CS361

Laboratory 6

NAME:

ARCHIT AGRAWAL

ROLL NO. :

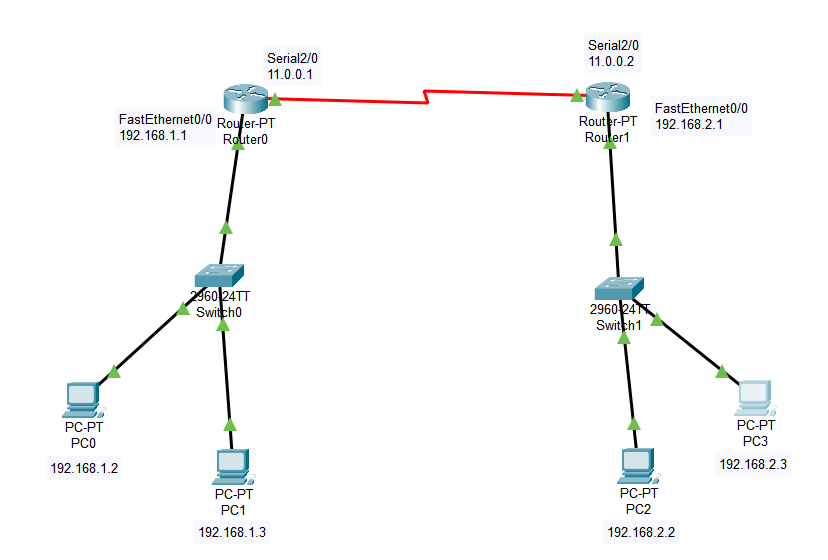
202051213

SECTION:

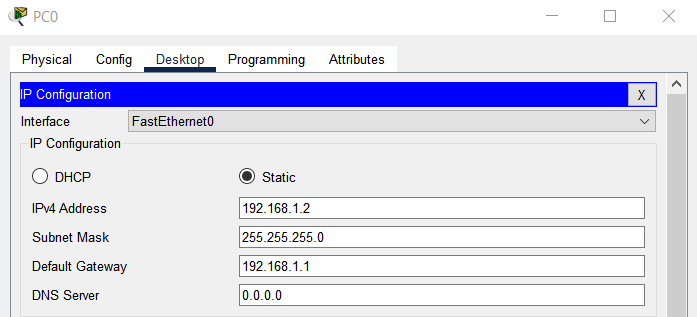
2B

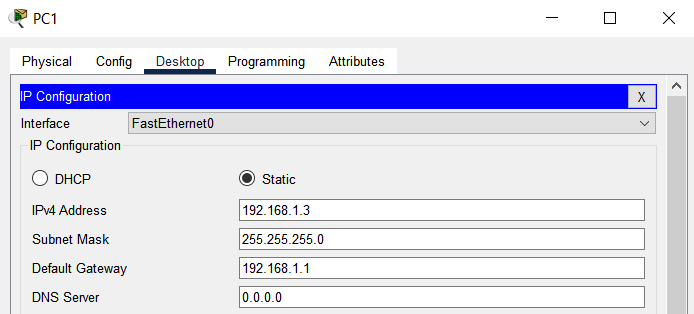
1. **Make a network and transfer messages from one PC to another as demonstrated in the lab.**

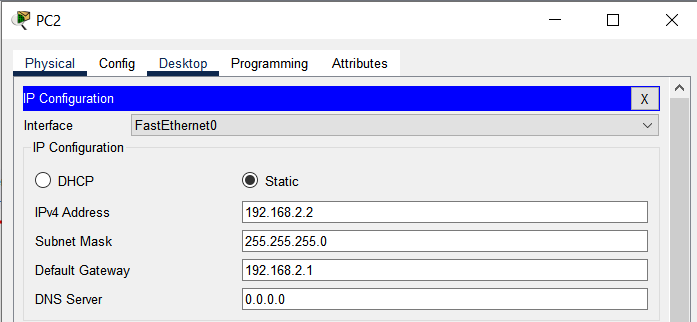
The network is shown below.

