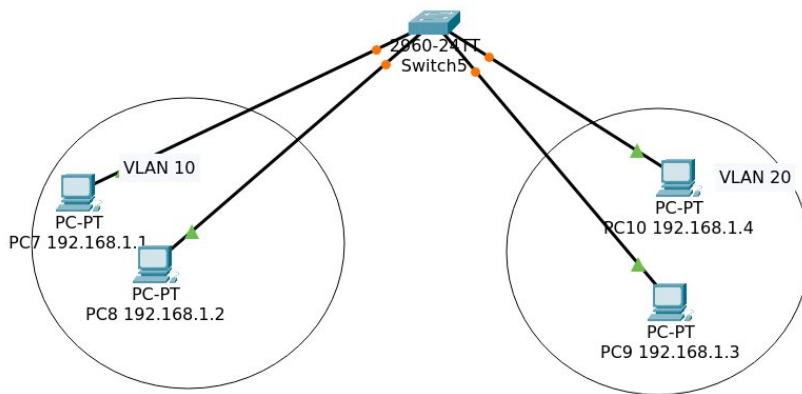


OBSERVATION:



```
Switch(config)#int range fastEthernet 0/1-2
Switch(config-if-range)#sw
Switch(config-if-range)#switchport mod
Switch(config-if-range)#switchport mode ac
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#sw
Switch(config-if-range)#switchport mo
Switch(config-if-range)#switchport ac
Switch(config-if-range)#switchport access v
Switch(config-if-range)#switchport access vlan 10
Switch(config-if-range)#
```

```
interface FastEthernet0/1
switchport access vlan 10
switchport mode access
!
interface FastEthernet0/2
switchport access vlan 10
switchport mode access
!
interface FastEthernet0/3
switchport access vlan 20
switchport mode access
!
interface FastEthernet0/4
switchport access vlan 20
switchport mode access
!
```

```
Switch#sh vlan br
```

VLAN Name	Status	Ports
1 default	active	Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12 Fa0/13, Fa0/14, Fa0/15, Fa0/16 Fa0/17, Fa0/18, Fa0/19, Fa0/20 Fa0/21, Fa0/22, Fa0/23, Fa0/24 Gig0/1, Gig0/2
10 CSIT	active	Fa0/1, Fa0/2
20 BCA	active	Fa0/3, Fa0/4
1002 fddi-default	active	
1003 token-ring-default	active	
1004 fddinet-default	active	
1005 trnet-default	active	

```
Switch#
```

```
Cisco Packet Tracer PC Command Line 1.0
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=27ms TTL=128
```

```
Ping statistics for 192.168.1.2:
```

```
Packets: Sent = 1, Received = 1, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 27ms, Maximum = 27ms, Average = 27ms
```

```
Control-C
```

```
^C
```

```
C:\>ping 192.168.1.4
```

```
Pinging 192.168.1.4 with 32 bytes of data:
```

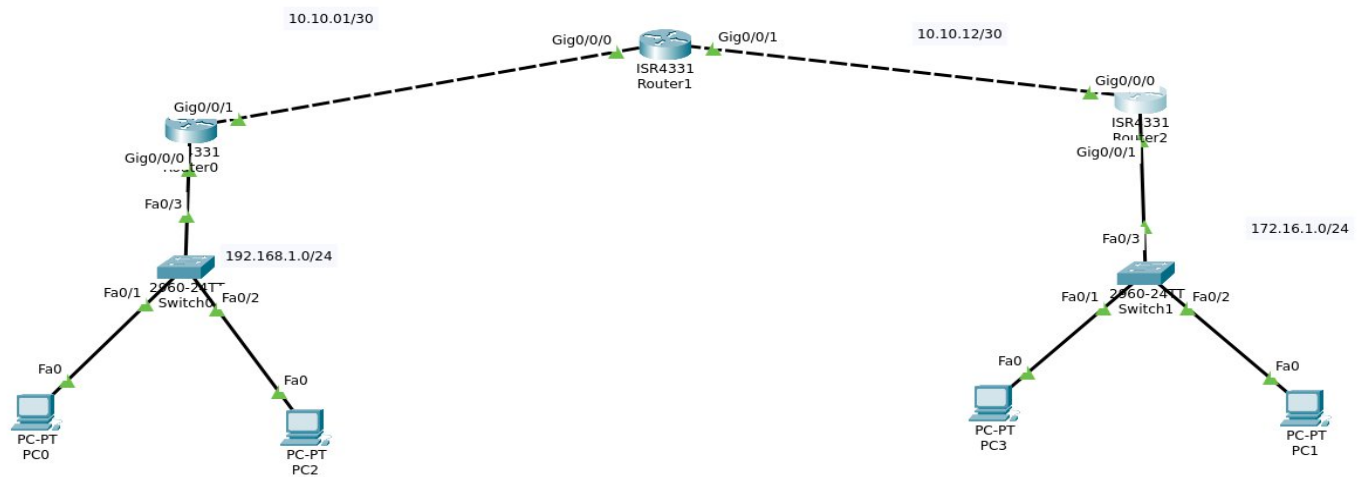
```
Request timed out.
```

```
Ping statistics for 192.168.1.4:
```

```
Packets: Sent = 1, Received = 0, Lost = 1 (100% loss),
```

CONCLUSION:

OBSERVATION:



sulav_2>en

sulav_2#sh ip int br

Interface	IP-Address	OK?	Method	Status
GigabitEthernet0/0/0	10.10.1.2	YES	manual	up
GigabitEthernet0/0/1	10.10.12.1	YES	manual	up
GigabitEthernet0/0/2	unassigned	YES	unset	administratively down
Vlan1	unassigned	YES	unset	administratively down

sulav_1#sh ip int br

sulav_1#sh ip interface br

Interface	IP-Address	OK?	Method	Status
GigabitEthernet0/0/0	192.168.1.1	YES	manual	up
GigabitEthernet0/0/1	10.10.1.1	YES	manual	up
GigabitEthernet0/0/2	unassigned	YES	unset	administratively down
Vlan1	unassigned	YES	unset	administratively down

sulav_1#sh ip route st

sulav_1#sh ip route static

```

10.0.0.0/8 is variably subnetted, 3 subnets, 2 masks
S      10.10.12.0/30 [1/0] via 10.10.1.2
172.16.0.0/24 is subnetted, 1 subnets
S      172.16.1.0 [1/0] via 10.10.1.2

