

BCSE308P COMPUTER NETWORKS

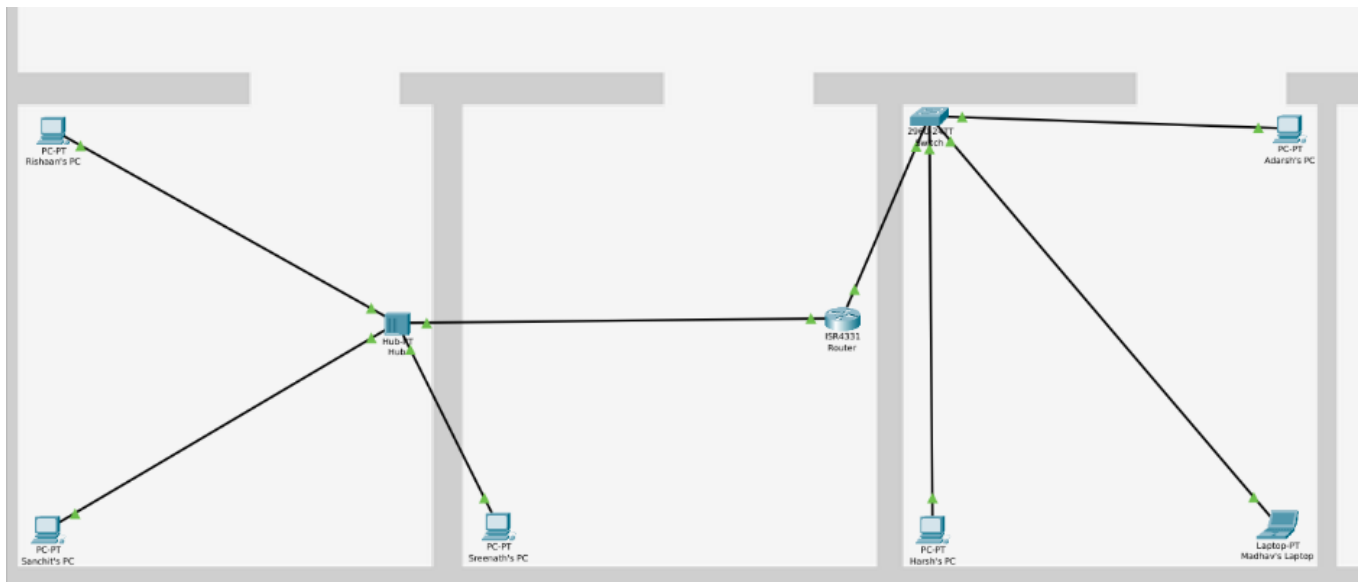
ASSIGNMENT

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REG. NO.: 21BPS1394

CISCO PACKET TRACER NETWORKS

LAN Network Consisting of Hub and Switch



Node 1 IP Configuration

The screenshot shows the 'IP Configuration' window for 'Rishaan's PC'. The window has tabs for 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes'. The 'Desktop' tab is selected. Under 'IP Configuration', the 'Interface' is 'FastEthernet0'. The 'DHCP' radio button is unselected, and the 'Static' radio button is selected. The fields are filled with: IPv4 Address: 13.0.0.3, Subnet Mask: 255.0.0.0, Default Gateway: 13.0.0.1, and DNS Server: 0.0.0.0. Under 'IPv6 Configuration', the 'Automatic' radio button is unselected, and the 'Static' radio button is selected. The fields are filled with: IPv6 Address: (empty), Link Local Address: FE80::260:2FFF:FE92:583D, Default Gateway: (empty), and DNS Server: (empty). Under '802.1X', the 'Use 802.1X Security' checkbox is unselected. The 'Authentication' dropdown is set to 'MD5'. The 'Username' and 'Password' fields are empty. A 'Top' button is at the bottom left.

Node 2 IP Configuration

The screenshot shows the 'Sanchit's PC' configuration window with the 'Desktop' tab selected. The 'IP Configuration' section is highlighted in blue. The 'Interface' dropdown is set to 'FastEthernet0'. Under 'IP Configuration', the 'Static' radio button is selected. The fields are filled with: IPv4 Address: 13.0.0.4, Subnet Mask: 255.0.0.0, Default Gateway: 13.0.0.1, and DNS Server: 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is selected. The fields are: IPv6 Address (empty), Link Local Address: FE80::2D0:FFFF:EEEE:C757, Default Gateway (empty), and DNS Server (empty). The '802.1X' section has 'Use 802.1X Security' unchecked, 'Authentication' set to 'MD5', and 'Username' and 'Password' fields empty. A 'Top' button is at the bottom left.

IP Configuration	
Interface: FastEthernet0	
IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IPv4 Address	13.0.0.4
Subnet Mask	255.0.0.0
Default Gateway	13.0.0.1
DNS Server	0.0.0.0
IPv6 Configuration	
<input type="radio"/> Automatic	<input checked="" type="radio"/> Static
IPv6 Address	
Link Local Address	FE80::2D0:FFFF:EEEE:C757
Default Gateway	
DNS Server	
802.1X	
<input type="checkbox"/> Use 802.1X Security	
Authentication	MD5
Username	
Password	
<input type="checkbox"/> Top	

Node 3 IP Configuration

The screenshot shows the 'Sreenath's PC' configuration window with the 'Desktop' tab selected. The 'IP Configuration' section is highlighted in blue. The 'Interface' dropdown is set to 'FastEthernet0'. Under 'IP Configuration', the 'Static' radio button is selected. The fields are filled with: IPv4 Address: 13.0.0.2, Subnet Mask: 255.0.0.0, Default Gateway: 13.0.0.1, and DNS Server: 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is selected. The fields are: IPv6 Address (empty), Link Local Address: FE80::20C:CFFF:FED8:162C, Default Gateway (empty), and DNS Server (empty). The '802.1X' section has 'Use 802.1X Security' unchecked, 'Authentication' set to 'MD5', and 'Username' and 'Password' fields empty. A 'Top' button is at the bottom left.

