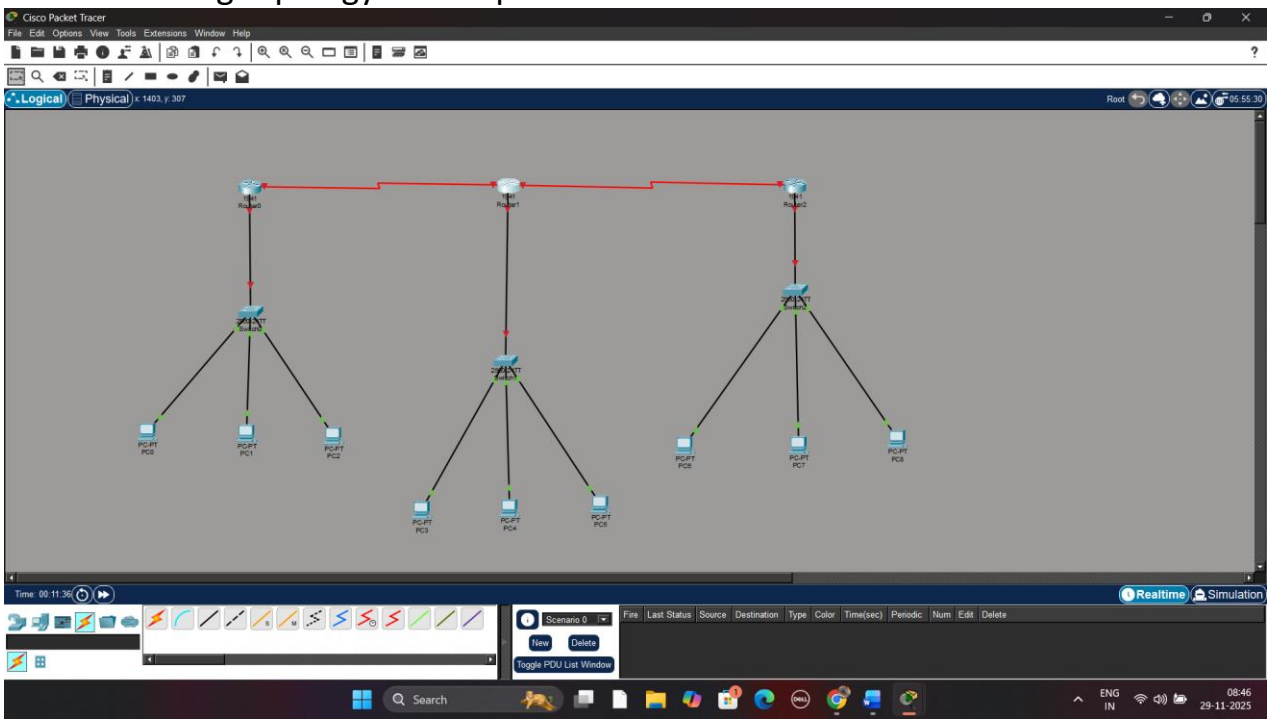
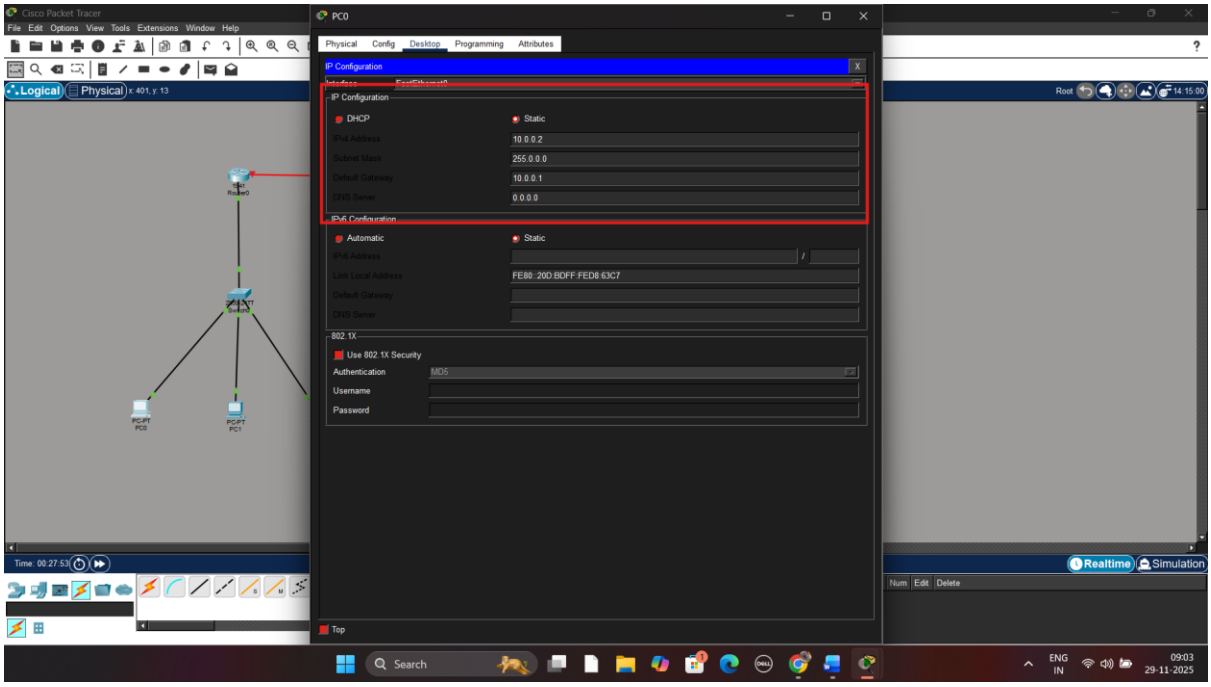
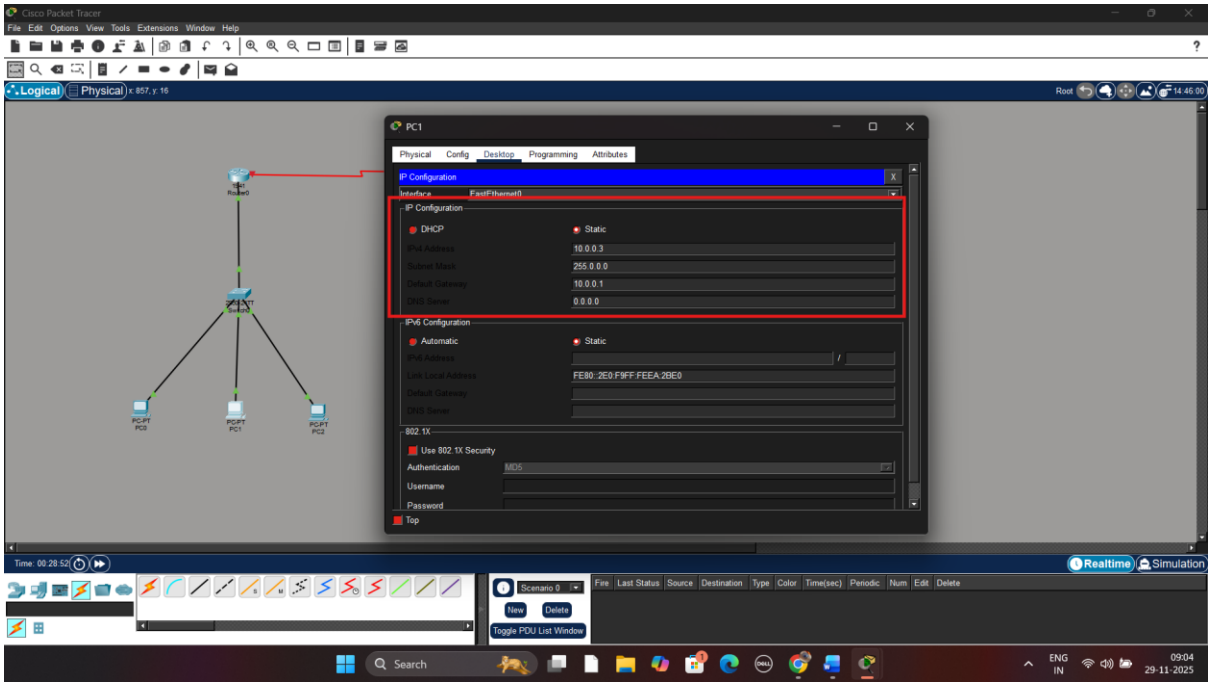
PRACTICAL NO 6

