Name: Apeksha Chavan
TE COMPS
Roll No.: 2
UID: 2017130013

CEL 51, DCCN, Monsoon 2020

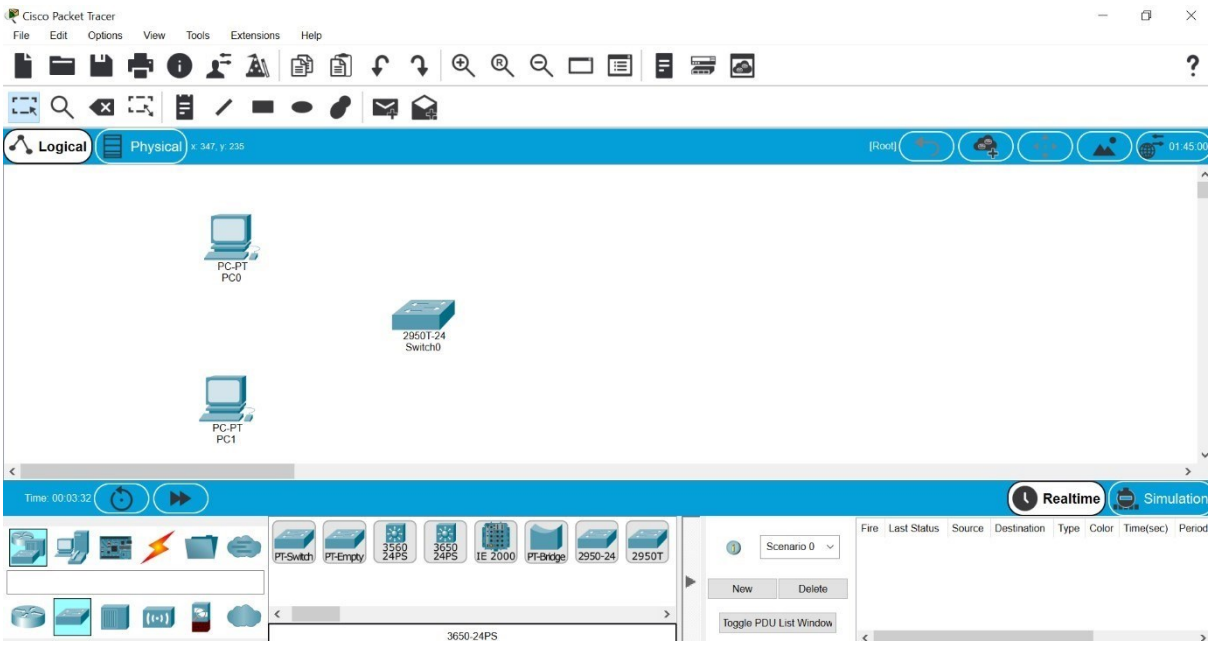
Lab 4: Prototyping a Network

Objective:
Prototype a network using Packet Tracer

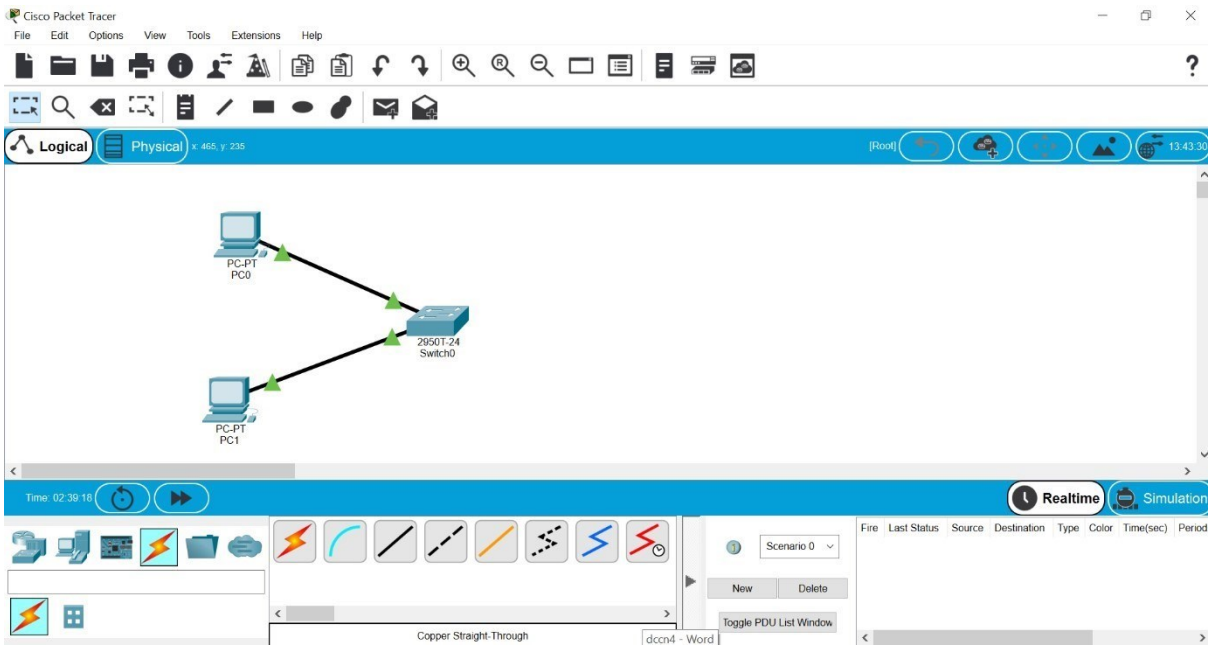
Background
A client has requested that you set up a simple network with two PCs connected to a switch. Verify that the hardware, along with the given configurations, meet the requirements of the client.

