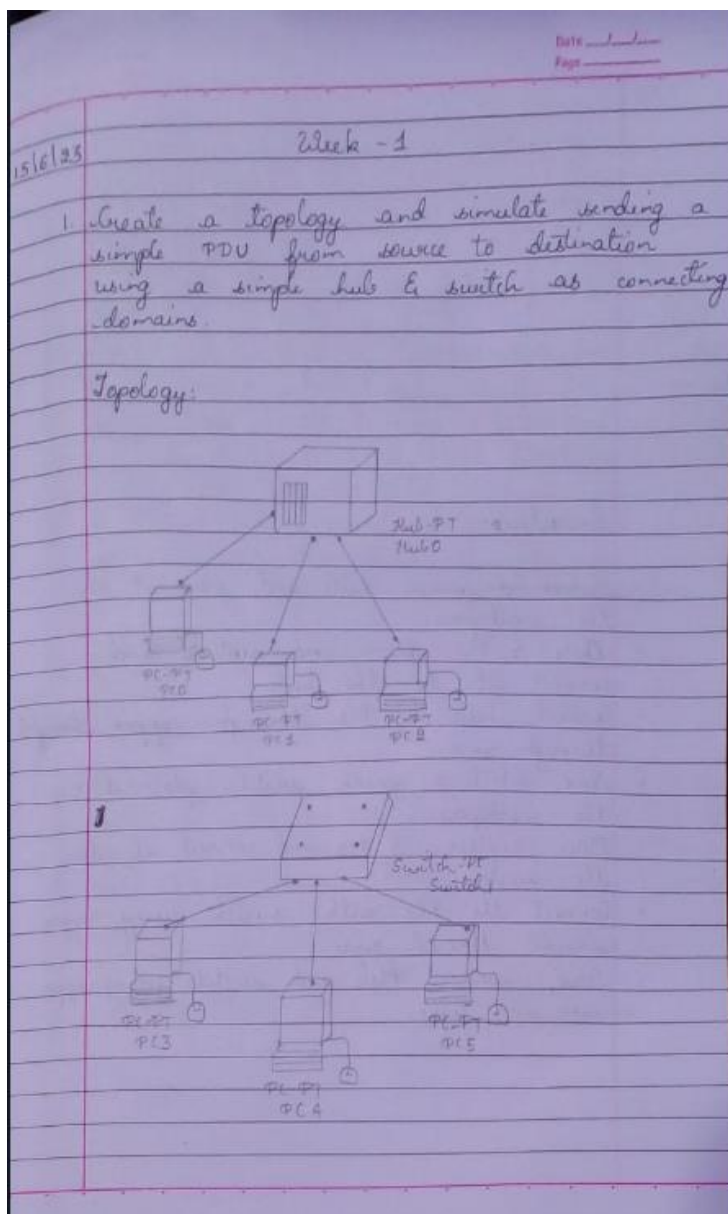
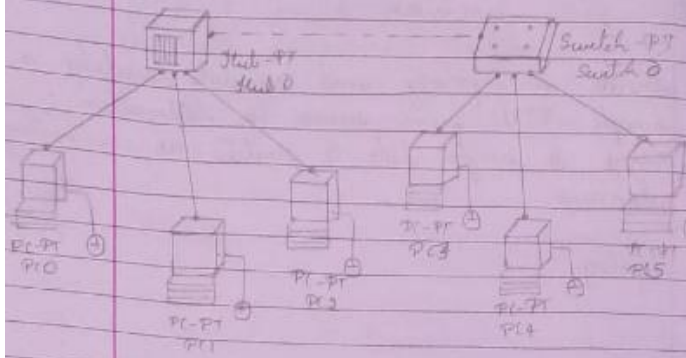


WEEK 1

Create a topology and simulate sending a simple PDU from source to destination using hub and switch as connecting devices and demonstrate ping message.

Observation book:





Procedure:

- Select a generic hub and place it on the workspace.
- Place 3 PCs from end systems and connect it to the hub.
- Connect hub to PCs through copper straight through wire.
- Now, select a generic switch, place it on the workspace.
- Place another 3 PCs and connect it to the switch.
- Connect the PCs with switch using copper straight through wire.
- Now, connect Hub and switch using copper cross over wire.

Output:

PC> ping 192.160.1.2

Pinging 192.160.1.2 with 32 bytes of data:

Reply from 192.160.1.2: bytes=32 time=8ms TTL=128

Reply from 192.160.1.2: bytes=32 time=4ms TTL=128

Reply from 192.160.1.2: bytes=32 time=4ms TTL=128

Reply from 192.160.1.2: bytes=32 time=4ms TTL=128

Ping statistics for 192.160.1.2

Packets: Sent=4, Received=4, Lost=0 (0% loss),

Approx. round trip times in milliseconds:

Minimum=4ms, Maximum=8ms, Average=5ms.

