

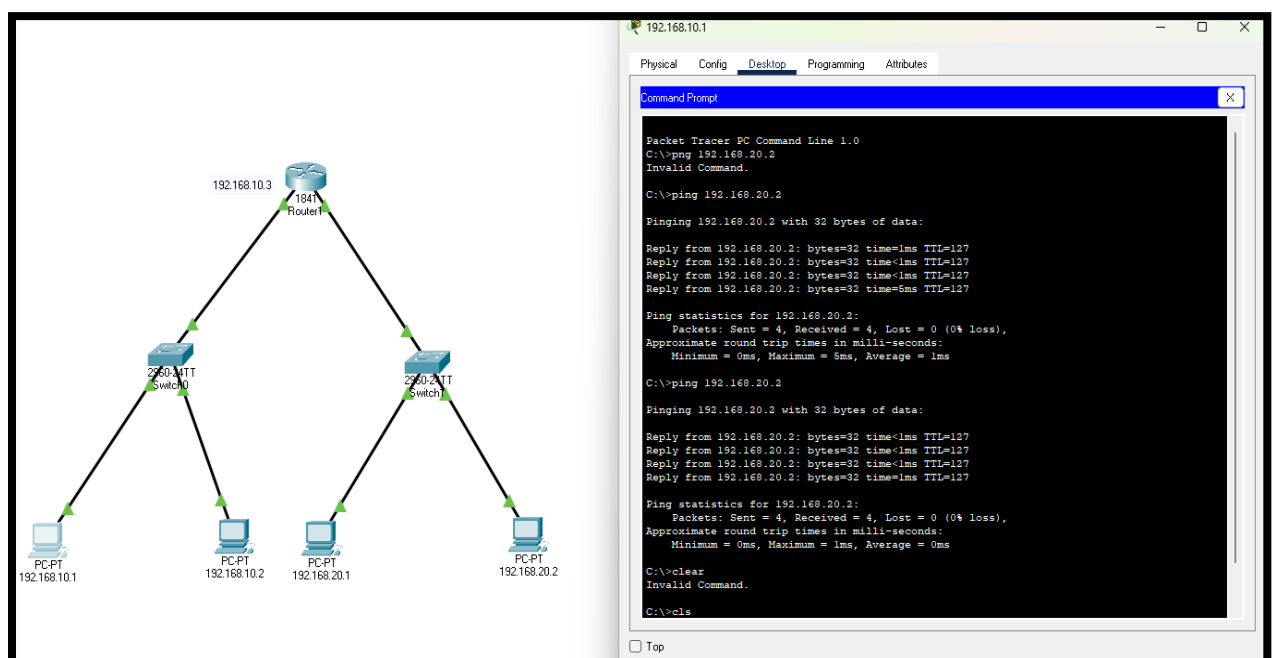
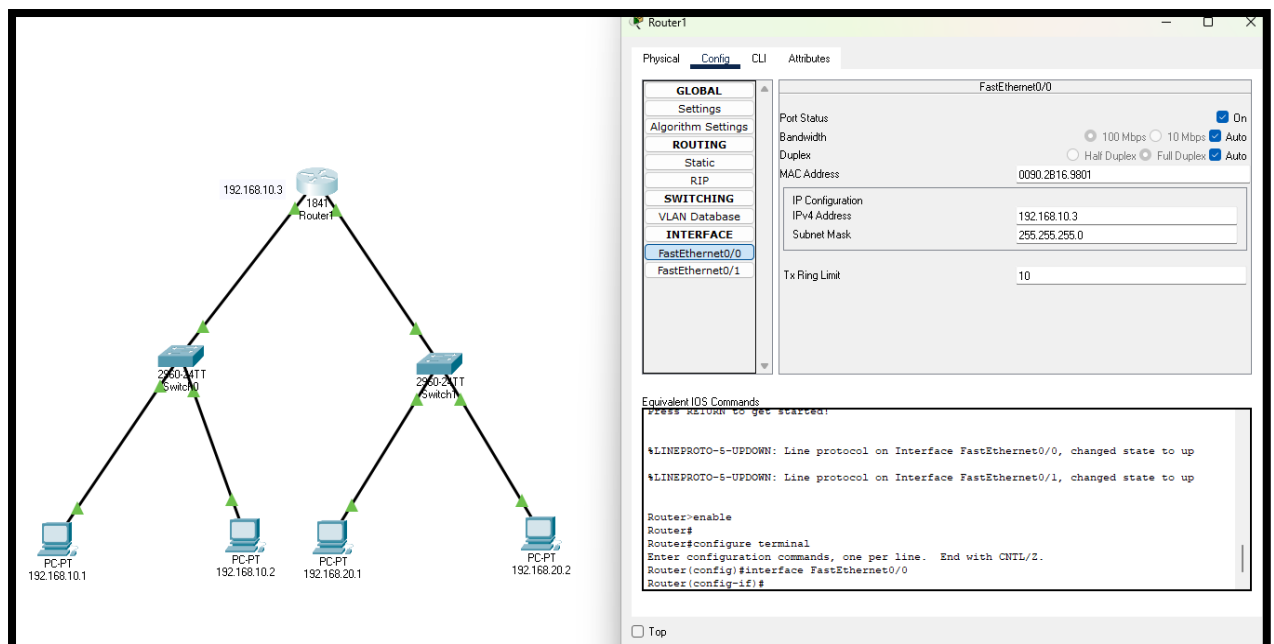
Date: 9/15/2025

