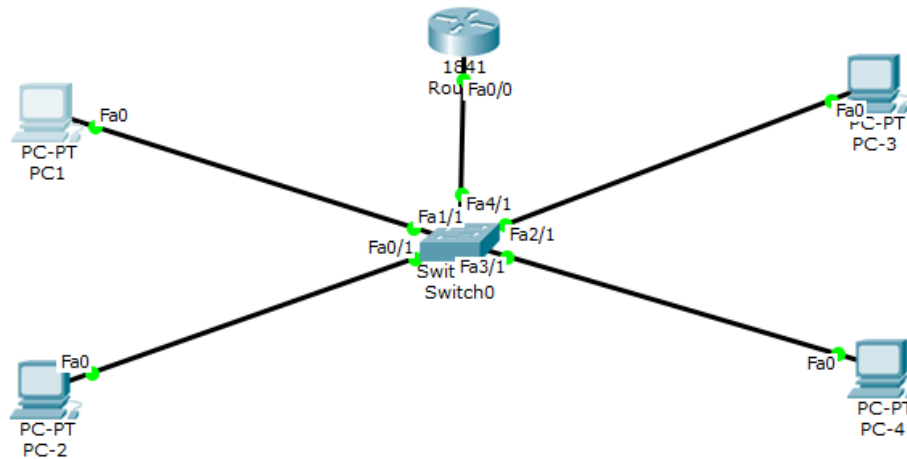


## CN LAB-08d (18/08/2023)

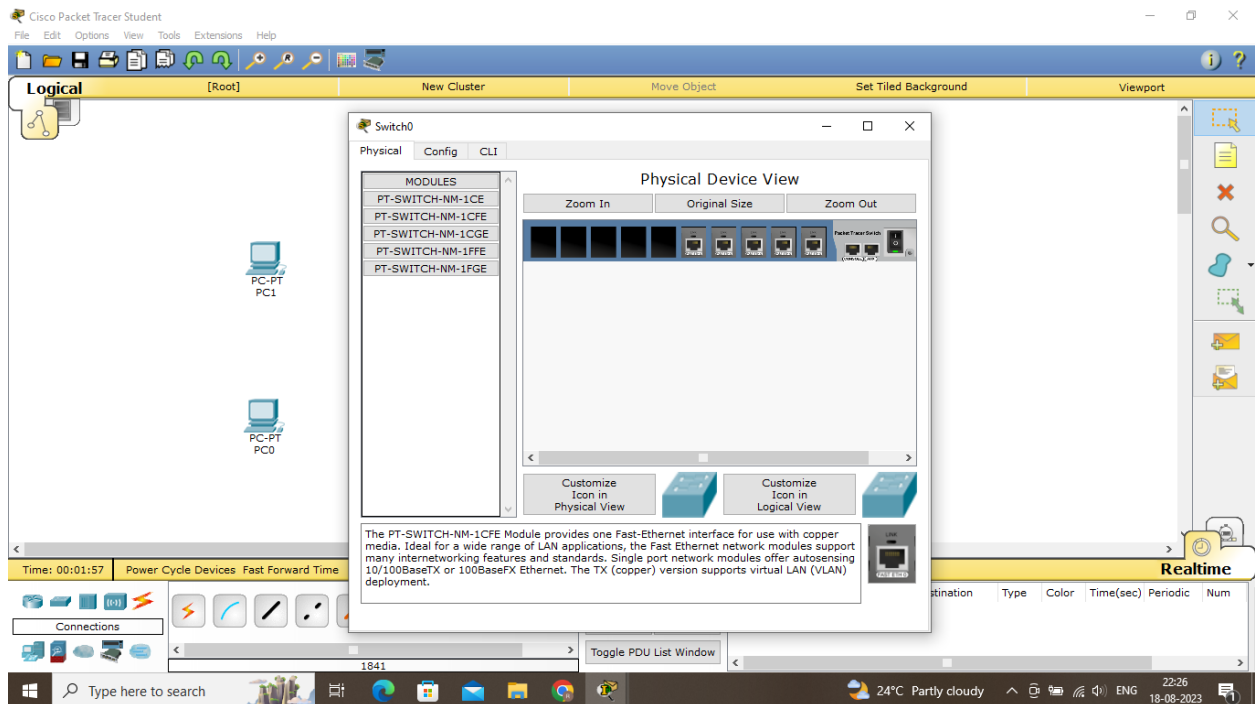
USN: 1BM21CS172

**Depict VLAN in a topology.**

TOPOLOGY:



CONFIG SWITCH & VLAN DATABASE:



Cisco Packet Tracer Student

File Edit Options View Tools Extensions Help

Logical [Root] New Cluster Switch0

Physical Config CLI

VLAN Configuration

VLAN Number: 2  
VLAN Name: VLAN\_NEW

Add Remove

VLAN No. VLAN Name

1	default
2	VLAN_NEW
1002	fdi-default
1003	token-ring-default
1004	fdinet-default
1005	trnet-default

Equivalent IOS Commands

```
Switch(config-vlan)#exit  
Switch(config)#  
Switch(config)#interface FastEthernet4/1  
Switch(config-if)#  
Switch(config-if)#switchport mode trunk  
Switch(config-if)#  
Switch(config-if)#exit  
Switch(config)#
```

Time: 00:08:13 Power Cycle Devices Fast Forward Time

Connections

Automatically Choose Connection Type

Scenario 0 New Delete Toggle PDU List Window

24°C Partly cloudy 22:32 18-08-2023

Cisco Packet Tracer Student

File Edit Options View Tools Extensions Help

Logical [Root] New Cluster

Switch0

Physical Config CLI

FastEthernet2/1

Port Status: ☒ On  
Bandwidth: ☒ 100 Mbps ☐ 10 Mbps ☒ Auto  
Duplex: ☐ Half Duplex ☒ Full Duplex ☒ Auto  
Access: VLAN 2  
Tx Ring Limit: 10

Equivalent IOS Commands

```
Switch(config-if)#switchport mode trunk  
Switch(config-if)#  
Switch(config-if)#exit  
Switch(config)#  
Switch(config)#interface FastEthernet2/1  
Switch(config-if)#  
Switch(config-if)#switchport access vlan 2  
Switch(config-if)#
```

Time: 00:09:28 Power Cycle Devices Fast Forward Time

Connections

Automatically Choose Connection Type

Scenario 0 Fire Last Status Source Destination Type Color Time(sec) Periodic Num

24°C Partly cloudy 22:34 18-08-2023



# CONFIG ROUTER:

The screenshot shows the Cisco Packet Tracer Student interface. The network diagram displays a central switch (Switch0) connected to two PCs (PC-PT PC1 and PC-PT PC2) and a router (Router0). The router is connected to the switch via its Fa0/0/0 port. The switch has ports Fa0/1, Fa0/2, Fa0/3, and Fa0/4. The router has ports Fa0/0, Fa0/1, Fa0/2, and Fa0/3. The configuration window for Router0 is open, showing the VLAN Configuration tab. The VLAN Number is set to 2, and the VLAN Name is set to VLAN\_NEW. The equivalent IOS commands are displayed at the bottom of the window.

**Router0 Configuration - VLAN Configuration**

**GLOBAL**

- Settings
- Algorithm Settings
- ROUTING**
- Static
- RIP
- SWITCHING**
- VLAN Database
- INTERFACE**
- FastEthernet0/0
- FastEthernet0/1

**VLAN Configuration**

VLAN Number: 2

VLAN Name: VLAN\_NEW

**VLAN Database**

VLAN No	VLAN Name
1	default
2	VLAN_NEW
1002	fdi-default
1003	token-ring-default
1004	fdinet-default
1005	trnet-default

**Equivalent IOS Commands**

```
Router#vlan database
Router(vlan)#
%SYS-5-CONFIG_I: Configured from console by console
```

The screenshot shows the same Cisco Packet Tracer Student interface as the previous one. The network diagram is identical. The configuration window for Router0 is open, showing the FastEthernet0/0 configuration tab. The port status is set to On, bandwidth is 100 Mbps, duplex is set to Auto, and the IP address is 192.168.1.1 with a subnet mask of 255.255.255.0. The equivalent IOS commands are displayed at the bottom of the window.

**Router0 Configuration - FastEthernet0/0**

**GLOBAL**

- Settings
- Algorithm Settings
- ROUTING**
- Static
- RIP
- SWITCHING**
- VLAN Database
- INTERFACE**
- FastEthernet0/0
- FastEthernet0/1

