Name : Shah Aagam Vishal

Enrollment No. : 23162121020

Subject: BCS

Practical – 5

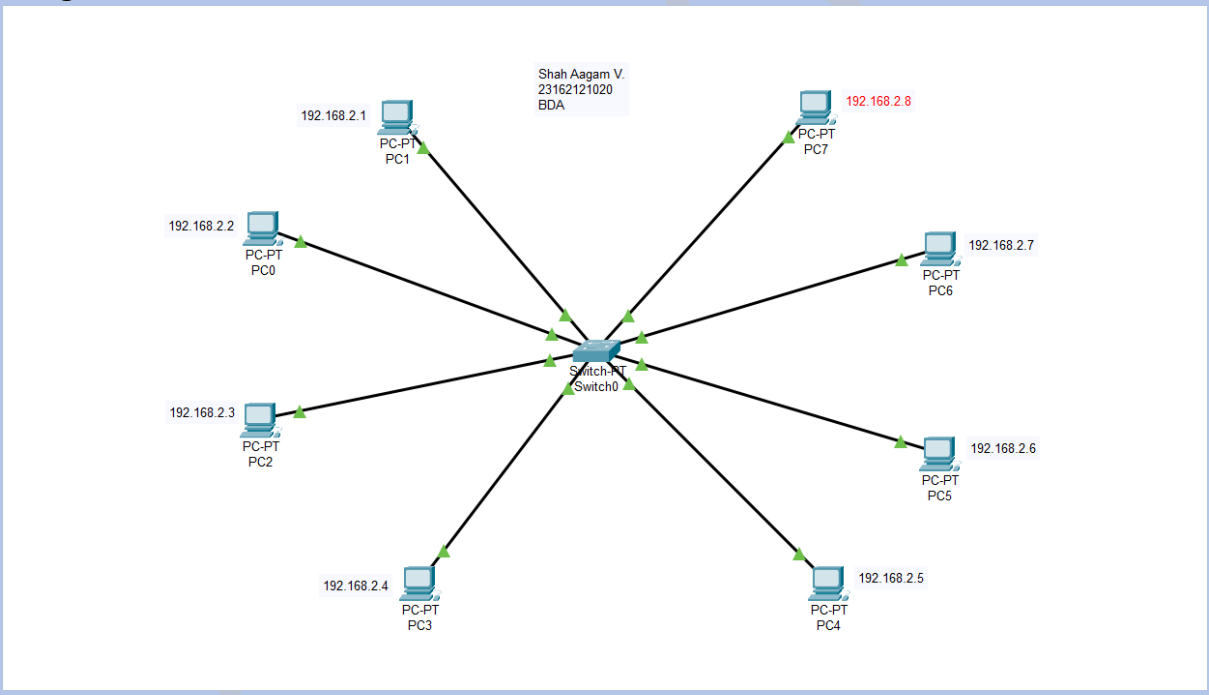
Date : 14/3/2024

Aim: Create Logical and Physical designs of Star Topology.

Case 1: Logical Design of Star Topology using Cisco Packet Tracer

Description :

Design :



Device Configuration:

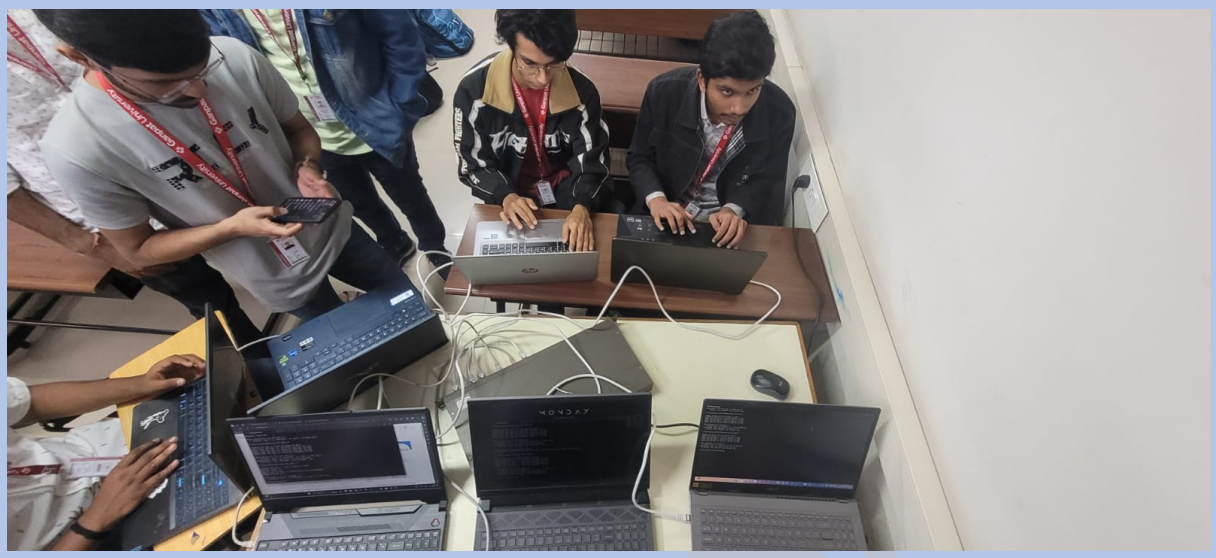
Packet Transfer :

