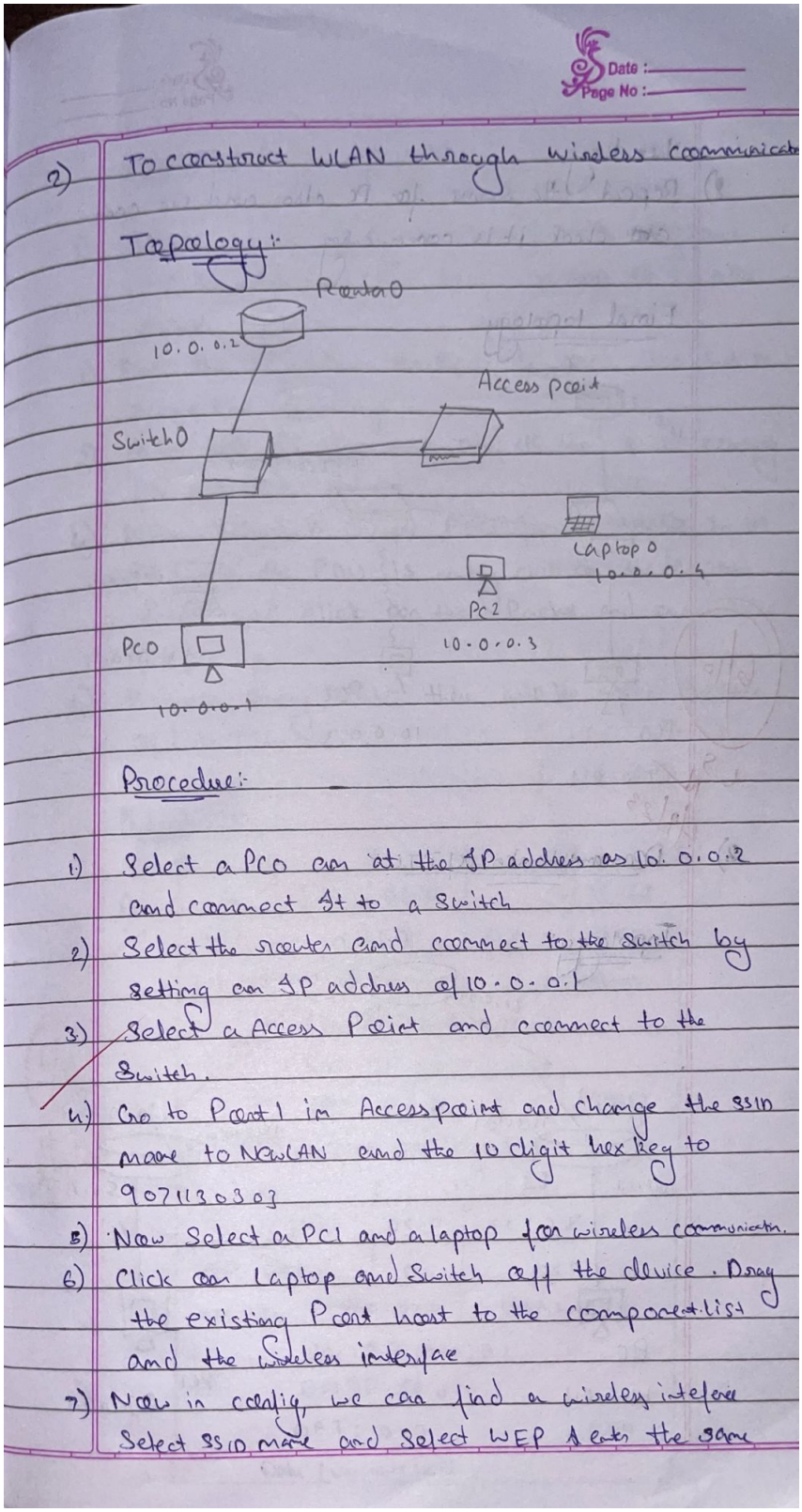
EXPERIMENT-10

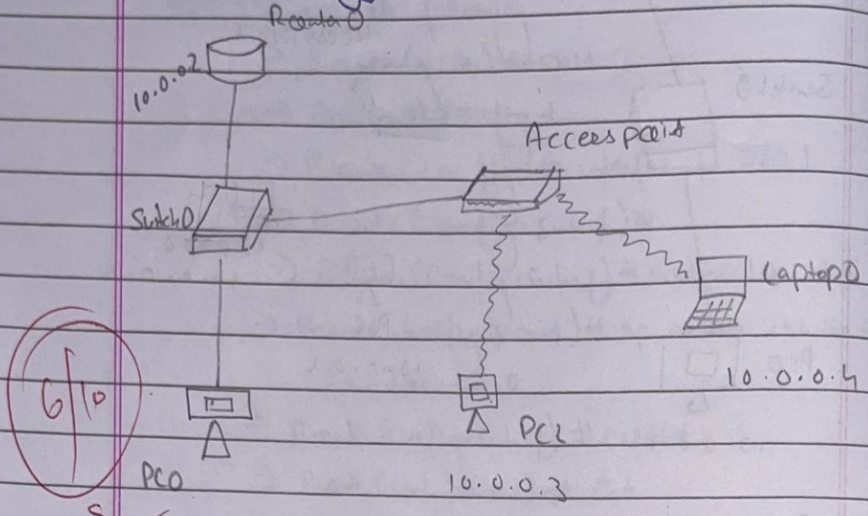
**Q) To construct a WLAN and make the nodes communicate wirelessly and Demonstrate the TTL/ Life of a Packet**



hex key.

8) Repeat the same for PC also and we can check it is communicating

Final topology:

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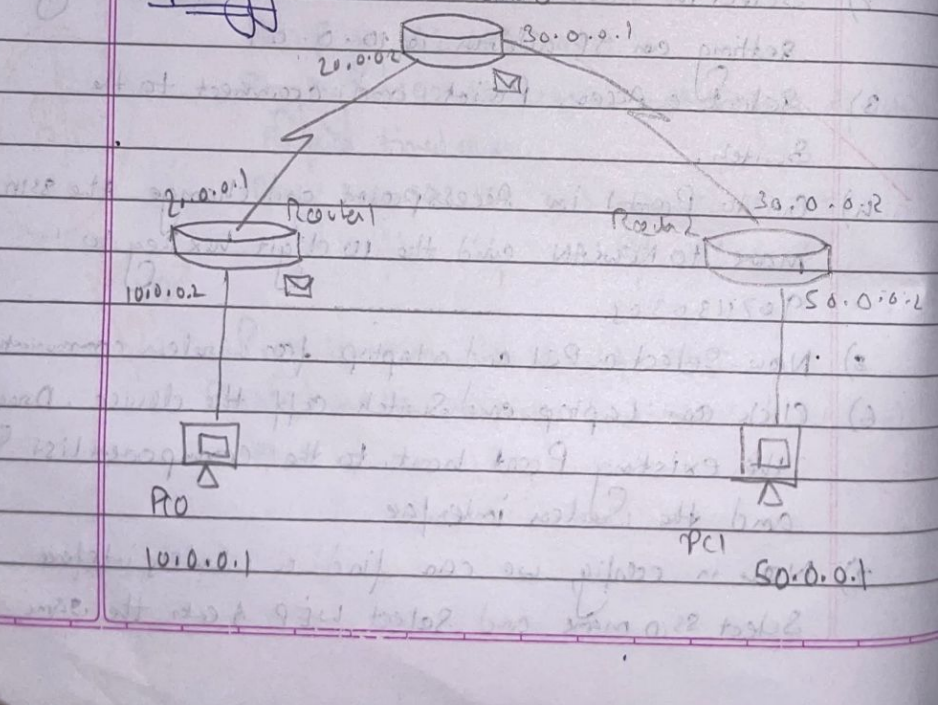
3) Demonstration of TTL:

Topology:



Date :
Page No :

## Procedure :-

1) Select 2 PC's and connect them to different router. Connect the two routers to another router.
2) Enter the IP address to each PC and also set the respective gateways
3) Also set the dynamic and all the static routing for all PC's.
4) Now select a simple PDU from one PC to the PC while the PDU is reading click on the capture first and click on the packet and a window pops up.
5) Between every router there will be a time difference of 1 in TTL.

