Lab Assignment-2



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COURSE: Computer Networks

SLOT: L21+22

TASK: CREATE A WAN USING A ROUTER AND TWO SWITCHES.

Router:

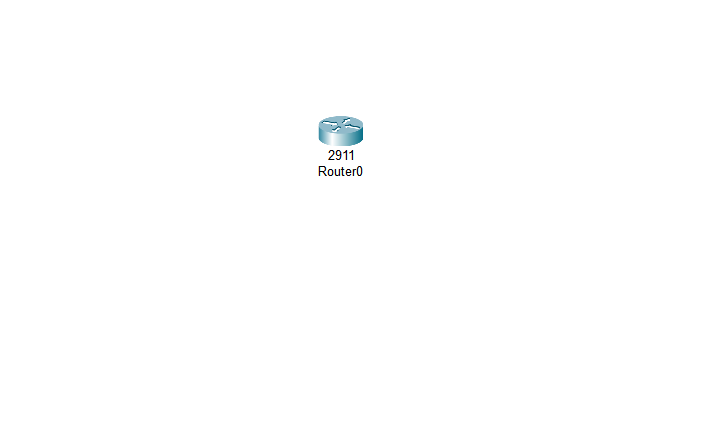
A router is a device that connects two or more packet-switched networks or subnetworks.

It serves two primary functions:

managing traffic between these networks by forwarding data packets to their intended IP addresses

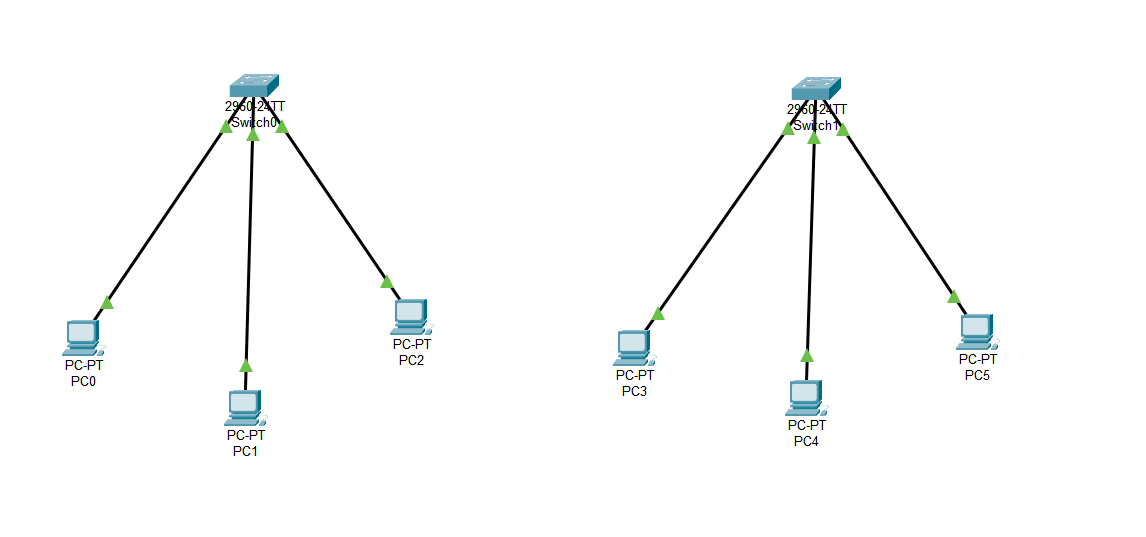
and allowing multiple devices to use the same Internet connection.