```

sulav_3#sh ip route sta

sulav_3#sh ip route static

```

10.0.0.0/8 is variably subnetted, 3 subnets, 2 masks
S      10.10.1.0/30 [1/0] via 10.10.12.1
S      192.168.1.0/24 [1/0] via 10.10.12.1

```

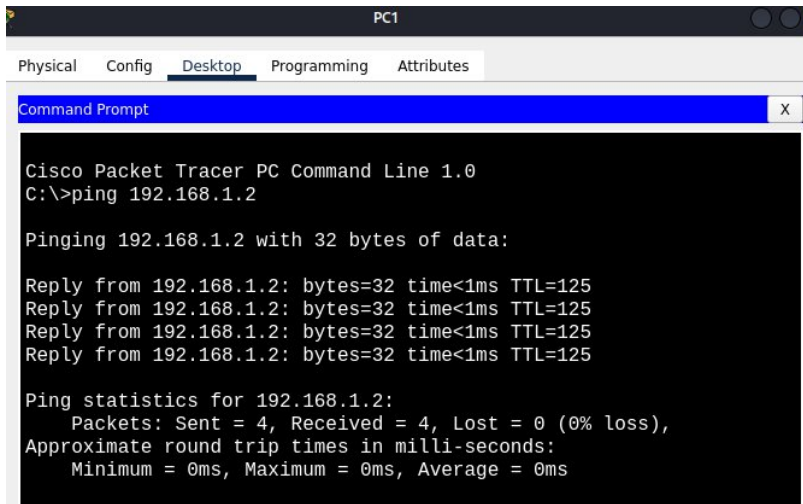
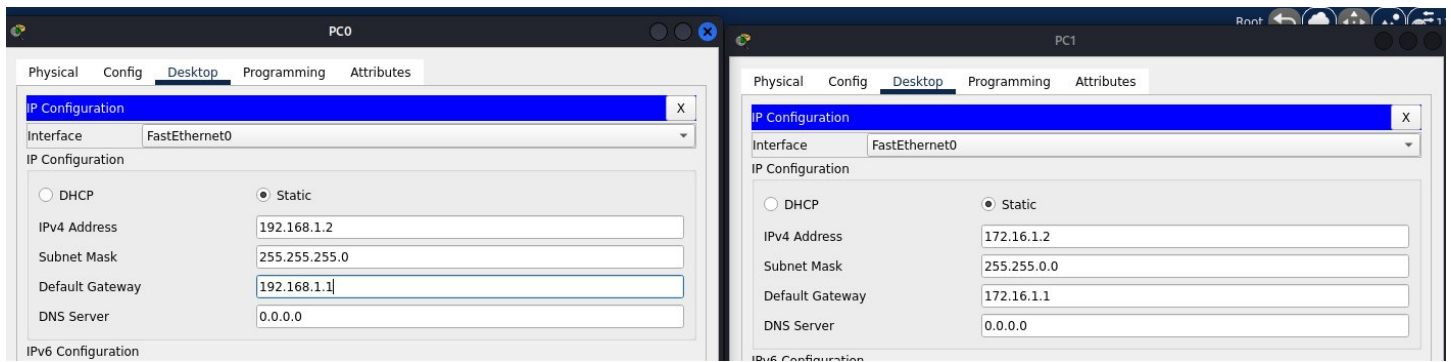
sulav_2>en

sulav_2#conf ter

```

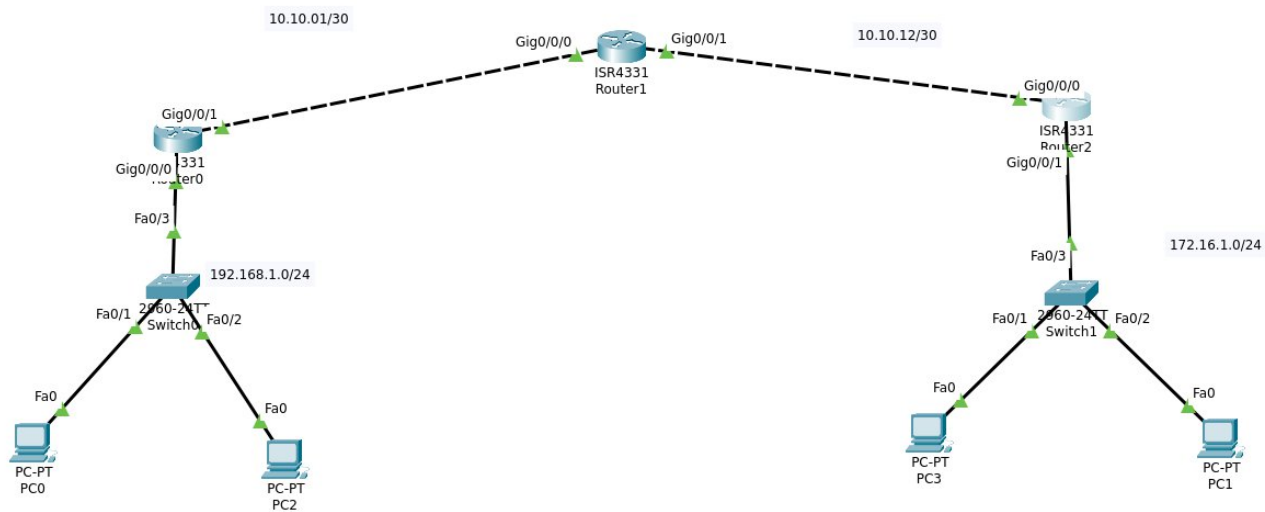
Enter configuration commands, one per line. End with CNTL/Z.
sulav_2(config)#ip route 192.168.1.0 255.255.255.0 10.10.01.1
sulav_2(config)#ip route 172.16.1.0 255.255.255.0 10.10.01.2
%Invalid next hop address (it's this router)
sulav_2(config)#ip route 172.16.1.0 255.255.255.0 10.10.12.2
sulav_2(config)#

```



CONCLUSION:

OBSERVATION:



```

sulav(config)#hostname sulav_1
sulav_1(config)#int
sulav_1(config)#interface g
sulav_1(config)#interface gigabitEthernet 0/0/0
sulav_1(config-if)#ip ad
sulav_1(config-if)#ip address 192.168.1.1 255.255.255.0
sulav_1(config-if)#no sh