## Output : IP

1)

| 0 | 4 | 8 | 16 | 19 | 31 |
|---|---|---|---|---|---|
| 4 | IHL | DSCP | | TL : 28 | |
| IP : 0x6 | | | 0X | 0X0 | |
| TTL : 255 | | PRO : 0x1 | | EHICSum | |
| SRC IP : 10 : 0 : 0 : 1 | | | | | |
| DST IP : 50 : 0 : 0 : 1 | | | | | |
| OPT : 000 | | | | 0X0 | |
| Data (variable length) | | | | | |

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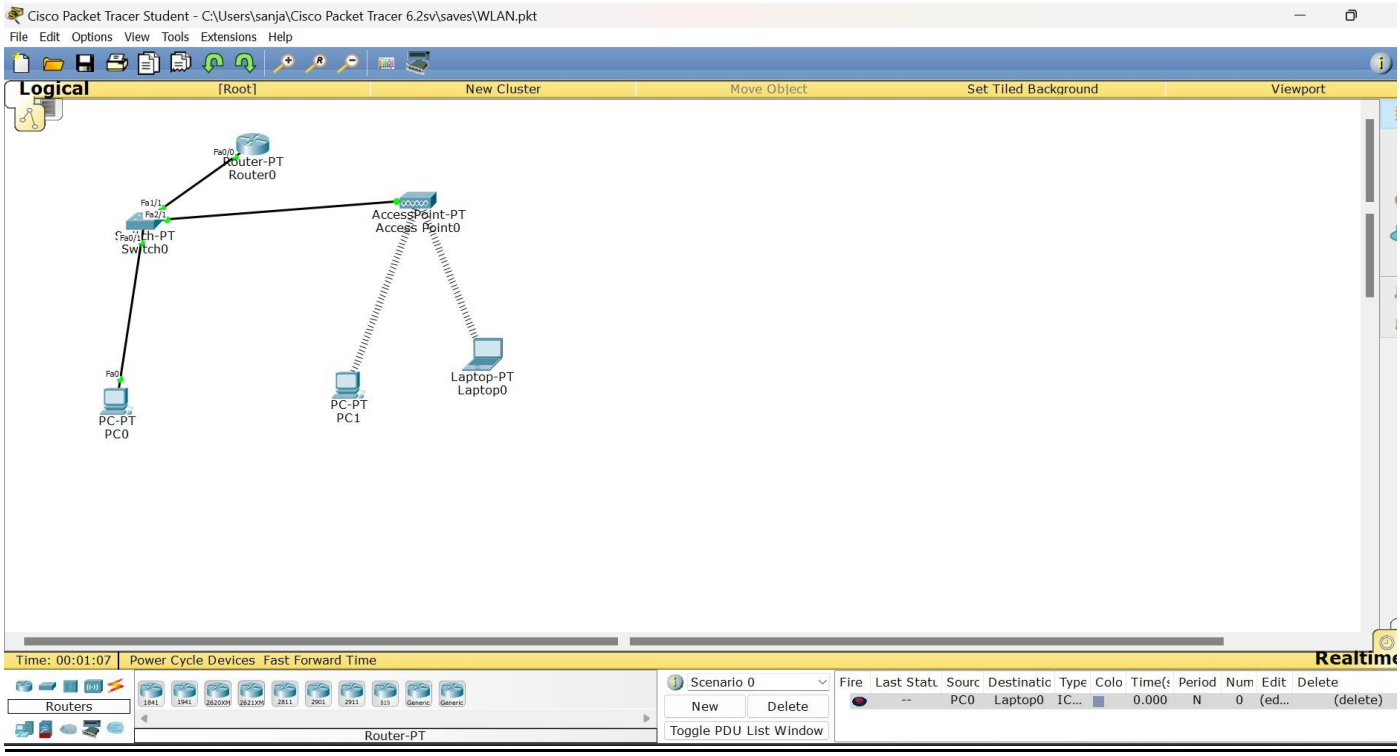
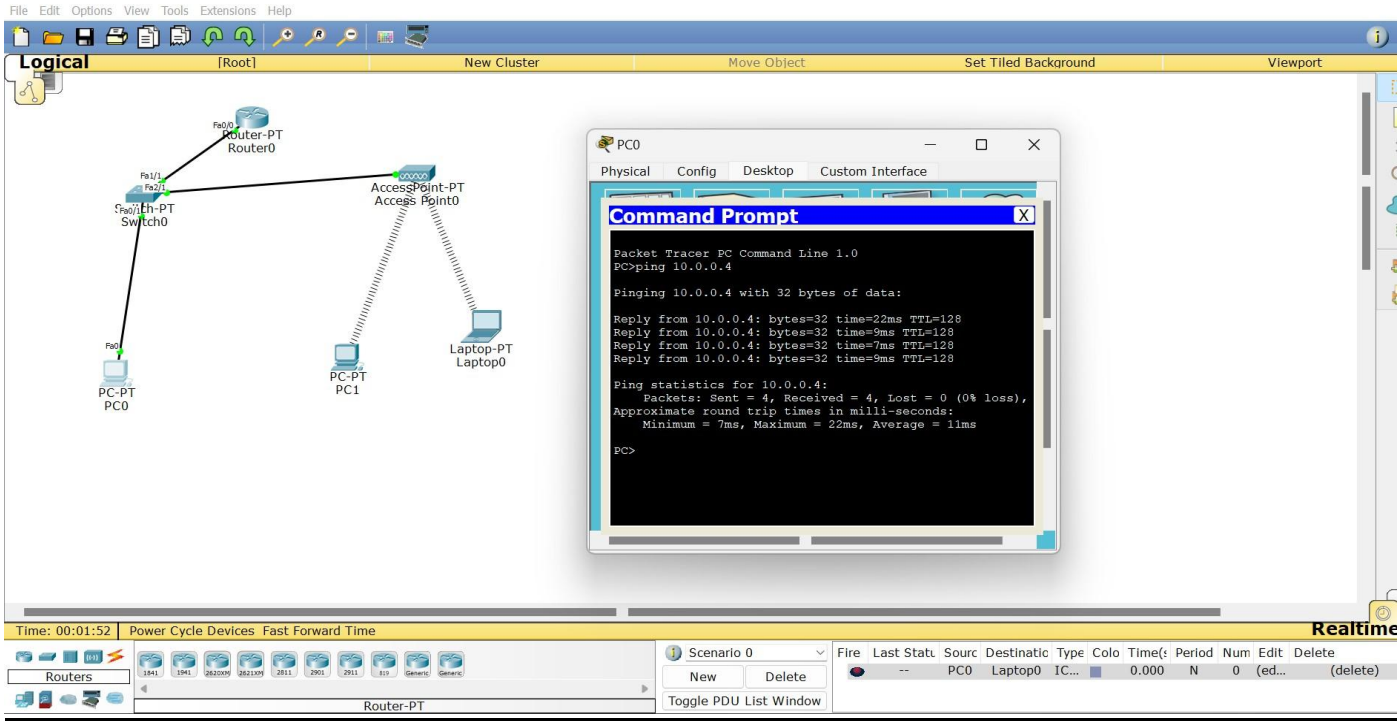
2)

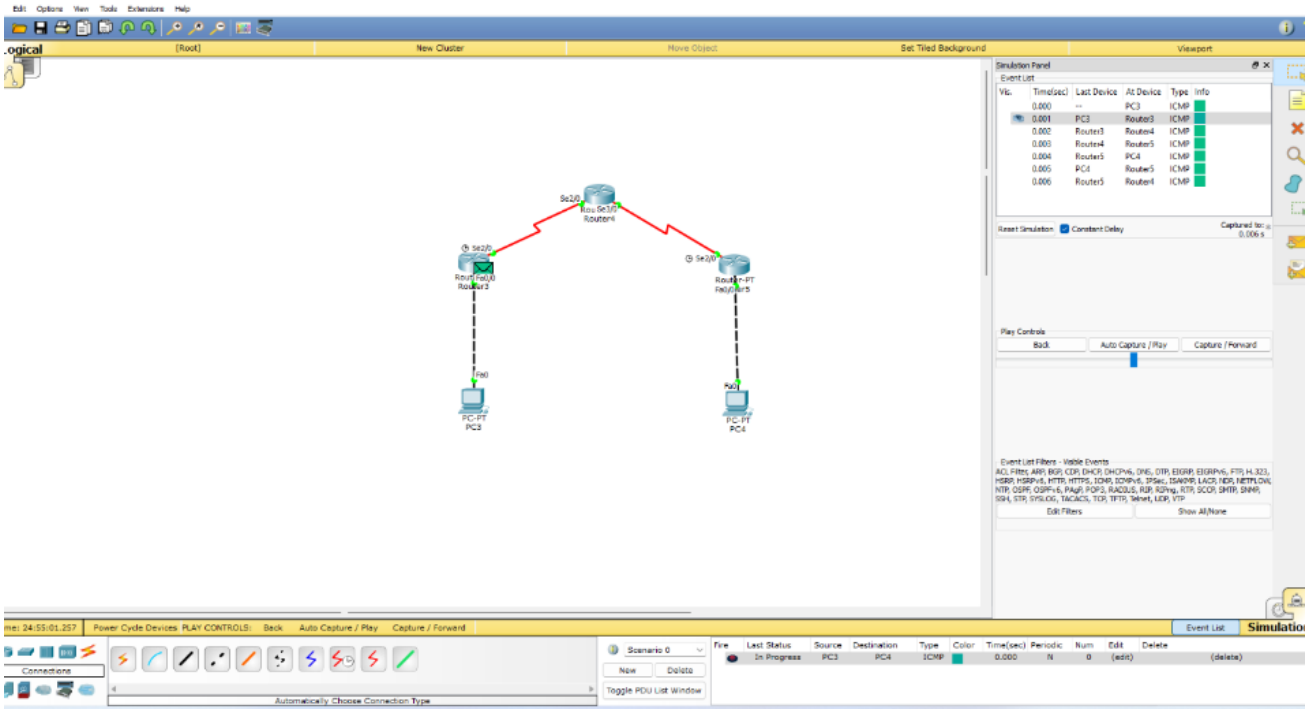
| 0 | 4 | 8 | 16 |
|---|---|---|---|
| 4 | IHL | DSCP | TL : 28 |
| IP : 0x6 | | 0 | 0X0 |
| TTL : 254 | | PRO : 0x0 | Checksum |
| SRC : IP : 10 : 0 : 0.1 | | | |
| DST IP : 50.0.0.1 | | | |
| OPT : 0x0 | | | 0X0 |
| Data (variable length) | | | |

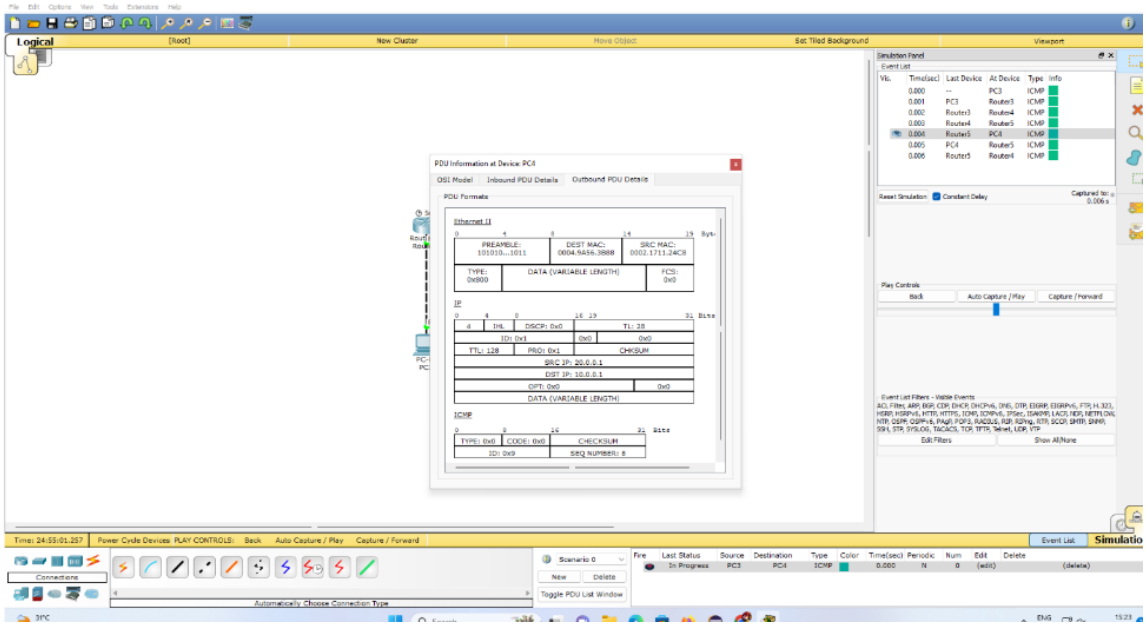
# TOPOLOGY & OUTPUT (WLAN)




# TOPOLOGY & OUTPUT (TTL)


Edit Options View Tools Extensions Help
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device Type Info
0.000 -- PC3 ICMP
0.001 PC3 Router3 ICMP
0.002 Router3 Router4 ICMP
0.003 Router4 Router5 ICMP
0.004 Router5 PC4 ICMP
0.005 PC4 Router5 ICMP
0.006 Router5 Router4 ICMP
Reset Simulation
Constant Delay
Play Controls
Back
Auto Capture / Play
Capture / Forward
Event List Filters - Visible Events
Edit Filters
Show All/None
Power Cycle Devices
PLAY CONTROLS:
Back
Auto Capture / Play
Capture / Forward
Event List
Simulation
Connections
Automatically Choose Connection Type
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete
In Progress PC3 PC4 ICMP 0.000 N 0 (edit) (delete)
PC-PT PC3
PC-PT PC4


Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
PDU Information at Device: PC4
OSI Model
Inbound PDU Details
Outbound PDU Details
PDU Formats
Ethernet II
PREAMBLE: 101010...1011
DEST MAC: 0004.9A56.3888
SRC MAC: 0002.1711.24C8
TYPE: 0x800
DATA (VARIABLE LENGTH)
FCS: 0x0
IP
IHL
DSCP: 0x0
TL: 28
ID: 0x1
TTL: 128
PRO: 0x1
CHKSUM
SRC IP: 20.0.0.1
DST IP: 10.0.0.1
OPT: 0x0
DATA (VARIABLE LENGTH)
ICMP
TYPE: 0x0
CODE: 0x0
CHECKSUM
ID: 0x9
SEQ NUMBER: 8
Simulation Panel
Event List
Vis.
Time(sec)
Last Device
At Device
Type
Info
Reset Simulation
Constant Delay
Play Controls
Back
Auto Capture / Play
Capture / Forward
Edit Filters
Show All/None
Power Cycle Devices
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Scenario 0
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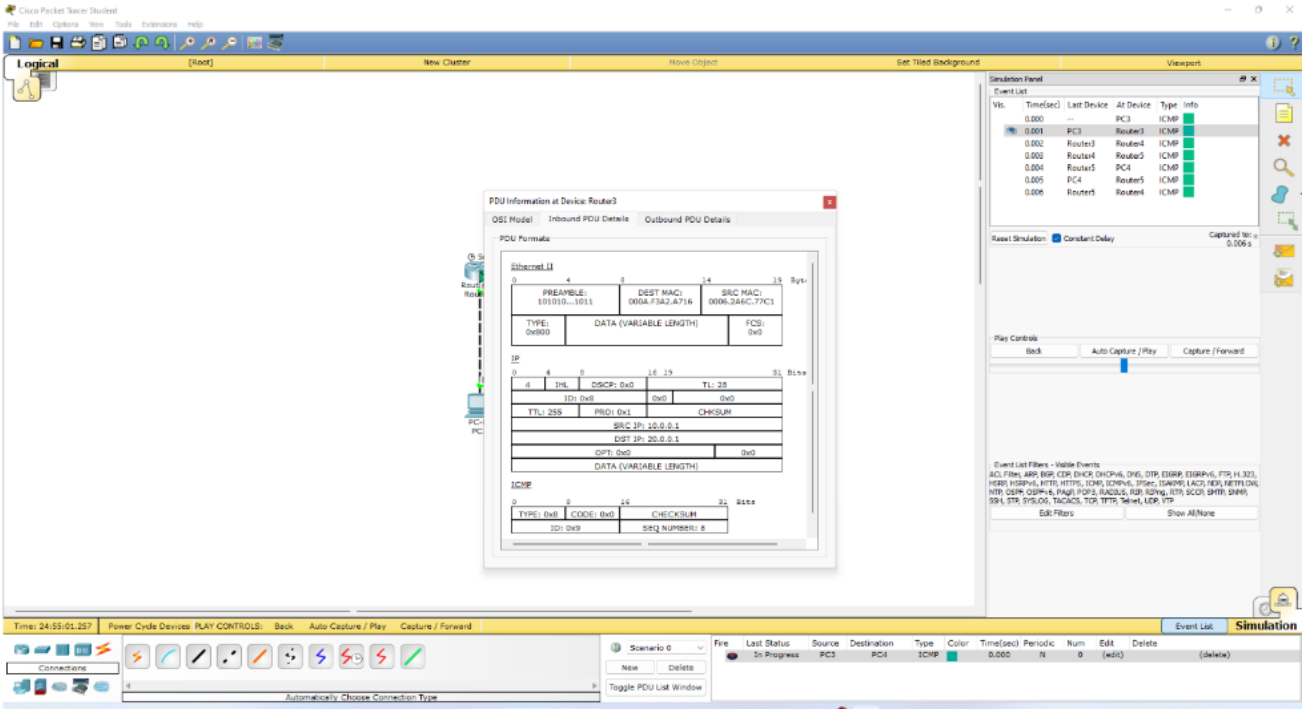
Delete
Toggle PDU List Window
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete
In Progress
PC3
PC4
ICMP
(edit)
(delete)


Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
PDU Information at Device: Router3
OSI Model
Inbound PDU Details
Outbound PDU Details
PDU Formats
Ethernet II
PREAMBLE: 101010...1011
DEST MAC: 000A.F3A2.A716
SRC MAC: 0006.2A6C.77C1
TYPE: 0x800
DATA (VARIABLE LENGTH)
FCS: 0x0
IP
IHL
DSCP: 0x0
TL: 28
ID: 0x8
TTL: 255
PRO: 0x1
CHKSUM
SRC IP: 10.0.0.1
DST IP: 20.0.0.1
OPT: 0x0
DATA (VARIABLE LENGTH)
ICMP
TYPE: 0x8
CODE: 0x0
CHECKSUM
ID: 0x9
SEQ NUMBER: 8
Simulation Panel
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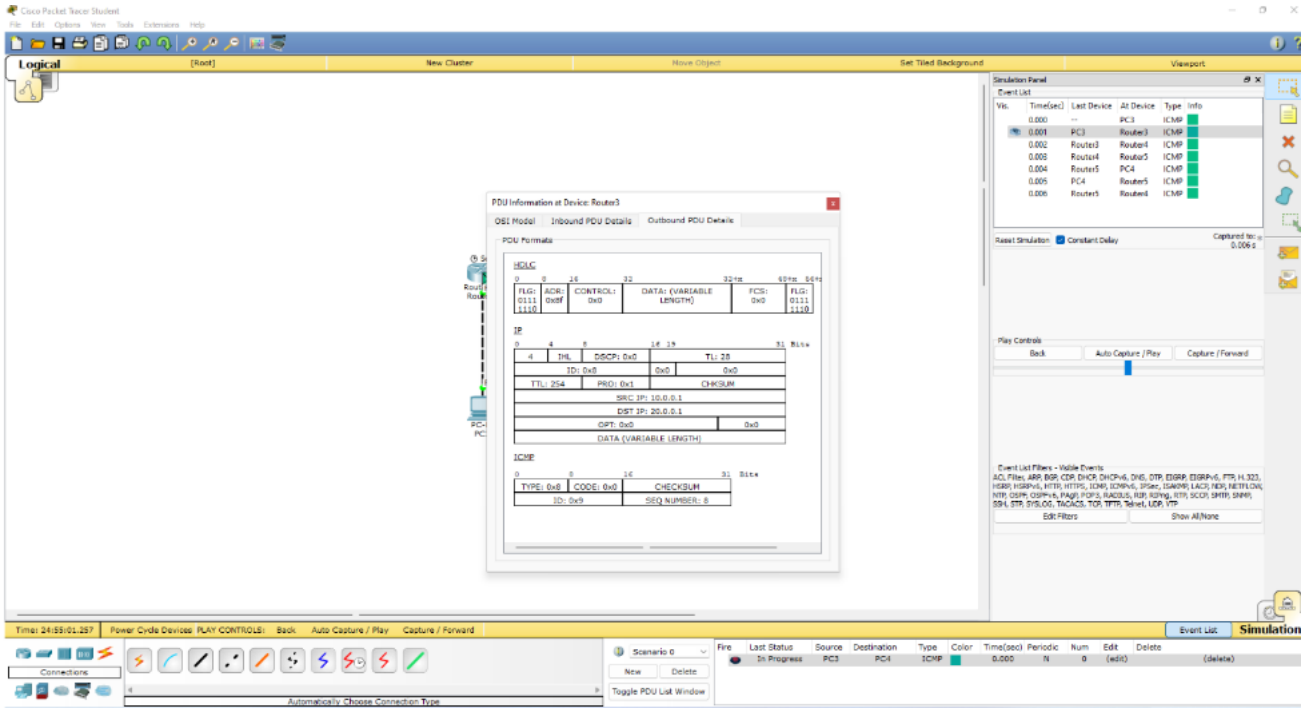
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete
In Progress
PC3
PC4
ICMP
(edit)
(delete)


