

## **Lab Exercise – I**

Implement the topology given below on cisco packet tracer:

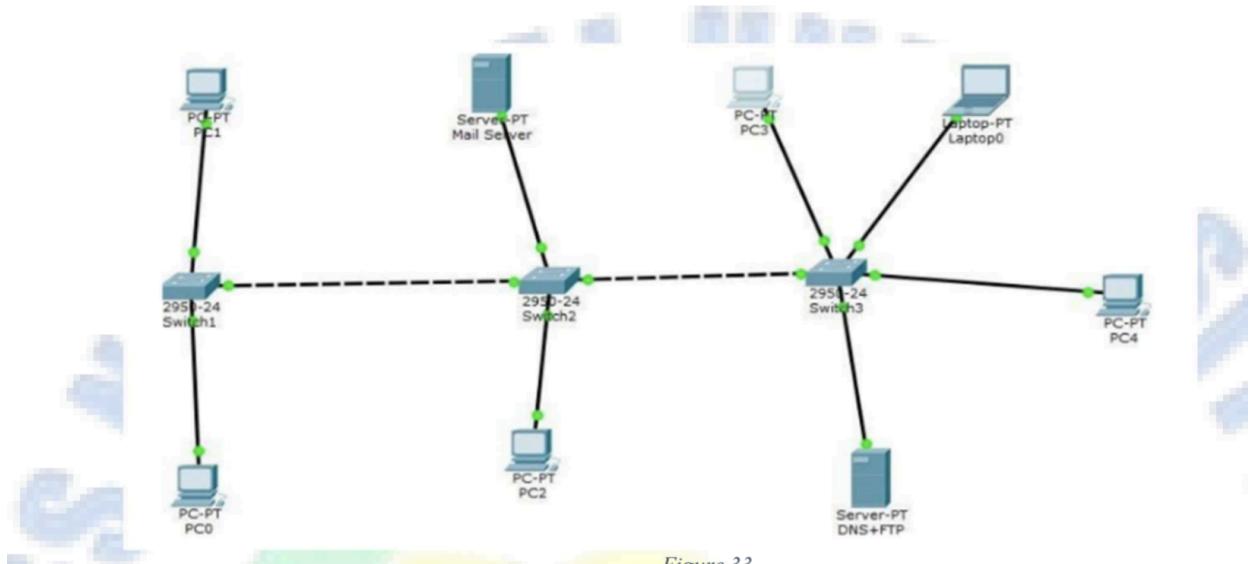
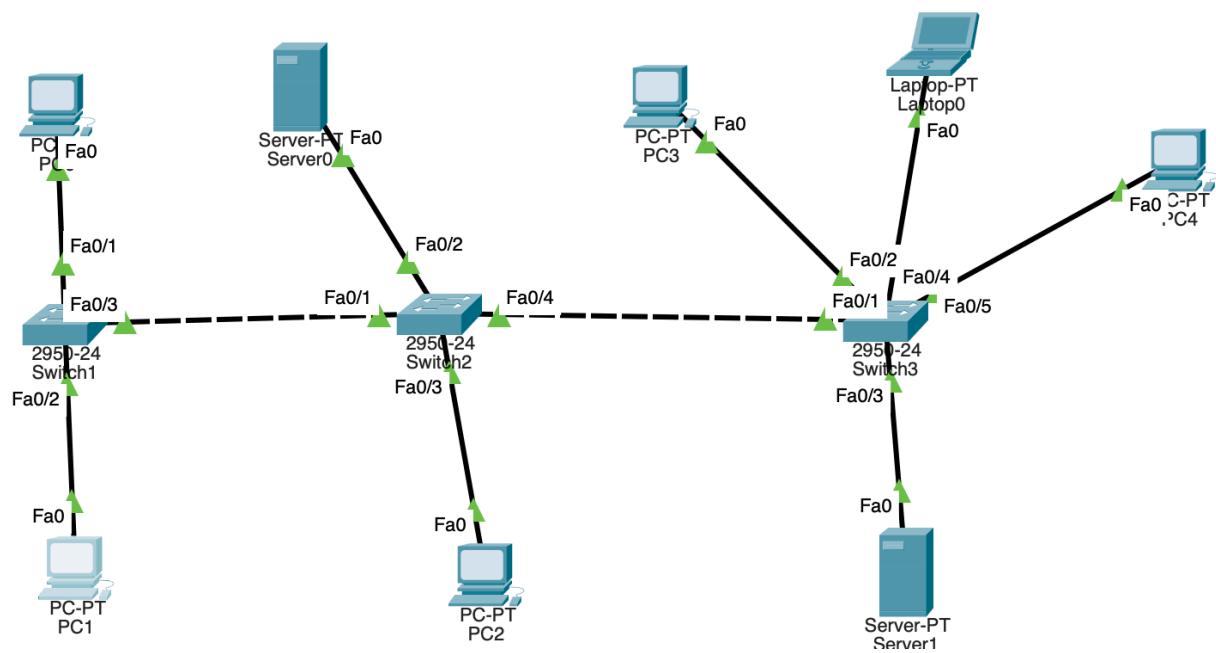


Figure 33

Do the following:

- Assign IP to the computers. The Network should like this XX.XX.YY.0. i.e. your roll number like 3879(38.79.1.0) and for all other networks Y should be replaced by 2, 3 and so on.
- Ping the server from any computer.
- Verify the telnet connection from all switches nearest to the computer.
- Do change the IP of Switch2 from PC2 using its command prompt.