```

```

sulav_1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/0, changed state to up

```

```

%LINEPROTO-5-UPDOWN: Line protocol on Interface
GigabitEthernet0/0/0, changed state to up
exit
sulav_1(config)#int
sulav_1(config)#interface g
sulav_1(config)#interface gigabitEthernet 0/0/1
sulav_1(config-if)#ip ad
sulav_1(config-if)#ip address 10.10.01.1 255.255.255.252
sulav_1(config-if)#no sh

```

```

sulav_1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/1, changed state to up

```

```

sulav_1(config-if)# |

```

```

sulav_3#conf ter
Enter configuration commands, one per line. End with CNTL/Z.
sulav_3(config)#ip route 192.168.1.0 255.255.255.0 10.10.12.1 150
sulav_3(config)#ip route 10.10.1.0 255.255.255.252 10.10.12.1 150
sulav_3(config)#do wr
Building configuration...
[OK]
sulav_3(config)#netw
sulav_3(config)#rou
sulav_3(config)#router ri
sulav_3(config)#router rip
sulav_3(config-router)#ne
sulav_3(config-router)#network 192.168.1.0
sulav_3(config-router)#net
sulav_3(config-router)#network 10.10.1.0
sulav_3(config-router)#do wr
Building configuration...
[OK]
sulav_3(config-router)#

```

```

sulav_2>en
sulav_2#sh ip int br

```

Interface	IP-Address	OK?	Method	Status
GigabitEthernet0/0/0	10.10.1.2	YES	manual	up
GigabitEthernet0/0/1	10.10.12.1	YES	manual	up
GigabitEthernet0/0/2	unassigned	YES	unset	administratively down
Vlan1	unassigned	YES	unset	administratively down

```

10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
C    10.10.1.0/30 is directly connected, GigabitEthernet0/0/0
L    10.10.1.2/32 is directly connected, GigabitEthernet0/0/0
C    10.10.12.0/30 is directly connected, GigabitEthernet0/0/1
L    10.10.12.1/32 is directly connected, GigabitEthernet0/0/1
R    172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
R    172.16.0.0/16 [120/1] via 10.10.12.2, 00:00:35,
GigabitEthernet0/0/1
S    172.16.1.0/24 [150/0] via 10.10.12.2
R    192.168.1.0/24 [120/1] via 10.10.1.1, 00:00:54,
GigabitEthernet0/0/0

```

```

sulav_2(config-router)#exit

```

```
sulav_1(config)#do sh ip route rip
      10.0.0.0/8 is variably subnetted, 3 subnets, 2 masks
R       10.10.12.0/30 [120/1] via 10.10.1.2, 00:00:11,
GigabitEthernet0/0/1
      172.16.0.0/16 is variably subnetted, 2 subnets, 2 masks
R       172.16.0.0/16 [120/2] via 10.10.1.2, 00:00:11,
GigabitEthernet0/0/1
```

```
C:\>tracert 172.16.1.1
```

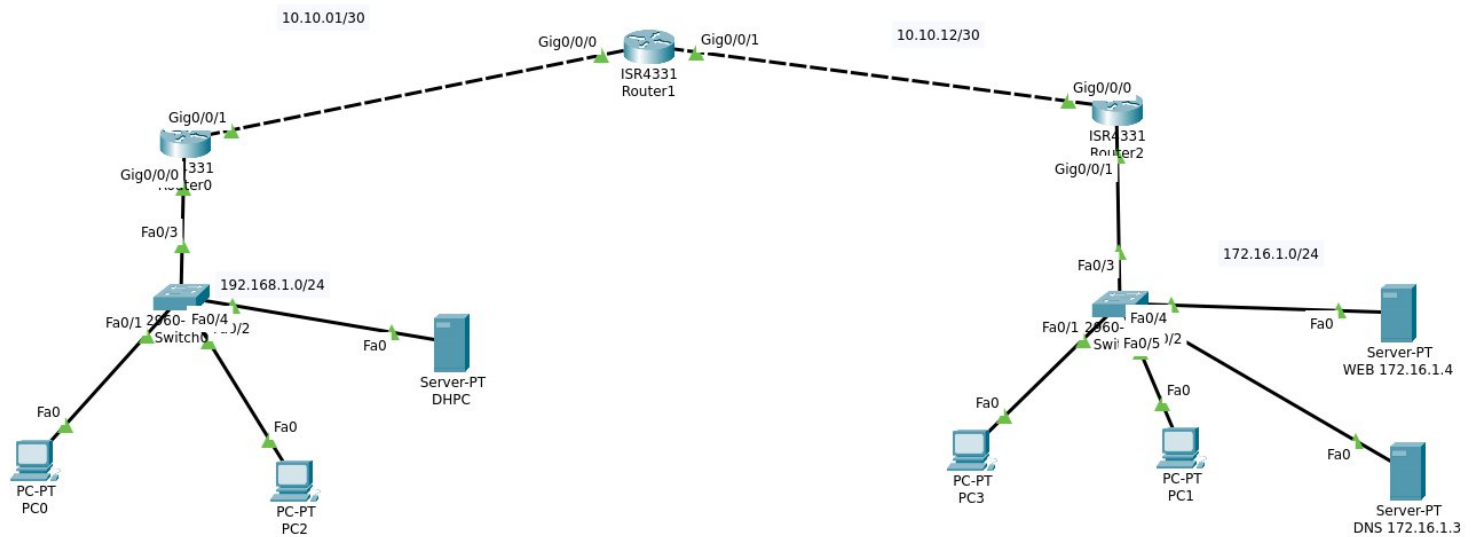
```
Tracing route to 172.16.1.1 over a maximum of 30 hops:
```

1	0 ms	0 ms	0 ms	192.168.1.1
2	0 ms	0 ms	0 ms	10.10.1.2
3	0 ms	0 ms	0 ms	172.16.1.1

```
Trace complete.
```

CONCLUSION:

OBSERVATION:



DHCP

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

DHCP

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 192.168.1.1

DNS Server: 172.16.1.3

Start IP Address: 192.168.1.0

Subnet Mask: 255.255.255.0

Maximum Number of Users: 50

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool_R	172.16...	172.16...	172.16...	255.25...	50	0.0.0.0	0.0.0.0
serverPool	192.16...	172.16...	192.16...	255.25...	50	0.0.0.0	0.0.0.0

