

Experiment 2

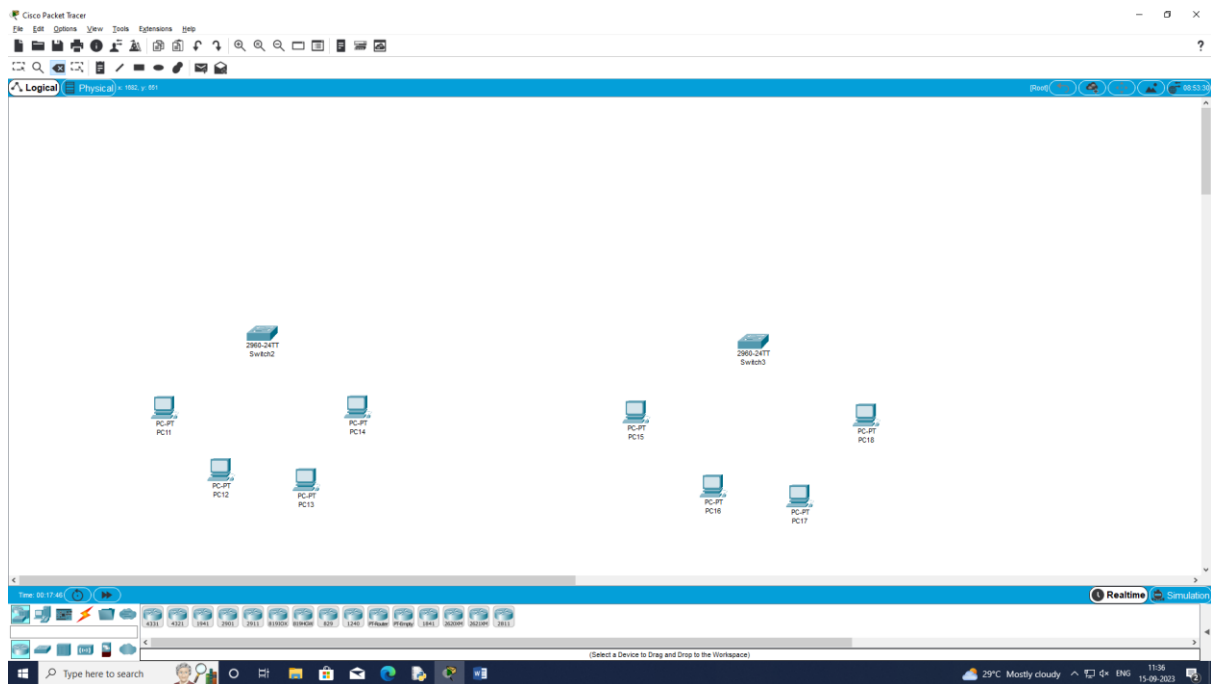
Jhanvi Parekh

60009210033

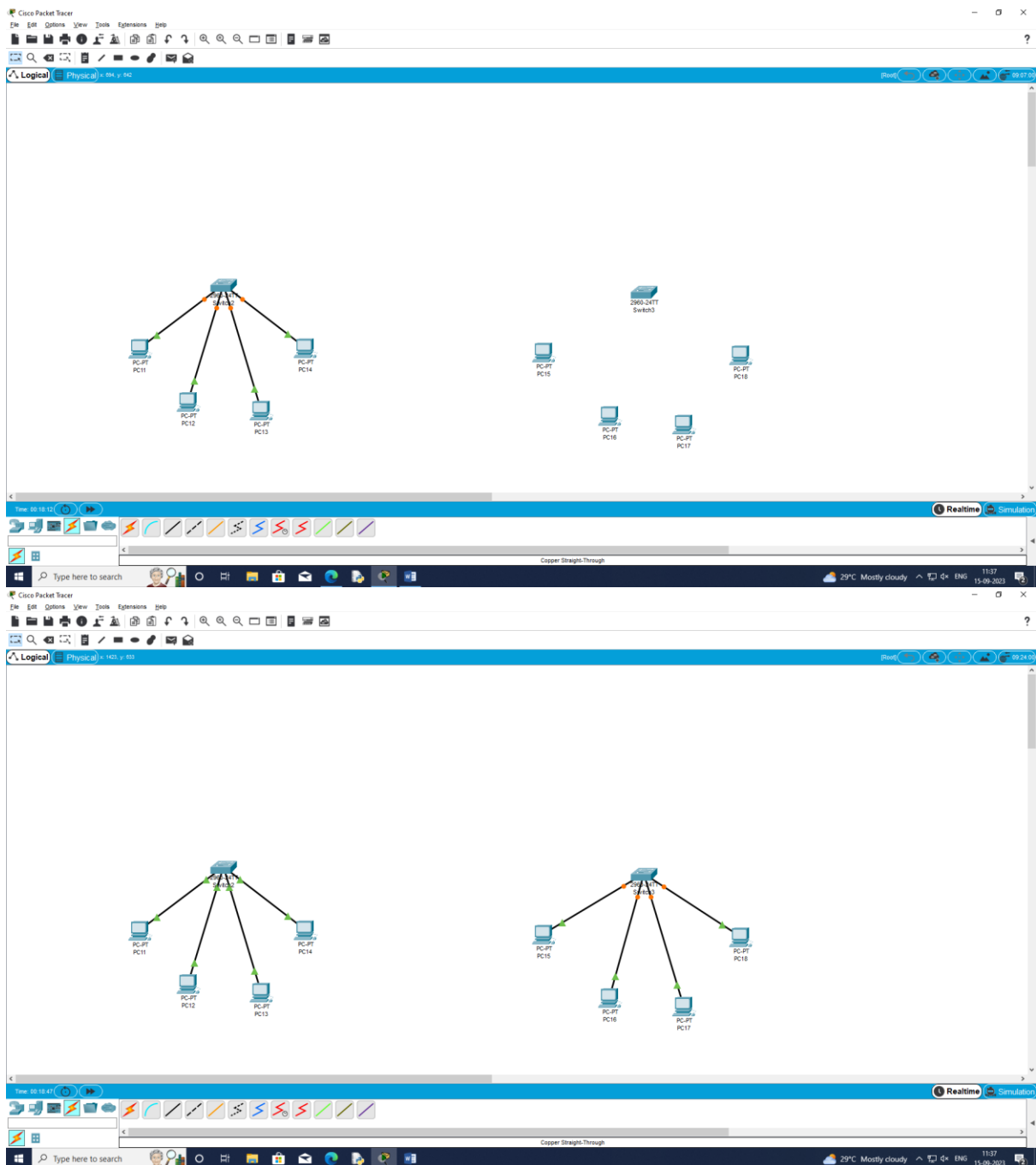
D11

ROUTER

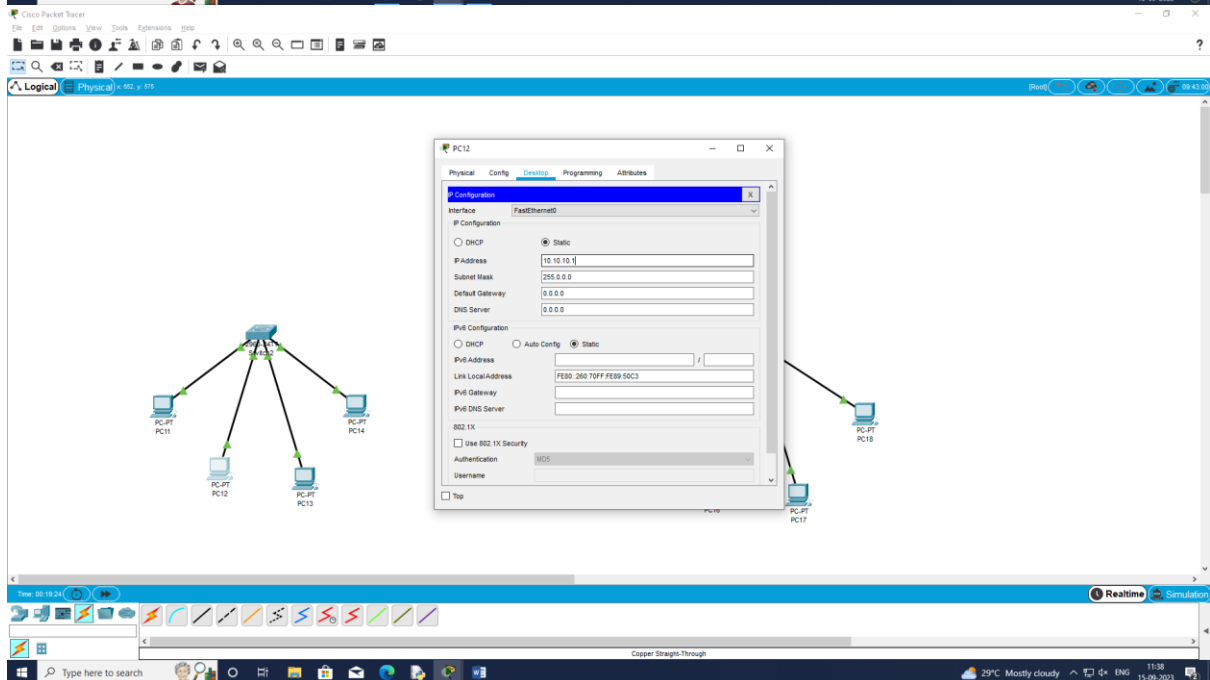
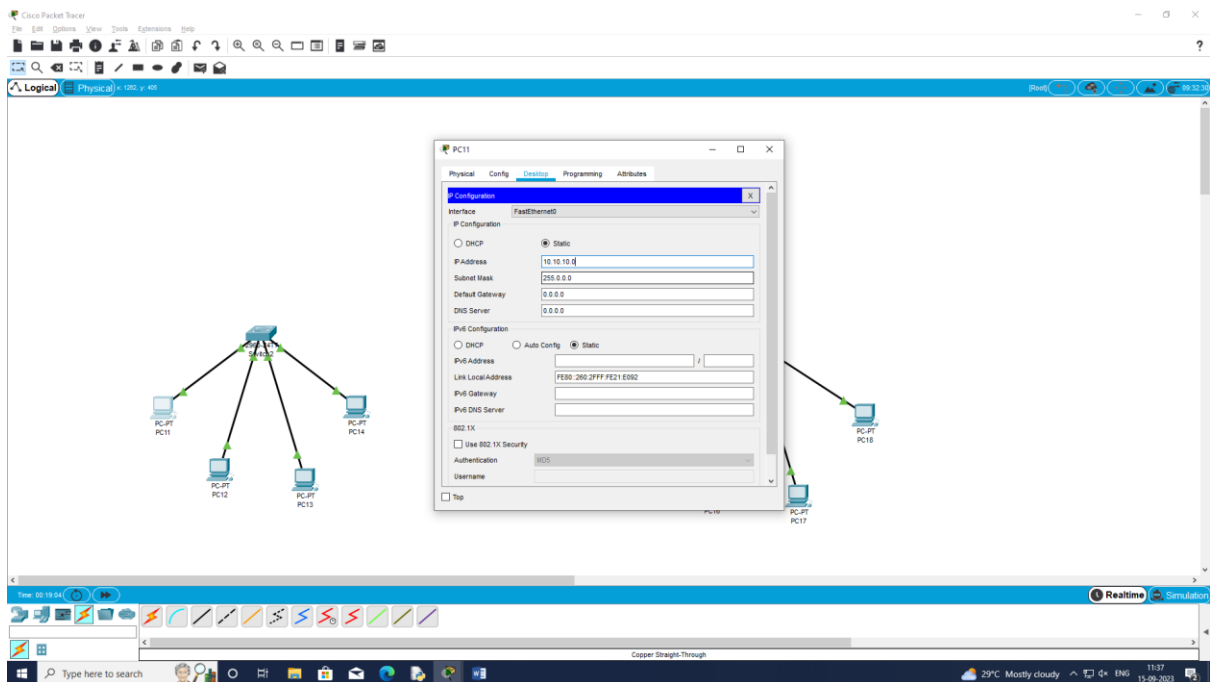
Step 1: Select 4 PC's and 2 switches.



Step 2: Connect the PC's with a switch as shown through a straight through cable.



Step 3: Give IP address to all the PC's. Giving first four PC's IP address in the range of 10.10.10.4 and the next four PC's in the range of 190.10.10.8.



Cisco Packet Tracer

Logical Physical 100 x 100

PC13

Physical Config Desktop Programming Attributes

Interface FastEthernet0/20

IP Configuration

☐ DHCP ☒ Static

IP Address 10.10.10.2

Subnet Mask 255.0.0.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80:200:0FF:FE34:44A8

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

Username MCS

☐ Top

Time: 00:10:40

Realtime Simulation

Copper Straight-Through

Type here to search

29°C Mostly cloudy 11:38 15-09-2023

Cisco Packet Tracer

Logical Physical 100 x 100

PC14

Physical Config Desktop Programming Attributes

Interface FastEthernet0/20

IP Configuration

☐ DHCP ☒ Static

IP Address 10.10.10.3

Subnet Mask 255.0.0.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80:200:F0FF:FE55:3A20

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

Username MCS

☐ Top

Time: 00:10:50

Realtime Simulation

Copper Straight-Through

Type here to search

29°C Mostly cloudy 11:38 15-09-2023

Cisco Packet Tracer

Logical Physical 100 v 17

PC15

Physical Config **Desktop** Programming Attributes

Interface FastEthernet0/24

IP Configuration

☐ DHCP ☒ Static

IP Address 190.10.10.4

Subnet Mask 255.255.0.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80:2D0:FFFF:FEA9:9561

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

Username MCS

☐ Top

Time: 00:20:16

Realtime Simulation