IP Configuration	
Interface: FastEthernet0	
IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IPv4 Address	13.0.0.2
Subnet Mask	255.0.0.0
Default Gateway	13.0.0.1
DNS Server	0.0.0.0
IPv6 Configuration	
<input type="radio"/> Automatic	<input checked="" type="radio"/> Static
IPv6 Address	
Link Local Address	FE80::20C:CFFF:FED8:162C
Default Gateway	
DNS Server	
802.1X	
<input type="checkbox"/> Use 802.1X Security	
Authentication	MD5
Username	
Password	
<input type="checkbox"/> Top	

Router (Sub-network 1) IP Configuration

The screenshot shows the 'Router' configuration window with the 'Config' tab selected. The left sidebar lists various configuration categories: GLOBAL, Settings, Algorithm Settings, ROUTING, Static, RIP, SWITCHING, VLAN Database, and INTERFACE. Under the INTERFACE section, 'GigabitEthernet0/0/0' is selected. The main configuration area for 'GigabitEthernet0/0/0' includes: Port Status (checked On), Bandwidth (100 Mbps selected), Duplex (Full Duplex selected), MAC Address (0060.5C72.DD01), IP Configuration (IPv4 Address: 12.0.0.1, Subnet Mask: 255.0.0.0), and Tx Ring Limit (10). Below this, the 'Equivalent IOS Commands' section shows a terminal session starting with 'Router>enable' and 'Router#configure terminal', followed by the configuration commands for the selected interface.

Router

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0/0

GigabitEthernet0/0/1

GigabitEthernet0/0/2

GigabitEthernet0/0/0

Port Status ☒ On

Bandwidth ☐ 1000 Mbps ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0060.5C72.DD01

IP Configuration

IPv4 Address 12.0.0.1

Subnet Mask 255.0.0.0

Tx Ring Limit 10

Equivalent IOS Commands

Press RETURN to get started!

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface GigabitEthernet0/0/0
Router(config-if)#
```

☐ Top

Router (Sub-network 2) IP Configuration

The screenshot shows the 'Router' configuration window with the 'Config' tab selected. The left sidebar is the same as the previous window. Under the INTERFACE section, 'GigabitEthernet0/0/1' is selected. The main configuration area for 'GigabitEthernet0/0/1' includes: Port Status (checked On), Bandwidth (100 Mbps selected), Duplex (Half Duplex selected), MAC Address (0060.5C72.DD02), IP Configuration (IPv4 Address: 13.0.0.1, Subnet Mask: 255.0.0.0), and Tx Ring Limit (10). Below this, the 'Equivalent IOS Commands' section shows a terminal session starting with 'Router>enable' and 'Router#configure terminal', followed by the configuration commands for the selected interface, including an 'exit' command to return to the global configuration mode.

Router

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0/0

GigabitEthernet0/0/1

GigabitEthernet0/0/2

GigabitEthernet0/0/0

GigabitEthernet0/0/1

GigabitEthernet0/0/2

Port Status ☒ On

Bandwidth ☐ 1000 Mbps ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☒ Half Duplex ☐ Full Duplex ☒ Auto

MAC Address 0060.5C72.DD02

IP Configuration

IPv4 Address 13.0.0.1

Subnet Mask 255.0.0.0

Tx Ring Limit 10

Equivalent IOS Commands

Press RETURN to get started!

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface GigabitEthernet0/0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0/1
Router(config-if)#
```

☐ Top

Node 4 IP Configuration

The screenshot shows the 'IP Configuration' window for 'Adarsh's PC'. The window has tabs for 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes', with 'Desktop' selected. The 'Interface' dropdown is set to 'FastEthernet0'. The 'IP Configuration' section has 'Static' selected, with fields for IPv4 Address (12.0.0.2), Subnet Mask (255.0.0.0), Default Gateway (12.0.0.1), and DNS Server (0.0.0.0). The 'IPv6 Configuration' section has 'Static' selected, with fields for IPv6 Address, Link Local Address (FE80::201:64FF:FE66:8AD5), Default Gateway, and DNS Server. The '802.1X' section has 'Use 802.1X Security' unchecked, with fields for Authentication (MD5), Username, and Password. A 'Top' button is at the bottom left.

Adarsh's PC

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 12.0.0.2

Subnet Mask 255.0.0.0

Default Gateway 12.0.0.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::201:64FF:FE66:8AD5

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

☐ Top

Node 5 IP Configuration

The screenshot shows the 'IP Configuration' window for 'Madhav's Laptop'. The window has tabs for 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes', with 'Desktop' selected. The 'Interface' dropdown is set to 'FastEthernet0'. The 'IP Configuration' section has 'Static' selected, with fields for IPv4 Address (12.0.0.3), Subnet Mask (255.0.0.0), Default Gateway (12.0.0.1), and DNS Server (0.0.0.0). The 'IPv6 Configuration' section has 'Static' selected, with fields for IPv6 Address, Link Local Address (FE80::20C:85FF:FETB:ABA6), Default Gateway, and DNS Server. The '802.1X' section has 'Use 802.1X Security' unchecked, with fields for Authentication (MD5), Username, and Password. A 'Top' button is at the bottom left.