PC2

Physical Config **Desktop** Programming Attributes

Web Browser

URL: http://sulav

Go Stop

Sulav Baral

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- [Image](#)

DNS 172.16.1.3

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

DNS

DNS Service: ☒ On ☐ Off

Resource Records

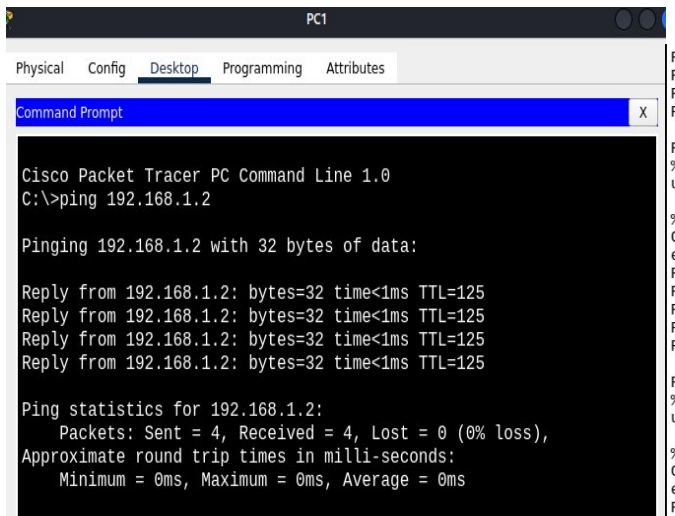
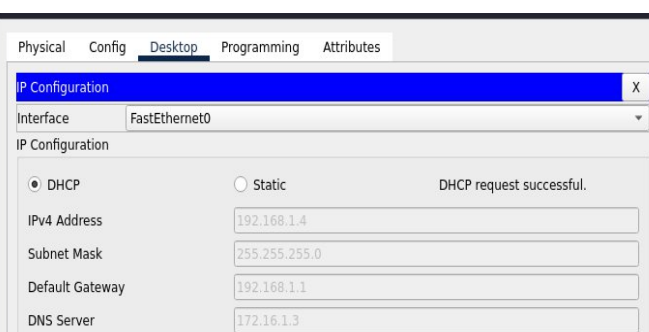
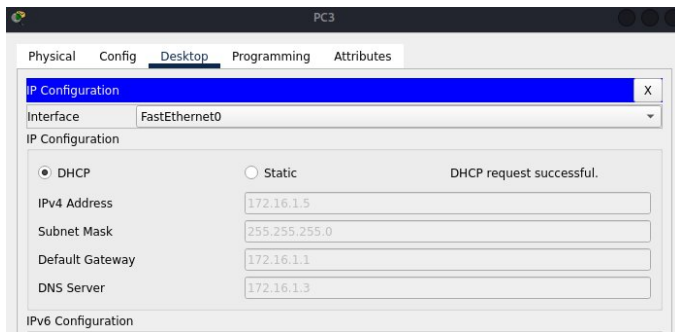
Name: Type: A Record

Address: 172.16.1.4

Add Save Remove

No.	Name	Type	Detail
0	sulav	A Record	172.16.1.4

```
sulav_3(config-if)# ip helper-address 192.168.1.3
sulav_3(config-if)#do wr
Building configuration...
[OK]
sulav_3(config-if)#
```

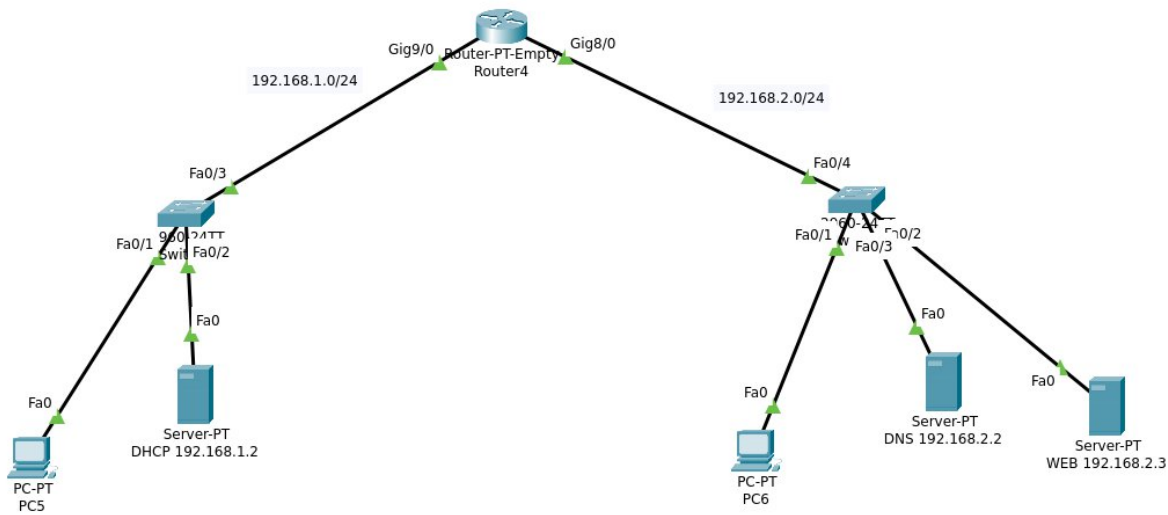
```
Router(config)#int gigabitEthernet 9/0
Router(config-if)#ip ad
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet9/0, changed state to
up
%LINEPROTO-5-UPDOWN: Line protocol on Interface
GigabitEthernet9/0, changed state to up
exit
Router(config)#int g
Router(config)#int gigabitEthernet 8/0
Router(config-if)#ip ad
Router(config-if)#ip address 192.168.2.1 255.255.255.0
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet8/0, changed state to
up
%LINEPROTO-5-UPDOWN: Line protocol on Interface
GigabitEthernet8/0, changed state to up
exit
Router(config)#hostname sulav_4
```

CONCLUSION:

OBSERVATION:



Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP
- DHCPv6
- TFTP
- DNS**
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management

DNS

DNS Service ☒ On ☐ Off

Resource Records

Name Type **A Record**

Address

Add Save Remove

No.	Name	Type	Detail
0	sulav	A Record	192.168.2.3

Physical Config **Desktop** Programming Attributes

Web Browser

URL **Go Stop**

Sulav Baral

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Physical Config **Desktop** Programming Attributes

