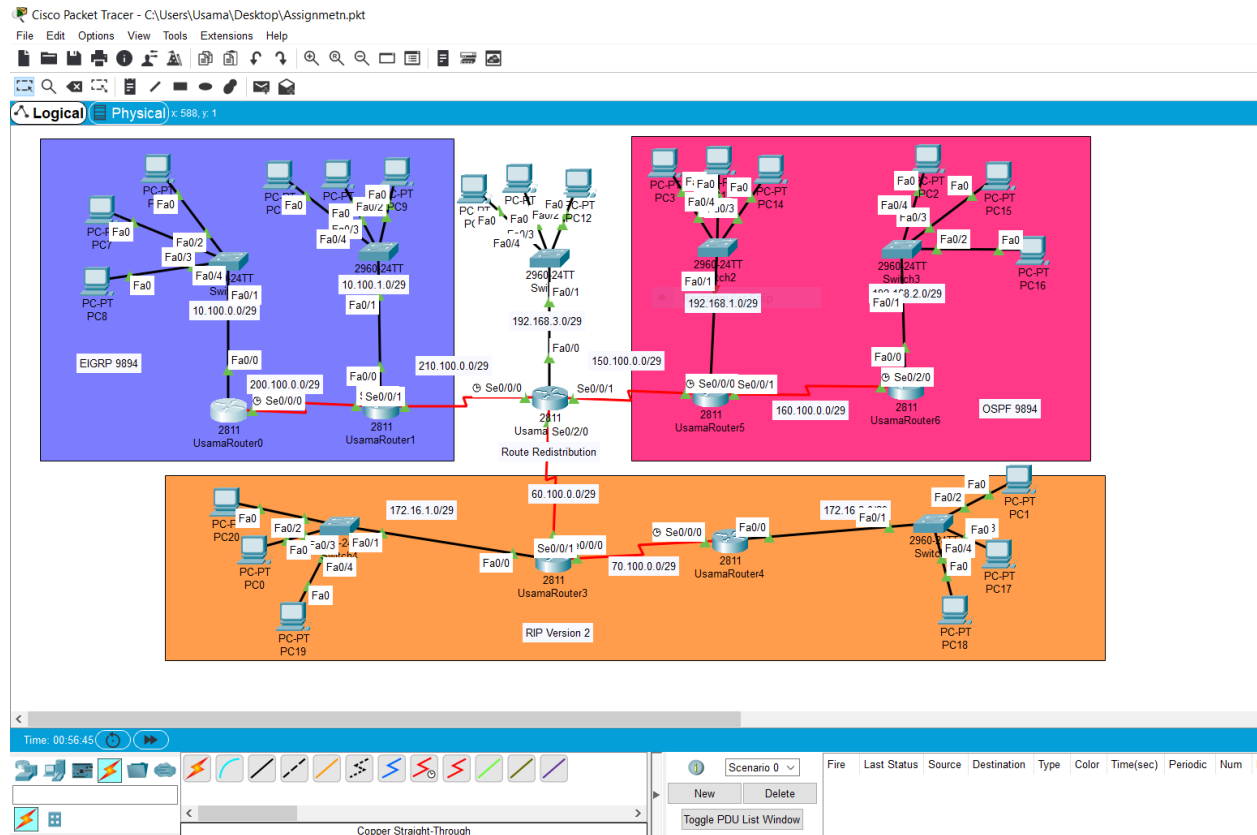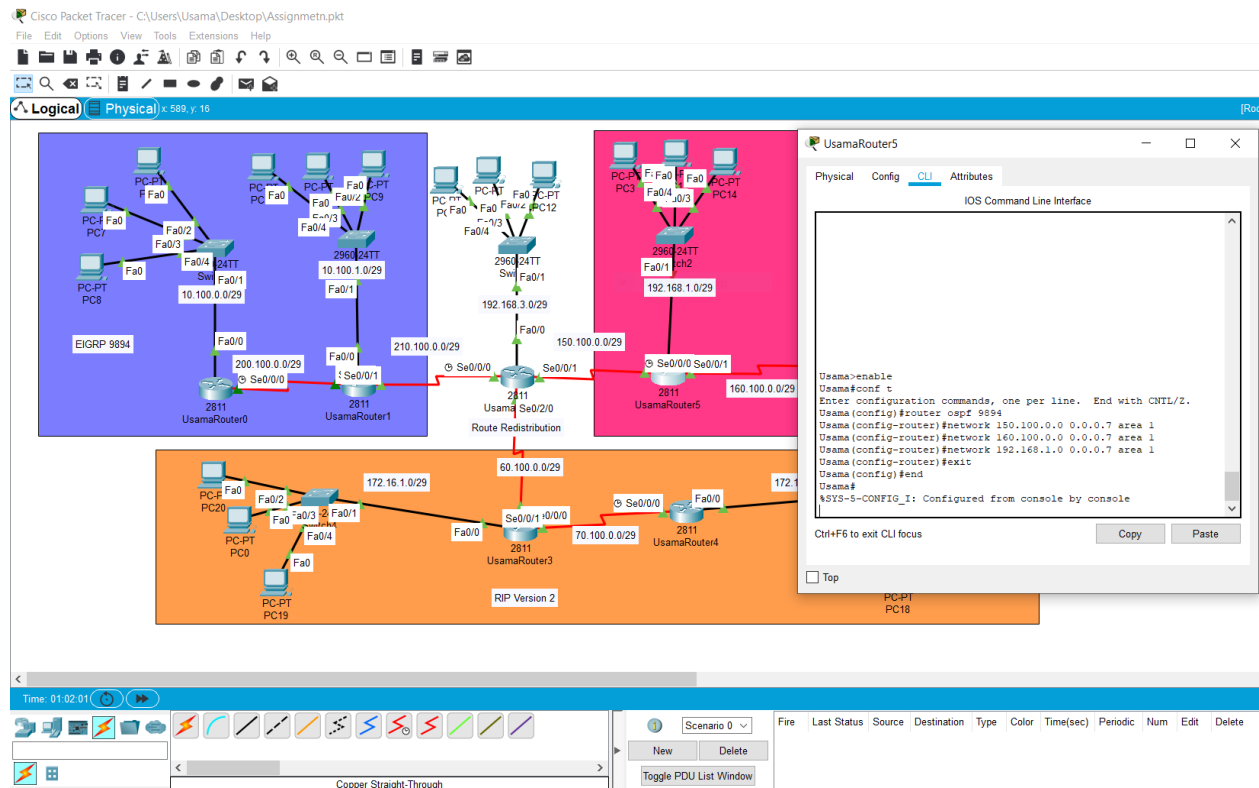