Copper Straight-Through

Type here to search

Cisco Packet Tracer

Logical Physical 100 v 18

PC15

Physical Config **Desktop** Programming Attributes

Interface FastEthernet0/24

IP Configuration

☐ DHCP ☒ Static

IP Address 190.10.10.5

Subnet Mask 255.255.0.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80:260:70FF:FE03:3D27

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

Username MCS

☐ Top

Time: 00:20:30

Realtime Simulation

Copper Straight-Through

Type here to search

Cisco Packet Tracer

Cisco Packet Tracer

Logical Physical 100 v 19

PC16

Physical Config **Desktop** Programming Attributes

Interface FastEthernet0/24

IP Configuration

☐ DHCP ☒ Static

IP Address 190.10.10.6

Subnet Mask 255.255.0.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80:260:70FF:FE03:3D28

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

Username MCS

☐ Top

Time: 00:20:45

Realtime Simulation

Copper Straight-Through

Type here to search

Cisco Packet Tracer

Cisco Packet Tracer

Logical | Physical | 156 v 401

Time: 00:20:58 | Realtime | Simulation

PC17 Configuration

Physical Config **Config** Programming Attributes

Interface: FastEthernet0/24

IP Configuration

☐ DHCP ☒ Static This address is already used in the network

IP Address: 190.10.10.6

Subnet Mask: 255.255.0.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80:200:D3FF:FE16:AA1B

IPv6 Gateway: /

IPv6 DNS Server: /

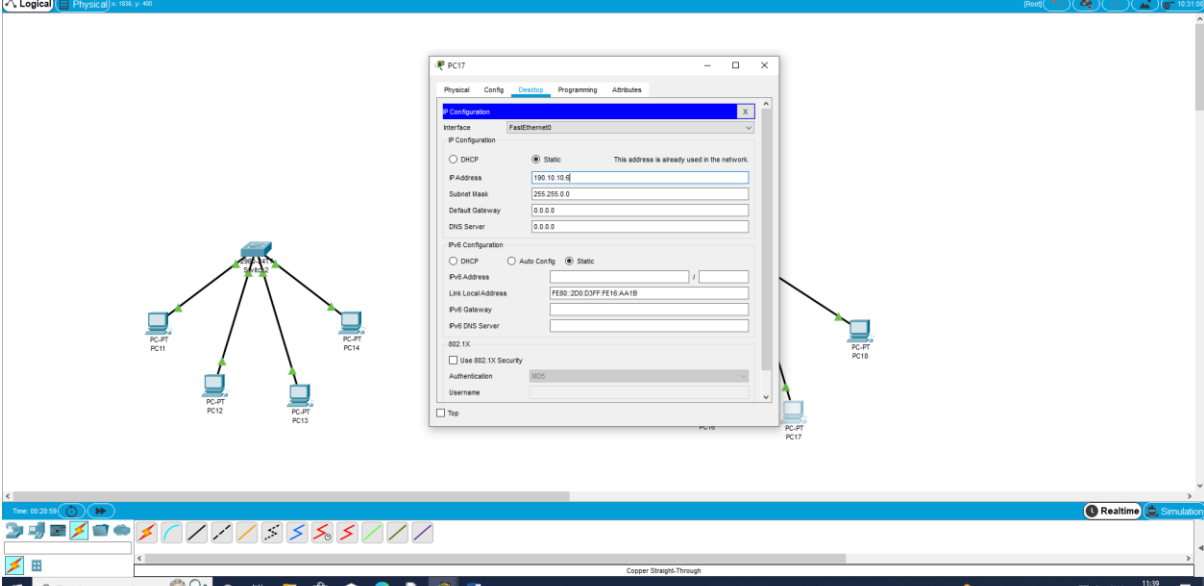
802.1X

☐ Use 802.1X Security

Authentication: MCS

Username: /

Top



Cisco Packet Tracer

Logical | Physical | 156 v 401

Time: 00:21:02 | Realtime | Simulation

PC18 Configuration

Physical Config **Config** Programming Attributes

Interface: FastEthernet0/24

IP Configuration

☐ DHCP ☒ Static

IP Address: 190.10.10.7

Subnet Mask: 255.255.0.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80:200:A3FF:FE52:90A7