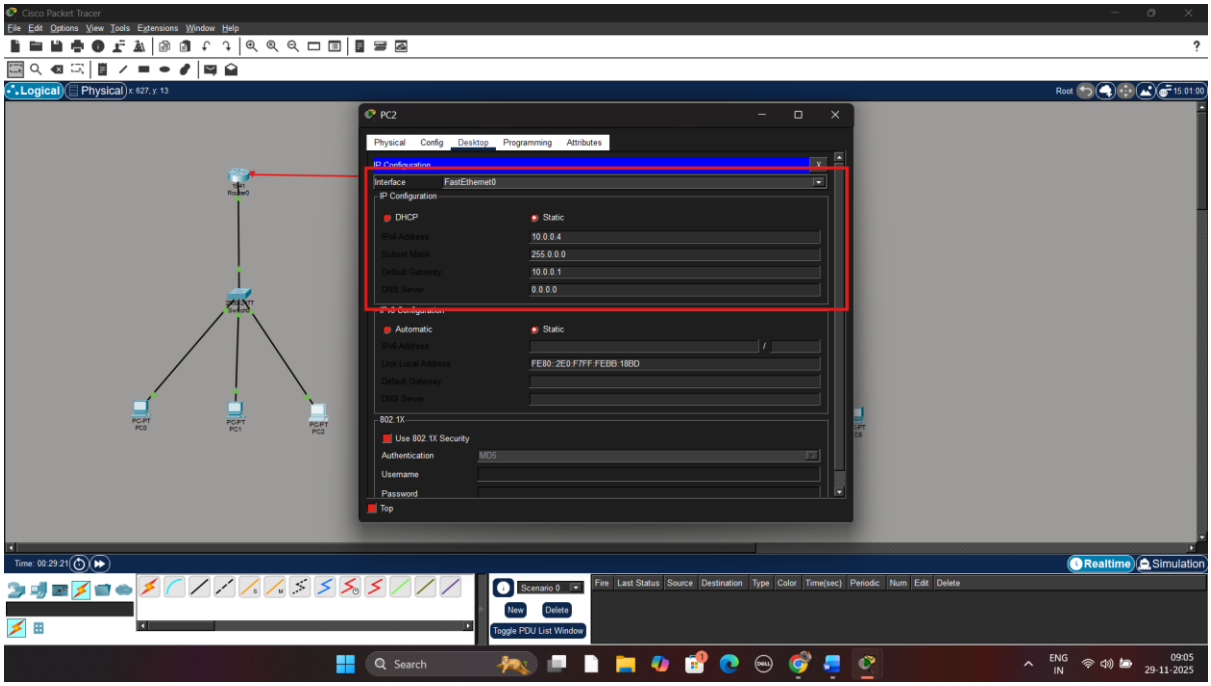
AIM:- Using Packet Tracer to create a network with three routers with RIPv1 and each router associated network will have minimum three PC and show the connectivity

