CCNA PROJECT

Setting up an office network with internet connection, explain all required component for this and configuration required on devices with diagram

SOLUTION:

Step 1: Open the Cisco Packet Tracer.

Step 2: After opening the Cisco Packet tracer, add a router 1, 4 switches, 3 PCs, 3 Laptops and 4 servers to build a network for Private Organization.

Components Required:

Name of Devices	No. of Case
Router	1
Switches	4
Server	4
laptop	3
PC	6
Straight Cable	As per Requirement

Step 3: Assume That there are four sections in this Private Organization.

1. Administration section

2. Accounts and Finance 3. Information Technology (IT).

4. Database section.

Step 4: There are four different networks in this organization:

1. 192.168.10.0/24

2. 192.168.20.0/24

3. 192.168.30.0/24

4. 192.168.40.0/24.

Step 5: Connect the router with 4 switches, 3 switches are connected with 2PCs and 1 Laptops each, and 1 switch is connected with the 4 server using a cable.

There are four different networks in this organization

192.168.10.0/24

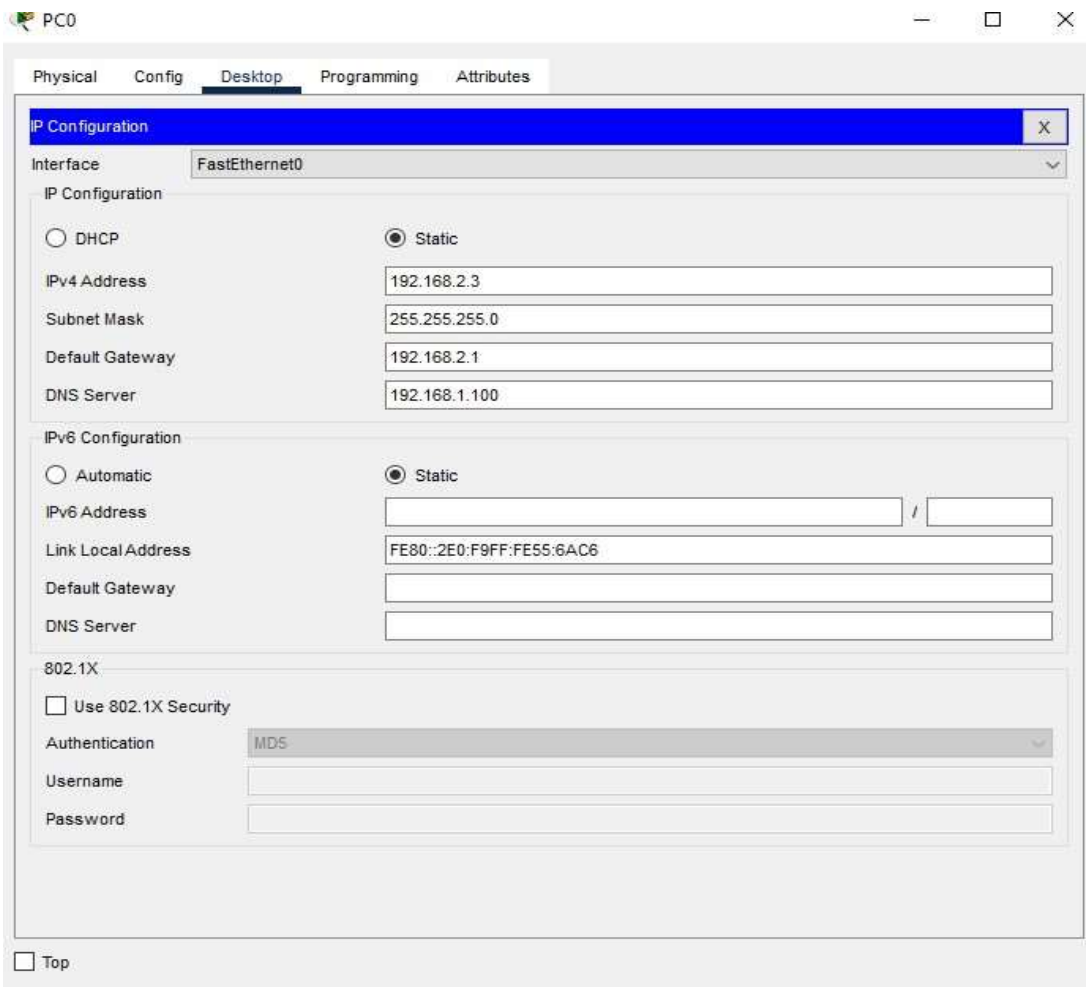
192.168.20.0/24

192.168.30.0/24

192.168.40.0/24

Step 6: Give IP, subnet mask, default gateway, and DNS server to each PC and server in this network. To assign IP to each PC and server, click on each PC and Laptops, go to Desktop, and then click on IP configuration.

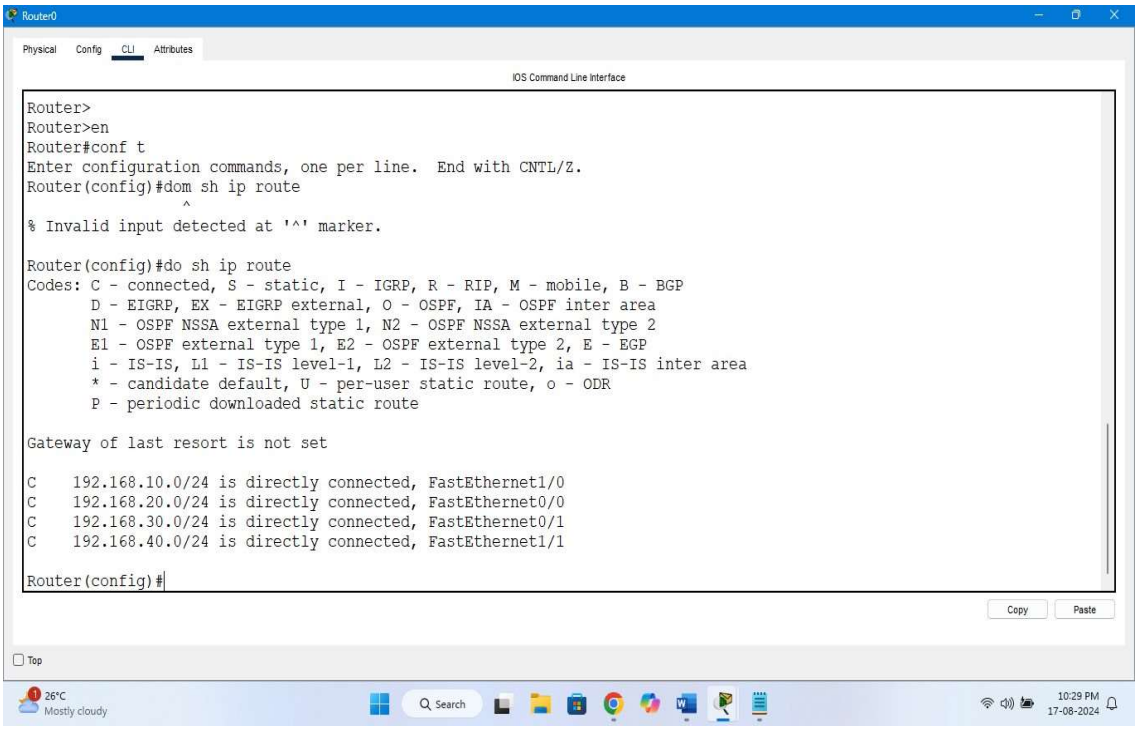
Components	IP Address	Subnet Mask	Default Gateway	DNS server
PC0	192.168.20.3	255.255.255.0	192.168.20.1	192.168.10.2
PC1	192.168.20.2	255.255.255.0	192.168.20.1	192.168.10.2
PC2	192.168.30.3	255.255.255.0	192.168.30.1	192.168.10.2
PC4	192.168.30.2	255.255.255.0	192.168.30.1	192.168.10.2
PC5	192.168.40.3	255.255.255.0	192.168.40.1	192.168.10.2
PC6	192.168.40.2	255.255.255.0	192.168.40.1	192.168.10.2
Laptop 1	192.168.20.3	255.255.255.0	192.168.20.1	192.168.10.2
Laptop 2	192.168.30.3	255.255.255.0	192.168.30.1	192.168.10.2
Laptop 3	192.168.40.3	255.255.255.0	192.168.40.1	192.168.10.2
Server 1	192.168.10.2	255.255.255.0	192.168.10.1	192.168.10.2