**FastEthernet0/0 Configuration**

Port Status: ☒ On

Bandwidth: 100 Mbps

Duplex: ☒ Half Duplex ☐ Full Duplex ☒ Auto

MAC Address: 0030.F2C5.0301

**IP Configuration**

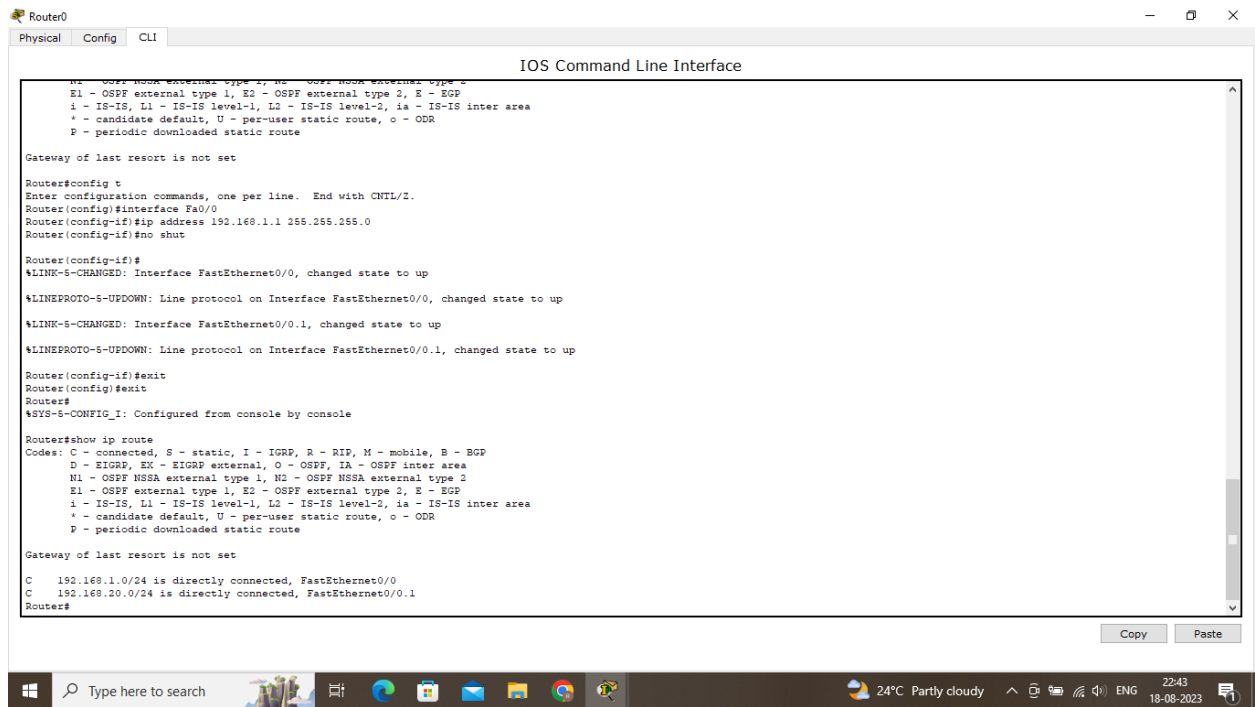
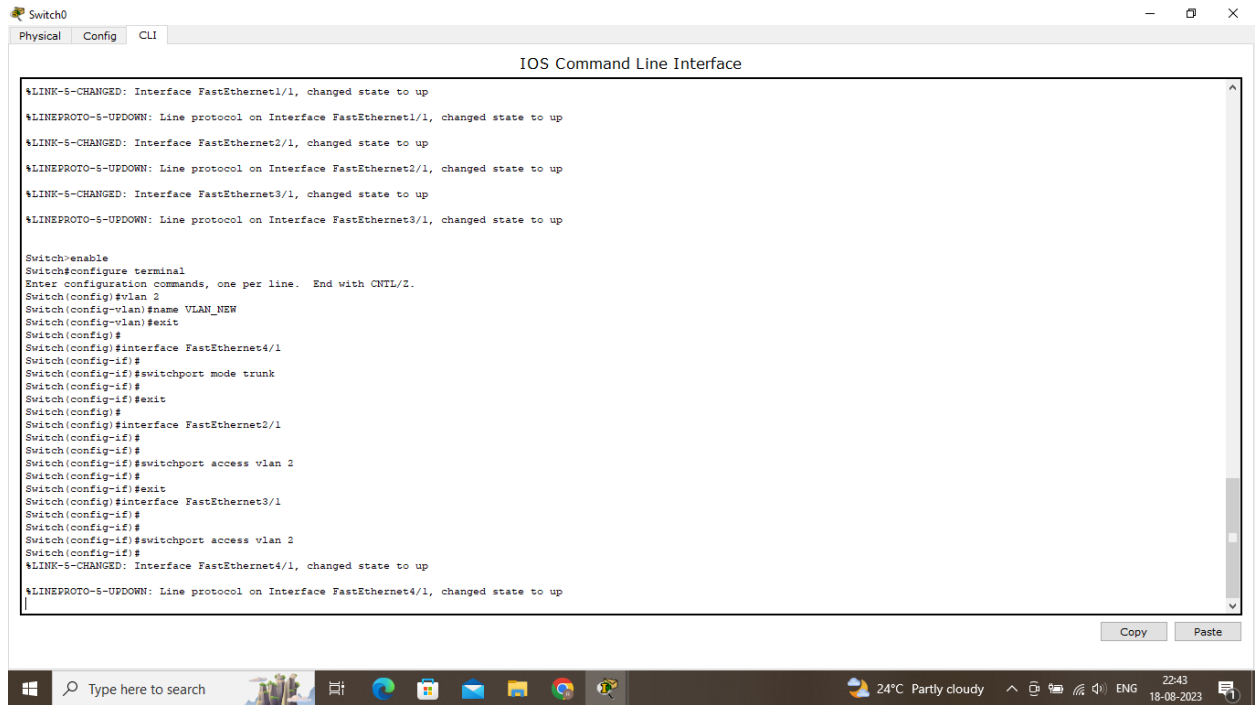
IP Address: 192.168.1.1

