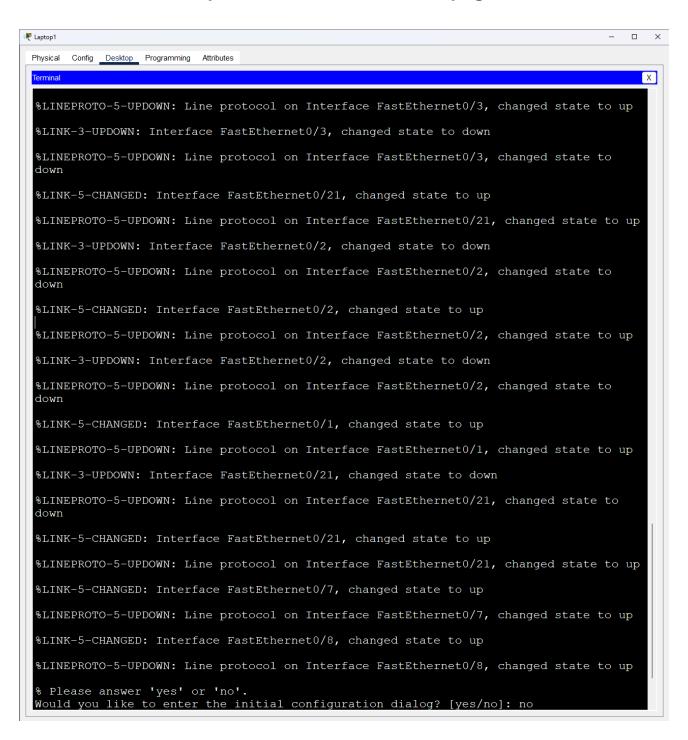
Cisco Packet Tracer - C__Users_mark_Cisco Packet Tracer 8.2.2_saves_lab5.pkt 5_27_2025 1_00_31 PM.png



Cisco Router and LAN Configuration Lab - NotebookLM — Mozilla Firefox 5_27_2025 1_06_03 PM.png

```
₹ Laptop1
 Physical Config Desktop Programming Attributes
                                                                                                                                         Х
 Command Prompt
 Cisco Packet Tracer PC Command Line 1.0 C:\>ipconfig /renew DHCP request failed.
 C:\>DHCP request failed.
 C:\>DHCP request failed.
  C:\>ipconfig /renew
       IP Address..... 10.0.20.2

      Subnet Mask.
      : 255.255.255.0

      Default Gateway.
      : 10.0.20.1

      DNS Server.
      : 0.00.0.0

  C:\>
```

Cisco Router and LAN Configuration Lab - NotebookLM — Mozilla Firefox 5_27_2025 1_06_55 PM.png

```
PC0
                                      X
Physical Config Desktop Programming
                     Attributes
Command Prompt
                                       Χ
Cisco Packet Tracer PC Command Line 1.0
 C:\>ipconfig /renew
   IP Address....:
 10.0.10.2
   Subnet Mask....:
 255.255.255.0
   Default Gateway....:
 10.0.10.1
   DNS Server..... 0.0.0.0
 C:\>
```

Cisco Router and LAN Configuration Lab - NotebookLM — Mozilla Firefox 5_27_2025 1_12_49 PM.png

```
₹ Laptop1
                                                                                        Physical Config Desktop Programming Attributes
                                                                                         Х
      iddinet-default
 1004
                                        active
 1005 trnet-default
                                        active
 %LINK-3-UPDOWN: Interface FastEthernet0/24, changed state to down
 %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/24, changed state to
 %LINK-5-CHANGED: Interface FastEthernet0/24, changed state to up
 %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/24, changed state to up
 %LINK-3-UPDOWN: Interface FastEthernet0/24, changed state to down
 %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/24, changed state to
 down
 %LINK-5-CHANGED: Interface FastEthernet0/16, changed state to up
 %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/16, changed state to up
 %LINK-3-UPDOWN: Interface FastEthernet0/16, changed state to down
 %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/16, changed state to
 SW1#
 SW1#
 SW1#configure terminal
 Enter configuration commands, one per line. End with \mathtt{CNTL}/\mathtt{Z}.
 SW1(config)#interface Vlan 10
 SW1(config-if) #ip address 10.0.10.1 255.255.255.0
 SW1(config-if)#exit
 SW1(config)#interface Vlan 20
 SW1(config-if) #ip address 10.0.20.1 255.255.255.0
 SW1(config-if)#exit
 SW1(config)#ip routing
 SW1 (config) #end
 %LINK-5-CHANGED: Interface Vlan10, changed state to up
 %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan10, changed state to up
 %LINK-5-CHANGED: Interface Vlan20, changed state to up
 %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan20, changed state to up
 SW1#
 %SYS-5-CONFIG I: Configured from console by console
```