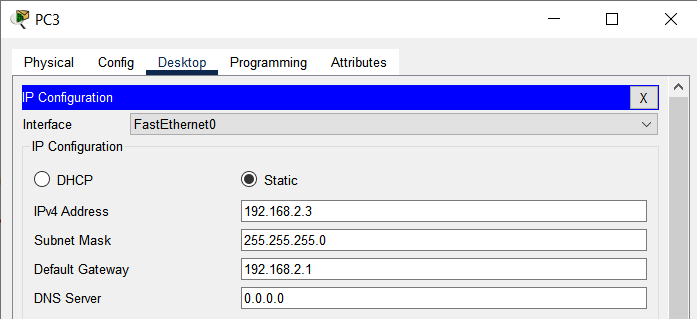


* Configure the IP for each PC.

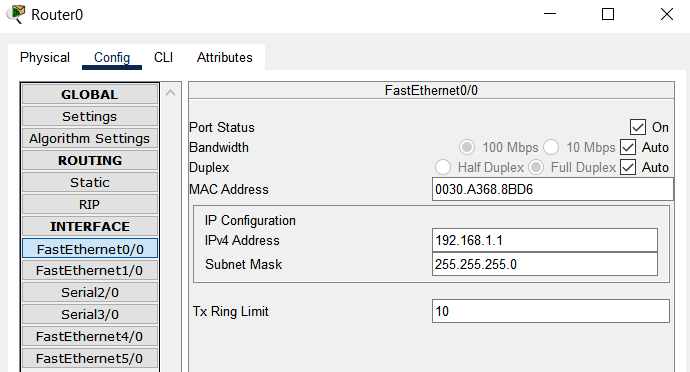


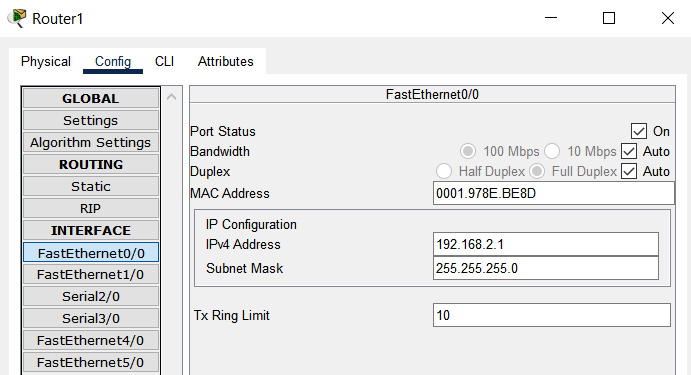




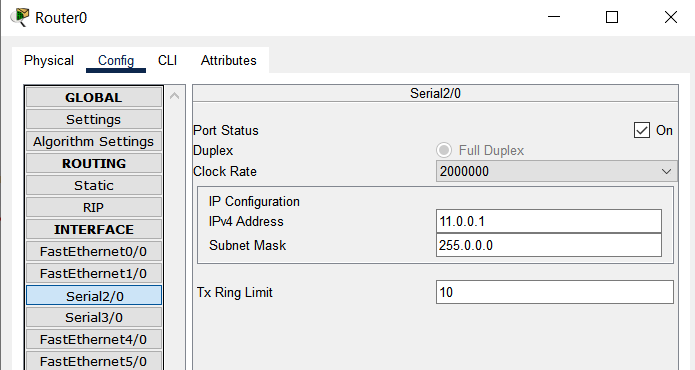


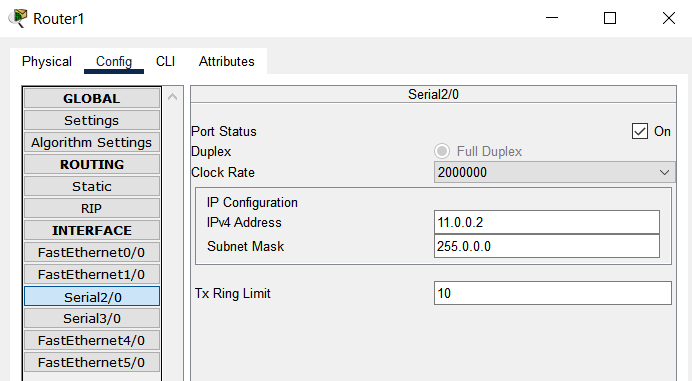
* Configure the routers for router – LAN connection. Go to router 🡪 Config 🡪 FastEthernet0/0.