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC1	PC0	ICMP		0.000	N	0	(edit)	(delete)
	Successful	PC1	PC2	ICMP		0.000	N	1	(edit)	(delete)
	Successful	PC1	PC3	ICMP		0.000	N	2	(edit)	(delete)
	Successful	PC1	PC4	ICMP		0.000	N	3	(edit)	(delete)
	Successful	PC1	PC5	ICMP		0.000	N	4	(edit)	(delete)
	Successful	PC1	PC6	ICMP		0.000	N	5	(edit)	(delete)
	Successful	PC1	PC7	ICMP		0.000	N	6	(edit)	(delete)

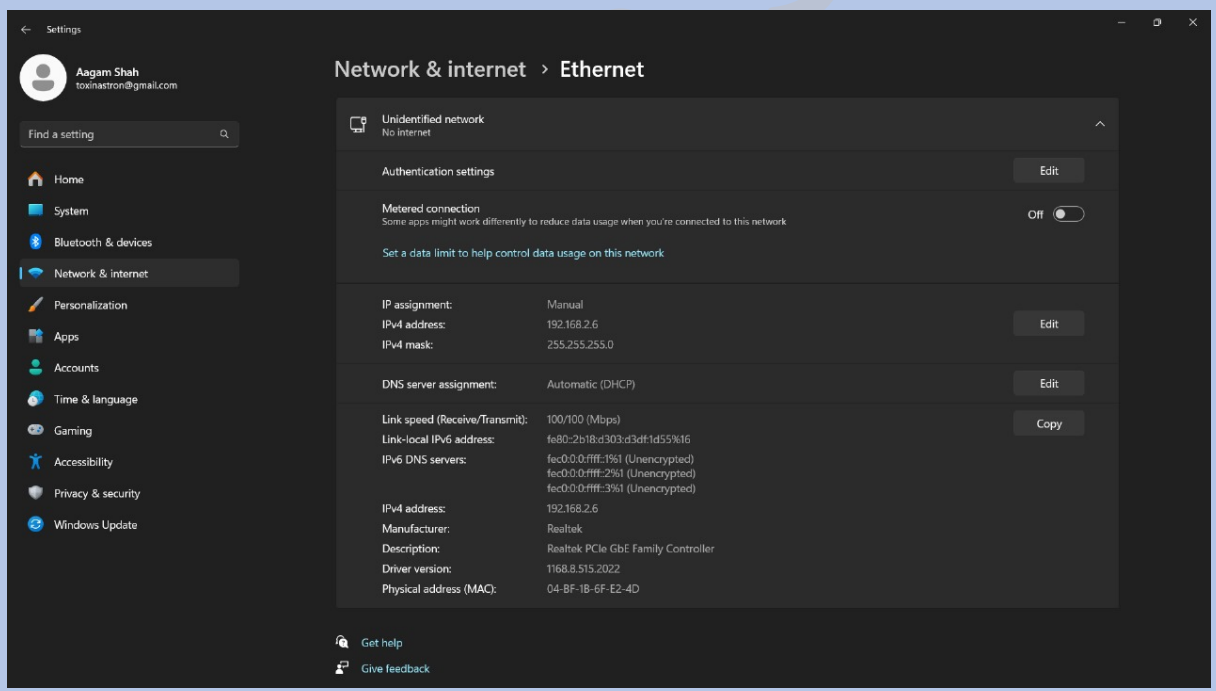
Case 2: Physical Design of Star Topology using a switch