Example: Mail Carrier

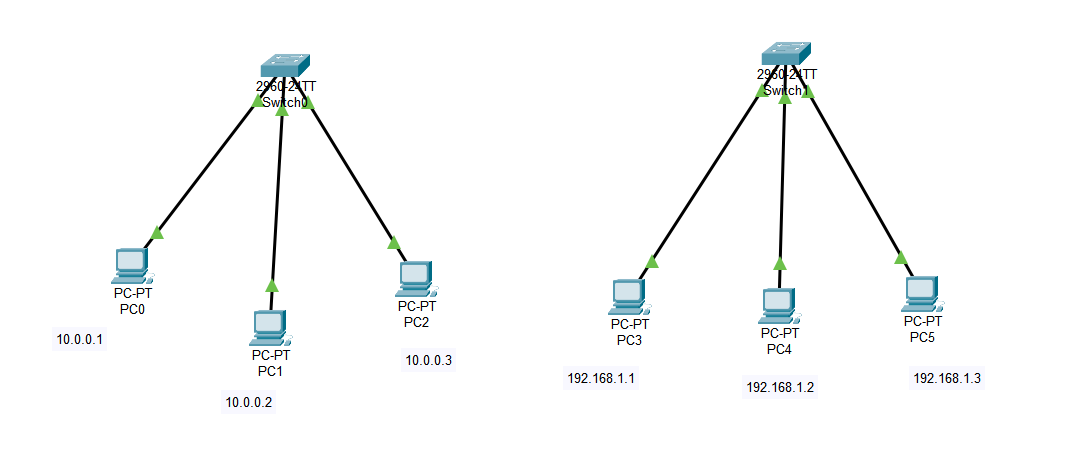


To create A WAN using a Router and Two switches

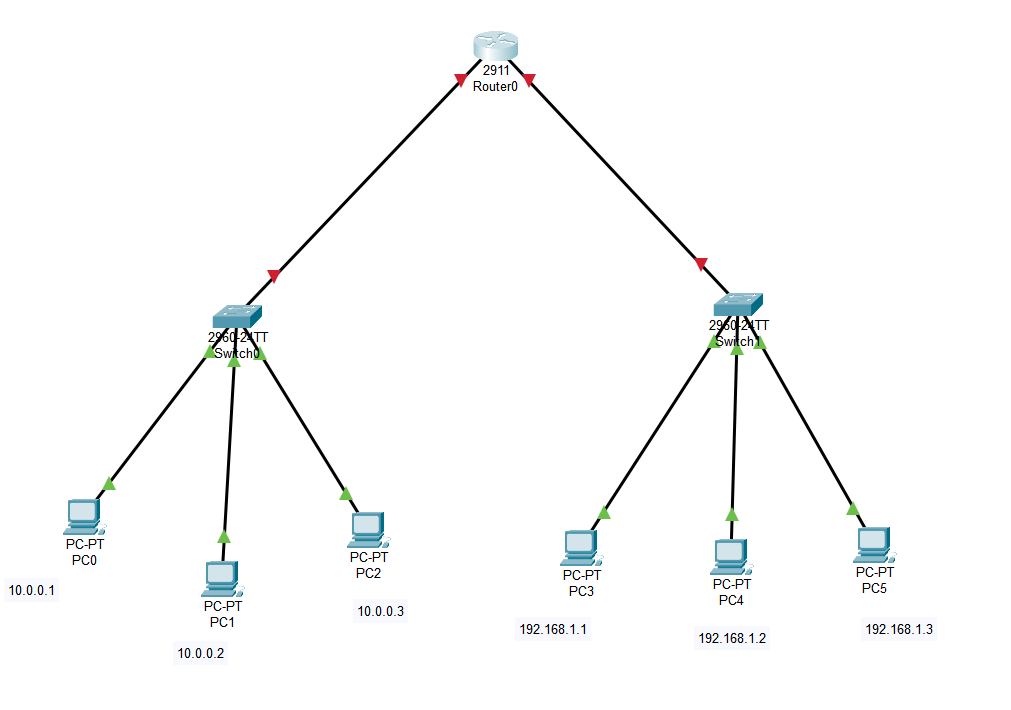
STEP 1: Create 2 LANs



STEP 2: Give IP configuration for each PC for both LANs



STEP 3: Connect the 2 LANs with the help of a Router.



STEP 4: Router must be configured using CLI.

For interface 1:

Router>enable

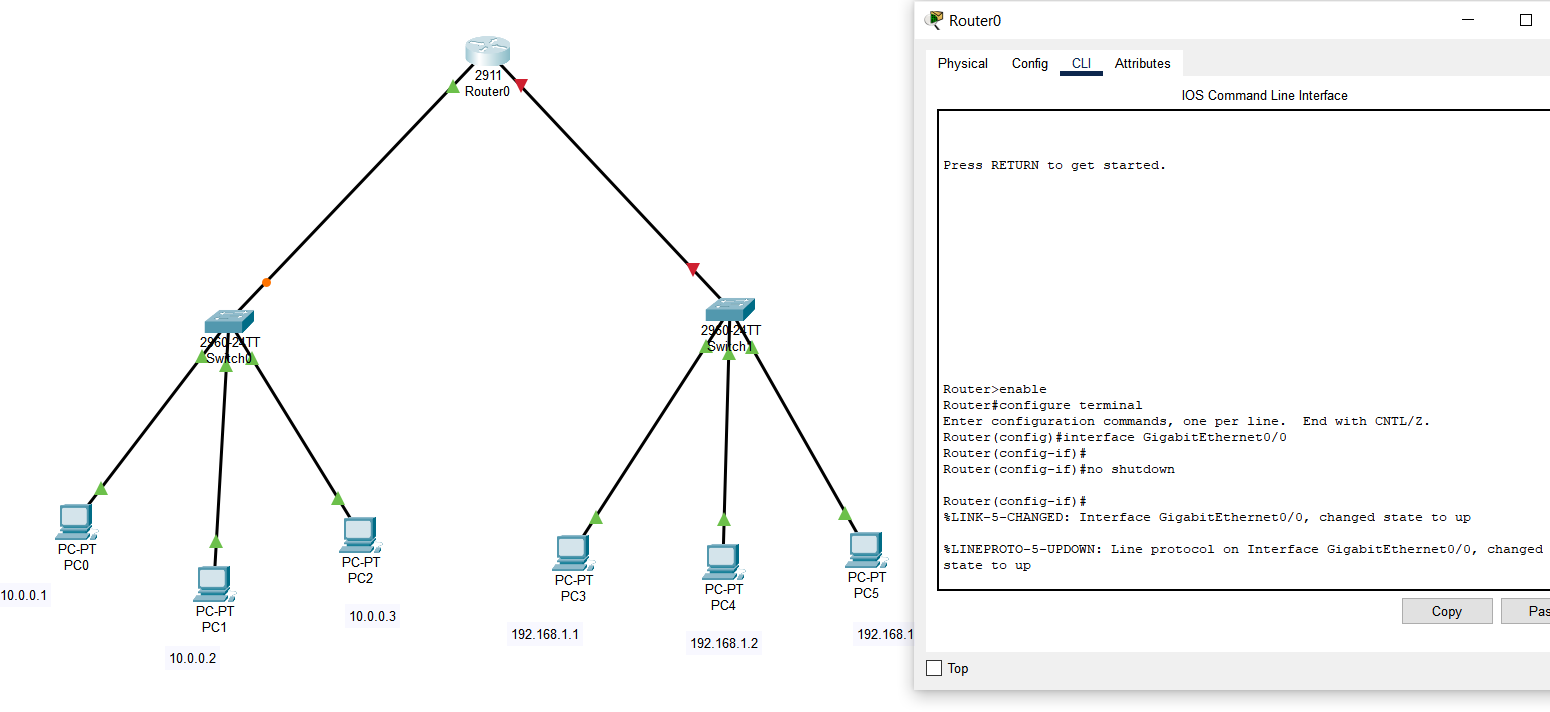
Router#configure terminal

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#interface GigabitEthernet0/0

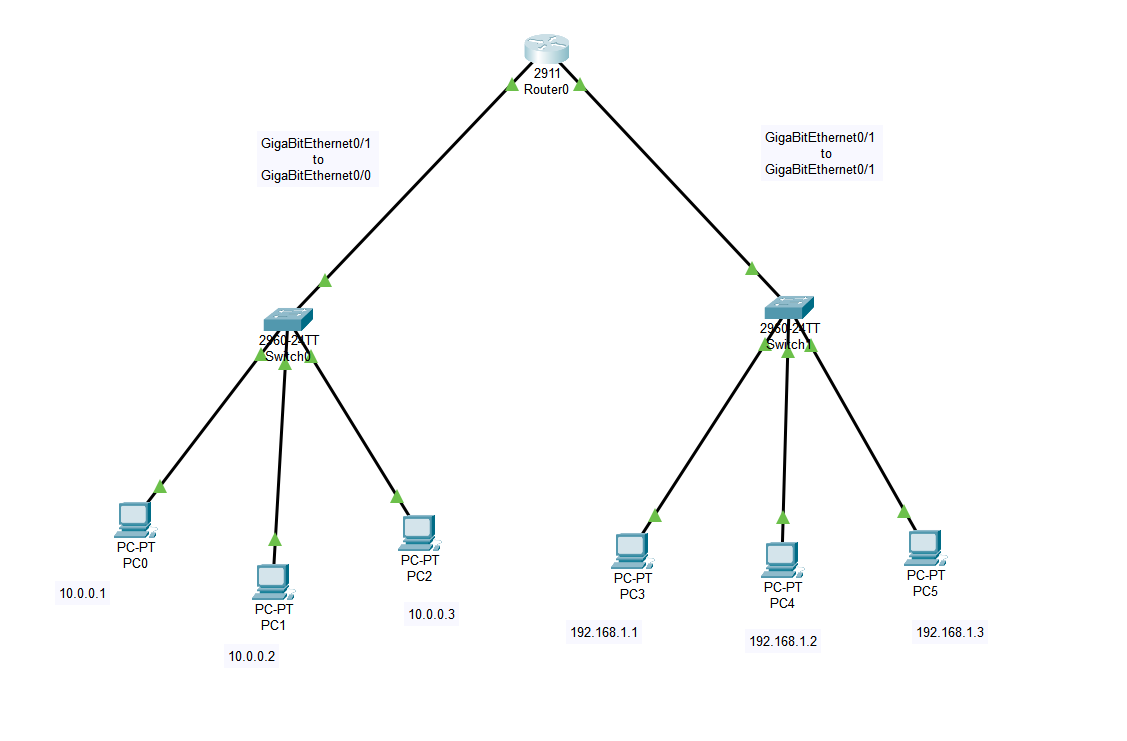
Router(config-if)#

Router(config-if)#no shutdown



Follow the same process for interface 2. We have now configured the router by turning

on the port status using CLI.



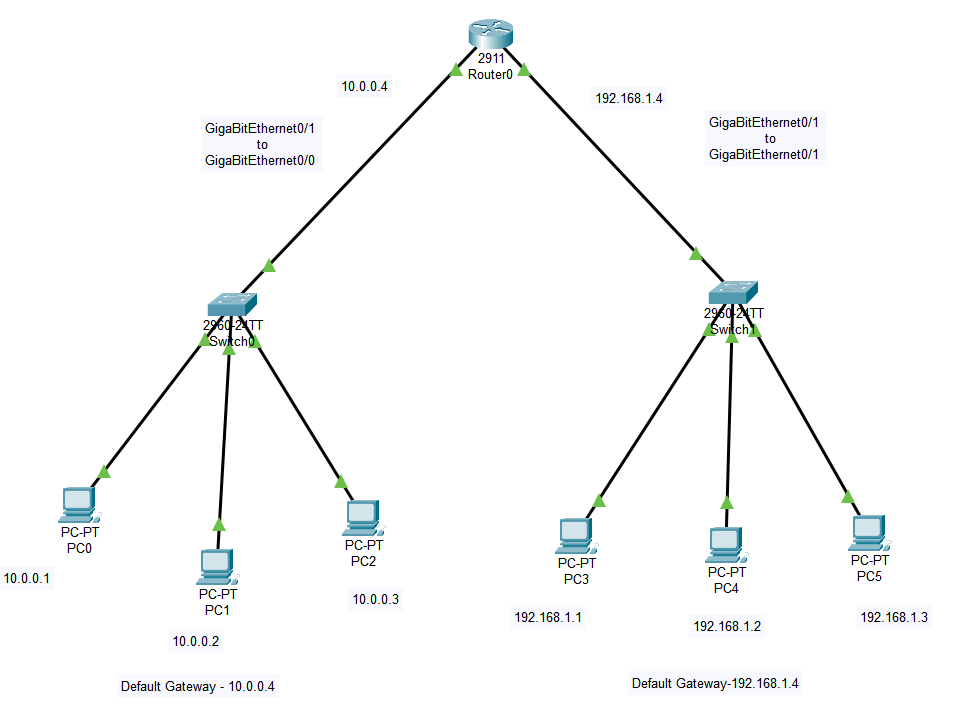
STEP 5: Give IP Addresses for the interfaces of router and set Default gateways to the Pcs