**PC0**

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0 Bluetooth

**FastEthernet0**

Port Status  On  
 100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 0000.0C26.2BE9

IP Configuration  
 DHCP  Static  
IPv4 Address 192.168.41.22  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  Static  
IPv6 Address /

Link Local Address: FE80::200:CFF:FE26:2BE9

**PC0**

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0 Bluetooth

**Global Settings**

Display Name PC0

Interfaces FastEthernet0

Gateway/DNS IPv4  
 DHCP  Static  
Default Gateway 192.168.41.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  Static  
Default Gateway

**PC1**

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0 Bluetooth

**FastEthernet0**

Port Status  On

Bandwidth  100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 0040.0BDA.7DB0

IP Configuration  Static  
 DHCP

IPv4 Address 192.168.41.21

Subnet Mask 255.255.255.0

IPv6 Configuration  Static  
 Automatic

IPv6 Address /

Link Local Address: FE80::240:BFF:FEDA:7DB0

**PC1**

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0 Bluetooth

**Global Settings**

Display Name PC1

Interfaces FastEthernet0

Gateway/DNS IPv4

Static  
 DHCP

Default Gateway 192.168.41.1

DNS Server

Gateway/DNS IPv6

Static  
 Automatic

Default Gateway

**PC2**

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0 Bluetooth

**FastEthernet0**

Port Status  On  
 100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 00E0.A3AA.807D

IP Configuration  
 DHCP  Static  
IPv4 Address 192.168.41.23  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  Static  
IPv6 Address /

Link Local Address: FE80::2E0:A3FF:FEAA:807D

**PC2**

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0 Bluetooth

**Global Settings**

Display Name PC2

Interfaces FastEthernet0

Gateway/DNS IPv4  
 DHCP  Static  
Default Gateway 192.168.41.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  Static  
Default Gateway

**PC3**

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0 Bluetooth

**FastEthernet0**

Port Status  On

Bandwidth  100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 0030.A3EE.8492

IP Configuration  Static  
 DHCP

IPv4 Address 192.168.41.24

Subnet Mask 255.255.255.0

IPv6 Configuration  Static  
 Automatic

IPv6 Address /

Link Local Address: FE80::230:A3FF:FEFF:8492

**PC3**

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0 Bluetooth

**Global Settings**

Display Name PC3

Interfaces FastEthernet0

Gateway/DNS IPv4

Static  
 DHCP

Default Gateway 192.168.41.1

DNS Server

Gateway/DNS IPv6

Static  
 Automatic

Default Gateway

**PC4**

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0 Bluetooth

**FastEthernet0**

Port Status  On

Bandwidth  100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 0010.114A.865C

