reply from 20.0.0.1: bytes=32 time=1ms TTL=128
Reply from 20.0.0.1: bytes=32 time=1ms TTL=128
Reply from 20.0.0.1: bytes=32 time=1ms TTL=128

Ping statistics for 20.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
  
```

## 6. Sending PDUs

PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
●	Successful	PC2	PC3	ICMP		0.000	N	0	(edit)	(delete)
●	Successful	PC2	PC4	ICMP		0.000	N	1	(edit)	(delete)
●	Successful	Server2	Server3	ICMP		0.000	N	2	(edit)	(delete)
●	Successful	Server4	Server3	ICMP		0.000	N	3	(edit)	(delete)
●	Successful	PC4	PC5	ICMP		0.000	N	4	(edit)	(delete)
●	Successful	Server3	PC3	ICMP		0.000	N	5	(edit)	(delete)
●	Successful	Server2	Server3	ICMP		0.000	N	6	(edit)	(delete)
●	Successful	PC2	Server4	ICMP		0.000	N	7	(edit)	(delete)
●	Successful	PC3	Server2	ICMP		0.000	N	8	(edit)	(delete)
●	Successful	Server2	Server4	ICMP		0.000	N	9	(edit)	(delete)
●	Successful	PC5	Server3	ICMP		0.000	N	10	(edit)	(delete)
●	Successful	PC3	Server4	ICMP		0.000	N	11	(edit)	(delete)
●	Successful	Server2	PC2	ICMP		0.000	N	12	(edit)	(delete)
●	Successful	Server3	PC4	ICMP		0.000	N	13	(edit)	(delete)
●	Successful	PC3	PC5	ICMP		0.000	N	14	(edit)	(delete)
●	Successful	PC4	Server2	ICMP		0.000	N	15	(edit)	(delete)
●	Successful	Server4	PC4	ICMP		0.000	N	16	(edit)	(delete)

Time: 01:59:06 (0s) [Realtime] [Simulation]