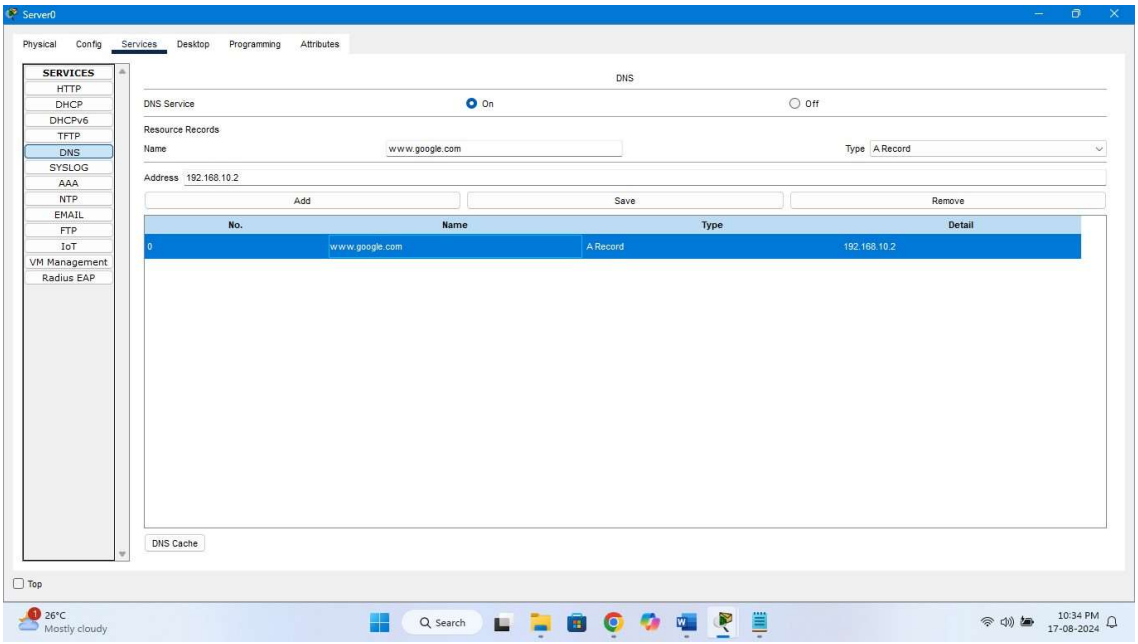
Step 7: Now, configure the router according to the details given below and then turn on the port status.

FastEthernet0/0	192.168.20.1	255.255.255.0
FastEthernet0/1	192.168.30.1	255.255.255.0
FastEthernet1/0	192.168.10.1	255.255.255.0
FastEthernet1/1	192.168.40.1	255.255.255.0

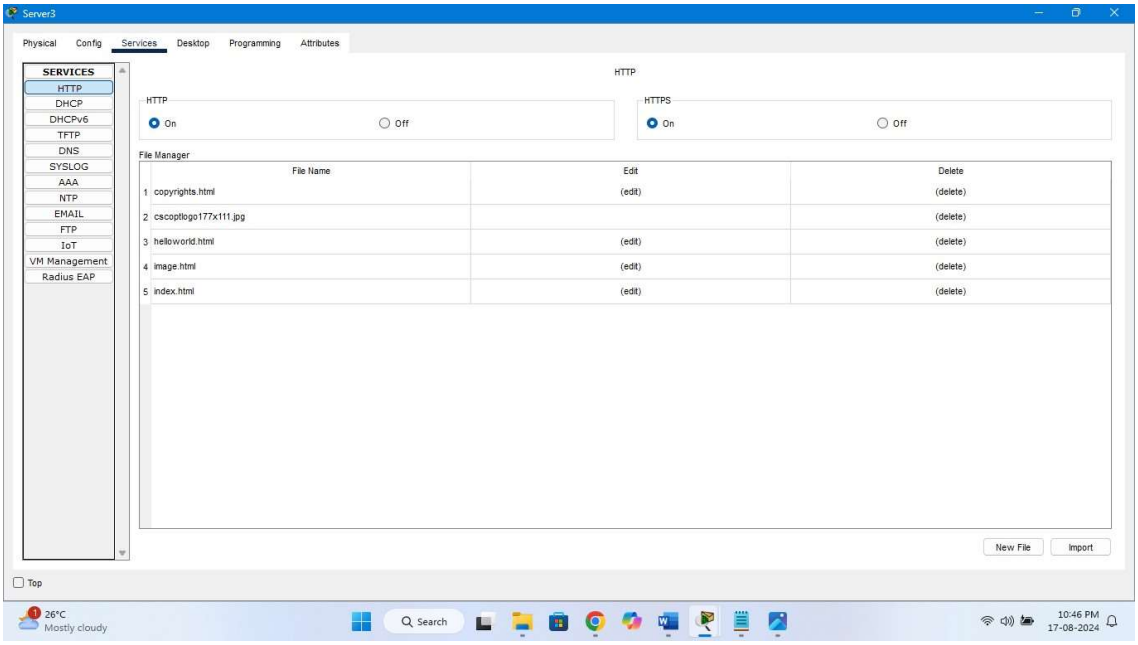
For example:

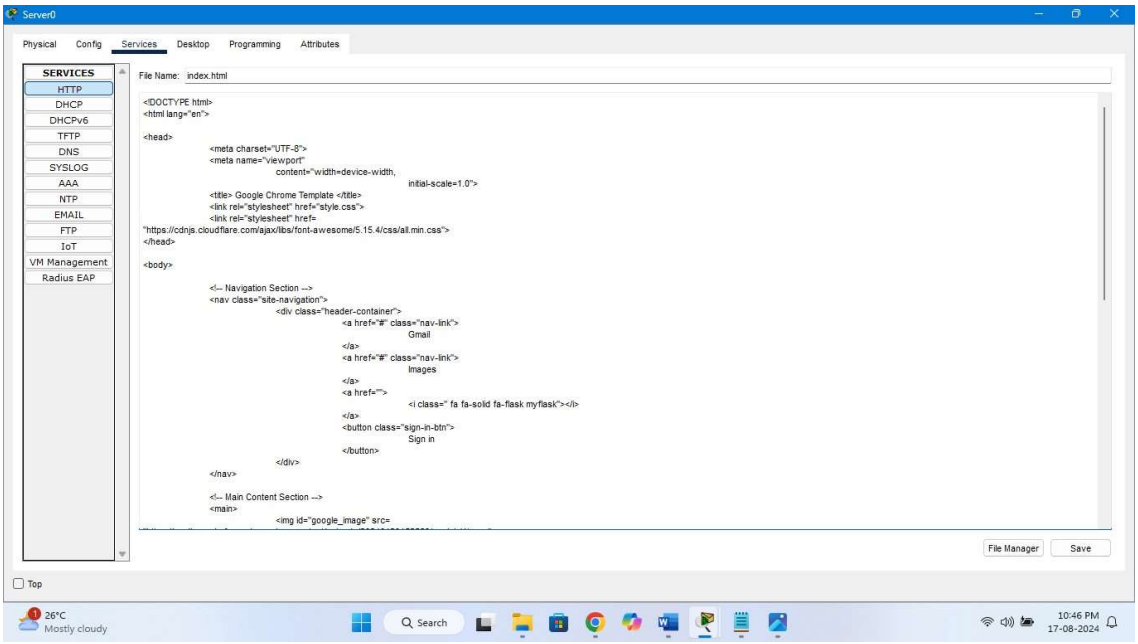


Step 8: Now, we've to maintain the DNS server. For this click on the server, go to the services section, and then click on DNS. Turn on the DNS server, Enter any domain in the 'Name' section For eg: "www.google.com" enter the IP address of the server in the 'Address section', and then click on save.

