INTERNETWORKING ESSENTIALS CA1

BACHELOR OF TECHNOLOGY

IN

Computer Science & Engineering

By

GORRELA GEETHA SRI

SECTION-K23UP

Roll no: 44

Reg.No: 12321952

TO

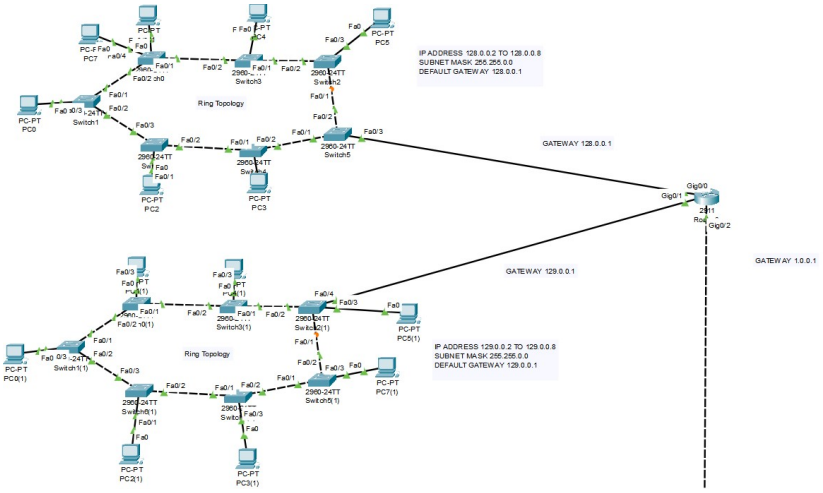
Mr. Simarjit Singh Malhi

LOVELY PROFESSIONAL UNIVERSITY

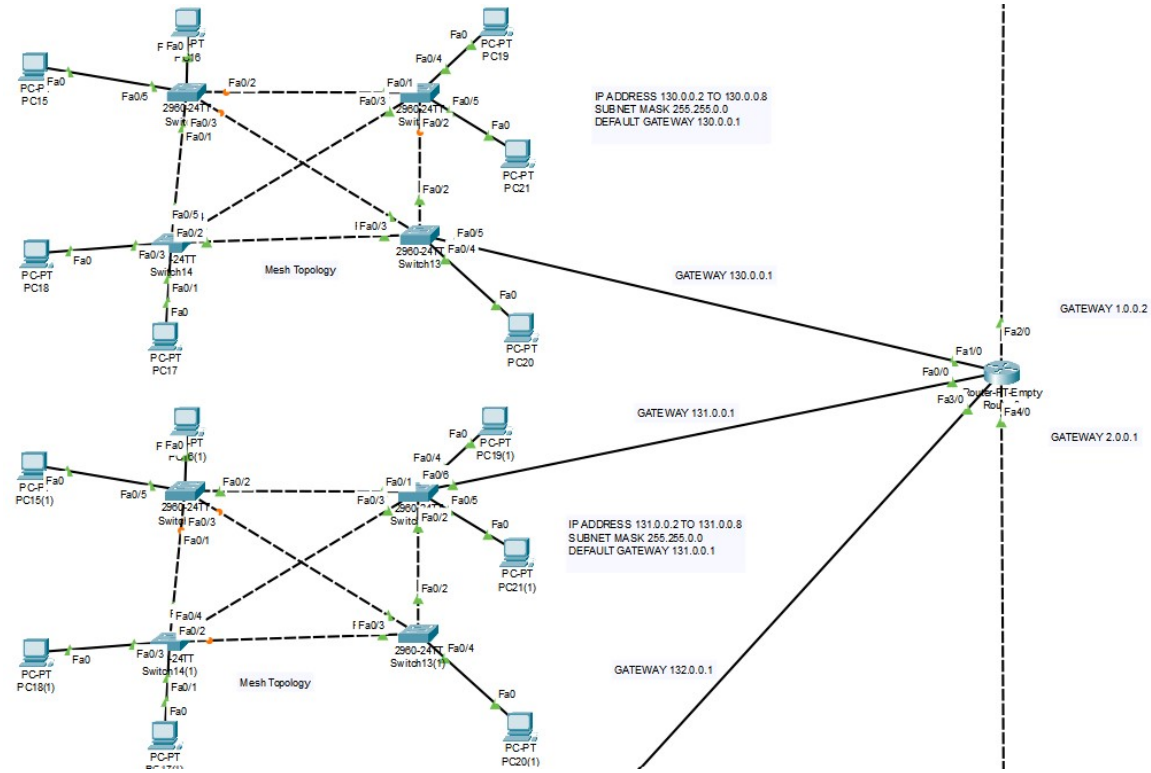
