

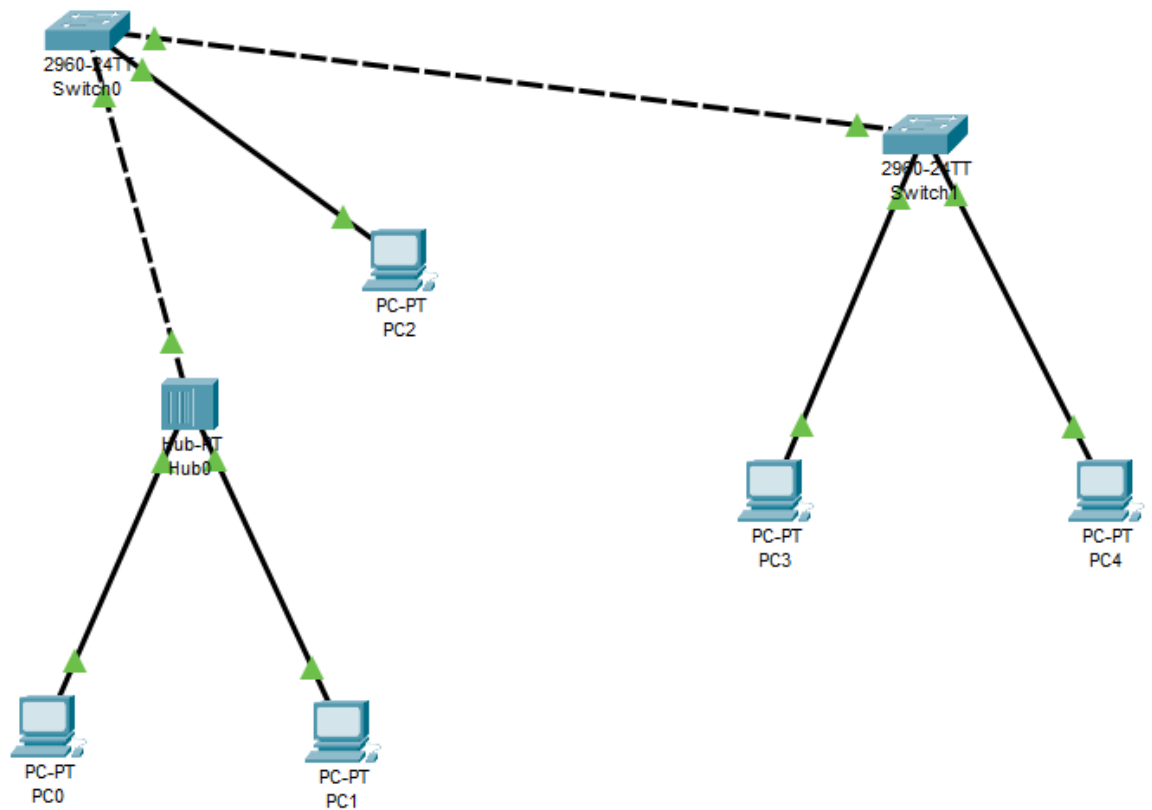
Lab1

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Setup a simple LAN

Prepare the simple LAN shown in above diagram in your Workspace.

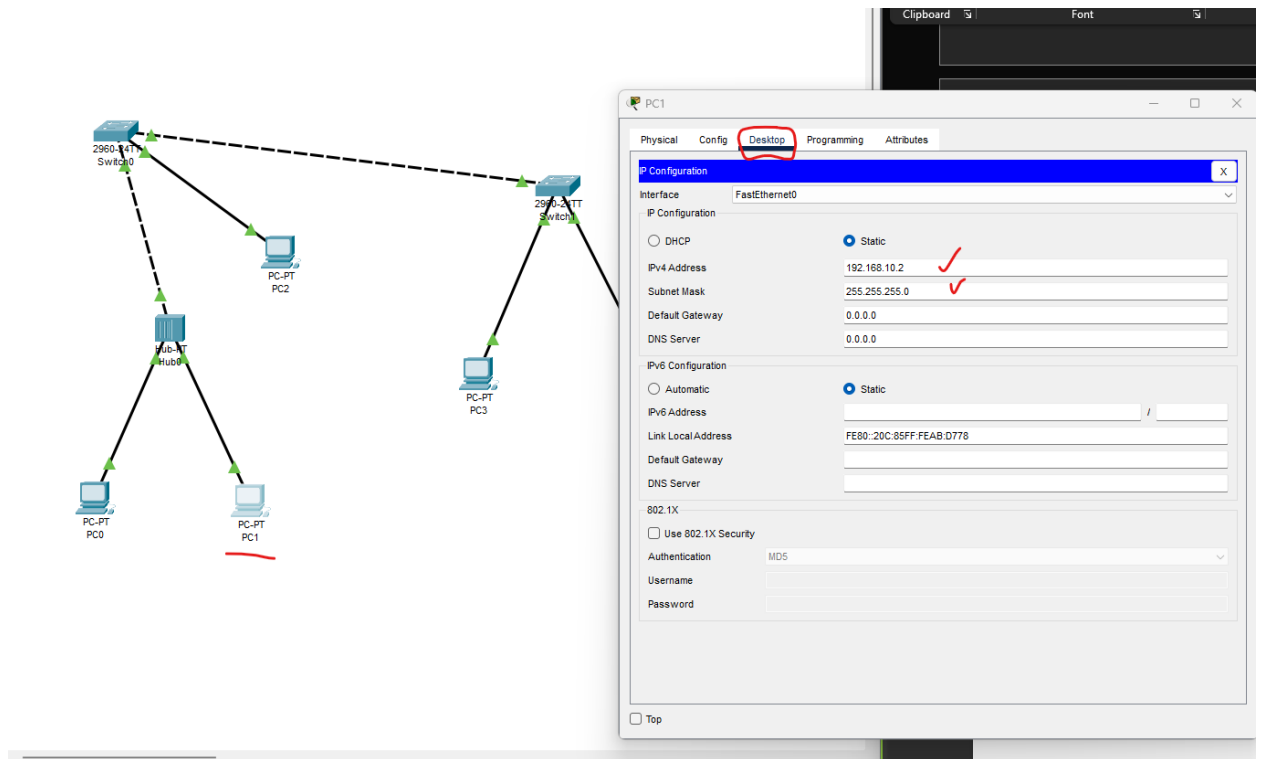


Configure the following IP addresses in the PCs.

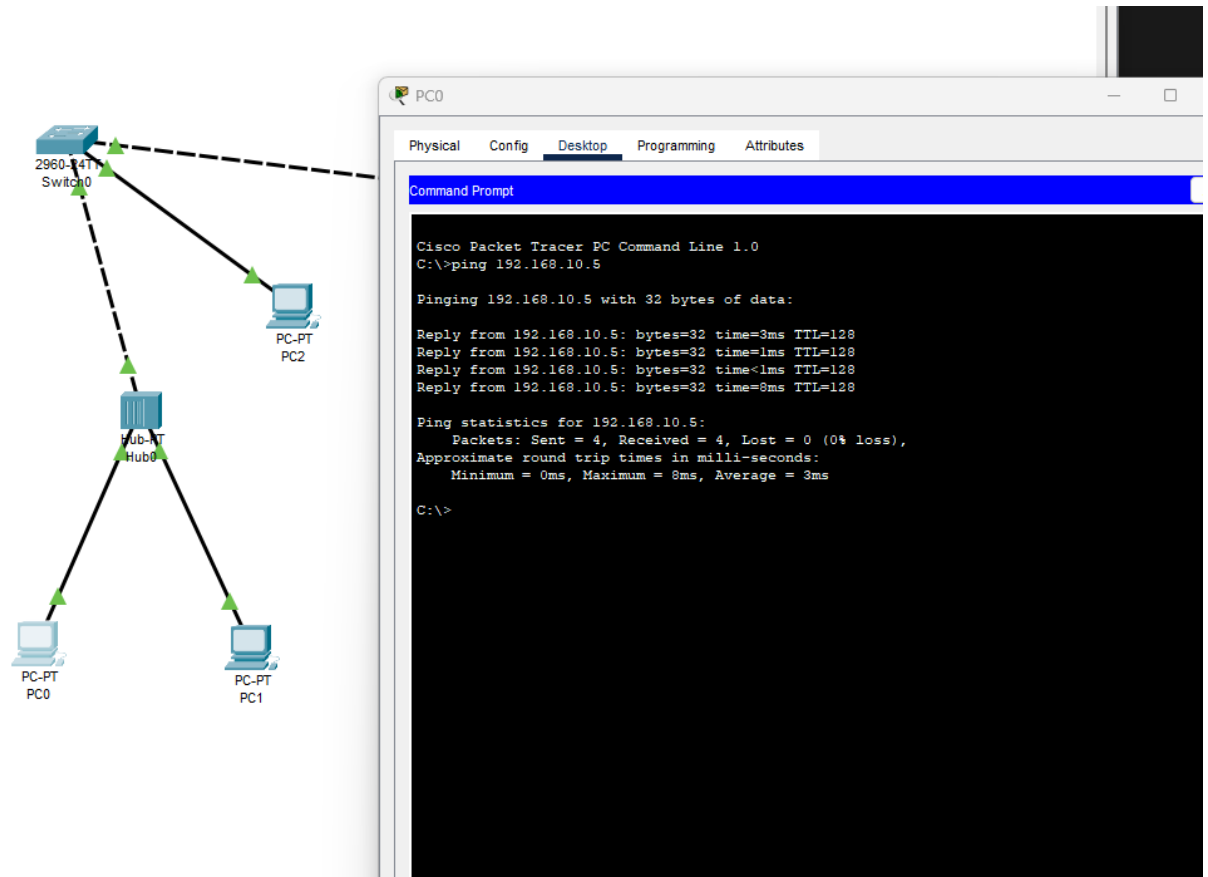
PC	IP Address	Subnet Mask
PC0	192.168.10.1	255.255.255.0
PC1	192.168.10.2	255.255.255.0
PC2	192.168.10.3	255.255.255.0
PC3	192.168.10.4	255.255.255.0
PC4	192.168.10.5	255.255.255.0

Steps to configure

1. Select the PC and go Desktop → IP configuration

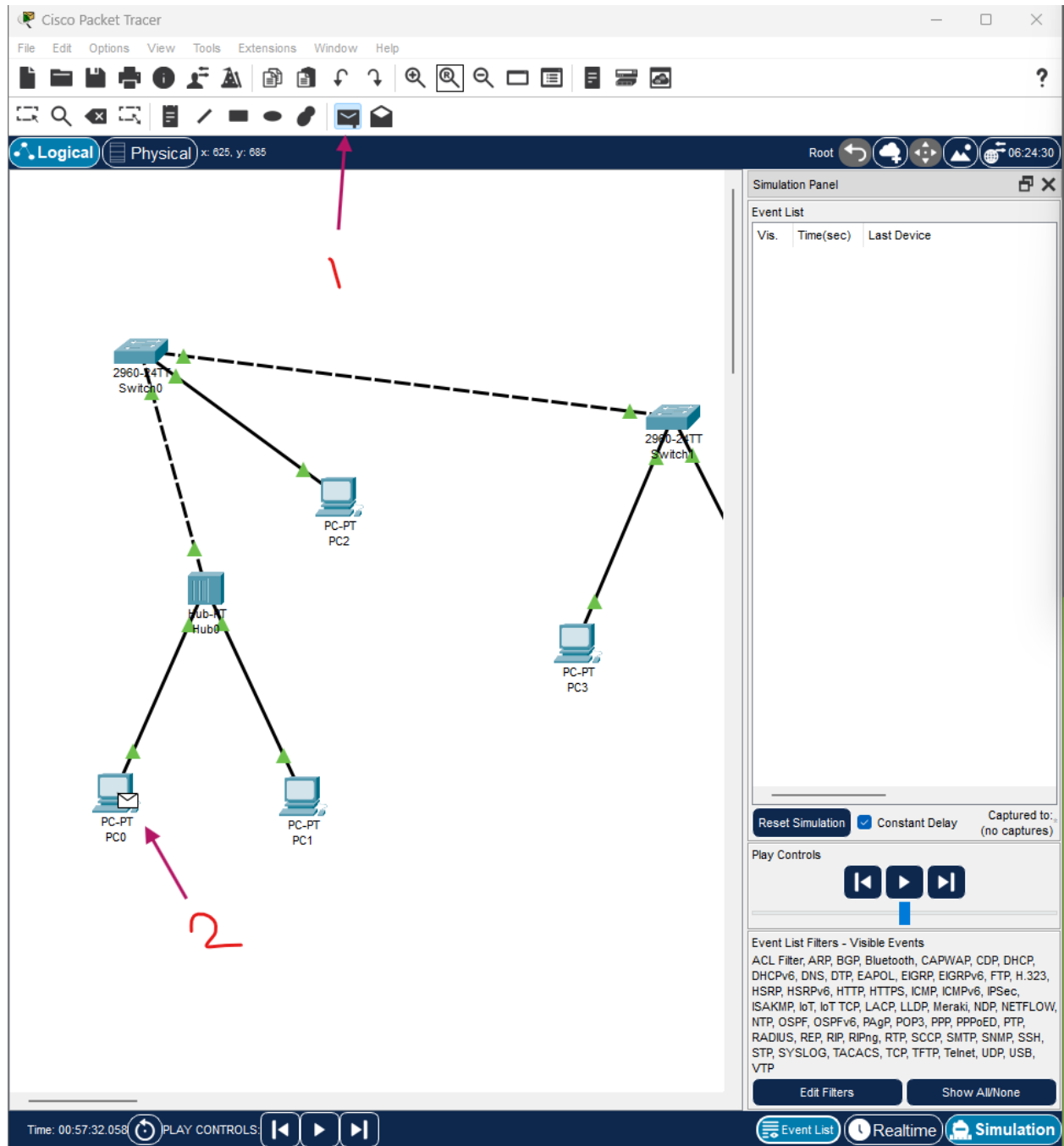


2. Using ping command check whether your connection is done



Working with the Simulation mode

1. Go to Simulation mode.
2. Click on simple PDU and click on source device (PC0) and destination (pc3)



3. Click auto capture button to play it.

The screenshot displays the Cisco Packet Tracer interface. The main workspace shows a network topology with two switches (2960-24T Switch0 and 2960-24T Switch1) and several PCs (PC0, PC1, PC2, PC3, PC4). PC0 and PC1 are marked with red 'X' icons, indicating they are not connected. The Event List panel on the right shows a list of events with columns for 'Vis.', 'Time(sec)', and 'Last Device'. The bottom status bar shows the simulation is running and the last status is 'Successful'.

Vis.	Time(sec)	Last Device
	0.006	Switch1
	0.007	Switch0
	0.008	Hub0
	0.008	Hub0
	0.580	--
	0.581	Switch1
	0.581	Switch1
	0.581	Switch1
	0.582	Switch0
	0.582	Switch0
	0.583	Hub0
	0.583	Hub0
	1.836	--
	1.836	--
	1.837	Switch0
	1.837	Switch0
	1.837	Switch0
	1.838	Hub0
	1.838	Hub0
	2.122	--
	2.123	Switch0
	2.124	Hub0
	2.124	Hub0

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PaGp, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Time: 00:57:48.210 PLAY CONTROLS

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status Source Destination

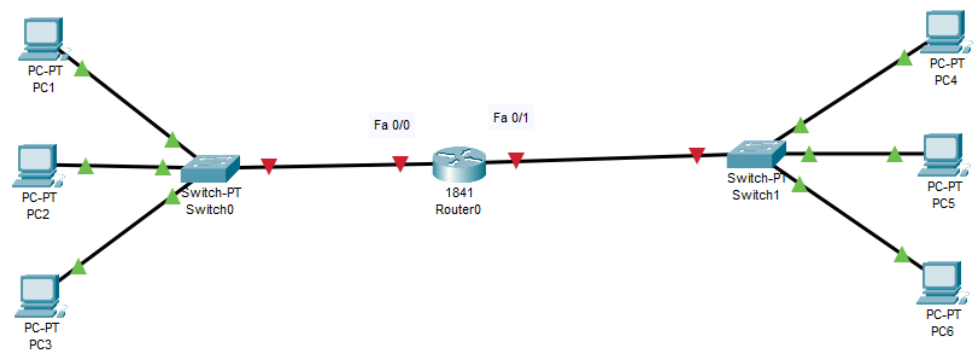
Successful PC0 PC3



20250226-1329-41.5
795689.mp4

Note: Carefully observe the functional difference between Switch and Hub. Hub sends all the packets it receives to all the PCs while Switch is transferring the packets only to the intended destination

Lab1 _ Sheet2



1. Rename the network devices as follows:

Router 0 -> SLIIT

Switch 0 -> IT

Switch1 -> CSN

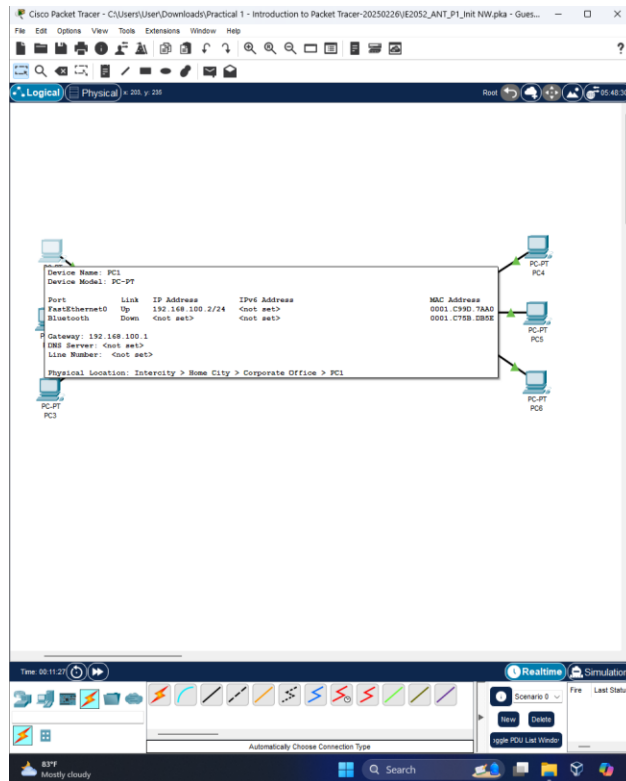
2. Assign the IP addresses to the PCs and interfaces as follows:

Device	IP Address	Subnet Mask	Default Gateway
PC1	192.168.100.2	255.255.255.0	192.168.100.1
PC2	192.168.100.3	255.255.255.0	
PC3	192.168.100.4	255.255.255.0	
PC4	192.168.200.2	255.255.255.0	192.168.200.1
PC5	192.168.200.3	255.255.255.0	
PC6	192.168.200.4	255.255.255.0	
Router0 Fa0/0	192.168.100.1	255.255.255.0	N/A
Router0 Fa0/1	192.168.200.1	255.255.255.0	N/A

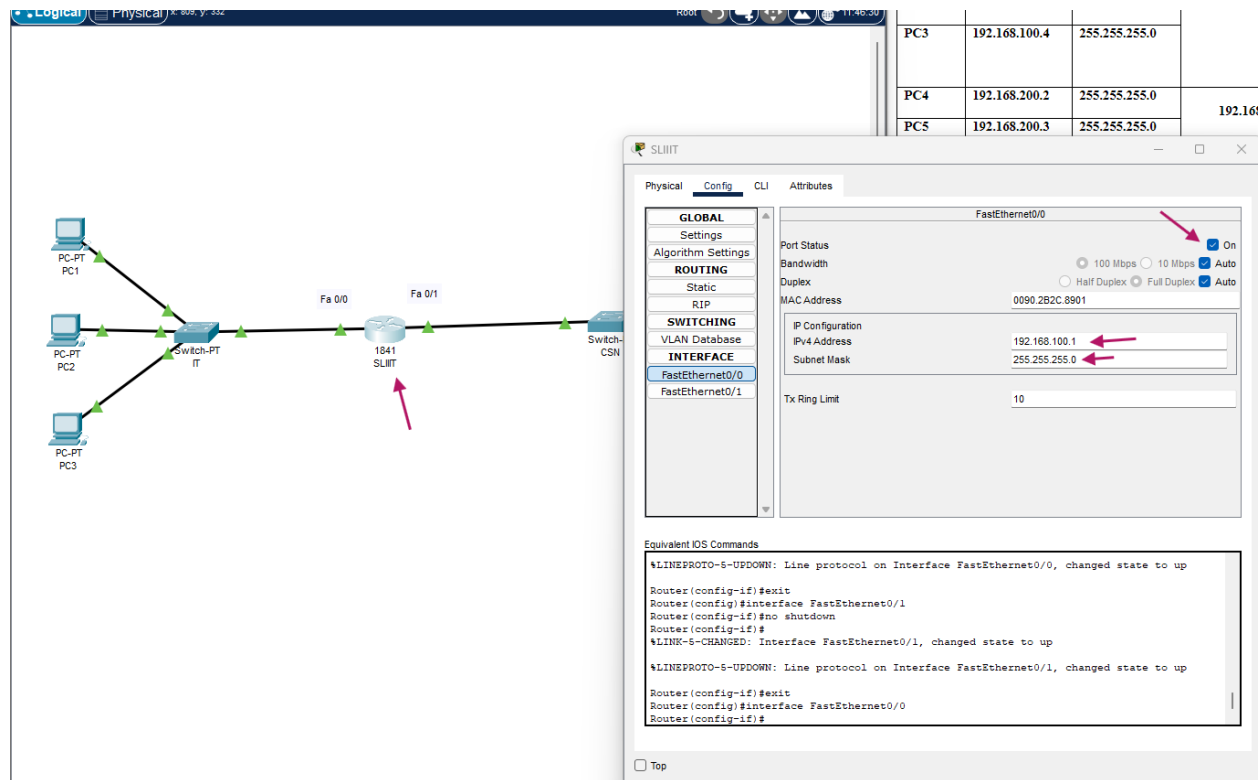
3. Use the *ping* command to check the connectivity

Steps

1. Set ip address, default gateway , subnet mask for each and every pc



- Set default gateway address to router for f0/0 and f0/1 and make sure to add tick on the checkbox.



The image shows a network diagram and the SLIIT configuration window. The network diagram on the left illustrates a topology where three PCs (PC1, PC2, PC3) are connected to a switch (Switch-PT IT). This switch is connected to a router (1841 SLIIT) via its Fa 0/0 interface. The router's Fa 0/1 interface is connected to another switch (Switch-PT CSN). The SLIIT configuration window on the right is open to the 'Config' tab, specifically the 'INTERFACE' section for 'FastEthernet0/0'. The 'On' checkbox is checked, and the 'IPv4 Address' is set to 192.168.100.1 with a 'Subnet Mask' of 255.255.255.0. The 'Equivalent IOS Commands' section at the bottom shows the configuration commands for both interfaces.

PC	IP Address	Subnet Mask
PC3	192.168.100.4	255.255.255.0
PC4	192.168.200.2	255.255.255.0
PC5	192.168.200.3	255.255.255.0

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#no shutdown
Router(config-if)#
%LINE-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

3. Check the network doing ping command

The screenshot shows the SLIIT (Simple Linux Interface for Internet Tools) configuration window. The 'Config' tab is selected, and the 'FastEthernet0/1' interface is chosen from the left sidebar. The main configuration area shows the following settings:

- Port Status:** ☒ On
- Bandwidth:** ☒ 100 Mbps ☐ 10 Mbps ☒ Auto
- Duplex:** ☒ Half Duplex ☐ Full Duplex ☒ Auto
- MAC Address:** 0090.2B2C.8902
- IP Configuration:**
 - IPv4 Address:** 192.168.200.1
 - Subnet Mask:** 255.255.255.0
- Tx Ring Limit:** 10

Below the configuration area, the 'Equivalent IOS Commands' section displays the following commands and their outputs:

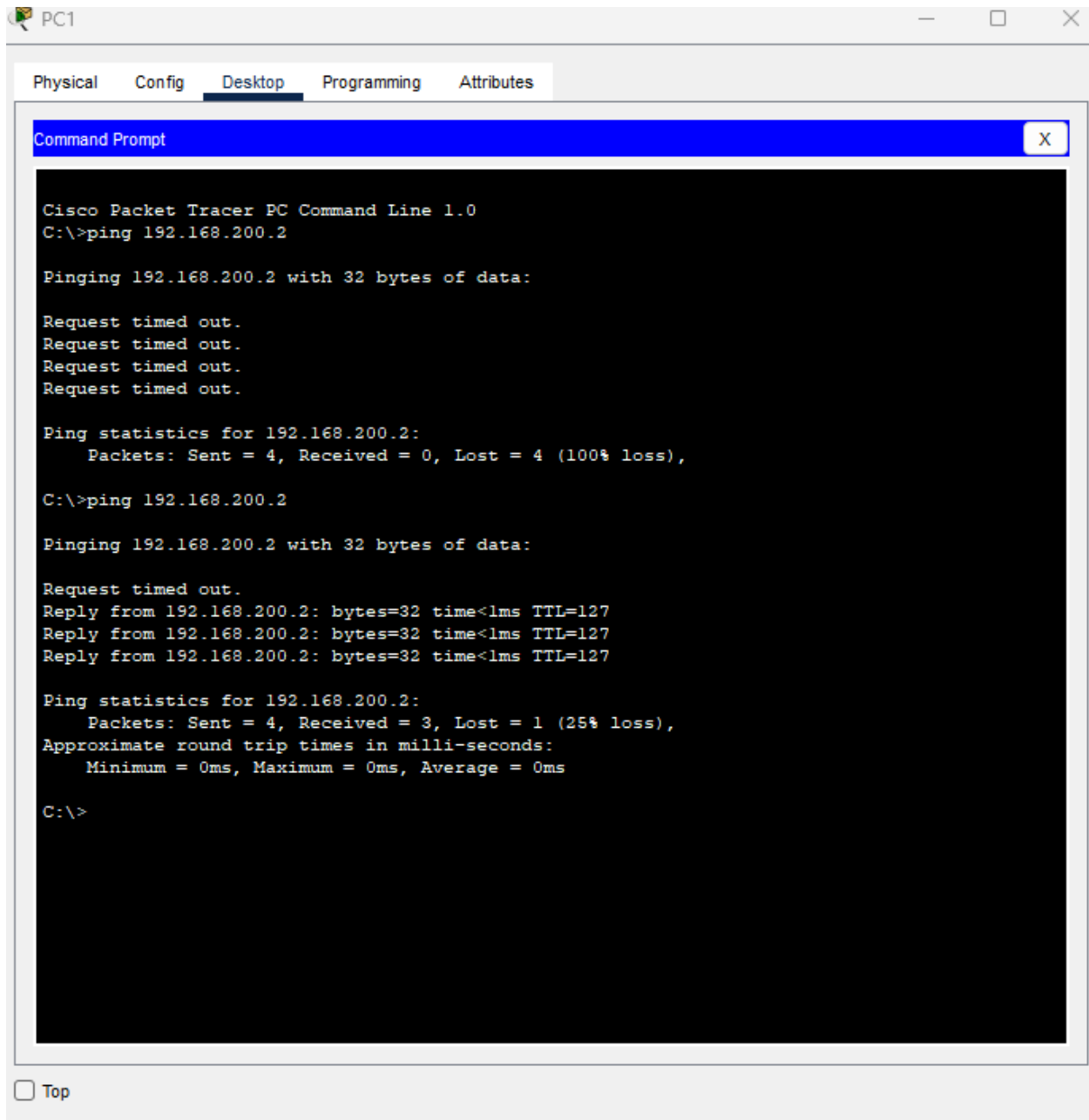
```
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
```

At the bottom left, there is a 'Top' button with a checkbox next to it.



PC1

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.2

Pinging 192.168.200.2 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.200.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.200.2

Pinging 192.168.200.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.200.2: bytes=32 time<1ms TTL=127
Reply from 192.168.200.2: bytes=32 time<1ms TTL=127
Reply from 192.168.200.2: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.200.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

☐ Top

Note : we need default gate way to communicate with a device which in a another network .. to communicate with a device which is in same network , we don't need default gateway.