IP Configuration  DHCP  Static

IPv4 Address 192.168.41.25

Subnet Mask 255.255.255.0

IPv6 Configuration  Automatic  Static

IPv6 Address /

Link Local Address: FE80::210:11FF:FE4A:865C

**PC4**

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0 Bluetooth

**Global Settings**

Display Name PC4

Interfaces FastEthernet0

Gateway/DNS IPv4

DHCP  Static

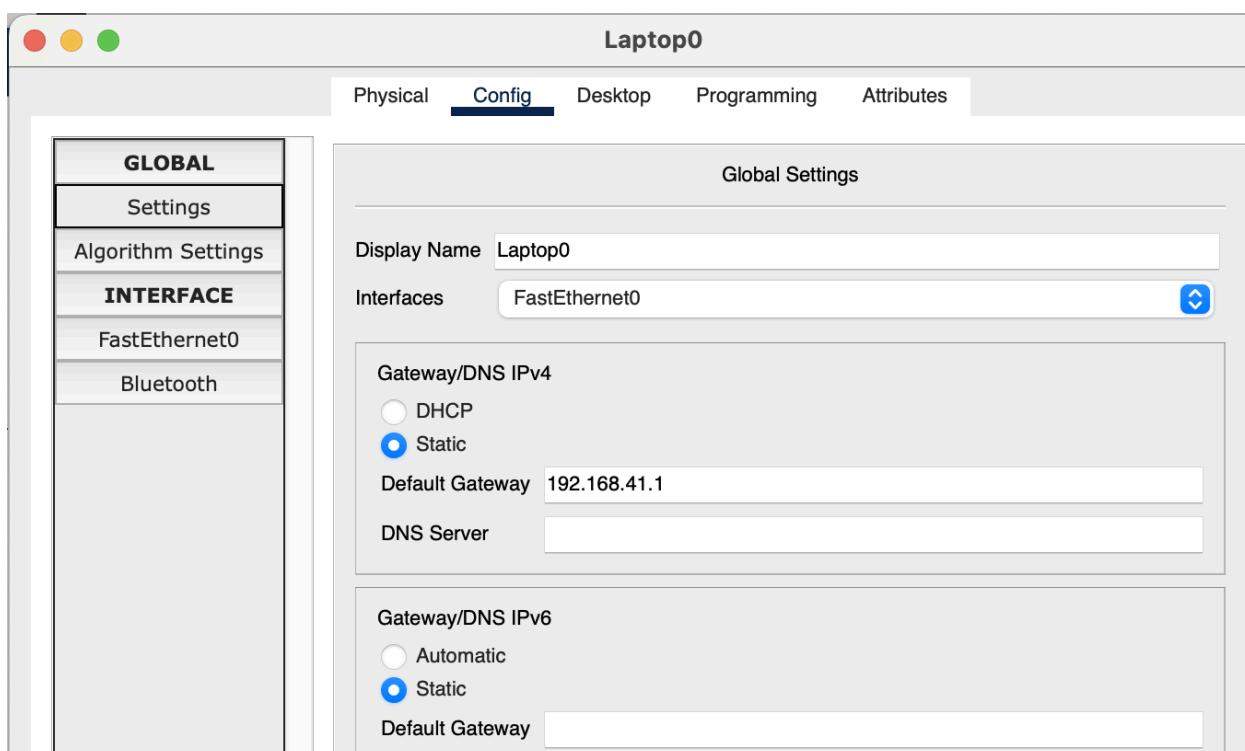
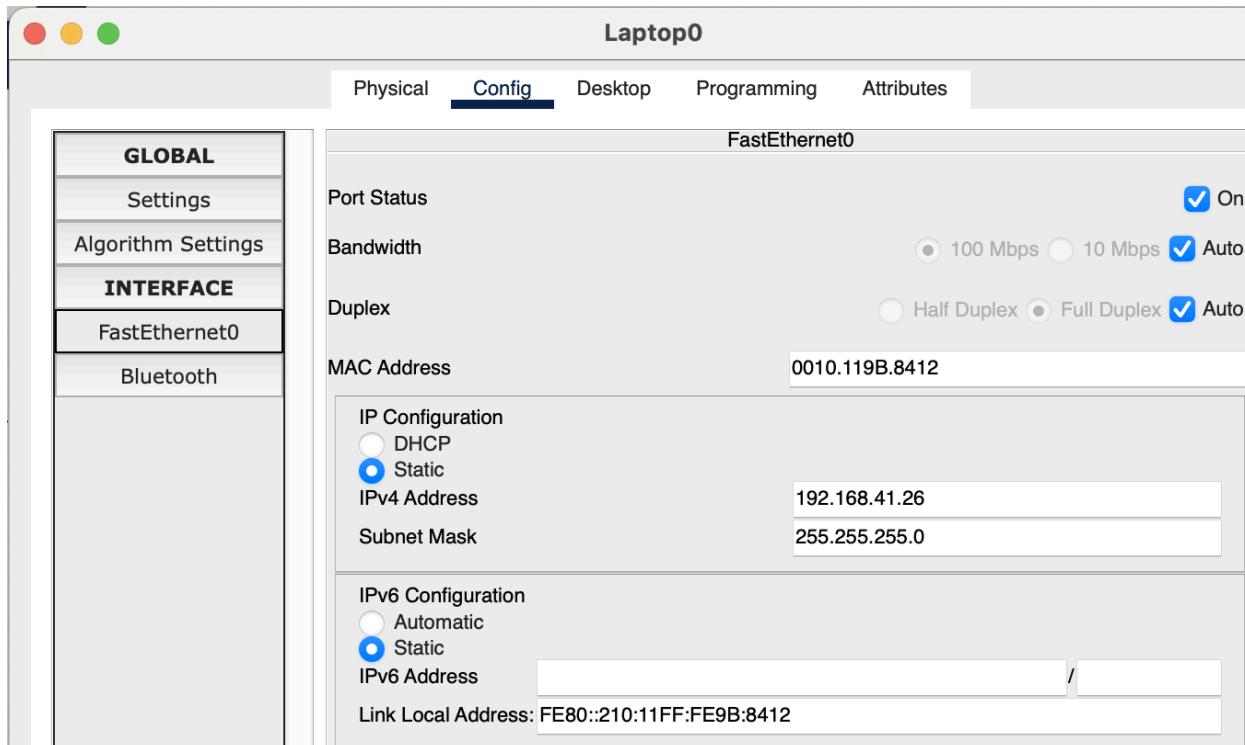
Default Gateway 192.168.41.1

DNS Server

Gateway/DNS IPv6

Automatic  Static

Default Gateway



**Server0**

Physical Config Services Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0

**FastEthernet0**

Port Status  On  
 100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 000A.F3DD.9C05

IP Configuration  
 DHCP  Static  
IPv4 Address 192.168.41.27  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  Static  
IPv6 Address /  
Link Local Address: FE80::20A:F3FF:FEDE:9C05

**Server0**

Physical Config Services Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0

**Global Settings**

Display Name Server0

Gateway/DNS IPv4  
 DHCP  Static  
Default Gateway 192.168.41.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  Static  
Default Gateway  
DNS Server

**Server1**

Physical Config Services Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0

**FastEthernet0**

Port Status  On  
 100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 00D0.BCD2.CD3D