Cisco Router and LAN Configuration Lab - NotebookLM — Mozilla Firefox 5_27_2025 1_14_48 PM.png

```
₹ Laptop1
                                                                                               Physical Config Desktop Programming Attributes
                                                                                                Х
 %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan20, changed state to up
 %SYS-5-CONFIG I: Configured from console by console
 show ip interface brief
 Interface
                           IP-Address
                                            OK? Method Status
                                                                                 Protocol
 FastEthernet0/1
                           unassigned
                                            YES unset
 FastEthernet0/2
                          unassigned
                                            YES unset
                                                         down
                                                                                 down
 FastEthernet0/3
                           unassigned
                                            YES unset
                                                         down
                                                                                 down
 FastEthernet0/4
                          unassigned
                                            YES unset
                                                         down
                                                                                 down
 FastEthernet0/5
                                            YES unset
                                                         down
                                                                                 down
                          unassigned
 FastEthernet0/6
                          unassigned
                                            YES unset
                                                         down
                                                                                 down
                                            YES unset
 FastEthernet0/7
                          unassigned
                                                         up
                                                                                 up
 FastEthernet0/8
                                            YES unset
                          unassigned
                                                         up
                                                                                 up
 FastEthernet0/9
                           unassigned
                                            YES unset
                                                         down
                                                                                 down
 FastEthernet0/10
                           unassigned
                                            YES unset
                                                                                 down
                                                        down
 FastEthernet0/11
                           unassigned
                                            YES unset
                                                         down
                                                                                 down
 FastEthernet0/12
                           unassigned
                                            YES unset
                                                                                 down
                          unassigned
 FastEthernet0/13
                                            YES unset
                                                         down
                                                                                 down
 FastEthernet0/14
                           unassigned
                                            YES unset
                                                         down
                                                                                 down
 FastEthernet0/15
                           unassigned
                                            YES unset
                                                         down
                                                                                 down
 FastEthernet0/16
                           unassigned
                                            YES unset
                                                         down
                                                                                 down
                          unassigned
                                            YES unset
 FastEthernet0/17
                                                         down
                                                                                 down
 FastEthernet0/18
                           unassigned
                                            YES unset
                                                         down
                                                                                 down
 FastEthernet0/19
                           unassigned
                                            YES unset
                                                         down
                                                                                 down
 FastEthernet0/20
                           unassigned
                                            YES unset
                                                         down
                                                                                 down
 FastEthernet0/21
                           unassigned
                                            YES unset
                                                                                 up
 SW1#how ip route
 % Invalid input detected at '^' marker.
 SW1#show ip route
 Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
        D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
        E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
         * - candidate default, U - per-user static route, o - ODR
         P - periodic downloaded static route
 Gateway of last resort is not set
       10.0.0.0/24 is subnetted, 2 subnets
          10.0.10.0 is directly connected, Vlan10
          10.0.20.0 is directly connected, Vlan20
 C
 SW1#
```

Laptop0 5_27_2025 12_59_35 PM.png

```
₹ Laptop0
                                                                                                - 🗆 X
Physical Config Desktop Programming Attributes
 Terminal
                                                                                                      Х
 Processor board ID FTX152400KS
2 Gigabit Ethernet interfaces
 DRAM configuration is 64 bits wide with parity disabled.
 255K bytes of non-volatile configuration memory.
249856K bytes of ATA System CompactFlash 0 (Read/Write)
            --- System Configuration Dialog ---
 Would you like to enter the initial configuration dialog? [yes/no]: no
 Press RETURN to get started!
 Router>enable
 Router#configure terminal
 Enter configuration commands, one per line. End with CNTL/Z.
 Router(config) #hostname R1
 R1(config)#interface GigabitEthernet0/1.10
 R1(config-subif)#encapsulation dot1Q 10
 R1(config-subif) #ip address 10.0.10.1 255.255.255.0
 R1(config-subif)#exit
 R1(config) #interface GigabitEthernet0/1.20
 R1(config-subif)#encapsulation dot1Q 20
 R1(config-subif)#ip address 10.0.20.1 255.255.255.0 R1(config-subif)#exit
R1(config) #ip dhcp pool LW5_VLAN10
R1(dhcp-config) #network 10.0.10.0 255.255.255.0
 R1(dhcp-config) #default-router 10.0.10.1
 R1(dhcp-config)#exit
 R1(config) #ip dhcp pool LW5_VLAN20
R1(dhcp-config) #network 10.0.20.0 255.255.255.0
 R1(dhcp-config)#default-router 10.0.20.1
 R1(dhcp-config)#exit
 R1(config)#interface GigabitEthernet0/1
R1(config-if)#no shutdown
 R1(config-if)#end
 %LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up
 %LINK-5-CHANGED: Interface GigabitEthernet0/1.10, changed state to up
 %LINK-5-CHANGED: Interface GigabitEthernet0/1.20, changed state to up
 %SYS-5-CONFIG I: Configured from console by console
```