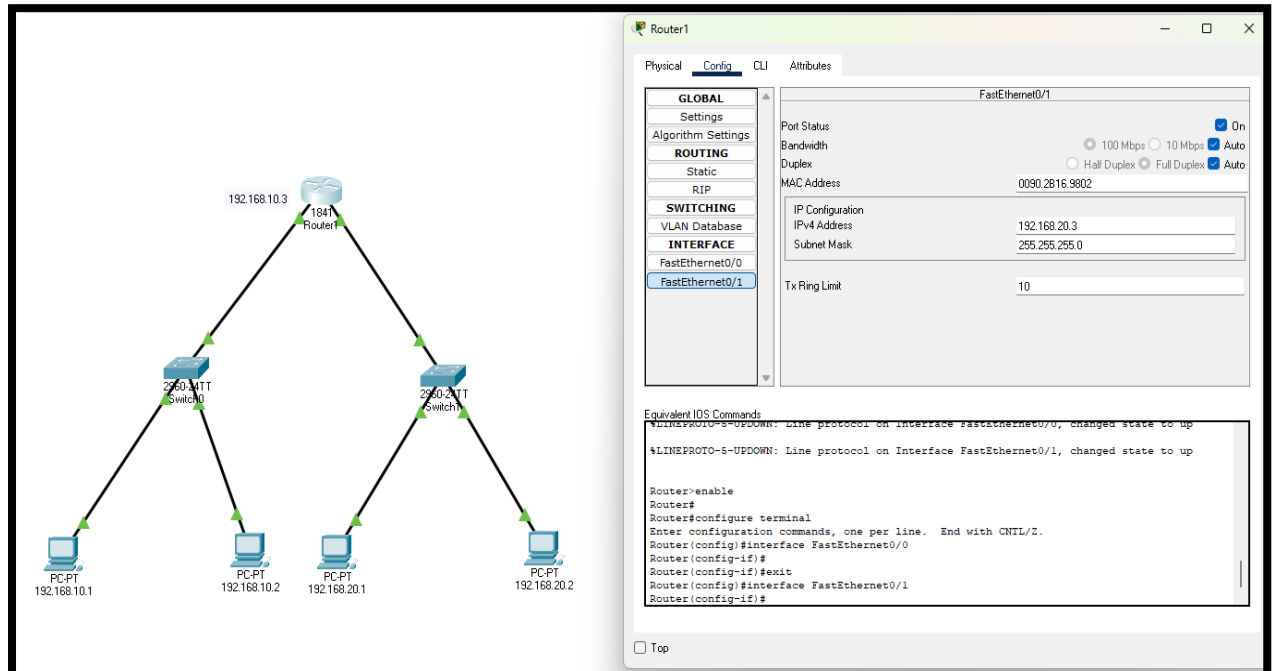
Lab Practical #12:

Study the concept of routing using packet tracer. (Static Routing)

