COMPUTER NETWORK

PROJECT # 1

OCTOBER 28, 2025

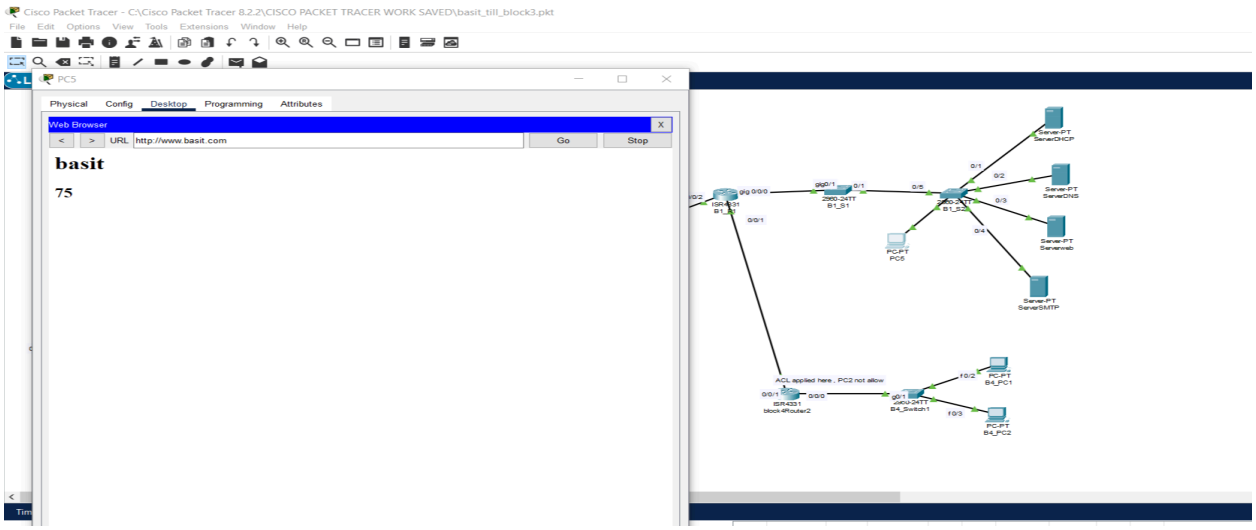
SUBMITTED TO: Zeeshan Ali

SUBMITTED BY: Muhammad Abdul Basit Subhani

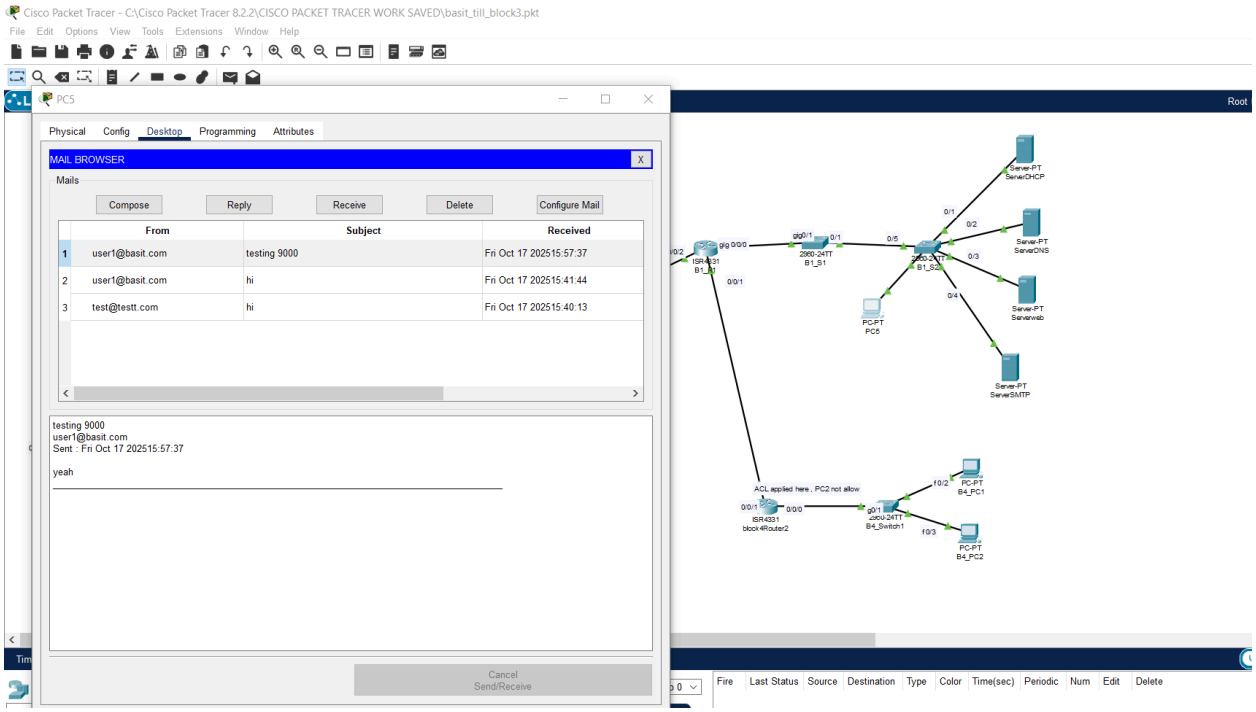
ROLL # BSAI 24075

Step 1: Block1 [Marks:02]