IP Configuration  
 DHCP  Static  
IPv4 Address 192.168.41.28  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  Static  
IPv6 Address /  
Link Local Address: FE80::2D0:BCFF:FED2:CD3D

**Server1**

Physical Config Services Desktop Programming Attributes

**GLOBAL**

Settings Algorithm Settings

**INTERFACE**

FastEthernet0

**Global Settings**

Display Name Server1

Gateway/DNS IPv4  
 DHCP  Static  
Default Gateway 192.168.41.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  Static  
Default Gateway  
DNS Server

Switch1

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface vlan 1
Switch(config-if)#ip address 192.168.41.1 255.255.255.0
Switch(config-if)#no shutdown

Switch(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch con0 is now available
```

Switch2

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface vlan 1
Switch(config-if)#ip address 192.168.41.2 255.255.255.0
Switch(config-if)#no shutdown

Switch(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
exit
Switch(config)#

Switch con0 is now available

Press RETURN to get started.
```

**Switch3**

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface vlan 1
Switch(config-if)#ip address 192.168.41.3 255.255.255.0
Switch(config-if)#no shutdown

Switch(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up

Switch(config-if)#exit
Switch(config)#

Switch con0 is now available

Press RETURN to get started.
```

**PC0**

Physical Config **Desktop** Programming Attributes

Command Prompt X

```
Cisco Packet Tracer PC Command Line 1.0
C:>ping 192.168.41.27

Pinging 192.168.41.27 with 32 bytes of data:
Reply from 192.168.41.27: bytes=32 time<1ms TTL=128
Reply from 192.168.41.27: bytes=32 time=1ms TTL=128
Reply from 192.168.41.27: bytes=32 time<1ms TTL=128
Reply from 192.168.41.27: bytes=32 time=2ms TTL=128

Ping statistics for 192.168.41.27:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms
```

Laptop0

Physical Config Desktop **Programming** Attributes

Command Prompt X

```
Cisco Packet Tracer PC Command Line 1.0
C:\>192.168.41.28
Invalid Command.

C:\>ping 192.168.41.28

Pinging 192.168.41.28 with 32 bytes of data:

Reply from 192.168.41.28: bytes=32 time<1ms TTL=128
Reply from 192.168.41.28: bytes=32 time<1ms TTL=128
Reply from 192.168.41.28: bytes=32 time<1ms TTL=128
Reply from 192.168.41.28: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.41.28:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
  Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

Switch1

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#line vty 0 15
Switch(config-line)#password cisco
Switch(config-line)#login
Switch(config-line)#exit
Switch(config)#enable password cisco
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

Switch2

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#line vty 0 15
Switch(config-line)#password cisco
Switch(config-line)#login
Switch(config-line)#exit
Switch(config)#enable password cisco
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

**Switch3**

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#line vty 0 15
Switch(config-line)#password cisco
Switch(config-line)#login
Switch(config-line)#exit
Switch(config)#enable password cisco
Switch(config)#exist
^
% Invalid input detected at '^' marker.

Switch(config)#

```

**PC0**

Physical Config **Desktop** Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:>ping 192.168.41.27

Pinging 192.168.41.27 with 32 bytes of data:

Reply from 192.168.41.27: bytes=32 time<1ms TTL=128
Reply from 192.168.41.27: bytes=32 time<1ms TTL=128
Reply from 192.168.41.27: bytes=32 time<1ms TTL=128
Reply from 192.168.41.27: bytes=32 time=2ms TTL=128

Ping statistics for 192.168.41.27:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms

C:>telnet 192.168.41.1
Trying 192.168.41.1 ...Open

User Access Verification

Password:
Switch>

[Connection to 192.168.41.1 closed by foreign host]
C:>
```

**PC2**

Physical Config **Desktop** Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:>tenet 192.168.41.2
Invalid Command.

C:>telnet 192.168.41.2
Trying 192.168.41.2 ...Open

User Access Verification

Password:
Switch>telnet 192.168.41.2
```

**PC3**

Physical Config Desktop **Programming** Attributes

**Command Prompt** X

```
Cisco Packet Tracer PC Command Line 1.0
C:>telnet 192.168.41.3
Trying 192.168.41.3 ...Open

User Access Verification

Password:
Switch>
```

**PC2**

Physical Config Desktop **Programming** Attributes

**Command Prompt** X

```
Cisco Packet Tracer PC Command Line 1.0
C:>tenet 192.168.41.2
Invalid Command.

C:>telnet 192.168.41.2
Trying 192.168.41.2 ...Open

User Access Verification

Password:
Switch>telnet 192.168.41.2
Trying 192.168.41.2 ...Open

User Access Verification

Password:
Switch>enable
Password:
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface vlan 1
Switch(config-if)#ip address 192.168.41.4 255.255.255.0
% Connection refused by remote host
```

**PC1**

Physical Config Desktop **Programming** Attributes

**Command Prompt** X