Step 1: Set up the network topology

a) Add two PCs and a Cisco 2950T switch

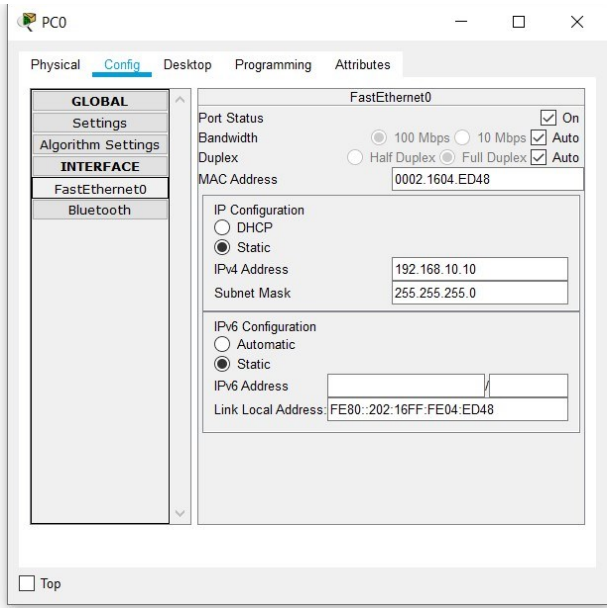


b) Using straight-through cables, connect **PC0** to interface **Fa0/1** on **Switch0** and **PC1** to interface **Fa0/2** on **Switch0**.



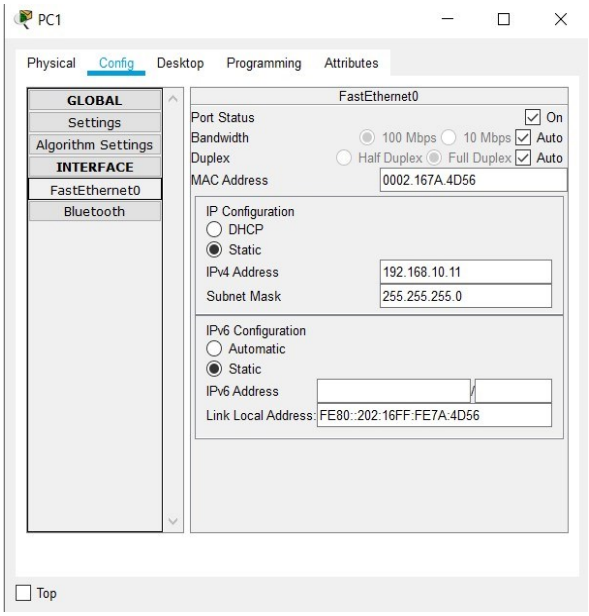
c) Configure PC0 using the **Config** tab in the PC0 configuration window:

a. IP address: 192.168.10.10
b. Subnet Mask 255.255.255.0



d) Configure PC1 using the **Config** tab in the PC1 configuration window

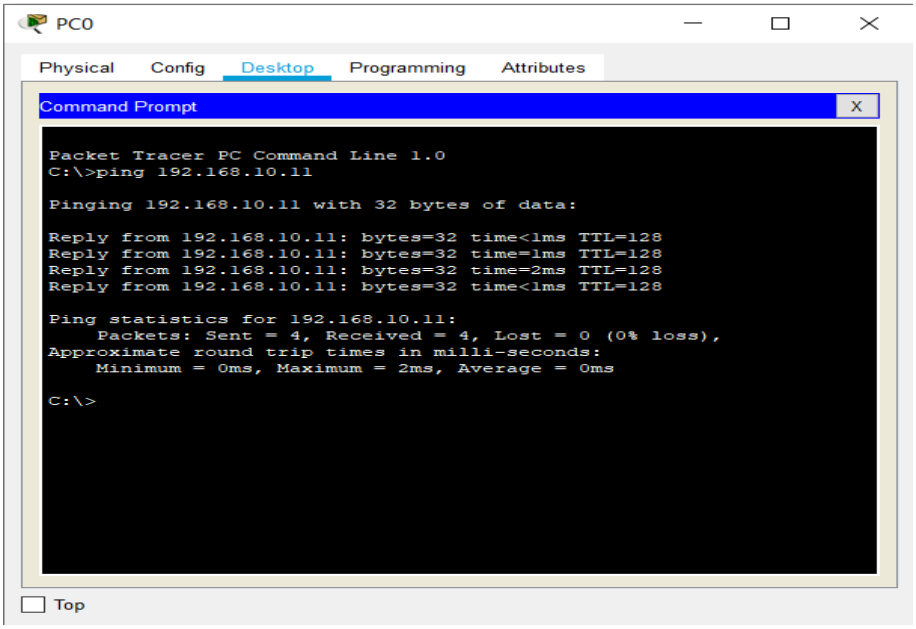
a. IP address: 192.168.10.11
b. Subnet Mask 255.255.255.0



Step 2: Test connectivity from PC0 to PC1

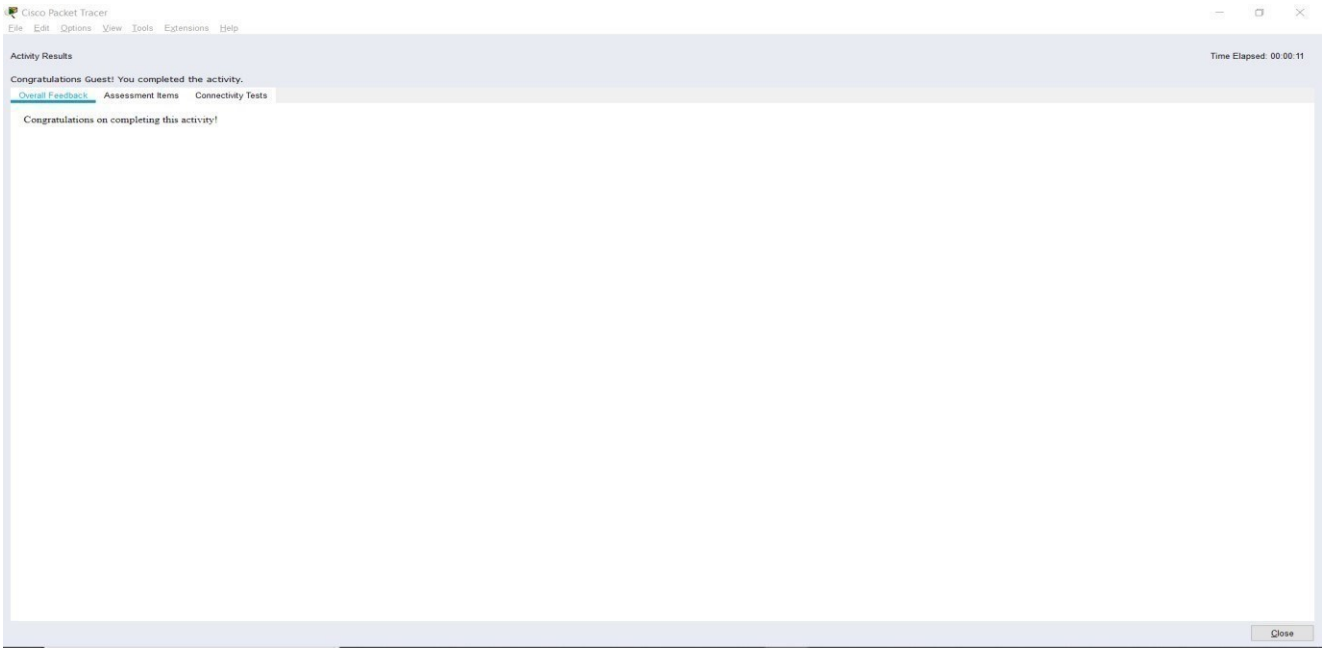
a) Use the **ping** command to test connectivity.
   a. Click PC0.
   b. Choose the **Desktop** tab.
   c. Choose **Command Prompt**.
   d. Type: **ping 192.168.10.11** and press *enter*.