Madhav's Laptop

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 12.0.0.3

Subnet Mask 255.0.0.0

Default Gateway 12.0.0.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::20C:85FF:FETB:ABA6

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

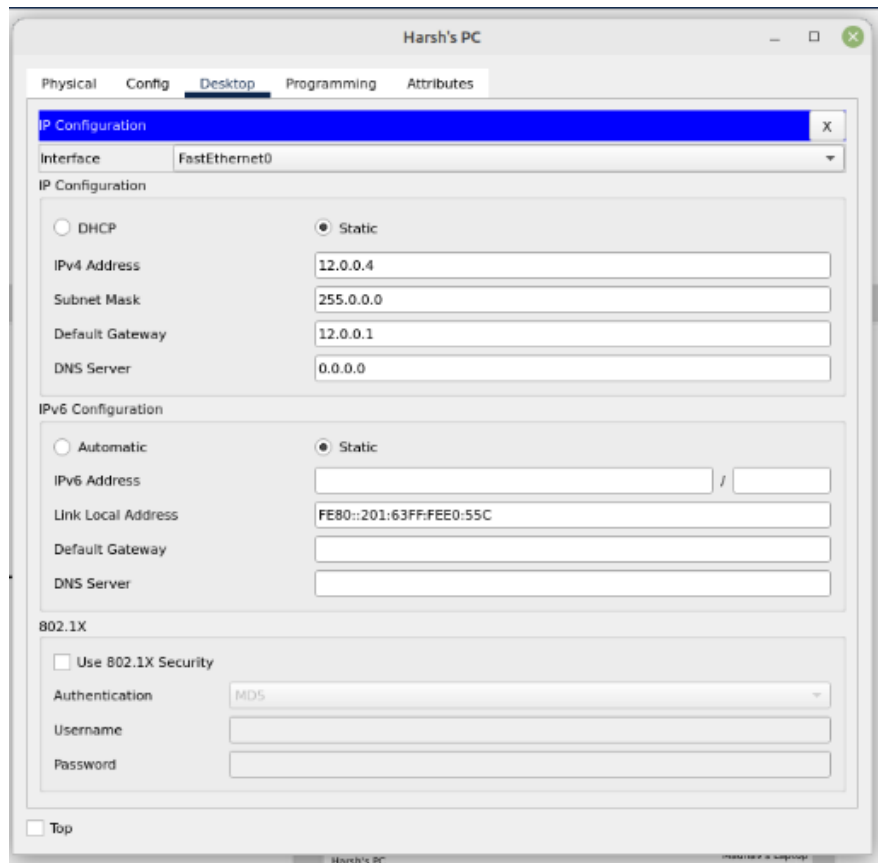