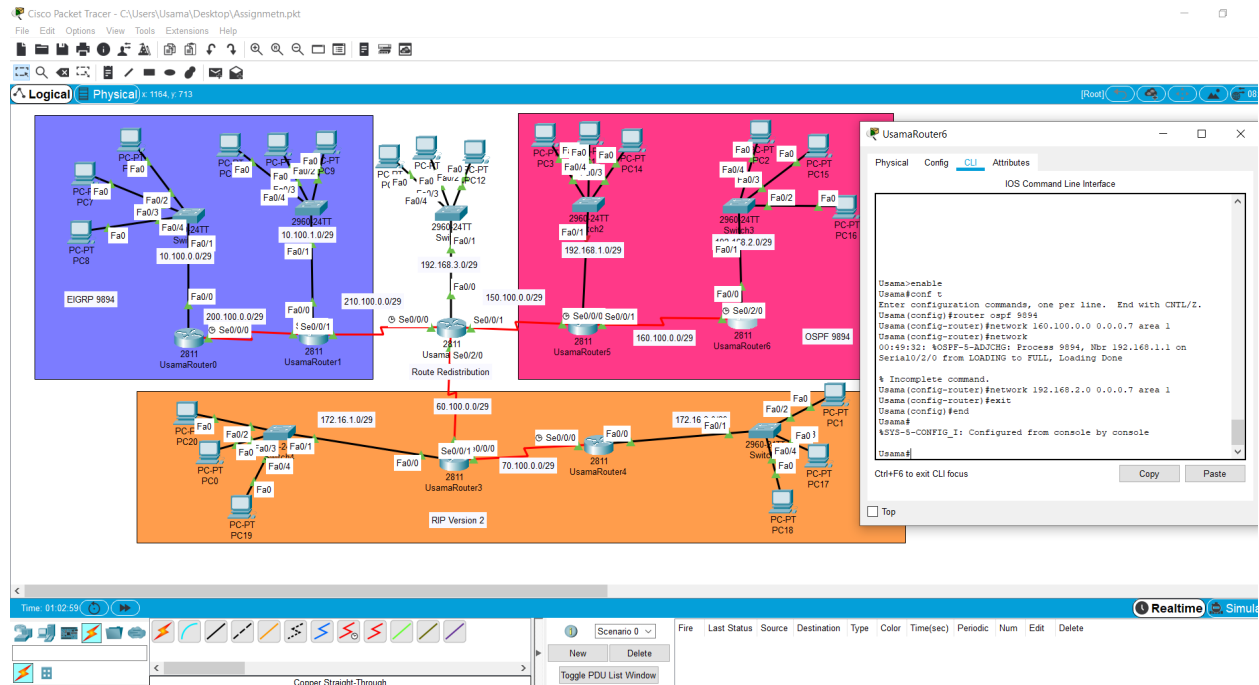# IIA LAB ASSIGNMENT 2