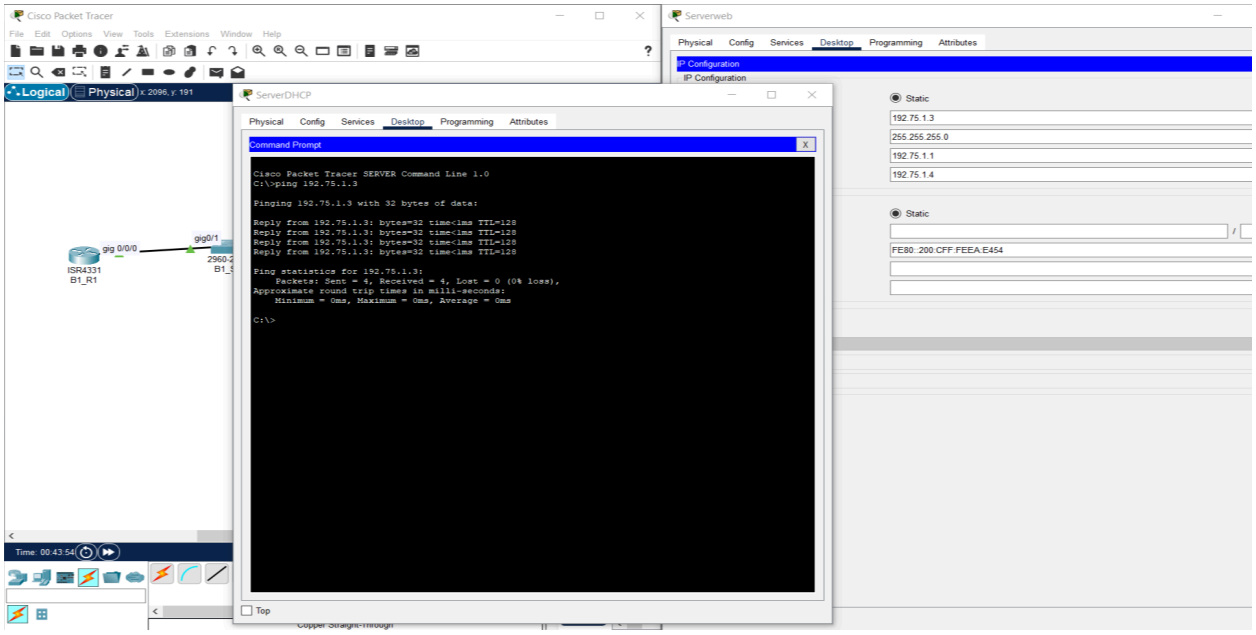
Web Test



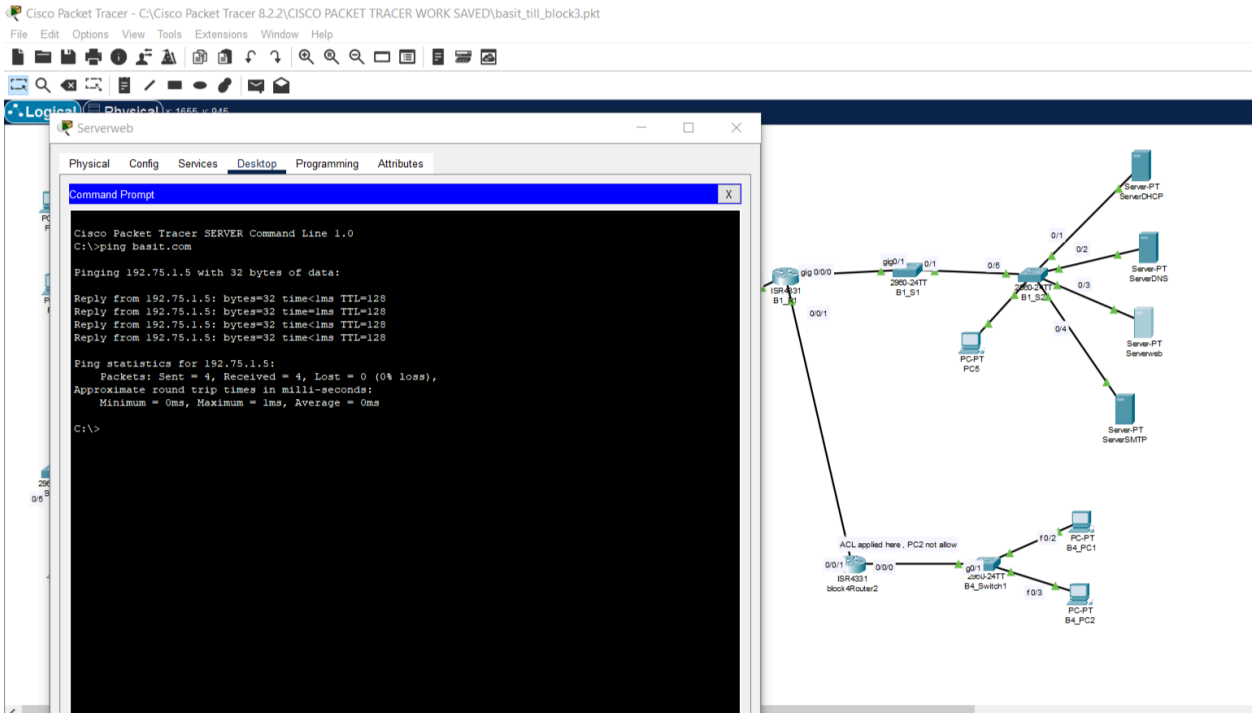
Mail Test:



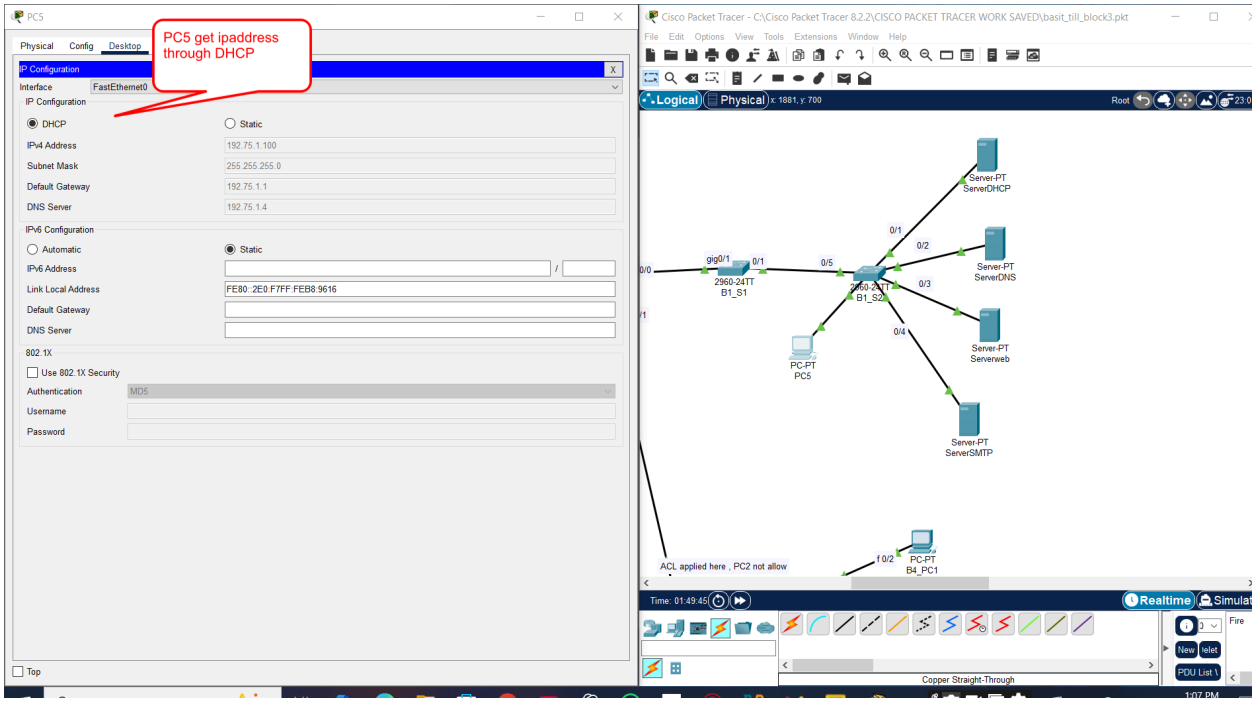
Pinging between servers



DNS Test:

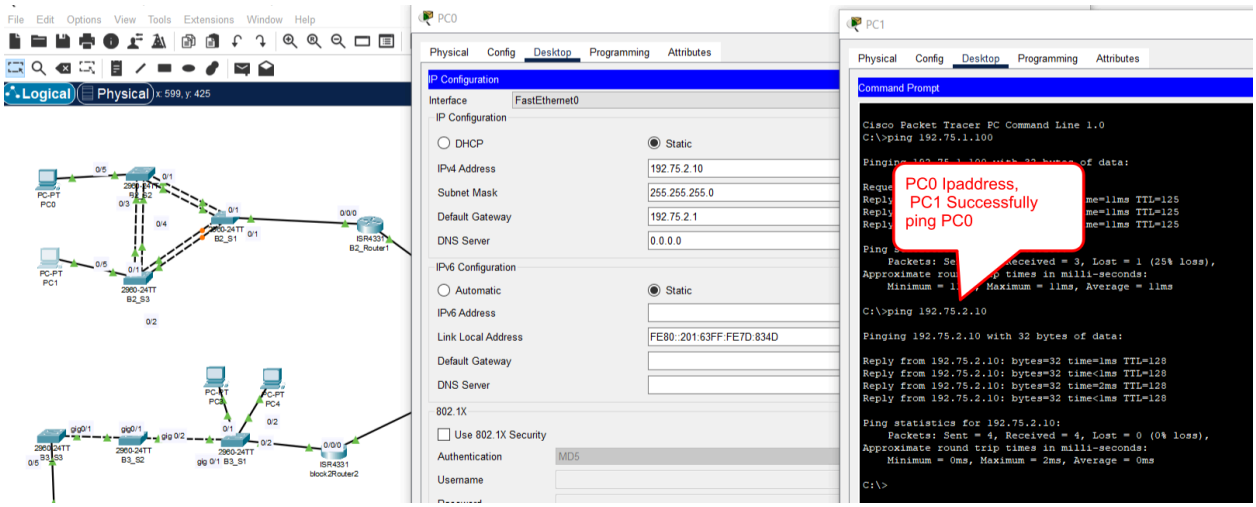


DHPC TEST

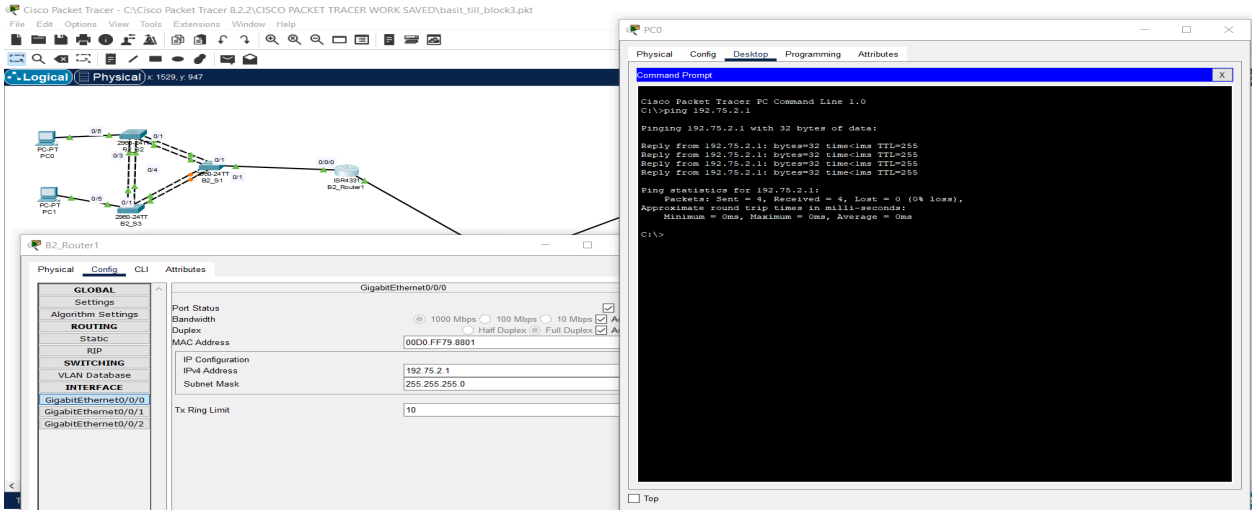

PC5
Physical
Config
Desktop
PC5 get ipaddress through DHCP
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
192.75.1.100
Subnet Mask
255.255.255.0
Default Gateway
192.75.1.1
DNS Server
192.75.1.4
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::2E0:F7FF:FEB8:9616
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top
Cisco Packet Tracer - C:\Cisco Packet Tracer 8.2.2\CISCO PACKET TRACER WORK SAVED\basit_till_block3.pkt
File Edit Options View Tools Extensions Window Help
Logical
Physical
Root
Server-PT ServerDHCP
Server-PT ServerDNS
Server-PT Serverweb
Server-PT ServerSMTP
2960-24TT B1_S1
2960-24TT B1_S2
PC-PT PC5
PC-PT B4_PC1
ACL applied here , PC2 not allow
Time: 01:49:45
Realtime
Copper Straight-Through

STEP2 (BLOCK 2):

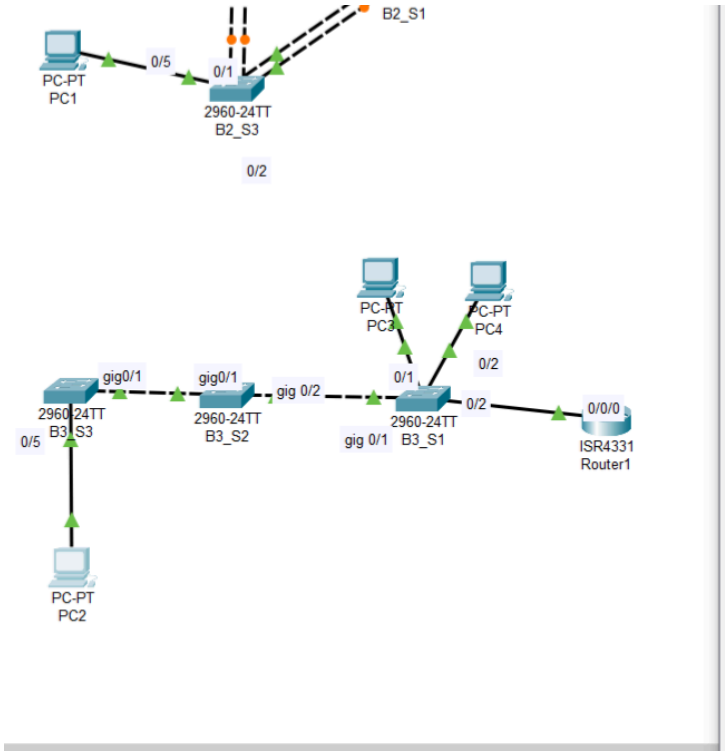
Pinging between PC’s of block 2 successfull