PUNJAB INDIA

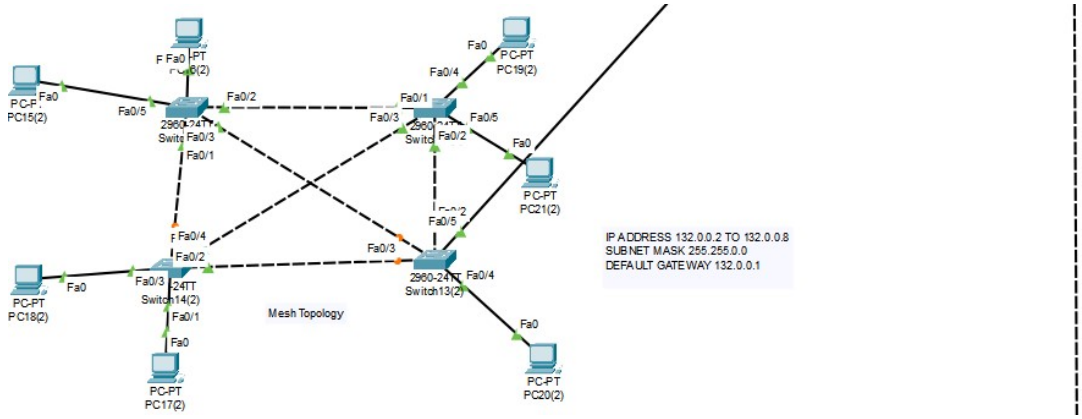
1. **Physical Connection:**

Ring Topology for first 2 floors:

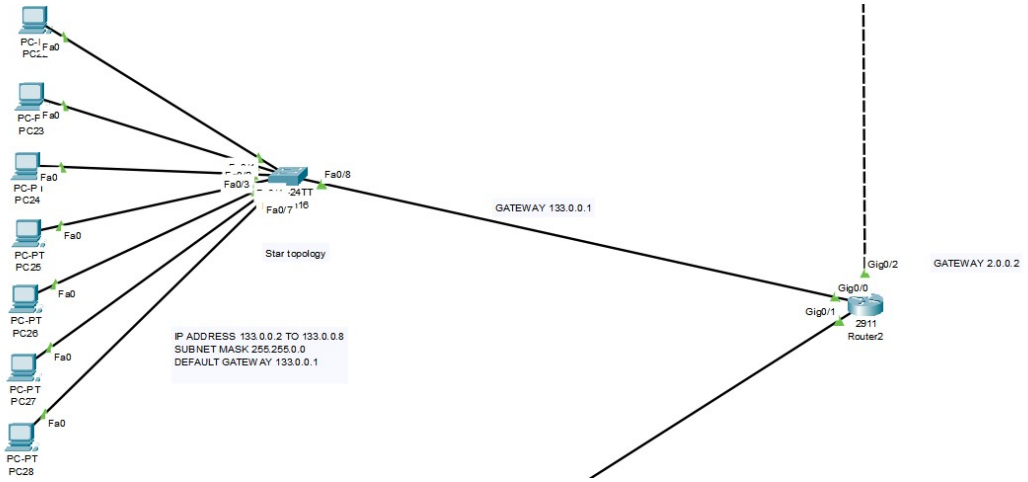


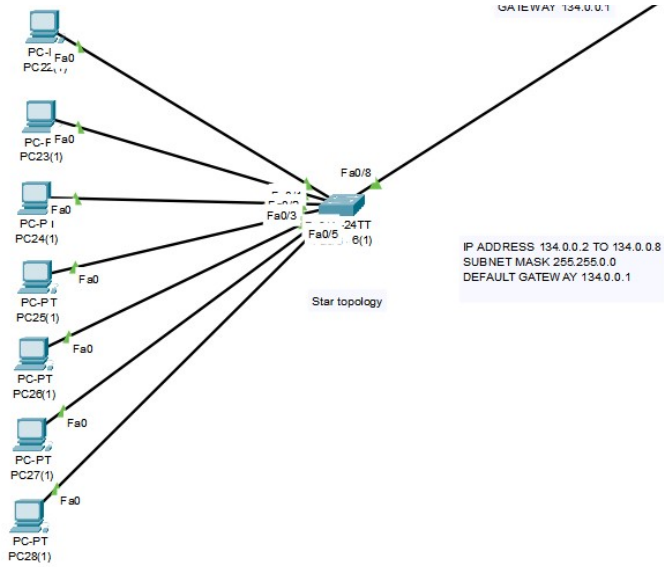
Mesh Topology for next 3 floors:



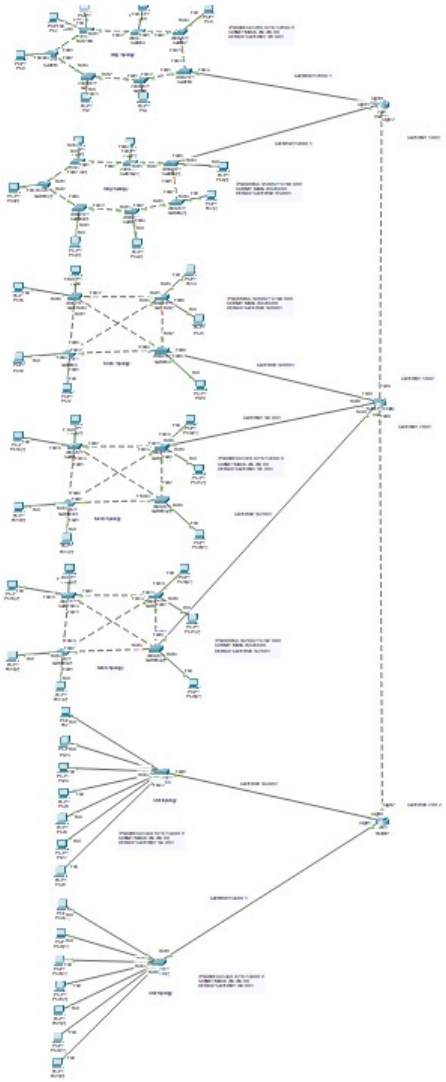


Star Topology for next 2 floors:



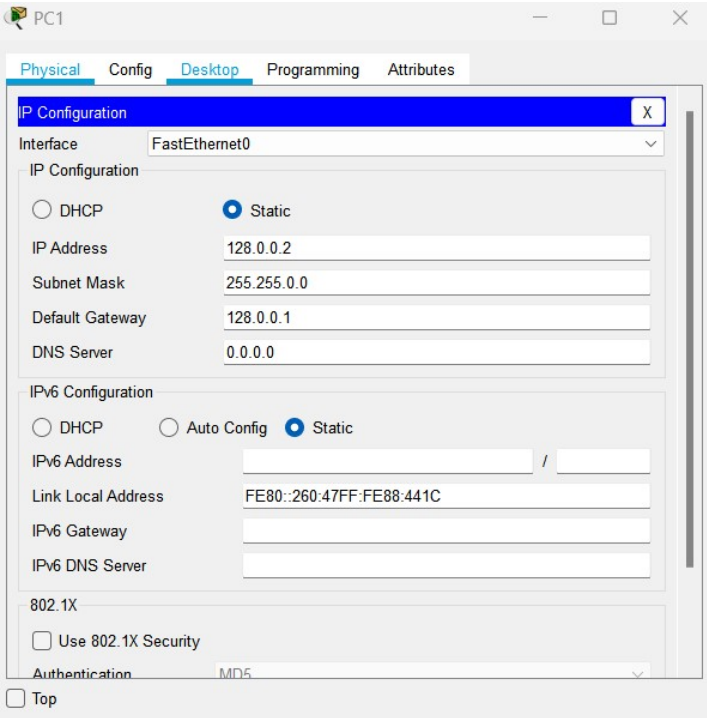


Full connection:

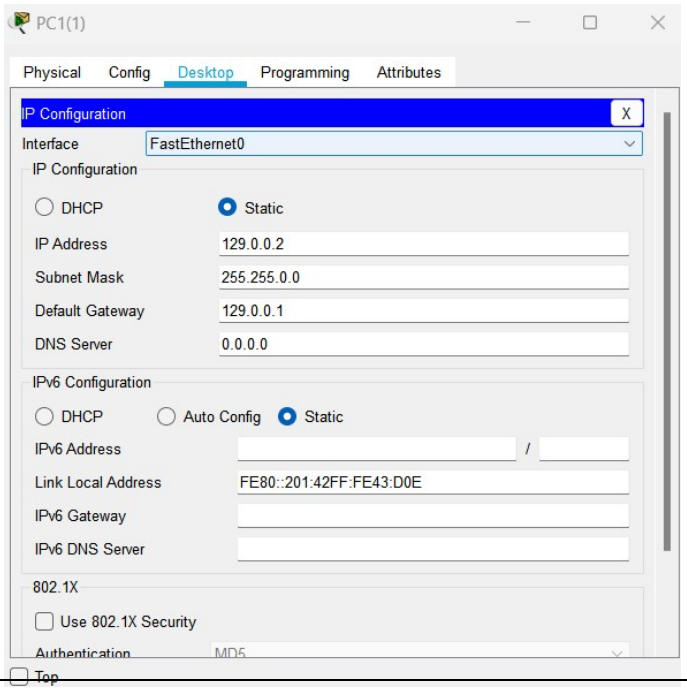


2. Allocation of IP Address:

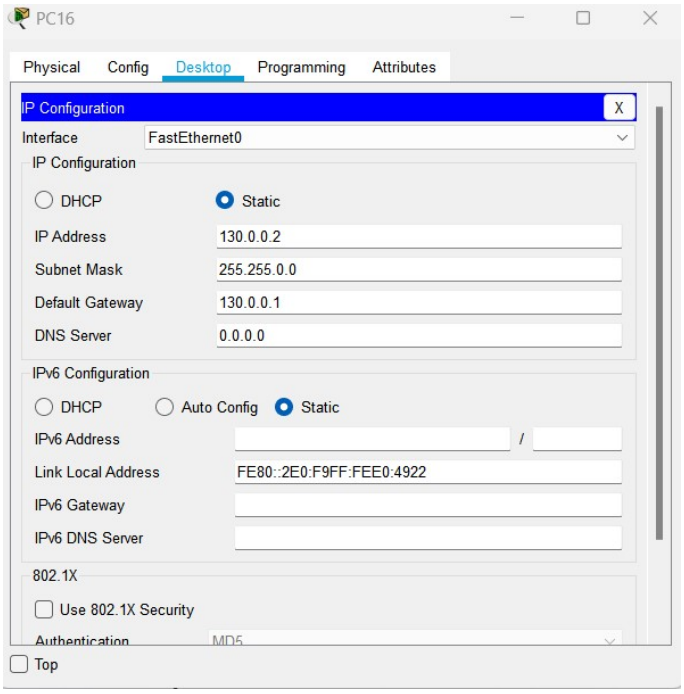
1st Floor:



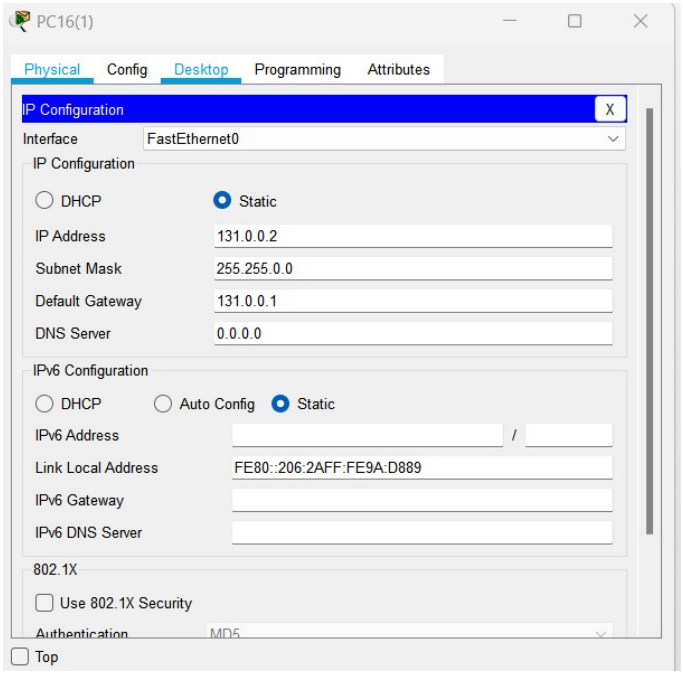
2nd Floor:



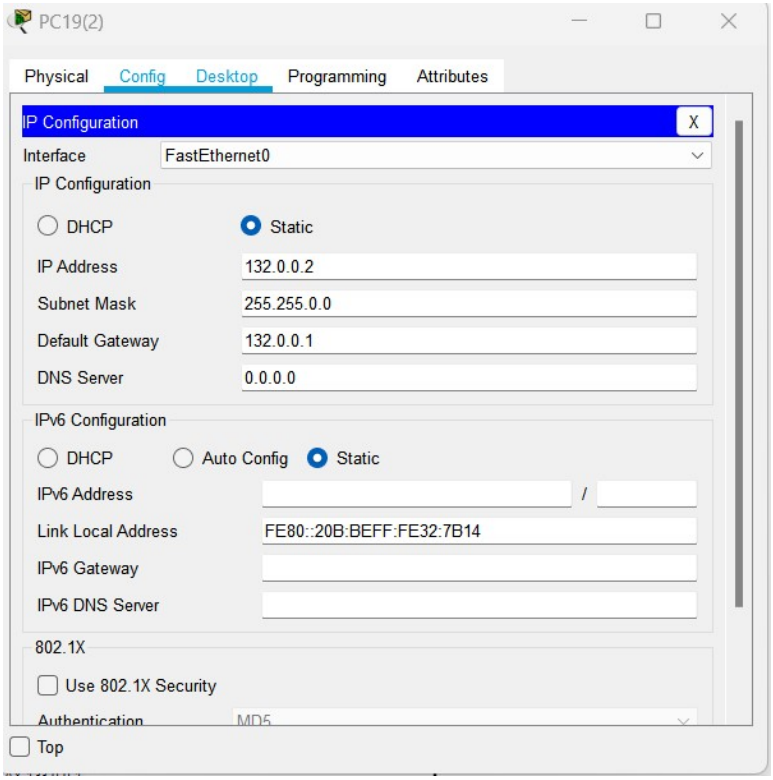
3rd Floor:



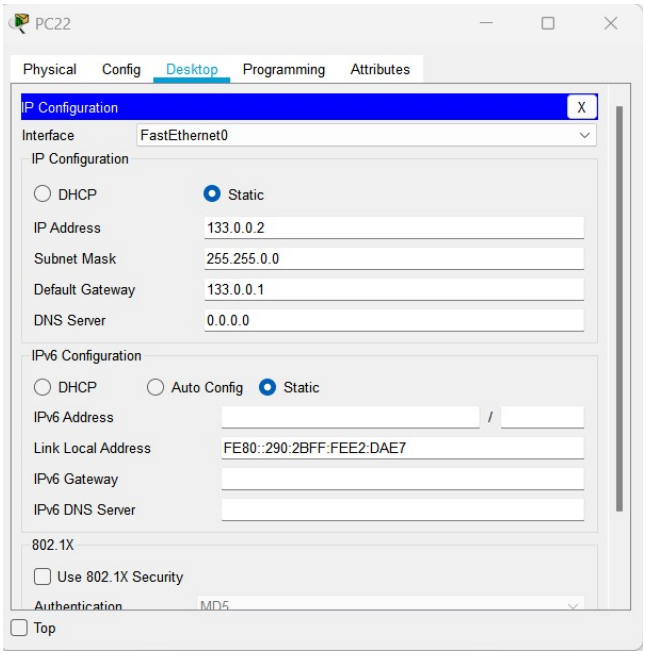
4th Floor:



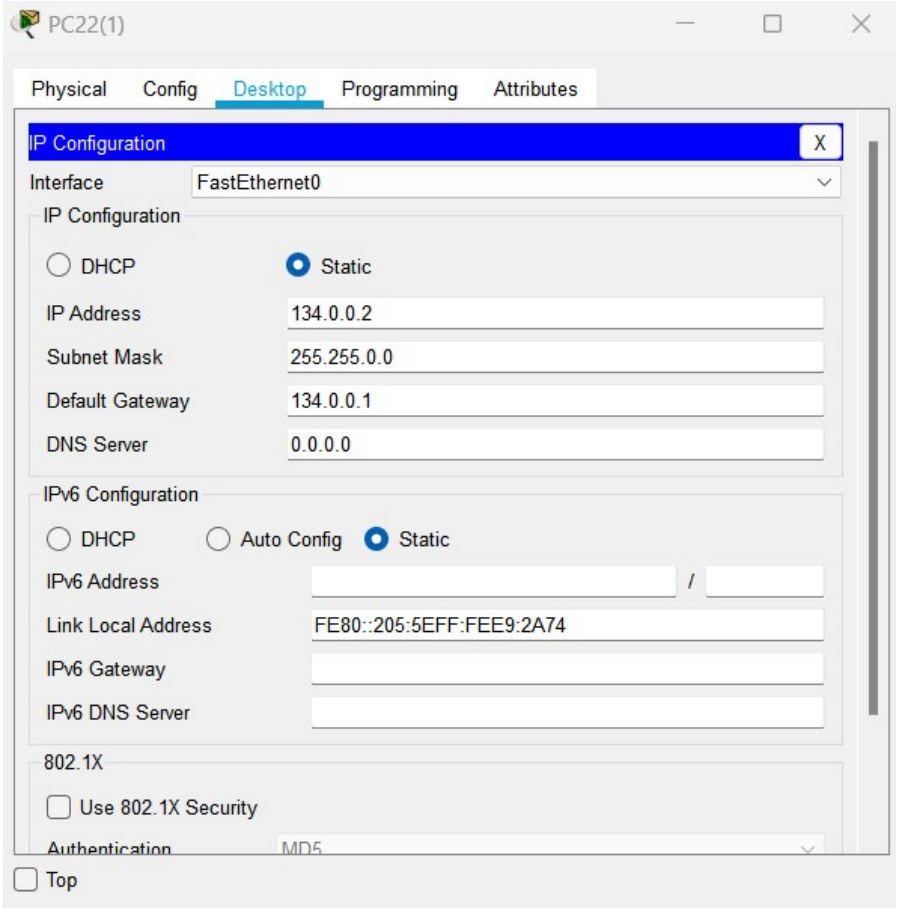
5th Floor:



6th Floor:

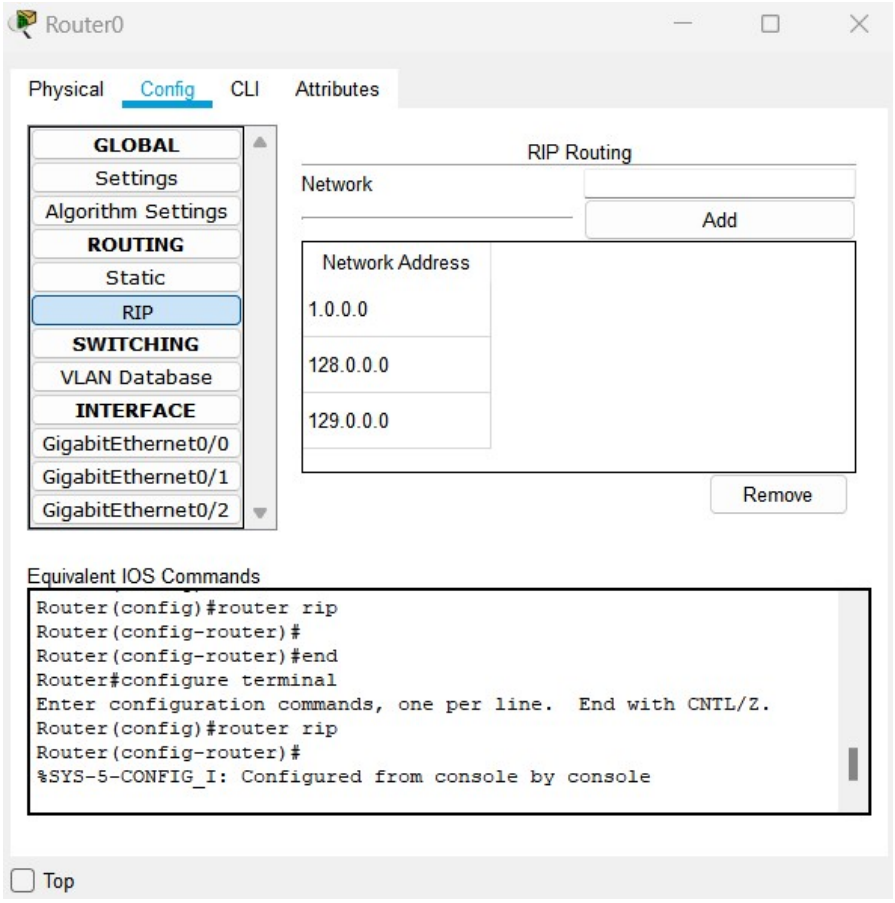


7th Floor:

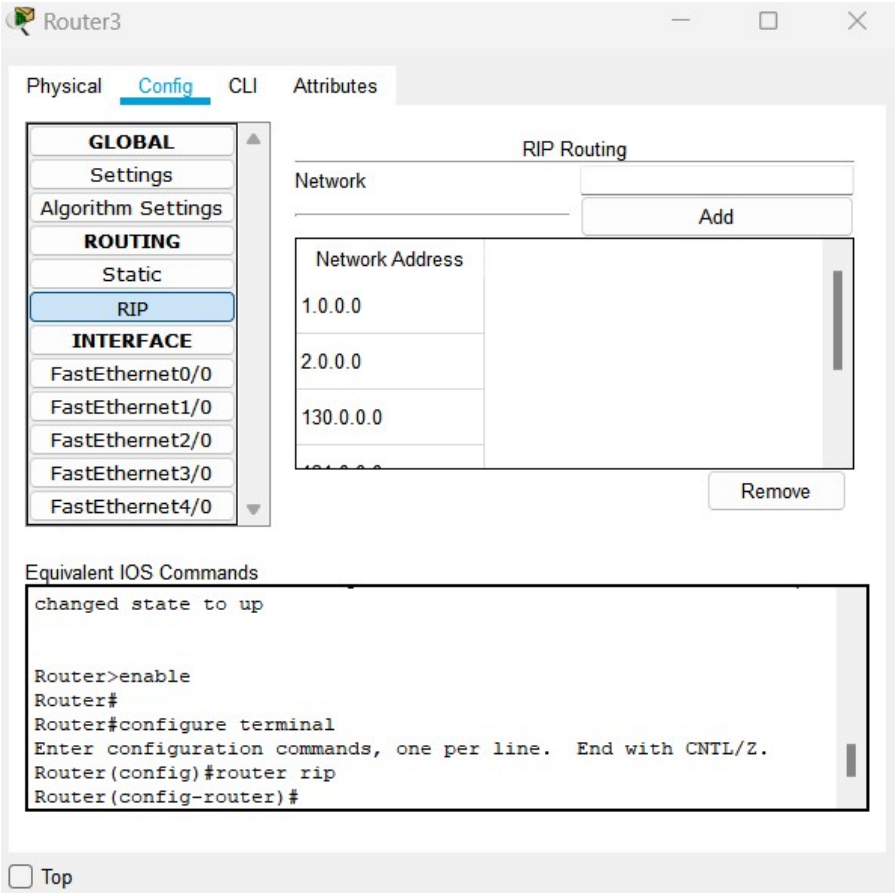

PC22(1)
Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
134.0.0.2
Subnet Mask
255.255.0.0
Default Gateway
134.0.0.1
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
/
Link Local Address
FE80::205:5EFF:FEE9:2A74
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Top

3. Dynamic Routing:

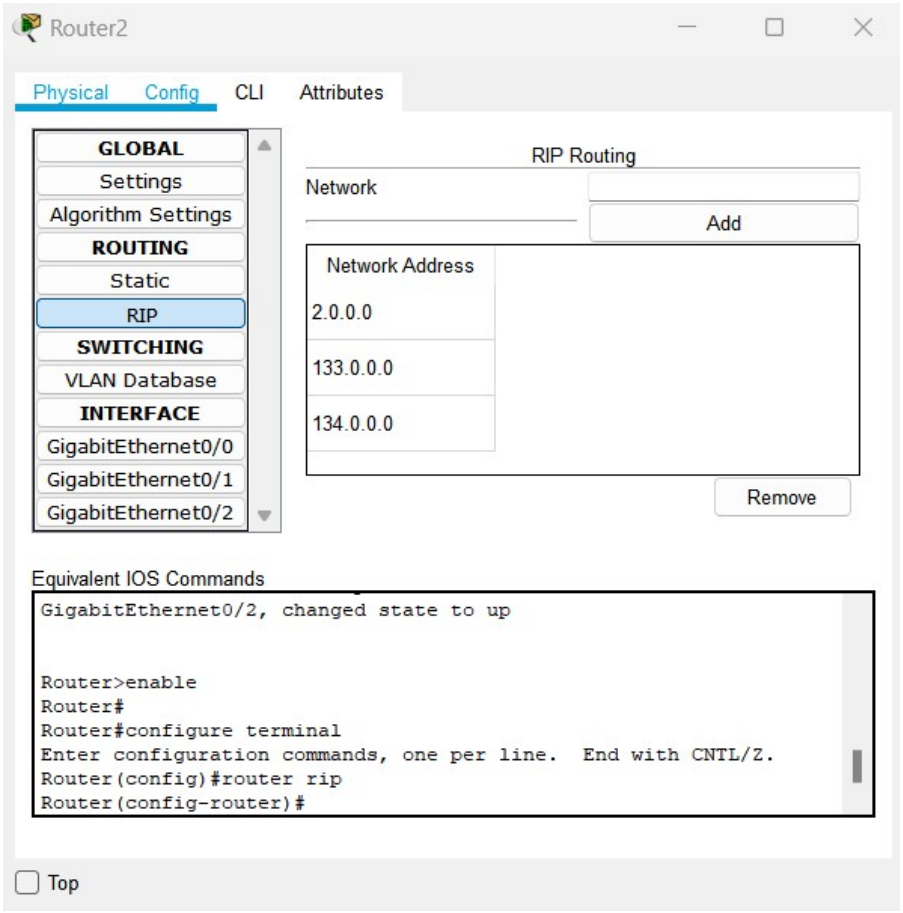
1st Router:



2nd Router:

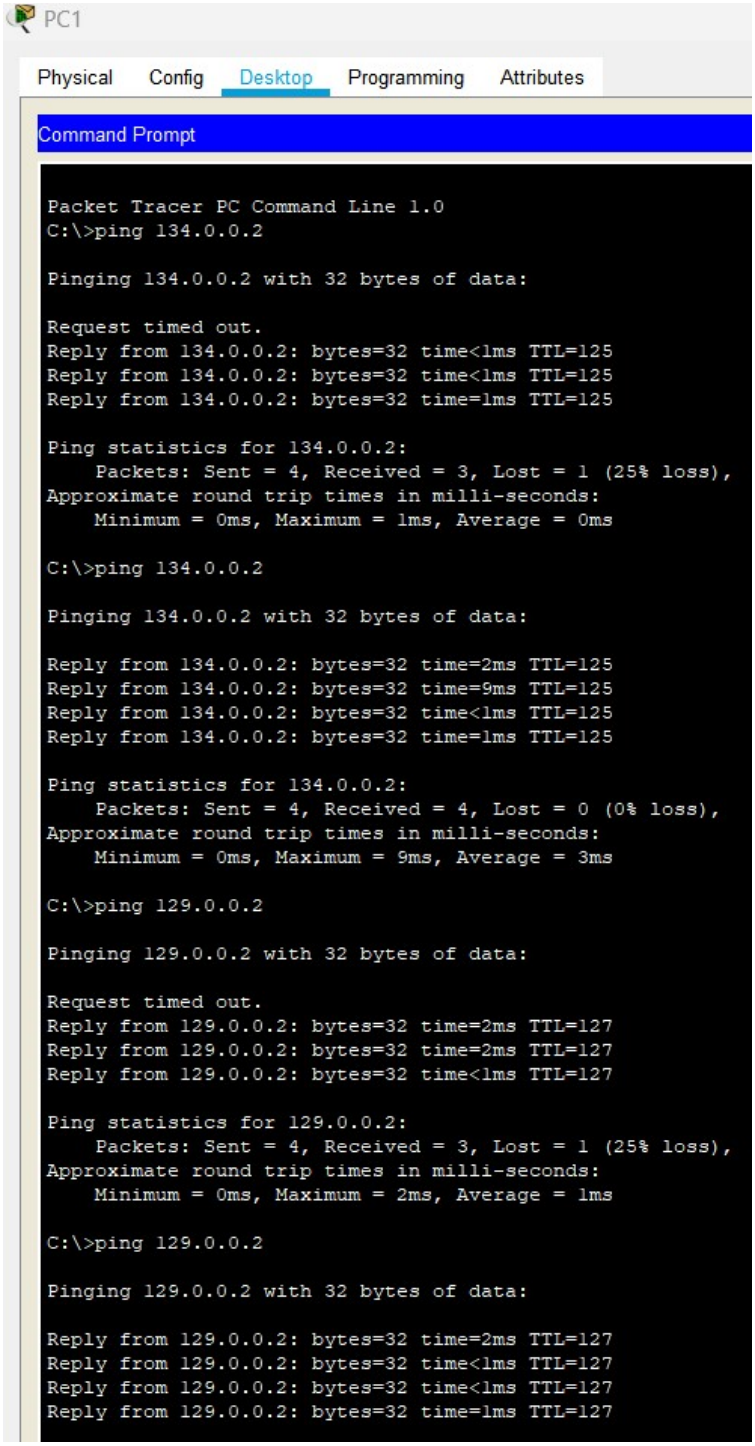

Router3
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
FastEthernet2/0
FastEthernet3/0
FastEthernet4/0
RIP Routing
Network
Add
Network Address
1.0.0.0
2.0.0.0
130.0.0.0
Remove
Equivalent IOS Commands
changed state to up
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
Top

3rd Router:


Router2
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
GigabitEthernet0/0
GigabitEthernet0/1
GigabitEthernet0/2
RIP Routing
Network
Add
Network Address
2.0.0.0
133.0.0.0
134.0.0.0
Remove
Equivalent IOS Commands
GigabitEthernet0/2, changed state to up
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
Top

4. Communication between all computers:

1st Floor PC to Floor to all PC's:



```
Ping statistics for 129.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 2ms, Average = 0ms

C:\>ping 130.0.0.2

Pinging 130.0.0.2 with 32 bytes of data:

Request timed out.
Reply from 130.0.0.2: bytes=32 time<1ms TTL=126
Reply from 130.0.0.2: bytes=32 time<1ms TTL=126
Reply from 130.0.0.2: bytes=32 time<1ms TTL=126

Ping statistics for 130.0.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 130.0.0.2

Pinging 130.0.0.2 with 32 bytes of data:

Reply from 130.0.0.2: bytes=32 time=1ms TTL=126
Reply from 130.0.0.2: bytes=32 time=2ms TTL=126
Reply from 130.0.0.2: bytes=32 time=1ms TTL=126
Reply from 130.0.0.2: bytes=32 time=7ms TTL=126

Ping statistics for 130.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 7ms, Average = 2ms

C:\>ping 131.0.0.2

Pinging 131.0.0.2 with 32 bytes of data:

Request timed out.
Reply from 131.0.0.2: bytes=32 time=1ms TTL=126
Reply from 131.0.0.2: bytes=32 time<1ms TTL=126
Reply from 131.0.0.2: bytes=32 time=1ms TTL=126

Ping statistics for 131.0.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 131.0.0.2

Pinging 131.0.0.2 with 32 bytes of data:

Reply from 131.0.0.2: bytes=32 time=2ms TTL=126
Reply from 131.0.0.2: bytes=32 time=1ms TTL=126
```

```
Pinging 131.0.0.2 with 32 bytes of data:

Reply from 131.0.0.2: bytes=32 time=2ms TTL=126
Reply from 131.0.0.2: bytes=32 time=1ms TTL=126
Reply from 131.0.0.2: bytes=32 time=1ms TTL=126
Reply from 131.0.0.2: bytes=32 time=1ms TTL=126

Ping statistics for 131.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>ping 132.0.0.2

Pinging 132.0.0.2 with 32 bytes of data:

Request timed out.
Reply from 132.0.0.2: bytes=32 time<1ms TTL=126
Reply from 132.0.0.2: bytes=32 time=1ms TTL=126
Reply from 132.0.0.2: bytes=32 time<1ms TTL=126

Ping statistics for 132.0.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 132.0.0.2

Pinging 132.0.0.2 with 32 bytes of data:

Reply from 132.0.0.2: bytes=32 time=5ms TTL=126
Reply from 132.0.0.2: bytes=32 time<1ms TTL=126
Reply from 132.0.0.2: bytes=32 time=1ms TTL=126
Reply from 132.0.0.2: bytes=32 time=1ms TTL=126

Ping statistics for 132.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 5ms, Average = 1ms

C:\>ping 133.0.0.2

Pinging 133.0.0.2 with 32 bytes of data:

Request timed out.
Reply from 133.0.0.2: bytes=32 time=1ms TTL=125
Reply from 133.0.0.2: bytes=32 time=5ms TTL=125
Reply from 133.0.0.2: bytes=32 time<1ms TTL=125

Ping statistics for 133.0.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 5ms, Average = 2ms
```

```
Request timed out.
Reply from 132.0.0.2: bytes=32 time<1ms TTL=126
Reply from 132.0.0.2: bytes=32 time=1ms TTL=126
Reply from 132.0.0.2: bytes=32 time<1ms TTL=126

Ping statistics for 132.0.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 132.0.0.2

Pinging 132.0.0.2 with 32 bytes of data:

Reply from 132.0.0.2: bytes=32 time=5ms TTL=126
Reply from 132.0.0.2: bytes=32 time<1ms TTL=126
Reply from 132.0.0.2: bytes=32 time=1ms TTL=126
Reply from 132.0.0.2: bytes=32 time=1ms TTL=126

Ping statistics for 132.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 5ms, Average = 1ms

C:\>ping 133.0.0.2

Pinging 133.0.0.2 with 32 bytes of data:

Request timed out.
Reply from 133.0.0.2: bytes=32 time=1ms TTL=125
Reply from 133.0.0.2: bytes=32 time=5ms TTL=125
Reply from 133.0.0.2: bytes=32 time<1ms TTL=125

Ping statistics for 133.0.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 5ms, Average = 2ms

C:\>ping 133.0.0.2

Pinging 133.0.0.2 with 32 bytes of data:

Reply from 133.0.0.2: bytes=32 time<1ms TTL=125
Reply from 133.0.0.2: bytes=32 time<1ms TTL=125
Reply from 133.0.0.2: bytes=32 time=1ms TTL=125
Reply from 133.0.0.2: bytes=32 time=2ms TTL=125

Ping statistics for 133.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 2ms, Average = 0ms

C:\>
```