Laptop1 5_27_2025 1_13_30 PM.png

```
Laptop1
                                                                                                  - 🗆 X
Physical Config Desktop Programming Attributes
                                                                                                        Х
 Packets: Sent = 4, Received = 3, Lost = 1 (25% loss), Approximate round trip times in milli-seconds:
     Minimum = 0ms, Maximum = 0ms, Average = 0ms
 C:\>ping 10.0.20.1
 Pinging 10.0.20.1 with 32 bytes of data:
 Reply from 10.0.20.1: bytes=32 time<1ms TTL=255
 Reply from 10.0.20.1: bytes=32 time<1ms TTL=255
 Reply from 10.0.20.1: bytes=32 time<1ms TTL=255
 Ping statistics for 10.0.20.1:
 Packets: Sent = 3, Received = 3, Lost = 0 (0% loss), Approximate round trip times in milli-seconds:
     Minimum = 0ms, Maximum = 0ms, Average = 0ms
 Control-C
 C:\>ping 10.0.10.1
 Pinging 10.0.10.1 with 32 bytes of data:
 Reply from 10.0.10.1: bytes=32 time<1ms TTL=255 Reply from 10.0.10.1: bytes=32 time<1ms TTL=255
 Reply from 10.0.10.1: bytes=32 time<1ms TTL=255
 Ping statistics for 10.0.10.1:
    Packets: Sent = 3, Received = 3, Lost = 0 (0% loss),
 Approximate round trip times in milli-seconds:
     Minimum = 0ms, Maximum = 0ms, Average = 0ms
 Control-C
 ^C
 C:\>ping 10.0.10.2
 Pinging 10.0.10.2 with 32 bytes of data:
 Request timed out.
 Reply from 10.0.10.2: bytes=32 time<1ms TTL=127
 Reply from 10.0.10.2: bytes=32 time<1ms TTL=127
 Reply from 10.0.10.2: bytes=32 time<1ms TTL=127
 Ping statistics for 10.0.10.2:
 Packets: Sent = 4, Received = 3, Lost = 1 (25% loss), Approximate round trip times in milli-seconds:
     Minimum = 0ms, Maximum = 0ms, Average = 0ms
 C:\>
```

PC0 5_27_2025 1_08_19 PM.png

```
Laptop1
                                                                                   - 🗆 X
Physical Config Desktop Programming Attributes
                                                                                        Х
    Default Gateway..... 10.0.20.1
    DNS Server....: 0.0.0.0
 C:\ ping 10.0.10.1
 Pinging 10.0.10.1 with 32 bytes of data:
 Reply from 10.0.10.1: bytes=32 time<1ms TTL=255
 Reply from 10.0.10.1: bytes=32 time<1ms TTL=255
 Reply from 10.0.10.1: bytes=32 time<1ms TTL=255
 Ping statistics for 10.0.10.1:
    Packets: Sent = 3, Received = 3, Lost = 0 (0% loss),
 Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
 Control-C
 ^C
 C:\>ping 10.0.10.2
 Pinging 10.0.10.2 with 32 bytes of data:
 Request timed out.
 Reply from 10.0.10.2: bytes=32 time<1ms TTL=127
 Reply from 10.0.10.2: bytes=32 time=1ms TTL=127
 Reply from 10.0.10.2: bytes=32 time<1ms TTL=127
 Ping statistics for 10.0.10.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
 Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
 C:\>ping 10.0.20.1
 Pinging 10.0.20.1 with 32 bytes of data:
 Reply from 10.0.20.1: bytes=32 time<1ms TTL=255
 Reply from 10.0.20.1: bytes=32 time=1ms TTL=255
 Reply from 10.0.20.1: bytes=32 time=2ms TTL=255
 Ping statistics for 10.0.20.1:
     Packets: Sent = 3, Received = 3, Lost = 0 (0% loss),
 Approximate round trip times in milli-seconds:
     Minimum = 0ms, Maximum = 2ms, Average = 1ms
 Control-C
 ^C
 C:\
```