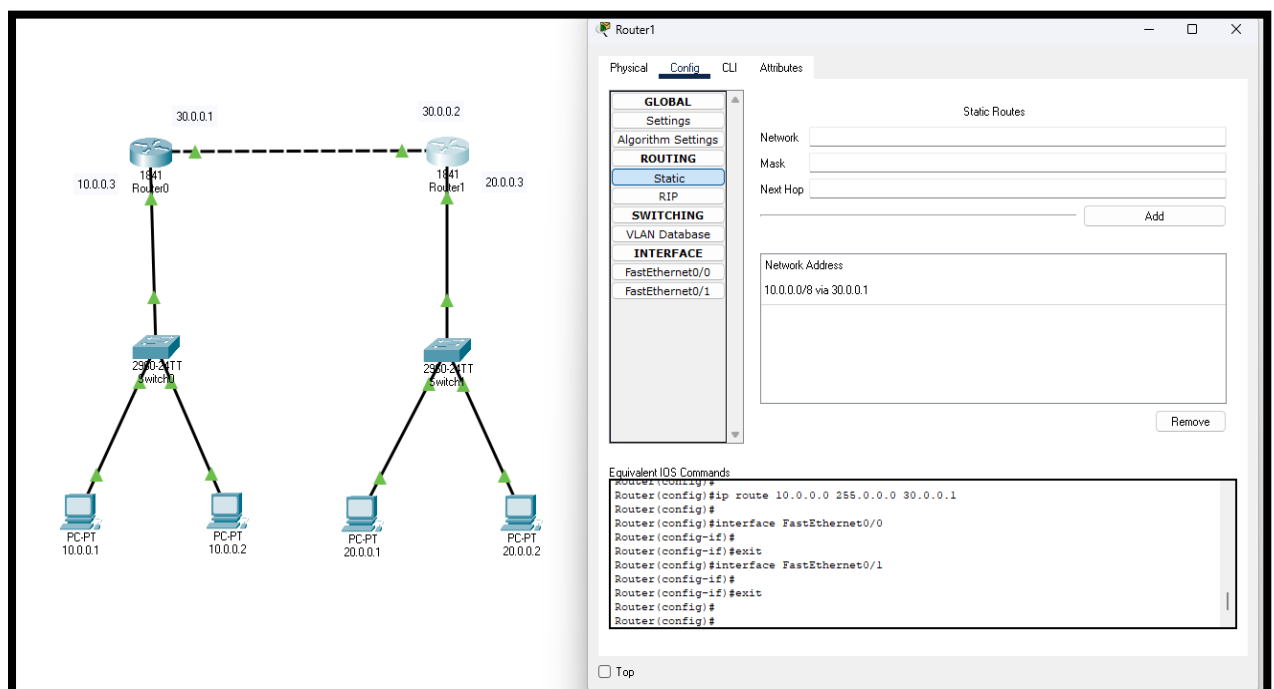
Practical Assignment #12:

1. Connect the two different networks based on the calculated IP addresses and subnet using a packet tracer.

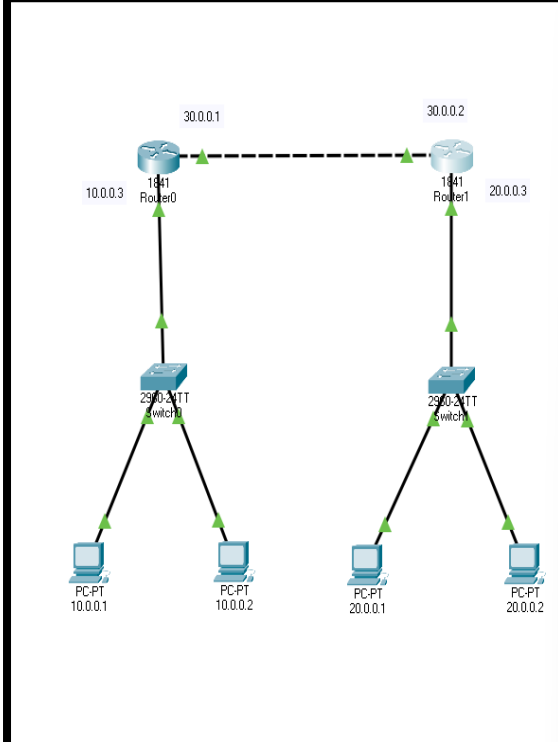




2. Connect the three different networks based on the calculated IP addresses and subnet using a packet tracer.



Date: 9/15/2025



Router1 Configuration

FastEthernet0/1

Port Status: ☒ On

Bandwidth: 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex: ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address: 0002.17C1.2502

IP Configuration:

IPv4 Address: 30.0.0.2

Subnet Mask: 255.0.0.0

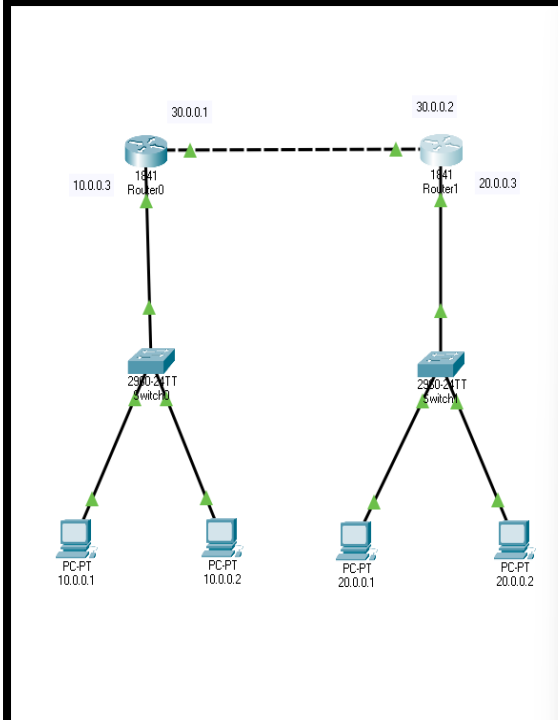
Tx Ring Limit: 10

Equivalent IOS Commands:

```

%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
ip address 30.0.0.2 255.0.0.0
Router(config-if)#
Router(config-if)#exit
Router(config)#
Router(config)#ip route 10.0.0.0 255.0.0.0 30.0.0.1
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#

```



Router1 Configuration

FastEthernet0/0

Port Status: ☒ On

Bandwidth: 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex: ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address: 0002.17C1.2501

IP Configuration:

IPv4 Address: 20.0.0.3

Subnet Mask: 255.0.0.0

Tx Ring Limit: 10

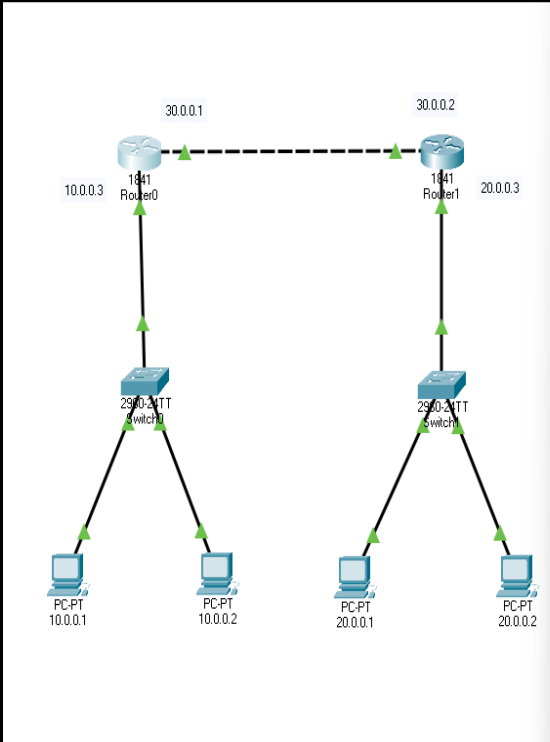
Equivalent IOS Commands:

```

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
ip address 30.0.0.2 255.0.0.0
Router(config-if)#
Router(config-if)#exit
Router(config)#
Router(config)#ip route 10.0.0.0 255.0.0.0 30.0.0.1
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#

```

Date: 9/15/2025



Router0

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

Static Routes

Network:

Mask:

Next Hop:

Add

Network Address: 20.0.0.0/8 via 30.0.0.2

Remove

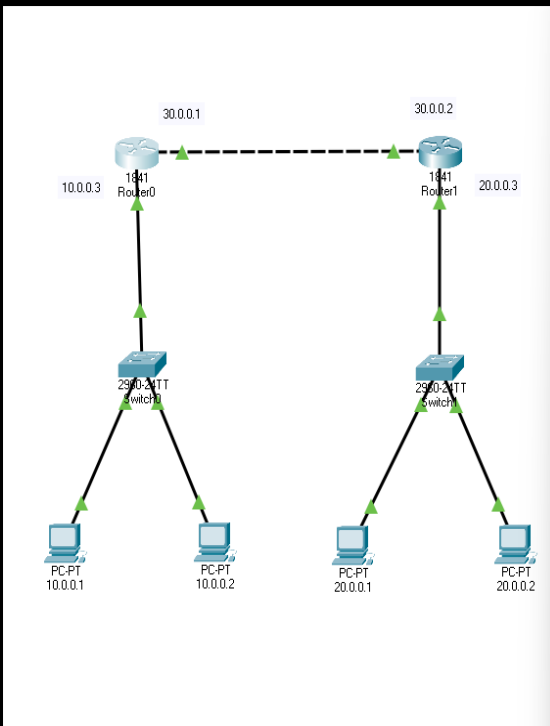
Equivalent IOS Commands

```

Router(config)#ip route 20.0.0.0 255.0.0.0 30.0.0.2
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#
Router(config-if)#exit
Router(config)#
Router(config)#
Router(config)#

```

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Router0

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

FastEthernet0/0

Port Status: ☒ On

Bandwidth: ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex: ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address: 0001.962E.8901