```
Cisco Packet Tracer PC Command Line 1.0
C:>ping 192.168.41.4
Pinging 192.168.41.4 with 32 bytes of data:
Request timed out.
Reply from 192.168.41.4: bytes=32 time<1ms TTL=255
Reply from 192.168.41.4: bytes=32 time<1ms TTL=255
Reply from 192.168.41.4: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.41.4:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:>ping 192.168.41.4
Pinging 192.168.41.4 with 32 bytes of data:
Reply from 192.168.41.4: bytes=32 time<1ms TTL=255
Reply from 192.168.41.4: bytes=32 time<1ms TTL=255
Reply from 192.168.41.4: bytes=32 time<1ms TTL=255
Reply from 192.168.41.4: bytes=32 time=1ms TTL=255

Ping statistics for 192.168.41.4:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:>|
```

## Lab Exercise – II

Implement the topology given below on cisco packet tracer:

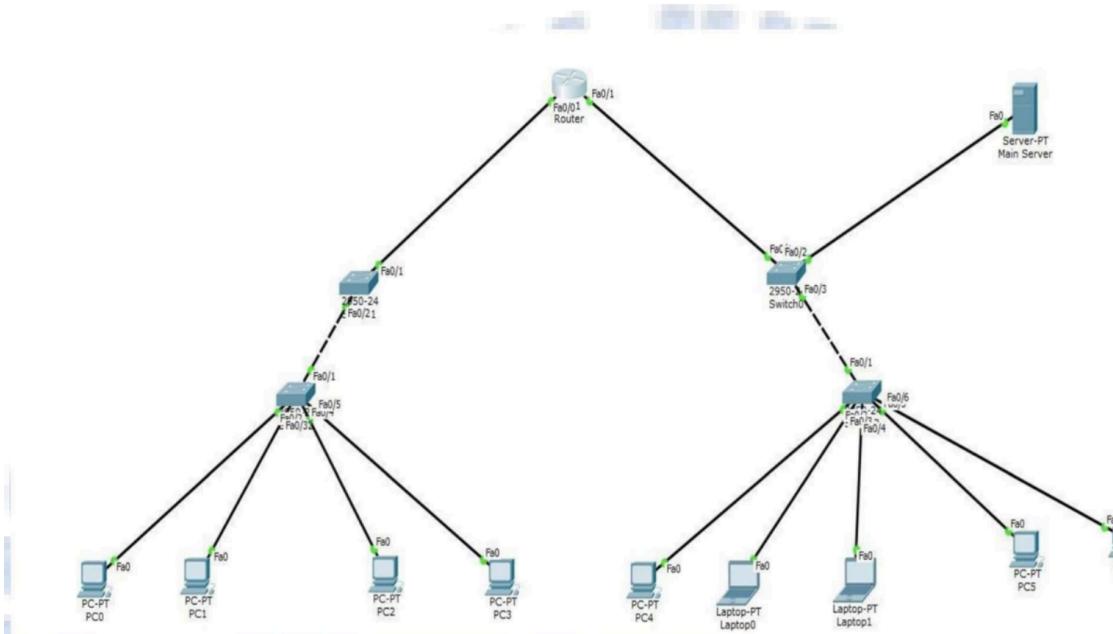
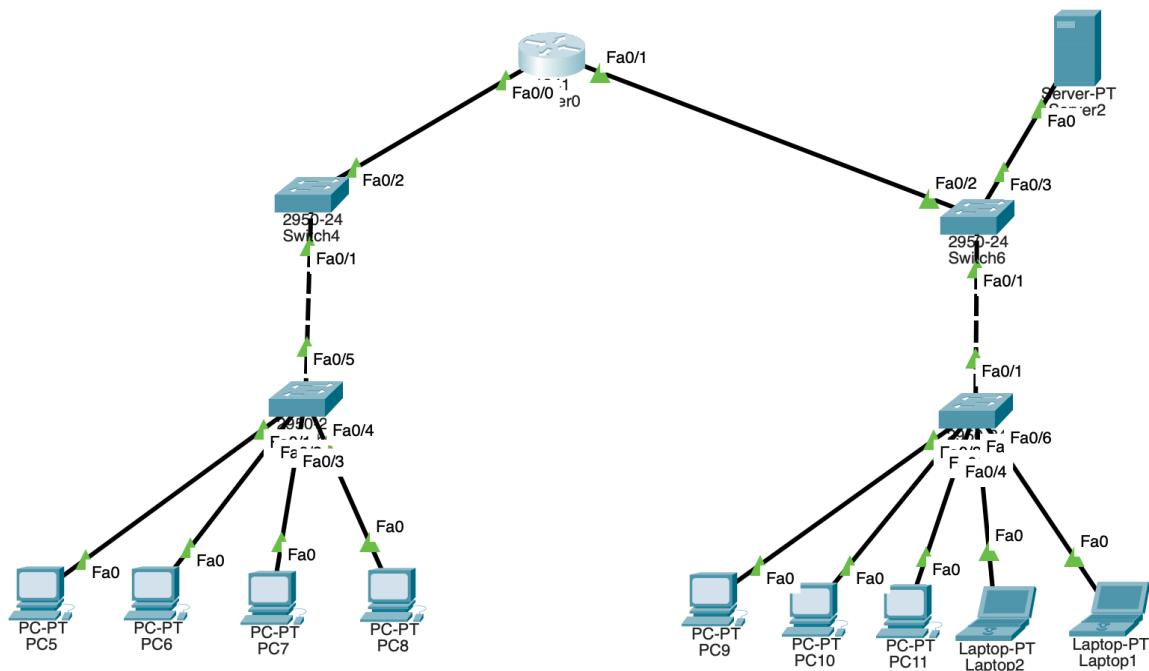


Figure 34

Do the following:

- The IPs should be assigned to the computer using static method and to the router using CLI.  
The Network on one side of FastEthernet should like this XX.XX.YY.0 i.e. your roll number like 3879(38.79.1.0) and on another side it should be 3880(38.80.2.0).
- Run command of show run on Switch0 and Switch1 and take screenshot of it.
- Verify SSH and do assign IP to another interface of Router. It should be done through laptop0. Take screenshot of it.



PC5

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**FastEthernet0**

Port Status  On

Bandwidth  100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 00E0.8F41.4DB3

IP Configuration  
 DHCP  
 Static  
IPv4 Address 192.168.41.21  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  
 Static  
IPv6 Address /

Link Local Address: FE80::2E0:8FFF:FE41:4DB3

PC5

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**Global Settings**

Display Name PC5

Interfaces FastEthernet0

Gateway/DNS IPv4  
 DHCP  
 Static  
Default Gateway 192.168.41.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  
 Static  
Default Gateway

PC6

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**FastEthernet0**

Port Status  On

Bandwidth  100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 00D0.97A0.630D

IP Configuration  
 DHCP  
 Static  
IPv4 Address 192.168.41.22  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  
 Static  
IPv6 Address /

Link Local Address: FE80::2D0:97FF:FEA0:630D

PC6

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**Global Settings**

Display Name PC6

Interfaces FastEthernet0

Gateway/DNS IPv4  
 DHCP  
 Static  
