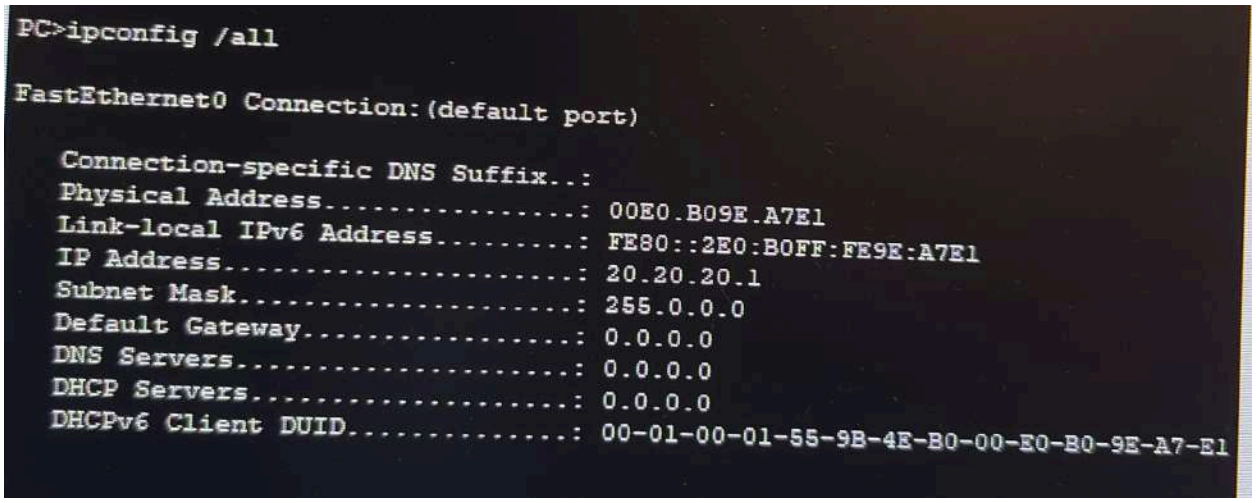
Lab-1

Tutorial -1

STEPS

1. Drag 2 generic PC's.
2. Connect it using a copper cross wire, make sure it is green indicating that it is working.
3. Set the IP address to 20.20.20.1 and 20.20.20.2.
4. Open command prompt enter ip config /all.

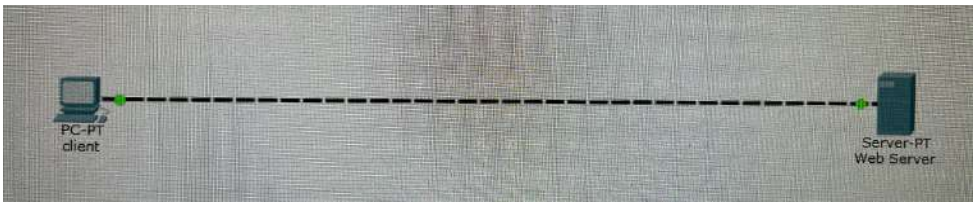
Output:



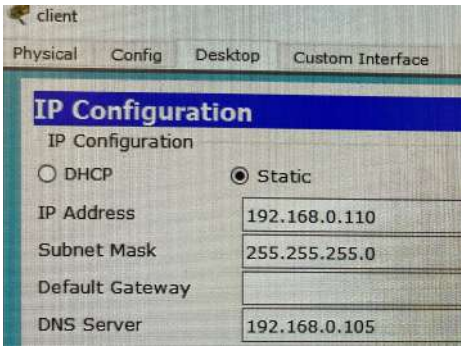
Tutorial -2 (Creating a First Network)

STEPS

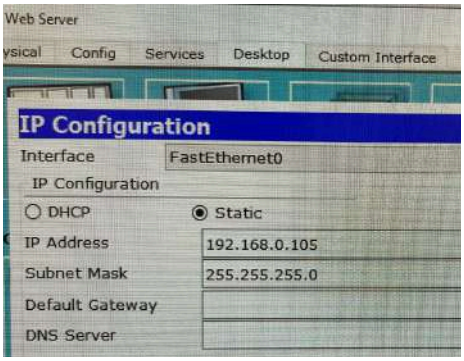
1. Adding Devices:
    - Add a Generic PC and a Generic Server to the workspace.



2. Connecting Devices:
    - Initially, use a Copper Straight-through cable, then replace it with a Copper Cross-over cable.
    - The red lights indicate a failed connection, while the green lights indicate a successful connection.
3. Testing Power Cycle:
    - Turn off and on the devices (PC and Server) to observe how the link lights change (green for "up", red for "down").
4. Exploring Device Information:
    - You can get more information in three ways:
        - Mouse over devices for basic information.
        - Click on each device to open the configuration window.
5. Configuring the PC (Client):
    - Change the display name to Client.
    - Set the DNS server to 192.168.0.105.
    - Configure the IP address for the PC's FastEthernet0 interface as 192.168.0.110.
    - Ensure the Port Status is "on".



6. Configuring the Server (Web Server):
    - Change the display name to Web Server.
    - Set the IP address for FastEthernet0 to 192.168.0.105.
    - Under the Services Tab, enable the DNS service and configure the domain name www.firstlab.com with the IP address 192.168.0.105.



