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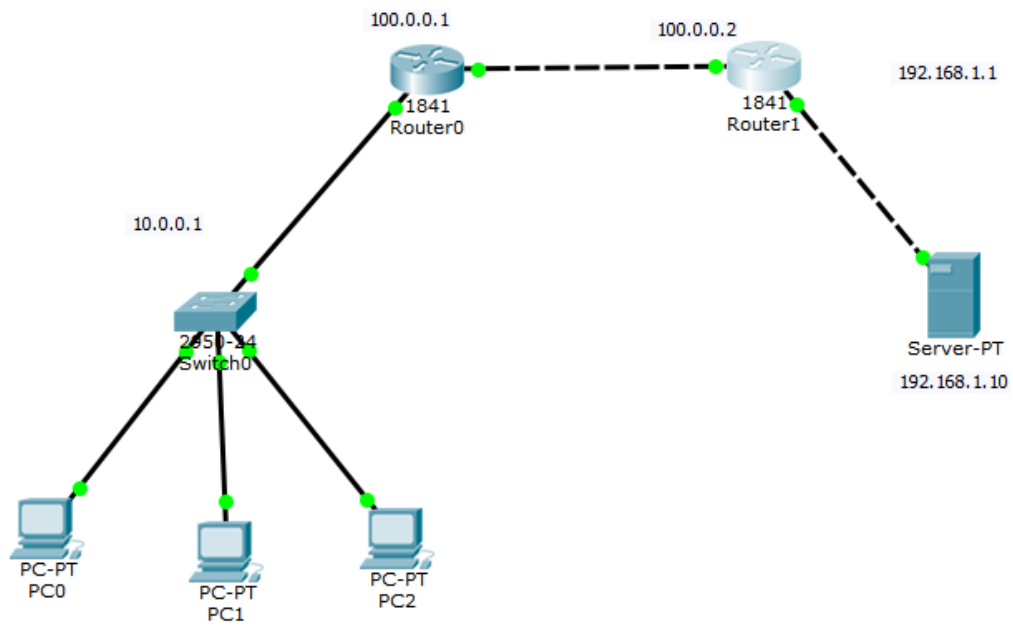