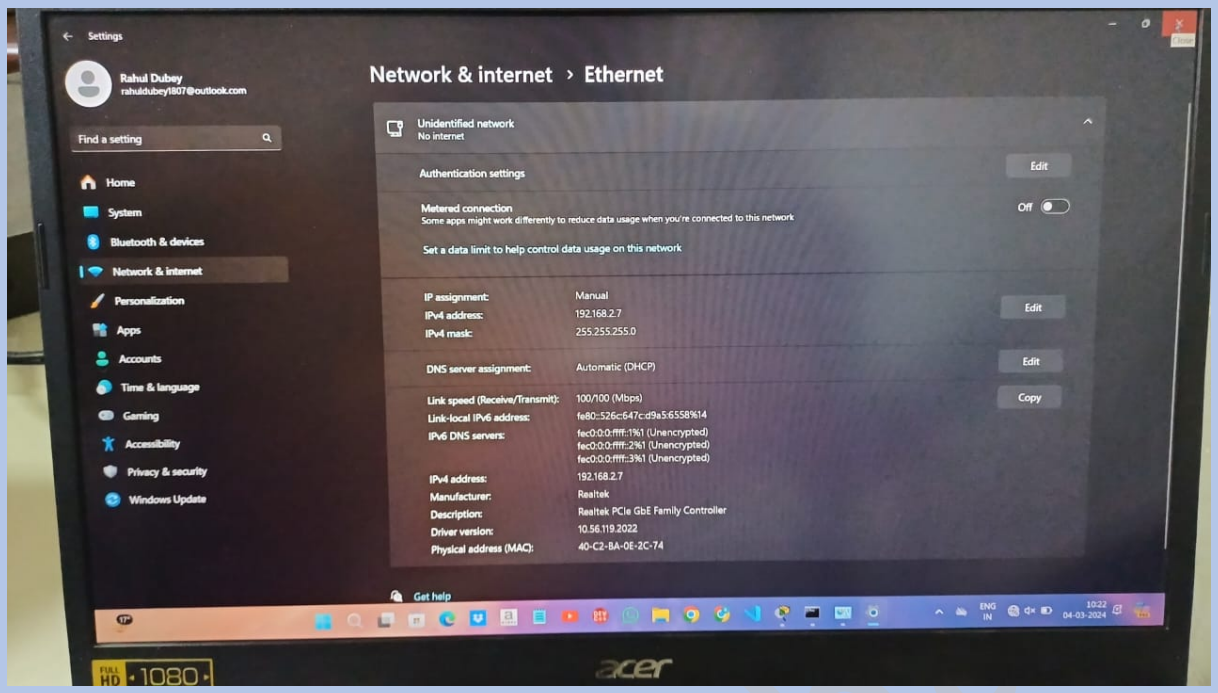
Description :