Default Gateway 192.168.41.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  
 Static  
Default Gateway

PC7

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**FastEthernet0**

Port Status  On

Bandwidth  100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 00D0.BC74.8256

IP Configuration  
 DHCP  
 Static  
IPv4 Address 192.168.41.23  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  
 Static  
IPv6 Address /

Link Local Address: FE80::2D0:BCFF:FE74:8256

PC7

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**Global Settings**

Display Name PC7

Interfaces FastEthernet0

Gateway/DNS IPv4  
 DHCP  
 Static  
Default Gateway 192.168.41.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  
 Static  
Default Gateway

PC8

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**FastEthernet0**

Port Status  On

Bandwidth  100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 00E0.F794.ECE4

IP Configuration  
 DHCP  
 Static  
IPv4 Address 192.168.41.24  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  
 Static  
IPv6 Address /

Link Local Address: FE80::2E0:F7FF:FE94:ECE4

PC8

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**Global Settings**

Display Name PC8

Interfaces FastEthernet0

Gateway/DNS IPv4  
 DHCP  
 Static  
Default Gateway 192.168.41.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  
 Static  
Default Gateway

PC9

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**FastEthernet0**

Port Status  On

Bandwidth  100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 0002.4A56.2683

IP Configuration  
 DHCP  
 Static  
IPv4 Address 192.168.42.21  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  
 Static  
IPv6 Address /

Link Local Address: FE80::202:4AFF:FE56:2683

PC9

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**Global Settings**

Display Name PC9

Interfaces FastEthernet0

Gateway/DNS IPv4  
 DHCP  
 Static  
Default Gateway 192.168.42.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  
 Static  
Default Gateway

PC10

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**FastEthernet0**

Port Status  On

Bandwidth  100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 00E0.B07B.B4AB

IP Configuration  
 DHCP  
 Static  
IPv4 Address 192.168.42.22  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  
 Static  
IPv6 Address /

Link Local Address: FE80::2E0:B0FF:FE7B:B4AB

PC10

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**Global Settings**

Display Name PC10

Interfaces FastEthernet0

Gateway/DNS IPv4  