For GigabitEthernet0/0 – 10.0.0.4

For GigabitEthernet0/1 \_ 192.168.1.4

For LAN 1 – Default Gateway = 10.0.0.4

For LAN 2 \_ Default Gateway = 192.168.1.4



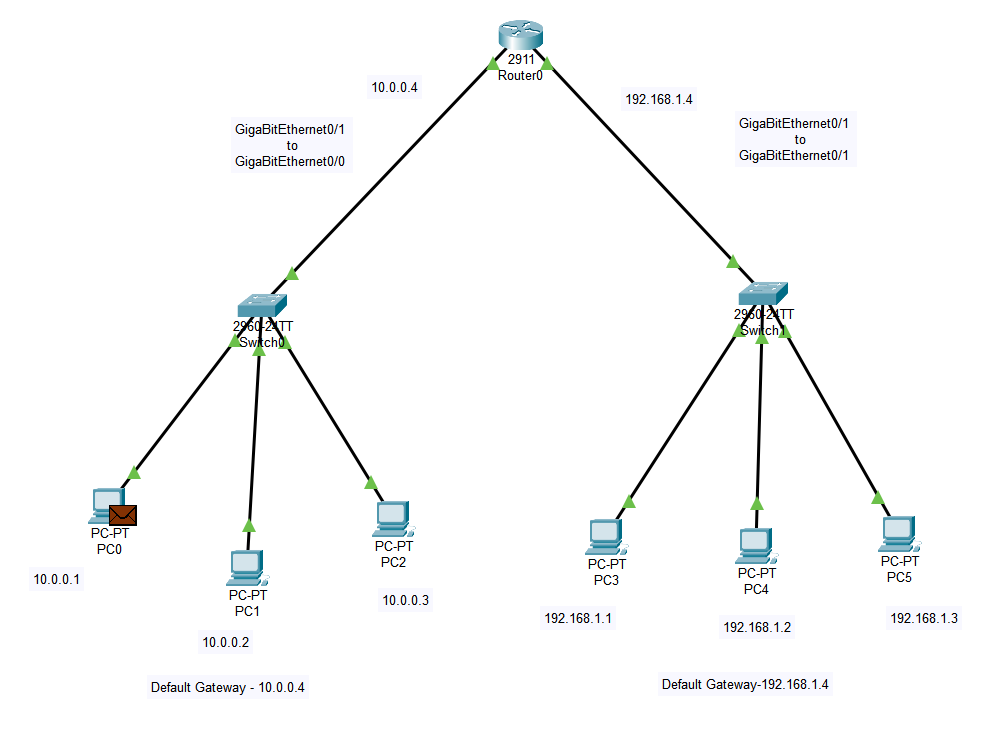
Step 6: Take a Simple PDU and Give source and Destination PC and check whether the

WAN is working.

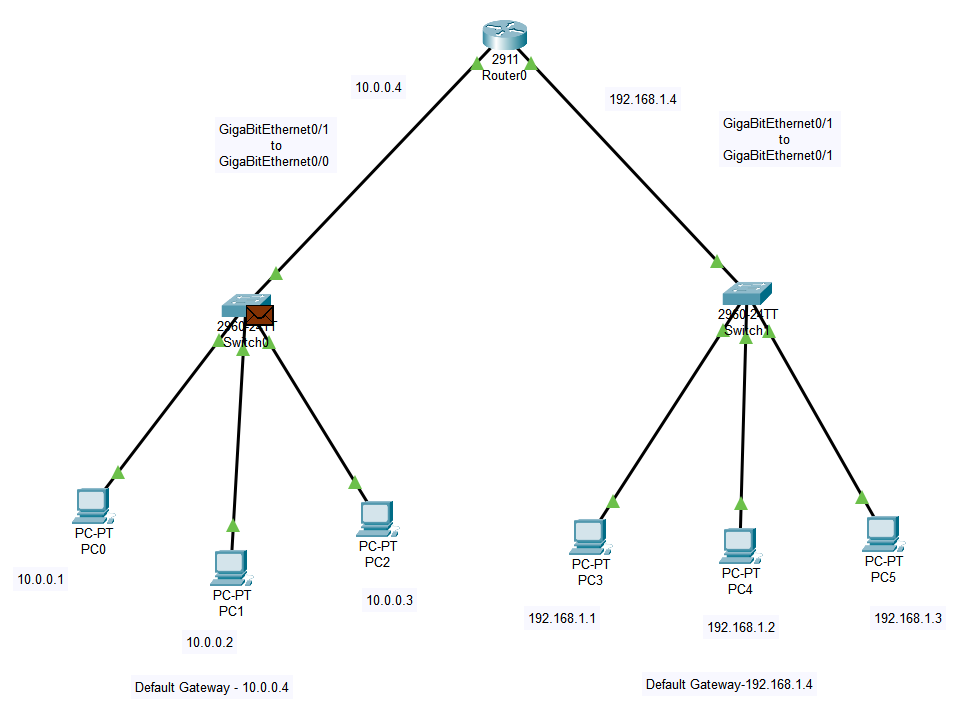
Source – PC0(10.0.0.1)