Authentication MD5

Username

Password

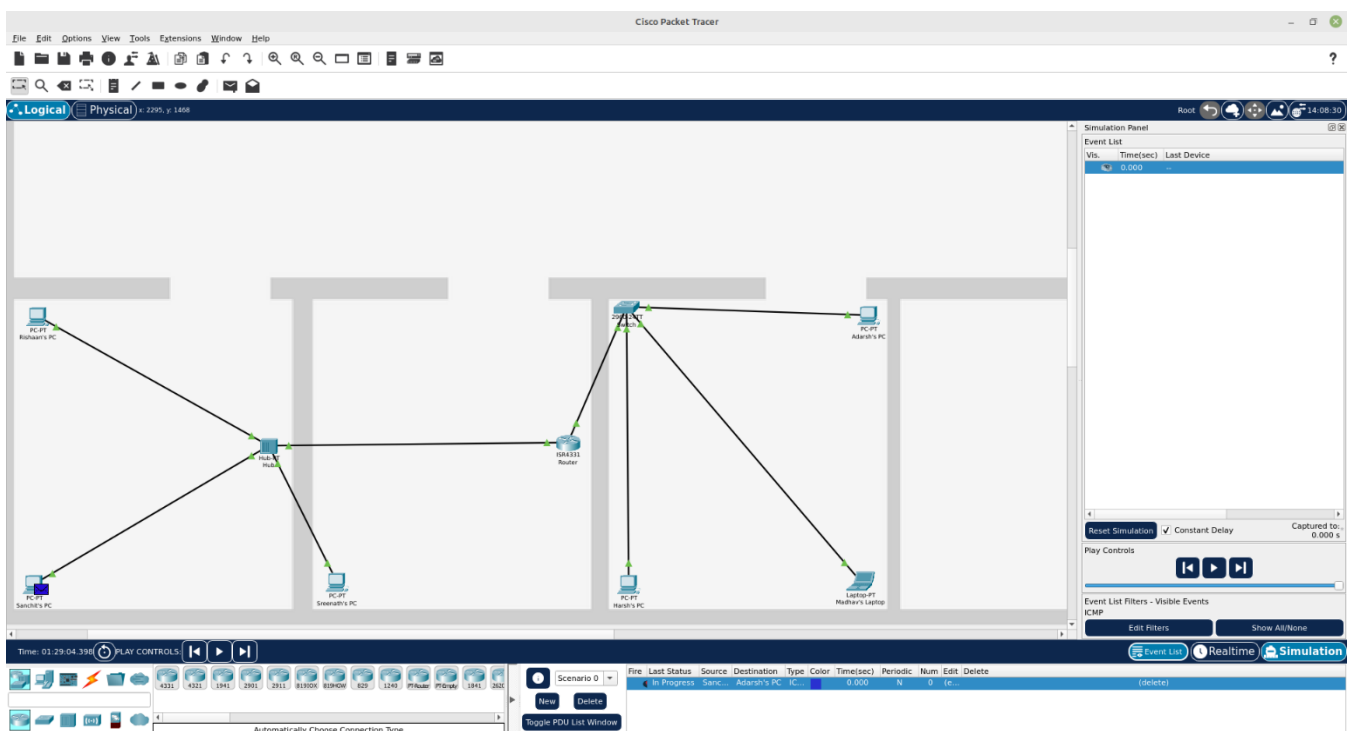
☐ Top

Node 6 IP Configuration

