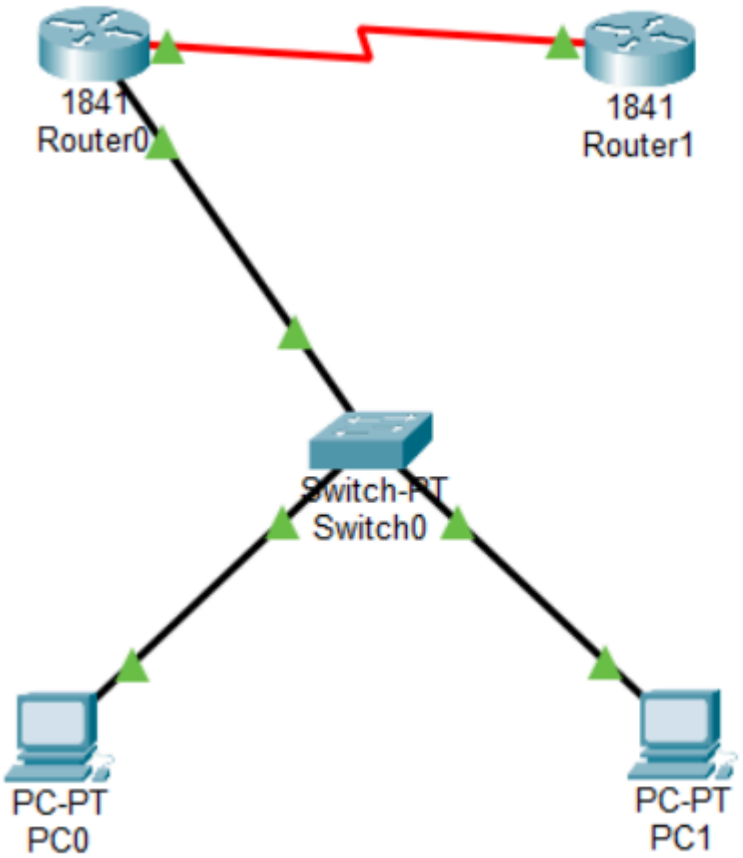
Q. Demonstrate Telnet in Packet Tracer.

Aim: To configure Telnet on routers to enable remote administration and test remote connectivity between devices.
Devices Needed:
2 Routers
1 Switch
2 PCs (Telnet Clients)
Connection Guide:
Connect Router0 and Router1 via serial cable (Serial DCE)
Connect Router0 to Switch via FastEthernet
Connect PCs to Switch via copper straight-through cables
Topology:



Code:
Router1 Configuration:

Router>enable
Router#configure terminal

```
Router(config)#hostname Router0
Router0(config)#interface FastEthernet0/0
Router0(config-if)#ip address 192.168.1.1 255.255.255.0
Router0(config-if)#no shutdown
Router0(config-if)#exit
Router0(config)#interface Serial0/0/0
Router0(config-if)#ip address 10.0.0.1 255.255.255.252
Router0(config-if)#clock rate 64000
Router0(config-if)#no shutdown
Router0(config-if)#exit
Router0(config)#line vty 0 4
Router0(config-line)#password cisco
Router0(config-line)#login
Router0(config-line)#exit
Router0(config)#enable secret class
Router0(config)#ip route 0.0.0.0 0.0.0.0 10.0.0.2
Router0(config)#exit
Router0#copy running-config startup-config
```

Router2 Configuration:

```
Router>enable
Router#configure terminal
Router(config)#hostname Router1
Router1(config)#interface Serial0/0/0
Router1(config-if)#ip address 10.0.0.2 255.255.255.252
Router1(config-if)#no shutdown
Router1(config-if)#exit
Router1(config)#interface FastEthernet0/0
Router1(config-if)#ip address 172.16.1.1 255.255.255.0
Router1(config-if)#no shutdown
Router1(config-if)#exit
Router1(config)#line vty 0 4
Router1(config-line)#password cisco
Router1(config-line)#login
Router1(config-line)#exit
Router1(config)#enable secret class
Router1(config)#ip route 192.168.1.0 255.255.255.0 10.0.0.1
Router1(config)#exit
Router1#copy running-config startup-config
```

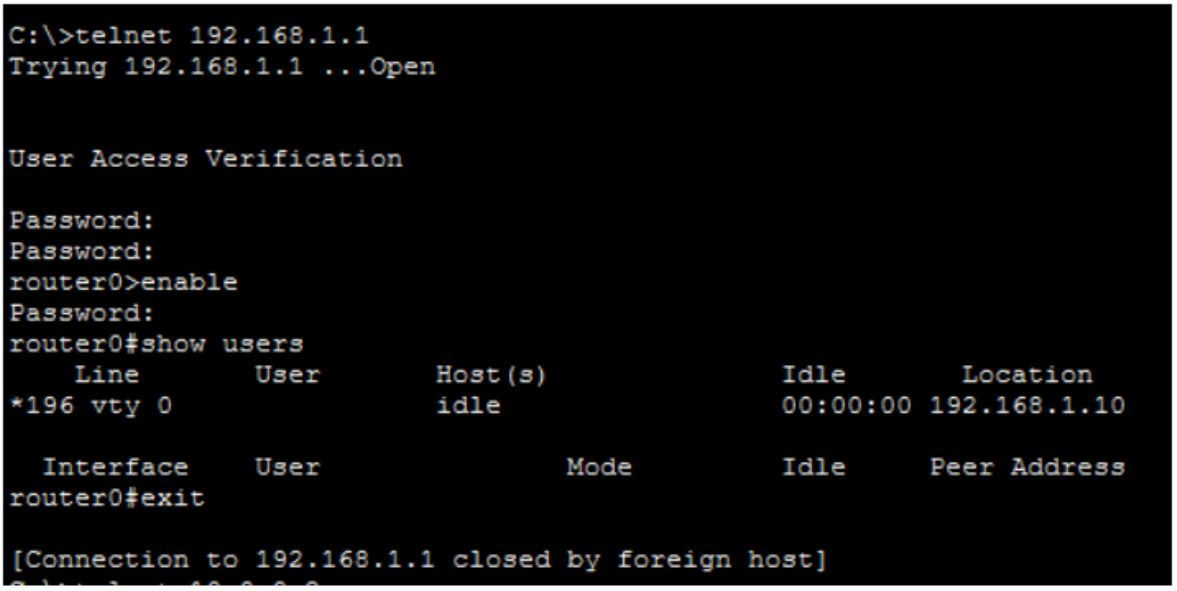
PC1 Configuration:
IP Address: 192.168.1.10
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.1.1

PC2 Configuration:
IP Address: 192.168.1.11
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.1.1

Verification: In PC Command Prompt
PC1 Telnet Tests:
C:\>ping 192.168.1.1
C:\>ping 10.0.0.2
C:\>ping 172.16.1.1
C:\>telnet 192.168.1.1
C:\>telnet 10.0.0.2

PC2 Telnet Tests:
C:\>ping 192.168.1.1
C:\>ping 10.0.0.2
C:\>ping 172.16.1.1
C:\>telnet 192.168.1.1
C:\>telnet 172.16.1.1

Router Verification Commands:
Router#show users
Router#show line vty 0
Router#show running-config | include vty
Output:
PC1 Telnet to Router1:
telnet 192.168.1.1



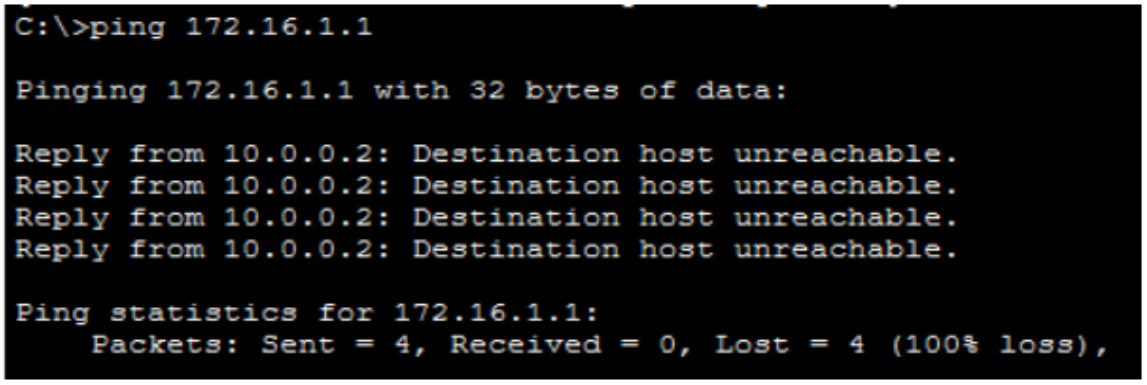
PC1 Telnet to Router2:
C:\>telnet 10.0.0.2

```
C:\>telnet 10.0.0.2
Trying 10.0.0.2 ...Open


User Access Verification

Password:
router1>enable
Password:
router1#show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
FastEthernet0/0        172.16.1.1      YES manual down                  down
FastEthernet0/1        unassigned      YES unset  administratively down down
Serial0/0/0            10.0.0.2        YES manual up                    up
Serial0/0/1            unassigned      YES unset  administratively down down
Vlan1                  unassigned      YES unset  administratively down down
router1#

[Connection to 10.0.0.2 closed by foreign host]
```

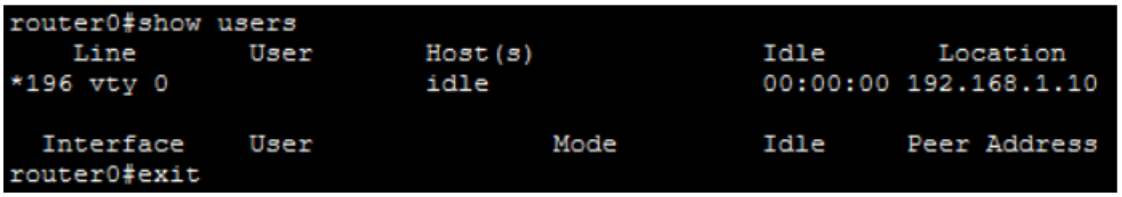
PC2 Telnet to Router1:
C:\>telnet 192.168.1.1

```
C:\>telnet 192.168.1.1
Trying 192.168.1.1 ...Open


User Access Verification

Password:
router0>enable
Password:
router0#show running-config | include vty
line vty 0 4
router0#show running-config | include vty
line vty 0 4
router0#exit

[Connection to 192.168.1.1 closed by foreign host]
```

Ping Test Results:



Router Show Users Output:



Conclusion: Telnet has been configured successfully on both routers.