b) A successful **ping** indicates the network was configured correctly and the prototype validates the hardware and software configurations. A successful ping should resemble the below output:



c) Close the configuration window.

d) Click the **Check Results** button at the bottom of the instruction window to check your work.

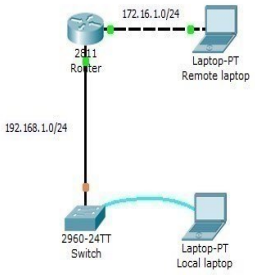


CEL51, DCCN, Monsoon 2020

Lab 4.1: Basic configuration - hostname, motd banner, passwd etc

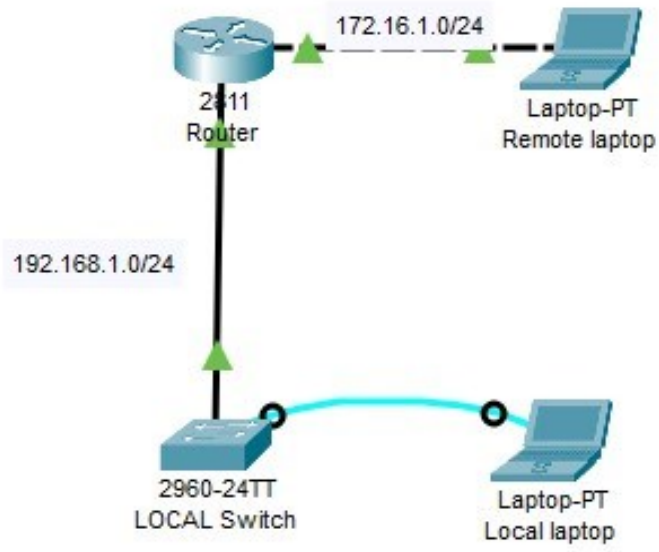
Objective:

This lab will test your ability to configure basic settings such as hostname, motd banner, encrypted passwords, and terminal options on a Packet Tracer 6.2 simulated Cisco Catalyst switch.