Subnet Mask: 255.255.255.0

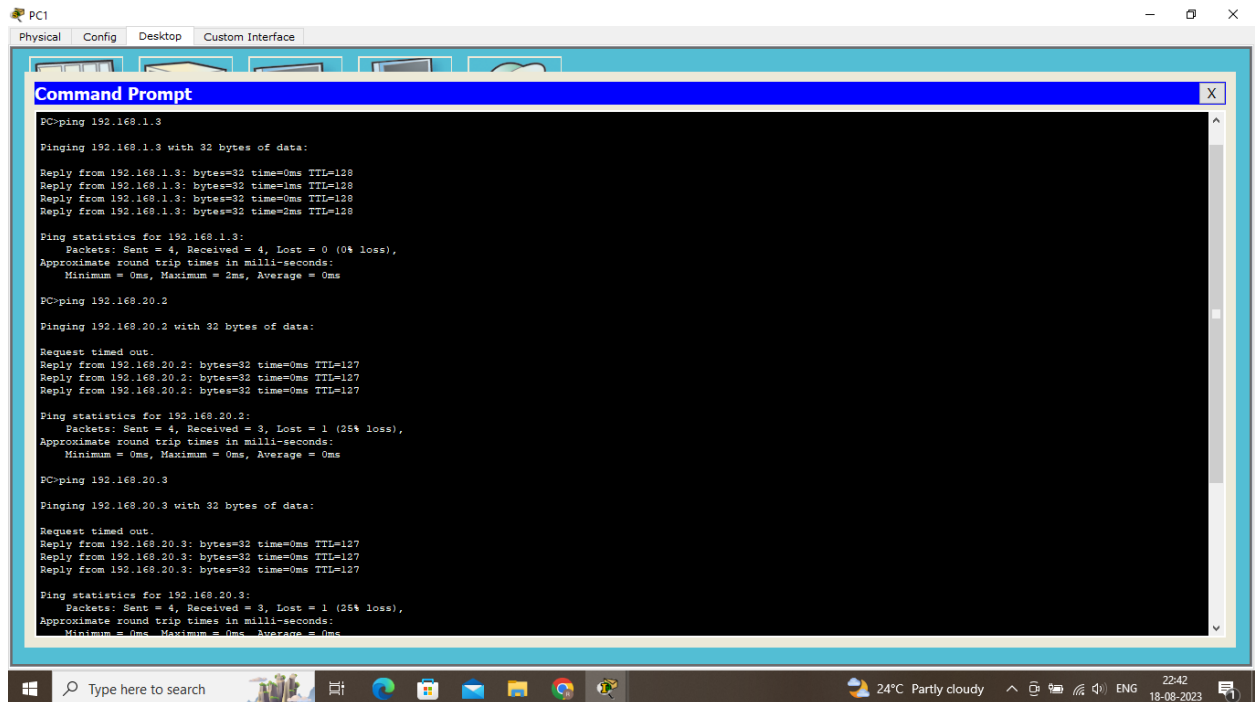
Tx Ring Limit: 10

**Equivalent IOS Commands**

```
Router(vlan)#exit
Router#configure terminal
Router(config)#interface FastEthernet0/0
Router(config-if)#
```