Destination – PC4(192.168.1.2)

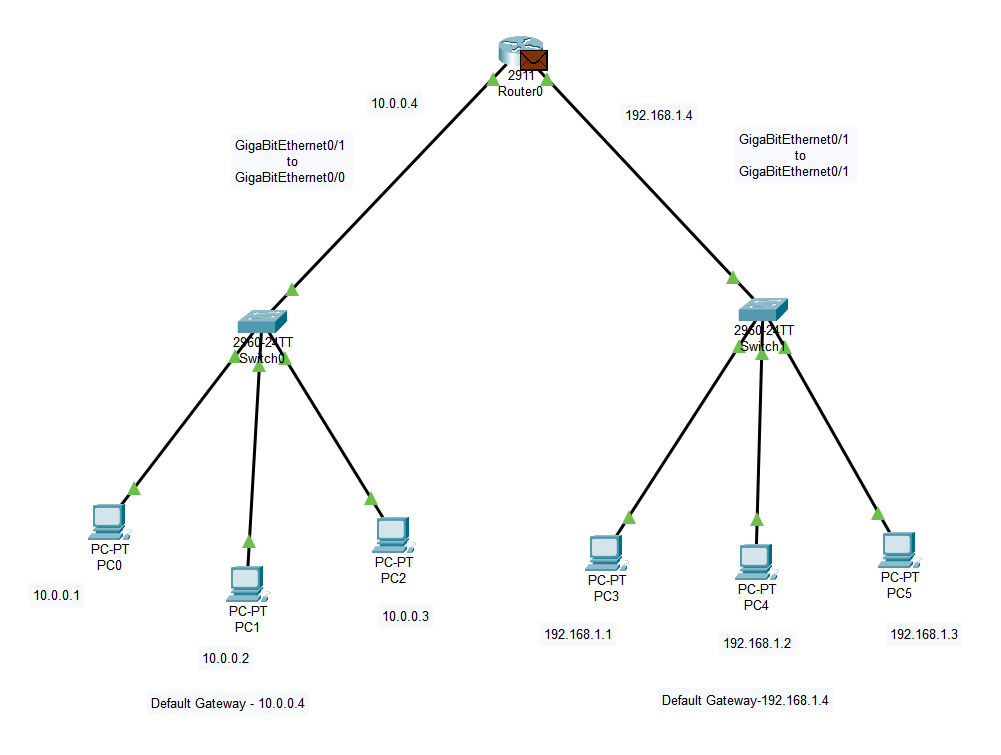
1)



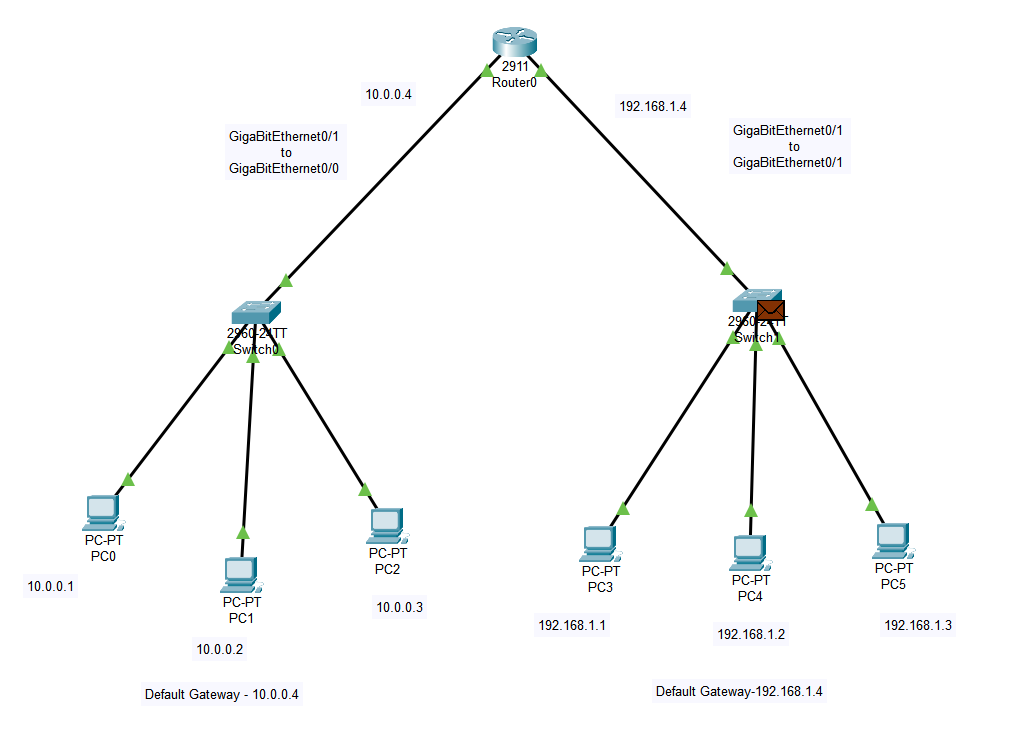
2)