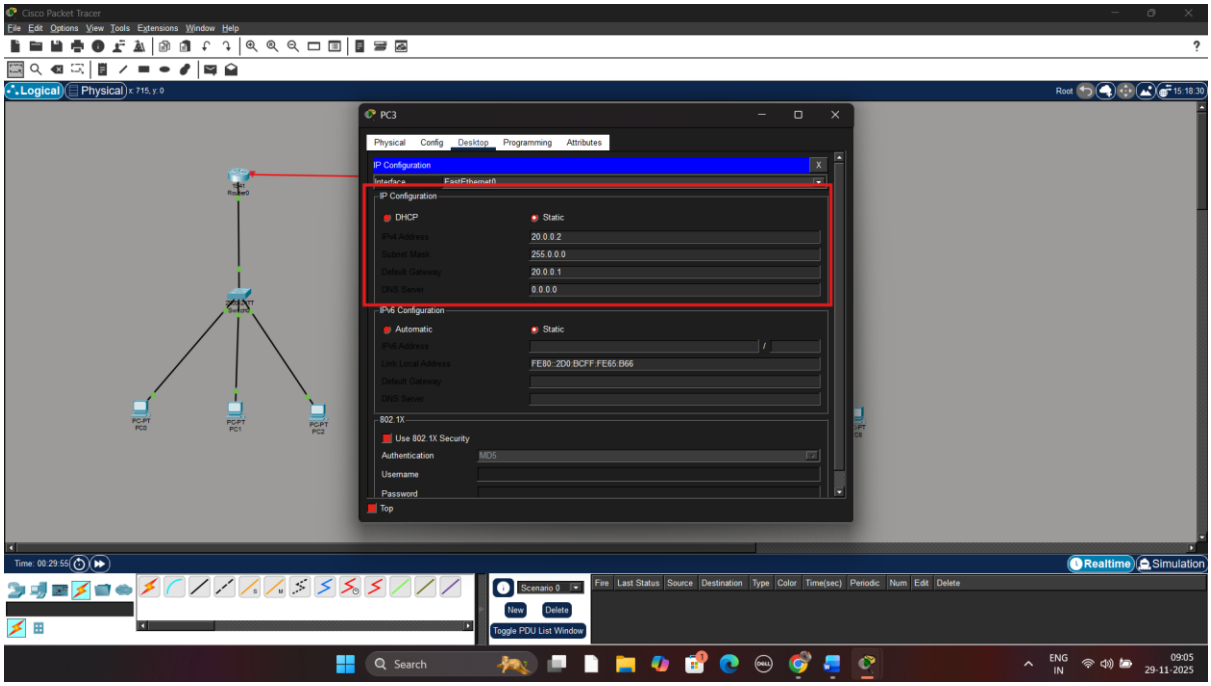
1.The following topology for the present case