## PING COMMANDS:



PC1

Physical Config Desktop Custom Interface

**Command Prompt**

```
PC>ping 192.168.1.3

Pinging 192.168.1.3 with 32 bytes of data:

Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=1ms TTL=128
Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=2ms TTL=128

Ping statistics for 192.168.1.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms

PC>ping 192.168.20.2

Pinging 192.168.20.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.20.2: bytes=32 time=0ms TTL=127
Reply from 192.168.20.2: bytes=32 time=0ms TTL=127
Reply from 192.168.20.2: bytes=32 time=0ms TTL=127

Ping statistics for 192.168.20.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>ping 192.168.20.3

Pinging 192.168.20.3 with 32 bytes of data:

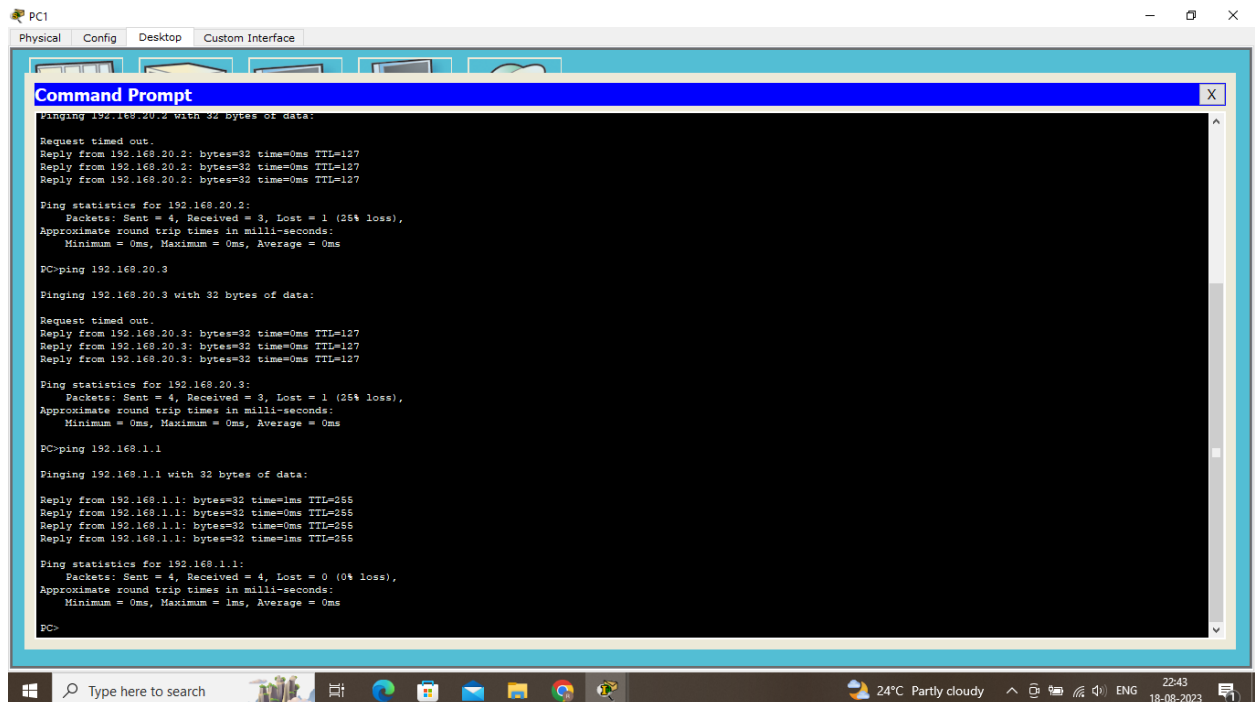
Request timed out.
Reply from 192.168.20.3: bytes=32 time=0ms TTL=127
Reply from 192.168.20.3: bytes=32 time=0ms TTL=127
Reply from 192.168.20.3: bytes=32 time=0ms TTL=127

Ping statistics for 192.168.20.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Type here to search

24°C Partly cloudy

22:42 18-08-2023



PC1

Physical Config Desktop Custom Interface

**Command Prompt**

```
PC>ping 192.168.20.2

Pinging 192.168.20.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.20.2: bytes=32 time=0ms TTL=127
Reply from 192.168.20.2: bytes=32 time=0ms TTL=127
Reply from 192.168.20.2: bytes=32 time=0ms TTL=127

Ping statistics for 192.168.20.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>ping 192.168.20.3

Pinging 192.168.20.3 with 32 bytes of data:

Request timed out.
Reply from 192.168.20.3: bytes=32 time=0ms TTL=127
Reply from 192.168.20.3: bytes=32 time=0ms TTL=127
Reply from 192.168.20.3: bytes=32 time=0ms TTL=127

Ping statistics for 192.168.20.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=1ms TTL=255
Reply from 192.168.1.1: bytes=32 time=0ms TTL=255
Reply from 192.168.1.1: bytes=32 time=0ms TTL=255
Reply from 192.168.1.1: bytes=32 time=1ms TTL=255

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

PC>
```

Type here to search

24°C Partly cloudy

22:43 18-08-2023