PC> ping 192.160.1.4

Pinging 192.160.1.4 with 32 bytes of data:

Reply from 192.160.1.4: bytes=32 time=1ms TTL=128

Reply from 192.160.1.4: bytes=32 time=2ms TTL=128

Reply from 192.160.1.4: bytes=32 time=1ms TTL=128

Reply from 192.160.1.4: bytes=32 time=2ms TTL=128

Ping statistics for 192.160.1.4

Packets: Sent=4, Received=4, Lost=0 (0% loss)

Approx. round trip time in milliseconds:

Minimum=1ms, Maximum=2ms, Average=1ms.

ALD
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PC> ping 192.160.1.6
pinging 192.160.1.6 with 32 bytes of data:

Pinging 192.160.1.6 :

Reply from 192.160.1.6:	bytes=32	time=12ms	TTL=124
Reply from 192.160.1.6:	bytes=32	time=6ms	TTL=124
Reply from 192.160.1.6:	bytes=32	time=6ms	TTL=124
Reply from 192.160.1.6:	bytes=32	time=6ms	TTL=124

Ping statistics for 192.160.1.6:

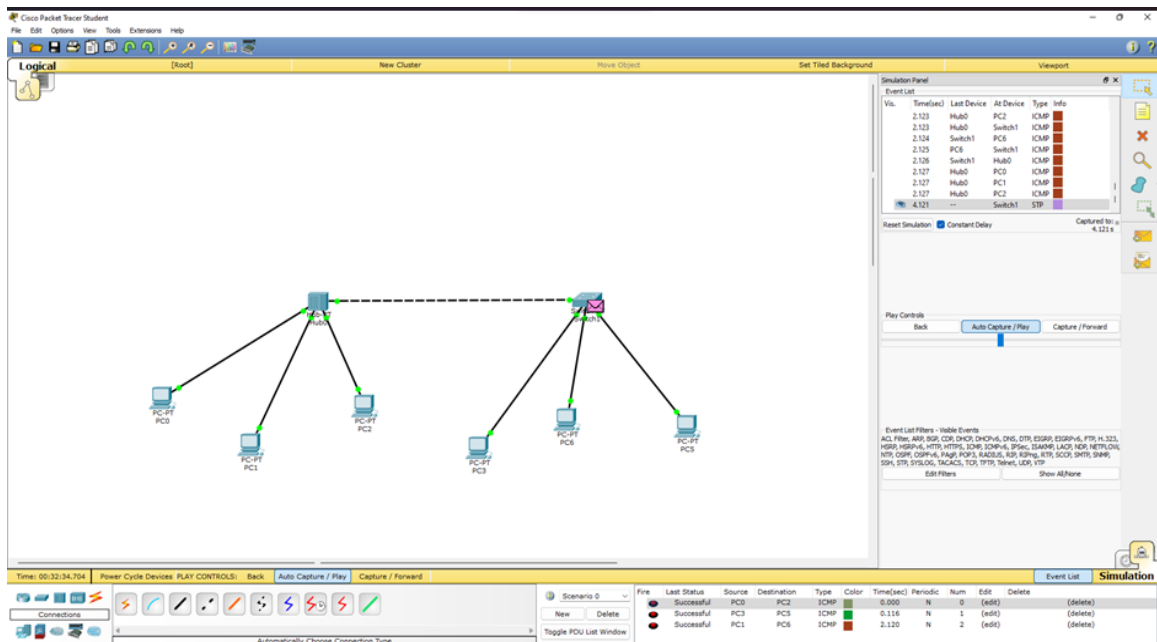
Packets: Sent=4, Received=4, Lost=0 (0% loss)

Approx. round trips in milliseconds:

Minimum=6ms, Maximum=12ms, Average=7ms

Observation:

- Switch broadcasts packets to all devices during first iteration, records IP address of intended destination, sends package to the destination.
- Hub broadcasts packets to all the devices which are even not intended to receive the packet and the indicated device receives the packet, sends acknowledgement message.



Output :

The image shows a PC0 Command Prompt window titled "Command Prompt". The text inside the window is as follows:

```

Packet Tracer PC Command Line 1.0
PC>ping 192.160.1.2

Pinging 192.160.1.2 with 32 bytes of data:

Reply from 192.160.1.2: bytes=32 time=0ms TTL=128
Reply from 192.160.1.2: bytes=32 time=4ms TTL=128
Reply from 192.160.1.2: bytes=32 time=4ms TTL=128
Reply from 192.160.1.2: bytes=32 time=4ms TTL=128

Ping statistics for 192.160.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 4ms, Maximum = 8ms, Average = 5ms

PC>

```