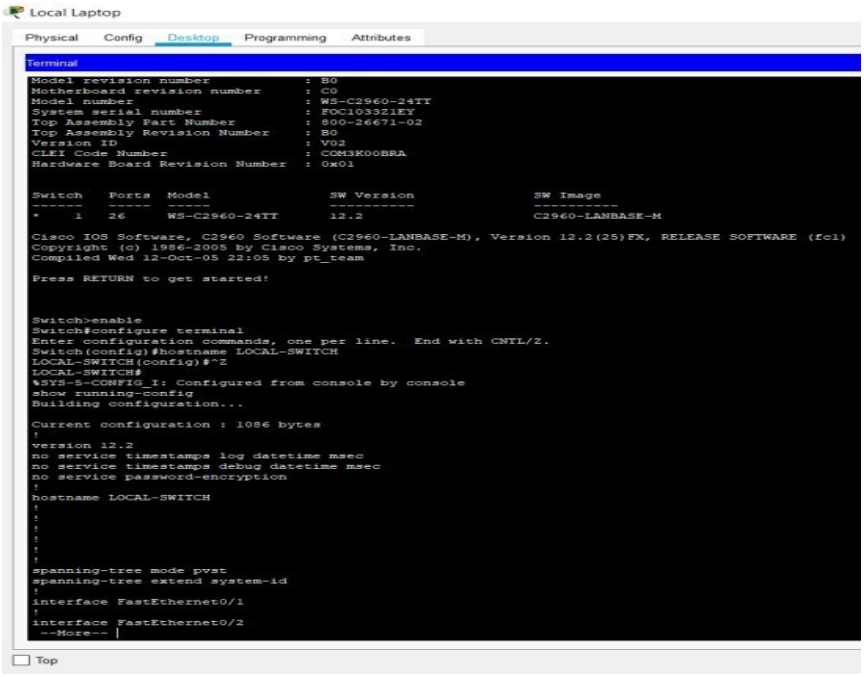


Empty working space

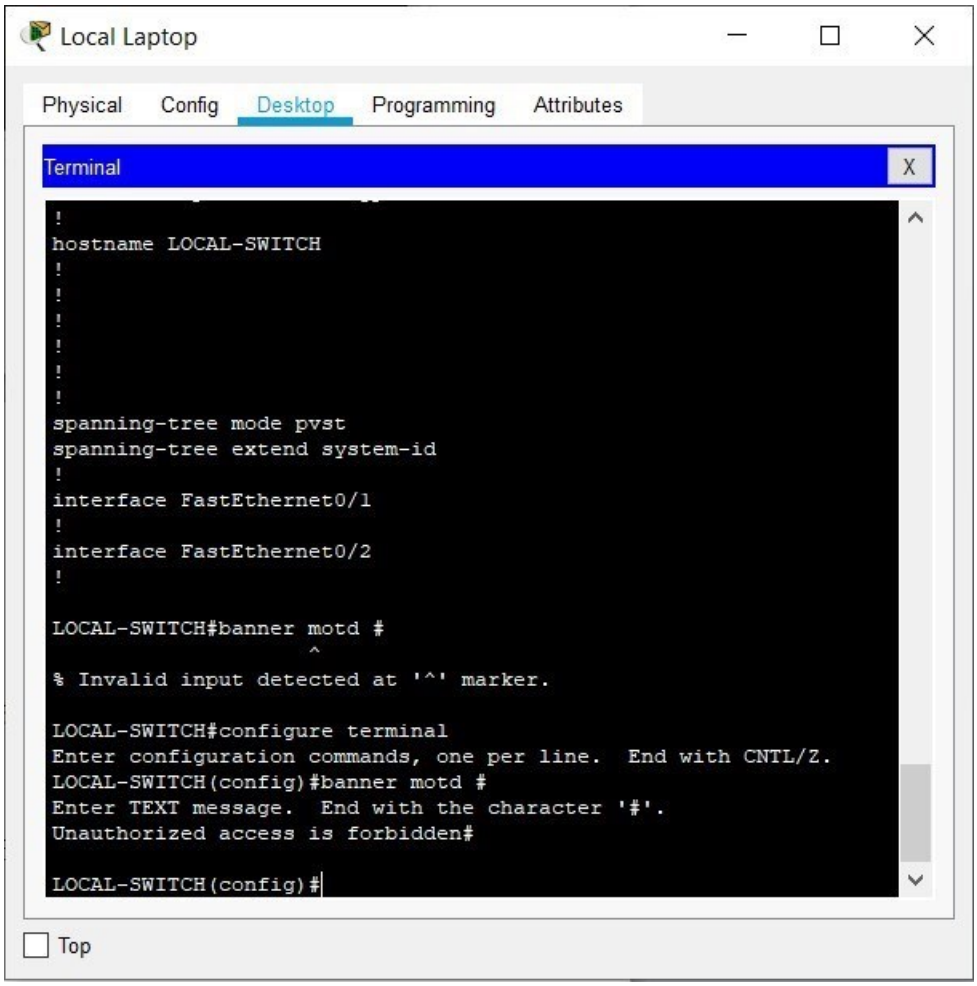
1. Use the local laptop connect to the switch console.



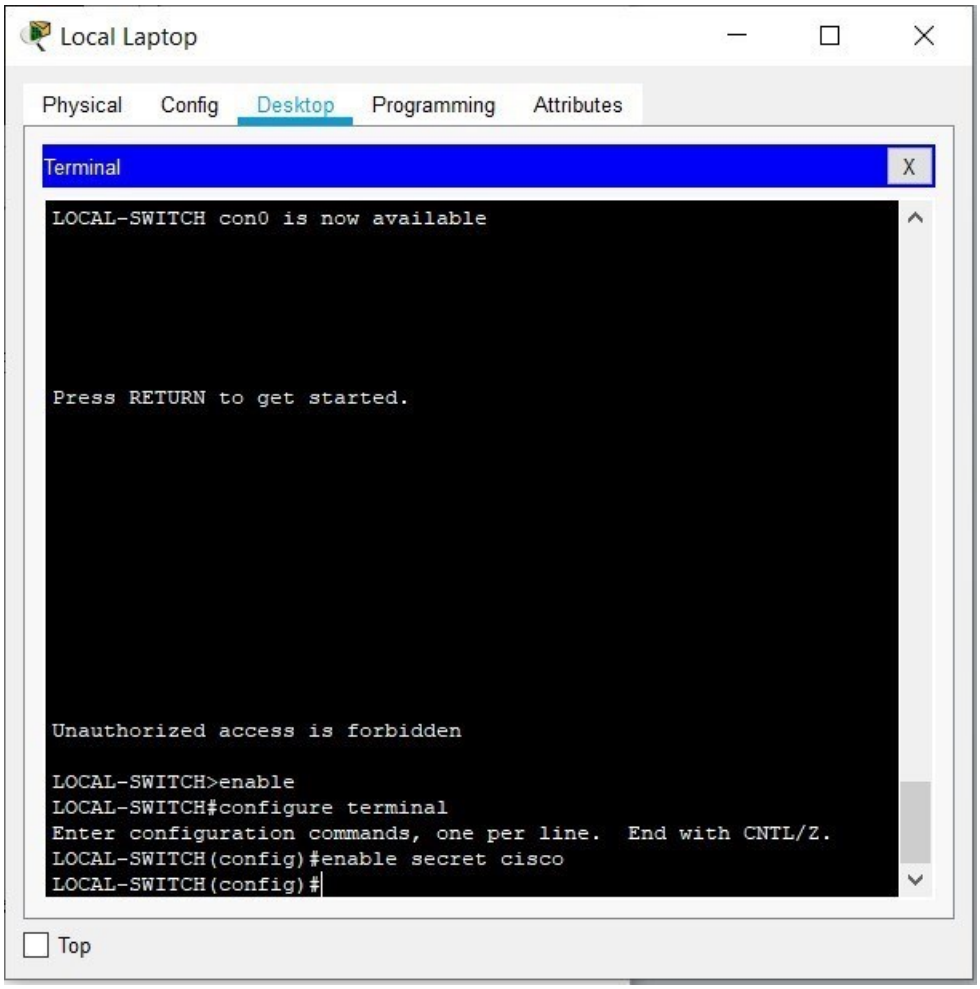
2. Configure Switch hostname as LOCAL-SWITCH