19P-0020

BS(CS) 19-5A

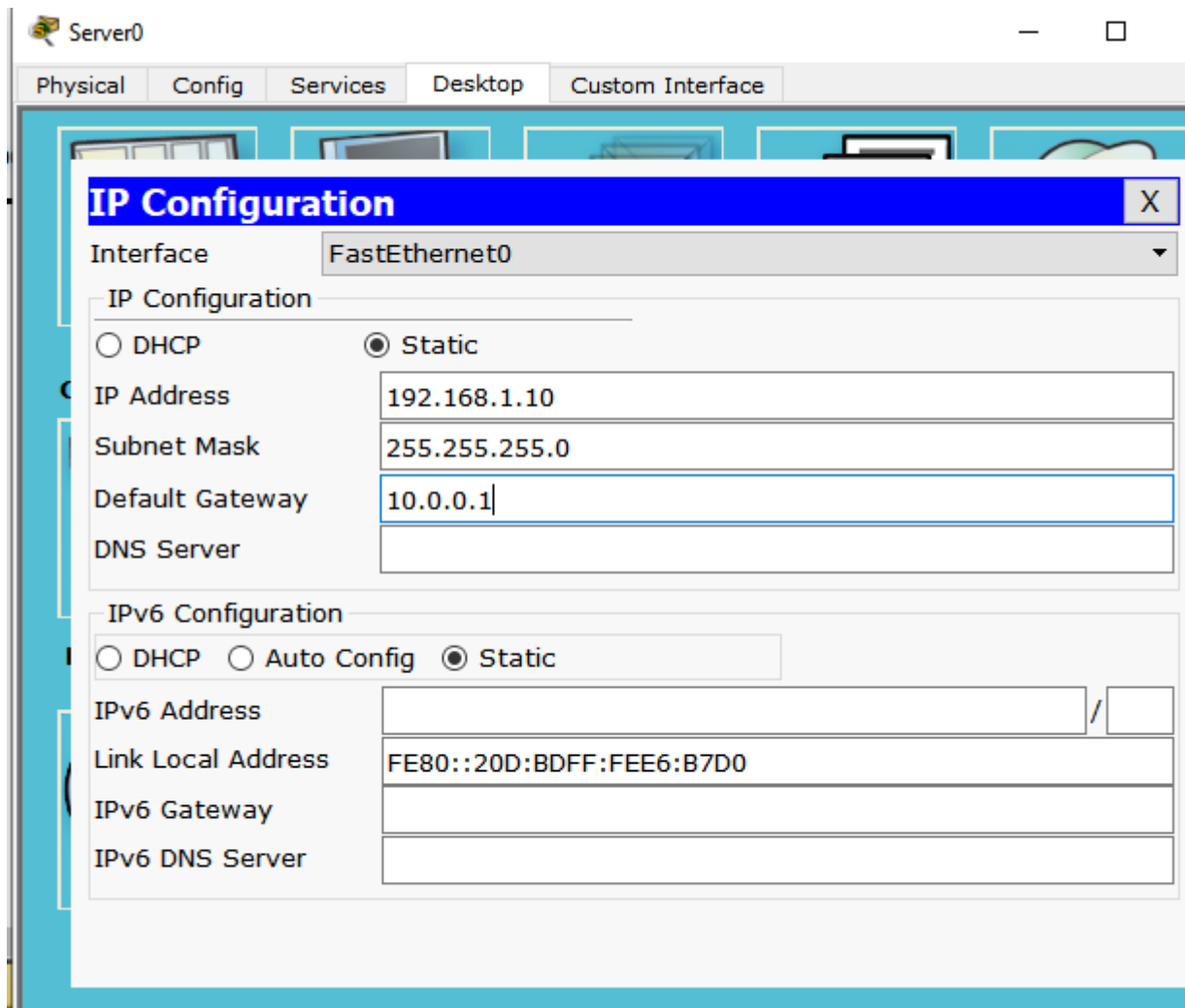
“COMPUTER NETWORK LAB ”