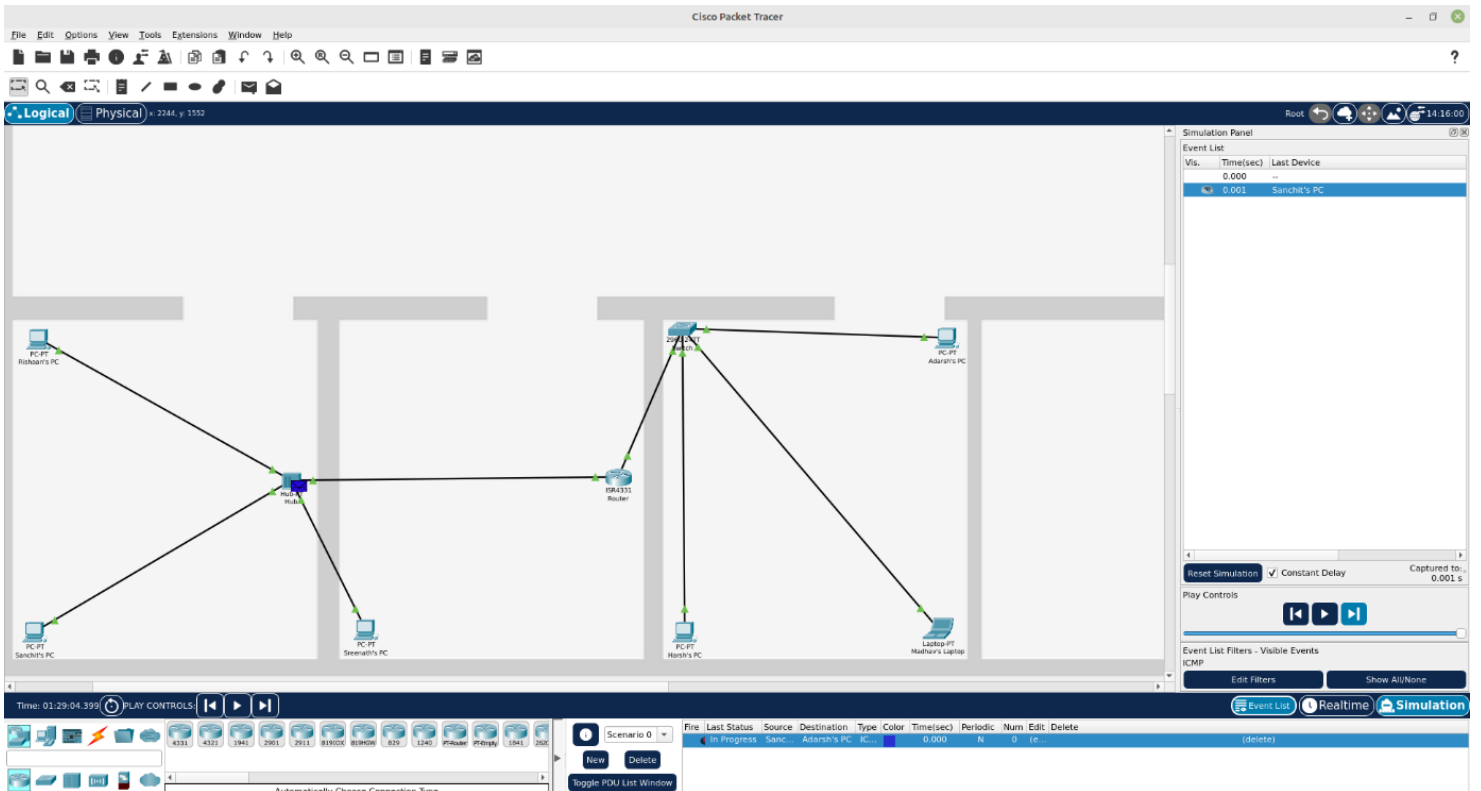


Simple Packet Transfer from Node 2 to Node 4

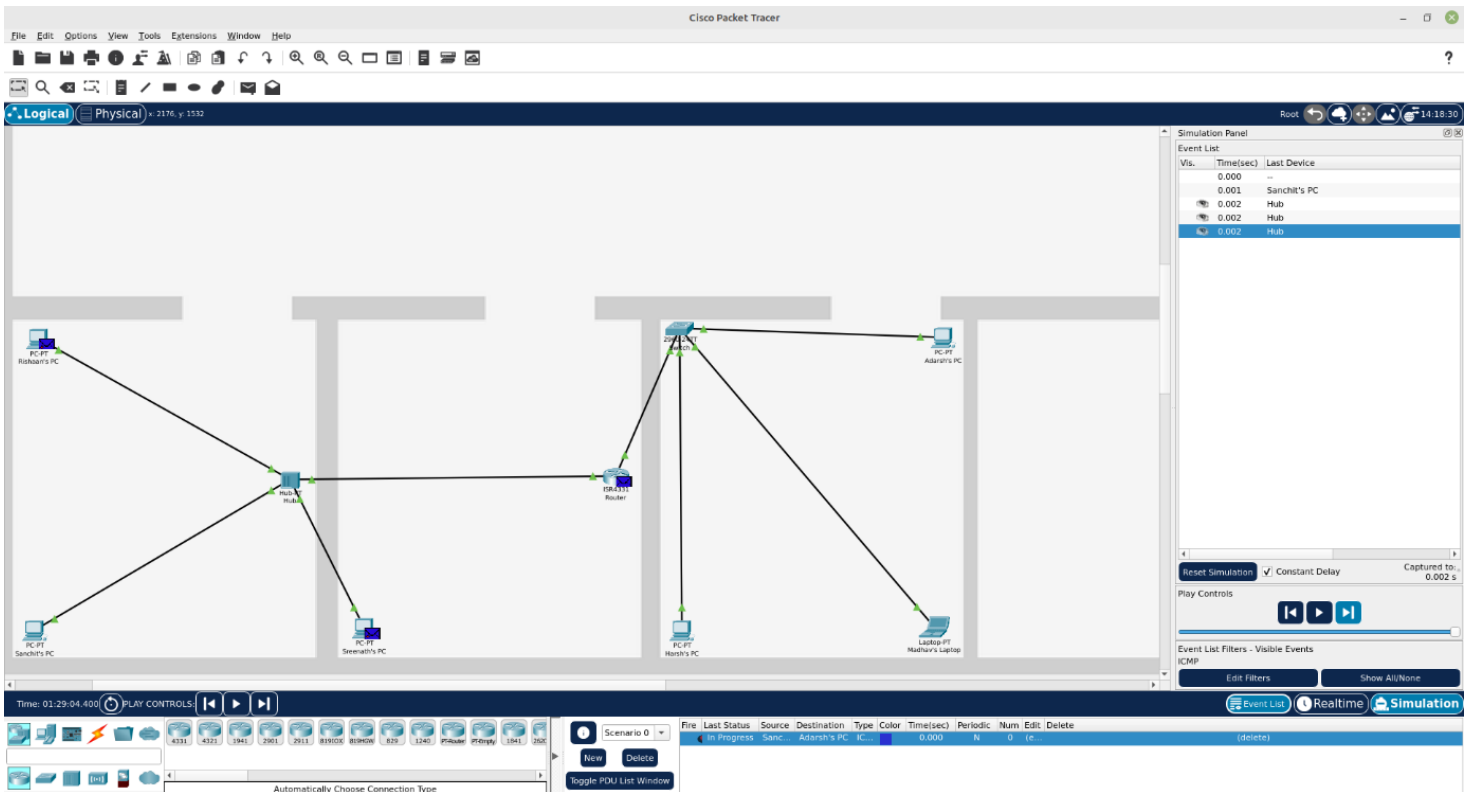
Step 1