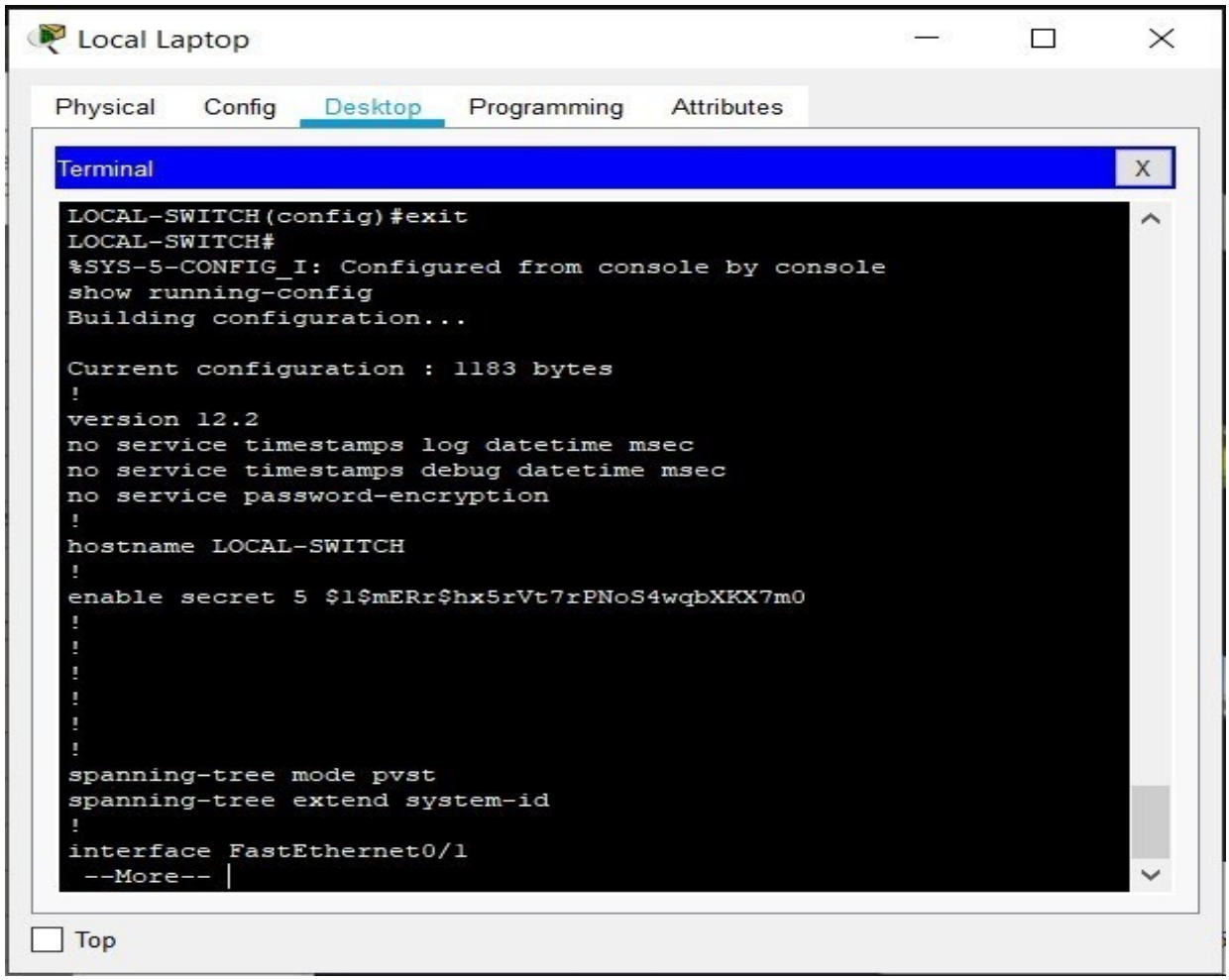


3. Configure the message of the day as "Unauthorized access is forbidden"

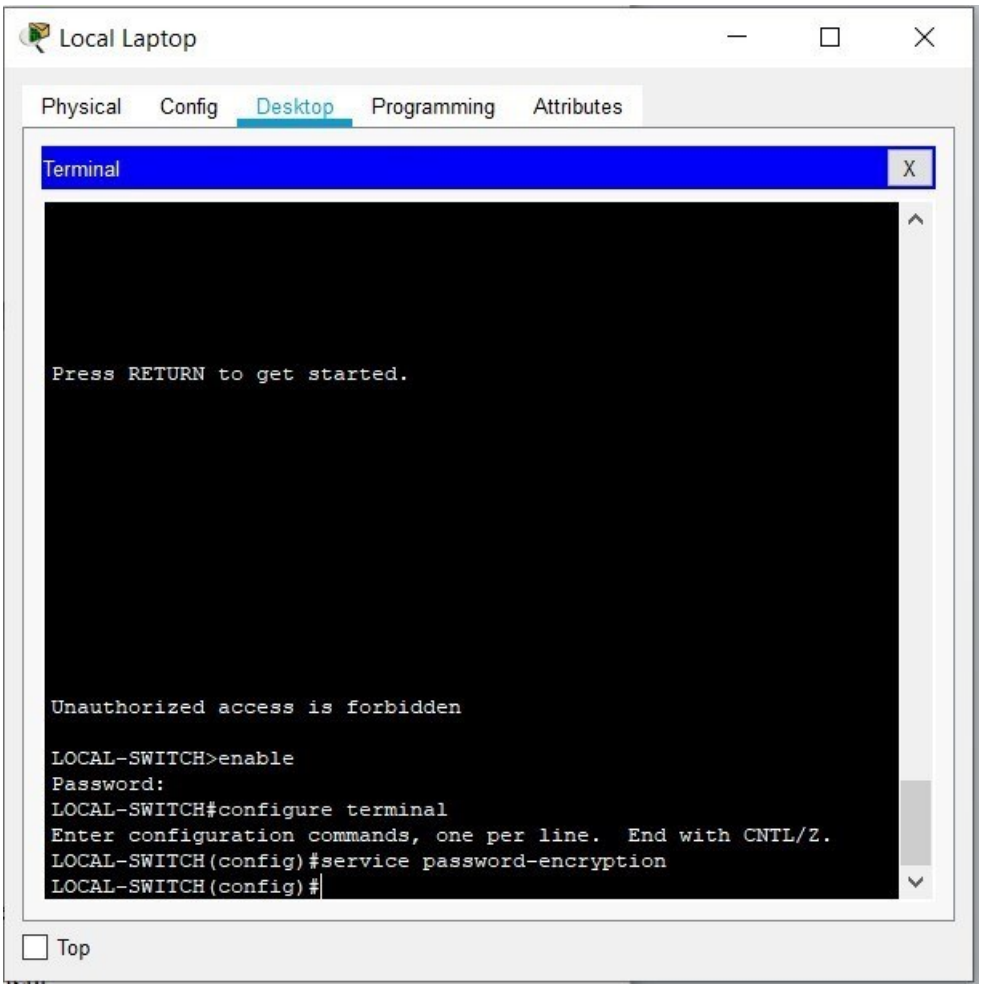


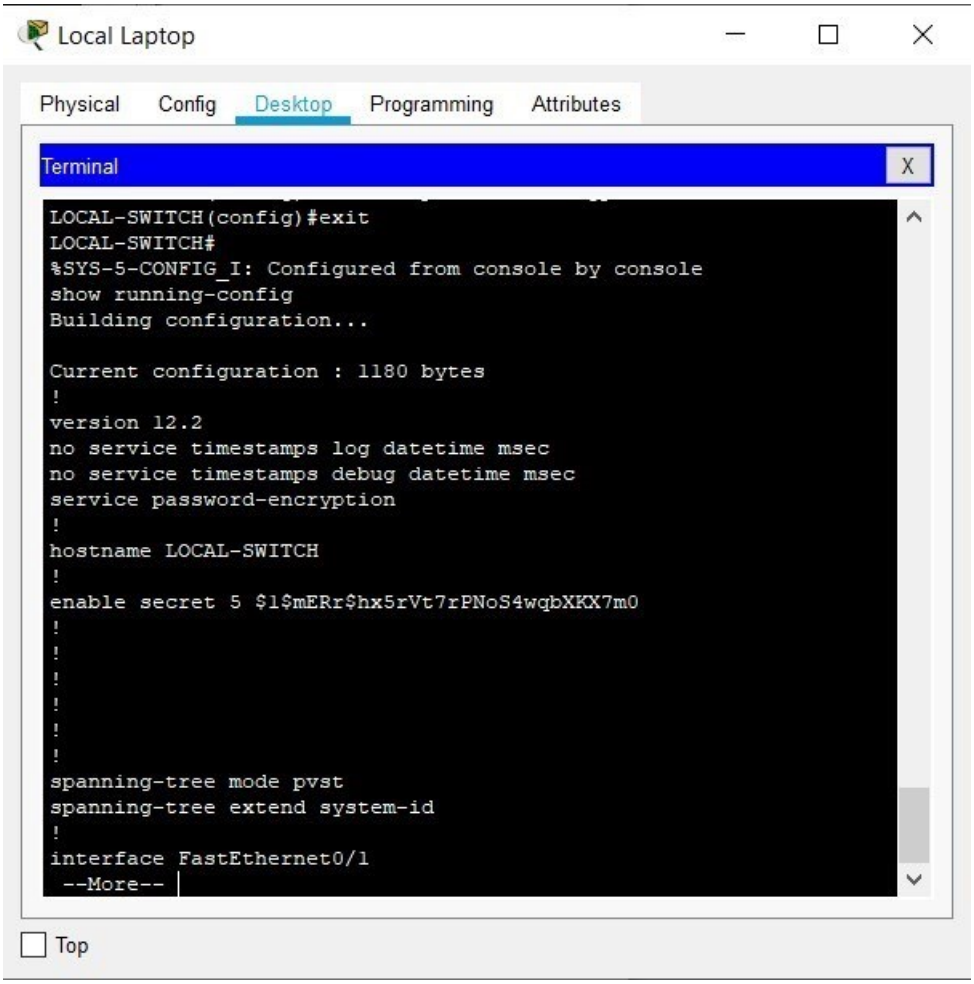
4. Configure the password for privileged mode access as "cisco". The password must be md5 encrypted


Local Laptop
Physical
Config
Desktop
Programming
Attributes
Terminal
X
LOCAL-SWITCH con0 is now available
Press RETURN to get started.
Unauthorized access is forbidden
LOCAL-SWITCH>enable
LOCAL-SWITCH#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