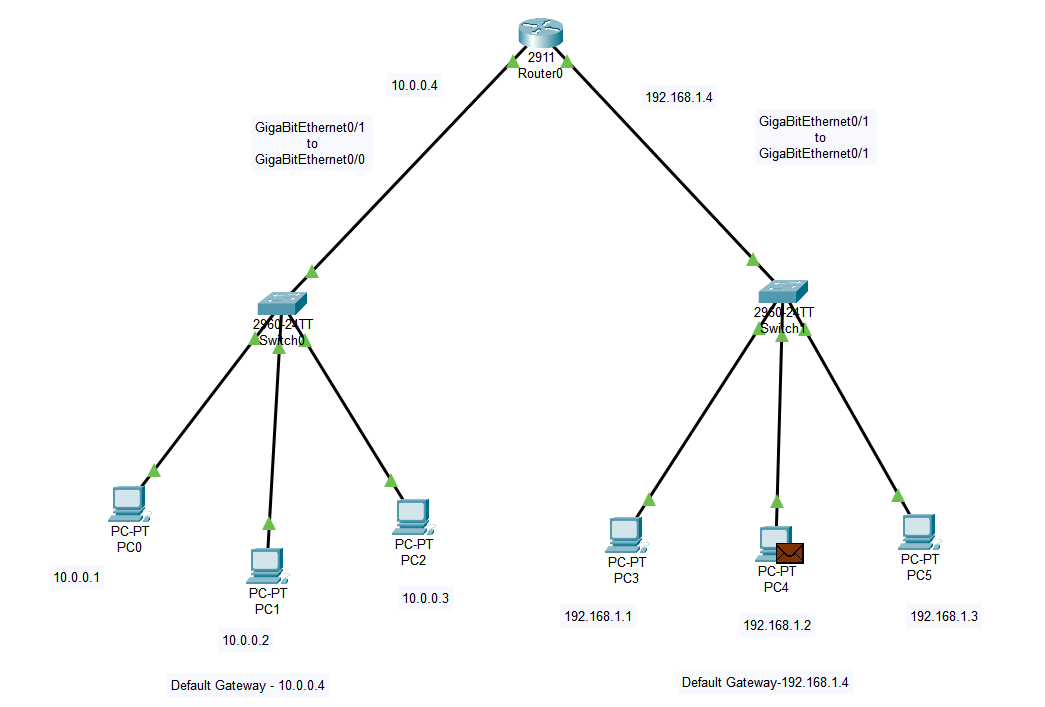
3)



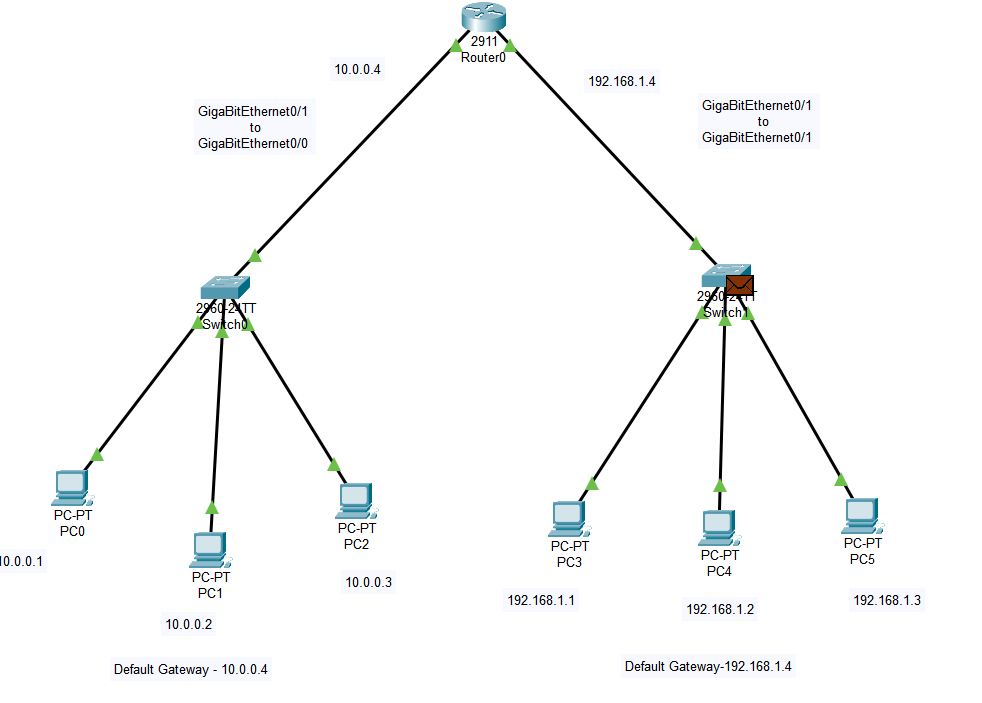
4)



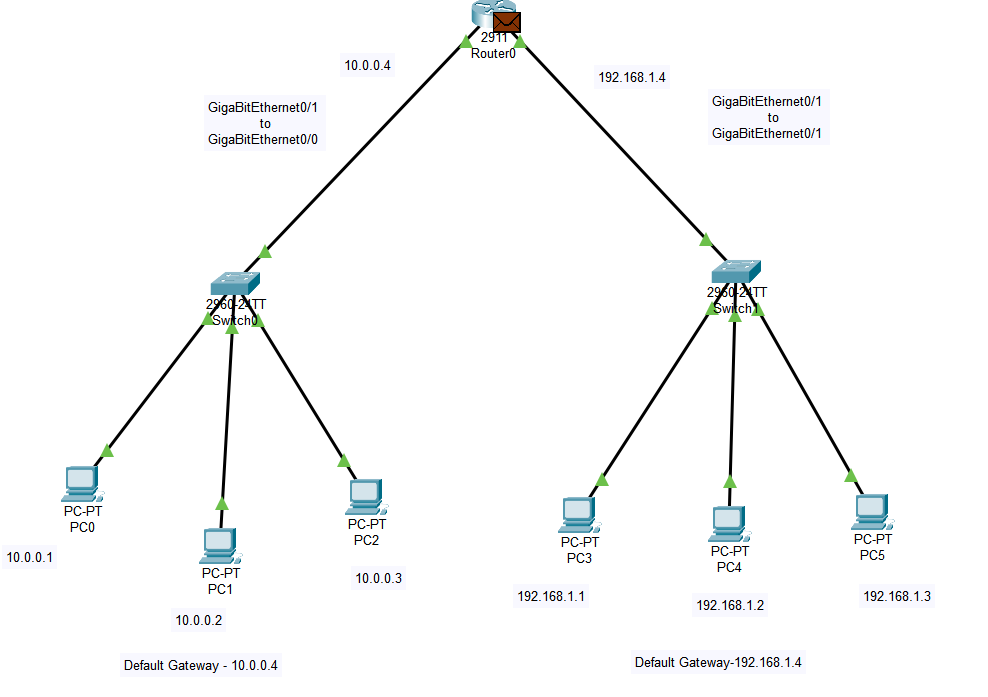
5)



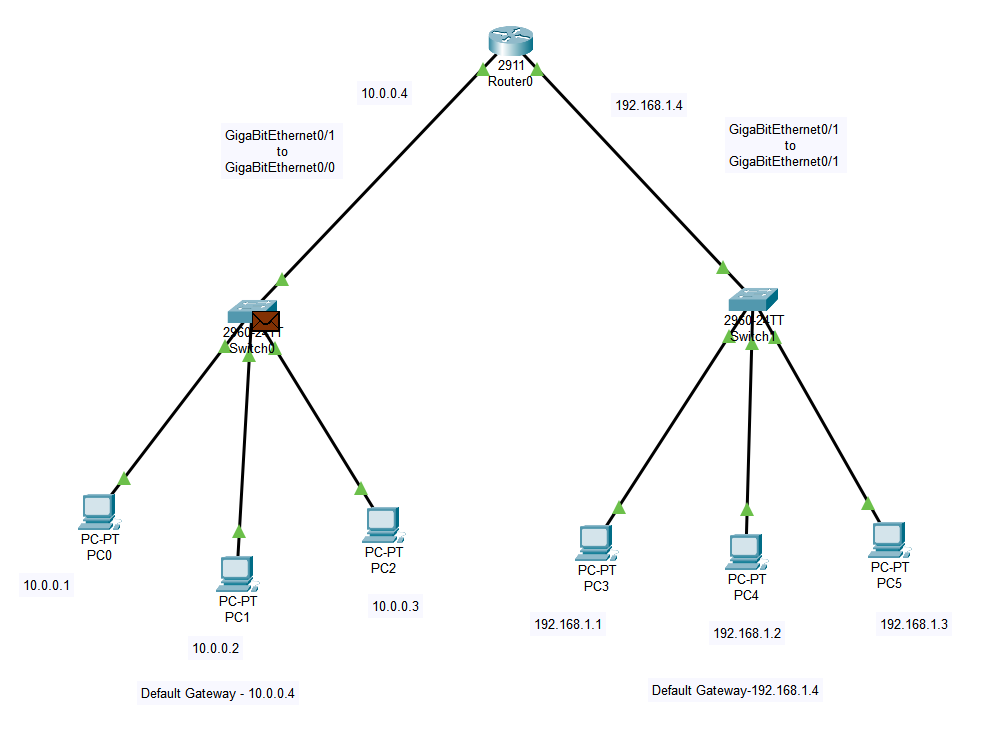
6)



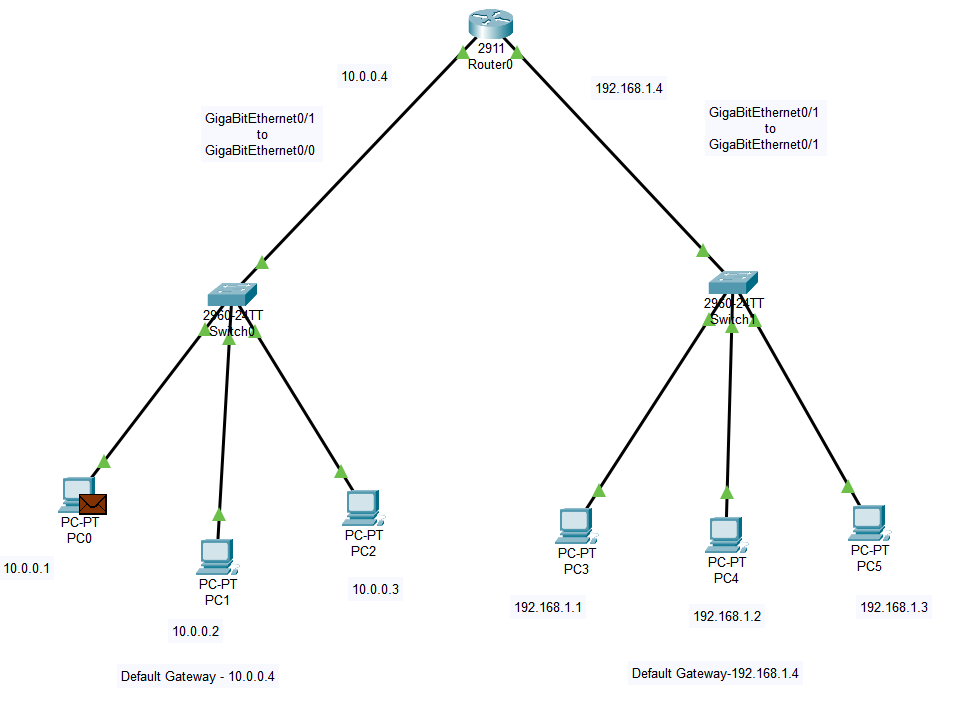
7)



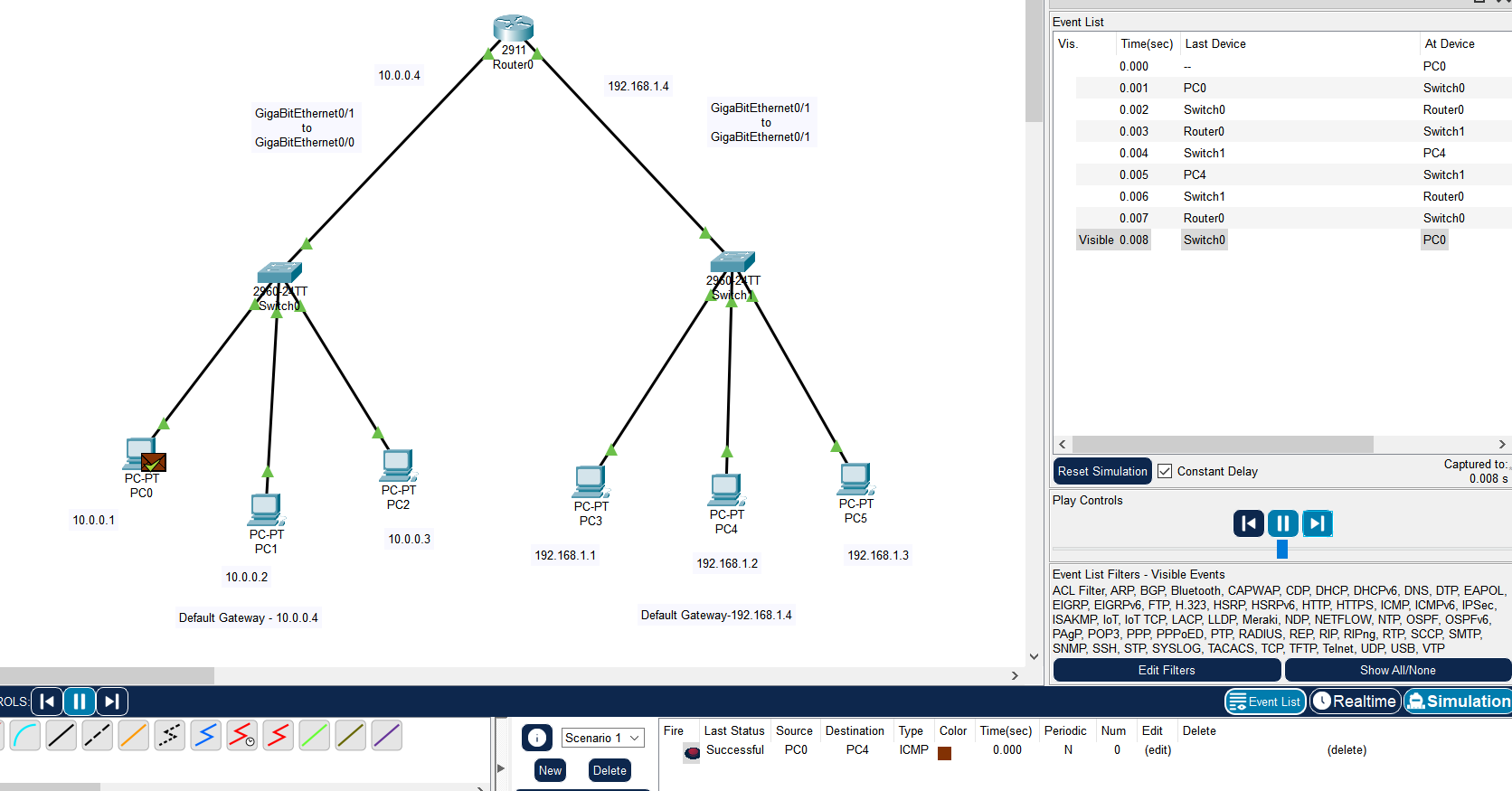
8)



9)



Final output:



END