IP Configuration

Interface **FastEthernet0**

IP Configuration

☒ **DHCP** ☐ Static **DHCP request successful.**

IPv4 Address

Subnet Mask

Default Gateway

DNS Server

IPv6 Configuration

Physical Config **Desktop** Programming Attributes

IP Configuration

Interface **FastEthernet0**

IP Configuration

☒ **DHCP** ☐ Static **DHCP request successful.**

IPv4 Address

Subnet Mask

Default Gateway

DNS Server

IPv6 Configuration

☐ Automatic ☒ **Static**


```
Router4
Physical Config CLI Attributes
IOS Command Line Interface

%LINK-5-CHANGED: Interface GigabitEthernet9/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet9/0, changed state to up
exit
Router(config)#int g
Router(config)#int gigabitEthernet 8/0
Router(config-if)#ip ad
Router(config-if)#ip address 192.168.2.1 255.255.255.0
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet8/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet8/0, changed state to up
exit
Router(config)#hostname sulav_4
sulav_4(config)#int g
sulav_4(config)#int gigabitEthernet 8/0
sulav_4(config-if)#ip h
sulav_4(config-if)#ip hel
sulav_4(config-if)#ip help
sulav_4(config-if)#ip helper-address 192.168.1.2
sulav_4(config-if)#do wr
```

```
Router(config)#int gigabitEthernet 9/0
Router(config-if)#ip ad
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet9/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet9/0, changed state to up
exit
Router(config)#int g
Router(config)#int gigabitEthernet 8/0
Router(config-if)#ip ad
Router(config-if)#ip address 192.168.2.1 255.255.255.0
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet8/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet8/0, changed state to up
exit
Router(config)#hostname sulav_4
```

CONCLUSION:

OBSERVATION:

Apply a display filter ... <Ctrl>F				
No.	Time	Source	Destination	Protocol Length/Info
5500	56.978788910	192.168.0.4	192.168.0.4	TCP 66 [TCP Rst ACK 208941] 443 - 50204 [ACK] Seq=47 Ack=41 Win=1050 Len=0 TSval=2180424761 TSecr=1581354586
5509	52.878788910	192.168.0.4	94.109.144.101	TCP 66 [TCP Rst ACK 208941] 50204 - 443 [ACK] Seq=47 Ack=47 Win=851 Len=0 TSval=1503285326 TSecr=2198394843
5509	54.524259209	192.168.0.4	57.144.124.145	98 Application Data
5601	54.573478758	192.168.0.4	57.144.124.145	TCP 1446 59126 -> 443 [ACK] Seq=61716 Ack=4107 Win=9120 Len=1380 TSval=2198313308 TSecr=1634688766 [TCP PDU reassembled in 5605]
5602	54.573484841	192.168.0.4	57.144.124.145	TCP 1446 59126 -> 443 [PSH, ACK] Seq=68556 Ack=4107 Win=69120 Len=1380 TSval=2198313308 TSecr=1634688766 [TCP PDU reassembled in 5605]
5603	54.573481108	192.168.0.4	57.144.124.145	TCP 1446 59126 -> 443 [ACK] Seq=69936 Ack=4107 Win=9120 Len=1380 TSval=2198313308 TSecr=1634688766 [TCP PDU reassembled in 5605]
5604	54.573485288	192.168.0.4	57.144.124.145	TCP 1446 59126 -> 443 [PSH, ACK] Seq=71316 Ack=4107 Win=69120 Len=1380 TSval=2198313308 TSecr=1634688766 [TCP PDU reassembled in 5605]
5605	54.582446117	192.168.0.4	57.144.124.145	TLV3.3 1267 Application Data
5606	54.587247528	NetisTechnol.80:2a::	AzureWaveTec.50:5a::	ARP 42 Who has 192.168.0.47 Tell 192.168.0.1
5607	54.587257216	AzureWaveTec.50:5a::	NetisTechnol.80:2a::	ARP 42 192.168.0.4 is at 94:100:43:50:5a:38
5608	54.65554763	57.144.124.145	192.168.0.4	TCP 66 443 - 59126 [ACK] Seq=4107 Ack=87176 Win=232448 Len=0 TSval=1634686602 TSecr=2198313308
5609	54.655543324	57.144.124.145	192.168.0.4	TCP 66 443 - 59126 [ACK] Seq=4107 Ack=89936 Win=238880 Len=0 TSval=1634686605 TSecr=2198313308
5610	54.655549442	57.144.124.145	192.168.0.4	TCP 66 443 - 59126 [ACK] Seq=4107 Ack=72896 Win=143456 Len=0 TSval=1634686605 TSecr=2198313308
5611	54.655549582	57.144.124.145	192.168.0.4	TCP 66 443 - 59126 [ACK] Seq=4107 Ack=73897 Win=246272 Len=0 TSval=1634686613 TSecr=2198313317
5612	54.688851981	57.144.124.145	192.168.0.4	TLV3.3 98 Application Data
5613	54.688867553	57.144.124.145	192.168.0.4	TLV3.3 109 Application Data
5614	54.688849313	192.168.0.4	57.144.124.145	TCP 66 59126 -> 443 [ACK] Seq=73897 Ack=4102 Win=69120 Len=0 TSval=2198313543 TSecr=1634686747
5615	54.810229924	192.168.0.4	57.144.124.145	TLV3.3 102 Application Data
5616	54.884467687	57.144.124.145	192.168.0.4	TCP 66 443 - 59126 [ACK] Seq=4182 Ack=73933 Win=246272 Len=0 TSval=1634686838 TSecr=2198313545
5617	55.620856543	187.240.242.14	192.168.0.4	TCP 66 [TCP Keep-Alive] 443 - 52752 [ACK] Seq=4486 Ack=2088 Win=71168 Len=0 TSval=1403286652 TSecr=3283931015
5618	56.674614346	187.240.242.14	192.168.0.4	TCP 66 [TCP Rst ACK 16163] 443 - 62752 [ACK] Seq=4487 Ack=2088 Win=71168 Len=0 TSval=1403444467 TSecr=3283931015
5619	56.929191824	192.168.0.4	144.251.221.110	TLV3.2 105 Application Data
5620	56.962988832	142.251.221.110	192.168.0.4	TCP 66 443 - 44462 [ACK] Seq=2 Ack=40 Win=1839 Len=0 TSval=2406268880 TSecr=2161391999
5621	56.963883222	142.251.221.110	192.168.0.4	TLV3.2 105 Application Data
5622	56.184120872	192.168.0.4	142.251.221.110	TCP 66 44462 -> 443 [ACK] Seq=40 Ack=41 Win=568 Len=0 TSval=2161392136 TSecr=2406268880
5623	56.340388736	192.168.0.4	57.144.124.141	TLV3.3 98 Application Data
5624	56.440547757	57.144.124.141	192.168.0.4	TCP 66 443 - 46230 [ACK] Seq=2579 Ack=4329 Win=76880 Len=0 TSval=2293593151 TSecr=2266684901
5625	56.558177384	57.144.124.141	192.168.0.4	TLV3.3 94 Application Data
5626	56.558299344	192.168.0.4	57.144.124.141	TCP 66 46230 -> 443 [ACK] Seq=4329 Ack=2607 Win=75520 Len=0 TSval=2266684213 TSecr=2293593285
5627	56.680013908	3.184.196.208	192.168.0.4	OpenVPN 158 MessageType: P_DATA_V2
5628	56.69022632	192.168.0.4	3.184.196.208	OpenVPN 158 MessageType: P_DATA_V2
[Time shift for this packet: 0.000000000 seconds]				
[Time delta from previous captured frame: 0.000124343 seconds]				
[Time delta from previous displayed frame: 0.000124343 seconds]				
[Time since reference or first frame: 36.771969392 seconds]				
Frame Number: 5200				
Frame Length: 77 bytes (616 bits)				
Capture Length: 77 bytes (616 bits)				
[Frame is marked: False]				
[Frame is ignored: False]				
[Protocols in Frame: ethertype:ip:udp:qic]				
[Coloring Rule Name: udp]				
[Coloring Rule String: udp]				
Ethernet II, Src: AzureWaveTec.50:5a:38 (94:bb:43:50:5a:38), Dst: NetisTechnol.80:2a:15 (04:5e:a4:80:2a:15)				
Destination: NetisTechnol.80:2a:15 (04:5e:a4:80:2a:15)				
Source: AzureWaveTec.50:5a:38 (94:bb:43:50:5a:38)				
Type: IPv4 (0x0800)				
[Stream index: 0]				
Internet Protocol Version 4, Src: 192.168.0.4, Dst: 43.250.50.83				
8109 ... -> Version: 4				
... 0101 -> Header Length: 20 bytes (5)				
Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)				
Total Length: 63				
Identification: 0x0000 (0)				
... 0101 ... -> Flags: 0x02, Don't Fragment				
... 0 0000 0000 8000 -> Fragment Offset: 0				
Time to Live: 64				
Protocol: UDP (17)				
Header Checksum: 0x1b05 [validation disabled]				
[Header checksum status: Unverified]				
Source Address: 192.168.0.4				
Destination Address: 43.250.50.83				
[Stream index: 0]				
User Datagram Protocol, Src Port: 51436, Dst Port: 443				
[Stream index: 0]				
[Hex data]				
[ASCII data]				
[Hex data]				
[ASCII data]				
[Hex data]				
[ASCII data]				
[Hex data]				
[ASCII data]				
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Tutorial link [Click Here](#)