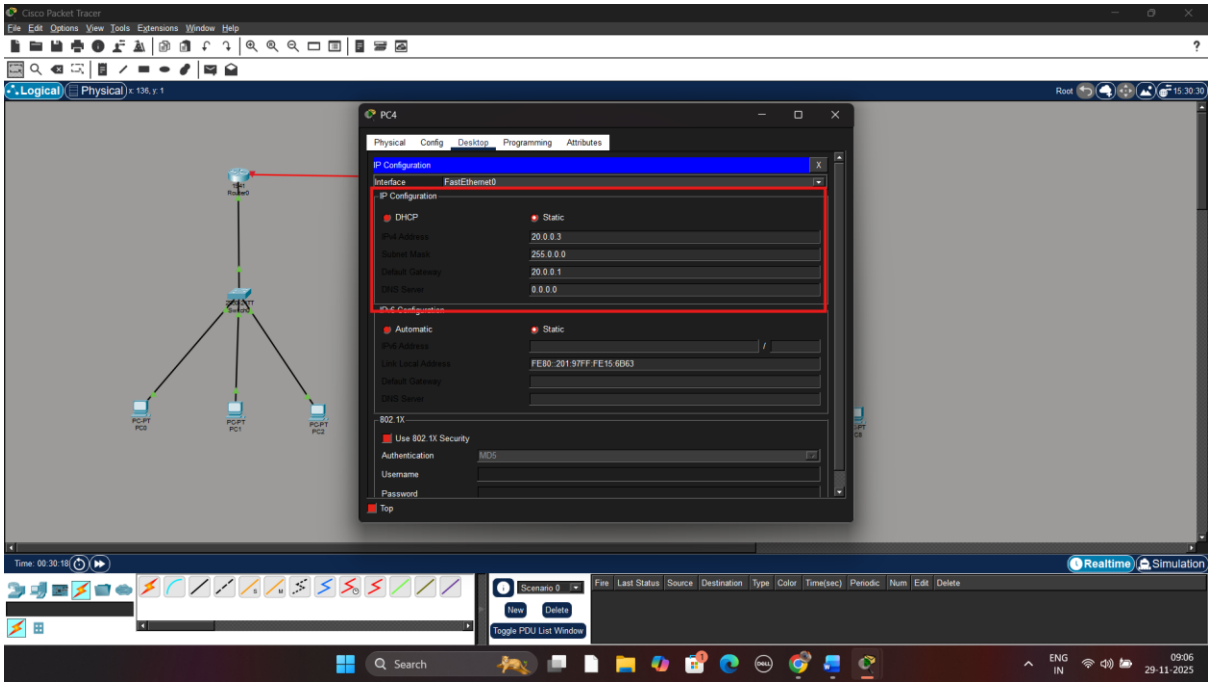


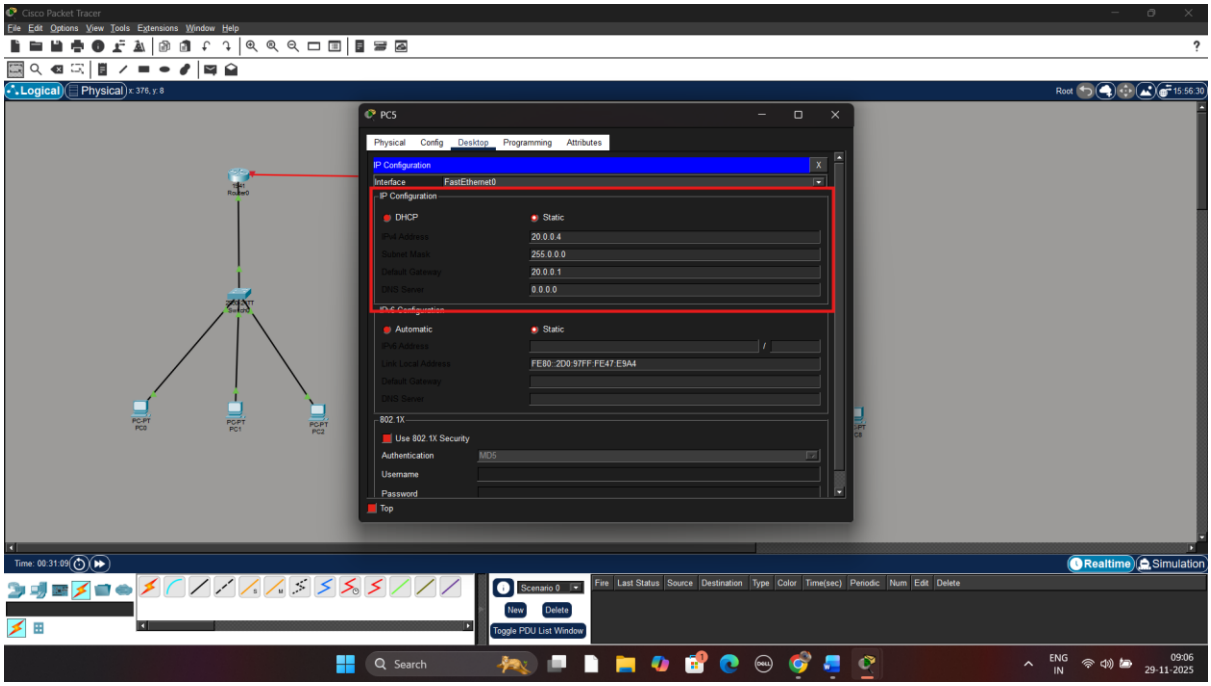

PC0
IP Configuration
DHCP
Static
10.0.0.2
255.0.0.0
10.0.0.1
0.0.0.0
Automatic
Static
FE80::20D:BDFF:FED8:63C7
802.1X
Use 802.1X Security
Authentication
Username
Password
Top

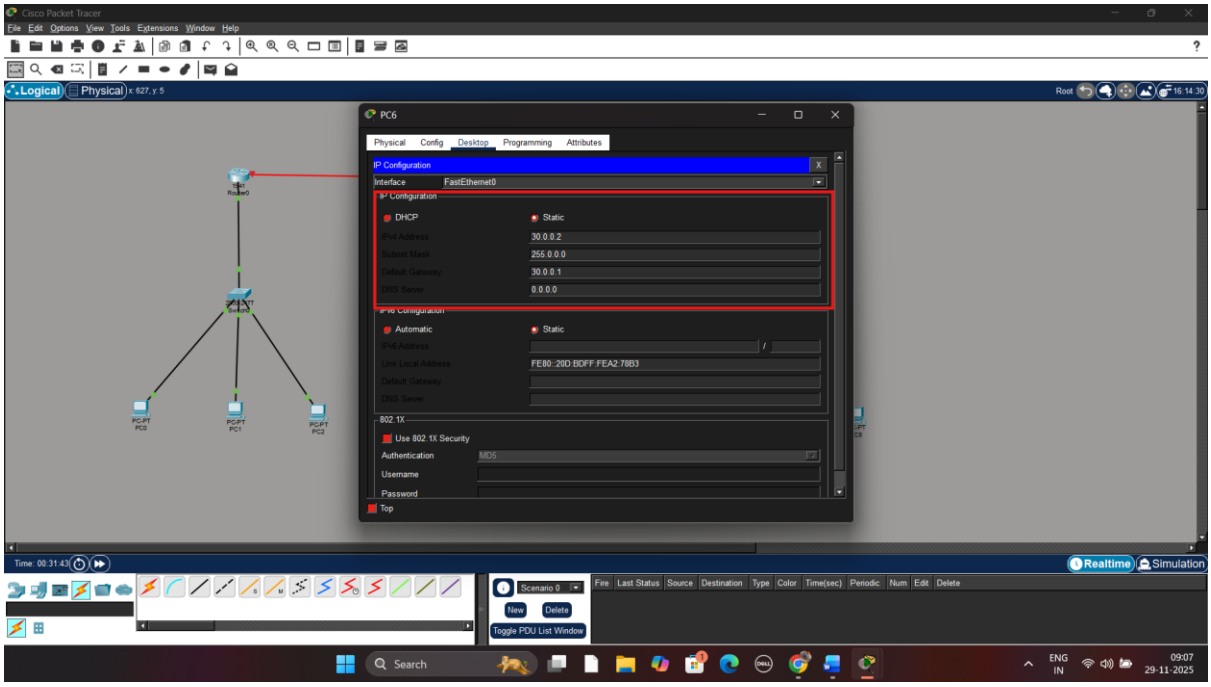

PC1
IP Configuration
DHCP
Static
10.0.0.3
255.0.0.0
10.0.0.1
0.0.0.0
Automatic
Static
FE80::2E0:F9FF:FEEA:2BE0
802.1X
Use 802.1X Security
Authentication
Username
Password
Top