Usama Rehman

9894

Network Topology :-
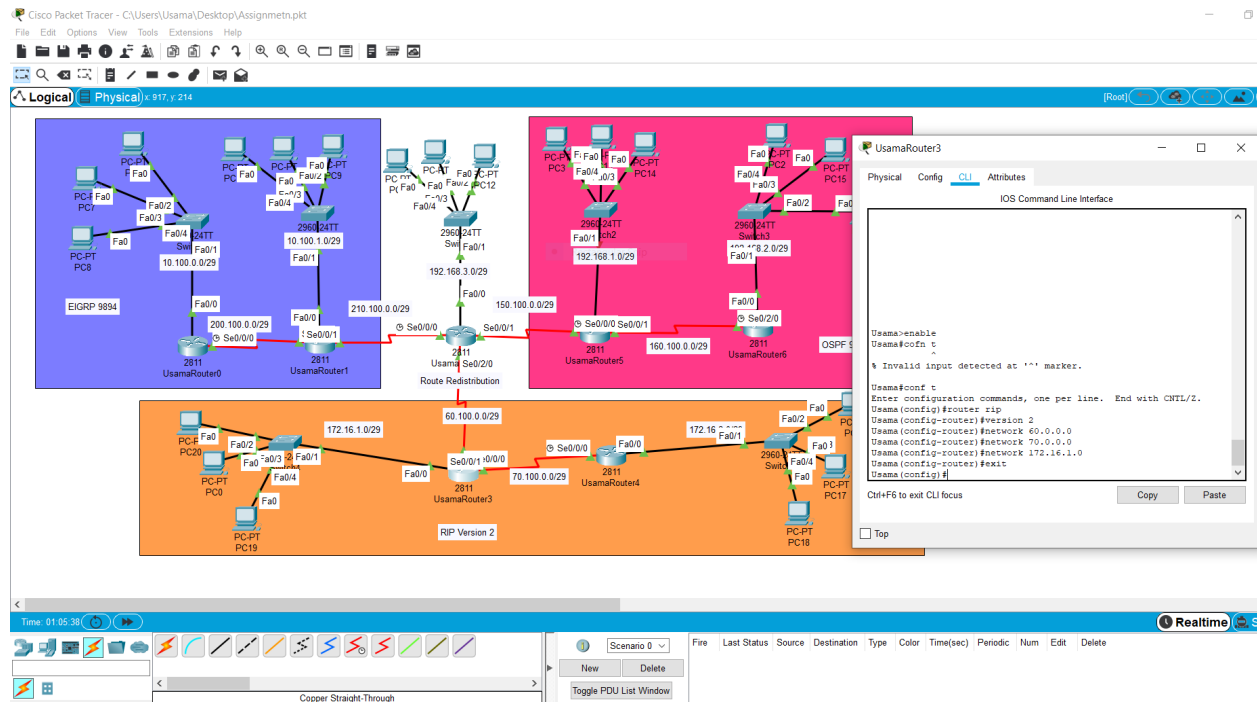

EIGRP Configuration:-

Cisco Packet Tracer - C:\Users\Usama\Desktop\Assignmetn.pkt

Top window — UsamaRouter1 CLI:

```
UsamaEIGRP>enable
UsamaEIGRP#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
UsamaEIGRP(config)#router eigrp
% Incomplete command.
UsamaEIGRP(config)#router eigrp 9894
UsamaEIGRP(config-router)#network 200.100.0.0 0.0.0.7
                                 ^
% Invalid input detected at '^' marker.

UsamaEIGRP(config-router)#network 200.100.0.0 0.0.0.7
UsamaEIGRP(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 9894: Neighbor 200.100.0.1
(Serial0/0/0) is up: new adjacency
UsamaEIGRP(config-router)#network 210.100.0.0 0.0.0.7
UsamaEIGRP(config-router)#network 10.100.1.0 0.0.0.7
UsamaEIGRP(config-router)#no auto-summary
UsamaEIGRP(config-router)#
%DUAL-5-NBRCHANGE: IP-EIGRP 9894: Neighbor 200.100.0.1
(Serial0/0/0) resync: summary configured
exit
UsamaEIGRP(config)#
```

Bottom window — UsamaRouter0 CLI:

```
RIP1>enable
RIP1#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
RIP1(config)#hostname Usama
Usama(config)#
Usama(config)#router eigrp 9894
Usama(config-router)#network 200.100.0.0 0.0.0.7
Usama(config-router)#network 10.100.0.0 0.0.0.7
Usama(config-router)#no auto-summary
Usama(config-router)#exit
Usama(config)#end
Usama#
%SYS-5-CONFIG_I: Configured from console by console
```