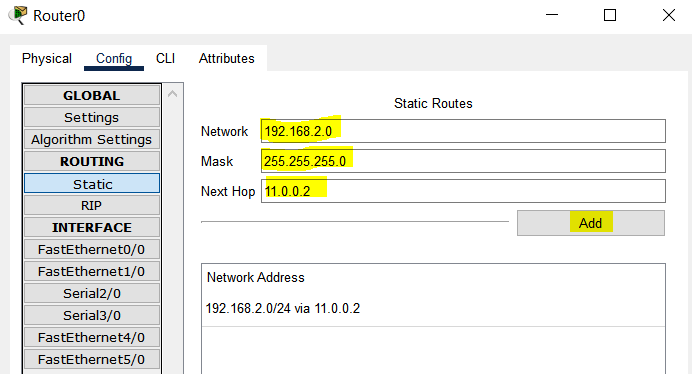


* Configure the routers for router – router connection. Go to router 🡪 Config 🡪 Serial2/0.

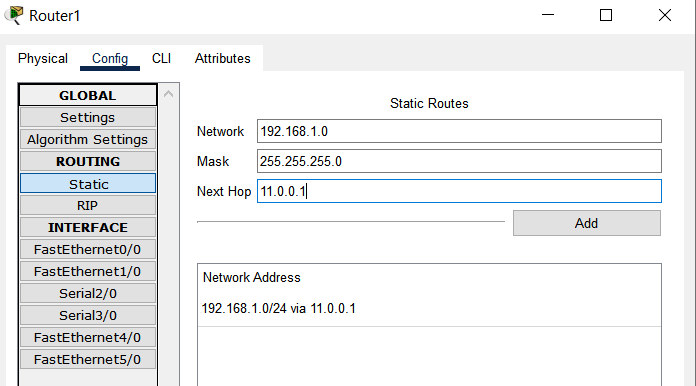




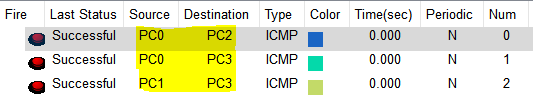
* Now go to Router0 🡪 Config 🡪 Static (in Routing) and update the routing table manually.

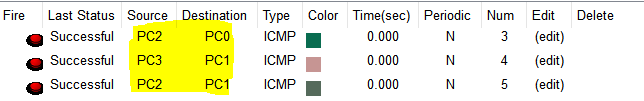


Do the same for Router1.



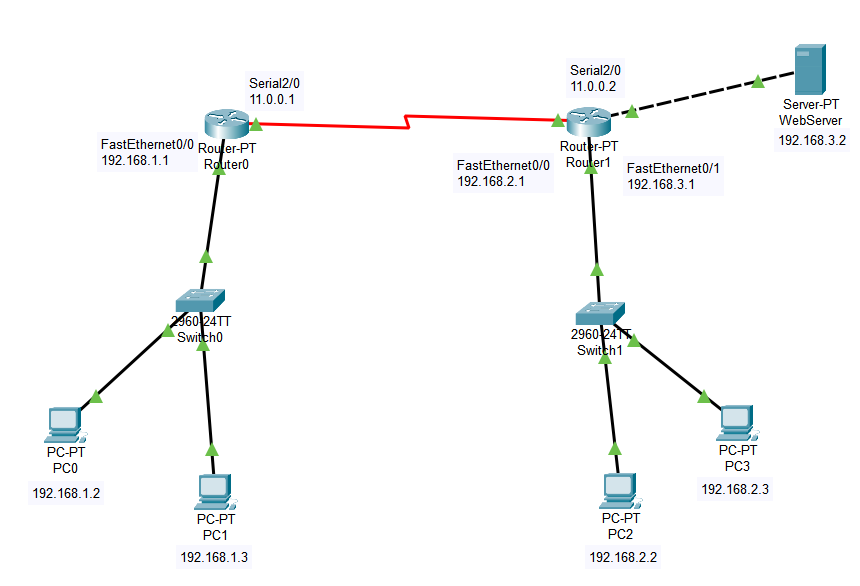
* Now, send messages from and to PC’s across network.