LAB 6 HOME WORK

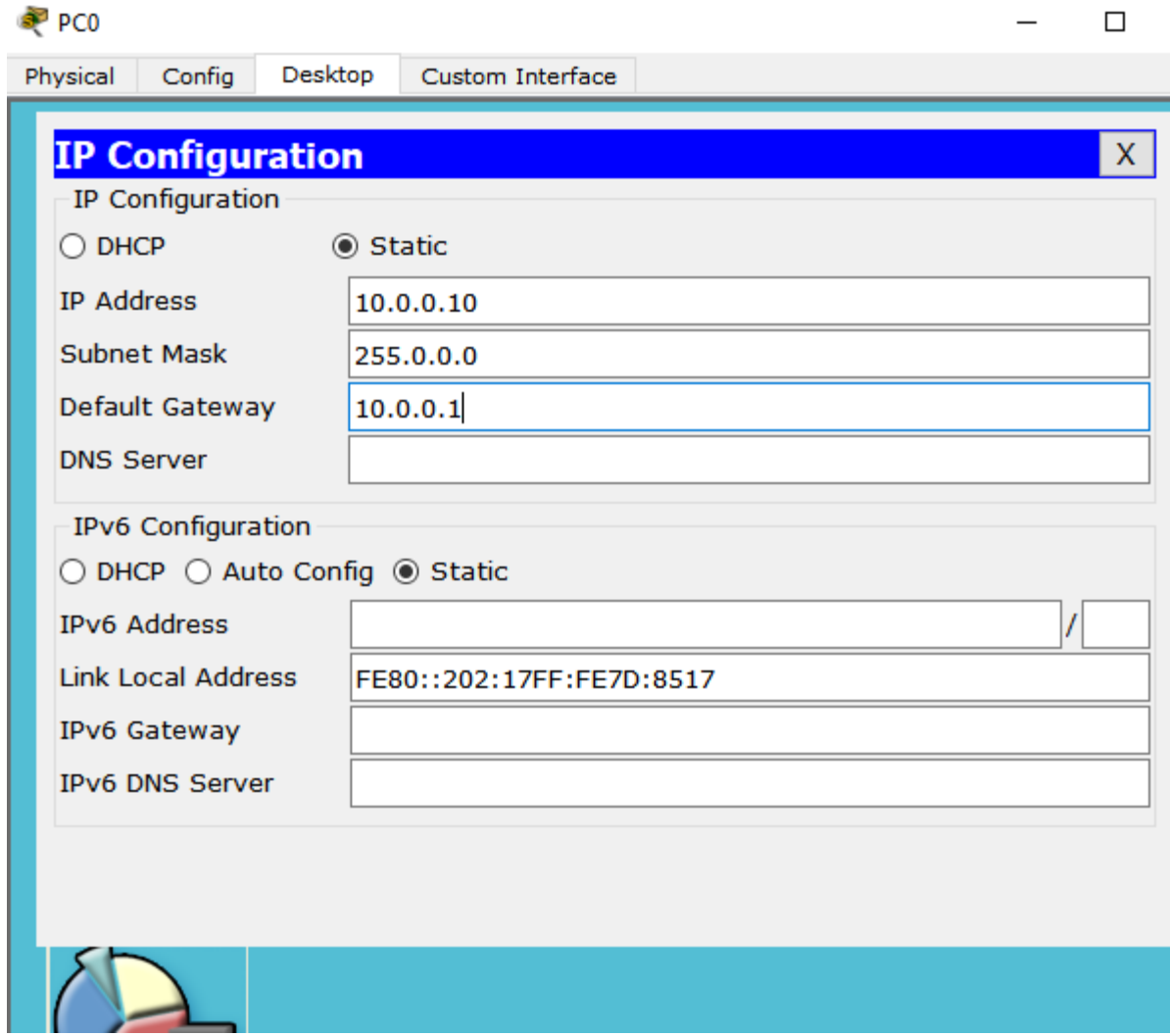
STEP 1 SINERIO



STEP 2 assigning ip to server



assigning ip to pc



Step 3 changing in router CLI(both routers):

Router1

```
Router>enable
Router#config terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname R1
R1(config)#interface f0/1
R1(config-if)#ip address 10.0.0.1 255.0.0.0
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#sn
```

```
Router>enable
Router#config terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname R1
R1(config)#interface f0/1
R1(config-if)#ip address 10.0.0.1 255.0.0.0
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#
R1(config)#interface f0/0
R1(config-if)#ip address 100.0.0.1 255.0.0.0
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#
```

Router 2



Physical Config CLI

IOS Command Line Interface

```
Router>
Router>hostname R2
      ^
% Invalid input detected at '^' marker.

Router>enable
Router#config terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname R2
R2(config)#interface f0/0
R2(config-if)#ip address 100.0.0.2 255.0.0.0
R2(config-if)#no shutdown
R2(config-if)#exit
R2(config)#interface f0/1
R2(config-if)#ip address 192.168.1.1 255.0.0.0
R2(config-if)#no shutdown
R2(config-if)#exit
R2(config)#
```

Step 4 static configuration of NAT

- Define IP address mapping

```
R1(config)#  
R1(config)#ip nat inside source static 10.0.0.10 50.0.0.10  
R1(config)#
```

- 3. Define inside local interface

```
R1(config)#  
R1(config-if)#ip nat inside  
R1(config-if)#no shutdown  
R1(config-if)#ex  
R1(config)#
```

- 4. Define inside global interface

```
R1(config)#interface f0/0  
R1(config-if)#ip nat outside  
R1(config-if)#no shutdown  
R1(config-if)#ex
```