OSPF Configuration :-

RIP V2 Configuration :-

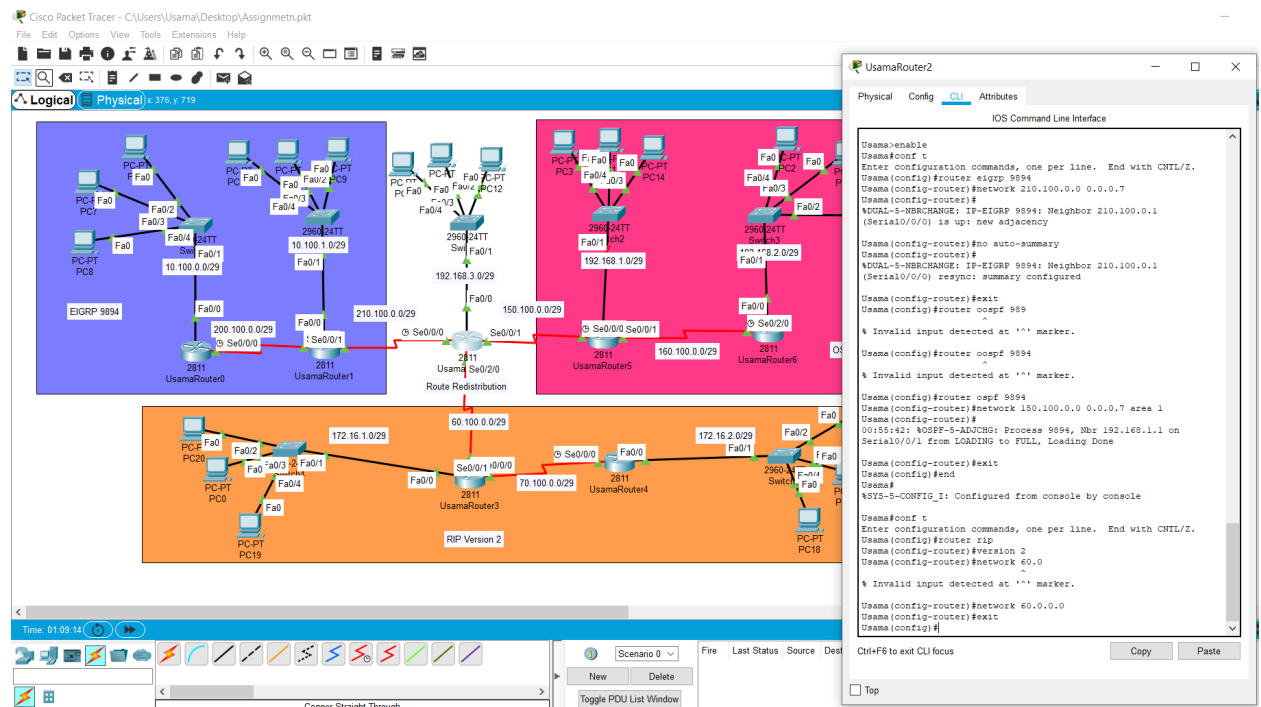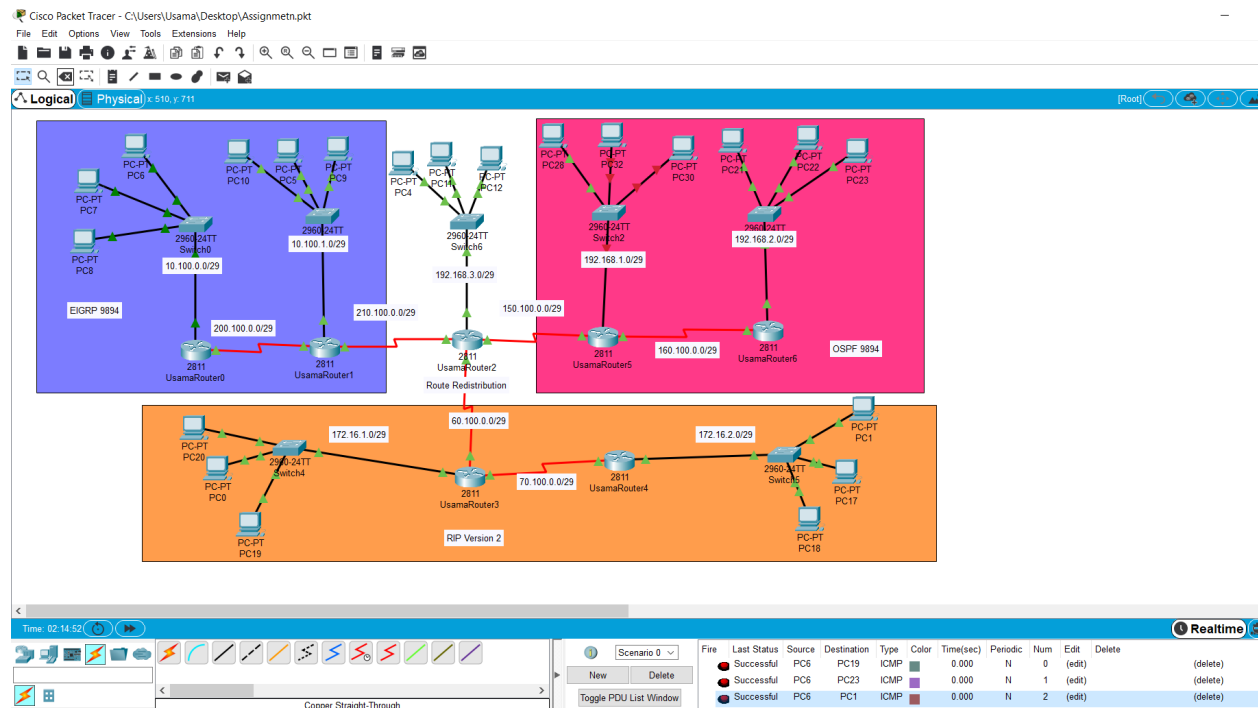# Redistribute Router Configuration & Result :-
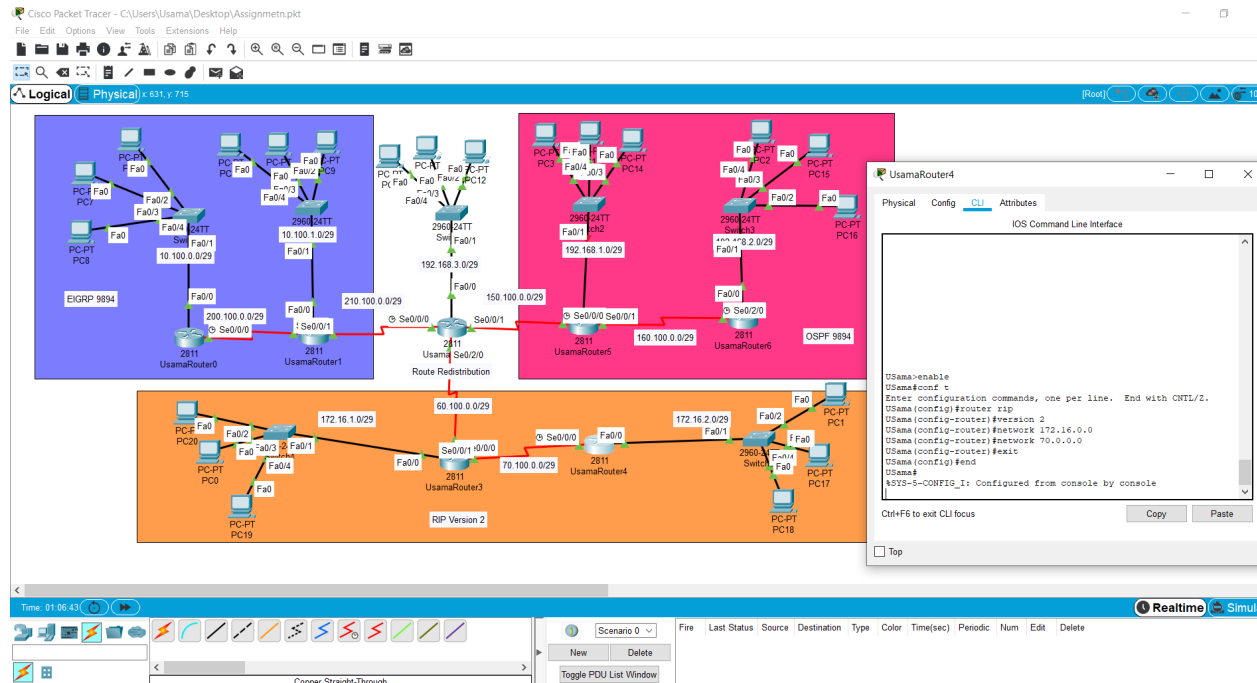
NAT ON EIGRP ROUTER :-

