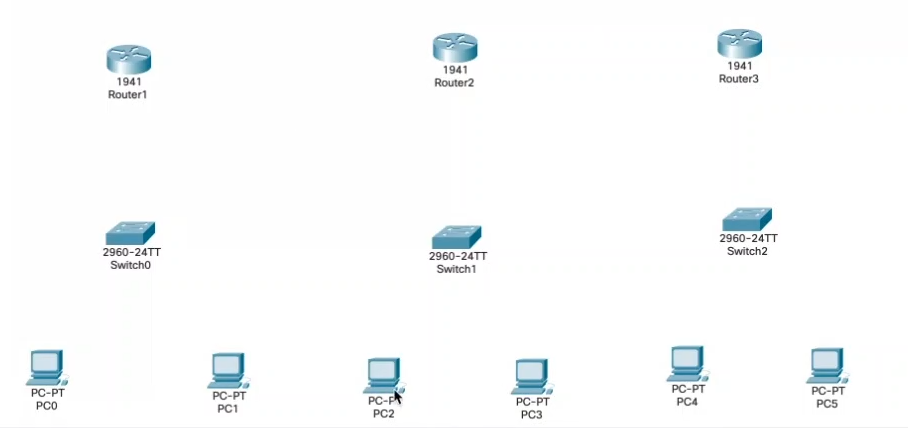
Computer Networks (CS303)

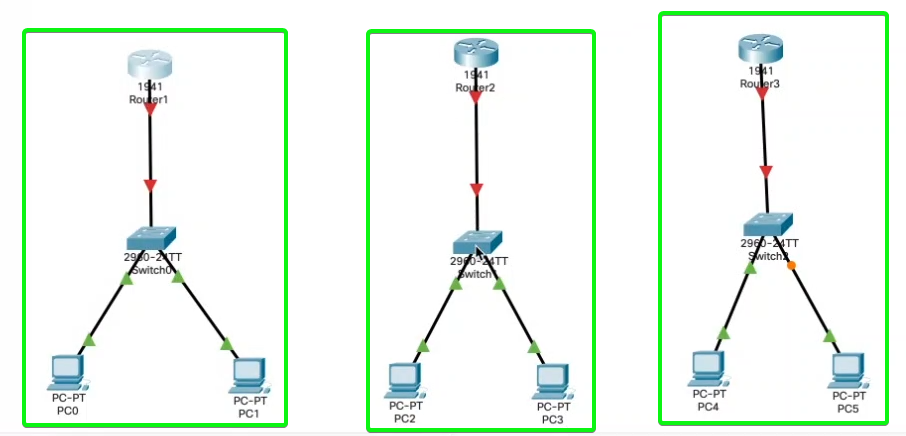
Assignment - 8

**U19CS012**

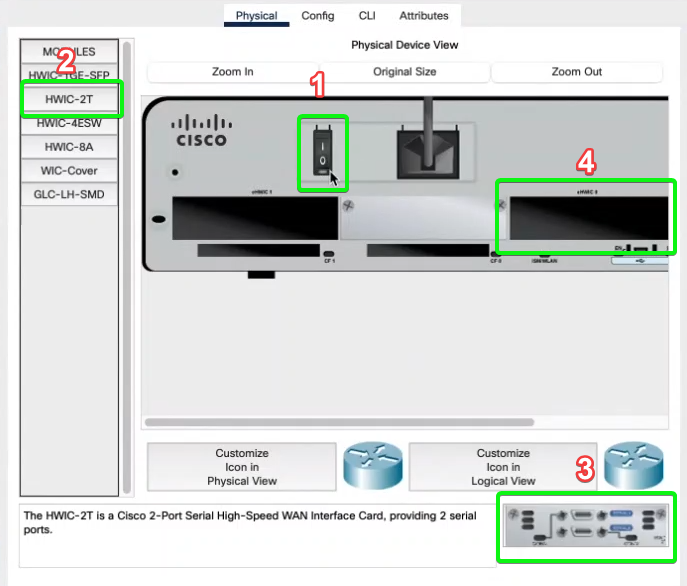
1) Implement **Static Routing** in Cisco Packet Tracer.

**Step 1**: Select 6 PC’s, 3 Switches and 3 Routers and Place them as Shown in Figure Below. 

**Step 2**: Also Connect them using Wire. Basically, we want to Develop 3 Network consisting of {2 PC, 1 Switch and 1 Router}.

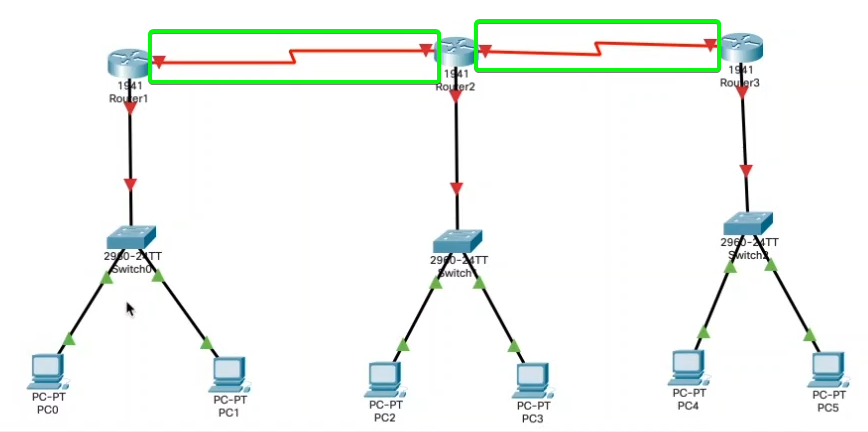


**Step 3**: Since we require 3 Points for Connection, we will add “**HWIC-2T**” [High Speed Interface Card]



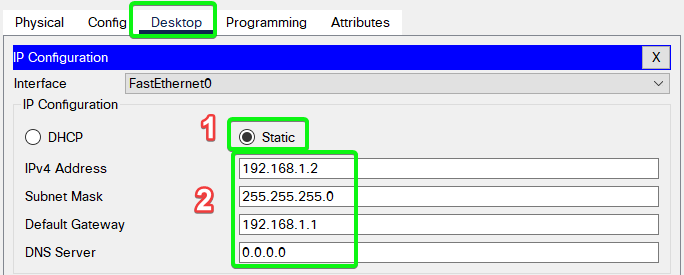
Add it for all three Routers.