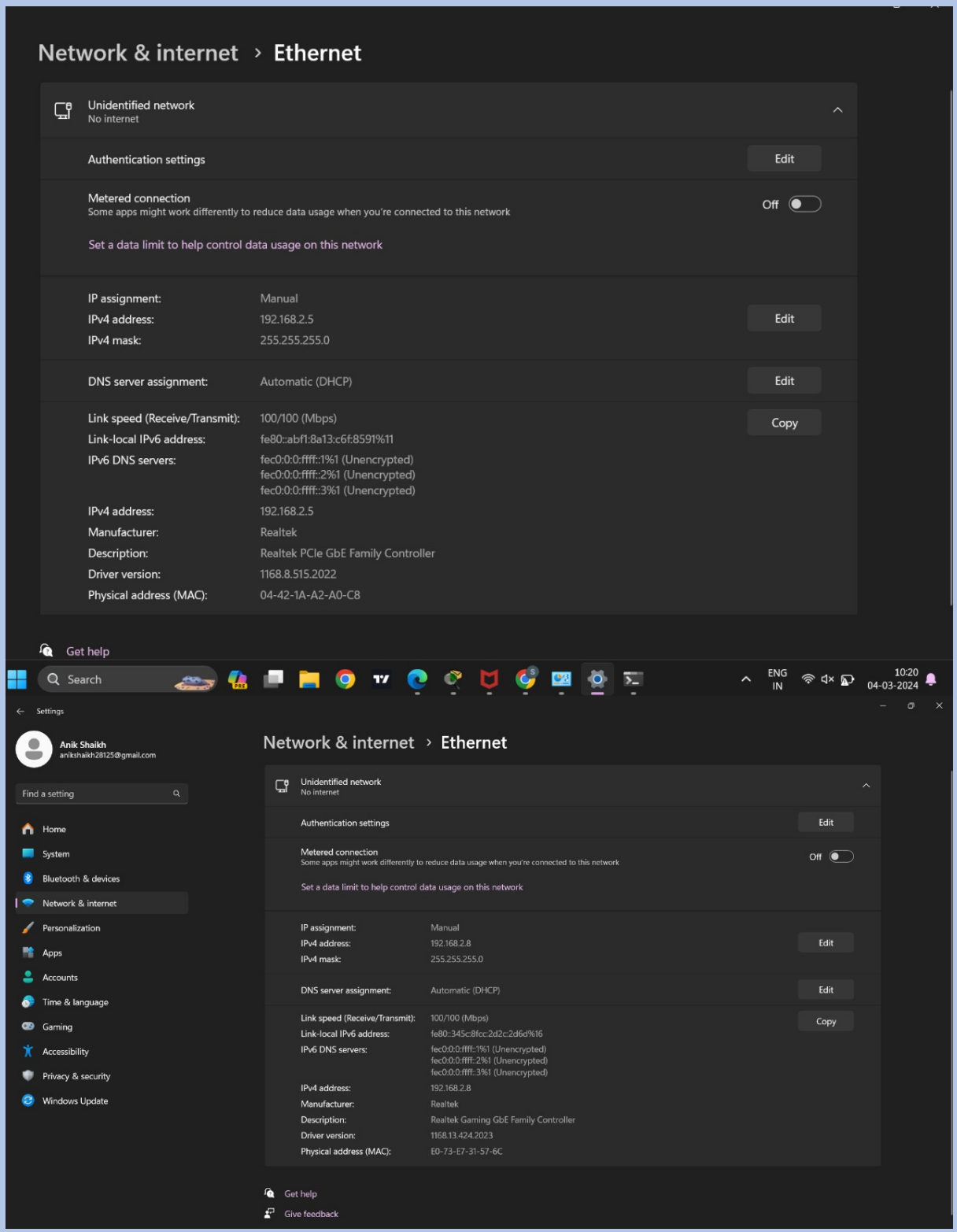
Design :



Device Configuration:




Settings
Rahul Dubey
rahuldubey1807@outlook.com
Find a setting
Home
System
Bluetooth & devices
Network & internet
Personalization
Apps
Accounts
Time & language
Gaming
Accessibility
Privacy & security
Windows Update
Network & internet › Ethernet
Unidentified network
No internet
Authentication settings
Edit
Metered connection
Some apps might work differently to reduce data usage when you're connected to this network
Off
Set a data limit to help control data usage on this network
IP assignment: Manual
IPv4 address: 192.168.2.7
IPv4 mask: 255.255.255.0
Edit
DNS server assignment: Automatic (DHCP)
Edit
Link speed (Receive/Transmit): 100/100 (Mbps)
Link-local IPv6 address: fe80::526c:647c:d9a5:6558%14
IPv6 DNS servers: fec0:0:0:ffff::1%1 (Unencrypted)
fec0:0:0:ffff::2%1 (Unencrypted)
fec0:0:0:ffff::3%1 (Unencrypted)
IPv4 address: 192.168.2.7
Manufacturer: Realtek
Description: Realtek PCIe GbE Family Controller
Driver version: 10.56.119.2022
Physical address (MAC): 40-C2-BA-0E-2C-74
Copy
Get help
FULL HD 1080
acer