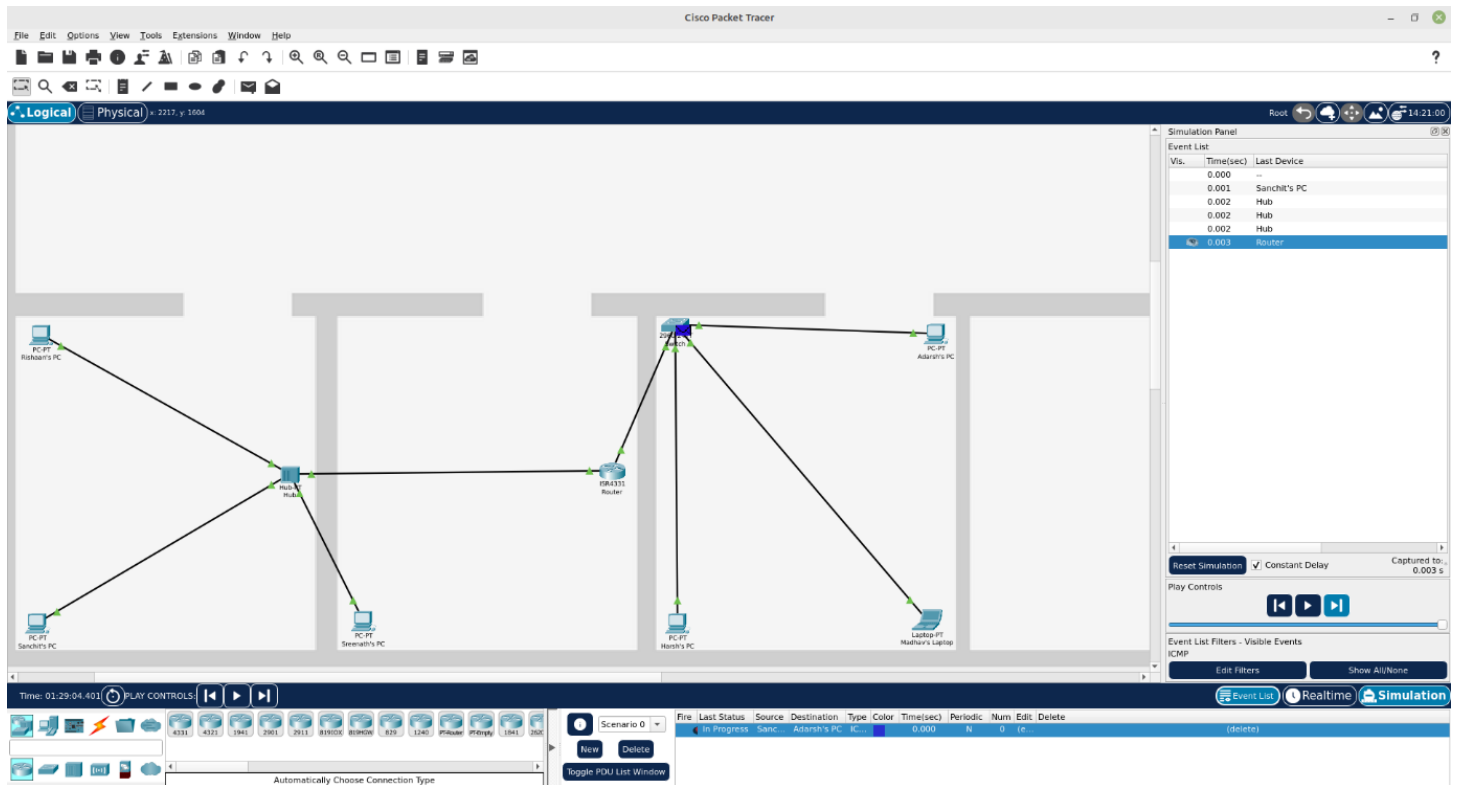
Step 2



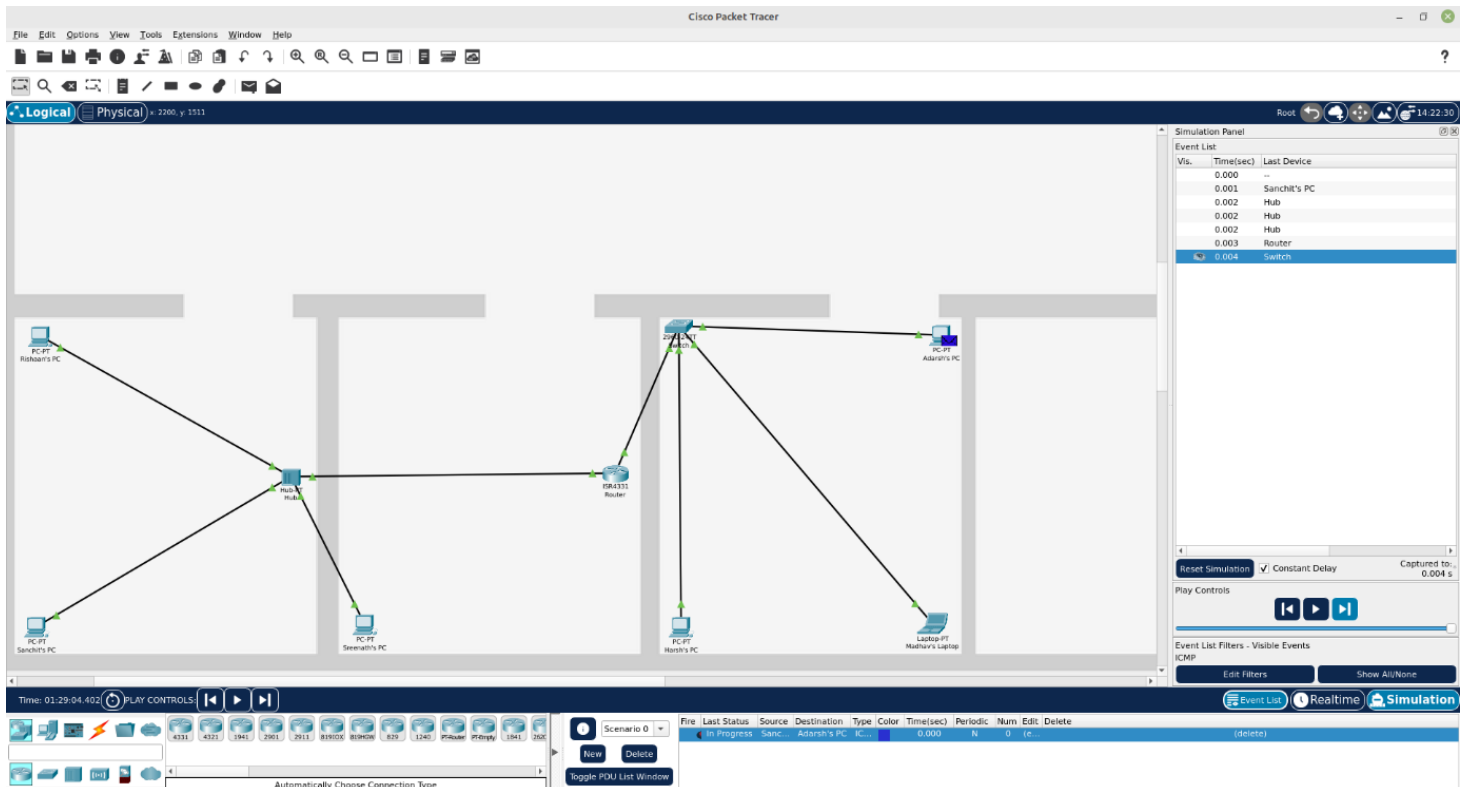
Step 3



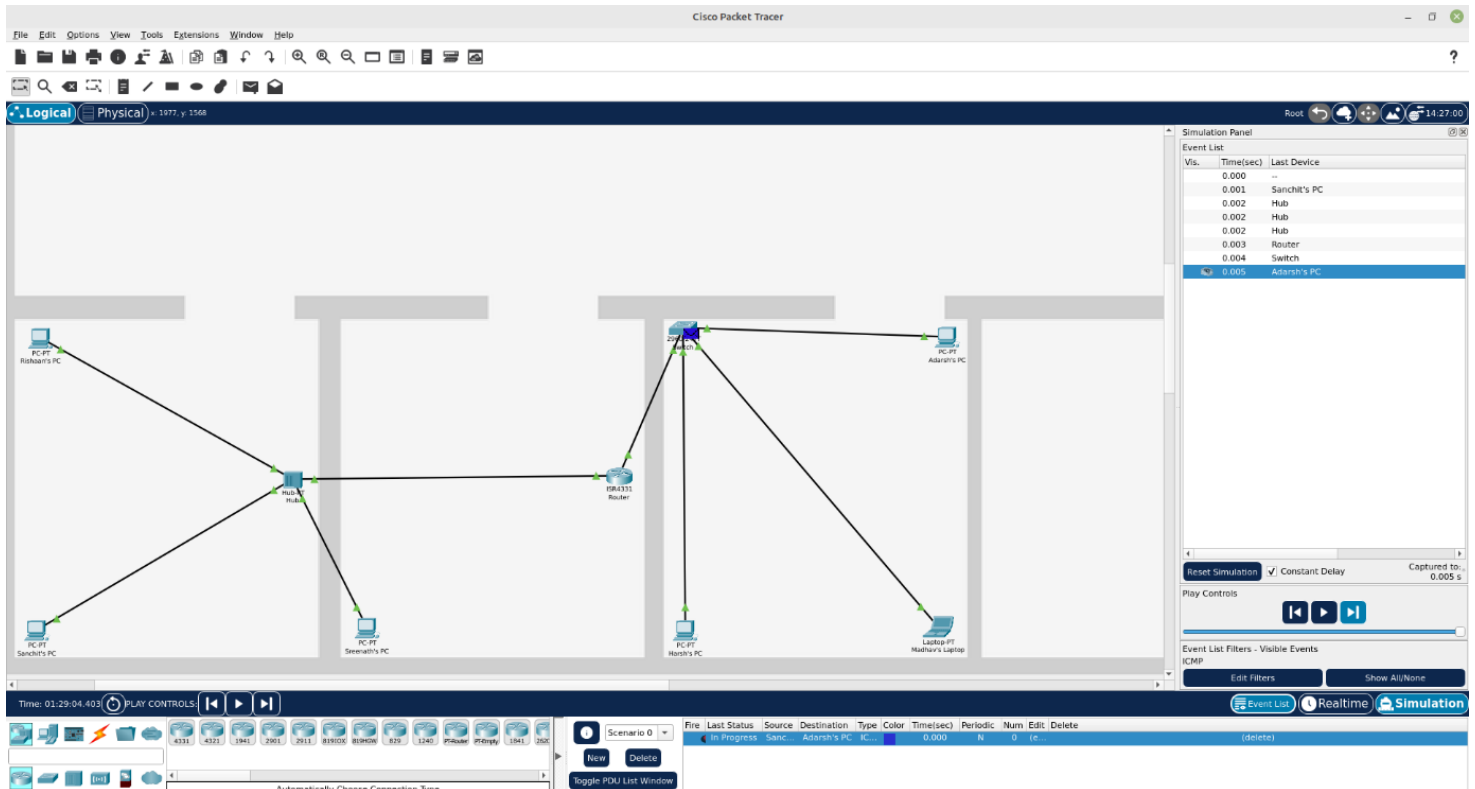
Step 4