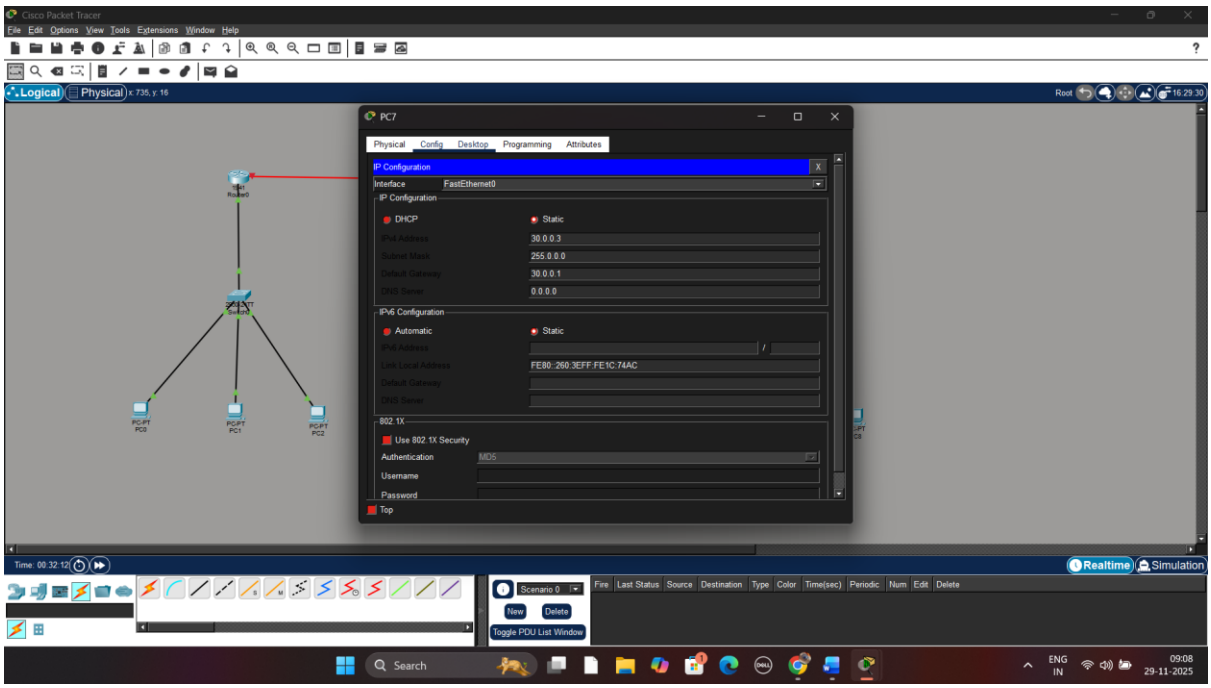

Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical
PC2
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
DHCP
Static
IPv4 Address 10.0.0.4
Subnet Mask 255.0.0.0
Default Gateway 10.0.0.1
DNS Server 0.0.0.0
IPv6 Configuration
Automatic
Static
FE80::2E0:F7FF:FEBB:18BD
802.1X
Use 802.1X Security
Authentication MD5
Username
Password
Top
Realtime Simulation
Search
ENG IN
09:05
29-11-2025

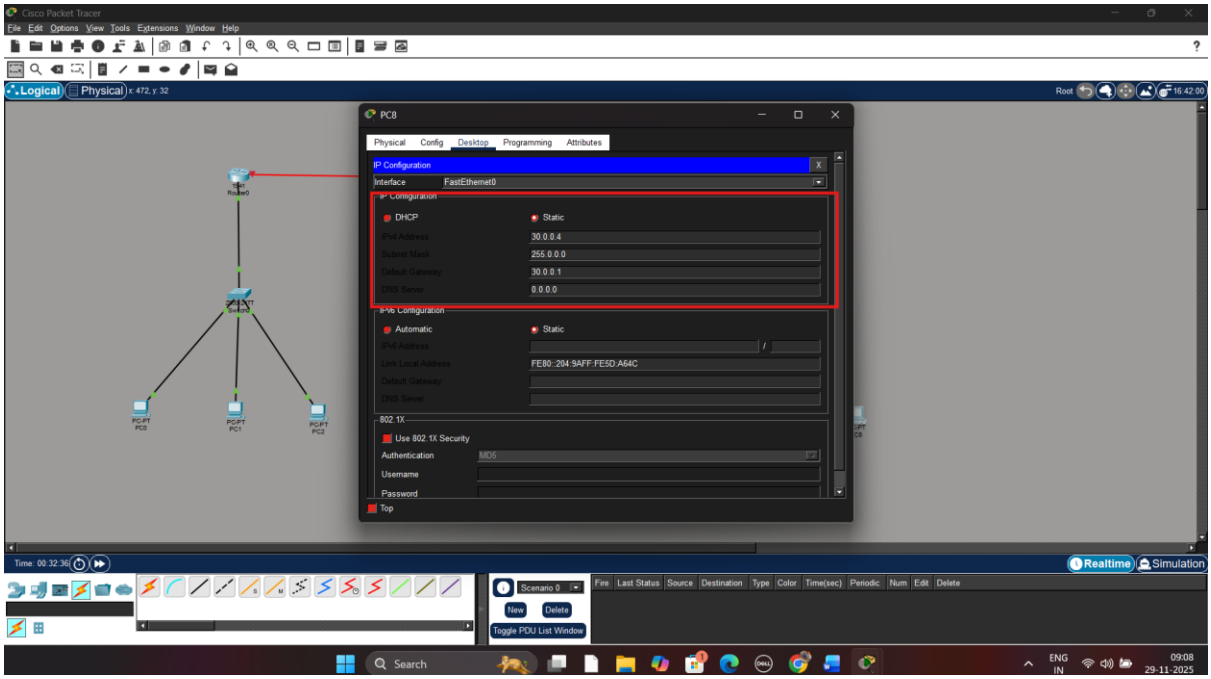

Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical
PC3
Physical Config Desktop Programming Attributes
IP Configuration
DHCP
Static
IPv4 Address 20.0.0.2
Subnet Mask 255.0.0.0
Default Gateway 20.0.0.1
DNS Server 0.0.0.0
IPv6 Configuration
Automatic
Static
FE80::2D0:BCFF:FE65:B66
802.1X
Use 802.1X Security
Authentication MD5
Username
Password
Top
Realtime Simulation
Search
ENG IN
09:05
29-11-2025