Network & internet › Ethernet
Unidentified network
No internet
Authentication settings
Edit
Metered connection
Some apps might work differently to reduce data usage when you're connected to this network
Off
Set a data limit to help control data usage on this network
IP assignment: Manual
IPv4 address: 192.168.2.5
IPv4 mask: 255.255.255.0
Edit
DNS server assignment: Automatic (DHCP)
Edit
Link speed (Receive/Transmit): 100/100 (Mbps)
Link-local IPv6 address: fe80::abf1:8a13:c6f:8591%11
IPv6 DNS servers: fec0:0:0:ffff::1%1 (Unencrypted)
fec0:0:0:ffff::2%1 (Unencrypted)
fec0:0:0:ffff::3%1 (Unencrypted)
Copy
IPv4 address: 192.168.2.5
Manufacturer: Realtek
Description: Realtek PCIe GbE Family Controller
Driver version: 1168.8.515.2022
Physical address (MAC): 04-42-1A-A2-A0-C8
Get help
Search
ENG
IN
10:20
04-03-2024
Settings
Anik Shaikh
anikshaikh28125@gmail.com
Find a setting
Home
System
Bluetooth & devices
Network & internet
Personalization
Apps
Accounts
Time & language
Gaming
Accessibility
Privacy & security
Windows Update
Network & internet › Ethernet
Unidentified network
No internet
Authentication settings
Edit
Metered connection
Some apps might work differently to reduce data usage when you're connected to this network
Off
Set a data limit to help control data usage on this network
IP assignment: Manual
IPv4 address: 192.168.2.8
IPv4 mask: 255.255.255.0
Edit
DNS server assignment: Automatic (DHCP)
Edit
Link speed (Receive/Transmit): 100/100 (Mbps)
Link-local IPv6 address: fe80::345c:8fcc:2d2c:2d6d%16
IPv6 DNS servers: fec0:0:0:ffff::1%1 (Unencrypted)
fec0:0:0:ffff::2%1 (Unencrypted)
fec0:0:0:ffff::3%1 (Unencrypted)
Copy
IPv4 address: 192.168.2.8
Manufacturer: Realtek
Description: Realtek Gaming GbE Family Controller
Driver version: 1168.13.424.2023
Physical address (MAC): E0-73-E7-31-57-6C
Get help
Give feedback

Packet Transfer :

```
C:\>ping 192.168.2.2

Pinging 192.168.2.2 with 32 bytes of data:

Reply from 192.168.2.2: bytes=32 time<1ms TTL=128
Reply from 192.168.2.2: bytes=32 time<1ms TTL=128
Reply from 192.168.2.2: bytes=32 time<1ms TTL=128
Reply from 192.168.2.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.2.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.2.3

Pinging 192.168.2.3 with 32 bytes of data:

Reply from 192.168.2.3: bytes=32 time<1ms TTL=128
Reply from 192.168.2.3: bytes=32 time<1ms TTL=128
Reply from 192.168.2.3: bytes=32 time<1ms TTL=128
Reply from 192.168.2.3: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.2.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.2.4

Pinging 192.168.2.4 with 32 bytes of data:

Reply from 192.168.2.4: bytes=32 time=8ms TTL=128
Reply from 192.168.2.4: bytes=32 time<1ms TTL=128
Reply from 192.168.2.4: bytes=32 time=4ms TTL=128
Reply from 192.168.2.4: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.2.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 8ms, Average = 3ms
```

```
C:\>ping 192.168.2.5

Pinging 192.168.2.5 with 32 bytes of data:

Reply from 192.168.2.5: bytes=32 time=1ms TTL=128
Reply from 192.168.2.5: bytes=32 time<1ms TTL=128
Reply from 192.168.2.5: bytes=32 time<1ms TTL=128
Reply from 192.168.2.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.2.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.2.6

Pinging 192.168.2.6 with 32 bytes of data:

Reply from 192.168.2.6: bytes=32 time=1ms TTL=128
Reply from 192.168.2.6: bytes=32 time=9ms TTL=128
Reply from 192.168.2.6: bytes=32 time<1ms TTL=128
Reply from 192.168.2.6: bytes=32 time=6ms TTL=128

Ping statistics for 192.168.2.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 9ms, Average = 4ms

C:\>ping 192.168.2.7

Pinging 192.168.2.7 with 32 bytes of data:

Reply from 192.168.2.7: bytes=32 time=2ms TTL=128
Reply from 192.168.2.7: bytes=32 time=6ms TTL=128
Reply from 192.168.2.7: bytes=32 time=6ms TTL=128
Reply from 192.168.2.7: bytes=32 time=7ms TTL=128

Ping statistics for 192.168.2.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 7ms, Average = 5ms

C:\>ping 192.168.2.8
```

```
C:\>ping 192.168.2.8

Pinging 192.168.2.8 with 32 bytes of data:

Reply from 192.168.2.8: bytes=32 time<1ms TTL=128
Reply from 192.168.2.8: bytes=32 time<1ms TTL=128
Reply from 192.168.2.8: bytes=32 time<1ms TTL=128
Reply from 192.168.2.8: bytes=32 time=6ms TTL=128

Ping statistics for 192.168.2.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 6ms, Average = 1ms

C:\>
```

Conclusion:

In this Practical , We Got To know About Switches in Real Life.