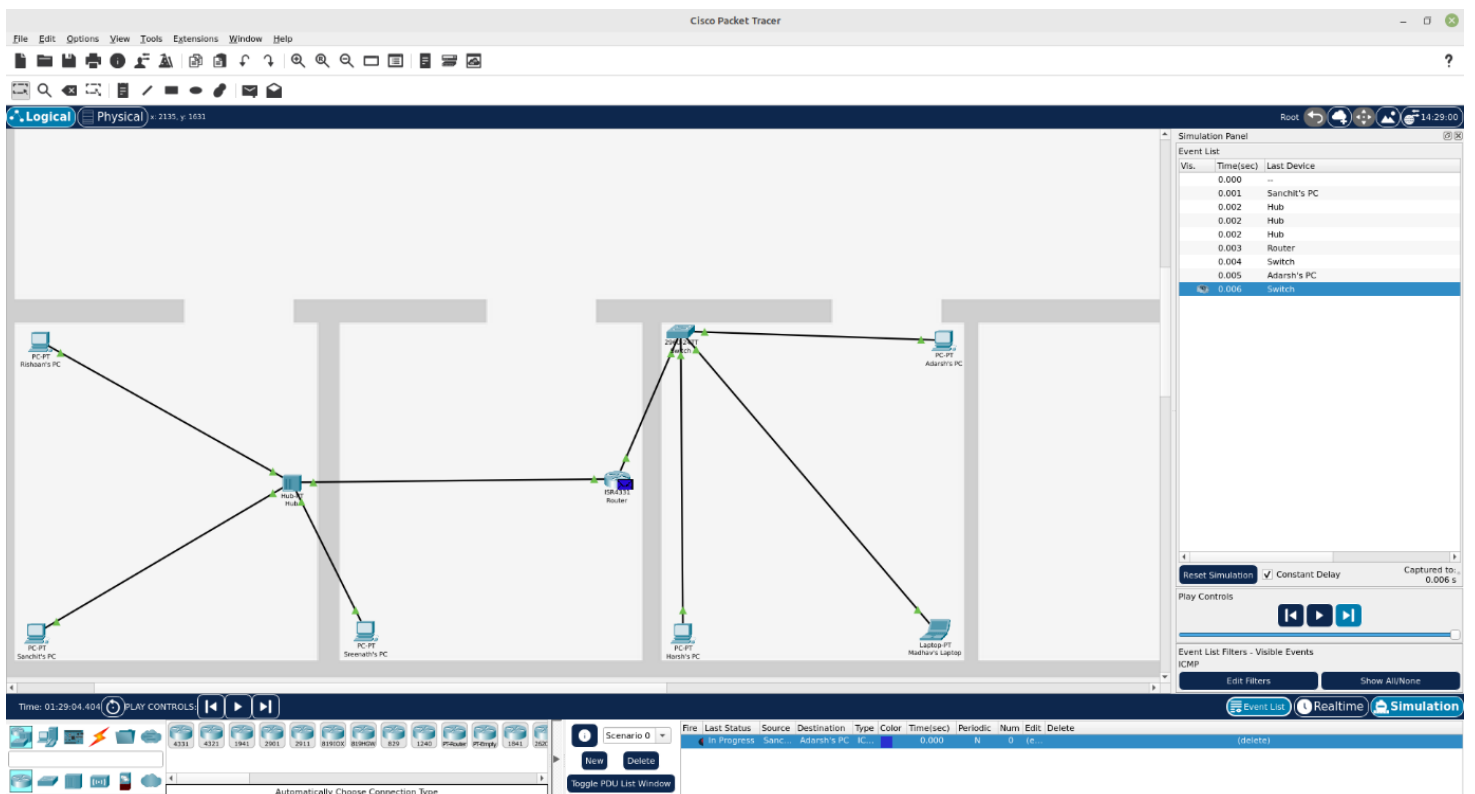
Step 5



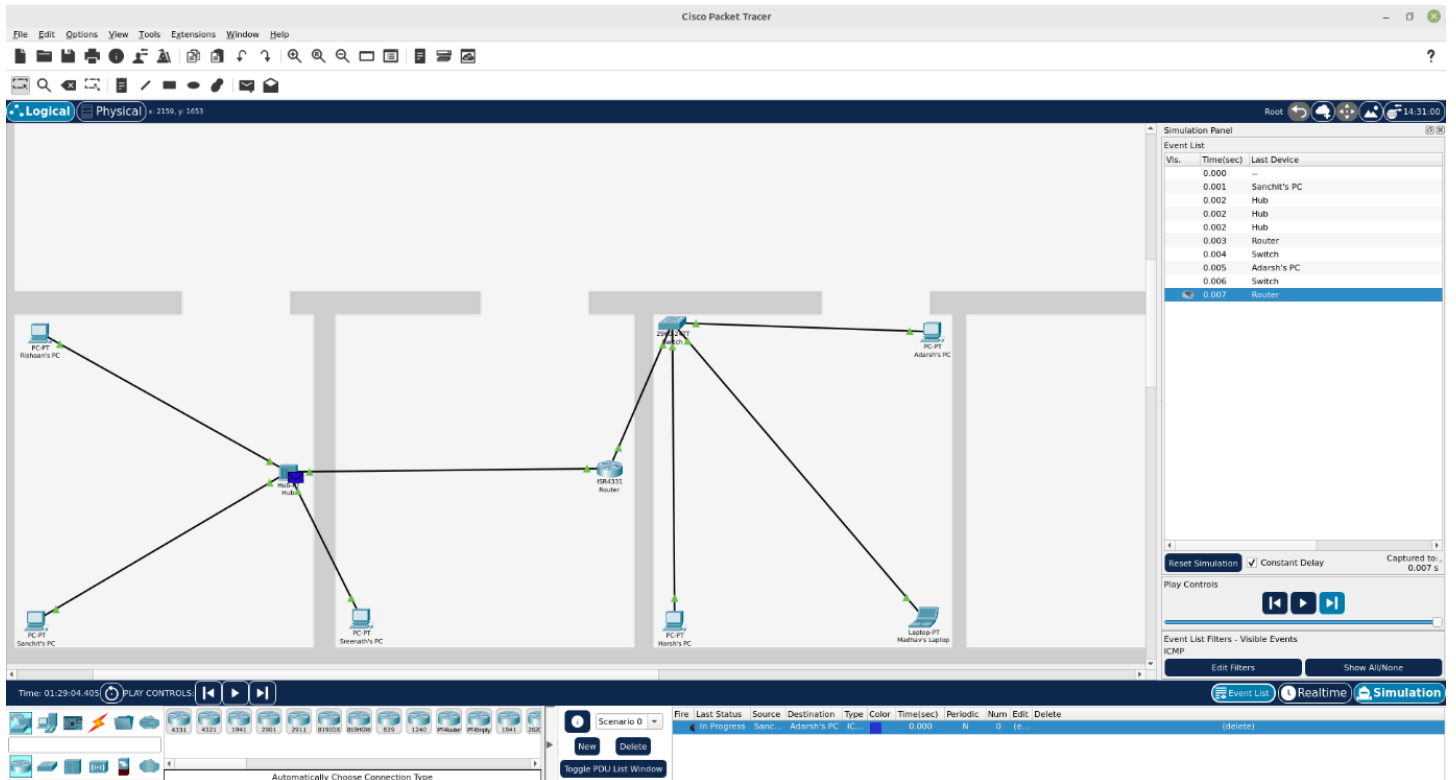
Step 6



Step 7



Step 8



Step 9 – Successful Transfer