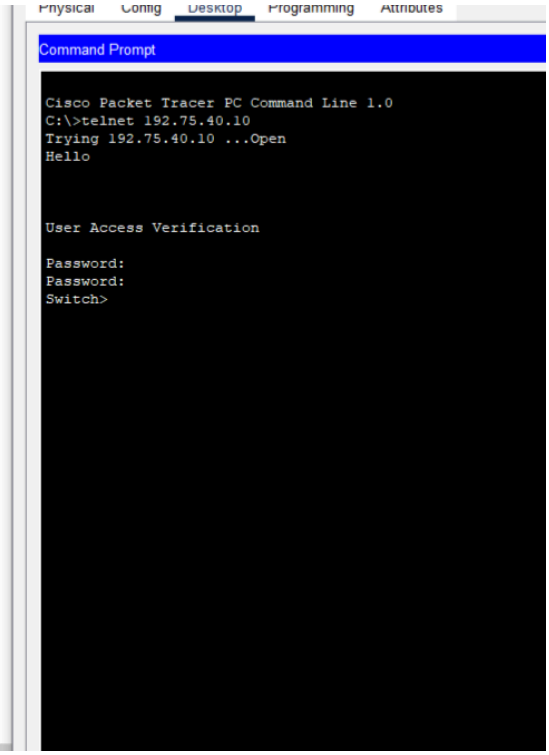


Ping PC0 with router:



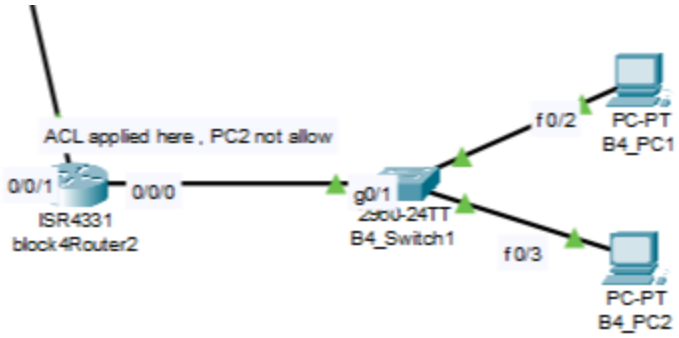
STEP 3 (BLOCK 3):





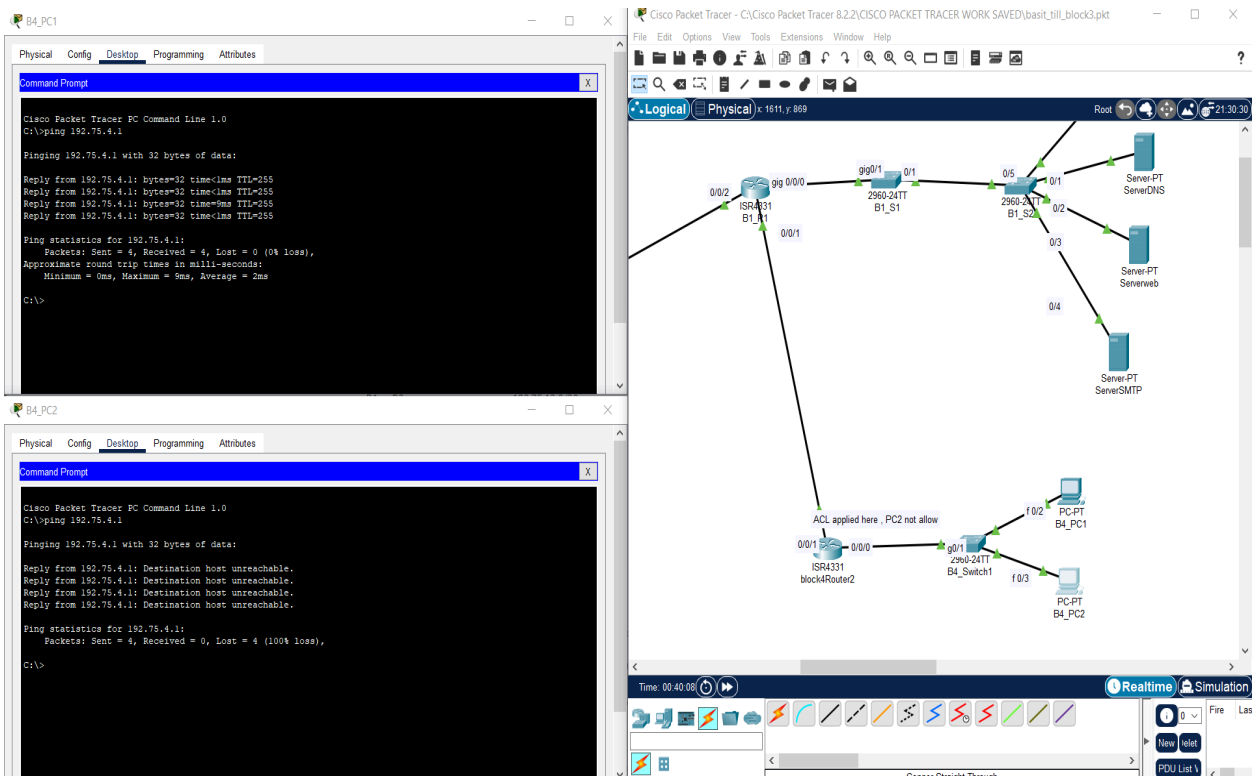
STEP 4 (BLOCK 4):

B4_PC2 not allowed



Confirmation:

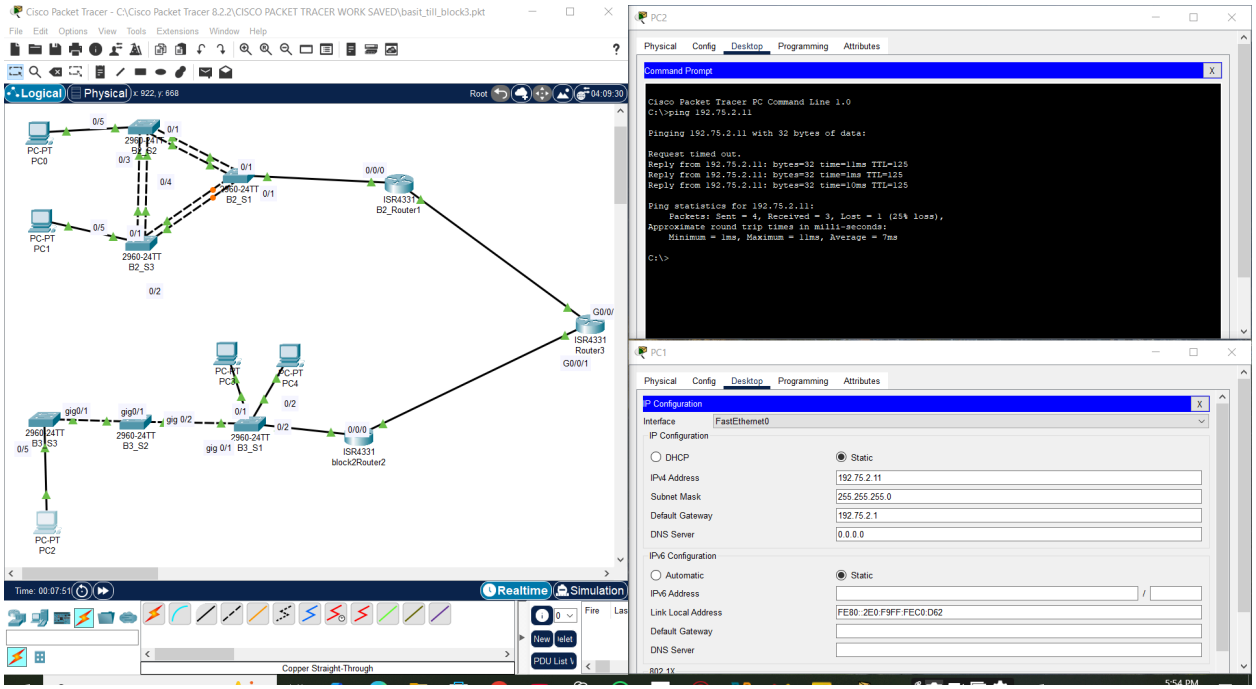
IPaddress of block4Router2 at G0/0/0 is 192.75.4.1