IP Configuration

IPv4 Address: 10.0.0.3

Subnet Mask: 255.0.0.0

Tx Ring Limit: 10

Equivalent IOS Commands

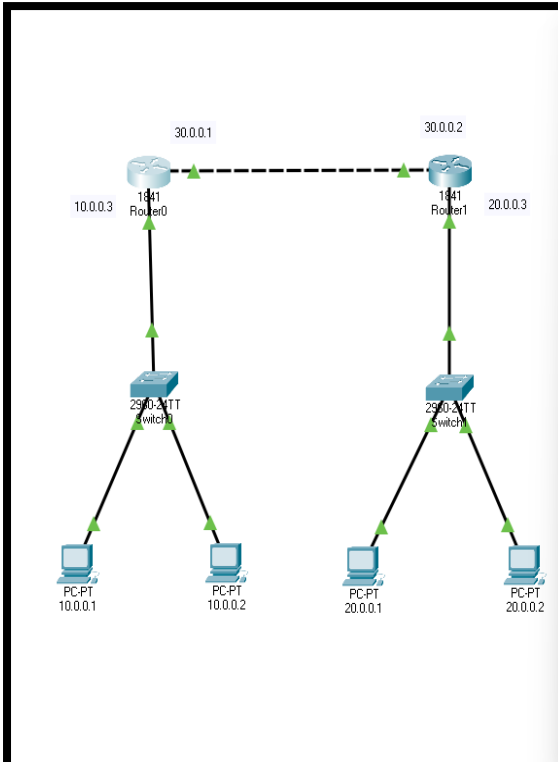
```

Router(config-if)#no shutdown
Router(config-if)#
%LINK-S-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-S-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
Router(config-if)#exit
Router(config)#
Router(config)#
Router(config)#
Router(config)#ip route 20.0.0.0 255.0.0.0 30.0.0.2
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#

```

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Date: 9/15/2025



Router0 Configuration:

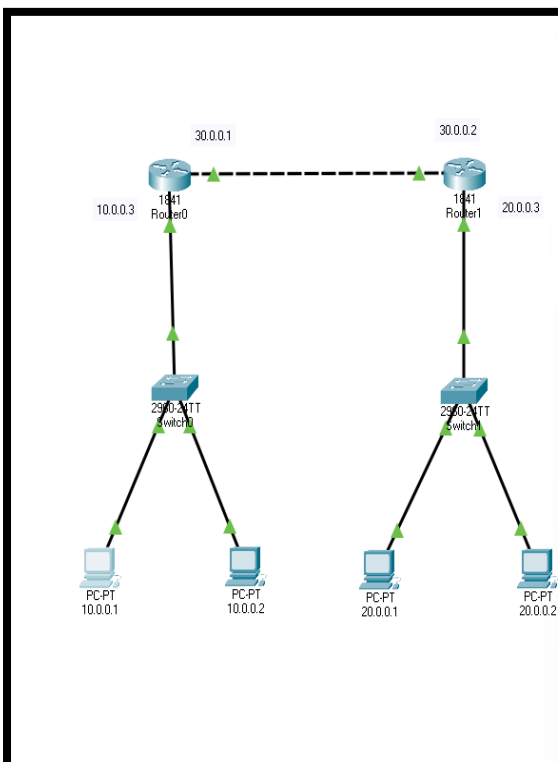
```

Router0
  Config
    GLOBAL
      Settings
      Algorithm Settings
    ROUTING
      Static
      RIP
    SWITCHING
      VLAN Database
    INTERFACE
      FastEthernet0/0
      FastEthernet0/1
  FastEthernet0/1
    Port Status: On
    Bandwidth: 100 Mbps
    Duplex: Full Duplex
    MAC Address: 0001.962E.8902
    IP Configuration
      IPv4 Address: 30.0.0.1
      Subnet Mask: 255.0.0.0
    Tx Ring Limit: 10
          
```

Equivalent IOS Commands:

```

$LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
Router(config-if)#exit
Router(config)#
Router(config)#
Router(config)#
Router(config)#ip route 20.0.0.0 255.0.0.0 30.0.0.2
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#
          
```



10.0.0.1 Command Prompt:

```

Packet Tracer PC Command Line 1.0
C:\>ping 20.0.0.1

Pinging 20.0.0.1 with 32 bytes of data:

Reply from 20.0.0.1: bytes=32 time<1ms TTL=128
Reply from 20.0.0.1: bytes=32 time<1ms TTL=128
Reply from 20.0.0.1: bytes=32 time<1ms TTL=128
Reply from 20.0.0.1: bytes=32 time<1ms TTL=128

Ping statistics for 20.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>
          
```