IPv6 Gateway: /

IPv6 DNS Server: /

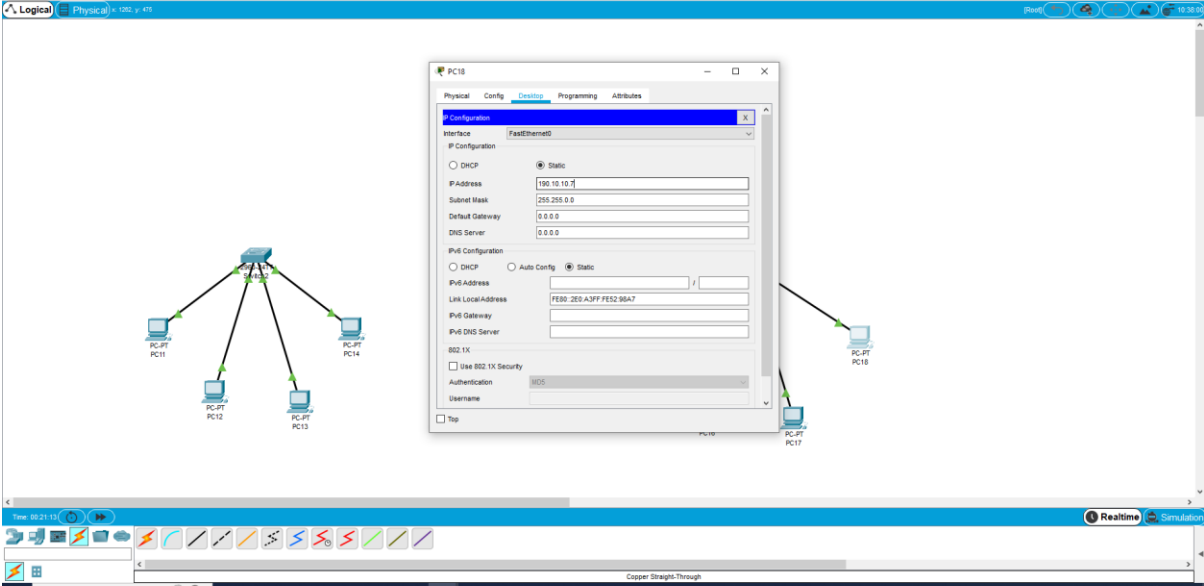
802.1X

☐ Use 802.1X Security

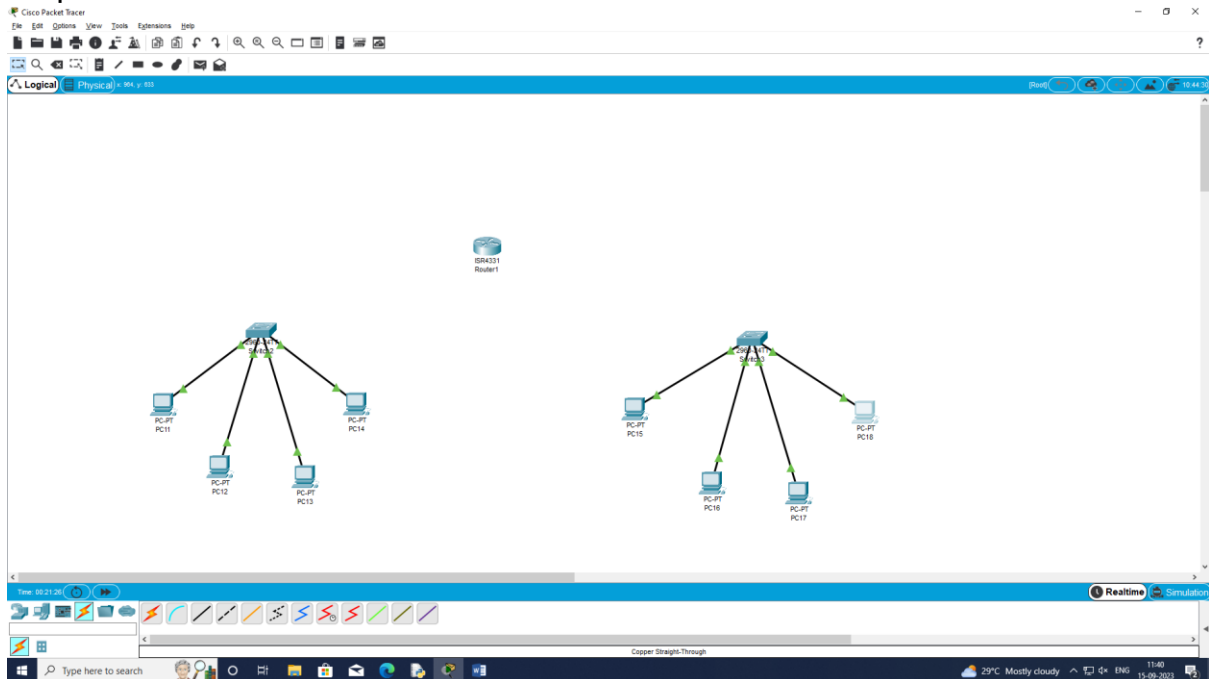
Authentication: MCS

Username: /

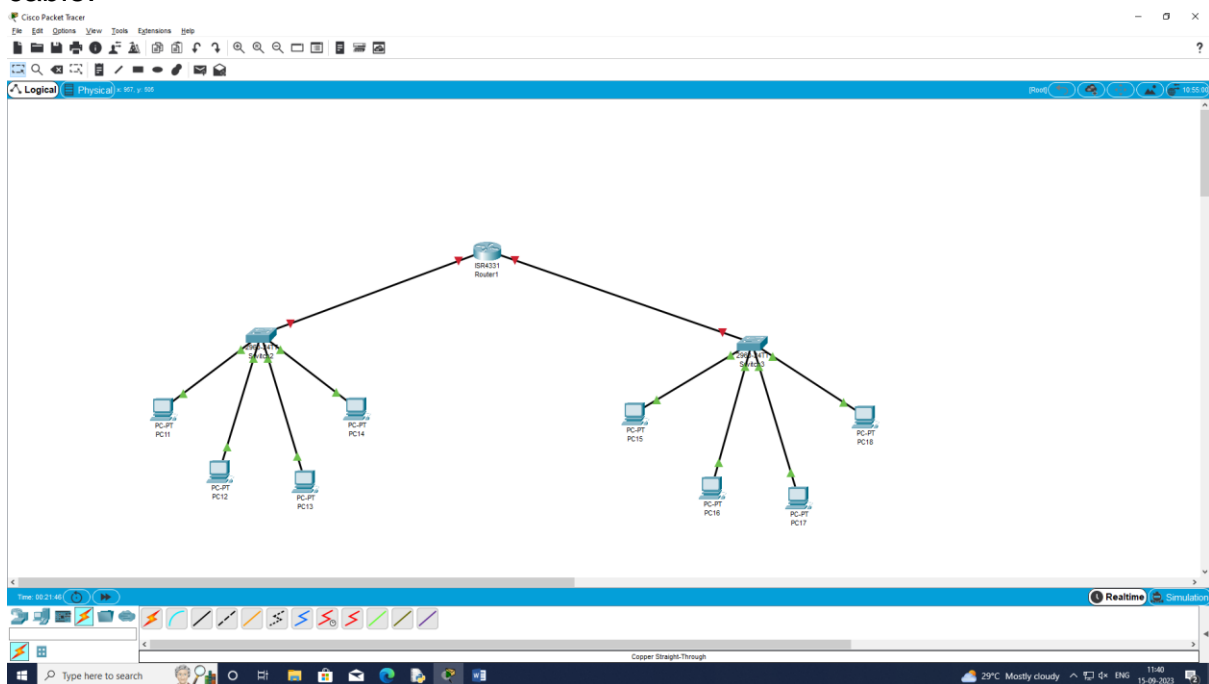
Top



Step 4: Select a router.



Step 5: Connect the router to the switches as shown through a straight through cable.



Step 6: Assign the default gateway to all the PC's

The image displays two screenshots of the Cisco Packet Tracer interface, illustrating the configuration of PC0 and PC1 in a network topology. The network consists of a central switch (S2413) connected to four PCs (PC0, PC1, PC2, PC3) and a router (R2413). The IP address 10.10.10.4 is shown on the network diagram.

Top Screenshot: PC0 Configuration

The configuration window for PC0 is shown, with the 'Config' tab selected. The 'P Configuration' section is expanded, showing the 'FastEthernet0' interface. The configuration is set to 'Static' IP. The IP Address is 10.10.10.0, Subnet Mask is 255.0.0.0, Default Gateway is 10.10.10.4, and DNS Server is 8.8.8.8. The IPv6 Configuration section is also visible, with 'Static' selected and Link Local Address set to FE80:200:2FFF:FECC:EDD4.

Bottom Screenshot: PC1 Configuration

The configuration window for PC1 is shown, with the 'Config' tab selected. The 'P Configuration' section is expanded, showing the 'FastEthernet0' interface. The configuration is set to 'Static' IP. The IP Address is 10.10.10.1, Subnet Mask is 255.0.0.0, Default Gateway is 10.10.10.4, and DNS Server is 8.8.8.8. The IPv6 Configuration section is also visible, with 'Static' selected and Link Local Address set to FE80:200:2FFF:FE1A:0009.