LOCAL-SWITCH(config)#enable secret cisco
LOCAL-SWITCH(config)#
Top

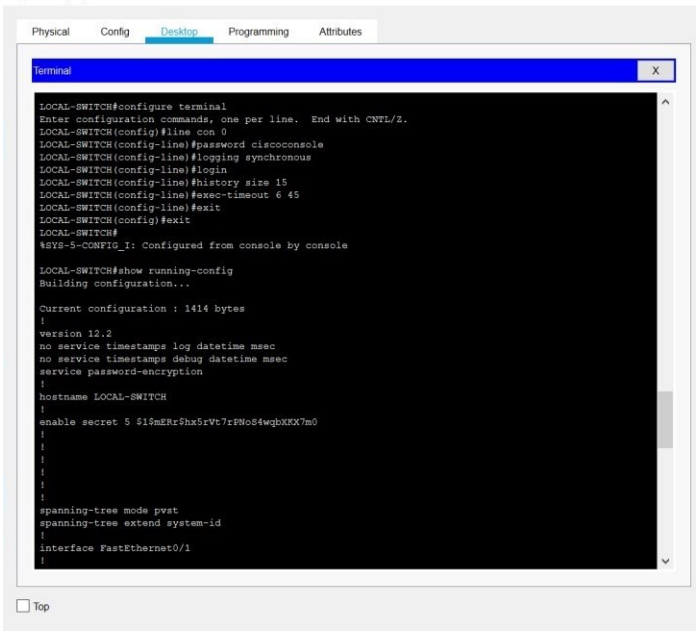


5. Configure password encryption on the switch using the global configuration command

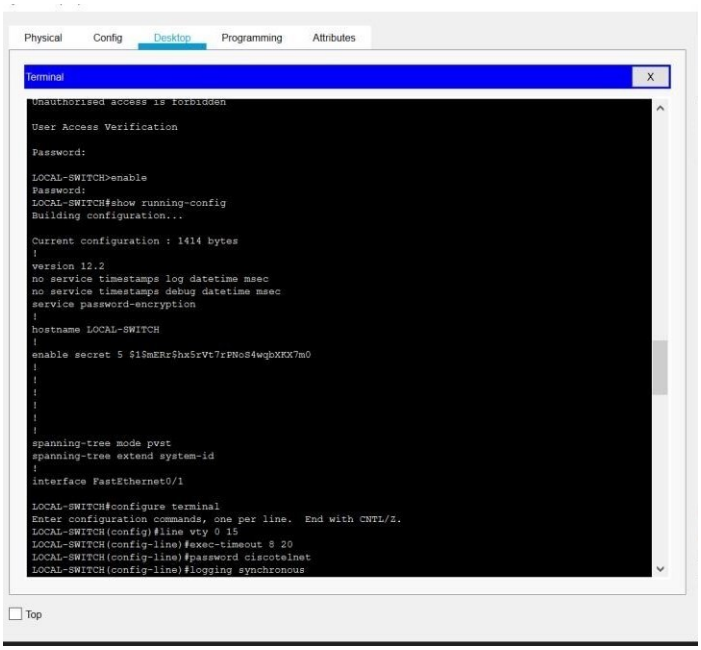

Local Laptop
Physical
Config
Desktop
Programming
Attributes
Terminal
X
Press RETURN to get started.
Unauthorized access is forbidden
LOCAL-SWITCH>enable
Password:
LOCAL-SWITCH#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
LOCAL-SWITCH(config)#service password-encryption
LOCAL-SWITCH(config)#
Top

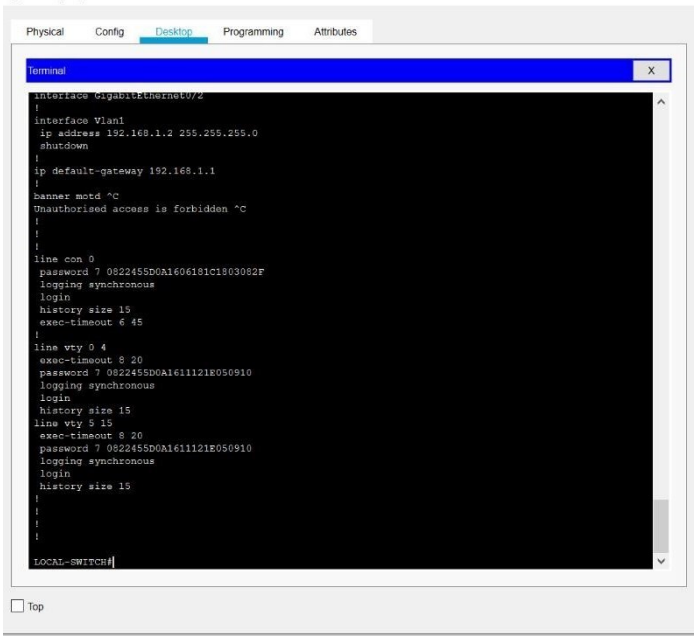


6. Configure CONSOLE access with the following settings:
- Login enabled
- Password: whatever you like
- History size: 15 commands
- Timeout: 6'45"
- Synchronous logging

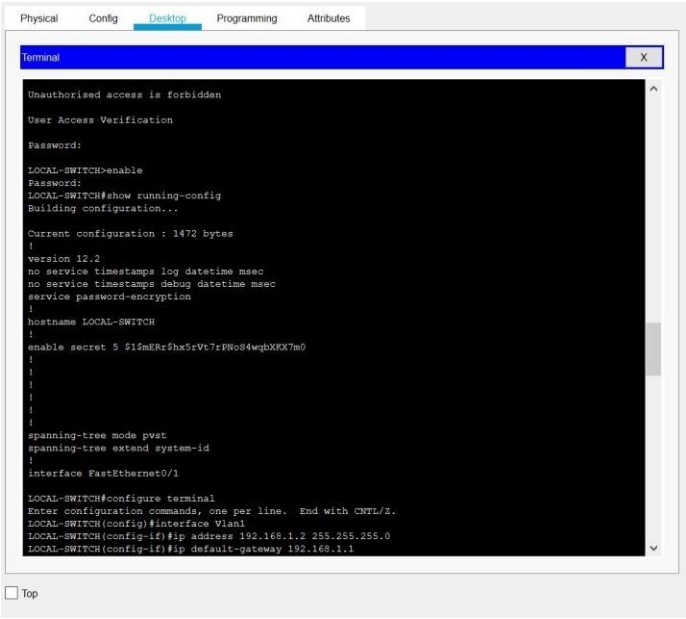


7. Configure TELNET access with the following settings:
- Login enabled
- Password: whatever you like
- History size: 15 commands
- Timeout: 8'20"
- Synchronous logging