Demo Login Details -> Username : [test](#) Password : [test](#)

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000000	192.168.0.4	57.144.124.1	TLSv1.2	395	Application Data
2	0.110645256	57.144.124.1	192.168.0.4	TCP	66	443 → 54066 [ACK] Seq=1 Ack=60 Win=278 Len=0 TSval=288723267 TSecr=1620623689
3	0.110700751	192.168.0.4	57.144.124.1	TLSv1.2	395	Application Data
4	0.157342859	192.168.0.4	57.144.124.1	TCP	66	54066 → 443 [ACK] Seq=40 Ack=40 Win=500 Len=0 TSval=1620623847 TSecr=288723267
5	0.448313091	192.168.0.4	34.107.221.82	TCP	66	45022 → 80 [ACK] Seq=1 Ack=1 Win=501 Len=0 TSval=1408132901 TSecr=3622902458
6	0.448326044	192.168.0.4	34.107.221.82	TCP	66	51884 → 80 [ACK] Seq=1 Ack=1 Win=501 Len=0 TSval=1408132901 TSecr=3222254
7	0.57901383	34.107.221.82	192.168.0.4	TCP	66	[ACK] Acked new segment 80 → 51884 [ACK] Seq=1 Ack=2 Win=1656 Len=0 TSval=32232380 TSecr=468187456
8	0.57901383	34.107.221.82	192.168.0.4	TCP	66	[ACK] Acked new segment 80 → 51884 [ACK] Seq=1 Ack=2 Win=1656 Len=0 TSval=32232380 TSecr=468187456
9	0.832441562	192.168.0.4	18.214.185.18	TCP	66	60355 → 8884 [ACK] Seq=1 Ack=1 Win=636 Len=0 TSval=3306074759 TSecr=3219595545
10	0.22409501	18.214.185.18	192.168.0.4	TCP	66	[ACK] Acked new segment 8884 → 60356 [ACK] Seq=1 Ack=1 Win=1680 Len=0 TSval=2131033901 TSecr=33060732485
11	0.22409501	18.214.185.18	192.168.0.4	ICMPv2	48	Request Query, general
12	0.259563933	192.168.0.4	192.168.1.254	DNS	79	Standard query 0x8354 A dems.91lessons.info
13	0.259563933	192.168.0.4	192.168.1.254	DNS	79	Standard query 0x256 AAAA dems.91lessons.info
14	0.259600972	192.168.0.4	192.168.1.254	DNS	711	45440 Len=669
15	0.342321723	192.168.1.254	192.168.0.4	TLSv1.2	191	Standard query response 0x8354 A dems.91lessons.info A 104.21.96.1 A 104.21.32.1 A 104.21.80.1 A 104.21.64.1 A 104.21.16.1 A 104.21.112.1 A 104.21.48.1
16	0.347087854	192.168.0.4	192.168.0.4	TCP	66	443 → 443 [ACK] Seq=1 Ack=1 Win=500 Len=0 TSval=1620623847 TSecr=3222254
17	0.347087854	192.168.1.254	192.168.0.4	TLSv1.2	275	Standard query response 0x256 AAAA dems.91lessons.info AAAA 2606:4700:3030:6815:2901 AAAA 2606:4700:3030:6815:1901 AAAA 2606:4700:3030:6815:4001 AAAA 2606:4700:3030:6815:2907
18	0.60085185	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
19	0.624459319	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
20	0.624456420	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
21	0.624456420	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
22	0.624456420	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
23	0.624456420	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
24	0.624456420	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
25	0.624456420	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
26	0.624456420	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
27	0.624456420	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
28	0.624456420	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
29	0.624456420	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
30	0.624456420	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
31	0.624456420	192.168.0.4	192.168.0.4	TCP	100	4242 → 443 [ACK] Seq=1 Ack=1 Win=1290 Len=0 TSval=1620623847 TSecr=3222254
32	0.624456420	192.16				

```
0000  94 bb 43 50 5a 30 04 5e a4 80 2a 15 08 00 45 b8      CP20 ^ ^ ^ ^ ^ E
0010  00 5b 63 01 00 00 78 06 3f a9 58 fc cf 44 c0 a8      [ P x ^ ^ ^ ^ ^ D
0020  00 54 05 0b ba a9 be f6 6b 45 56 f9 a4 06 80 18      ^ ^ ^ ^ ^ k
0030  04 11 b2 0d 00 00 01 01 08 72 d2 50 a2 62 39      ^ ^ ^ ^ ^ ( P b
0040  73 7d 17 93 03 00 22 73 94 f6 28 4d b4 ac 0e      ^ ^ ^ ^ ^ r H
0050  7d 5e e1 c6 63 c9 39 d1 62 94 6e 12 26 83 03      ^ ^ ^ ^ ^ r s 0
0060  76 1d 58 14 84 af a0 8c a9 00 00 00 00 00 00      [mX ^ ^ ^ ^ ^
```