Cisco Packet Tracer

Logical Physical 100 x 30

PC3

Physical Config Desktop Programming Attributes

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 10.10.10.2

Subnet Mask 255.0.0.0

Default Gateway 10.10.10.4

DNS Server 8.8.8.8

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80:2E0:9FFF:FE2B:5162

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

Username

☐ Top

Time: 00:31:54.25X

PLAY CONTROLS

Event List Realtime Simulation

Copper Straight-Through

Type here to search

30°C Haze 12:11 15-09-2023

Cisco Packet Tracer

Logical Physical 100 x 30

PC3

Physical Config Desktop Programming Attributes

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 10.10.10.3

Subnet Mask 255.0.0.0

Default Gateway 10.10.10.4

DNS Server 8.8.8.8

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80:2E0:9FFF:FEAD:47C5

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

Username

☐ Top

Time: 00:31:54.25X

PLAY CONTROLS

Event List Realtime Simulation

Copper Straight-Through

Type here to search

30°C Haze 12:11 15-09-2023

Cisco Packet Tracer

Logical | Physical | 190 v 401

PC4

Physical Config Desktop Programming Attributes

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 190.10.10.4

Subnet Mask 255.0.0.0

Default Gateway 190.10.10.8

DNS Server 8.8.8.8

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80:200:FEF3:9C24

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

Username

Top

Time: 00:31:54.254

PLAY CONTROLS

Event List Realtime Simulation

Copper Straight-Through

Type here to search

30°C Haze 12:11 15-09-2023

Cisco Packet Tracer

Logical | Physical | 190 v 201

PC3

Physical Config Desktop Programming Attributes

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 190.10.10.5

Subnet Mask 255.0.0.0

Default Gateway 190.10.10.8

DNS Server 8.8.8.8

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80:200:CFF:FEBC:0D7B

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

Username

Top

Time: 00:31:54.261

PLAY CONTROLS

Event List Realtime Simulation

Copper Straight-Through

Type here to search

30°C Haze 12:11 15-09-2023

Cisco Packet Tracer

Logical | Physical | 100% | 100

Time: 00:31:54.254 | Play Controls | Event List | Realtime | Simulation

Copper Straight-Through

30°C | Haze | 12:12 | 15-09-2023

PC4
PC3
PC2
PC1

10.10.10.4

R1
Router0

PC Configuration

Interface: FastEthernet0/0

IP Configuration

☐ DHCP ☒ Static

IP Address: 190.10.10.6

Subnet Mask: 255.0.0.0

Default Gateway: 190.10.10.8

DNS Server: 8.8.8.8

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address:

Link Local Address: FE80::340:BFF:FE3D:5C8C

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication:

Username:

☐ Top

Cisco Packet Tracer

Logical | Physical | 100% | 401

Time: 00:31:54.254 | Play Controls | Event List | Realtime | Simulation

Copper Straight-Through

30°C | Haze | 12:12 | 15-09-2023

PC4
PC3
PC2
PC1

10.10.10.4

R1
Router0

PC Configuration

Interface: FastEthernet0/0

IP Configuration

☐ DHCP ☒ Static

IP Address: 190.10.10.7

Subnet Mask: 255.0.0.0

Default Gateway: 190.10.10.8

DNS Server: 8.8.8.8

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address:

Link Local Address: FE80::209:BCFF:FE34:574D

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication:

Username:

☐ Top

Step 7: Assign the IP address to the port of the router in the range of the default gateway of the respective PC's.

The image displays two screenshots from the Cisco Packet Tracer interface, showing the configuration of Router1. The network topology includes a central router connected to several PCs (PC11, PC12, PC13, PC14, PC17, PC18).

Top Screenshot: The configuration window for Router1 is open, showing the configuration for the GigabitEthernet0/0/0 interface. The IP address is set to 10.10.10.4 and the subnet mask is 255.0.0.0. The equivalent IOS commands are listed below:

```

Enter configuration commands, one per line. End with CNTL/Z.
Router1(config)#interface GigabitEthernet0/0/0
Router1(config-if)#ip address 10.10.10.4 255.0.0.0
Router1(config-if)#no shutdown

```

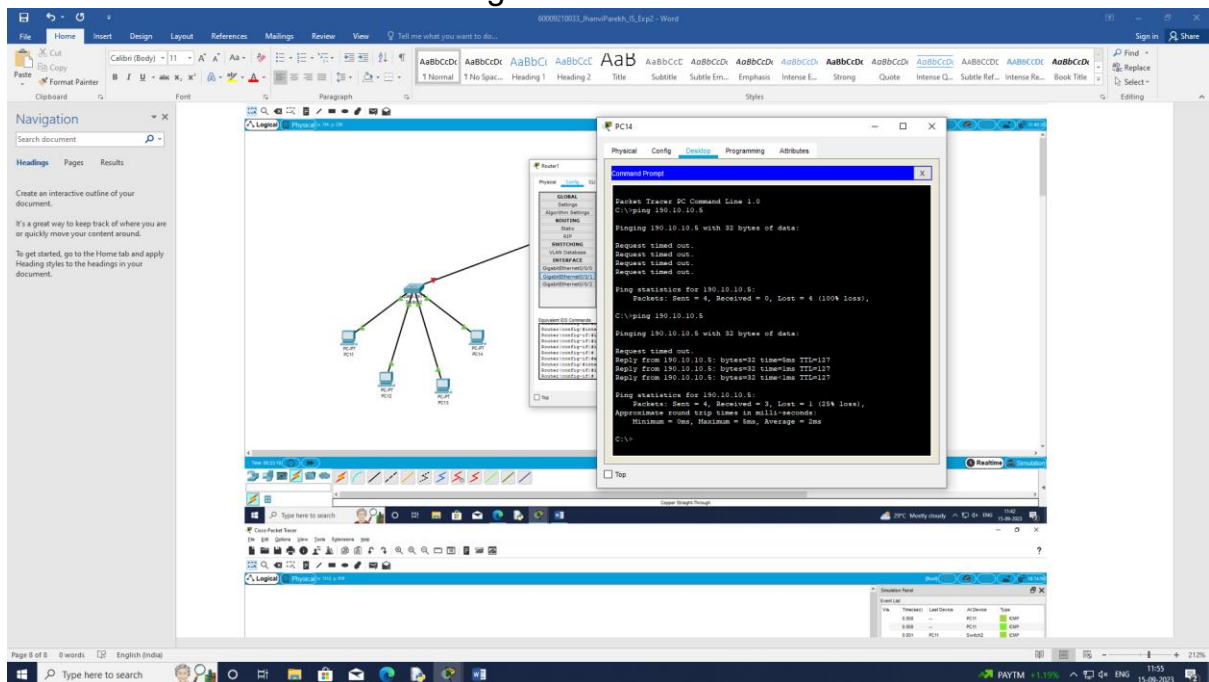
Bottom Screenshot: The configuration window for Router1 is open, showing the configuration for the GigabitEthernet0/0/1 interface. The IP address is set to 190.10.10.1 and the subnet mask is 255.255.0.0. The equivalent IOS commands are listed below:

```

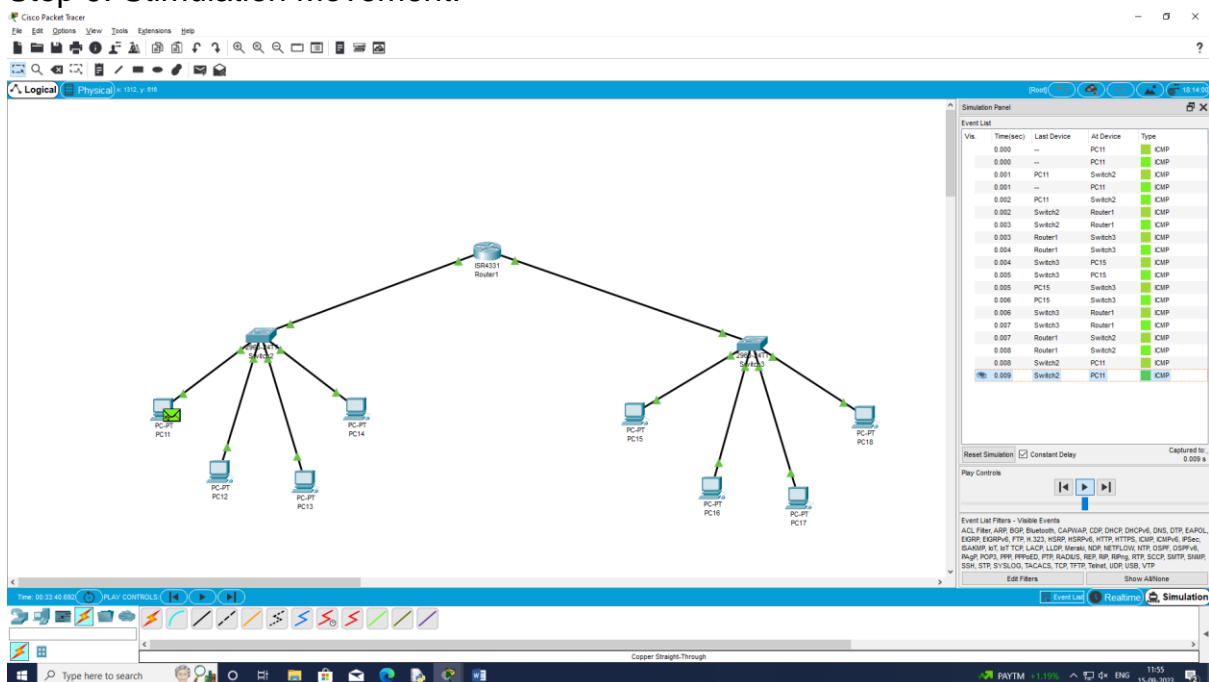
Enter configuration commands, one per line. End with CNTL/Z.
Router1(config)#interface GigabitEthernet0/0/0
Router1(config-if)#ip address 10.10.10.4 255.0.0.0
Router1(config-if)#no shutdown
Router1(config)#interface GigabitEthernet0/0/1
Router1(config-if)#ip address 190.10.10.1 255.255.0.0
Router1(config-if)#no shutdown

```

Step 8: Ping the message in the command prompt of anyone PC's of a range 10.10.10.4 to the PC's of the range 190.10.10.8.

