Lab-3: Objective:

Part A: Troubleshooting connecting same devices Scenario
Part B: Troubleshooting connecting different devices Scenario

Lab 3
Troubleshooting of Devices

Part A: Troubleshooting connecting same devices Scenario

Troubleshooting

Network troubleshooting is the collective measures and processes used to identify, diagnose and resolve problems and issues within a computer network.
It is a systematic process that aims to resolve problems and restore normal network operations within the network.
Network troubleshooting is primarily done by network engineers or administrators to repair or optimize a network. It is generally done to recover and establish network or Internet connections on end nodes/devices.
Some of the processes within network troubleshooting include but are not limited to:

- ✓ Finding and resolving problems and establishing Internet/network connection of a computer/device/node
- ✓ Configuring a router, switch or any network management device
- ✓ Installing cables or Wi-Fi devices
- ✓ Updating firmware devices on router switch
- ✓ Removing viruses
- ✓ Adding, configuring and reinstalling a network printer

Network troubleshooting can be a manual or automated task. When using automated tools, network management can be done using network diagnostic software.

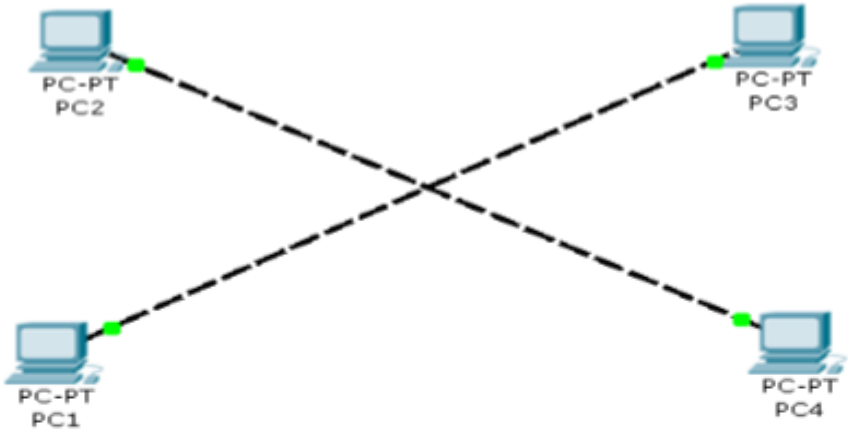

Figure 1

Refer to the Figure 1,
PC1 is connected with PC3, and PC2 is connected with PC4. PC1 can communicate with PC3 but PC2 & PC4 are unable to communicate with each other

Task –1, Design

Design the above topology and show how PC's are communicating with each other

Task- 2, Identify the problem

Identify the problem and solve it by placing the correct IP & subnet masks.

PC1 IP Address _____

PC1 Subnet Mask _____

PC3 IP Address _____

PC3 Subnet Mask_____

PC2 IP Address _____

PC2 Subnet Mask_____

PC4 IP Address _____

PC4 Subnet Mask_____

Part B: Troubleshooting connecting different devices Scenario

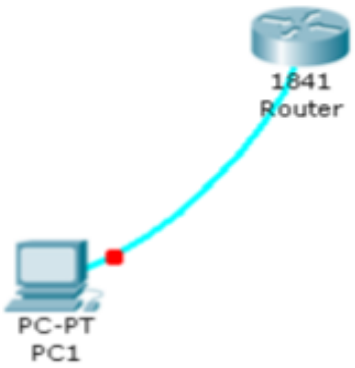

Figure 2

Refer to the Figure 2. PC1 is connected to the router with a console cable, but it is unable to Establish **TELNET** session & also indicates **Red Signal.**

Refer to figure 2,

Task –1, Design

Design the topology according to the scenario.

Task –2, Identify the problem

Identify at which point does PC1 is unable to establish the TELNET session with the Router

Why PC1 is indicating the Red Signal what symptoms can be identified from this topology?

Answer:

At the end of this activity, your task should be 100 %. PC1 must indicate green signal & can also establish the Telnet session with the router.

Lab-3 Exercise:

Design a network which consists of 3 routers and 3 PC's are attached with each of them. Different users want to access the attached routers but unable to do that. You have to resolve this problem so that all the devices can establish the TELNET session with the routers.