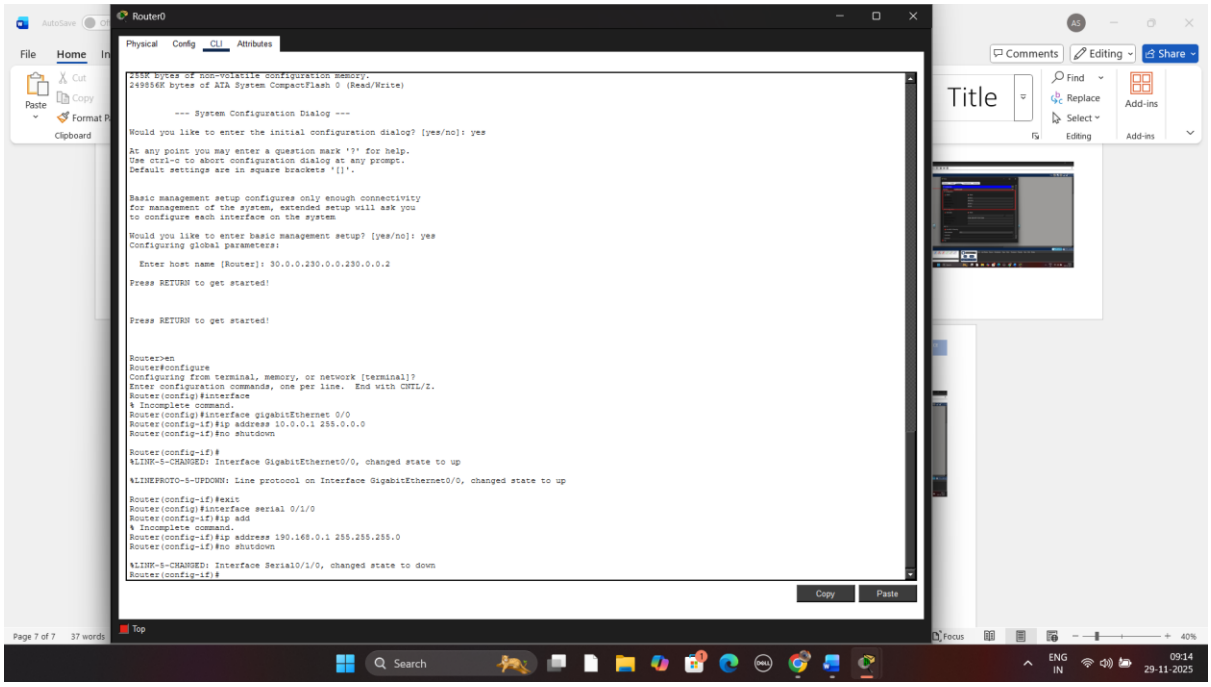

PC4
IP Configuration
DHCP
Static
20.0.0.3
255.0.0.0
20.0.0.1
0.0.0.0
FE80::201:97FF:FE15:6B63
802.1X
Use 802.1X Security
Realtime
Simulation

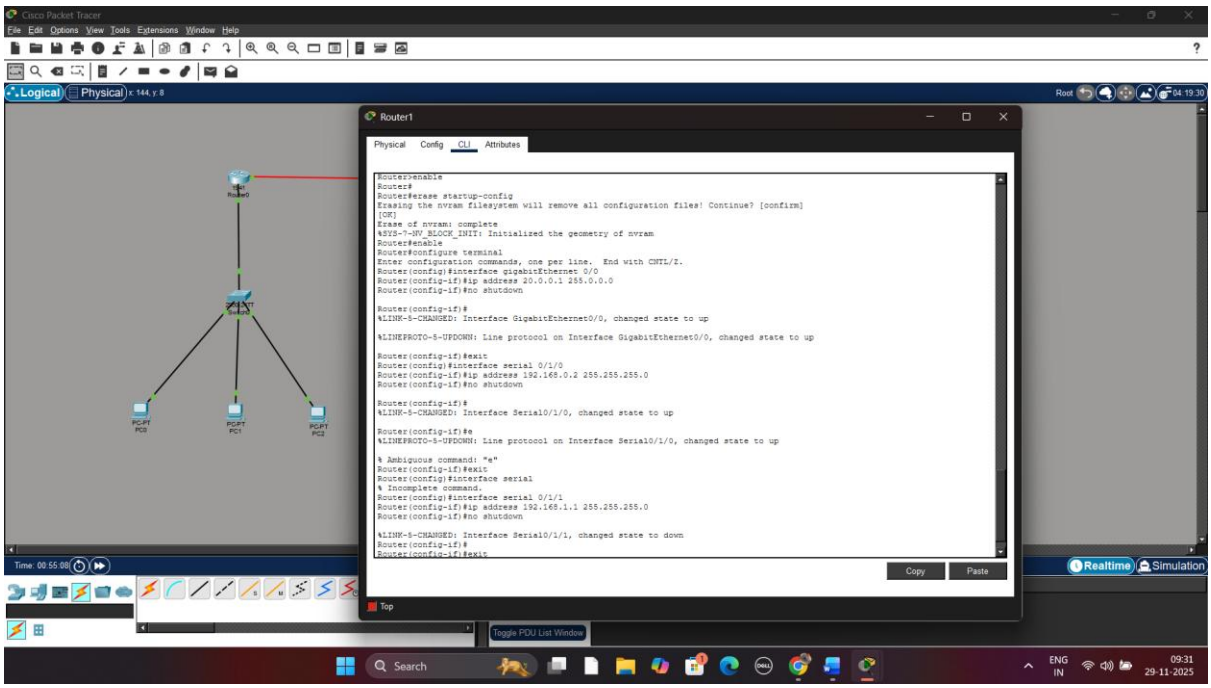

PC5
IP Configuration
DHCP
Static
20.0.0.4
255.0.0.0
20.0.0.1
0.0.0.0
FE80::2D0:97FF:FE47:E9A4
802.1X
Use 802.1X Security
Realtime
Simulation