**Step 4:** Connect the Routers with Automatic Wiring.

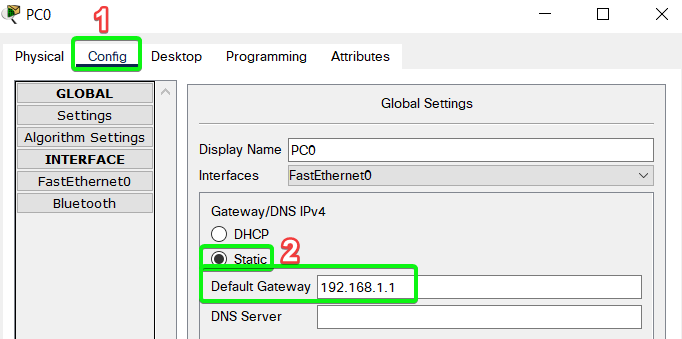


**Step 5**: Configure the IP Address of Each PC as shown below.

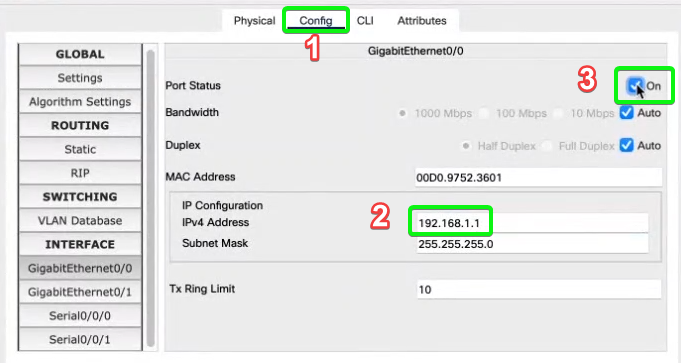


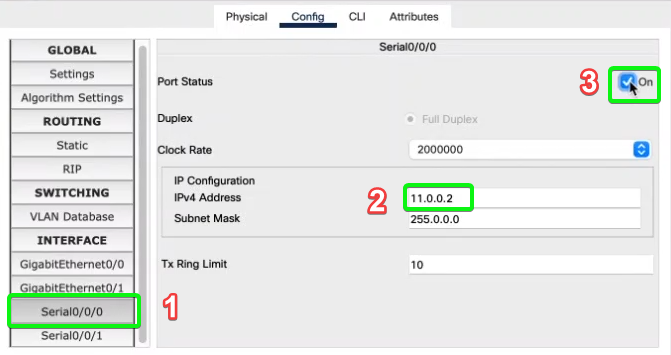


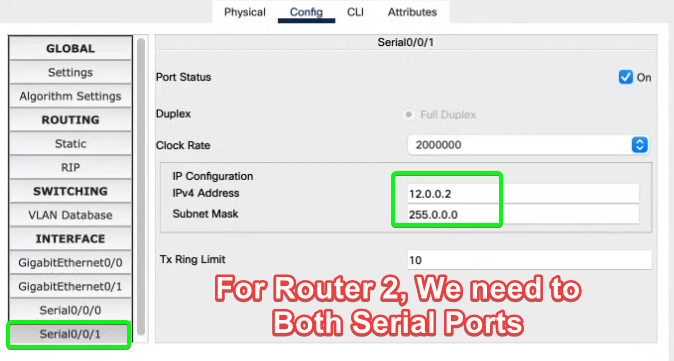
Also, Don’t Forget to Configure the Default Gateway.



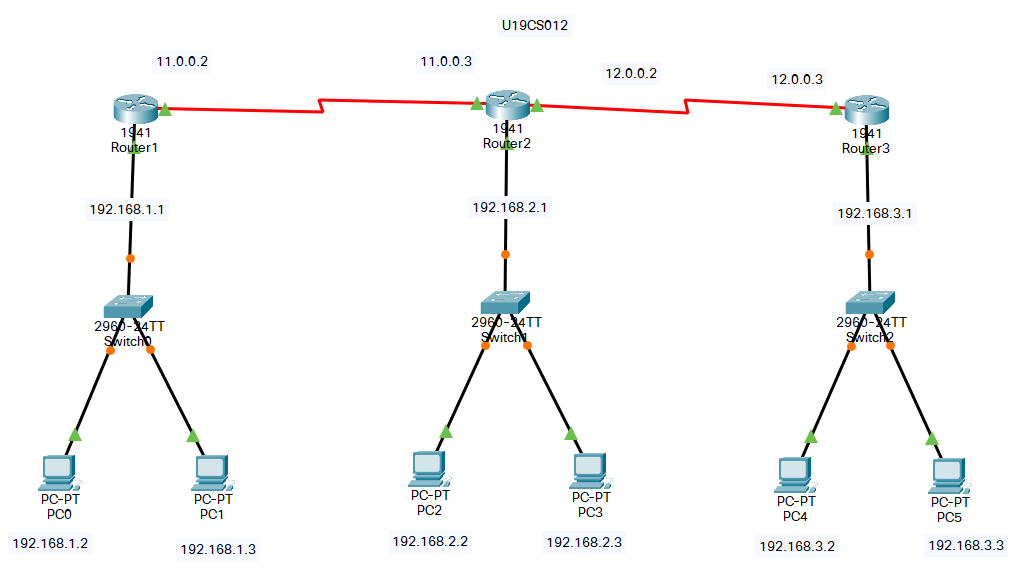
**Step 6**: Configure each Router as shown below.



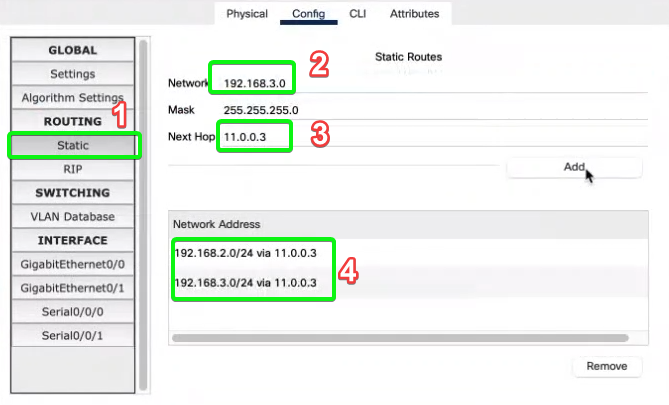




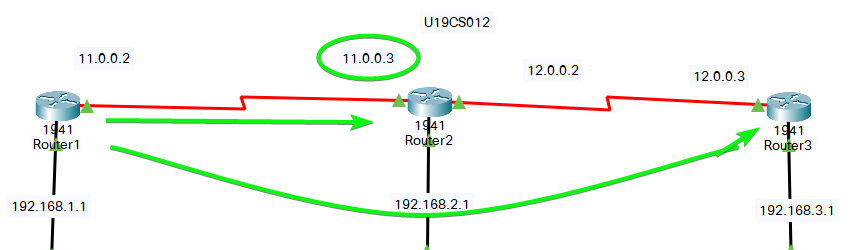
**Step 7**: Label Each PC and Router as Shown Below.