PC6   — ☐ ✕

Physical   Config   Desktop   Programming   Attributes

IP Configuration   X

Interface   FastEthernet0   ⌄

IP Configuration

◯ DHCP   ⦿ Static

IPv4 Address   10.100.0.2

Subnet Mask   255.255.255.248

Default Gateway   10.100.0.1

DNS Server   0.0.0.0

IPv6 Configuration

◯ Automatic   ⦿ Static

IPv6 Address   [ ] / [ ]

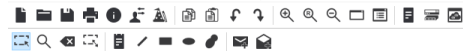Link Local Address   FE80::230:F2FF:FE48:A2D9
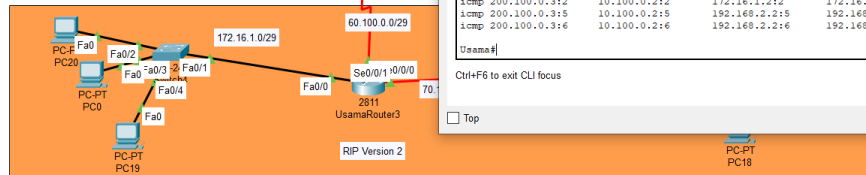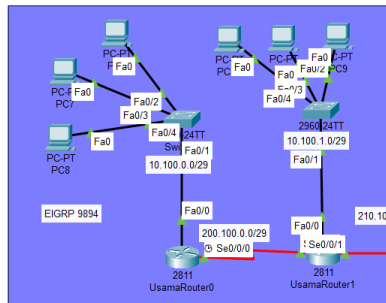
Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication   MD5

☐ Top

Cisco Packet Tracer - C:\Users\Usama\Desktop\Assignmetn.pkt

File Edit Options View Tools Extensions Help

Logical Physical x: 721, y: 1   [Root]

EIGRP 9894

PC-PT PC7
PC-PT PC8
PC PC
2960 24TT
10.100.1.0/29
PC-PT PC9
PC-PT PC12
2960 24TT
192.168.3.0/29
150.100

10.100.0.0/29

200.100.0.0/29
210.100.0.0/29

2811 UsamaRouter0
2811 UsamaRouter1
Usama Se0/2/0
2811
Usama Se0/2/0
Route Redistribution

60.100.0.0/29

172.16.1.0/29

PC-PT PC20
PC-PT PC0
PC-PT PC19

2811 UsamaRouter3
70.

RIP Version 2

PC-PT PC18

UsamaRouter0

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Usama(config)#interface serial 0/0/0
Usama(config-if)#ip nat outside
Usama(config-if)#exit
Usama(config)#interface fa 0/0
Usama(config-if)#ip nat inside
Usama(config-if)#exit
Usama(config)#exit
Usama#
%SYS-5-CONFIG_I: Configured from console by console

Usama#
Usama#
Usama#show ip nat translations
Pro  Inside global    Inside local    Outside local    Outside global
icmp 200.100.0.3:1    10.100.0.2:1    172.16.1.2:1     172.16.1.2:1

Usama#
Usama#show ip nat translations
Pro  Inside global    Inside local    Outside local    Outside global
icmp 200.100.0.3:2    10.100.0.2:2    172.16.1.2:2     172.16.1.2:2
icmp 200.100.0.3:5    10.100.0.2:5    192.168.2.2:5    192.168.2.2:5
icmp 200.100.0.3:6    10.100.0.2:6    192.168.2.2:6    192.168.2.2:6

Usama#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

Time: 01:31:32

Scenario 0

New   Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

Copper Straight-Through

Cisco Packet Tracer - C:\Users\Usama\Desktop\Assignmetn.pkt

File Edit Options View Tools Extensions Help

Logical Physical x. 590, y. 32   [Root]

EIGRP 9894

Route Redistribution

RIP Version 2

PC16 — Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ping 10.100.0.2

Pinging 10.100.0.2 with 32 bytes of data:

Reply from 200.100.0.3: bytes=32 time=55ms TTL=123
Reply from 200.100.0.3: bytes=32 time=38ms TTL=123
Reply from 200.100.0.3: bytes=32 time=4ms TTL=123
Reply from 200.100.0.3: bytes=32 time=4ms TTL=123

Ping statistics for 10.100.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 4ms, Maximum = 55ms, Average = 25ms

C:\>
```

Time: 01:29:19

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC6	UsamaRo...	ICMP		0.000	N	0	(edit)	
	Successful	PC6	PC16	ICMP		0.000	N	1	(edit)	

Cisco Packet Tracer - C:\Users\Usama\Desktop\Assignmetn.pkt

File Edit Options View Tools Extensions Help

Logical Physical x. 486, y. 2   [Root]

EIGRP 9894

Route Redistribution

RIP Version 2

UsamaRouter0 — IOS Command Line Interface

```
Usama>enab;e
Translating "enab;e"...domain server (255.255.255.255)
% Unknown command or computer name, or unable to find computer
address

Usama>enable
Usama#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Usama(config)#ip nat pool UsamaBeaconAskariSchool 200.100.0.3
200.100.0.6 netmask 255.255.255.248
Usama(config)#access-list 15
% Incomplete command.
Usama(config)#access-list 15 permit 10.100.0.0 0.0.0.7
Usama(config)#ip nat inside source list 15 pool
UsamaBeaconAskariSchool
Usama(config)#interface serial 0/0/0
Usama(config-if)#ip nat outside
Usama(config-if)#exit
Usama(config)#interface fa 0/0
Usama(config-if)#ip nat inside
Usama(config-if)#exit
Usama(config)#
```
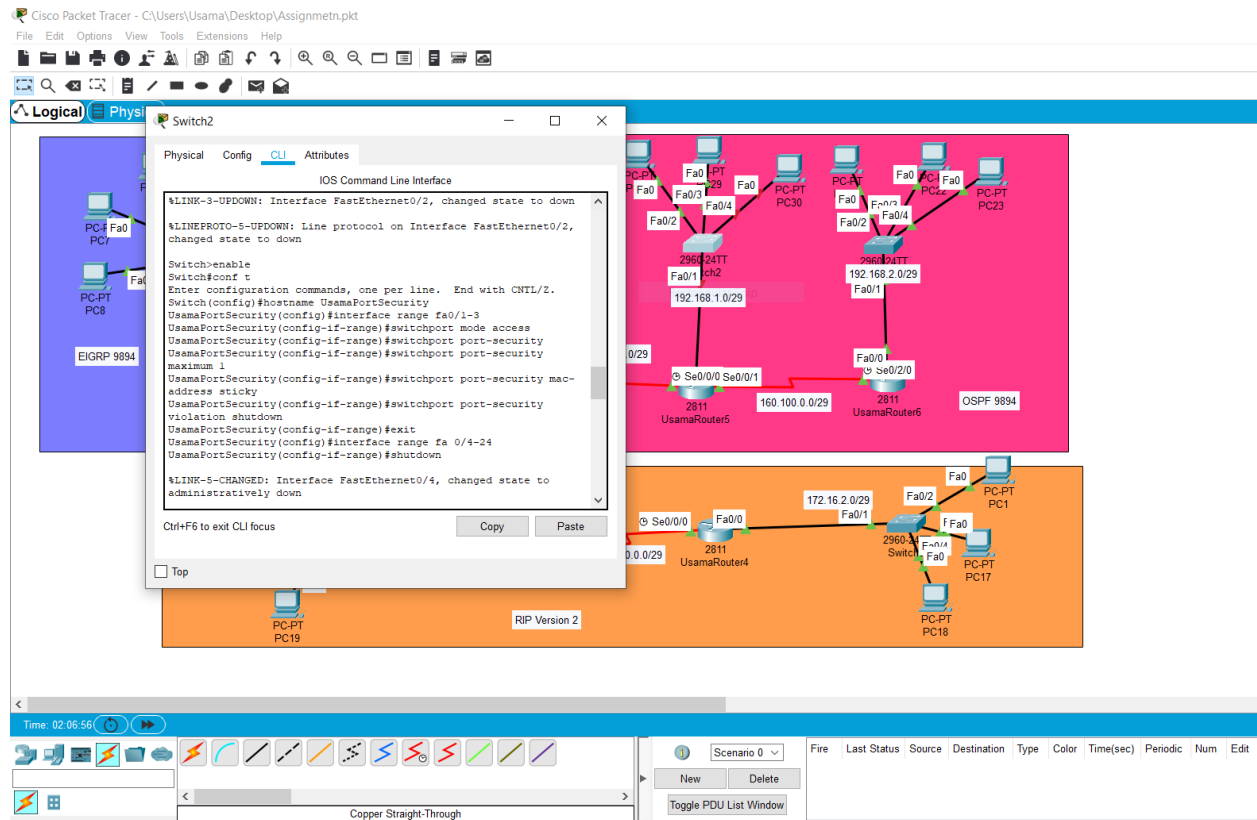
Ctrl+F6 to exit CLI focus   Copy   Paste

Time: 01:25:50

PORT Security Before & After Violation :-

Cisco Packet Tracer - C:\Users\Usama\Desktop\Assignmetn.pkt

File   Edit   Options   View   Tools   Extensions   Help

Switch2

Physical   Config   **CLI**   Attributes

IOS Command Line Interface

```
%LINK-3-UPDOWN: Interface FastEthernet0/2, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2,
changed state to down

Switch>enable
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname UsamaPortSecurity
UsamaPortSecurity(config)#interface range fa0/1-3
UsamaPortSecurity(config-if-range)#switchport mode access
UsamaPortSecurity(config-if-range)#switchport port-security
UsamaPortSecurity(config-if-range)#switchport port-security
maximum 1
UsamaPortSecurity(config-if-range)#switchport port-security mac-
address sticky
UsamaPortSecurity(config-if-range)#switchport port-security
violation shutdown
UsamaPortSecurity(config-if-range)#exit
UsamaPortSecurity(config)#interface range fa 0/4-24
UsamaPortSecurity(config-if-range)#shutdown

%LINK-5-CHANGED: Interface FastEthernet0/4, changed state to
administratively down
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

Cisco Packet Tracer - C:\Users\Usama\Desktop\Assignmetn.pkt

File Edit Options View Tools Extensions Help

Logical   Ph

Switch2

Physical   Config   CLI   Attributes
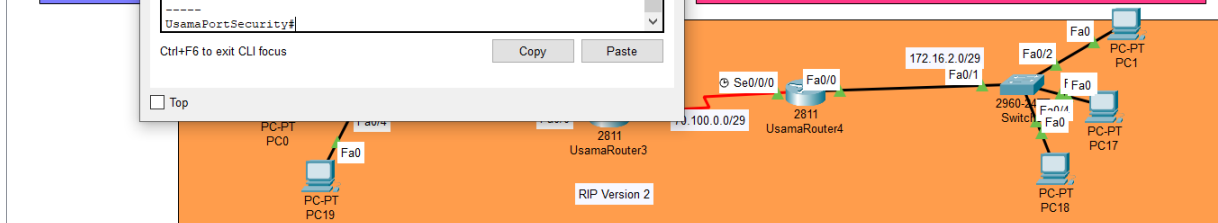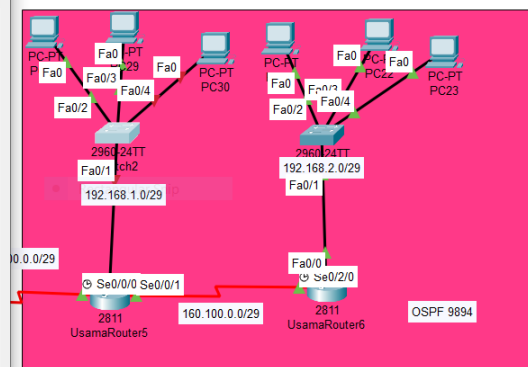
IOS Command Line Interface

```
UsamaPortSecurity(config-if-range)#exit
UsamaPortSecurity(config)#show port-security
                         ^
% Invalid input detected at '^' marker.

UsamaPortSecurity(config)#exit
UsamaPortSecurity#
%SYS-5-CONFIG_I: Configured from console by console
s
% Ambiguous command: "s"
UsamaPortSecurity#show port-security
Secure Port MaxSecureAddr CurrentAddr SecurityViolation Security
Action
             (Count)       (Count)       (Count)

-------------------------------------------------------------------
---
      Fa0/1      1           0               0
Shutdown
      Fa0/2      1           0               0
Shutdown
      Fa0/3      1           0               0
Shutdown
-------------------------------------------------------------------
-----
UsamaPortSecurity#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

PC-P Fa0
PC7

PC-PT
PC8

EIGRP 989

PC-PT
PC0

Fa0/4

2811
UsamaRouter3

Fa0

PC-PT
PC19

RIP Version 2

PC-PT
P Fa0

Fa0 PT
29

Fa0/3
Fa0/2

Fa0
Fa0/4

2960-24TT
ch2

Fa0/1
192.168.1.0/29

0.0.0/29

Se0/0/0 Se0/0/1

2811
UsamaRouter5

160.100.0.0/29

PC-PT
PC30

PC-PT

Fa0
Fa0/2

Fa0/3
Fa0/4

2960-24TT
192.168.2.0/29
Fa0/1

Fa0/0
Se0/2/0

2811
UsamaRouter6

Fa0 PC
PC22

PC-PT
PC23

OSPF 9894

172.16.2.0/29

Se0/0/0
Fa0/0

2811
UsamaRouter4

0.100.0.0/29

Fa0/2
Fa0/1

2960-24
Switch

Fa0
Fa0/4

Fa0

Fa0
PC1

Fa0
PC-PT
PC17

PC-PT
PC18

Time: 02:07:53

Copper Straight-Through

Scenario 0

New   Delete

Toggle PDU List Window

Fire   Last Status   Source   Destination   Type   Color   Time

File   Edit   Options   View   Tools   Extensions   Help
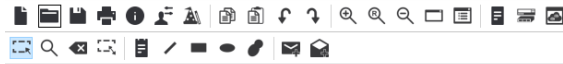
Logical   Physical   x: 477, y: 708

Switch2

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Vlan    Mac Address       Type        Ports
----    -----------       --------    -----

  1     0001.9690.ecce    STATIC      Fa0/2
  1     0002.17da.de0c    STATIC      Fa0/3
UsamaPortSecurity#show mac address
        Mac Address Table
--------------------------------------------

Vlan    Mac Address       Type        Ports
----    -----------       --------    -----

  1     0001.9690.ecce    STATIC      Fa0/2
  1     0002.17da.de0c    STATIC      Fa0/3
UsamaPortSecurity#show mac address
        Mac Address Table
--------------------------------------------

Vlan    Mac Address       Type        Ports
----    -----------       --------    -----

  1     0001.9690.ecce    STATIC      Fa0/2
  1     0002.17da.de0c    STATIC      Fa0/3
UsamaPortSecurity#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

PC-PT   Fa0
PC7

PC-PT
PC8

EIGRP 989

PC-PT   Fa0   PT   Fa0   Fa0   Fa0   PC-   Fa0
P   Fa0   29   Fa0   PC-PT   PC-PT   Fa0   PC22   PC-PT
      Fa0/3   Fa0/4   PC30   Fa0/3   Fa0/4   PC23
Fa0/2   Fa0/2
                                       Fa0/1
2960-24TT   2960-24TT
Fa0/1 tch2   192.168.2.0/29
192.168.1.0/29   Fa0/1

                      Fa0/0
.0.0/29   Se0/2/0

         Se0/0/0 Se0/0/1   2811   OSPF 9894
    2811   160.100.0.0/29   UsamaRouter6
UsamaRouter5

                                              Fa0
                     172.16.2.0/29   Fa0/2   PC-PT
          Se0/0/0   Fa0/0   Fa0/1   PC1
100.0.0/29   2960-2 Fa0
    2811   Switch   Fa0
UsamaRouter4   Fa0/4   PC-PT
                                              PC17
                                      PC-PT
                                      PC18

PC-PT   RIP Version 2
PC19
```

Time: 02:09:17

Scenario 0        Fire   Last Status   Source   Destination   Type   Color

New        Delete

Toggle PDU List Window

Copper Straight-Through