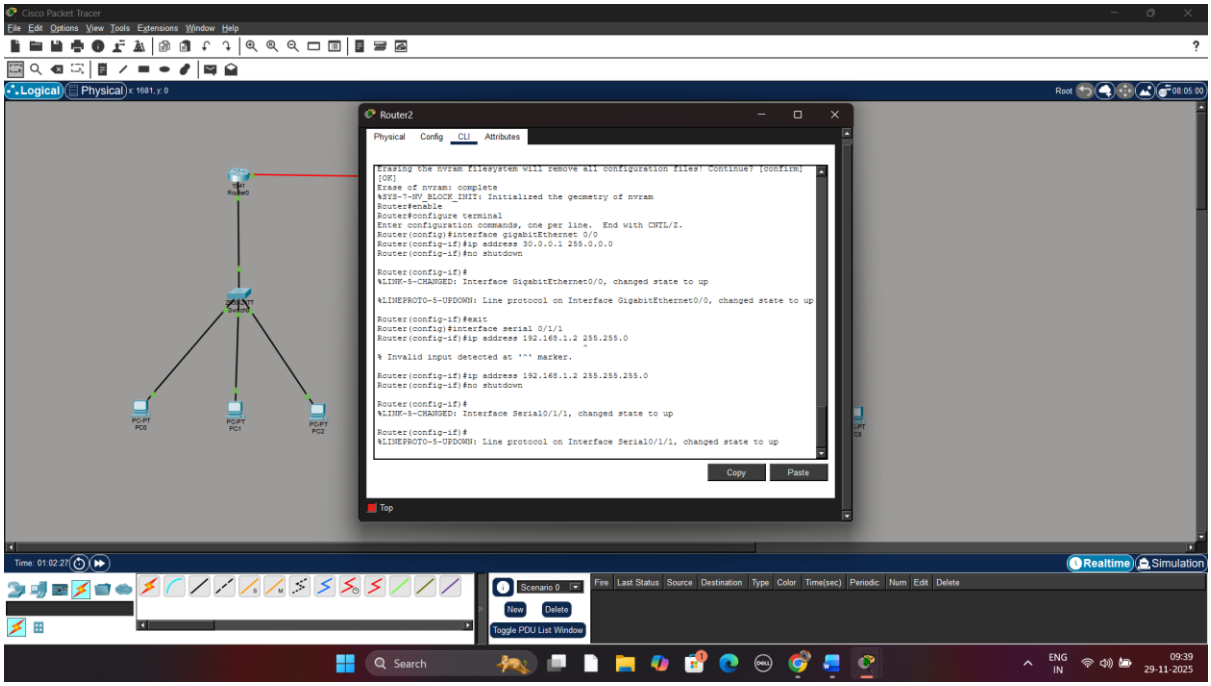

Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical
PC6
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
DHCP Static
IPv4 Address 30.0.0.2
Subnet Mask 255.0.0.0
Default Gateway 30.0.0.1
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
FE80::20D:BDFF:FEA2:78B3
802.1X
Use 802.1X Security
Authentication MD5
Username
Password
Top
Realtime Simulation
Scenario 0
New Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete
Search
ENG IN
09:07
29-11-2025

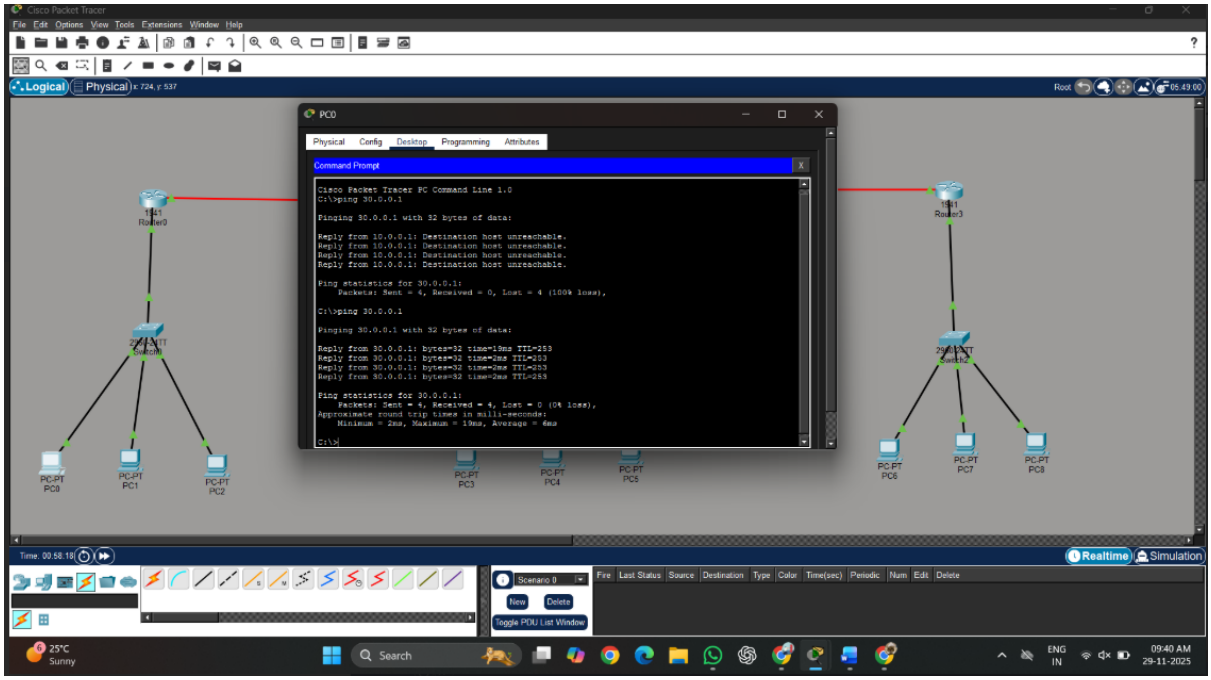

Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical
PC7
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
DHCP Static
IPv4 Address 30.0.0.3
Subnet Mask 255.0.0.0
Default Gateway 30.0.0.1
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
FE80::260:3EFF:FE1C:74AC
802.1X
Use 802.1X Security
Authentication MD5
Username
Password
Top
Realtime Simulation
Scenario 0
New Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete
Search
ENG IN
09:08
29-11-2025

