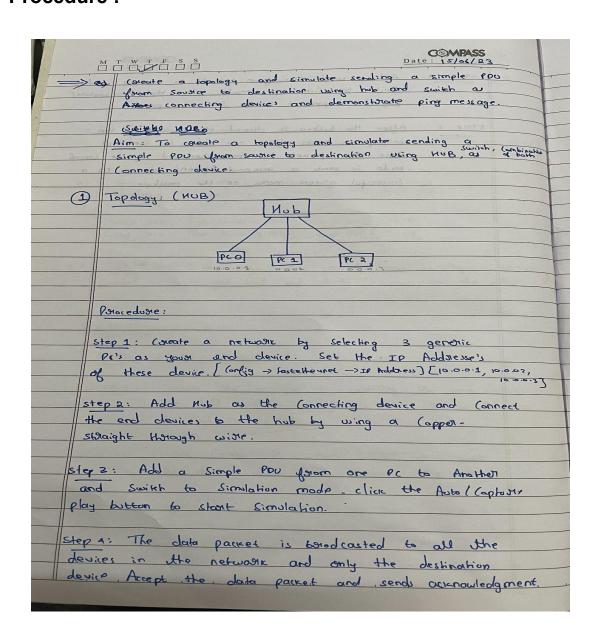
LAB PROGRAM 1

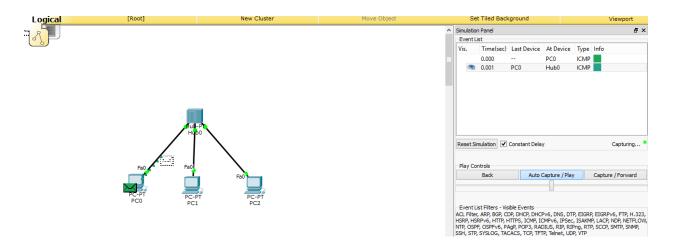
Q) Create a topology and simulate sending a simple PDU from source to destination using hub and switch as connecting devices and demonstrate ping message.

1) <u>Hub</u> Procedure :



```
M T W T F S S
    to the device that sent the data parrel
   Result:
  Oc> ping 10.0.0.3
   pinging 10.0.0.3 with 32 bytes of data:
  Reply from 10.0.0.3: bytes = 32 time = oms TTL = 128
Reply from 10.0.0.3: bytes = 32 time = oms TTL = 128
  Reply your 10.0.0.3: bytes = 32 time = 0ms TTC = 126
  Reply from 16.0.0.3 bytes = 30 time = 0ms TTL = 128
  ping statistics for 10.0.0.3:
     parkets: Sent = 4, Received = 4, Lost = 0 (0% Loss),
  App grazimate ground thip times in milli-seconds:
      Minimum = oms, Maximum = oms, Average = oms.
  observation:
 The hub connecting device seceives date from Source
  PC and brookcast's it to all the Connecting devices
 The devices not intended for data transfer does not interact
 with the packet while the destination device send's back
 an Acknowledgment.
```

Topology:



Ping Result:

```
Physical Config Desktop Custom Interface

Command Prompt

Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.3

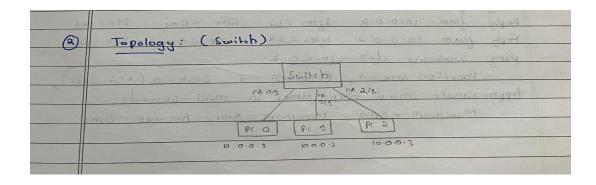
Pinging 10.0.0.3 with 32 bytes of data:

Reply from 10.0.0.3: bytes=32 time=0ms TTL=128
Reply from 10.0.0.3: bytes=32 time=1ms TTL=128
Reply from 10.0.0.3: bytes=32 time=0ms TTL=128
Reply from 10.0.0.3: bytes=32 time=0ms TTL=128
Ping statistics for 10.0.0.3:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms

PC>
```

2) Switch

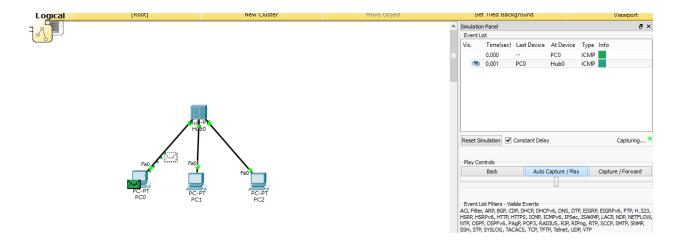
Procedure:



| M T W T F S S Date: 18/04/23 | м |
|--|---|
| Potocedure: | |
| Step 1: Add All the end devices to you? degical workspace and set the IP Address of all the | |
| devices. | |
| step 2: Add a generic switch as the connecting device | |
| and Connect the devices to Switch by using a copper straight though wiste An Amber light in | - |
| observed which indicates the switch is studying about | |
| the Connected devices. and make a second and a second and a second as a second | |
| Step 3: Add a simple Pro from one Pc to Another | |
| and switch to Simulation mode click the Auto Capture/ play button to begin simulation. | |
| 1 : no Haurando | |
| Result: will plat square, garage temporare during all | |
| Pr and brodrast it to all the Correcting devil. | |
| pinging 10.0.0.2 with 32 bytes of data: | |
| Peply from 10.0.0.0 bytes = 32 time - am TTL = 128 | |
| Peply from 10.0.0.2 bytes = 32 time = 0ms TTL=128 | |
| Reply from 10.0.0.2 bytes = 32 line = 0m1 TTL = 128 | |
| ping statistics for 10.0.0.2: | |
| Packets: Sent = 4, Received = 4, Lost = 0 (00% Loss) | |
| Apparazionate sound torip times in milli-seconds: | |
| Minimum = oms, Maximum = ami, Average = Oms | |
| | |

| M T W T F S S | Date: 15/06/23 |
|--|---------------------------------|
| abservation: | 0.9 -1 |
| and an and the second | ** |
| The same devices are | P |
| | |
| THE COUNTRY BIR STONE ST | 3. One the Vict 1 am and |
| the orevices one steady | 1 d.) ant minimum Col- |
| Formistriers who packet on | ly for the intended dovice |
| un a network often dec | orning about the devices and he |
| is known as a smart | device. 0.00 pours |
| | stra 8.000 of month earning & |

Topology:



Ping Results:

```
PCS
Physical Config Desktop Custom Interface

Command Prompt

Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.2 with 32 bytes of data:

Reply from 10.0.0.2 bytes=32 time=1ms TTL=128
Reply from 10.0.0.2: bytes=32 time=0ms TTL=128

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

PC>
```

3) <u>Hybrid(</u> Hub and Switch) Procedure:

Poweredure:

Step 1: Add About 1 genonic Pril to youth logical

workspace and connect it to the Mub using a copper straight through wire.

Connect the 2 Mub's to a switch oxing a copper (thou-over wire and set the ID Addresses of all the devices.

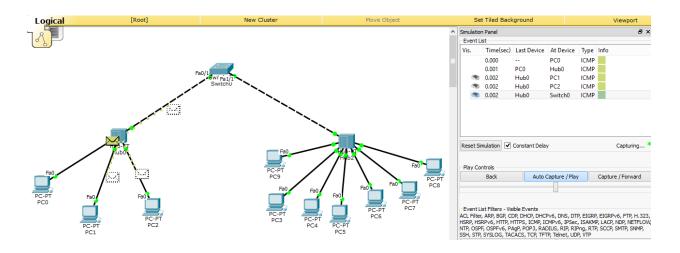
(More posts can be added to the Mub by switching off the device)

Date: 15/06/2 step 2: Add a simple peu from one device (PC 0)

step 2: Add a simple peu from one device (PC 0)

to another device (PC 12) and switch to simulation
to another device (PC 12) and switch to begin MITTE Simulation: Result: Pringing of som PC> PING 10.0.0.8 pinging form 10.0.0.2 with 32 bytes of data: Reply from 10.0.0.8: bytes = 32 time = 1 ms TTL = 123 Reply from 10.0.0.8: bytes = 32 time = 2 ms TTL = 128 Reply from 10.0.0.8: bytes = 32 time = 1 ms TTL = 121 Reply from 10.0.0.8: bytes = 32 time = 1 ms TTL= 126 Ping statistics your 10.0.0.8: Packets: Sent=4, Recieved = 4, Lost = 0 (0% loss), Approximate Ground thip times in milli-seconds: Minimum = om, Monimum = Am, Average = 1 m observation: The date packet from Pro is sent to the Nub which then boundcasts the packet to all the devices in that network and the Switch. The Switch then Wansmitts the data packed to the second hub which in-warn broodcasts the packet to all the devices the hub. The destination device Accepts the data packet while the Gernaning the discord the Lata packet. Finally, the destination device sends on Acknowledgment to the Consider Levice that Jaka Communication is Complete.

Topology:



Ping Result:

```
PC>ping 10.0.0.8

Pinging 10.0.0.8 with 32 bytes of data:

Reply from 10.0.0.8: bytes=32 time=0ms TTL=128

Ping statistics for 10.0.0.8:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>
```