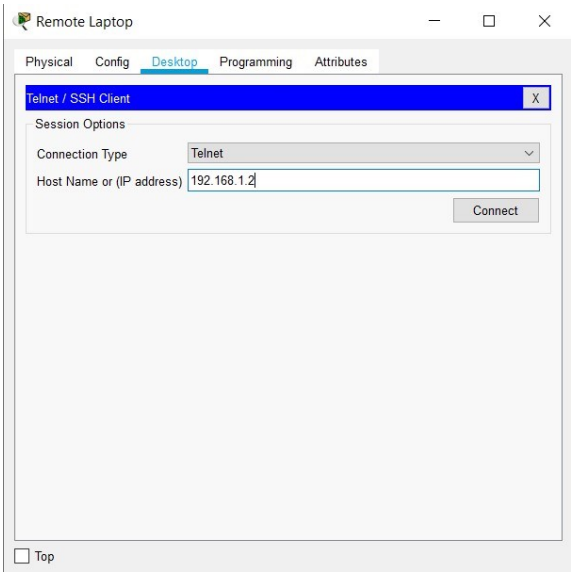


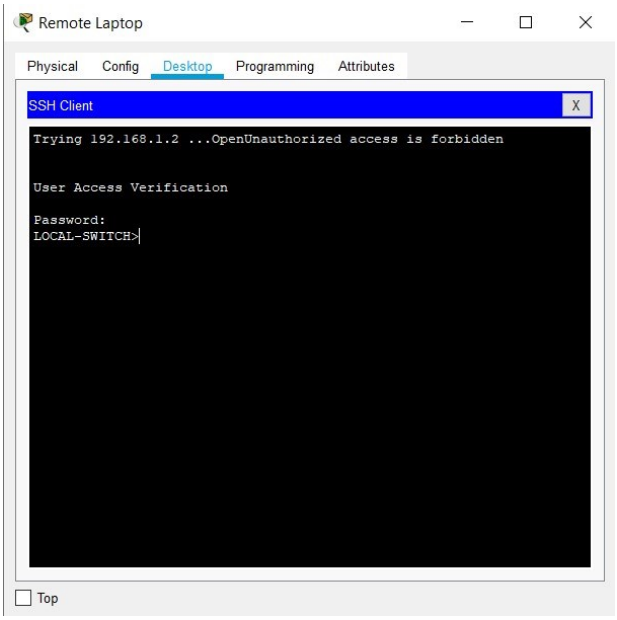


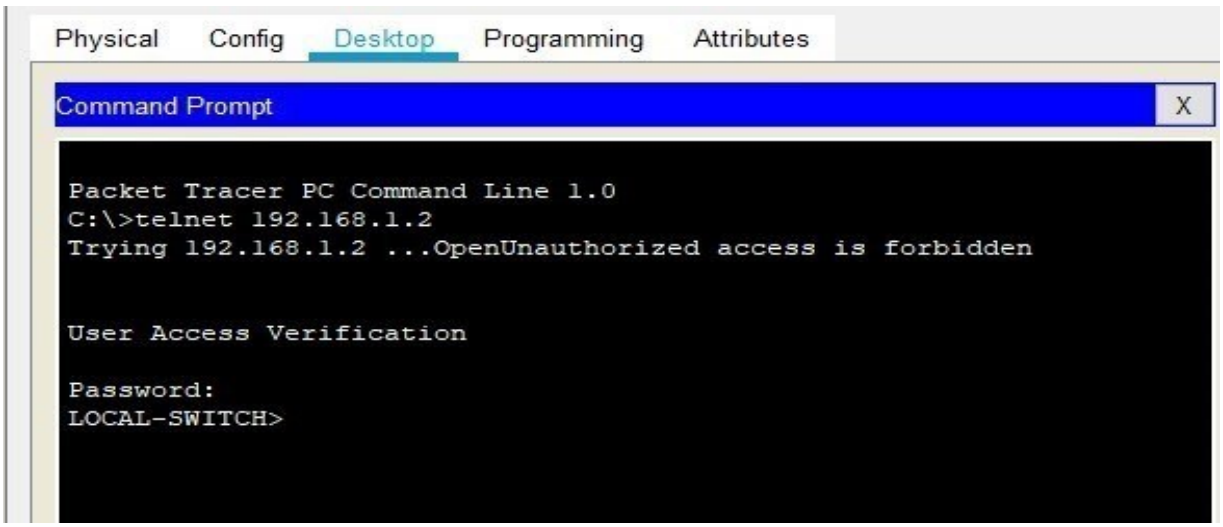
8. Configure the IP address of the switch as 192.168.1.2/24 and its default gateway IP (192.168.1.1).

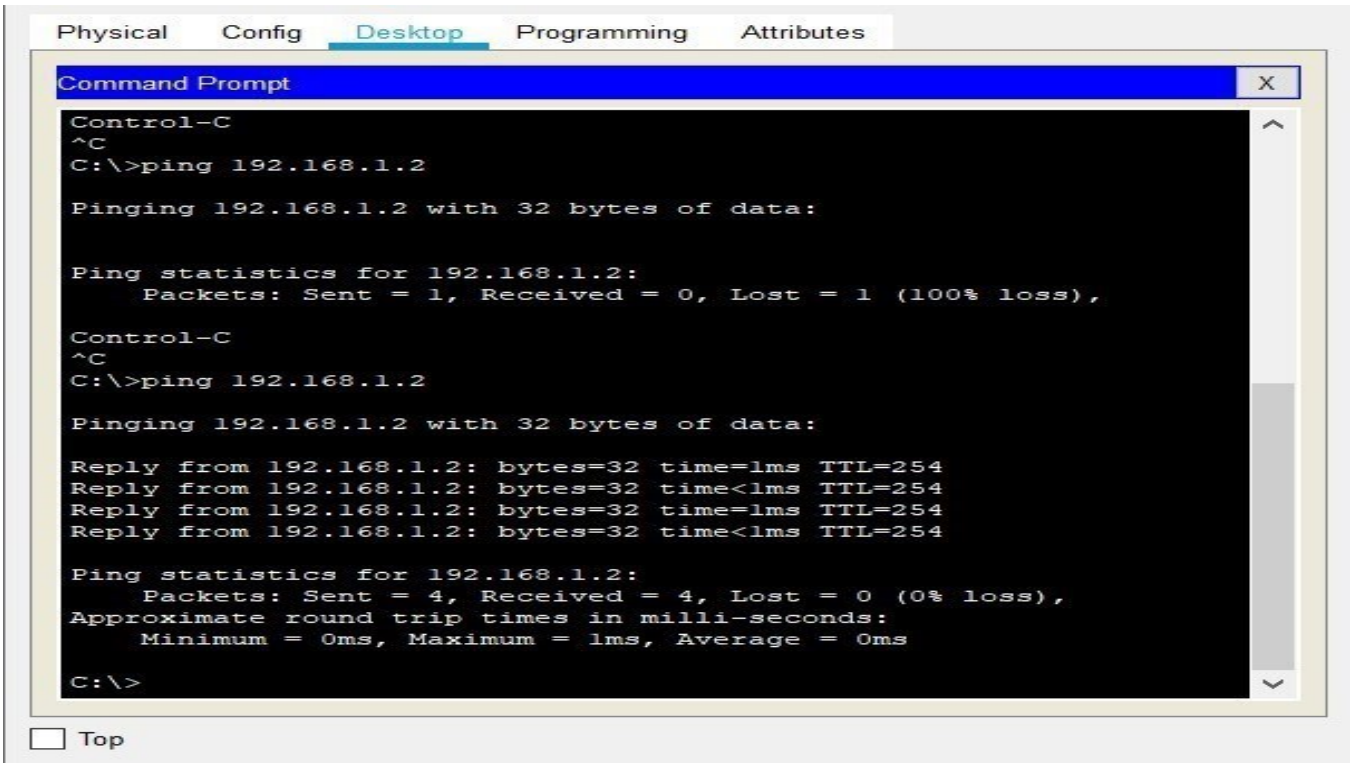


8. Test telnet connectivity from the Remote Laptop using the telnet client.


Remote Laptop
Physical
Config
Desktop
Programming
Attributes
Telnet / SSH Client
X
Session Options
Connection Type
Telnet
Host Name or (IP address)
192.168.1.2
Connect
Top


Remote Laptop
Physical
Config
Desktop
Programming
Attributes
SSH Client
X
Trying 192.168.1.2 ...OpenUnauthorized access is forbidden
User Access Verification
Password:
LOCAL-SWITCH>
Top


Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Packet Tracer PC Command Line 1.0
C:\>telnet 192.168.1.2
Trying 192.168.1.2 ...OpenUnauthorized access is forbidden
User Access Verification
Password:
LOCAL-SWITCH>



Conclusion – After completing the above experiment, I understood the connectivity of router and switch with end devices and also understood how to configure the telnet.