

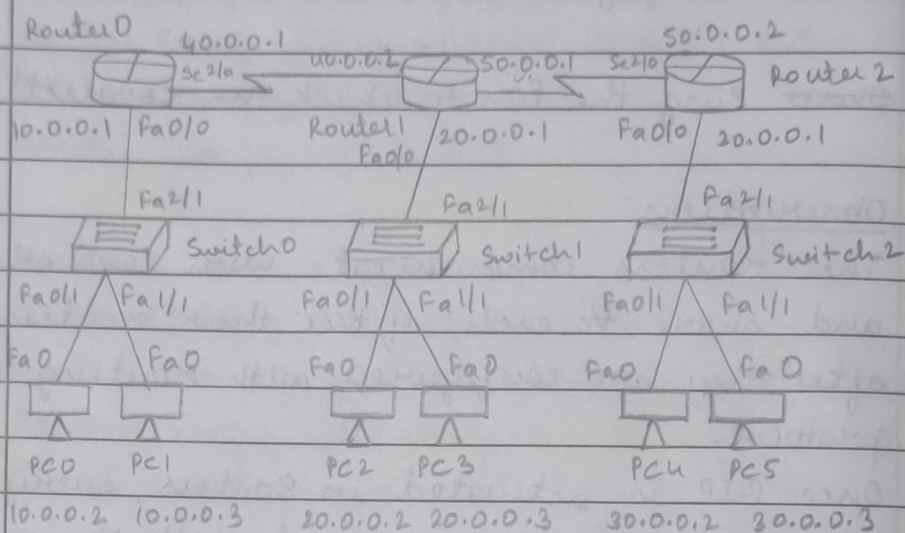
## Experiment - 6

Date 20/11/24

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Q. 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 & Router 1 to Router 2 using a serial-dct cable.
2. Connect Router 0 to switch 0 using copper straight cable. <sup>1114</sup> 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 & assign ip addresses

### Observat Procedure:

1. Open cisco packet tracer & establish the topology as shown above.

2. Select the simple PDU icon & select source & destination
3. Include the PC0 and PC5 as part of the communication that is to take place, then switch to simulation mode.
4. Start the simulation by clicking on auto capture/play button & observe the TTL of a packet.

### Observation:

The TTL field in a packet decrements by 1 at each router hop to prevent infinite loops. If the TTL reaches 0, the router discards the packet and sends an ICMP (Internet Control Message Protocol) "Time Exceeded" message back to the sender.