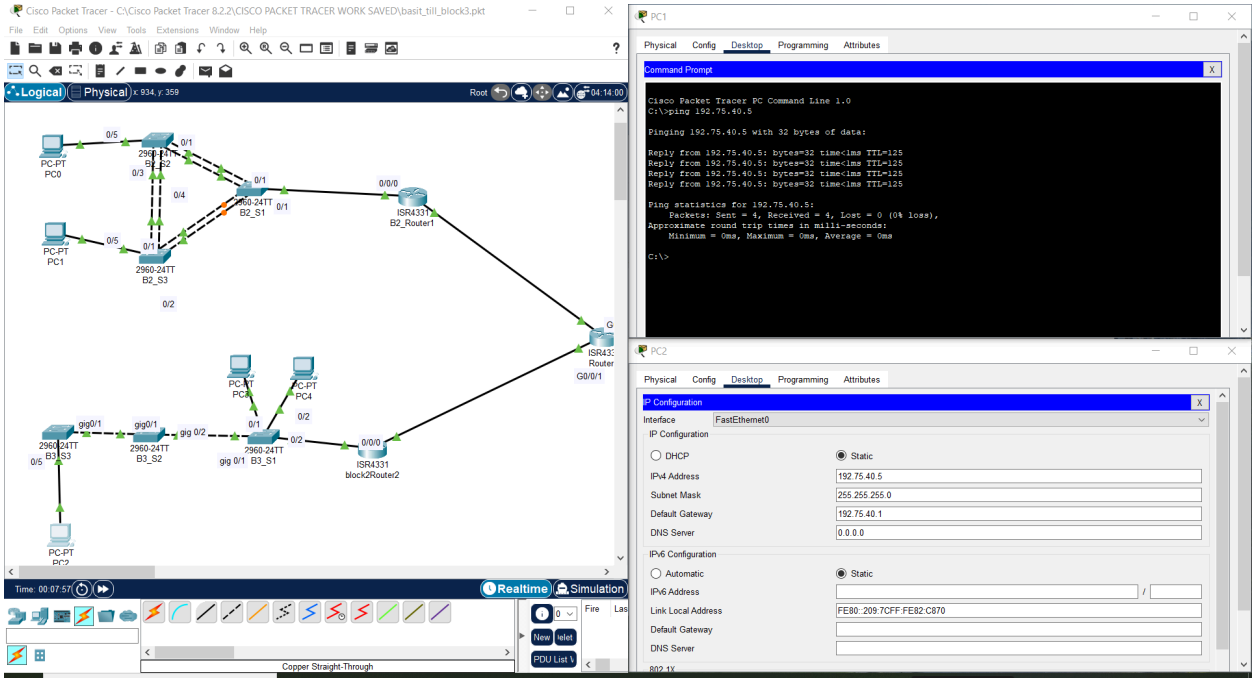
Step 5:

RIP Configuration:

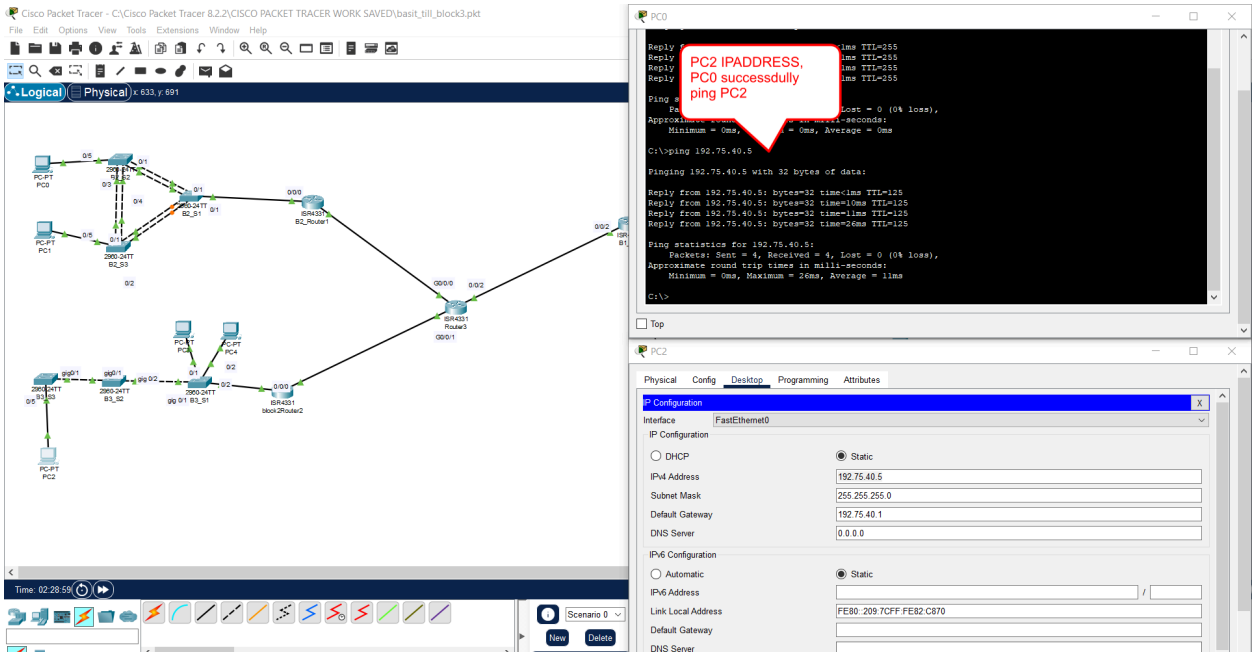
PC2 at block 3 ping successfully with PC1 at block 2



