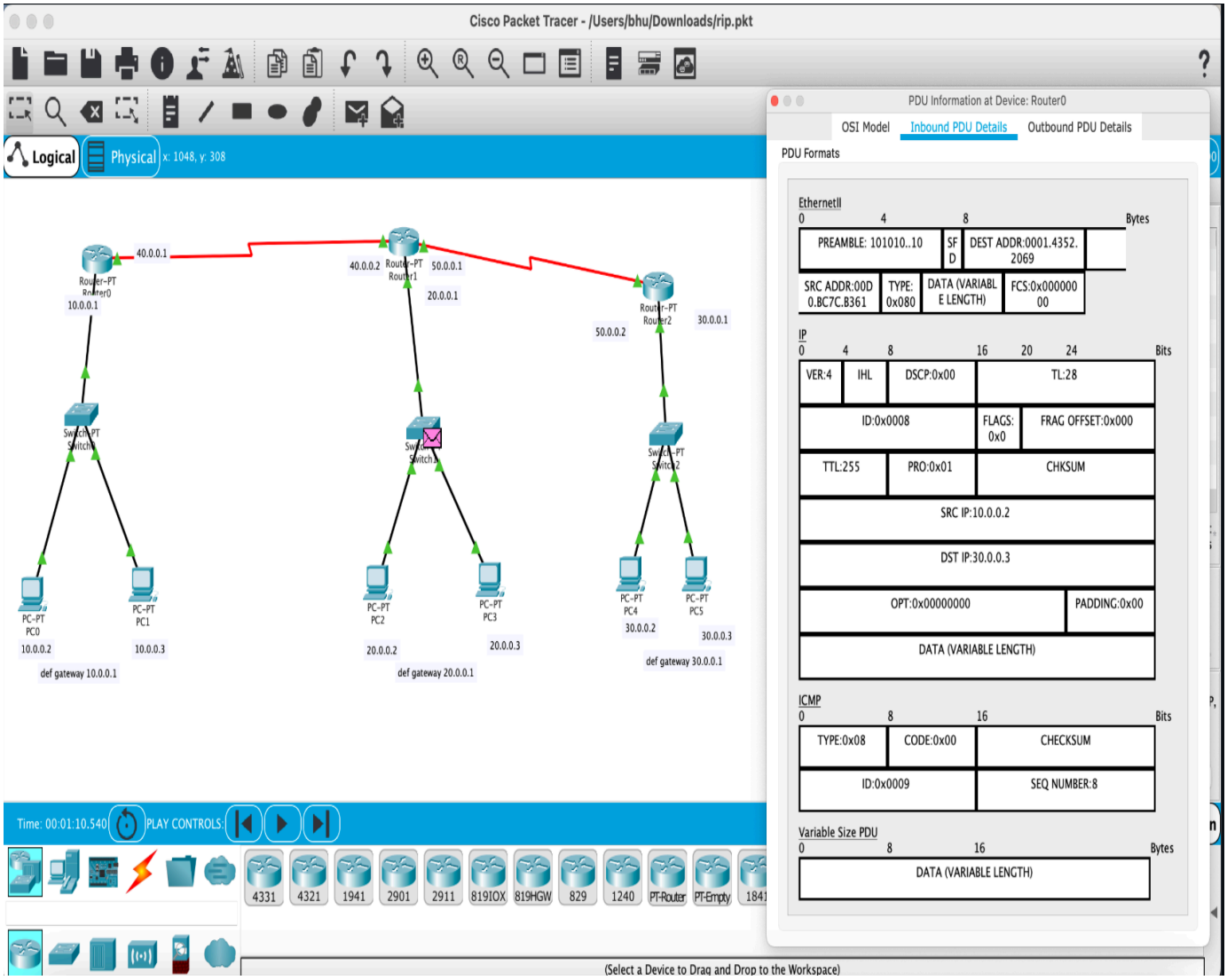
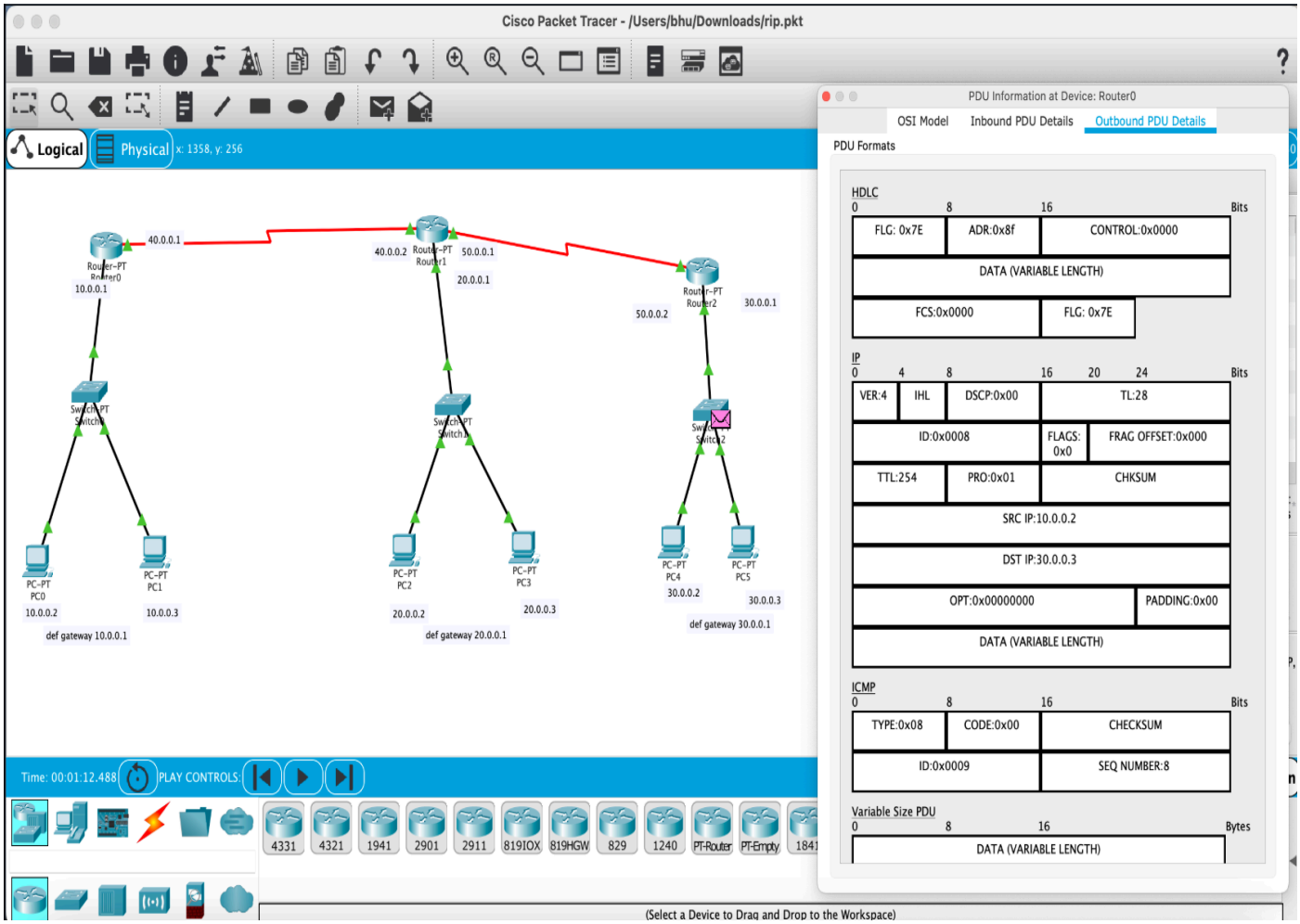
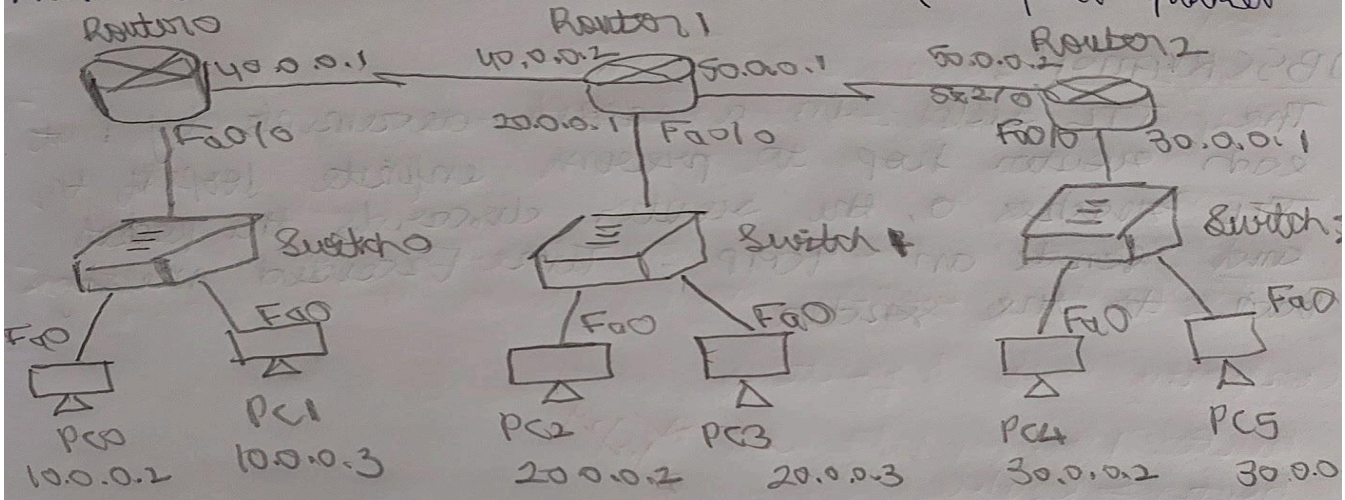

Cisco Packet Tracer - /Users/bhu/Downloads/rip.pkt
Logical
Physical
x: 1048, y: 308
Router-PT Router0
Router-PT Router1
Router-PT Router2
40.0.0.1
40.0.0.2
50.0.0.1
20.0.0.1
50.0.0.2
30.0.0.1
10.0.0.1
Switch-PT Switch0
Switch-PT Switch1
Switch-PT Switch2
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
PC-PT PC4
PC-PT PC5
10.0.0.2
10.0.0.3
20.0.0.2
20.0.0.3
30.0.0.2
30.0.0.3
def gateway 10.0.0.1
def gateway 20.0.0.1
def gateway 30.0.0.1
Time: 00:01:10.540
PLAY CONTROLS:
4331
4321
1941
2901
2911
819IOX
819HGW
829
1240
PT-Router
PT-Empty
(Select a Device to Drag and Drop to the Workspace)
PDU Information at Device: Router0
OSI Model
Inbound PDU Details
Outbound PDU Details
PDU Formats
EthernetII
0
4
8
Bytes
PREAMBLE: 101010..10
SFD
DEST ADDR:0001.4352.2069
SRC ADDR:00D0.BC7C.B361
TYPE: 0x080
DATA (VARIABLE LENGTH)
FCS:0x00000000
IP
0
4
8
16
20
24
Bits
VER:4
IHL
DSCP:0x00
TL:28
ID:0x0008
FLAGS: 0x0
FRAG OFFSET:0x000
TTL:255
PRO:0x01
CHKSUM
SRC IP:10.0.0.2
DST IP:30.0.0.3
OPT:0x00000000
PADDING:0x00
DATA (VARIABLE LENGTH)
ICMP
0
8
16
Bits
TYPE:0x08
CODE:0x00
CHECKSUM
ID:0x0009
SEQ NUMBER:8
Variable Size PDU
0
8
16
Bytes
DATA (VARIABLE LENGTH)


Cisco Packet Tracer - /Users/bhu/Downloads/rip.pkt
Logical
Physical
x: 1358, y: 256
Router-PT Router0
Router-PT Router1
Router-PT Router2
40.0.0.1
40.0.0.2
50.0.0.1
50.0.0.2
20.0.0.1
10.0.0.1
30.0.0.1
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
PC-PT PC4
PC-PT PC5
10.0.0.2
10.0.0.3
20.0.0.2
20.0.0.3
30.0.0.2
30.0.0.3
def gateway 10.0.0.1
def gateway 20.0.0.1
def gateway 30.0.0.1
Time: 00:01:12.488
PLAY CONTROLS:
4331
4321
1941
2901
2911
819IOX
819HGW
829
1240
PT-Router
PT-Empty
(Select a Device to Drag and Drop to the Workspace)
PDU Information at Device: Router0
OSI Model
Inbound PDU Details
Outbound PDU Details
PDU Formats
HDLC
0 8 16 Bits
FLG: 0x7E
ADR:0x8f
CONTROL:0x0000
DATA (VARIABLE LENGTH)
FCS:0x0000
FLG: 0x7E
IP
0 4 8 16 20 24 Bits
VER:4
IHL
DSCP:0x00
TL:28
ID:0x0008
FLAGS: 0x0
FRAG OFFSET:0x000
TTL:254
PRO:0x01
CHKSUM
SRC IP:10.0.0.2
DST IP:30.0.0.3
OPT:0x00000000
PADDING:0x00
DATA (VARIABLE LENGTH)
ICMP
0 8 16 Bits
TYPE:0x08
CODE:0x00
CHECKSUM
ID:0x0009
SEQ NUMBER:8
Variable Size PDU
0 8 16 Bytes
DATA (VARIABLE LENGTH)

EXPERIMENT-6

a) Demonstrate the TTL or Life of a packet

AIM: To determine the TTL or Life of a packet



TOPOLOGY:

1) Connect Router 0 to Router 1 and Router 1 to Router 2 using a cross-over cable
2) Connect Router 0 to switch 0 using copper straight cable parallelly repeat for router 1 to switch 1 & router 2 to switch 2
3) Connect 6 PC's (2 each) to each of the switch using copper straight cable and assign IP addresses

Procedure:

1) Open cisco packet tracer and establish the topology as shown above
2) Select the simple PDU and select source and destination
3) Include the PC0 and PC5 as part of the communication that is to take place, the switch to simulation mode

4) Start the simulation by checking on auto capture play button and observe the TTL of a packet

OBSERVATION :

The TTL field in a packet decrements by 1 o each router hop to prevent infinite loops If t TTL reaches 0, the router discards the packet and sends an ICMP - "Time Exceeded" messag back to the sender

✓ N
26/12/24