Cisco Packet Tracer Student
Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
PDU Information at Device: Router3
OSI Model
Inbound PDU Details
Outbound PDU Details
PDU Formats
HDLC
FLG: 0111 1110
ADR: 0x8f
CONTROL: 0x0
DATA: (VARIABLE LENGTH)
FCS: 0x0
FLG: 0111 1110
IP
4
IHL
DSCP: 0x0
TL: 28
ID: 0x0
0x0
0x0
TTL: 254
PRO: 0x1
CHKSUM
SRC IP: 10.0.0.1
DST IP: 20.0.0.1
OPT: 0x0
0x0
DATA (VARIABLE LENGTH)
ICMP
TYPE: 0x8
CODE: 0x0
CHECKSUM
ID: 0x9
SEQ NUMBER: 8
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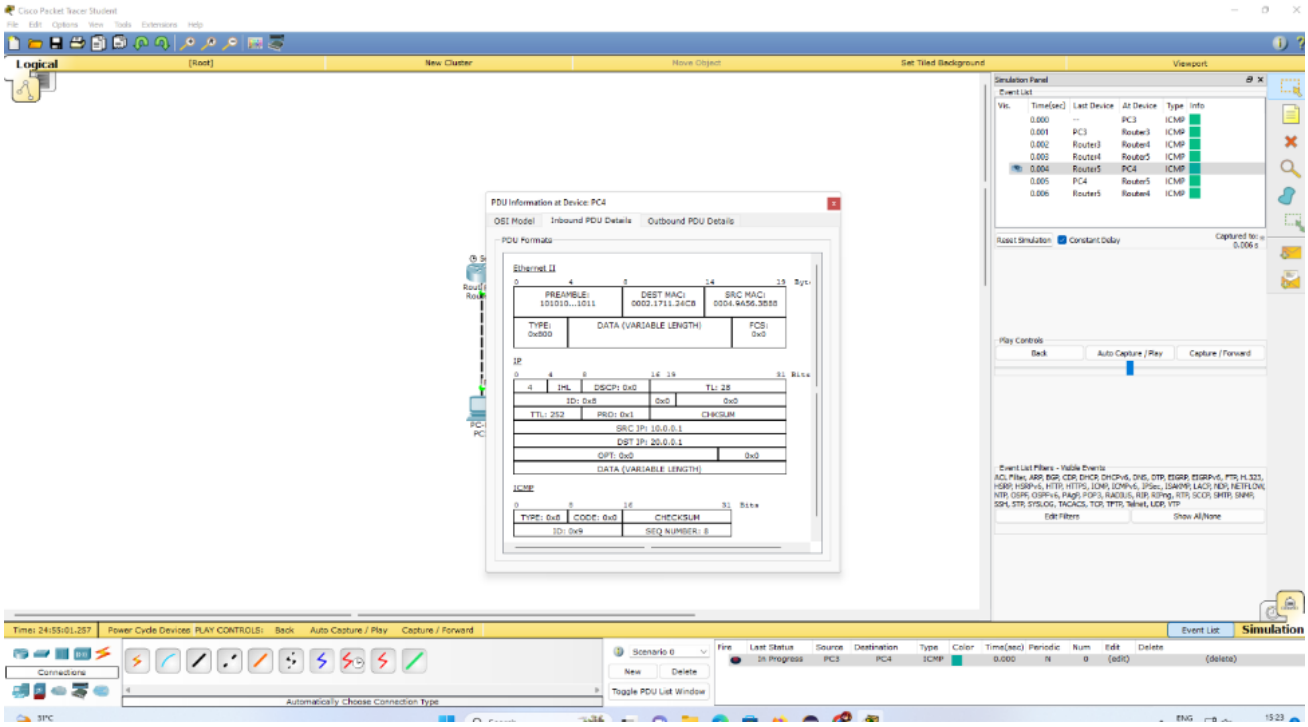
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete
In Progress
PC3
PC4
ICMP
(edit)
(delete)


Cisco Packet Tracer Student
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DEST MAC: 0002.1711.24CB
SRC MAC: 0004.9A56.3588
TYPE: 0x800
DATA (VARIABLE LENGTH)
FCS: 0x0
IP
4
IHL
DSCP: 0x0
TL: 28
ID: 0x8
0x0
0x0
TTL: 252
PRO: 0x1
CHKSUM
SRC IP: 10.0.0.1
DST IP: 20.0.0.1
OPT: 0x0
0x0
DATA (VARIABLE LENGTH)
ICMP
TYPE: 0x8
CODE: 0x0
CHECKSUM
ID: 0x9
SEQ NUMBER: 8
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Source
Destination
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Color
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Periodic
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Edit
Delete
In Progress
PC3
PC4
ICMP
(edit)
(delete)