and vice versa



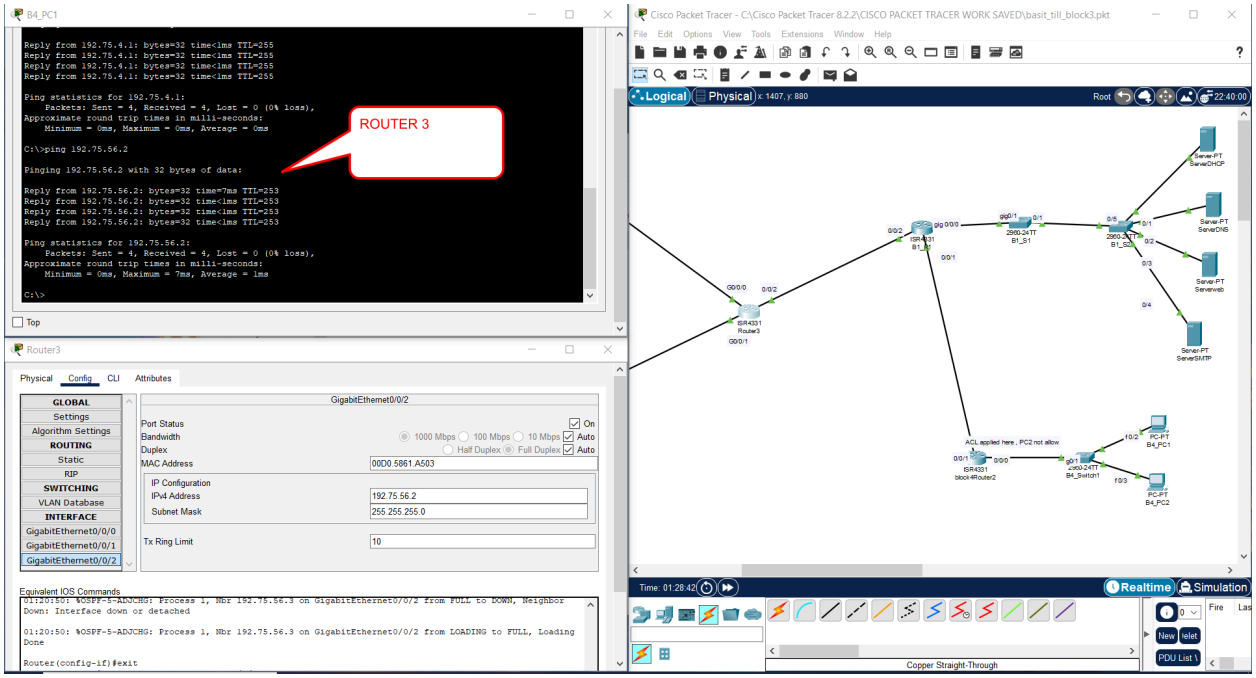
PING between PC 0 and PC 2



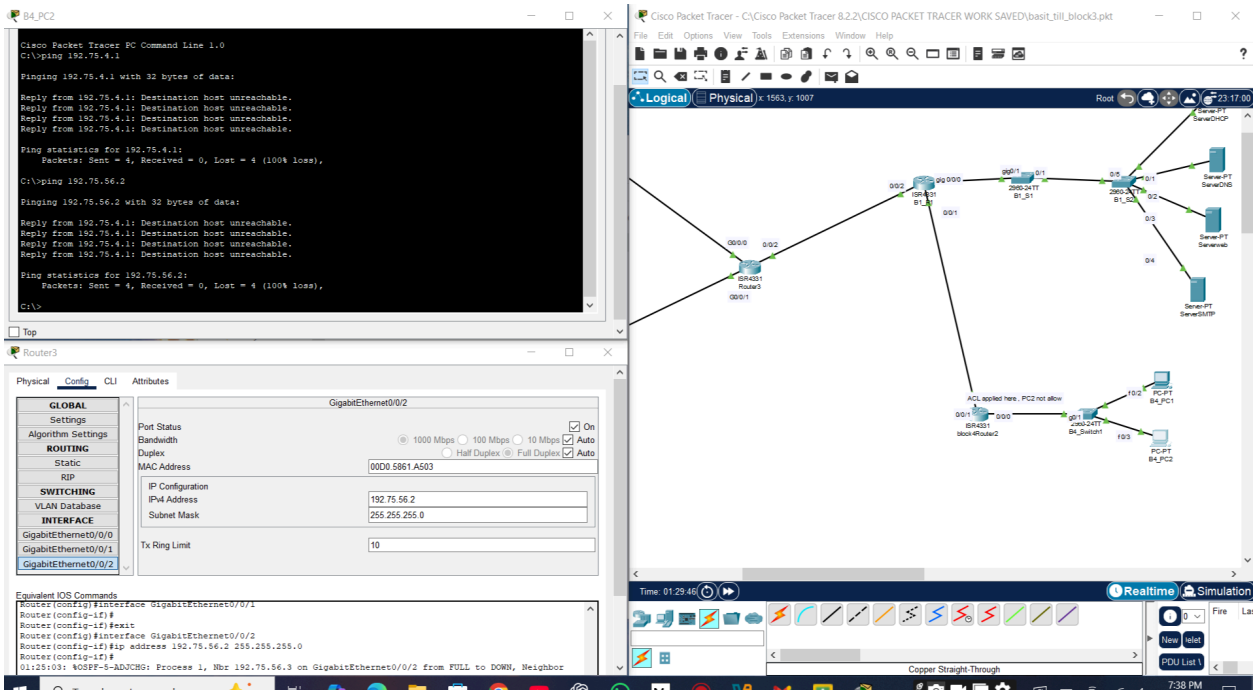
STEP 6:

OSPF Configuration:

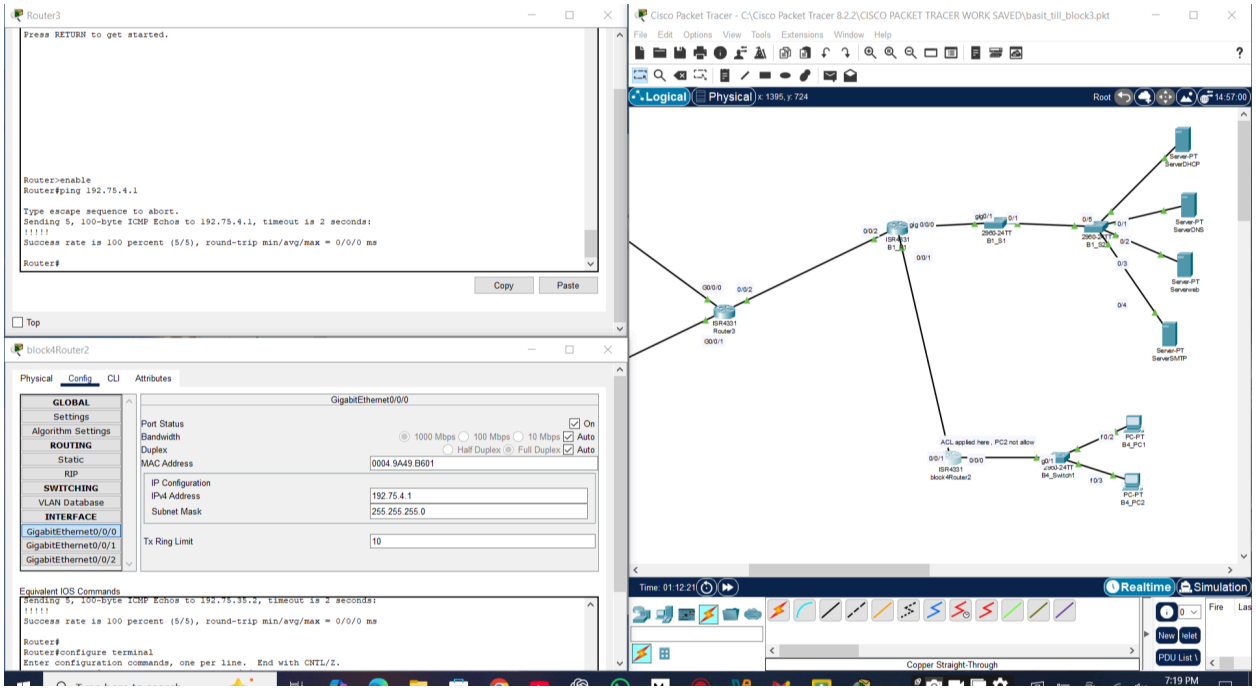
B4_PC1 is successfully ping with router3 (Middle router) because of OSPF Configuration



