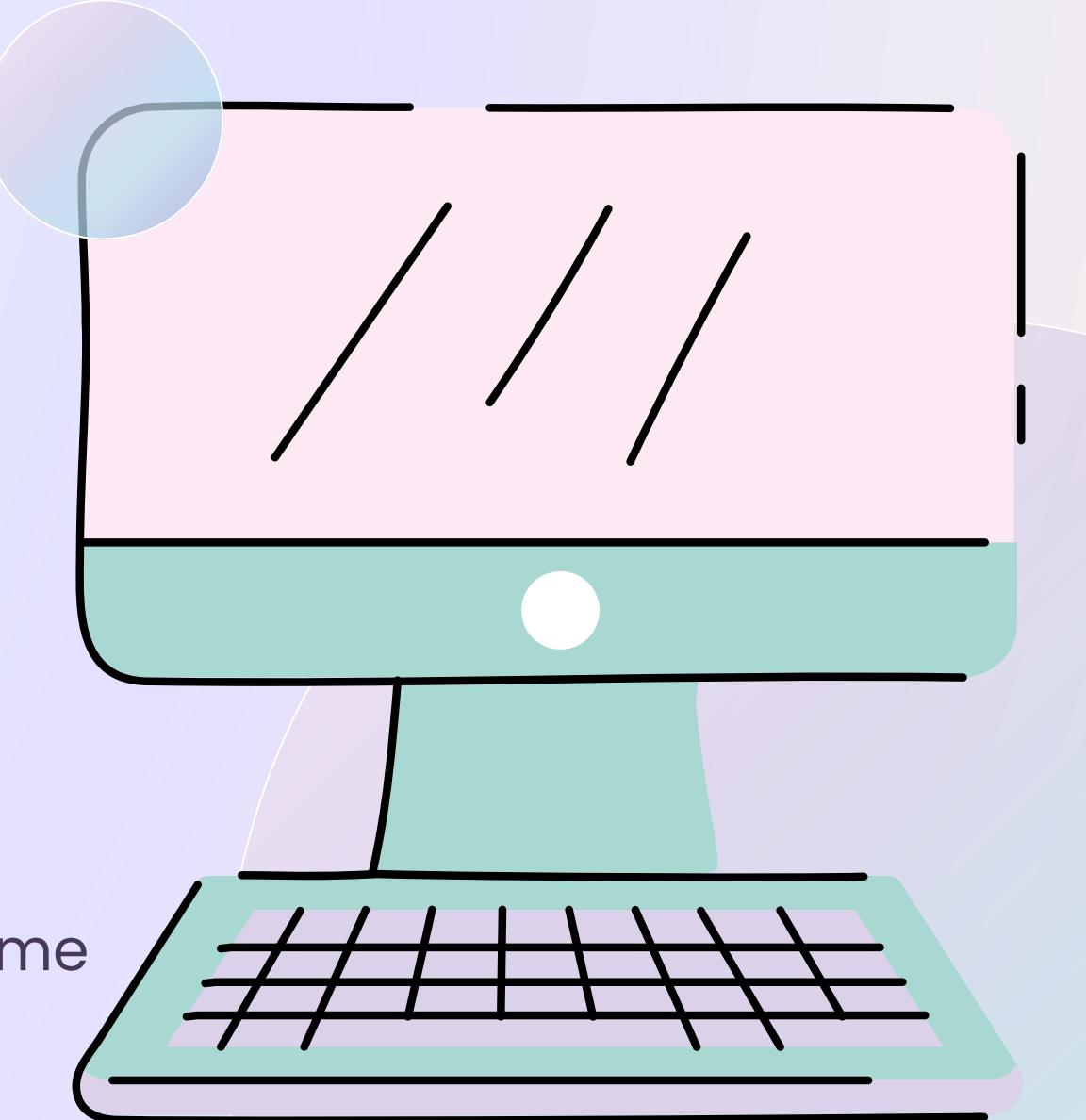




COMPUTER NETWORKS