OBSERVATION:(HTTP)

Welcome to level 1

Lets start with a simple injection.

Target: Get the login for the user Hornoxe

Hint: You really need one? omg -_-

Tablename: level1_users

Category: 1

This category does not exist!

Username:

Password:

Login

Login incorrect!

http

No.	Time	Source	Destination	Protocol	Length	Info
10711	315.316078844	188.166.19.53	192.168.0.4	HTTP	613	HTTP/1.1 200 OK (text/html)
10709	315.083374432	192.168.0.4	188.166.19.53	HTTP	639	POST /level1.php HTTP/1.1 (application/x-www-form-urlencoded)
10139	230.961323121	95.216.195.133	192.168.0.4	HTTP	270	HTTP/1.1 200 OK (text/plain)
10135	230.756110975	192.168.0.4	95.216.195.133	HTTP	154	GET /nm-check.txt HTTP/1.1
9539	145.970086435	188.166.19.53	192.168.0.4	HTTP	3612	HTTP/1.1 200 OK (image/vnd.microsoft.icon)
9537	145.693219933	192.168.0.4	188.166.19.53	HTTP	457	GET /favicon.ico HTTP/1.1
9535	145.663445766	188.166.19.53	192.168.0.4	HTTP	613	HTTP/1.1 200 OK (text/html)
9533	145.432956181	192.168.0.4	188.166.19.53	HTTP	639	POST /level1.php HTTP/1.1 (application/x-www-form-urlencoded)
762	96.067765435	104.21.96.1	192.168.0.4	HTTP	689	HTTP/1.1 301 Moved Permanently
760	96.026765940	192.168.0.4	104.21.96.1	HTTP	460	GET /login.php HTTP/1.1

[Time since first frame in this TCP stream: 0.230246839 seconds]
[Time since previous frame in this TCP stream: 0.000233538 seconds]
[SEQ/ACK analysis]
[RTT: 0.230013301 seconds]
[Bytes in flight: 573]
[Bytes sent since last PSH flag: 573]
TCP payload (573 bytes)
Hypertext Transfer Protocol
POST /level1.php HTTP/1.1
Request Method: POST
Request URI: /level1.php
Request Version: HTTP/1.1
Host: redtiger.labs.overthewire.org
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:140.0) Gecko/20100101 Firefox/140.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Content-Type: application/x-www-form-urlencoded
Content-Length: 40
[Content length: 40]
Origin: http://redtiger.labs.overthewire.org
Connection: keep-alive
Referer: http://redtiger.labs.overthewire.org/level1.php
Upgrade-Insecure-Requests: 1
Priority: u=0, i=1
[Response in frame: 10711]
[Full request URI: http://redtiger.labs.overthewire.org/level1.php]
File Data: 40 bytes
HTML Form URL Encoded: application/x-www-form-urlencoded
Form item: "user" = "sulav"
Form item: "password" = "aaaaaaaa"
Form item: "login" = "Login"

0070 2e 6f 76
0080 0d 0a 55
0090 7a 69 6c
00a0 4c 69 6e
00b0 3a 31 34
00c0 31 30 30
00d0 34 30 2e
00e0 78 74 2f
00f0 69 6f 6e
0100 70 6c 69
0110 30 2e 39
0120 63 63 65
0130 65 6e 2d
0140 41 63 63
0150 20 67 7a
0160 43 6f 6e
0170 70 6c 69
0180 66 6f 72
0190 0a 43 6f
01a0 20 34 30
01b0 70 3a 2f
01c0 73 2e 6f
01d0 67 0d 0a
01e0 65 65 70
01f0 65 72 3a
0200 67 65 72
0210 77 69 72
0220 70 68 70
0230 65 63 75
0240 31 0d 0a
0250 2c 20 69
0260 76 26 70
0270 61 61 61

OBSERVATION:

its

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000000	192.168.0.4	57.144.124.1	TLSv1.2	105	Application Data
3	0.117907851	57.144.124.1	192.168.0.4	TLSv1.2	105	Application Data
18	6.000853815	192.168.0.4	142.250.207.68	TLSv1.2	105	Application Data
24	6.108817212	142.250.207.68	192.168.0.4	TLSv1.2	105	Application Data
26	7.076225689	192.168.0.4	34.120.208.123	TLSv1.2	105	Application Data

Frame 24: 105 bytes on wire (840 bits), 105 bytes captured (840 bits) on interface wlan0, id 0