Tutorial -3 (Sending Simple Test Messages in Realtime Mode)

STEPS

1. Open the Saved File (Previous Tutorial File):

- Open the previously saved file from the last section. Ensure it loads in Realtime Mode, the default mode when opening Packet Tracer projects.

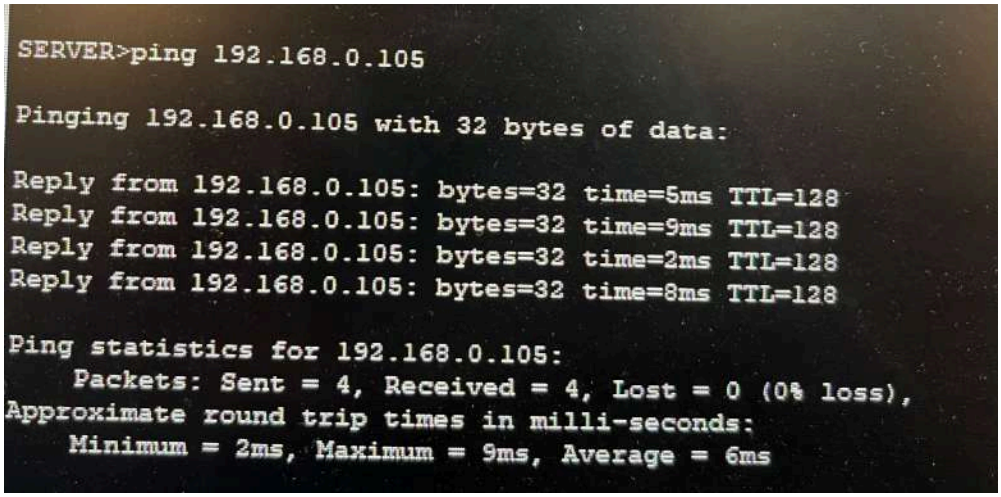
2. Send a Ping Using the Simple PDU Tool:

- Use the Add Simple PDU tool (usually represented by a letter icon or similar) to create a one-time ping from the PC (Client) to the Server (Web Server).
- When the server receives the ping, it will automatically send an echo reply because the IP addresses are configured correctly.
- This ping confirms the connectivity between the devices.

3. View Ping Status:

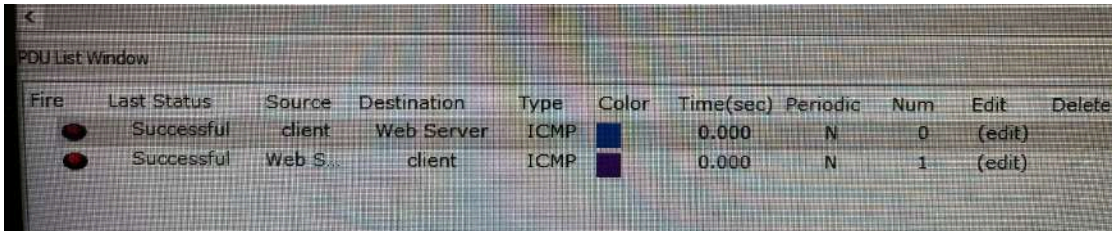
- Open the User Created Packet Window by clicking the left-facing arrow located in the lower right corner of Packet Tracer.

- This window shows details of the ping, such as its status and whether the ping was successful.



4. Toggle the PDU List Window:

- Click the PDU List Window (you can toggle this window to enlarge it). This gives a larger display and further details of the sent messages.



5. Save the First Scenario:

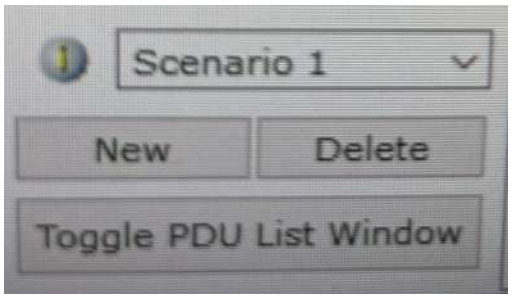
- In the PDU List Window, label this first set of actions as Scenario 0.
- Add a descriptive note using the “i” note tool, explaining that this scenario represents a successful basic ping test from the PC to the server.

6. Create a New Scenario:

- Click on the New button to create a new scenario. Initially, this scenario will be blank.
- Use the Simple PDU tool again:
    1. Send a packet from the PC to the Server.
    2. Send a packet from the Server to the PC.
- Add a descriptive “i” note to Scenario 1, explaining that this scenario involves bidirectional packet exchange between the PC and the server.

7. Alternate Between Scenarios:

- You can now switch between Scenario 0 (the initial ping test) and Scenario 1 (the bidirectional packet exchange).
- Test and observe how the packets behave in each scenario.



8. Remove Scenario 0:

- To remove Scenario 0, click the Delete button while Scenario 0 is selected.
- Now, only Scenario 1 should remain visible.

9. Delete PDUs in Scenario 1:

- Go to the User Created Packet Window in Scenario 1.
- In the last column, double-click each entry to delete the PDUs one by one.
- Once all PDUs are removed, you can also delete Scenario 1 entirely.

10. Return to the Default Scenario 0:

- After deleting Scenario 1, the system will automatically revert to Scenario 0, the default state.
- At this point, your network is reset to the initial state, and all custom scenarios are removed.