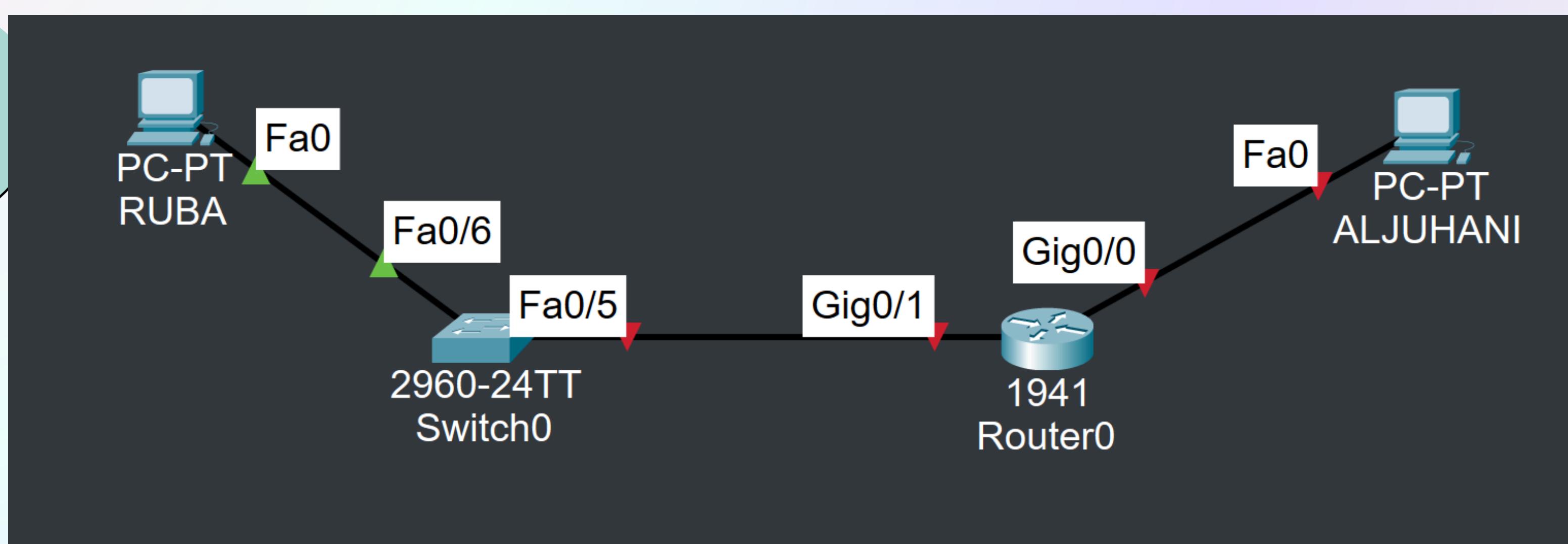


Lab 4-2: Lab - Designing and Implementing a Subnetted IPv4 Addressing Scheme

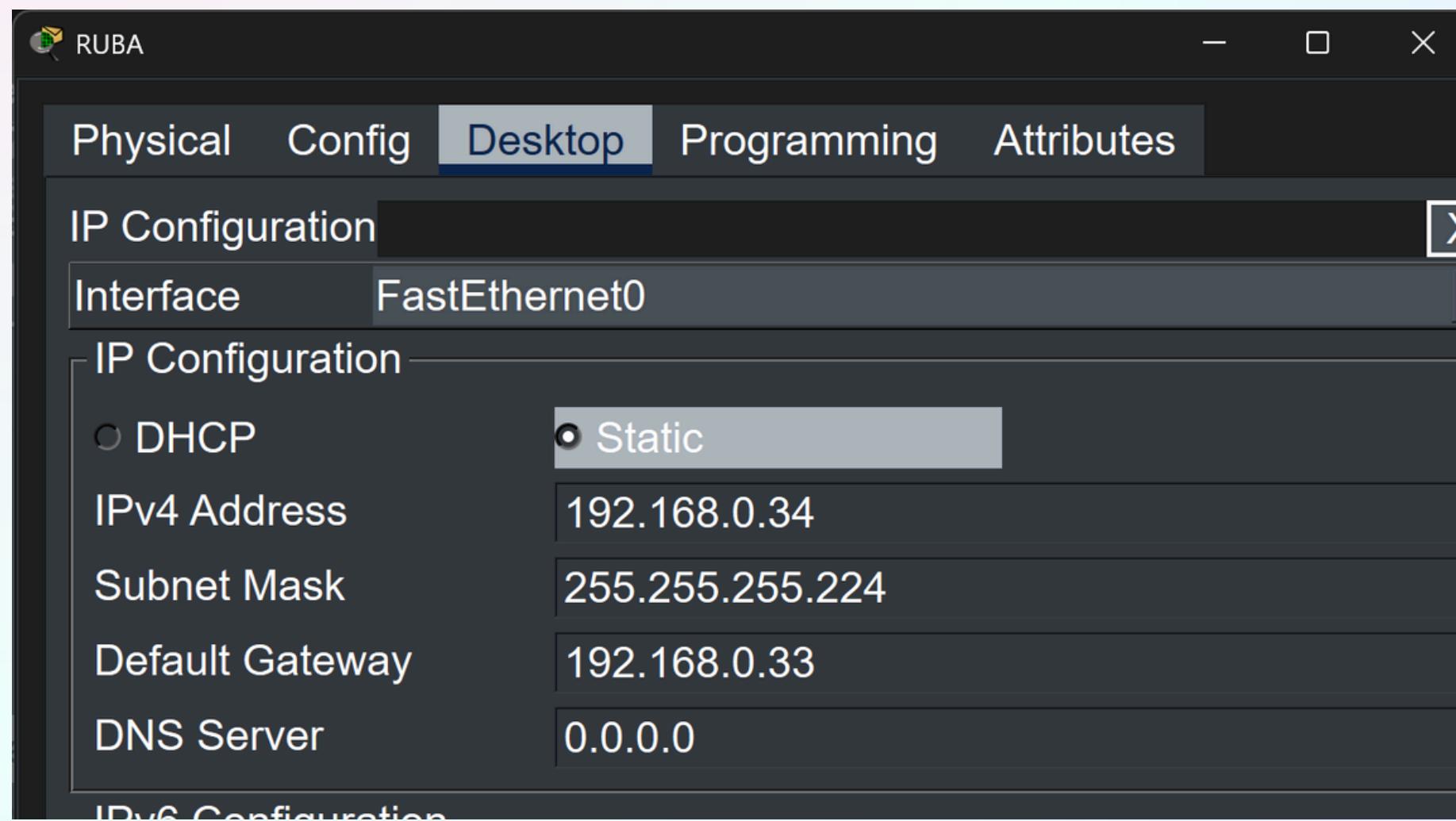
Solved by :

Ruba Aljuhani

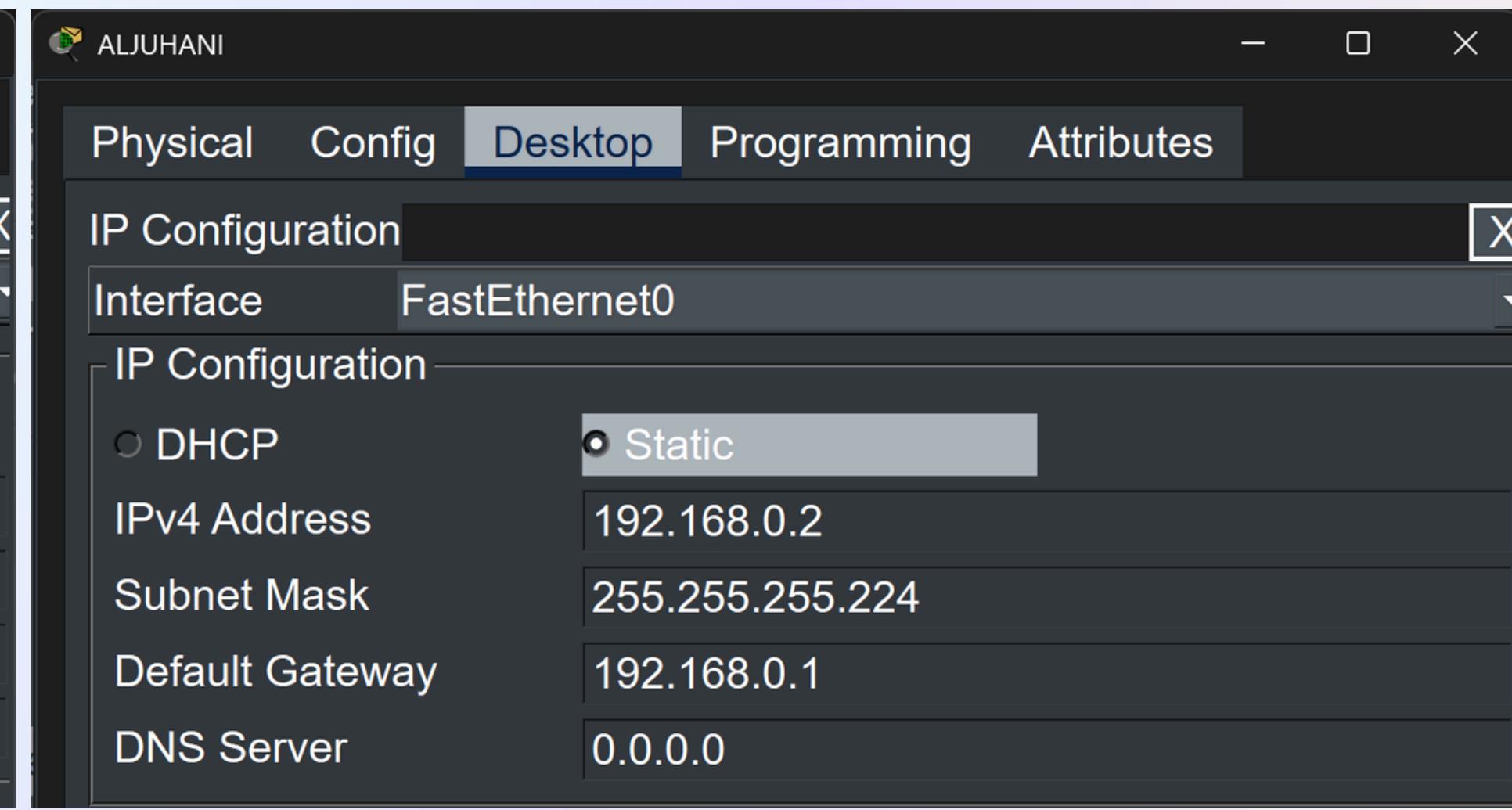
TOPOLOGY



Step 1: Configure the PC interfaces



PC1



PC2

Router0

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Router>EN
Router#CONF T
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname Ruba_Aljuhani
Ruba_Aljuhani(config)#interface g0/0
Ruba_Aljuhani(config-if)# ip address
% Incomplete command.
Ruba_Aljuhani(config-if)# ip address 192.168.0.33 255.255.255.224
Ruba_Aljuhani(config-if)#no shutdown

Ruba_Aljuhani(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up

Ruba_Aljuhani(config-if)#interface loopback1

Ruba_Aljuhani(config-if)#
%LINK-3-UPDOWN: Interface Loopback1, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1, changed state to up

Ruba_Aljuhani(config-if)#end
Ruba_Aljuhani#
%SYS-5-CONFIG_I: Configured from console by console

Ruba_Aljuhani(config-if)#end
Ruba_Aljuhani#
%SYS-5-CONFIG_I: Configured from console by console

Ruba_Aljuhani#write
Building configuration...
[OK]
Ruba_Aljuhani#show ip interface brief
Interface          IP-Address      OK? Method Status          Protocol
GigabitEthernet0/0  192.168.0.33   YES manual up           up
GigabitEthernet0/1  unassigned     YES unset administratively down down
Loopback1          unassigned     YES unset up            up
Vlan1              unassigned     YES unset administratively down down
```

Step 2: Configure the router

step 3: Test and Troubleshoot the Network

RUBA

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>Ping 192.168.0.33

Pinging 192.168.0.33 with 32 bytes of data:

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

Ping statistics for 192.168.0.33:
  Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 192.168.0.2

Pinging 192.168.0.2 with 32 bytes of data:

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

Ping statistics for 192.168.0.2:
  Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

pc1

ALJUHANI

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

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

Ping statistics for 192.168.0.1:
  Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 192.168.0.34

Pinging 192.168.0.34 with 32 bytes of data:

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

Ping statistics for 192.168.0.34:
  Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

pc2