BUT if we so with B4_PC2 then ACL applied



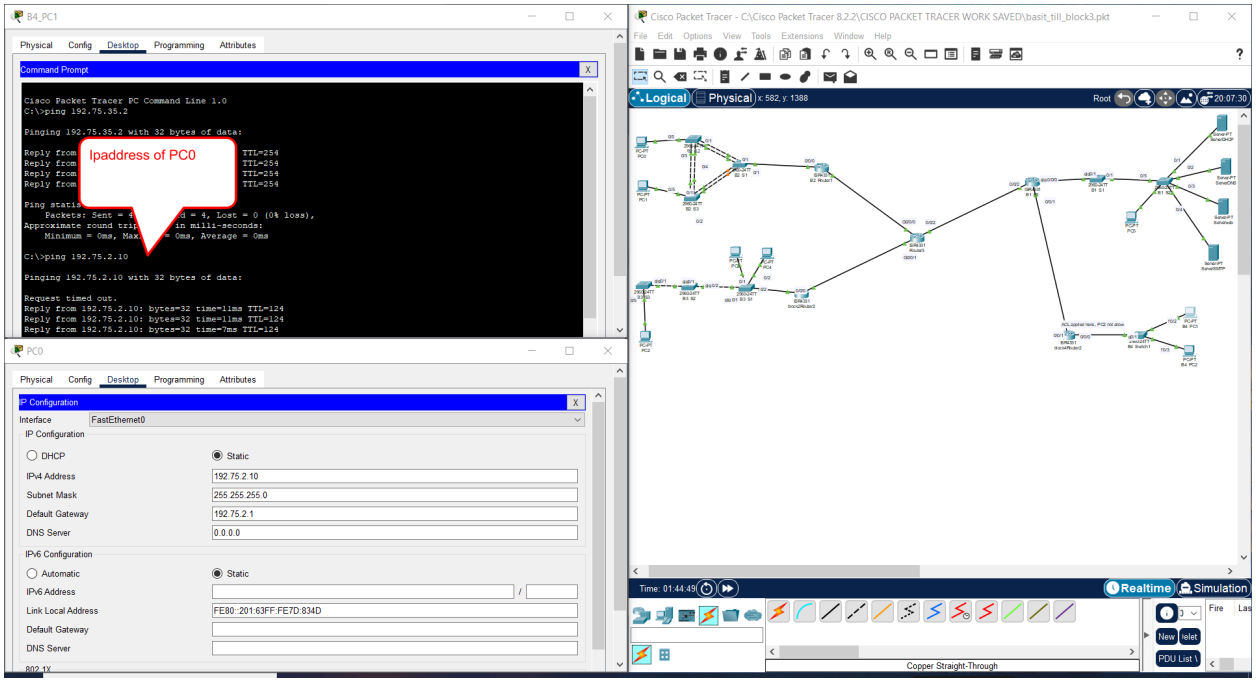
Now Pinging between router3 and block4Router2



STEP7:

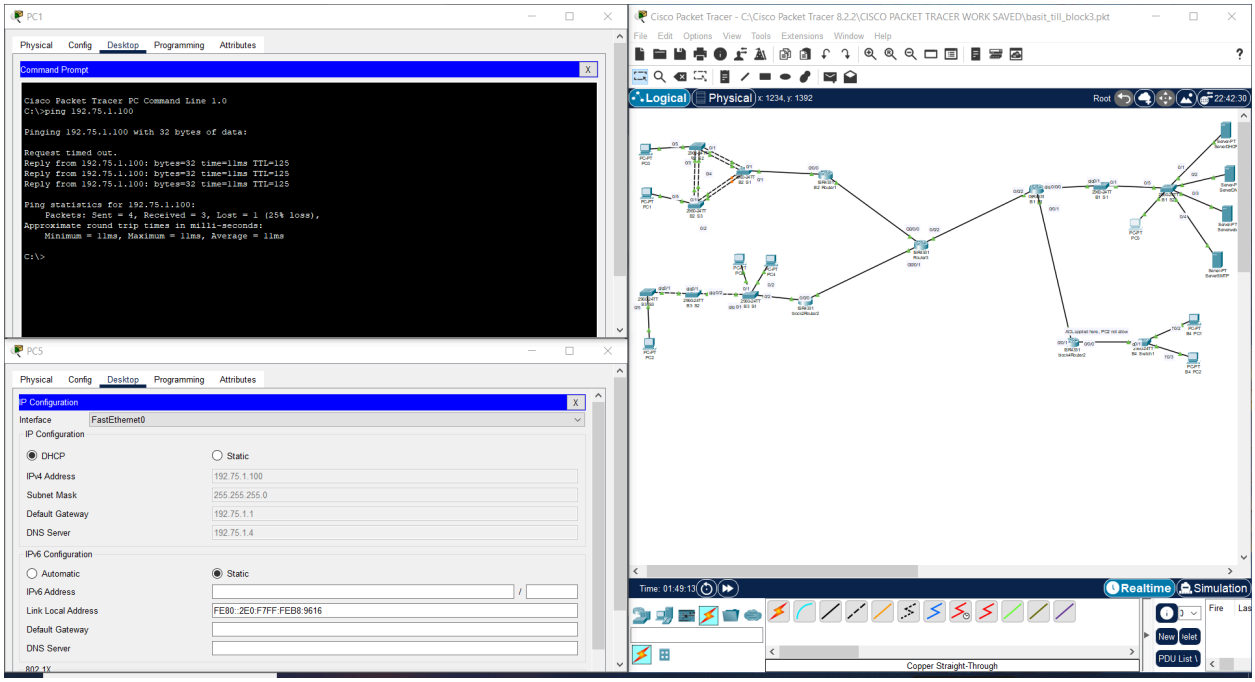
B4PC1 at block 4 have (OSPF) configuration connected with PC0 at Block