 DHCP  
 Static  
Default Gateway 192.168.42.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  
 Static  
Default Gateway

PC11

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**FastEthernet0**

Port Status  On

Bandwidth  100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 00E0.A390.71E3

IP Configuration  
 DHCP  
 Static  
IPv4 Address 192.168.42.23  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  
 Static  
IPv6 Address /

Link Local Address: FE80::2E0:A3FF:FE90:71E3

PC11

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**Global Settings**

Display Name PC11

Interfaces FastEthernet0

Gateway/DNS IPv4  
 DHCP  
 Static  
Default Gateway 192.168.42.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  
 Static  
Default Gateway

Laptop2

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**FastEthernet0**

Port Status  On

Bandwidth  100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 00D0.BA76.8819

IP Configuration  
 DHCP  
 Static  
IPv4 Address 192.168.42.24  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  
 Static  
IPv6 Address /

Link Local Address: FE80::2D0:BAFF:FE76:8819

Laptop2

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**Global Settings**

Display Name Laptop2

Interfaces FastEthernet0

Gateway/DNS IPv4  
 DHCP  
 Static  
Default Gateway 192.168.42.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  
 Static  
Default Gateway

Laptop1

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

**FastEthernet0**

Port Status  On

Bandwidth  100 Mbps  10 Mbps  Auto

Duplex  Half Duplex  Full Duplex  Auto

MAC Address 0002.162B.898C

IP Configuration  
 DHCP  
 Static  
IPv4 Address 192.168.42.25  
Subnet Mask 255.255.255.0

IPv6 Configuration  
 Automatic  
 Static  
IPv6 Address /

Link Local Address: FE80::202:16FF:FE2B:898C

Laptop1

Physical Config Desktop Programming Attributes

**GLOBAL**

Settings  
Algorithm Settings

**INTERFACE**

FastEthernet0  
Bluetooth

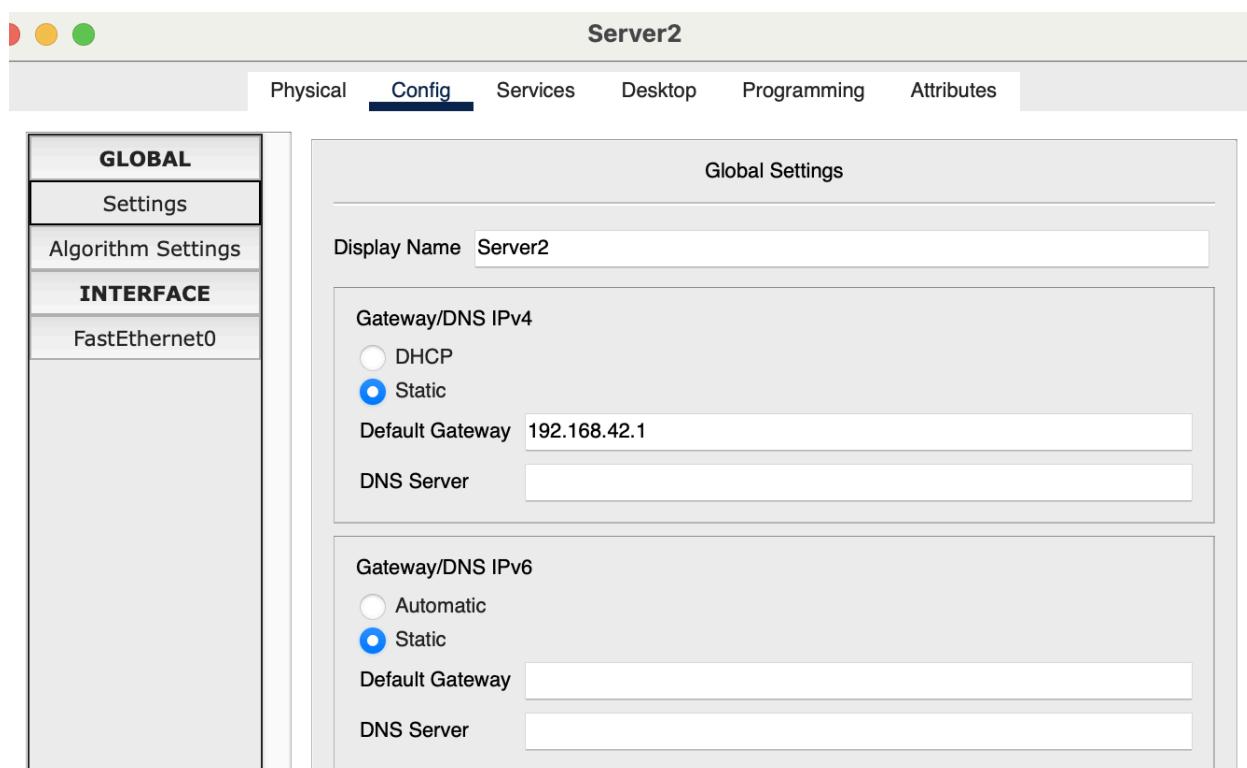
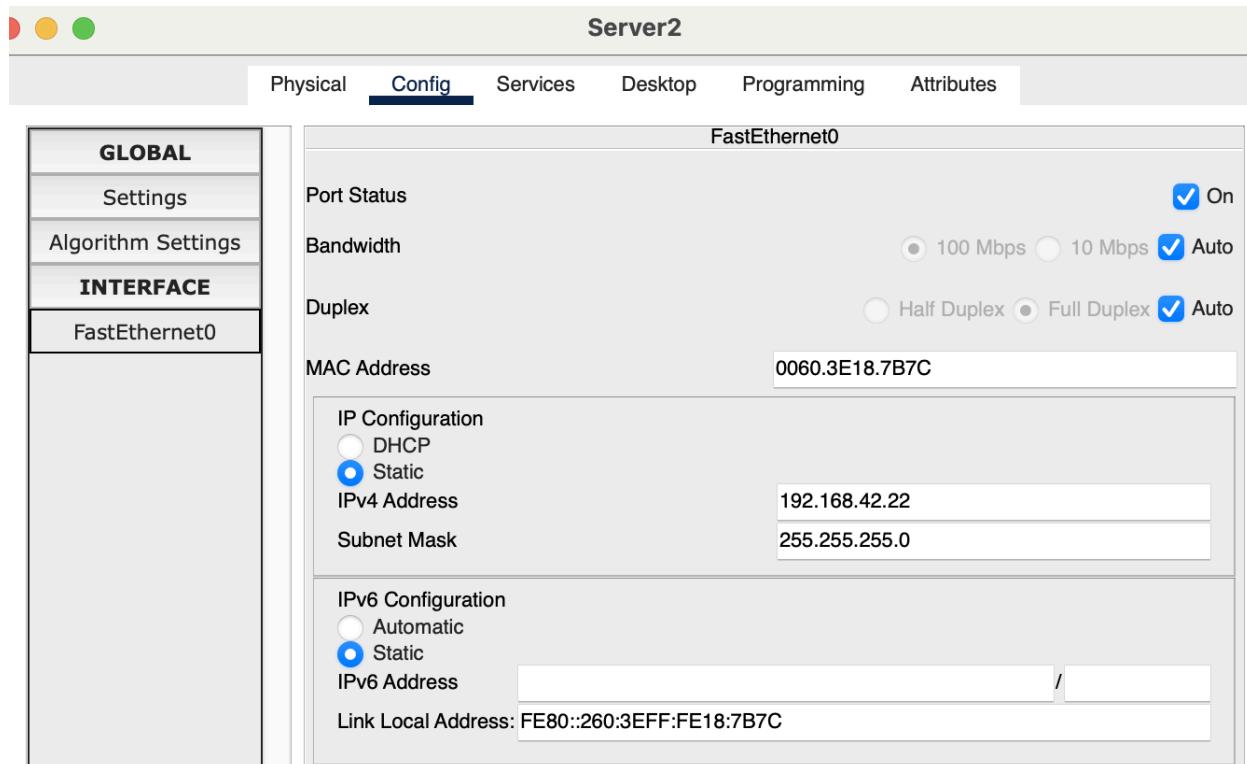
**Global Settings**

Display Name Laptop1

Interfaces FastEthernet0

Gateway/DNS IPv4  
 DHCP  
 Static  
Default Gateway 192.168.42.1  
DNS Server

Gateway/DNS IPv6  
 Automatic  
 Static  
Default Gateway



**Note: my router cli history has been erased after completing lab exercise 2 so cannot attach the complete screenshot for configuring the 2 interfaces of the separate networks. It is namely 192.168.41.1 and 192.168.41.2, the other interface for task 3 is vlan since i used router 1841**



```
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
```



#### IOS Command Line Interface

```
Switch>enable
Switch#show running-config
Building configuration...

Current configuration : 1018 bytes
!
version 12.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Switch
!
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface FastEthernet0/1
!
interface FastEthernet0/2
--More--
```

Switch con0 is now available

Press RETURN to get started.



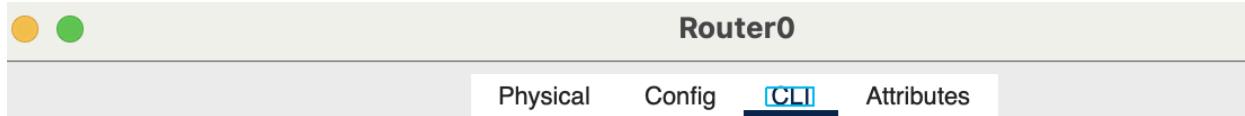
#### IOS Command Line Interface

```
Switch>enable
Switch#show running-config
Building configuration...

Current configuration : 1018 bytes
!
version 12.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Switch
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface FastEthernet0/1
!
interface FastEthernet0/2
--More--
```

Switch con0 is now available

Press RETURN to get started.



### IOS Command Line Interface

```
Router1#enable Secret cisco
^
% Invalid input detected at '^' marker.

Router1#enable
Router1#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router1(config)#enable secret cisco
Router1(config)#exit
Router1#
%SYS-5-CONFIG_I: Configured from console by console

Router1#show running-config
Building configuration...

Current configuration : 786 bytes
!
version 12.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router1
!
!
!
enable secret 5 $1$mERr$hx5rVt7rPNoS4wqbXKX7m0
!
!
!
!
!
ip cef
no ipv6 cef

Router1#xit
Translating "xit"...domain server (255.255.255.255)
% Unknown command or computer name, or unable to find computer address

Router1#exit
```

```
Router1>show ip interface brief
Interface          IP-Address      OK? Method Status      Protocol
FastEthernet0/0    192.168.41.1   YES manual up        up
FastEthernet0/1    192.168.42.1   YES manual up        up
Vlan1              unassigned     YES unset administratively down down
Router1>
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%SYS-5-CONFIG_I: Configured from console by console
```

```
[connection to 192.168.42.1 closed by foreign host]
C:\>ssh -l admin 192.168.42.1

Password:

Router1>enable
Password:
Router1#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router1(config)#interface FastEthernet0/2
%Invalid interface type and number
Router1(config)#interface serial0/0/0
%Invalid interface type and number
Router1(config)#interface Serial0/0/0
%Invalid interface type and number
Router1(config)#interface Vlan1
Router1(config-if)#ip address 192.168.43.1 255.255.255.0
Router1(config-if)#no shutdown

Router1(config-if)#exit
Router1(config)#exit
Router1#show ip interface brief
Interface          IP-Address      OK? Method Status      Protocol
FastEthernet0/0    192.168.41.1   YES manual up        up
FastEthernet0/1    192.168.42.1   YES manual up        up
Vlan1             192.168.43.1   YES manual up        down
Router1#!
```