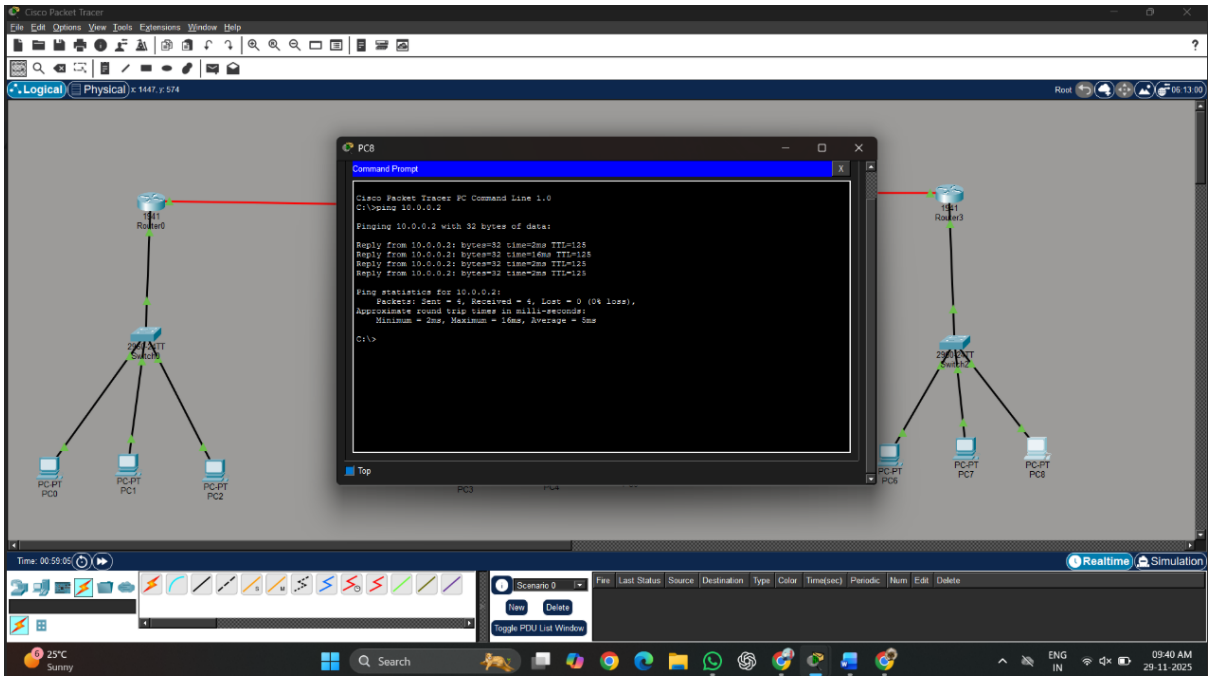

Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical
Physical
PC8
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
DHCP
Static
30.0.0.4
255.0.0.0
30.0.0.1
0.0.0.0
Automatic
Static
FE80::204:9AFF:FE5D:A64C
802.1X
Use 802.1X Security
Authentication
Username
Password
Top
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Search
ENG
IN
09:08
29-11-2025


Router0
Physical
Config
CLI
Attributes
--- System Configuration Dialog ---
Would you like to enter the initial configuration dialog? [yes/no]: yes
Would you like to enter basic management setup? [yes/no]: yes
Configuring global parameters:
Enter host name [Router]: 30.0.0.230.0.0.230.0.0.2
Press RETURN to get started!
Router>en
Router#configure
Router(config)#interface gigabitEthernet 0/0
Router(config-if)#ip address 10.0.0.1 255.0.0.0
Router(config-if)#no shutdown
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
Router(config-if)#exit
Router(config)#interface serial 0/1/0
Router(config-if)#ip address 190.168.0.1 255.255.255.0
Router(config-if)#no shutdown
%LINK-5-CHANGED: Interface Serial0/1/0, changed state to down
Copy
Paste
Top


Cisco Packet Tracer
Logical
Physical
Router1
Physical
Config
CLI
Attributes
Router>enable
Router#erase startup-config
%SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram
Router#configure terminal
Router(config)#interface gigabitEthernet 0/0
Router(config-if)#ip address 20.0.0.1 255.0.0.0
Router(config-if)#no shutdown
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
Router(config-if)#exit
Router(config)#interface serial 0/1/0
Router(config-if)#ip address 192.168.0.2 255.255.255.0
Router(config-if)#no shutdown
%LINK-5-CHANGED: Interface Serial0/1/0, changed state to up
% Ambiguous command: "e"
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1/0, changed state to up
Router(config-if)#exit
Router(config)#interface serial
% Incomplete command.
Router(config)#interface serial 0/1/1
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown
%LINK-5-CHANGED: Interface Serial0/1/1, changed state to down
Router(config-if)#exit
Copy
Paste
Top
Realtime
Simulation
Toggle PDU List Window


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical
Physical
Router2
Physical Config CLI Attributes
Erasing the nvram filesystem will remove all configuration files! Continue? [confirm]
[OK]
Erase of nvram: complete
%SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram
Router#enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface gigabitEthernet 0/0
Router(config-if)#ip address 30.0.0.1 255.0.0.0
Router(config-if)#no shutdown
Router(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
Router(config-if)#exit
Router(config)#interface serial 0/1/1
Router(config-if)#ip address 192.168.1.2 255.255.0
% Invalid input detected at '^' marker.
Router(config-if)#ip address 192.168.1.2 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface Serial0/1/1, changed state to up
Router(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1/1, changed state to up
Copy
Paste
Top
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Search
ENG
IN
09:39
29-11-2025


Cisco Packet Tracer
PC0
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 30.0.0.1
Pinging 30.0.0.1 with 32 bytes of data:
Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.
Ping statistics for 30.0.0.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 30.0.0.1
Pinging 30.0.0.1 with 32 bytes of data:
Reply from 30.0.0.1: bytes=32 time<1ms TTL=253
Reply from 30.0.0.1: bytes=32 time=2ms TTL=253
Reply from 30.0.0.1: bytes=32 time=2ms TTL=253
Reply from 30.0.0.1: bytes=32 time=2ms TTL=253
Ping statistics for 30.0.0.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 2ms, Maximum = 19ms, Average = 6ms
C:\>
Realtime
Simulation


Cisco Packet Tracer
PC8
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.0.0.2
Pinging 10.0.0.2 with 32 bytes of data:
Reply from 10.0.0.2: bytes=32 time=2ms TTL=125
Reply from 10.0.0.2: bytes=32 time=16ms TTL=125
Reply from 10.0.0.2: bytes=32 time=2ms TTL=125
Reply from 10.0.0.2: bytes=32 time=2ms TTL=125
Ping statistics for 10.0.0.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 2ms, Maximum = 16ms, Average = 5ms
C:\>
Top
Realtime
Simulation