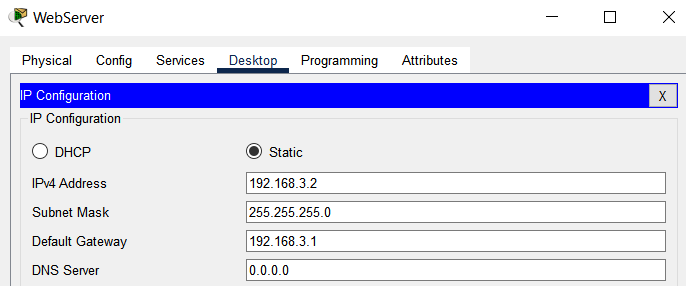


1. **Connect a server to the network designed in the previous problem and transfer mail between pcs or open a web page.**

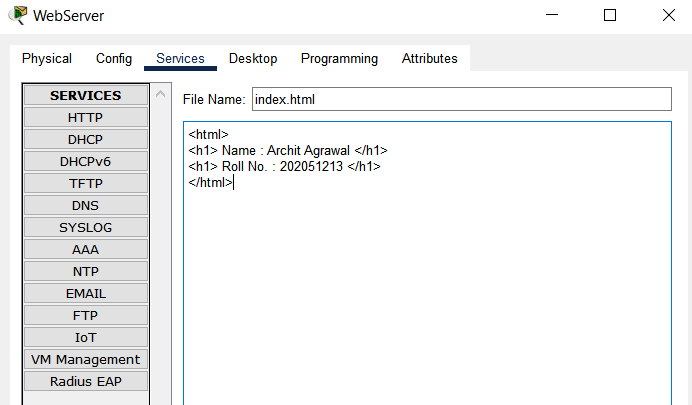
The network is shown below.



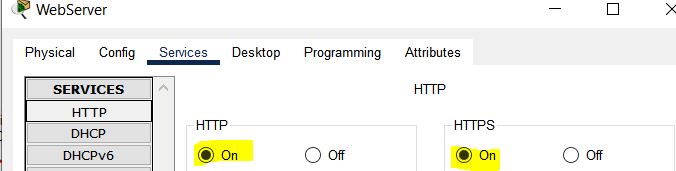
* The IP configuration of each PC and router is similar to that done in the first problem. Just the IP configuration of server is shown here.



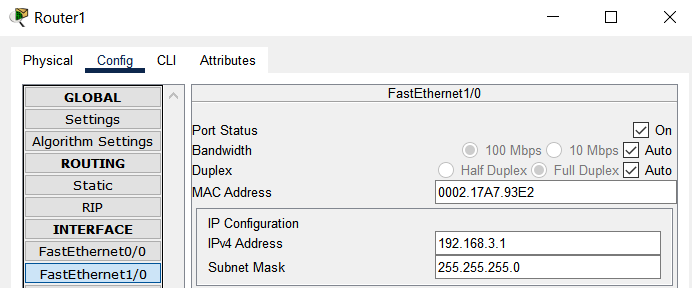
* We created a web server, hence, to use it we need to configure the HTTP services. Go to Server 🡪 Services 🡪 HTTP 🡪 index.html 🡪 edit



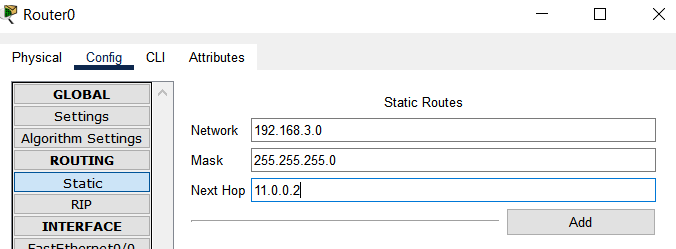
Click ‘Save’ after writing the above html in the editor. Make sure the HTTP service is turned on.



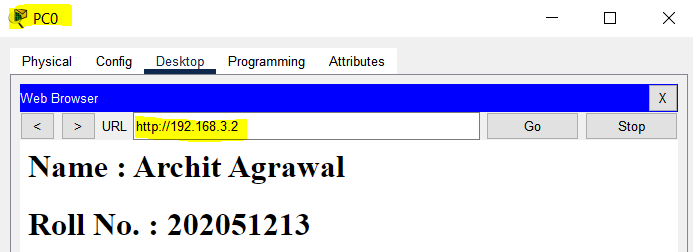
* Since the server is connected to Router1 in FastEthernet1/0 port, we need to configure the FastEthernet1/0 port for Router1.

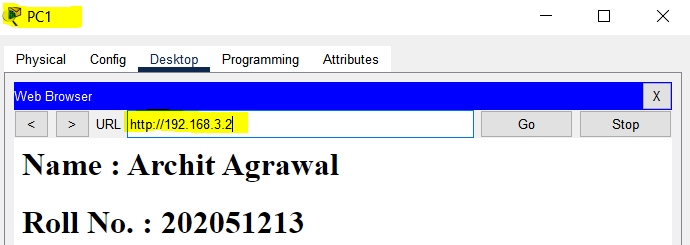


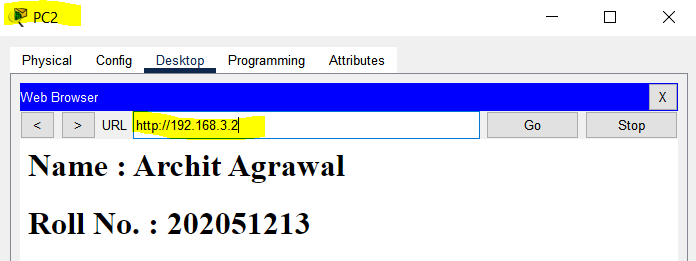
* Also, the routing table of Router0 has to be updated for connection with the web server.



* Now, we can go to browser of any PC and hit the IP address of the web server to see the webpage (index.html).

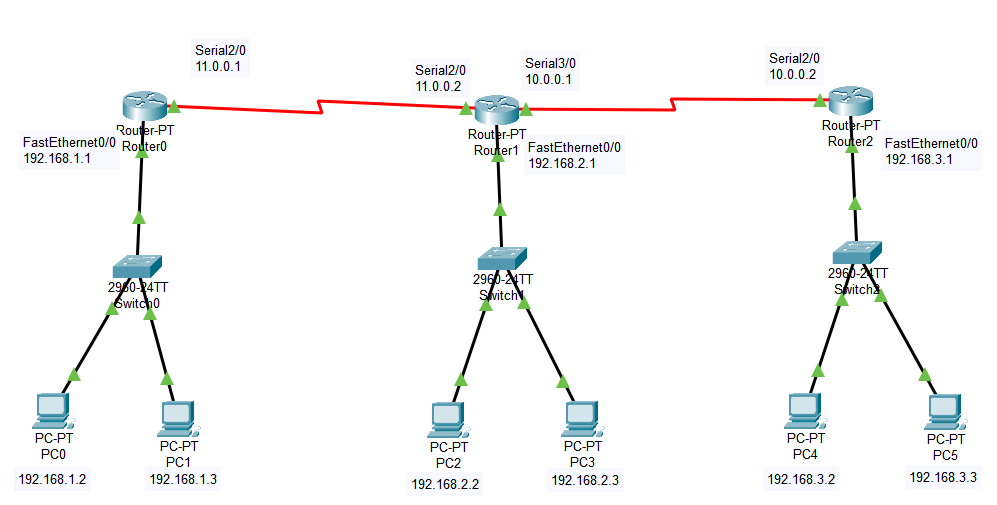




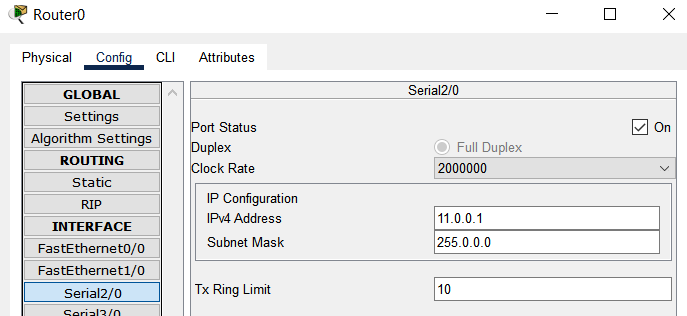


1. **Create a complex network using three or more routers and transfer messages from one network to another.**

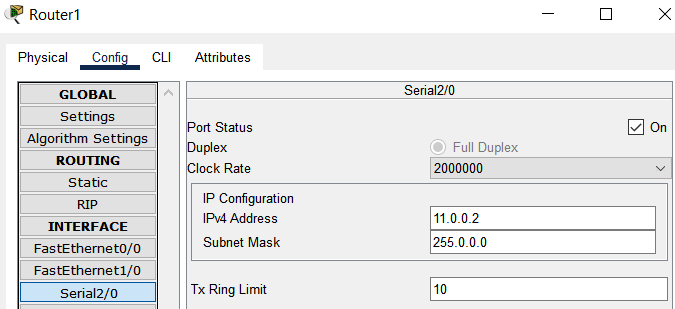
The network is shown below.



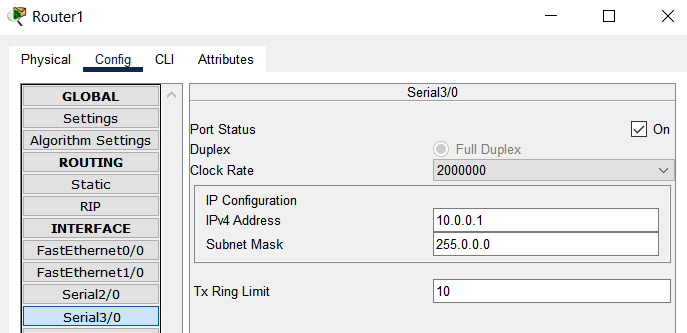
* The IP configuration of each PC and router is similar to that done in the first problem.
* Configure the Router0 for Router0-Router1 connection. Go to Router0 🡪 Config 🡪 Serial2/0.



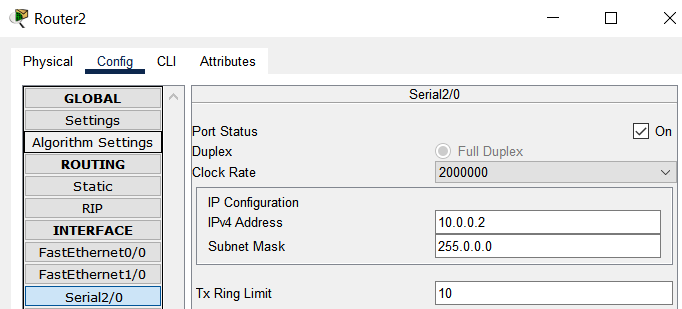
* Configure the Router1 for Router0-Router1 connection. Go to Router1 🡪 Config 🡪 Serial2/0.



* Configure the Router1 for Router1-Router2 connection. Go to Router1 🡪 Config 🡪 Serial3/0.



* Configure the Router2 for Router1-Router2 connection. Go to Router2 🡪 Config 🡪 Serial2/0.



* Now, we need to add the networks in each router’s routing table. Go to Router 🡪 Config 🡪 Static (in Routing) and update the routing table manually.

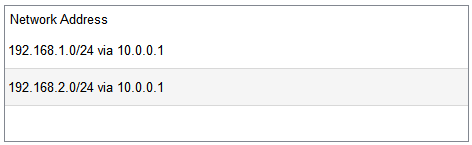
***For Router0***:



***For Router1***:



***For Router2***:



* Now, we can check by sending messages from PC’s on one network to PC’s on other networks.