2 (RIP) Configured because of RIP-OSPF Distribution



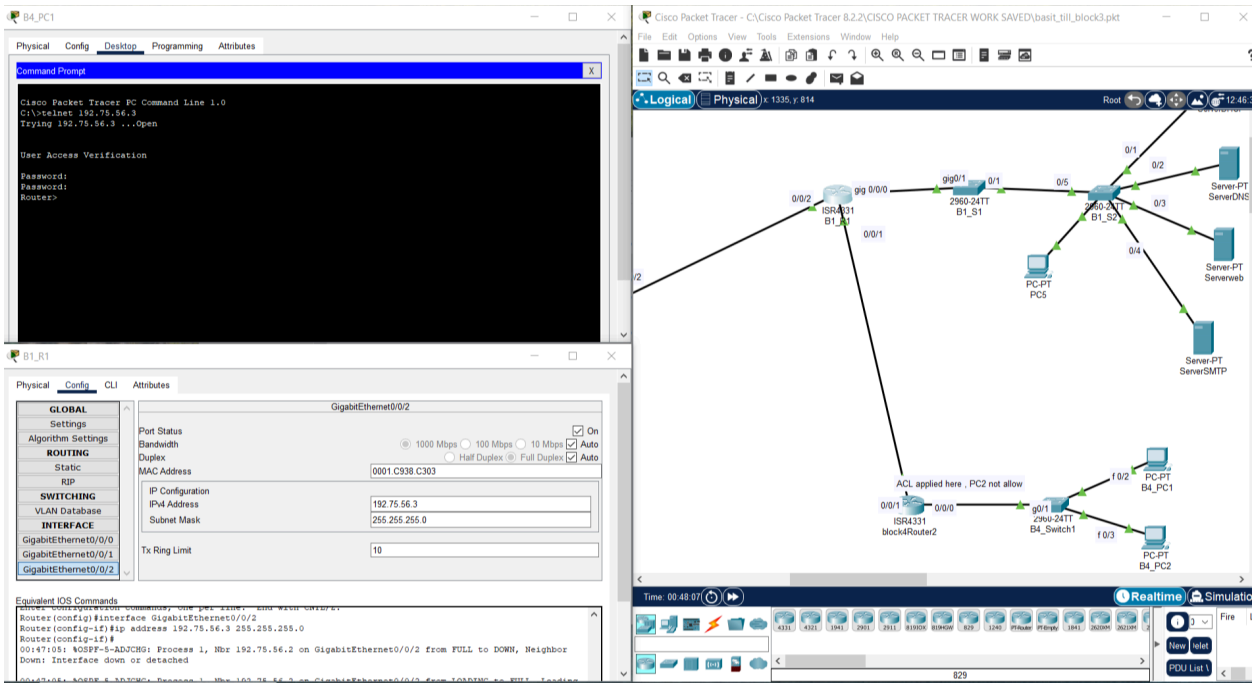
NOW PC5 at block 1 is successfully ping with PC 1 at Block 2

RIP-OSPF Distribution:

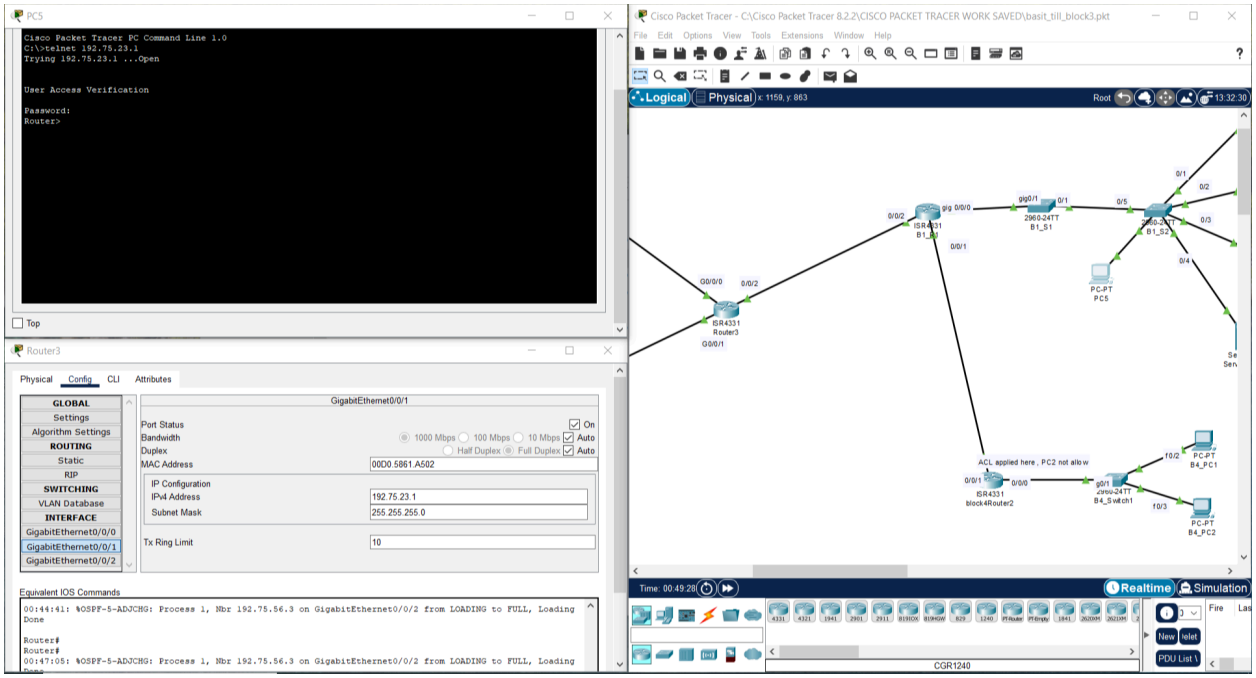

PC1
Physical
Config
Desktop
Programming
Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.75.1.100
Pinging 192.75.1.100 with 32 bytes of data:
Request timed out.
Reply from 192.75.1.100: bytes=32 time=11ms TTL=125
Reply from 192.75.1.100: bytes=32 time=11ms TTL=125
Reply from 192.75.1.100: bytes=32 time=11ms TTL=125
Ping statistics for 192.75.1.100:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 11ms, Maximum = 11ms, Average = 11ms
C:\>
PC5
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
192.75.1.100
Subnet Mask
255.255.255.0
Default Gateway
192.75.1.1
DNS Server
192.75.1.4
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::2E0:F7FF:FEB8:9616
Default Gateway
DNS Server
802.1X
Cisco Packet Tracer - C:\Cisco Packet Tracer 8.2.2\CISCO PACKET TRACER WORK SAVED\basit_till_block3.pkt
File
Edit
Options
View
Tools
Extensions
Window
Help
Logical
Physical
x: 1234, y: 1392
Root
22:42:30
Time: 01:49:13
Realtime
Simulation
Copper Straight-Through
Fire
New
PDU List

STEP 8:

B4_PC1 in **4th block** should be able to **Telnet into B1_R1** in the network.



PC5 in **1st block** should be able to **Telnet into Middle (Router3)** in network



FINAL PNG of Project Topology: