

Experiment -11

CONFIGURATION OF A SIMPLE STATIC ROUTING
IN PACKET TRACER USING A SIMPLE TOPOLOGY
WITH TWO ROUTERS

Aim: To configure a router using packet tracer software and hence to transmit data between the devices in real time mode and simulation mode.

Software / Apparatus Required: i. Packet Tracer
End devices, Hubs, connectors

Procedure:

Steps for building topology:

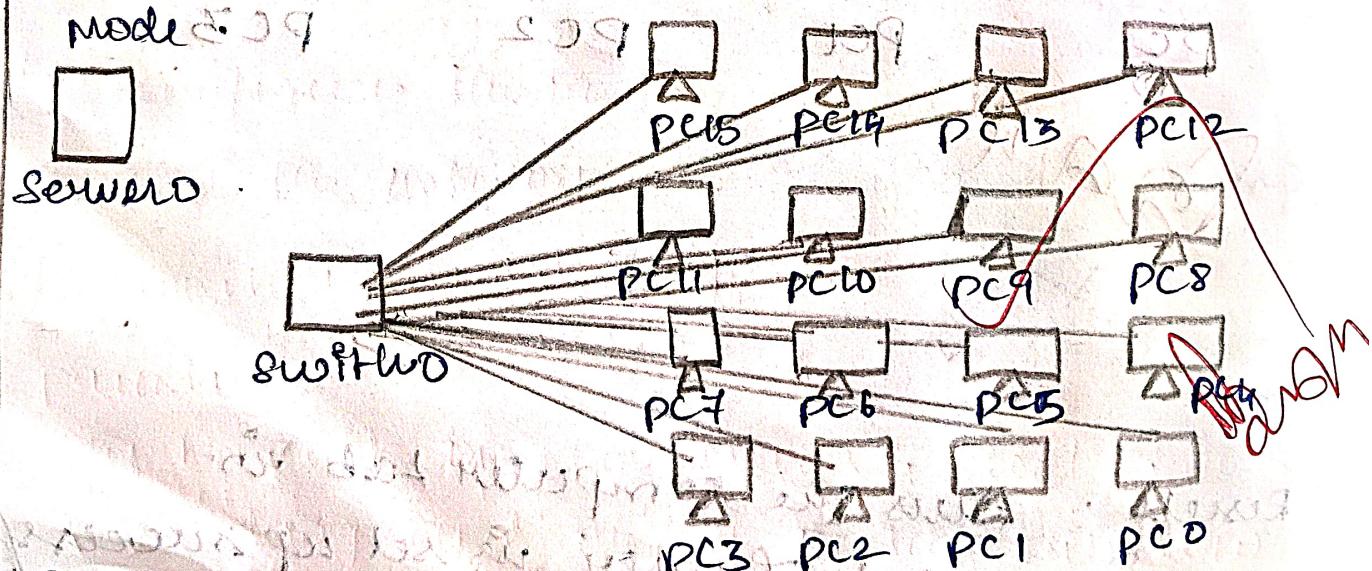
Step 1: Start packet tracer

Step 2: choosing devices and connections

Step 3: single click on the End devices

Step 4: verifying connectivity in Real time mode

Step 5: verifying connectivity in simulation mode



Result: Thus configuration of a simple static routing in packet tracer using a simple topology with two routers was done.

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Experiment - 12

DESIGN THE FUNCTIONALITIES AND EXPLORATION OF TCP USING PACKET TRACER.

Aim: To design the functionalities and exploration of TCP using packet tracer.

Software/Apparatus Required: packet tracer/ end devices, Hubs, connectors.

Procedure:

Step 1: Setup the Network Topology

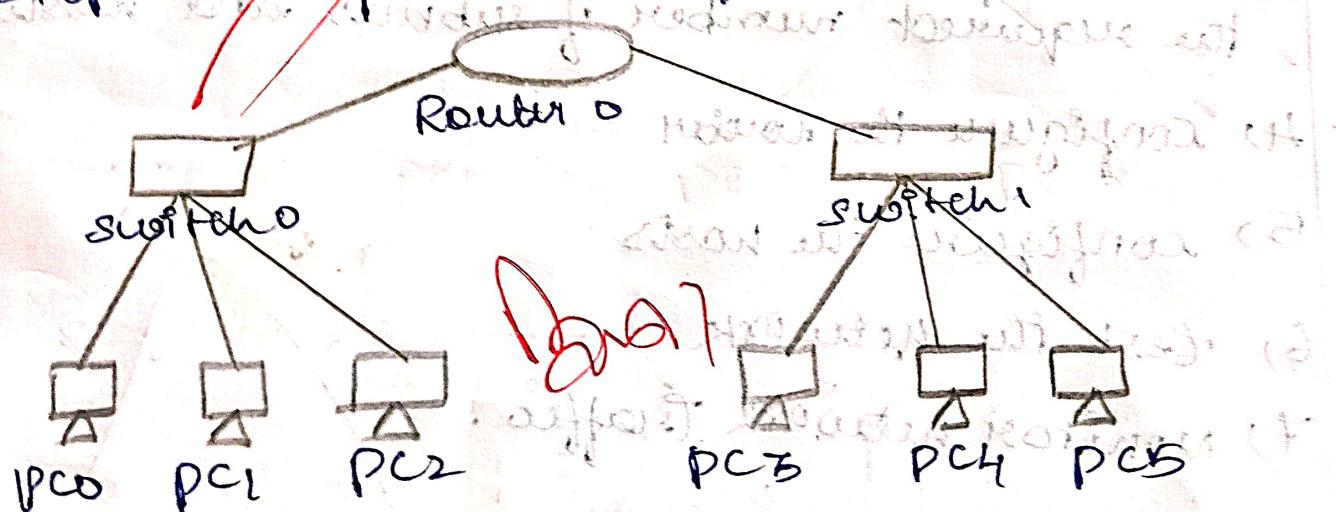
Step 2: Configure IP addresses.

Step 3: Configure the router.

Double click on the switch to open the configuration window and navigate to the CLI tab.

Step 4: Test the connection.

Step 5: Explain TCP functionalities.



Observation: All nodes have the result.

Result: Thus the functionalities and exploration of TCP using packet tracer is designed successfully.

EXPERIMENT - 13

DESIGN THE NETWORK MODEL FOR SUBNETTING.

class C ADDRESSING USING PACKET TRACER

Aim: To design the network model for subnetting - class c addressing using packet tracer.

Software/APPARATUS Required: packet tracer,

End devices, Hubs, connectors.

Algorithm:

- 1) Determine the network requirements.
- 2) Identify the no. of subnets and hosts required for each subnet.
- 3) choose a subnet mask.
- 4) calculate the subnet mask that accommodates the required number of subnets and hosts.
- 5) configure the router.
- 6) configure the hosts.
- 7) test the network.
- 8) monitor network traffic.

Procedure:

Step 1: click on end devices, select generic PCs, drag and drop it on the window.

Step 2: Select straight-through cable and connect all end device to switch.

Assign IP addresses for all the devices.

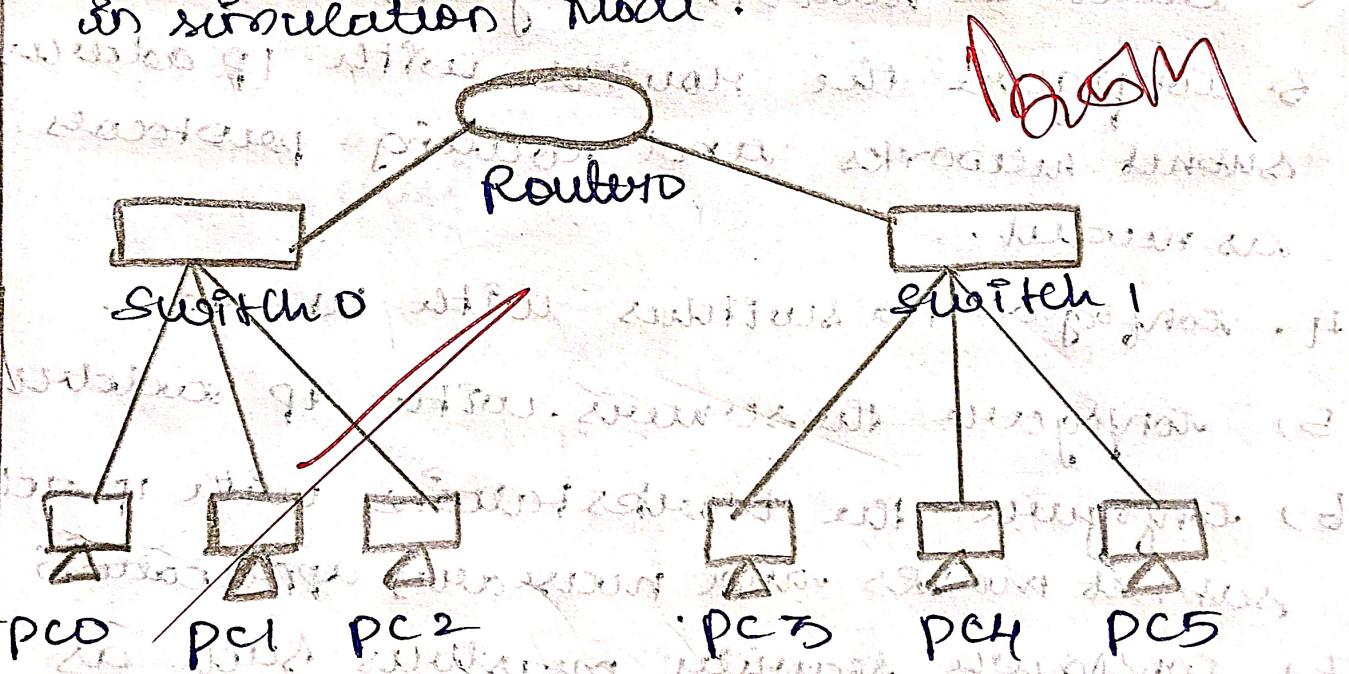
Step 3: Now set IP addresses to Host A

(192.168.1.1) in static mode and then

assign for Host B and Host C.

Step 4: To view the IP address, give configip command prompt so that we can establish communication b/w the two devices.

Step 5: Now display the packet transmission in simulation mode.



Result: Here for designing for network model subnetting has been successfully implemented using packet tracer.

Experiment - 14

SIMULATING X,Y,Z COMPANY NETWORK DESIGN
AND SIMULATE USING PACKET TRACER.

Aim:
To simulate X,Y,Z company network design
and simulate using packet tracer.

Software/Apparatus Required:- packet tracer

End devices, hubs, connectors, switches, Hubs

Algorithm:

1. Identify the network requirements like

no. of users, devices and servers.

2. Create a network diagram.

3. Configure the routers with IP address,

subnet networks and routing protocols

as needed.

4. Configure the switches with VLANs.

5. Configure the servers with IP address.

6. Configure the workstations with IP address,
subnet masks and necessary applications.

7. Configure security measures such as
firewalls.

8. Test the network connectivity by pinging

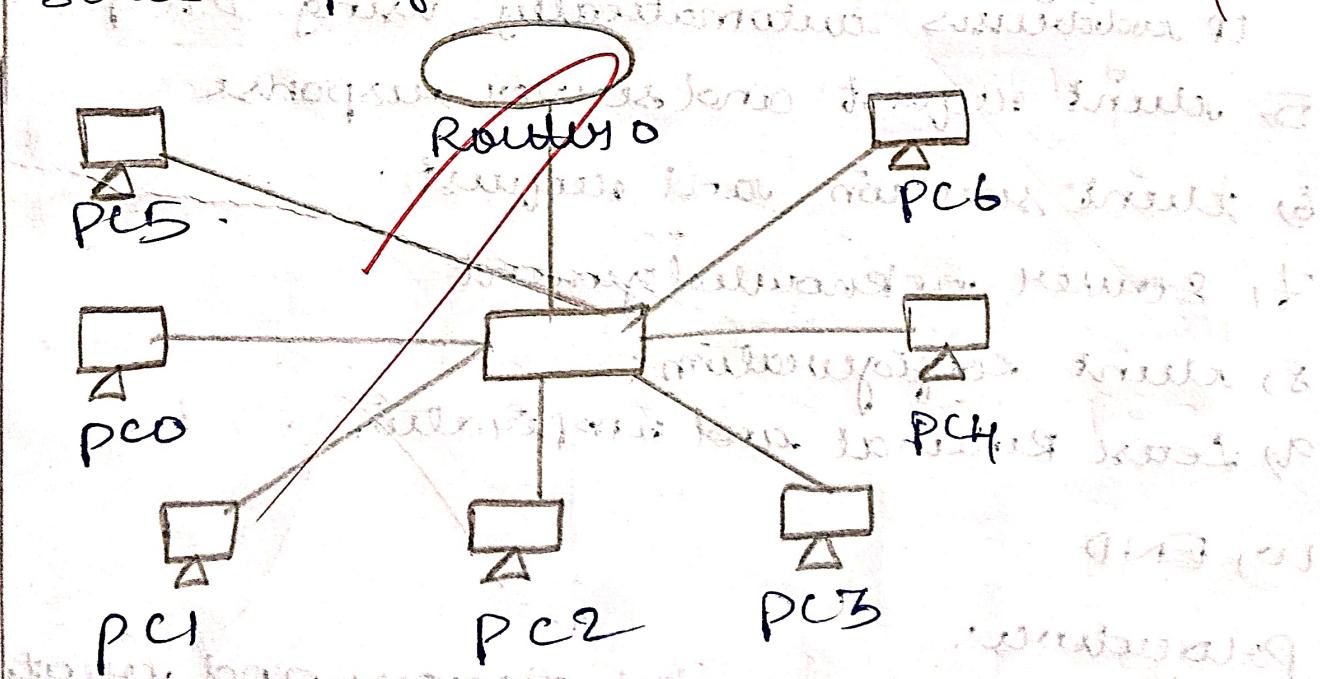
devices.

9. Monitor the network traffic.

10. Make adjustments as needed to improve
performance, security or functionality.

procedure

- 1) Start packet tracer
- 2) Create New project by click on File and select new, and select network
- 3) Add devices from Devices tab and select the device drag and drop.
- 4) connect devices using cables.
- 5) configure the devices.
- 6) Add application by clicking on the Application tab and drag and drop.
- 7) test the network
- 8) monitor the traffic
- 9) make adjustments as needed
- 10) Save the project.



Result: Thus you simulating of computer Network designing has been successfully done using packet tracer.

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EXPERIMENT : 5

CONFIGURATION OF DHCP DYNAMIC HOST

CONFIGURATION PROTOCOL IN PACKET TRACER

Aim:

To configure DHCP Dynamic host configuration protocol in packet tracer.

Software / Apparatus required: packet tracer,

End devices, Hubs, connectors.

Algorithm:

- 1, Start
- 2, Configure the DHCP Server
- 3, Configure the switch that connect to the DHCP clients.
- 4, Configure the DHCP clients to obtain their IP addresses automatically using DHCP.
- 5, Client request and server response
- 6, Client selection and request.
- 7, Server acknowledgement
- 8, Client configuration.
- 9, Lease Renewal and Disruption.
- 10) END

Procedure:

- 1, Launch Cisco packet tracer and create a new network topology or open an existing one.