**Step 8**: Add Static Routes Paths for Each Router

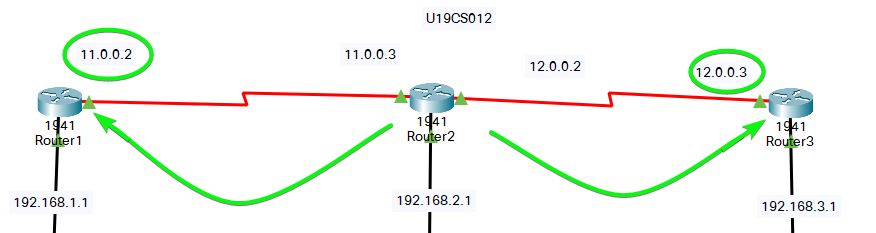


**Router 1**: To Reach From 192.168.1.0 to {192.168.2.0 & 192.168.3.0} we need to Hop via {11.0.0.3}.

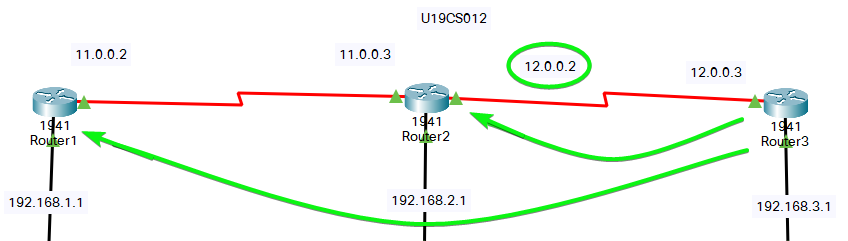


**Router 2**: To reach From 192.168.2.0 to {192.168.1.0} we need to Hop via {11.0.0.2}.

To Reach From 192.168.2.0 to {192.168.3.0} we need to Hop via {12.0.0.3}.

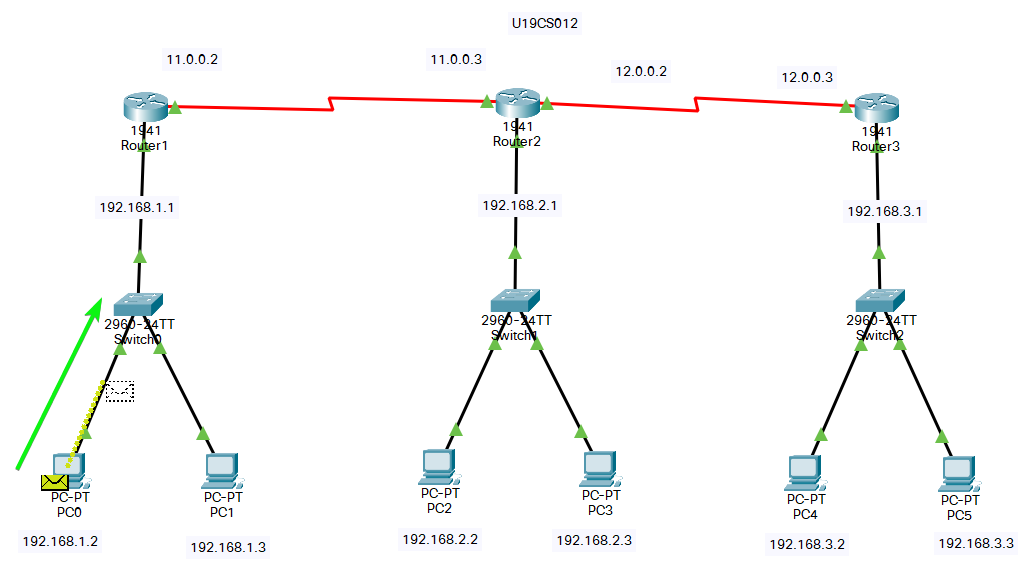


**Router 3**: To reach From 192.168.3.0 to {192.168.1.0 & 192.168.2.0} we need to Hop via {12.0.0.2}.

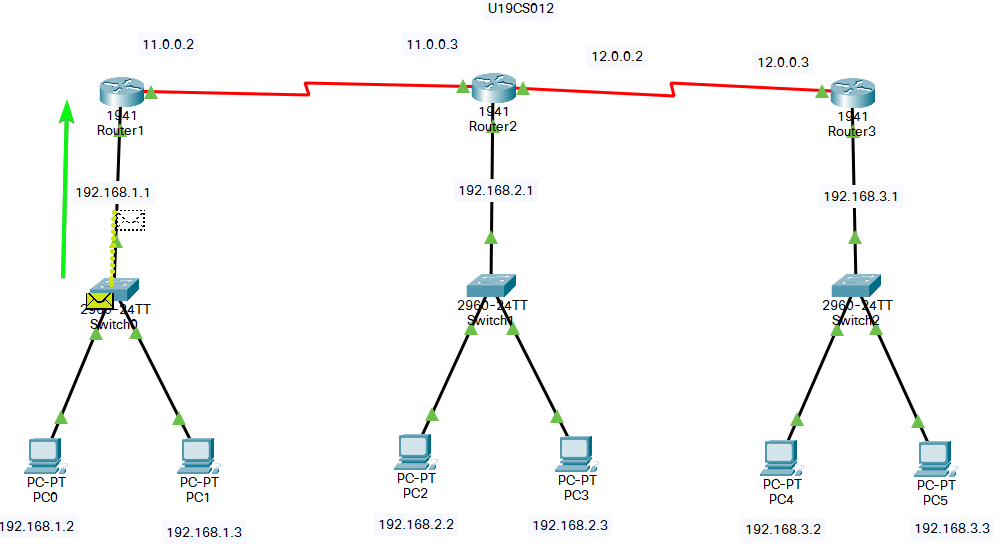


**Simulation**

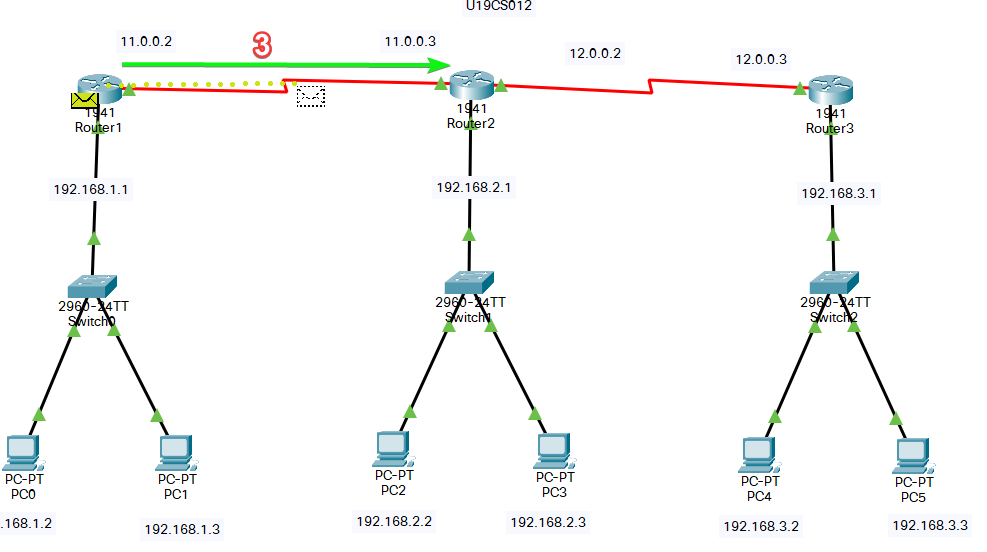
Static Routing Step 1



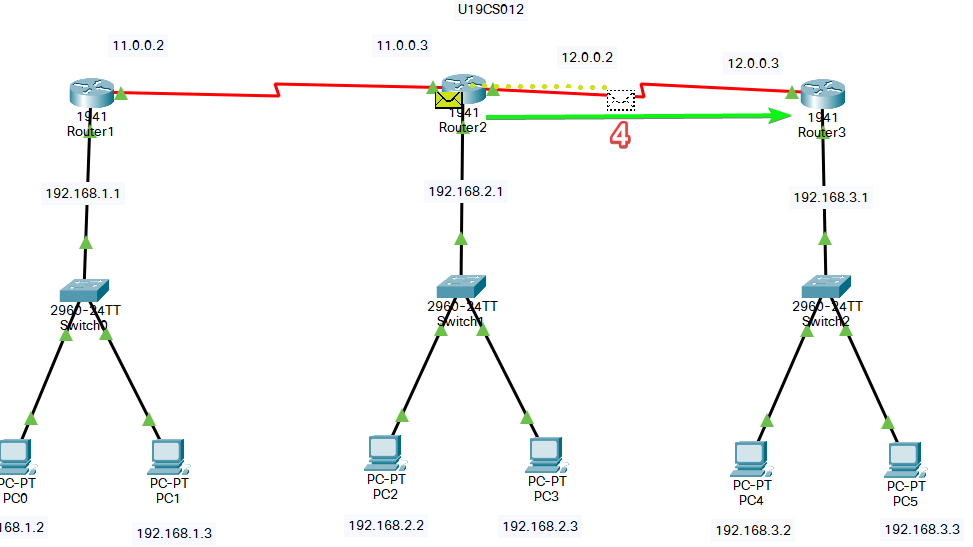
Static Routing Step 2



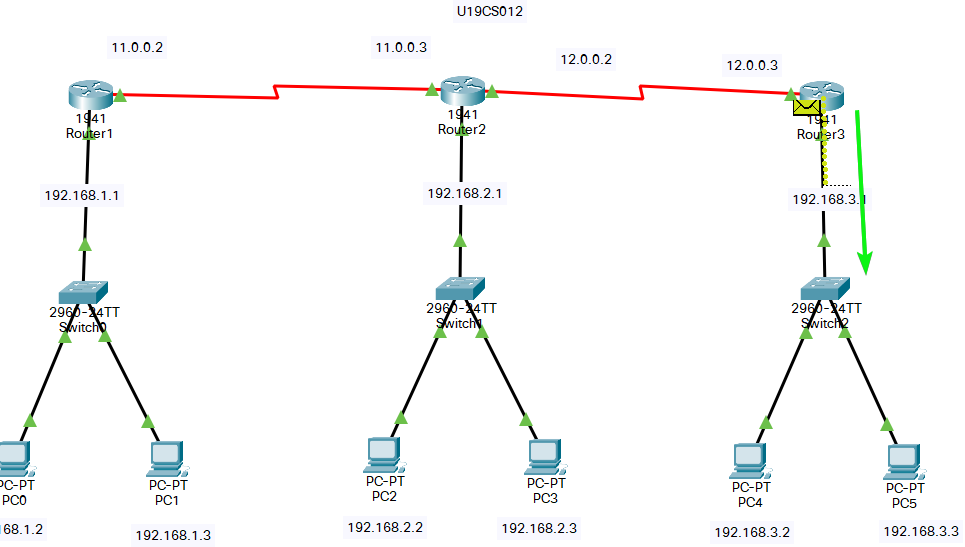
Static Routing Step 3



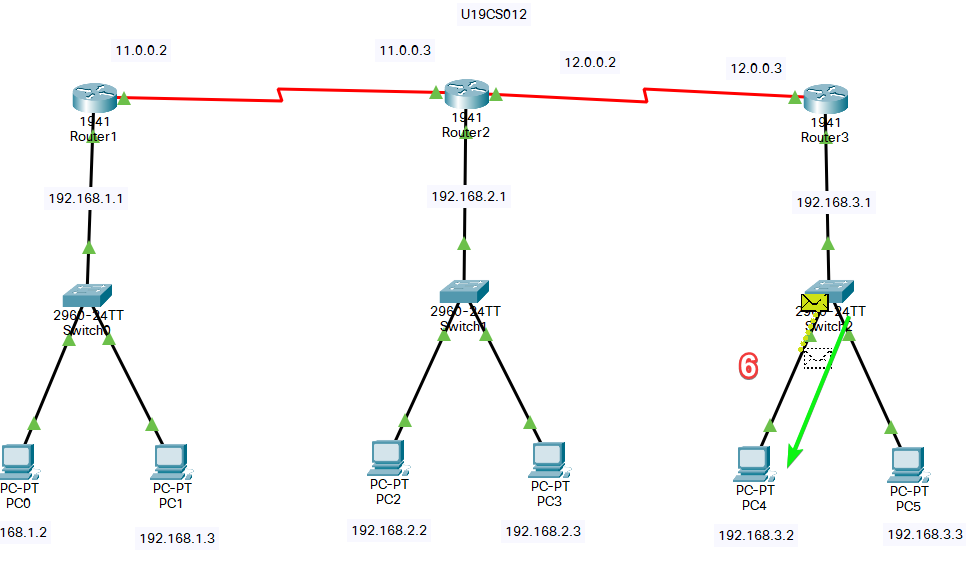
Static Routing Step 4



Static Routing Step 5

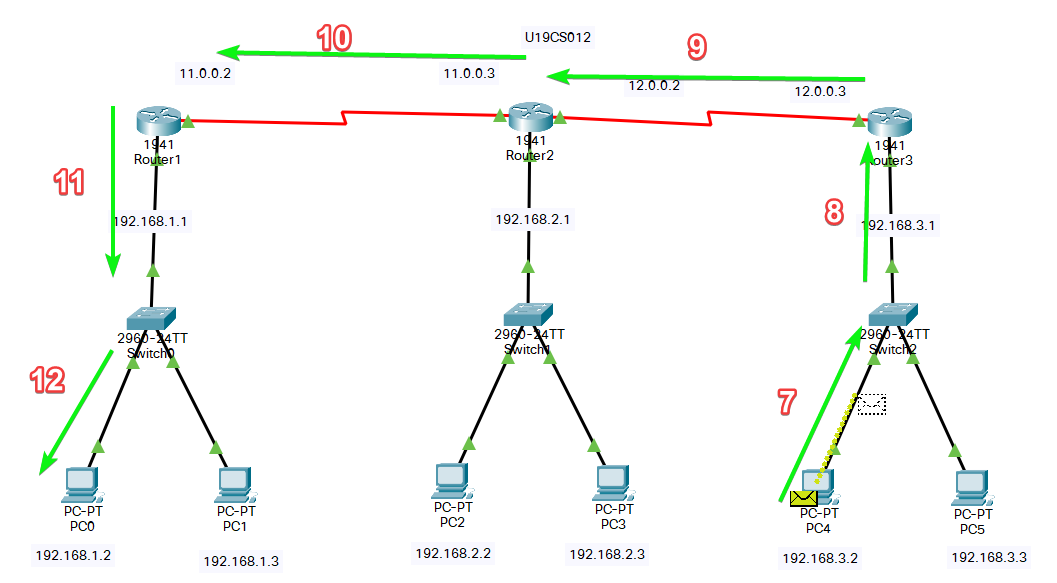


Static Routing Step 6



Static Routing Step **7-12**

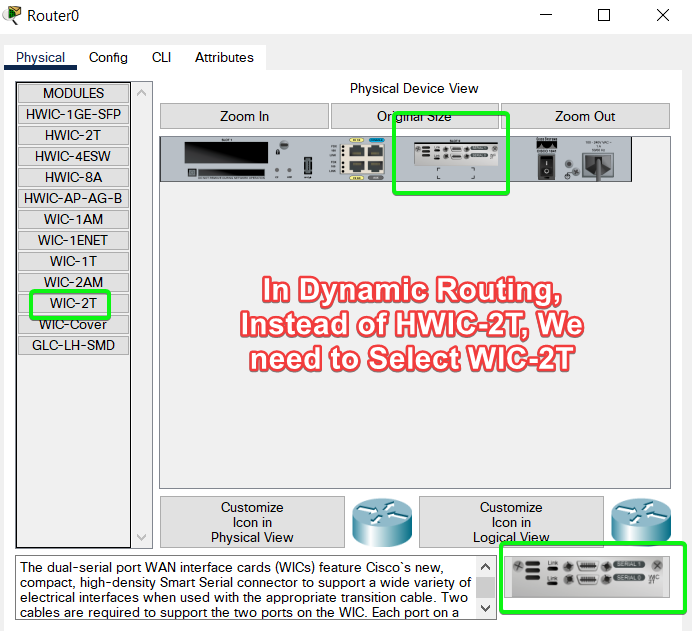
Acknowledgement is Send Back via Same Route.



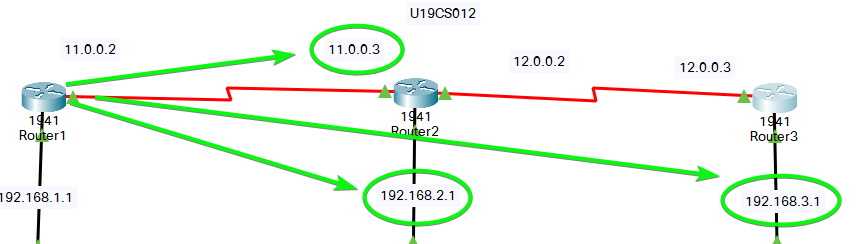
We have Successfully Implemented Static Routing in Cisco Packet Tracer.

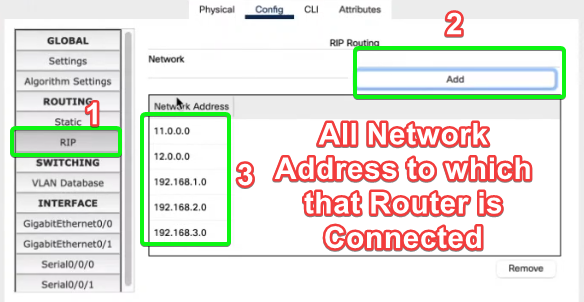
2) Implement **Dynamic Routing** in Cisco Packet Tracer.

**Step 1**: You can make the Configuration of 6 PC’s, 3 Switches and 3 Routers again for Dynamic Routing [Do Not Perform Step 8 {manually setting the Static Routes}]



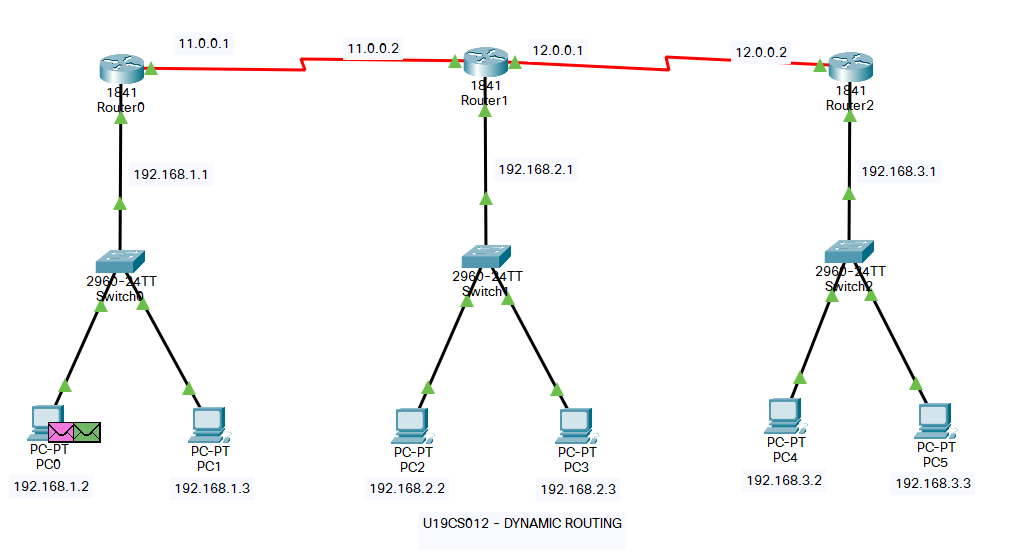
**Step 2**: Configure the RIP in Each Router





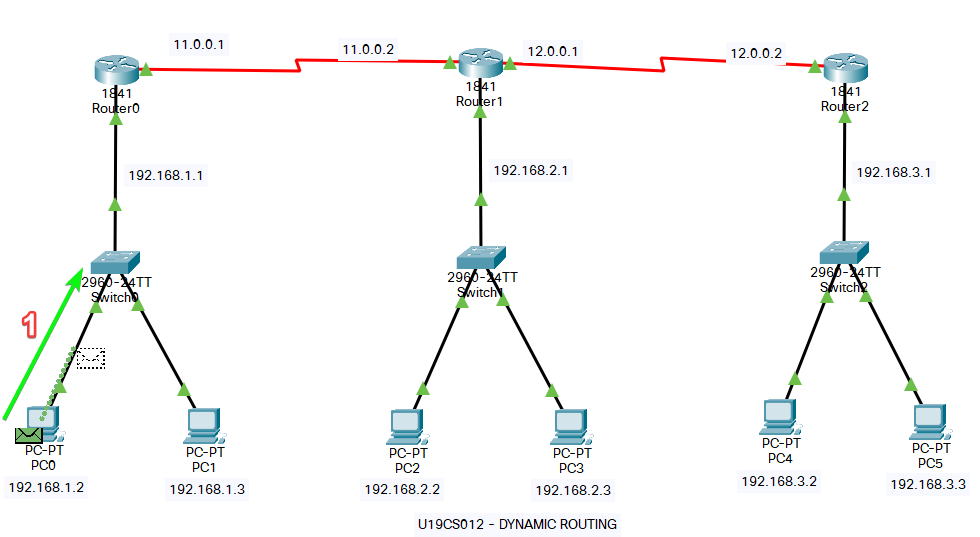
Router 1 is connected to 5 Network Addresses {192.168.1.0, 192.168.2.0, 192.168.3.0, 11.0.0.0, 12.0.0.0}

Configure the Router 2 and 3 in Similar Fashion.

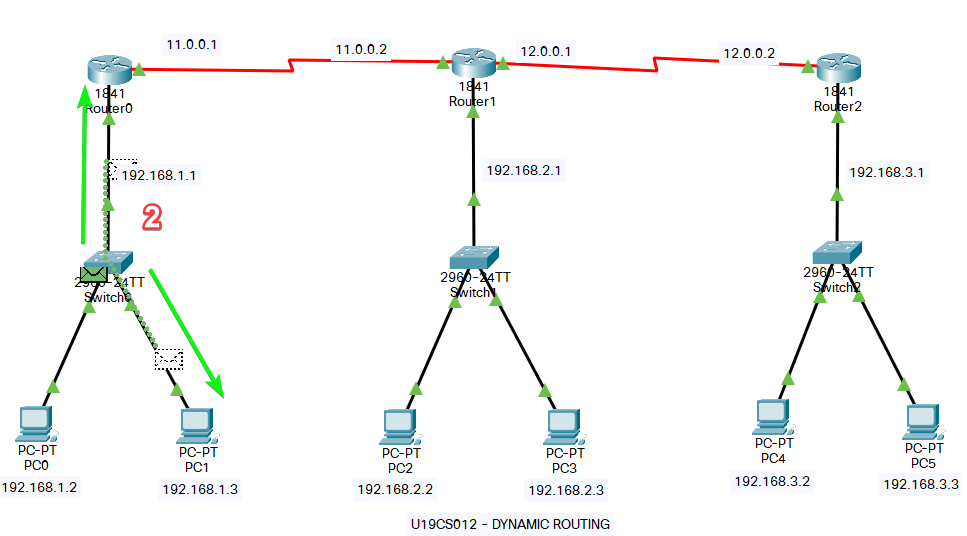


**Simulation**

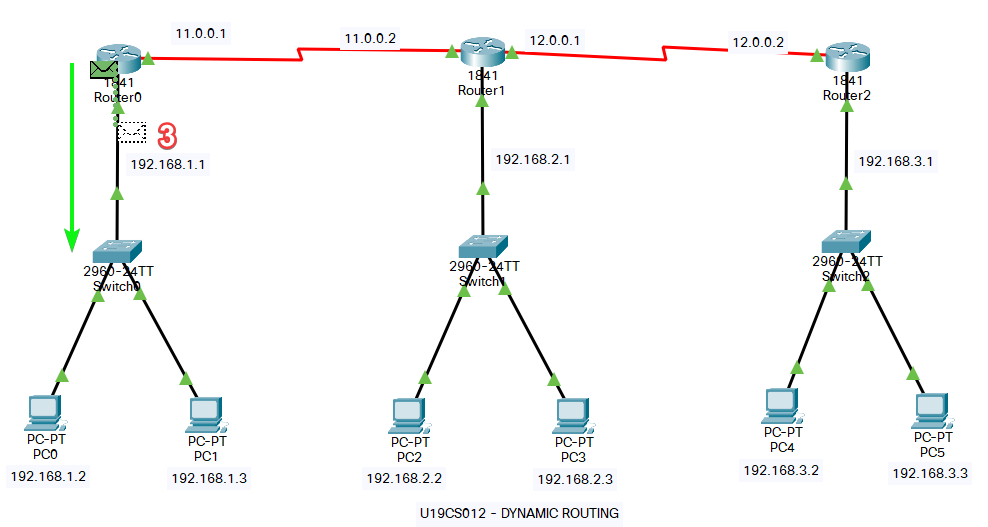
Dynamic Routing Step 1



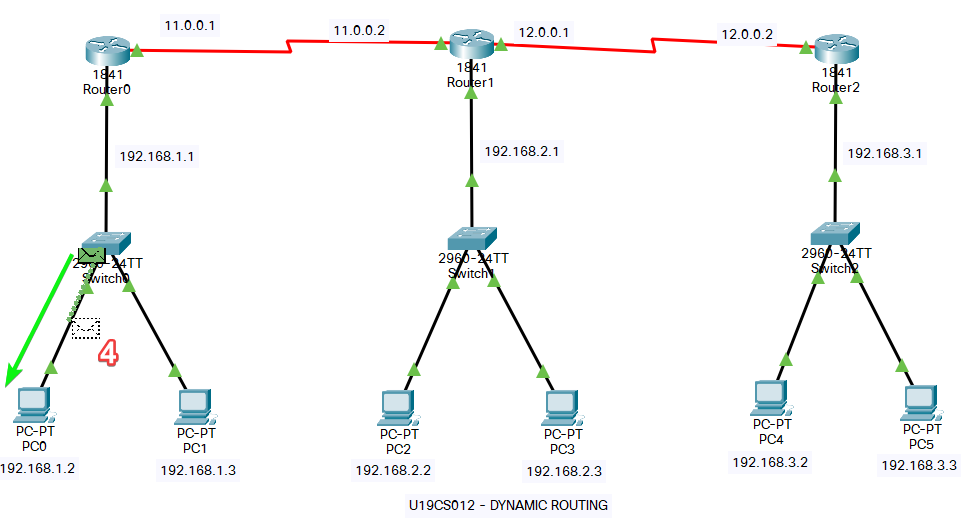
Dynamic Routing Step 2



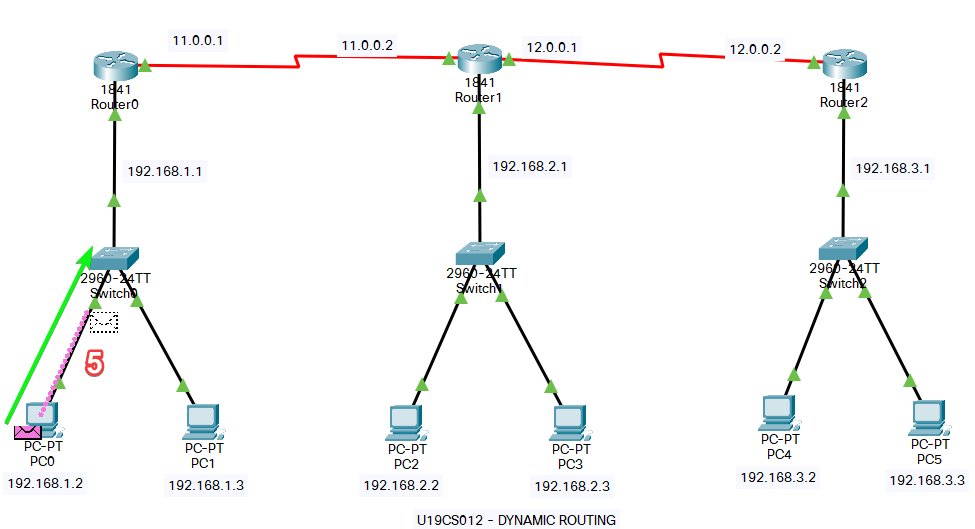
Dynamic Routing Step 3



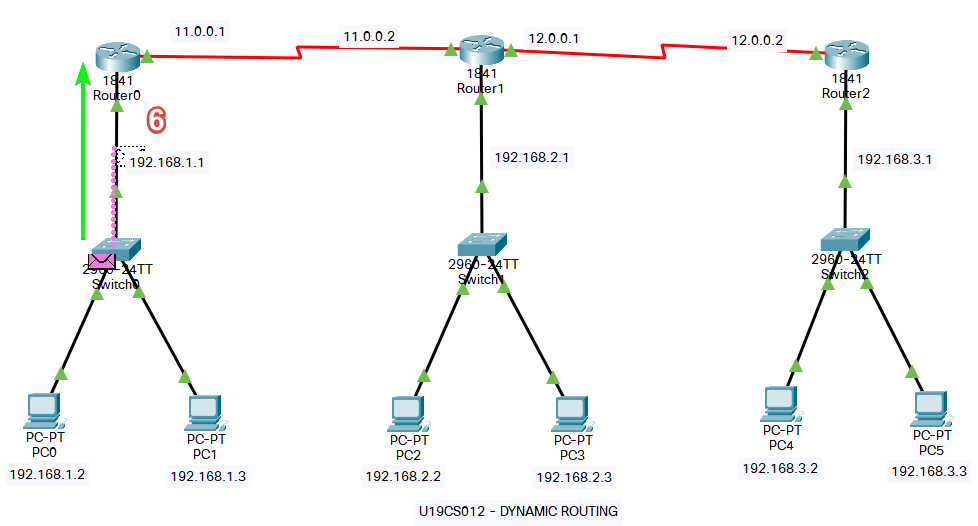
Dynamic Routing Step 4



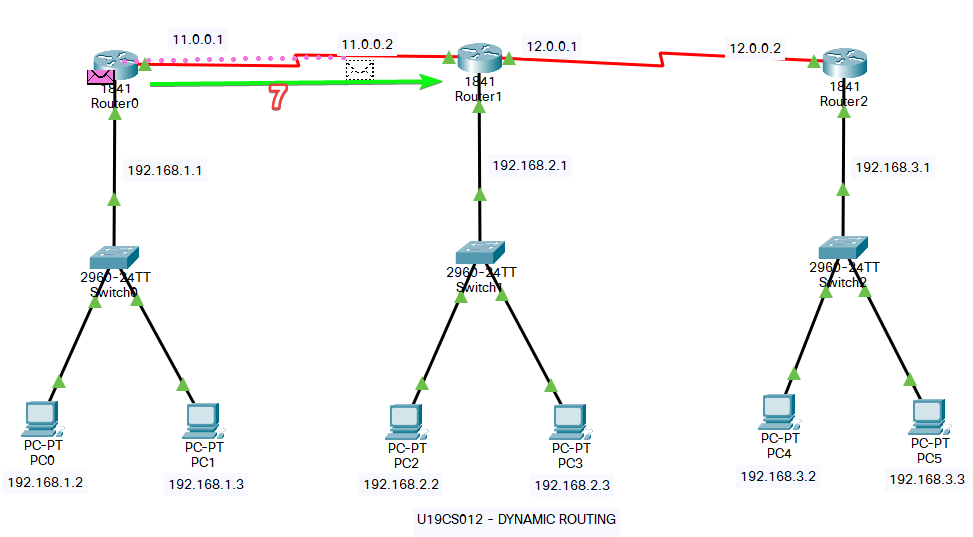
Dynamic Routing Step 5



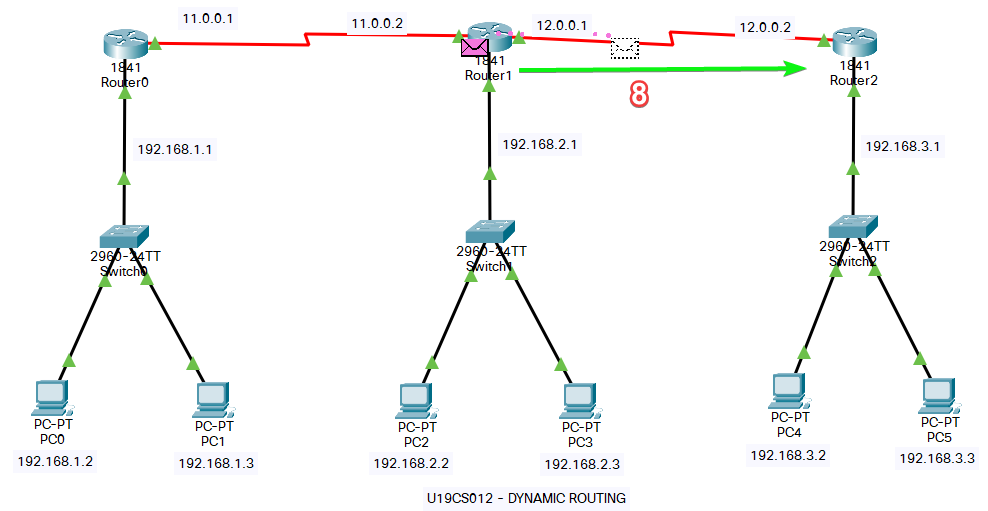
Dynamic Routing Step 6



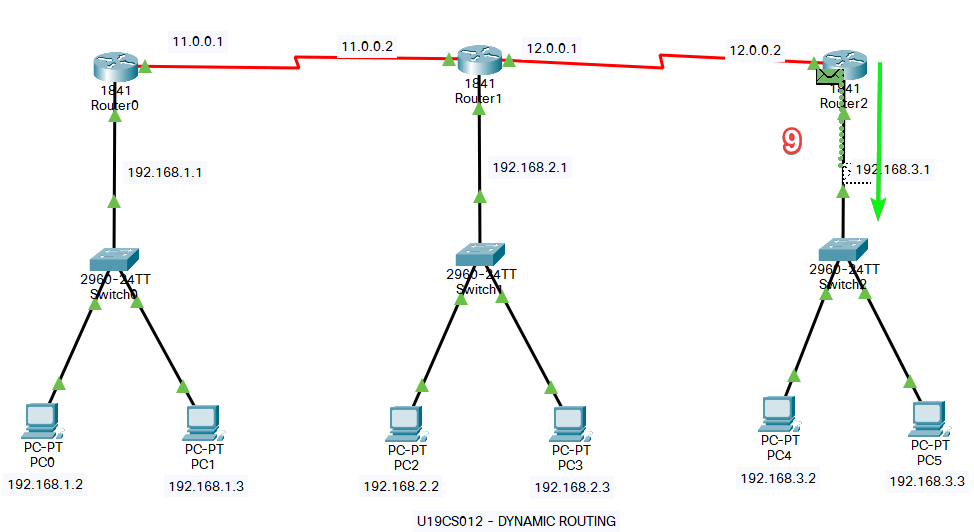
Dynamic Routing Step 7



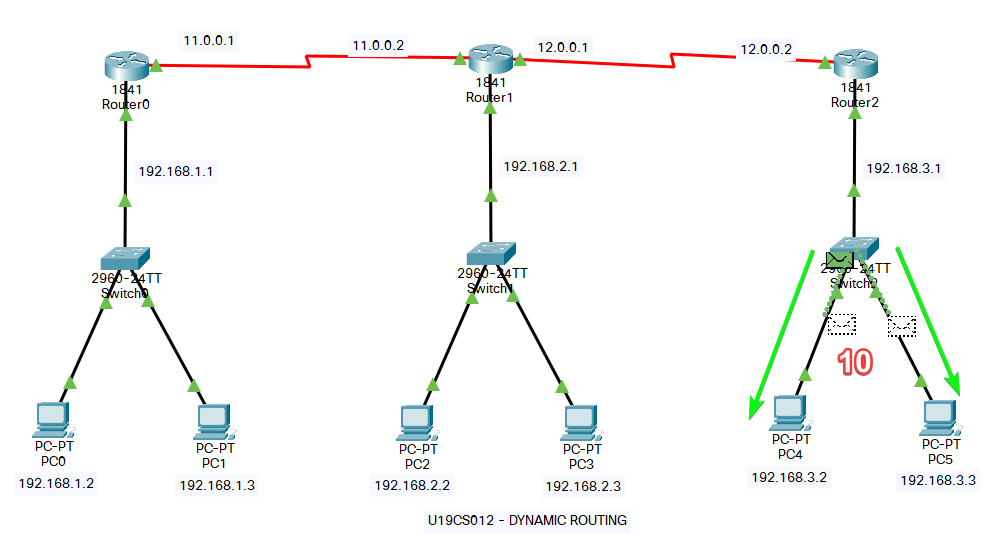
Dynamic Routing Step 8



Dynamic Routing Step 9

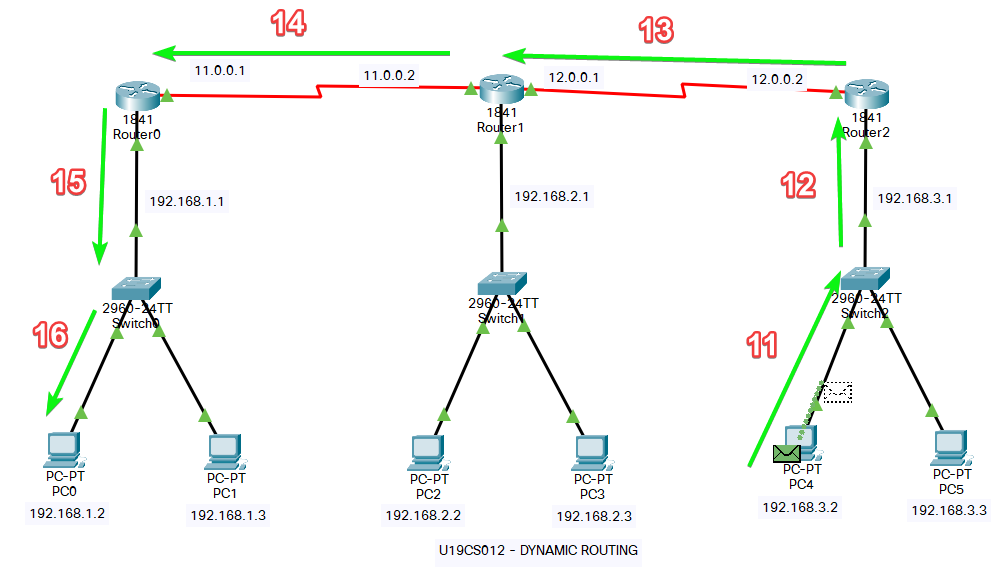


Dynamic Routing Step 10



Dynamic Routing Step 11-16

Acknowledgement is Send Back via Same Route.



We have Successfully Implemented Dynamic Routing in Cisco Packet Tracer.

SUBMITTED BY:

**U19CS012**

BHAGYA VINOD RANA