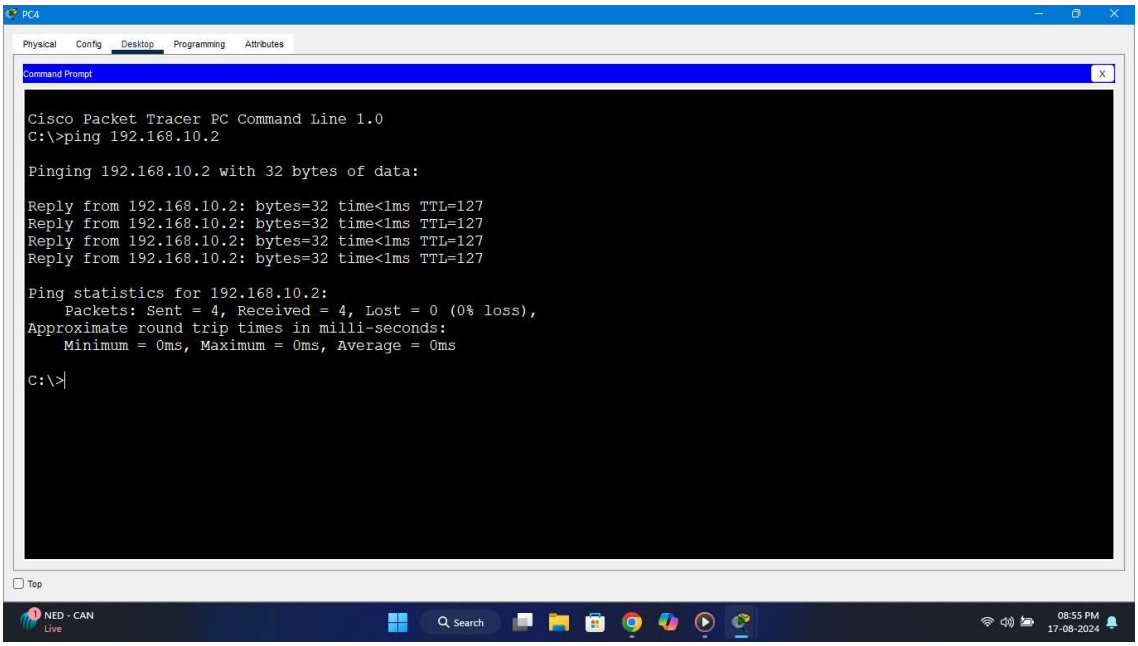


Step 9: Again, click on the server, go to services, and then click on HTTP. Turn on the HTTP and HTTPS services. You can also edit the index.html file which will show when you search the domain you entered in DNS in the web browser.

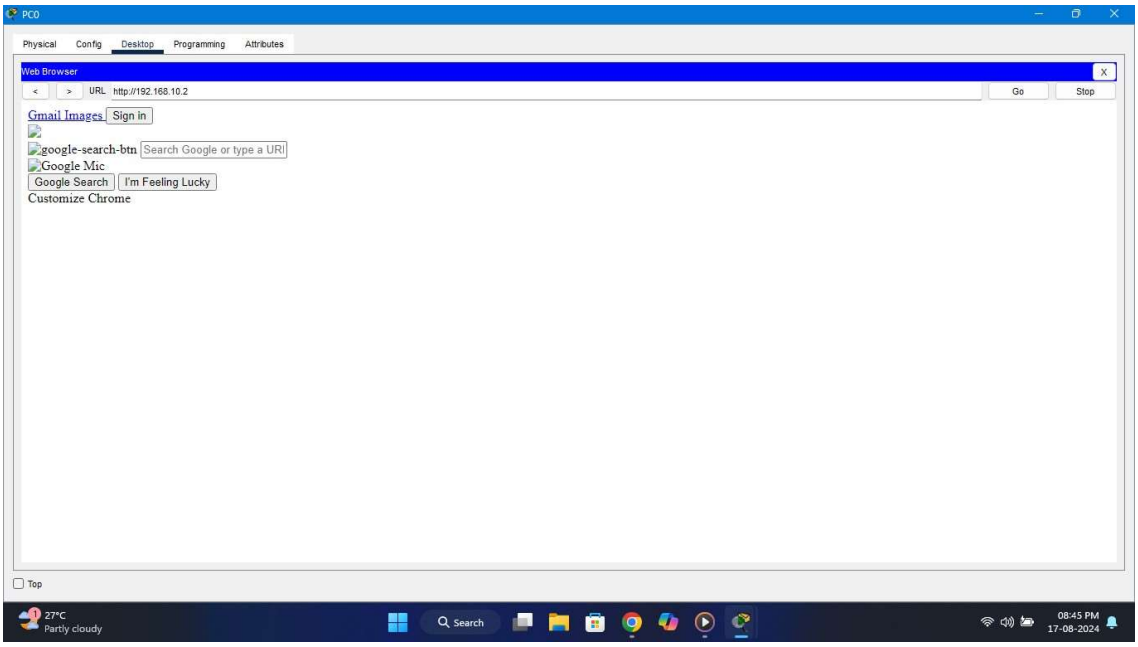




Step 10: To check the connection between PCs present in different networks in this organization, you can use the ping command. Click on any PC, go to Desktop, and then click on the command prompt, enter the ping command, and check if they're able to communicate with each other.

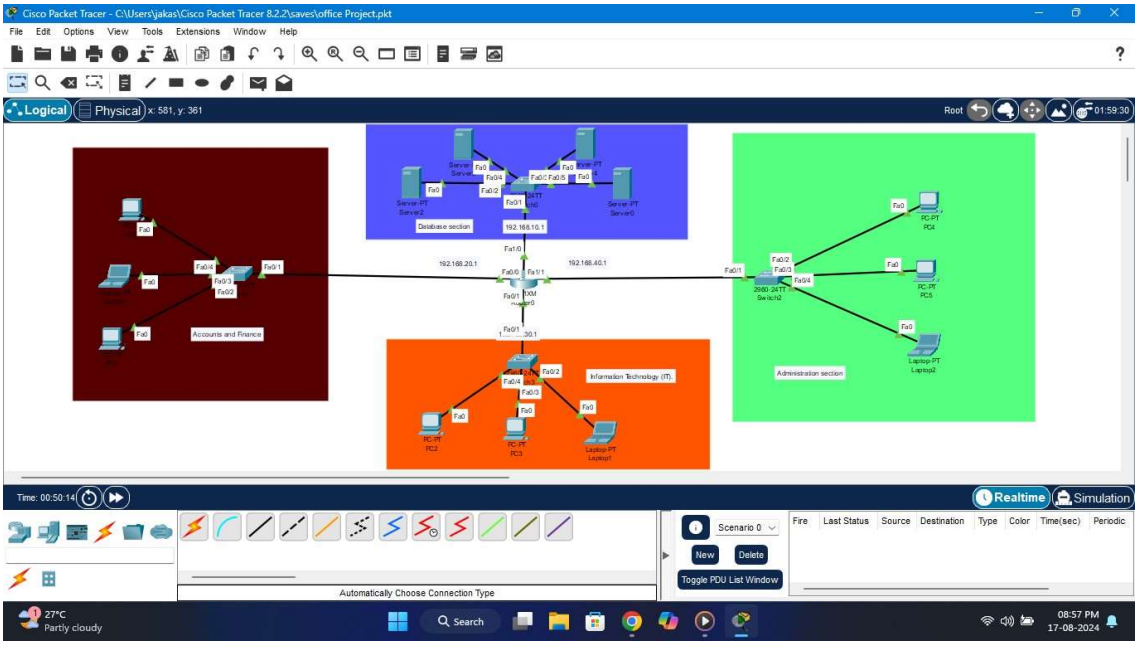


Step 11**:** Click on any PC, go to the Desktop section, and then open the web browser. Enter the domain or address you've given in the DNS server and it will show the index.html file from HTTP services.



So, this is all About the Scenario of an organization in which all devices are Communicate with Server and send Data to different Sections.

PRIVATE ORAGNIZATION



Thankyou

-By S.Appun Raj