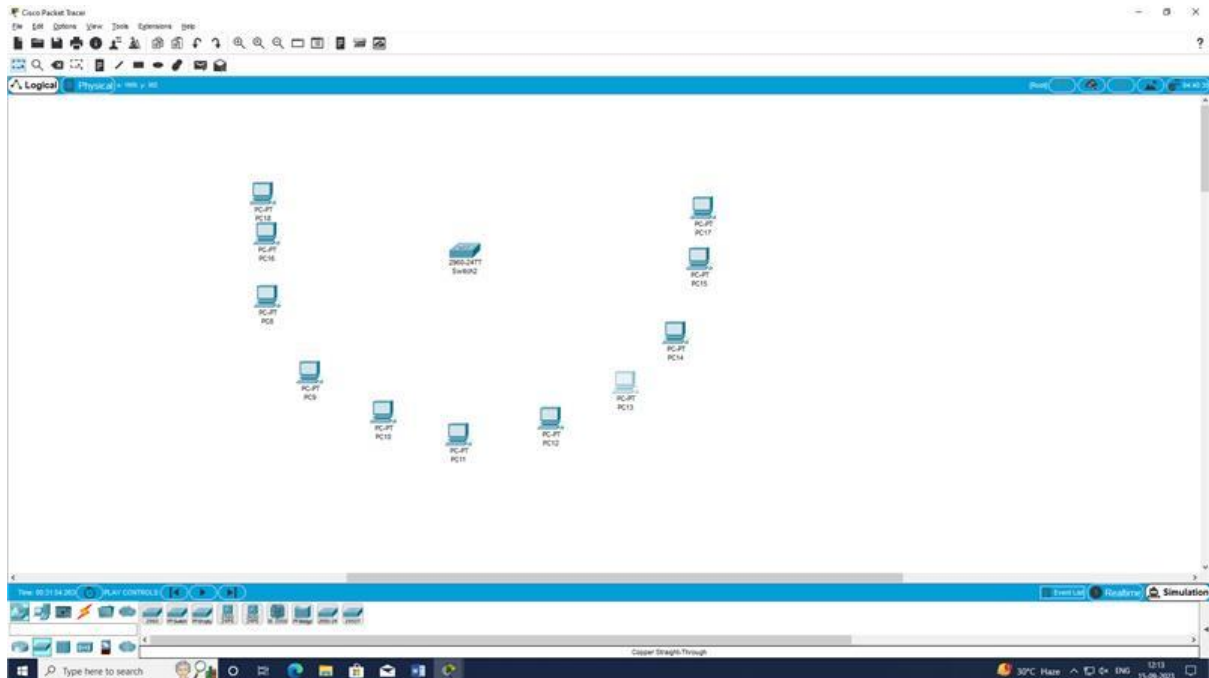


Step 9: Stimulation Movement.

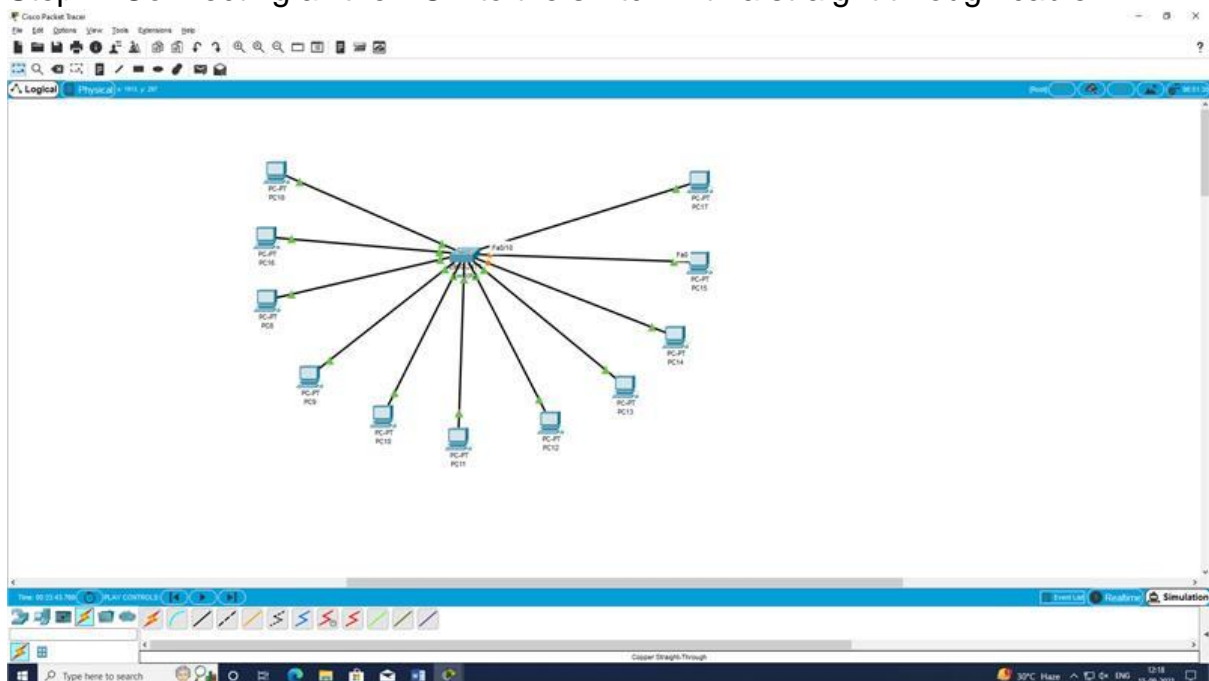


SWITCH

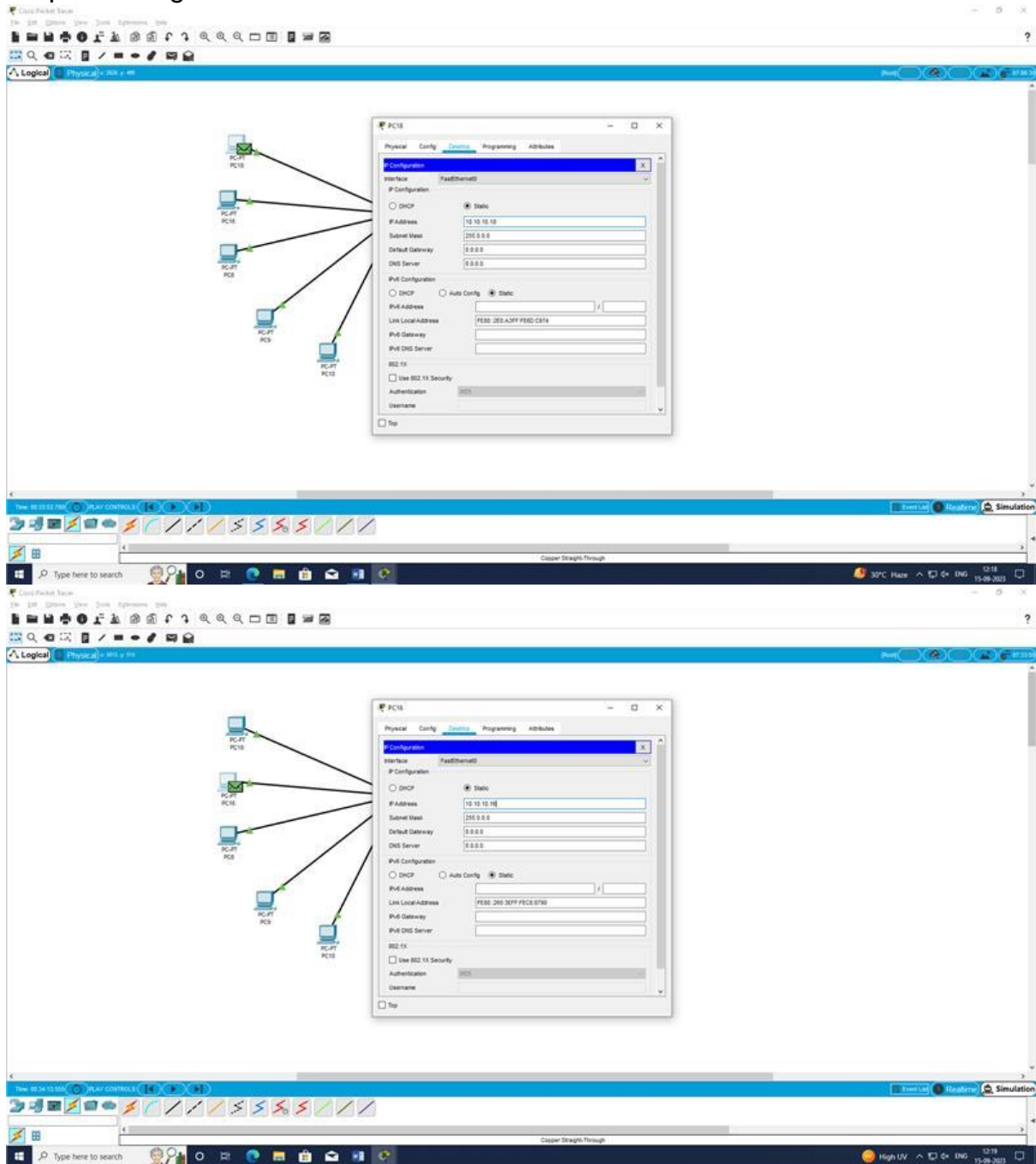
Step 1: Selecting 11 PC's and a switch.