Router 2

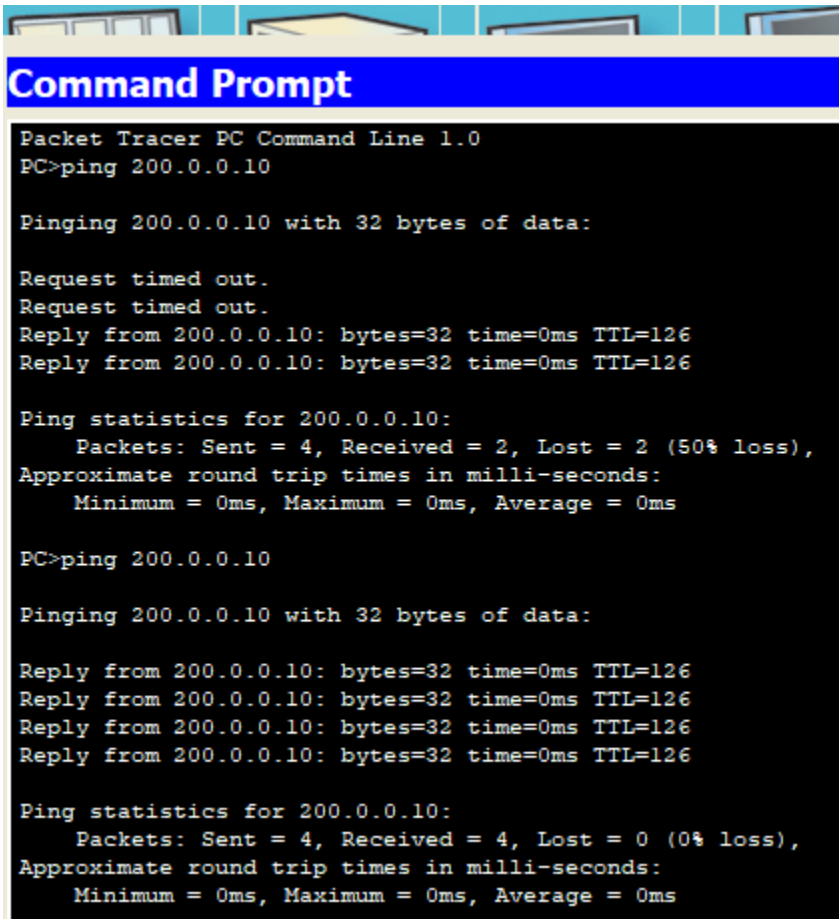
```
Router>enable  
Router#config terminal  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#hostname R2  
R2(config)#interface f0/0  
R2(config-if)#ip address 100.0.0.2 255.0.0.0  
R2(config-if)#no shutdown  
R2(config-if)#exit  
R2(config)#interface f0/1  
R2(config-if)#ip address 192.168.1.1 255.0.0.0  
R2(config-if)#no shutdown  
R2(config-if)#exit  
R2(config)#  
R2(config)#  
R2(config)#ip nat inside source static 192.168.1.10 200.0.0.10  
R2(config)#interface f0/1  
R2(config-if)#ip nat outside  
R2(config-if)#no shutdown  
R2(config-if)#ex  
R2(config)#interface f0/0  
R2(config-if)#ip nat inside  
R2(config-if)#no shutdown  
R2(config-if)#ex  
R2(config)#
```

Configure r1 and r2

```
R1(config)#ip route 200.0.0.0 255.255.255.0 100.0.0.2
R1(config)#
```

```
R2(config)#ip route 50.0.0.0 255.0.0.0 100.0.0.1
R2(config)#
```

Check from command prompt of any pc using ping command



The image shows a Packet Tracer PC Command Line window. The title bar is blue with the text "Command Prompt". The window content is black with white text. It shows the command "PC>ping 200.0.0.10" being entered. The output shows "Pinging 200.0.0.10 with 32 bytes of data:" followed by "Request timed out." twice, then "Reply from 200.0.0.10: bytes=32 time=0ms TTL=126" twice. Then it shows "Ping statistics for 200.0.0.10:" followed by "Packets: Sent = 4, Received = 2, Lost = 2 (50% loss)," and "Approximate round trip times in milli-seconds: Minimum = 0ms, Maximum = 0ms, Average = 0ms". Then the command "PC>ping 200.0.0.10" is entered again. The output shows "Pinging 200.0.0.10 with 32 bytes of data:" followed by "Reply from 200.0.0.10: bytes=32 time=0ms TTL=126" four times. Then it shows "Ping statistics for 200.0.0.10:" followed by "Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)," and "Approximate round trip times in milli-seconds: Minimum = 0ms, Maximum = 0ms, Average = 0ms".

```
Packet Tracer PC Command Line 1.0
PC>ping 200.0.0.10

Pinging 200.0.0.10 with 32 bytes of data:

Request timed out.
Request timed out.
Reply from 200.0.0.10: bytes=32 time=0ms TTL=126
Reply from 200.0.0.10: bytes=32 time=0ms TTL=126

Ping statistics for 200.0.0.10:
    Packets: Sent = 4, Received = 2, Lost = 2 (50% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>ping 200.0.0.10

Pinging 200.0.0.10 with 32 bytes of data:

Reply from 200.0.0.10: bytes=32 time=0ms TTL=126
Reply from 200.0.0.10: bytes=32 time=0ms TTL=126
Reply from 200.0.0.10: bytes=32 time=0ms TTL=126
Reply from 200.0.0.10: bytes=32 time=0ms TTL=126

Ping statistics for 200.0.0.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```