Section number: 1

Interface id: 0 (wlan0)

Encapsulation type: Ethernet (1)

Arrival Time: Jul 23, 2025 23:50:44.920322995 +0545

UTC Arrival Time: Jul 23, 2025 18:05:44.920322995 UTC

Epoch Arrival Time: 1753293944.920322995

[Time shift for this packet: 0.000000000 seconds]

[Time delta from previous captured frame: 0.000000551 seconds]

[Time delta from previous displayed frame: 0.107963397 seconds]

[Time since reference or first frame: 6.108817212 seconds]

Frame Number: 24

Frame Length: 105 bytes (840 bits)

Capture Length: 105 bytes (840 bits)

[Frame is marked: False]

[Frame is ignored: False]

[Protocols in frame: eth:ethertype:ip:tcp:tls]

[Coloring Rule Name: TCP]

[Coloring Rule String: tcp]

Ethernet II, Src: NetisTechnol_80:2a:15 (04:5e:a4:80:2a:15), Dst: AzureWaveTec_50:5a:30 (94:bb:43:50:5a:30)

Destination: AzureWaveTec_50:5a:30 (94:bb:43:50:5a:30)

Source: NetisTechnol_80:2a:15 (04:5e:a4:80:2a:15)

Type: IPv4 (0x0800)

[Stream index: 0]

Internet Protocol Version 4, Src: 142.250.207.68, Dst: 192.168.0.4

Transmission Control Protocol, Src Port: 443, Dst Port: 41150, Seq: 1, Ack: 40, Len: 39

Transport Layer Security

TLSv1.2 Record Layer: Application Data Protocol: Hypertext Transfer Protocol

Content Type: Application Data (23)

Version: TLS 1.2 (0x0303)

Length: 34

Encrypted Application Data: 7304fb72e14db4ace6e215eec16673c930d1f6946e122683e07b6d581484afa08ca9

[Application Data Protocol: Hypertext Transfer Protocol]

0000 34 bb 43 50 5a 30 04 5e a4 80 2a 15 08 00 45 b8 ..CP20^.....5..

0010 00 5b e3 50 00 00 78 06 3f a9 8e fa cf 44 c0 a8 [-P..x.?...D..

0020 00 04 01 0b a0 be f6 6b 05 5d f6 9a bf e6 80 18k.].....

0030 04 11 b2 0d 00 00 01 01 06 0a 28 db 50 a2 62 30{ (P b0

0040 73 7d 17 03 03 00 22 73 04 f6 72 e1 4d b4 ac e6 s}...."s...r.M...

0050 e2 15 ee c1 66 73 c9 30 d1 f6 94 6e 12 26 83 e0 ...fs 0 ...n &...

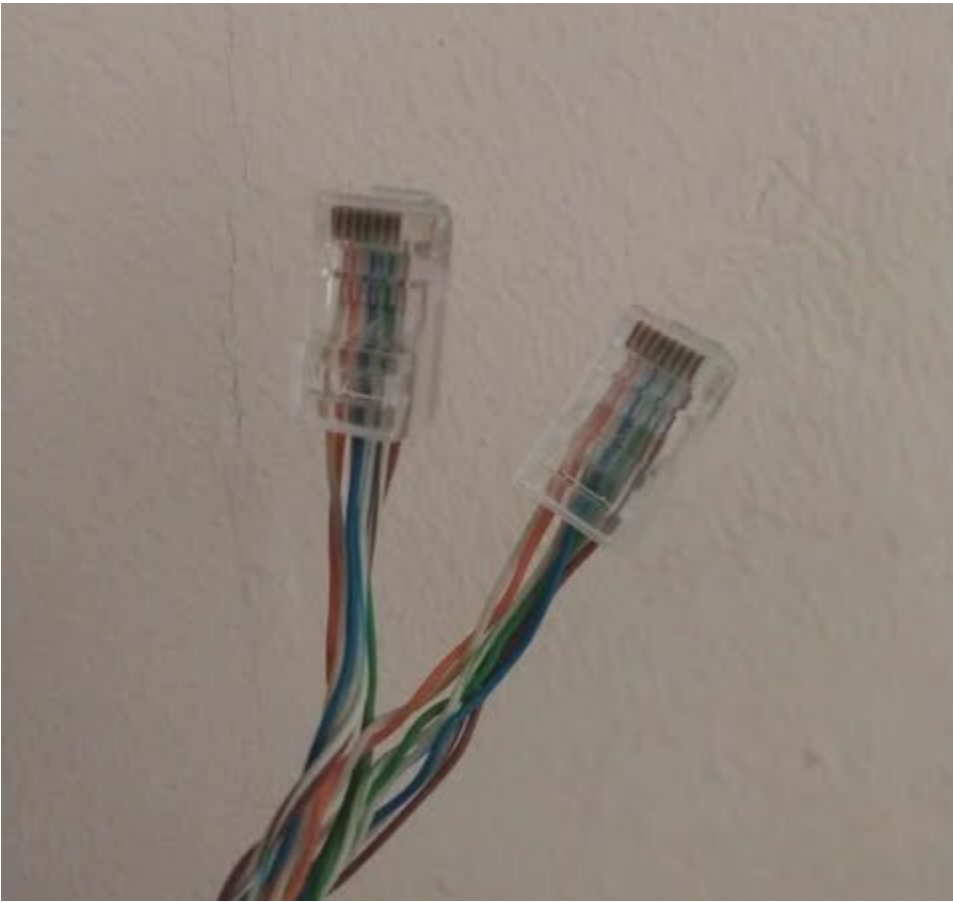
0060 7b 6d 58 14 84 af a0 8c a9 {mX:.....

Transport Layer Security: Protocol

Packets: 29 · Displayed: 5 (17.2%) · Dro

CONCLUSION:

OBSERVATION:



CONCLUSION:



Report On
Computer Networks (CSC263)

Submitted To
Mr. Dev Timilsina

Submitted By
Sulav Baral
Roll no. : 09 (Sec.A)
Symbol no. : 80012181

INDEX

SN	Experiment	Date of Experiment	Date of Submission	Remarks
1.	Connecting and testing Ethernet cabling standard	2082-	2082-	
2.	Capturing packets from a public network	2082-	2082-	
3.	Comparision between http and https.	2082-	2082-	
4.	Inspection of TCP and OSI reference model.	2082-	2082-	