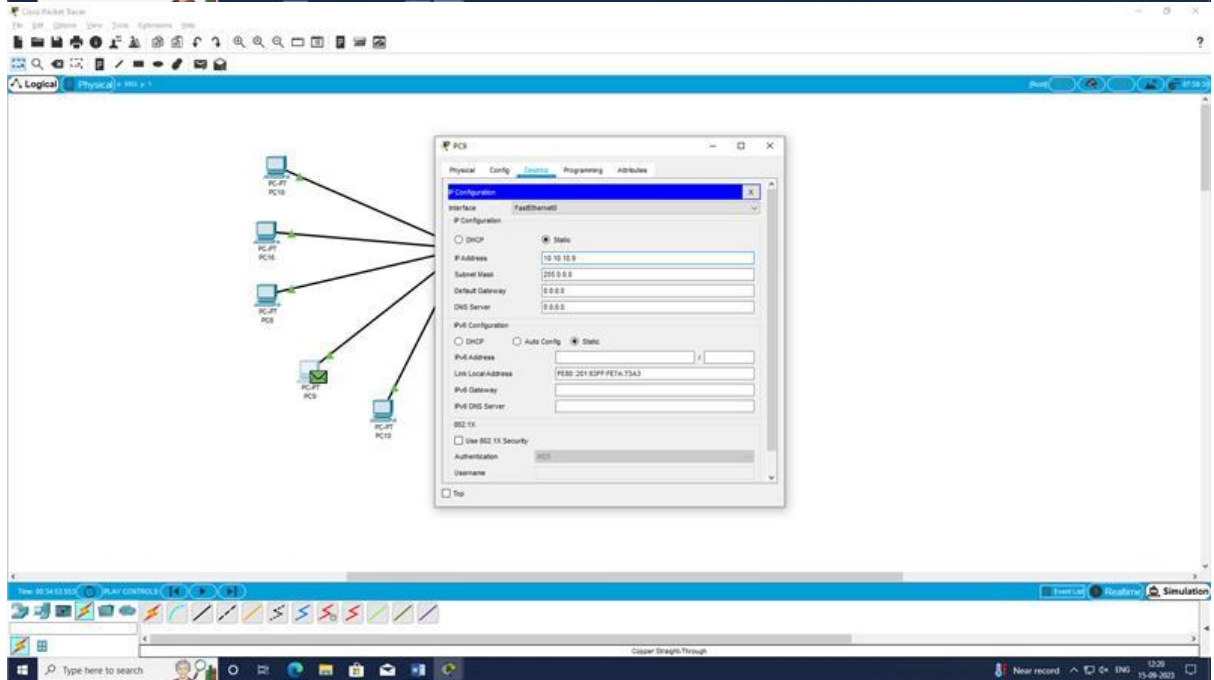
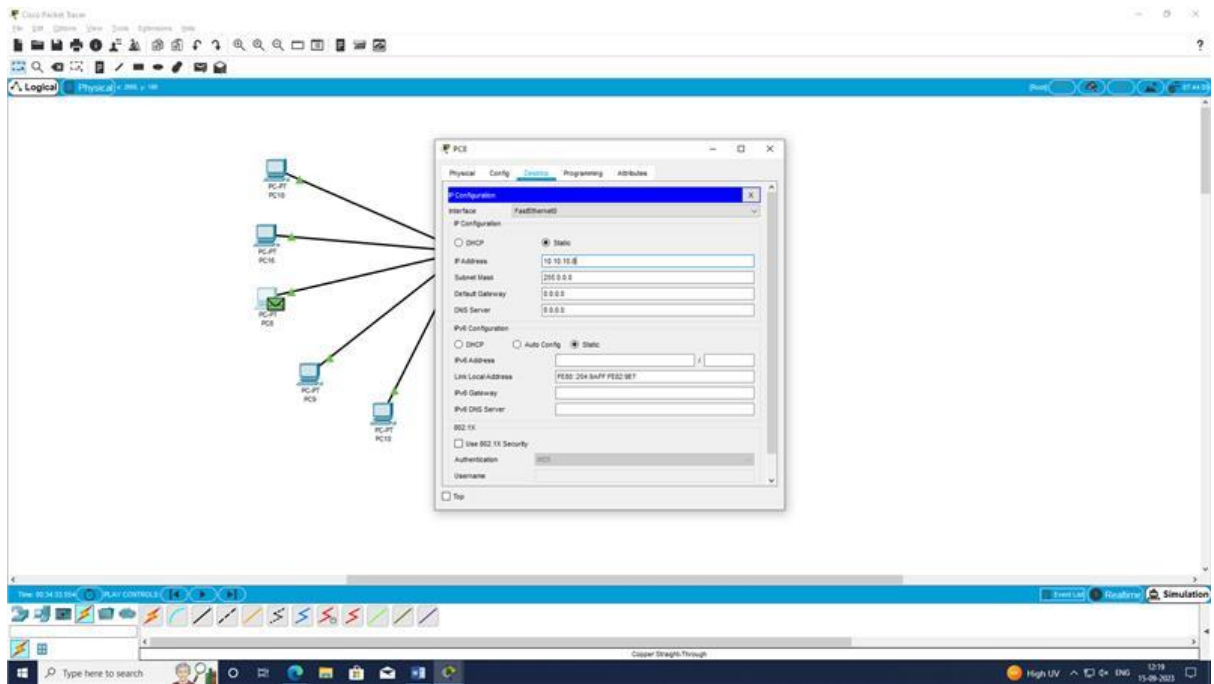


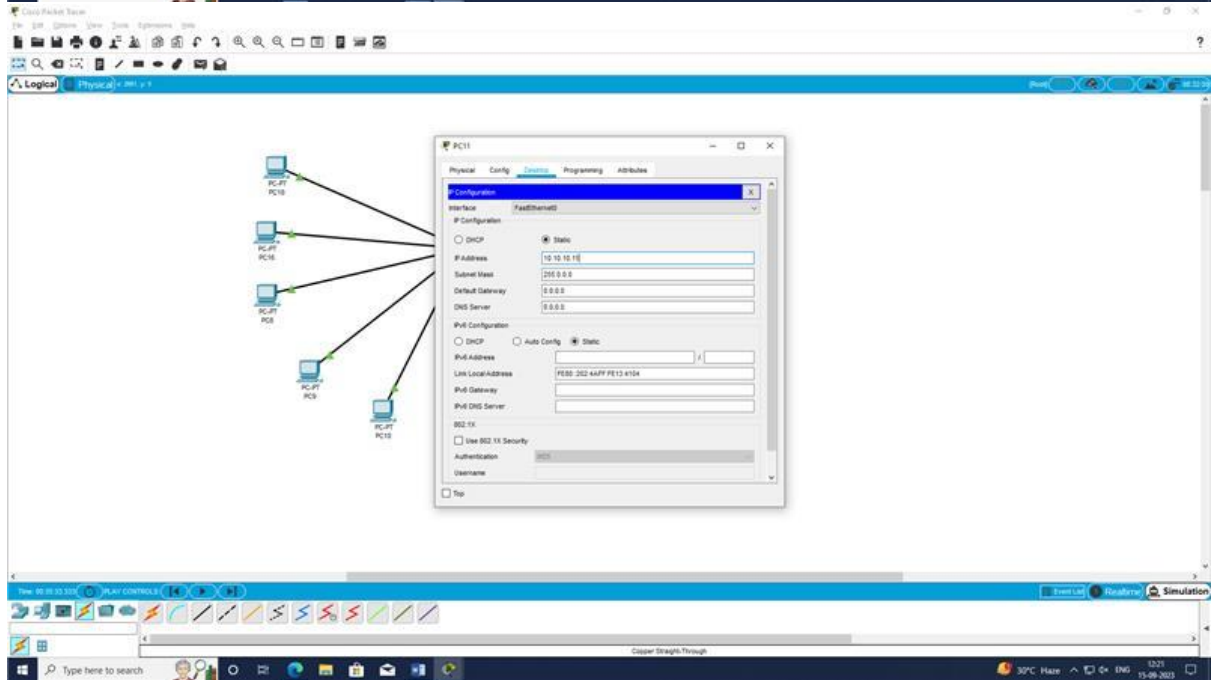
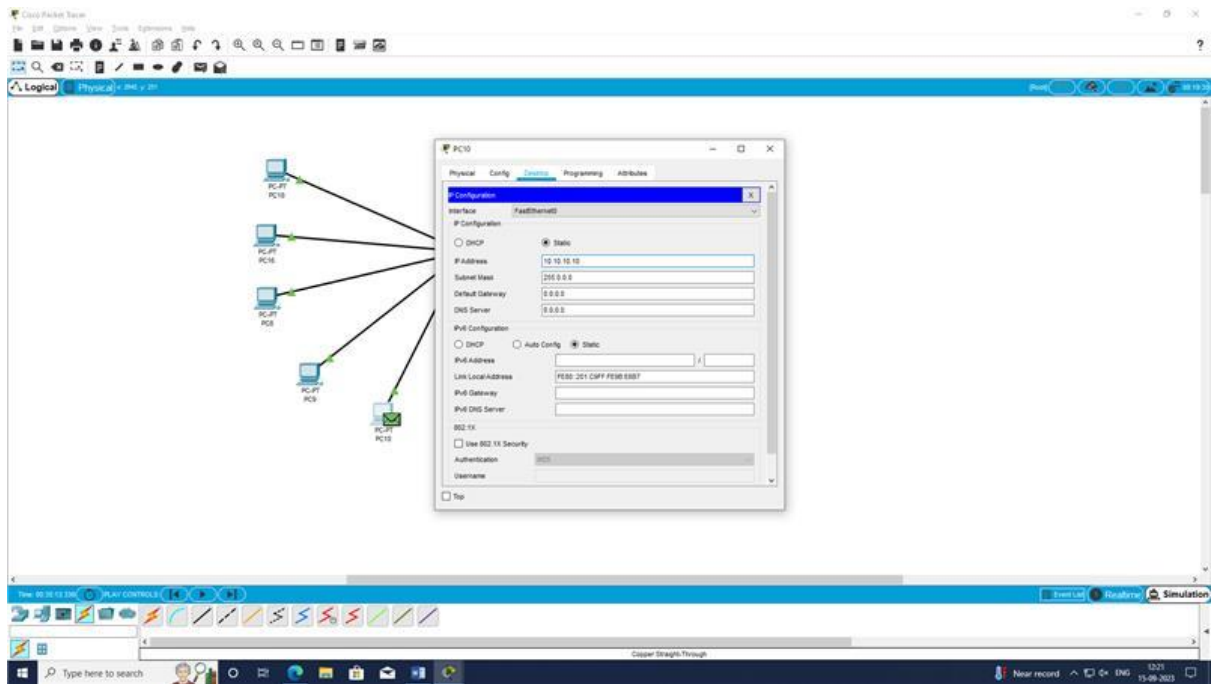
Step 2: Connecting all the PC's to the switch with a straight through cable.

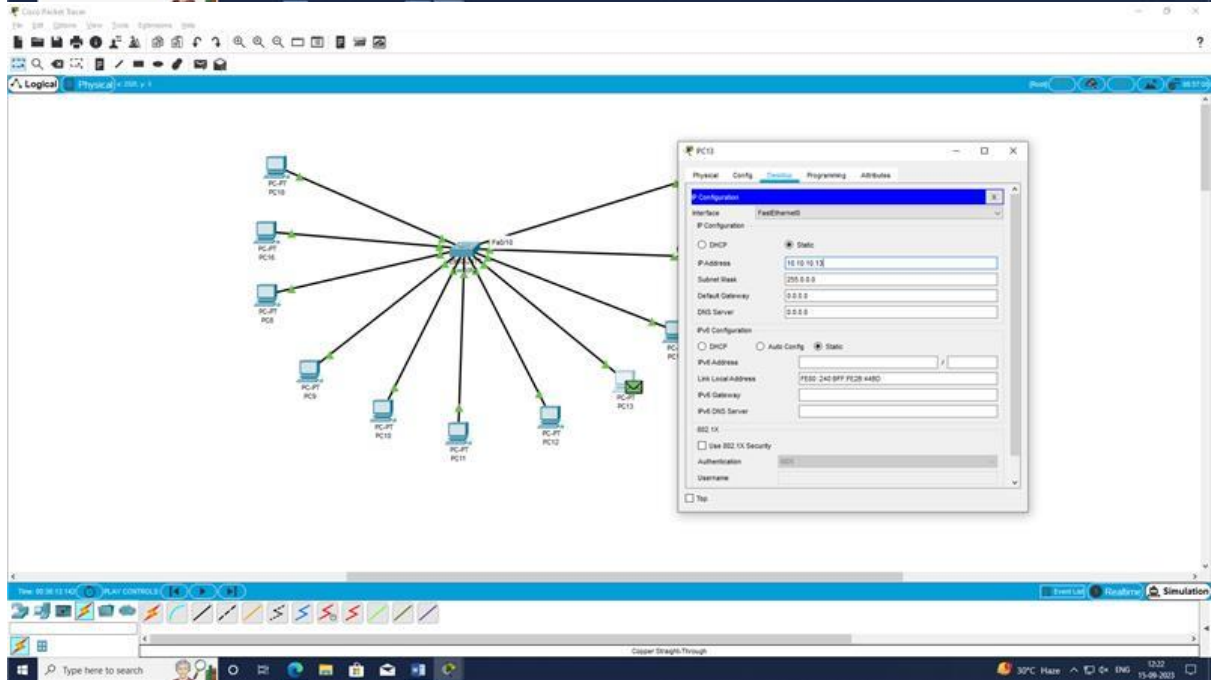
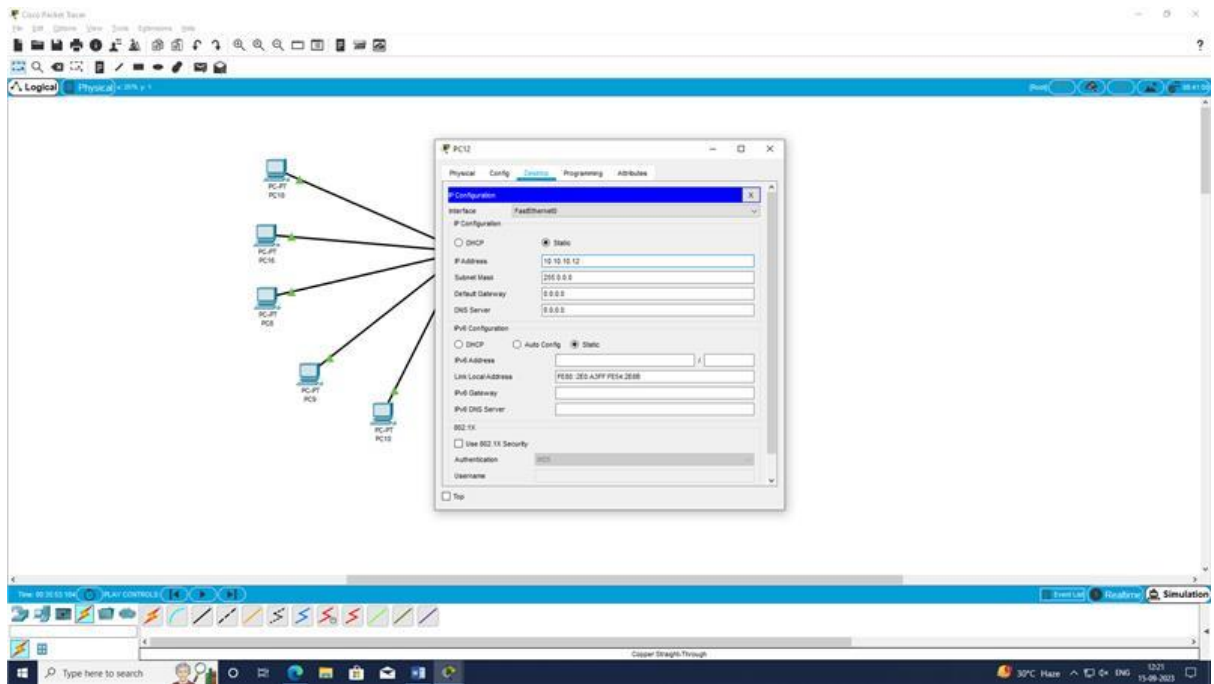


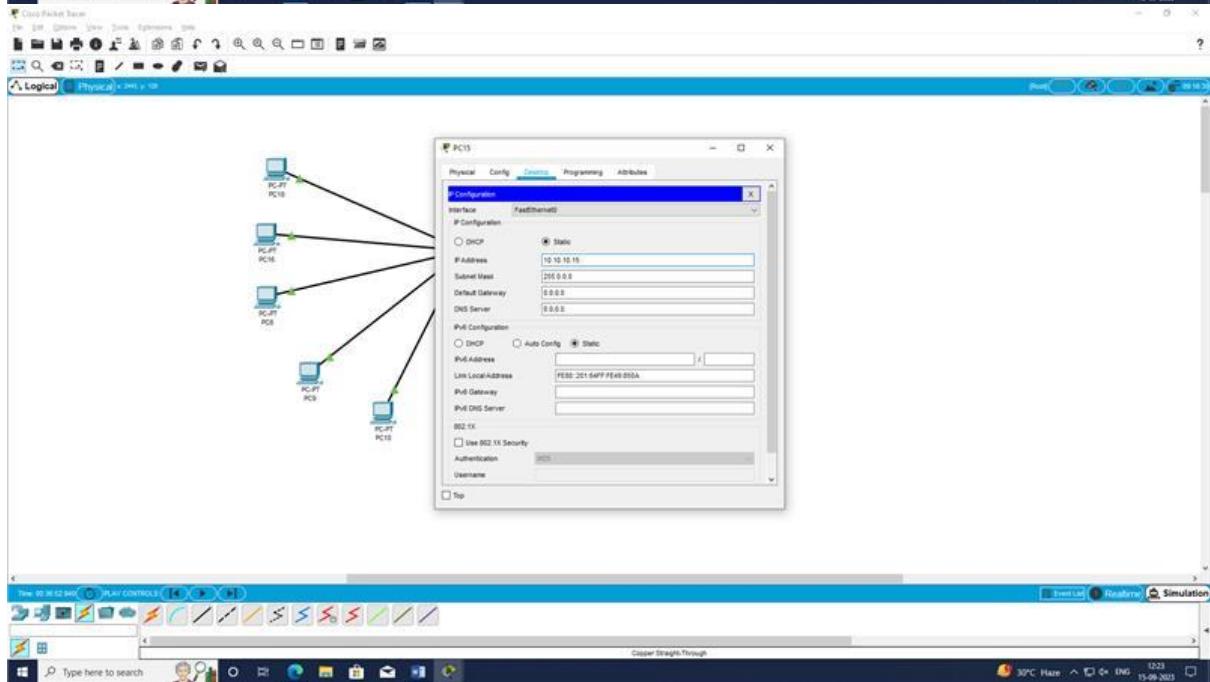
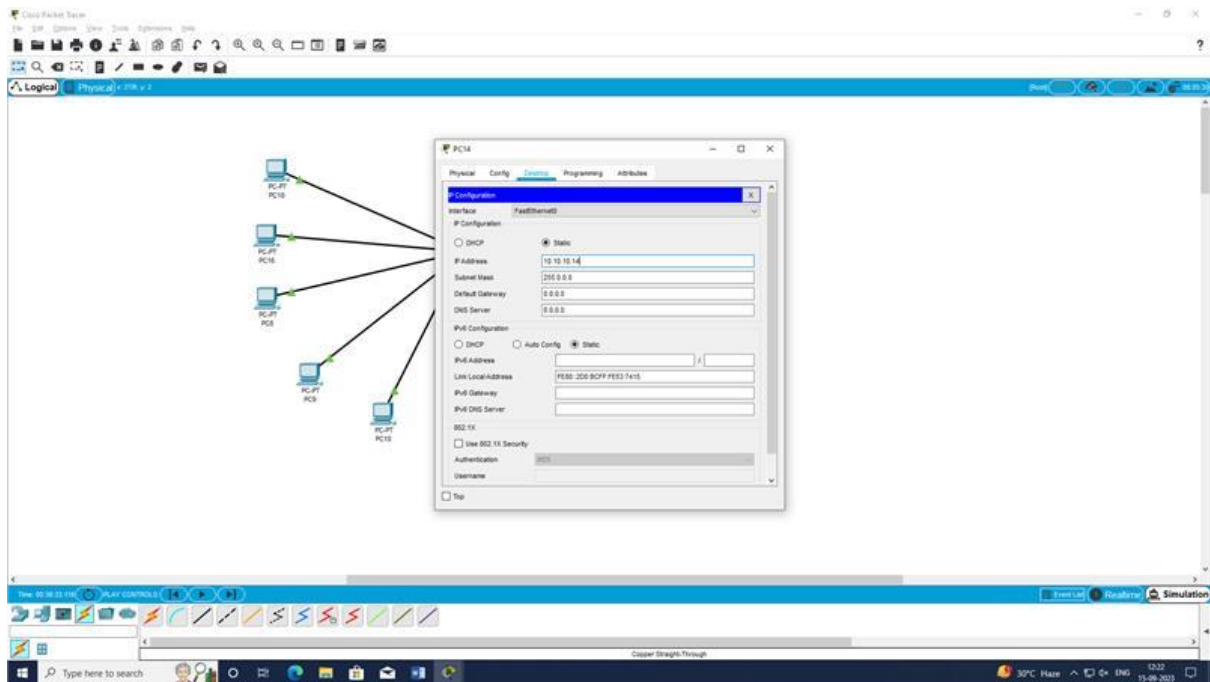
Step 3: Giving IP address to all the 11 PC's.

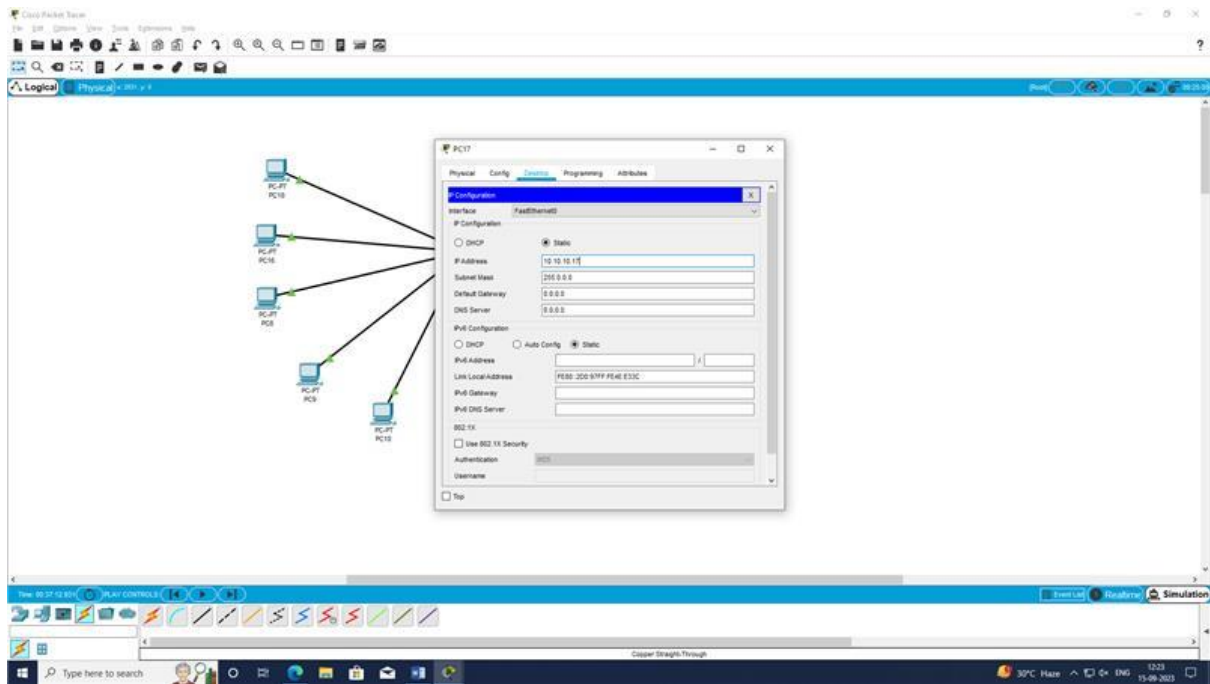












[illegible]

The screenshot displays the Cisco Packet Tracer software interface. The main workspace shows a network topology with a central switch (Switch2) connected to 16 PCs (PC1 through PC16). The PCs are arranged in a circular pattern around the switch. The interface includes a top menu bar with options like File, Edit, Options, View, Tools, and Extensions. Below the menu is a toolbar with various icons for network configuration. The bottom status bar shows the time as 00:07:00, the simulation status as 'Running', and the current time as 00:07:00. The Event List panel on the right side of the interface shows a list of events, including 'Switch2' and 'PC16', with columns for Time, Location, and Type. The Event List panel also includes a 'Play Controls' section with buttons for 'Play', 'Pause', and 'Stop', and a 'Simulation' button at the bottom right.