Experiment Title 1.3

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Branch: CSE **Section/Group: 716B**
Semester: 4th
Subject Name:CN

1. Aim/Overview of the practical:

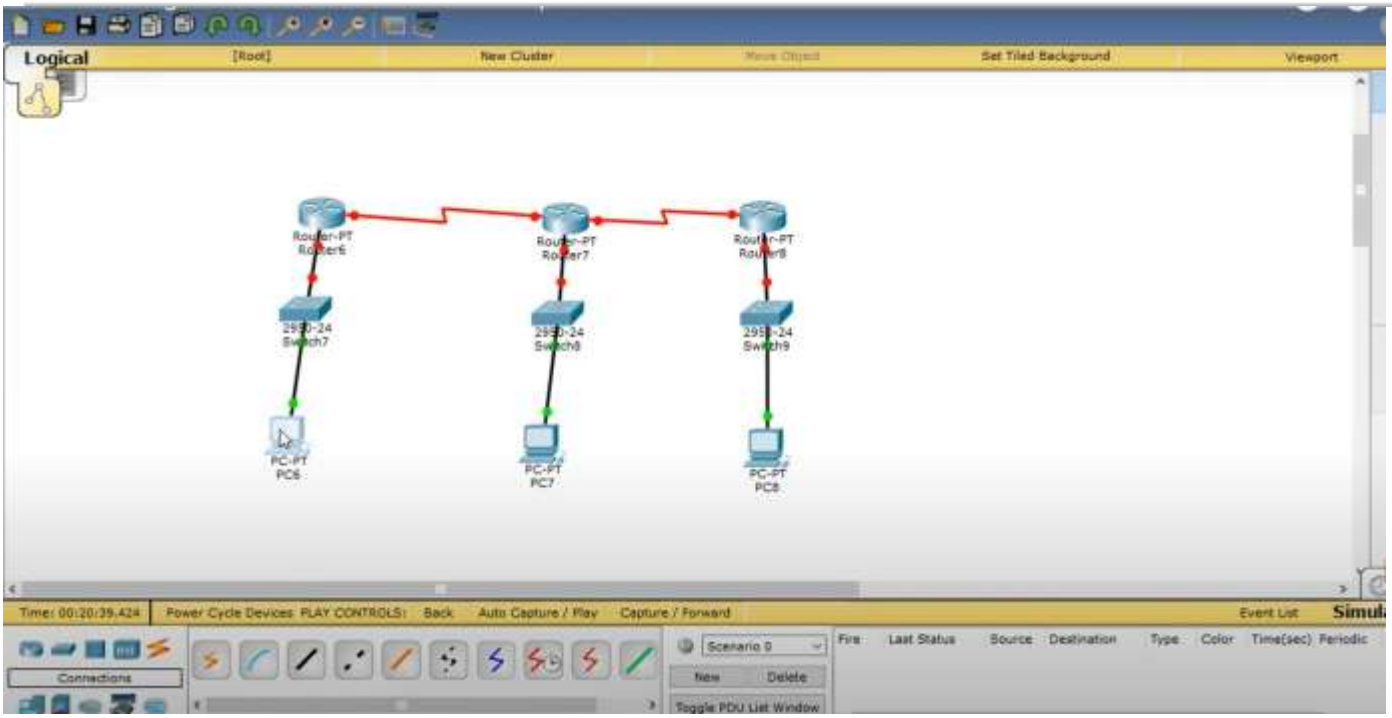
Create a network connection using packet tracer , which shows the working of Switch and Hub. Explain in detail with proper steps.

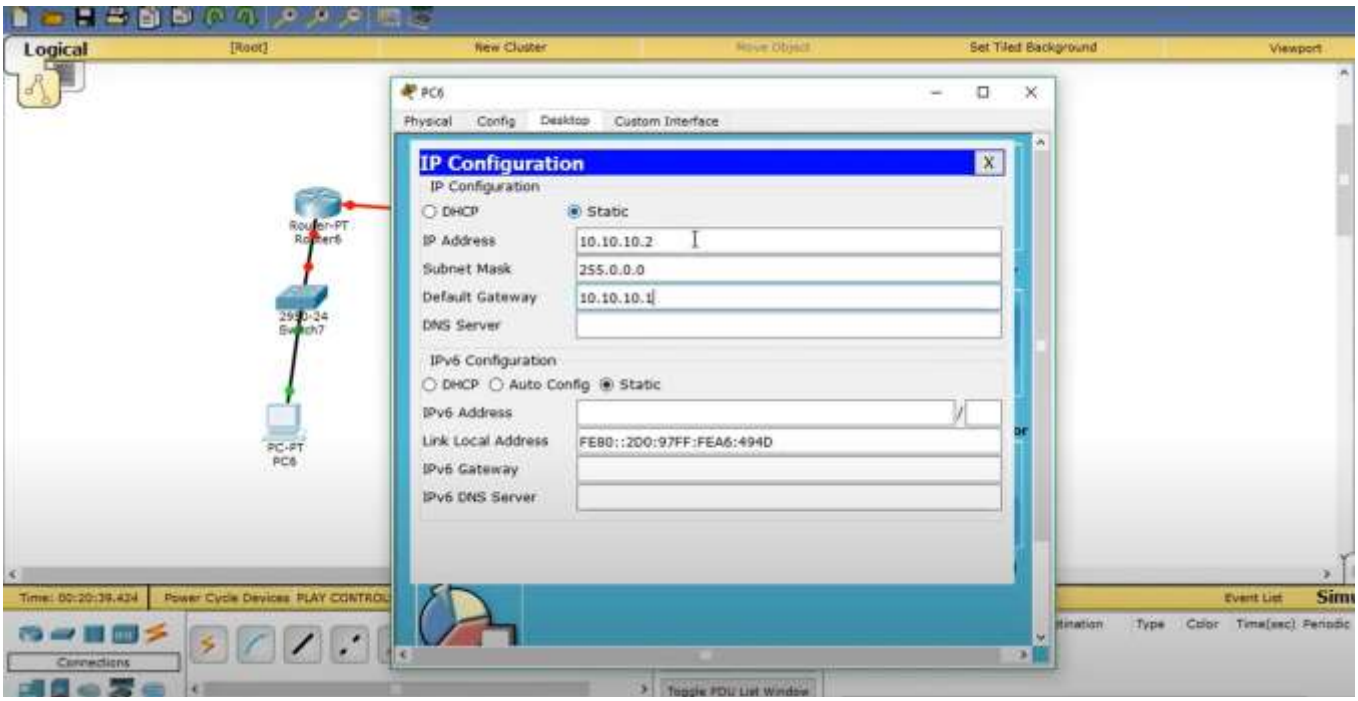
2. Task to be done/ Which logistics used:

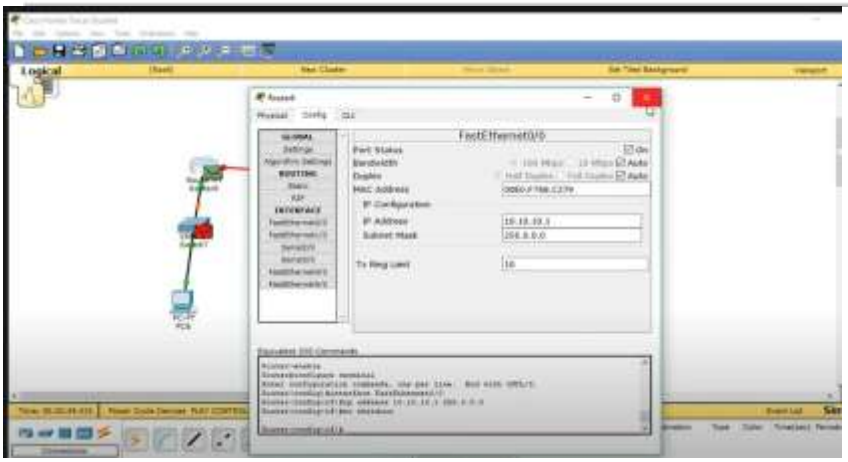
To Create a network connection using cisco packet tracer

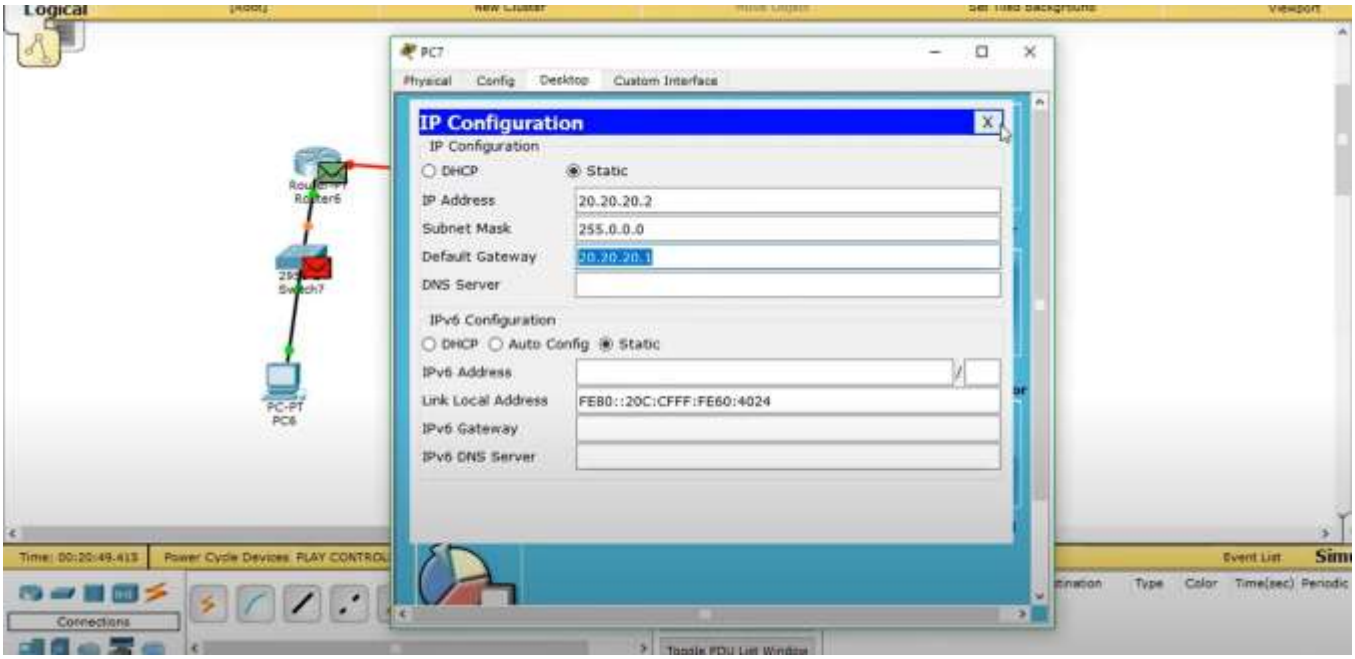
3. Steps for experiment/practical/Code

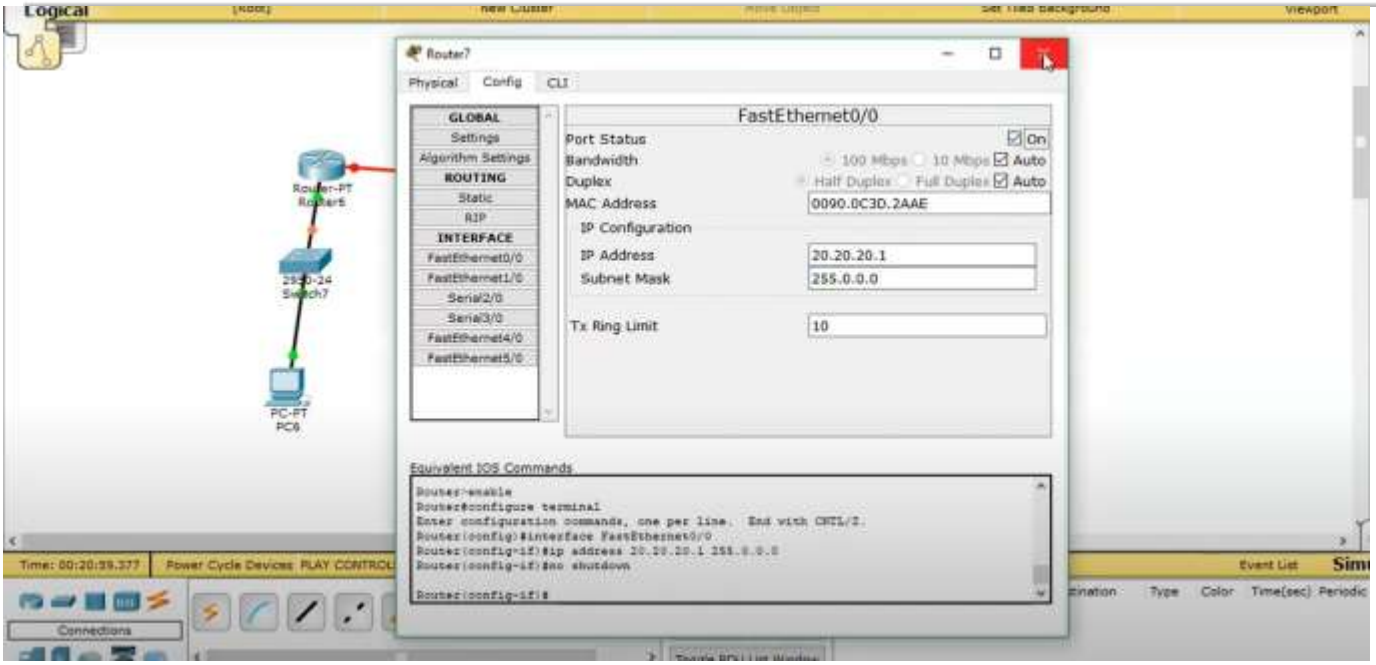
The step by step process is shown below in pictorial form.

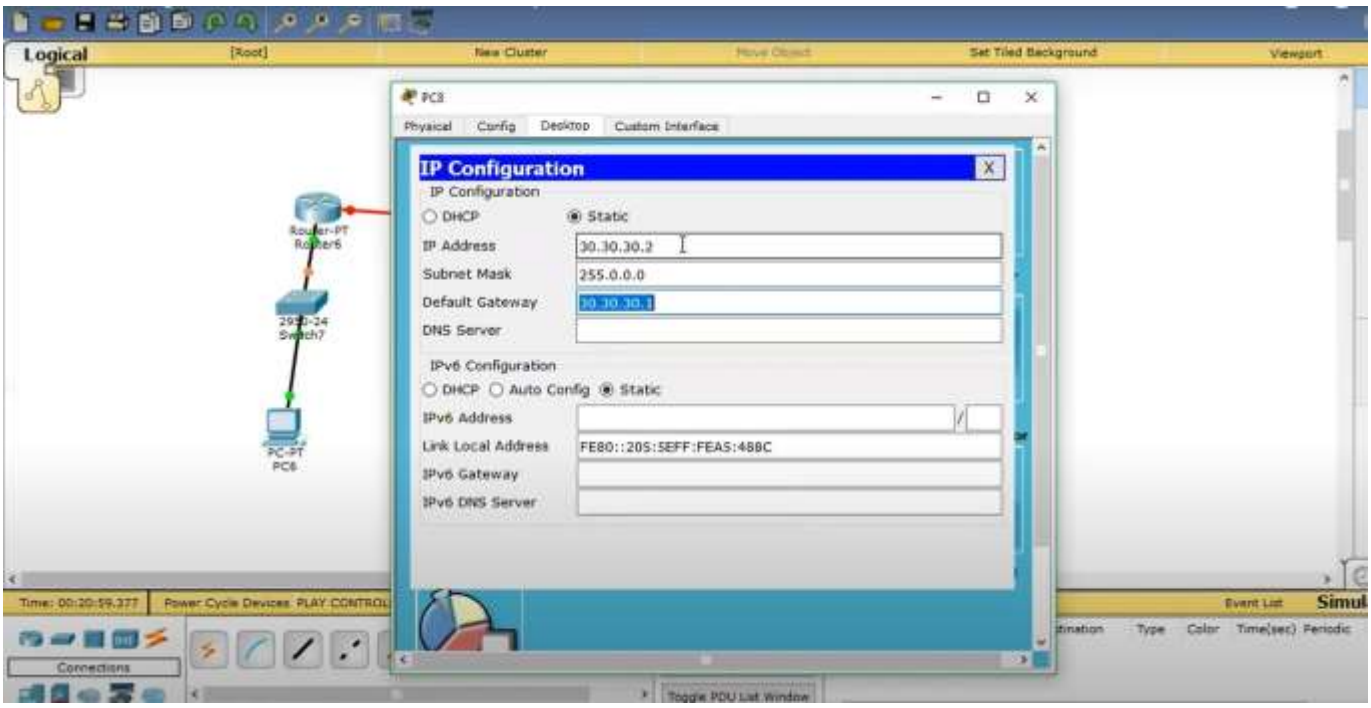

Logical
[Root]
New Cluster
Set Tiled Background
Viewport
Router-PT Router6
Router-PT Router7
Router-PT Router8
2950-24 Switch7
2950-24 Switch8
2950-24 Switch9
PC-PT PC6
PC-PT PC7
PC-PT PC8
Power Cycle Devices
Connections

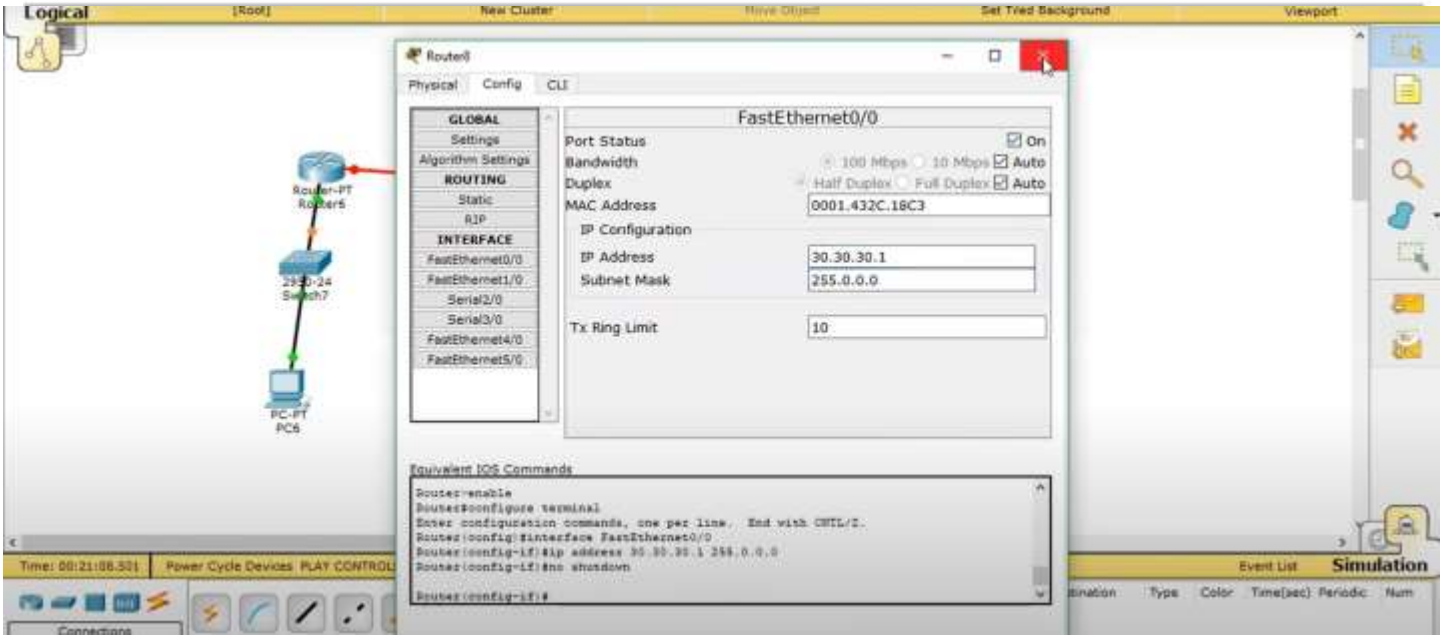

Logical
[Root]
New Cluster
Set Tiled Background
Viewport
PC6
Physical
Config
Desktop
Custom Interface
IP Configuration
IP Configuration
DHCP
Static
IP Address
10.10.10.2
Subnet Mask
255.0.0.0
Default Gateway
10.10.10.1
DNS Server
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::2D0:97FF:FEA6:494D
IPv6 Gateway
IPv6 DNS Server
Router-PT Router6
2950-24 Switch7
PC-PT PC6

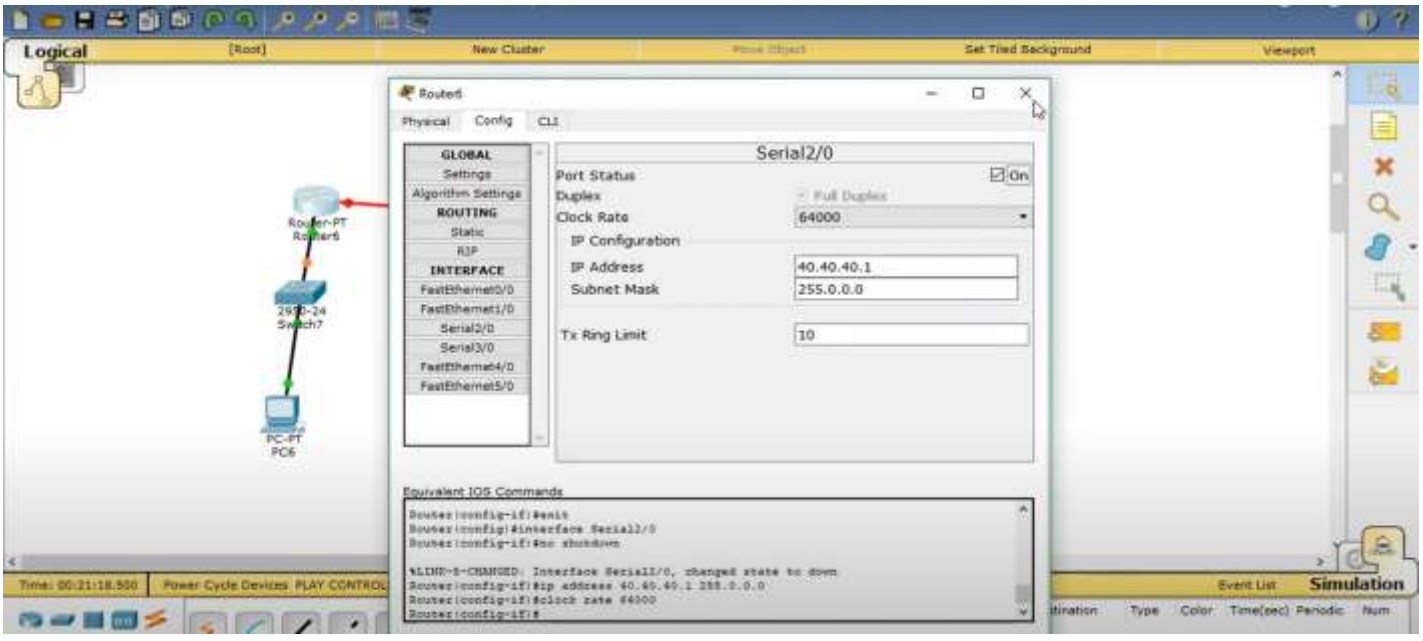


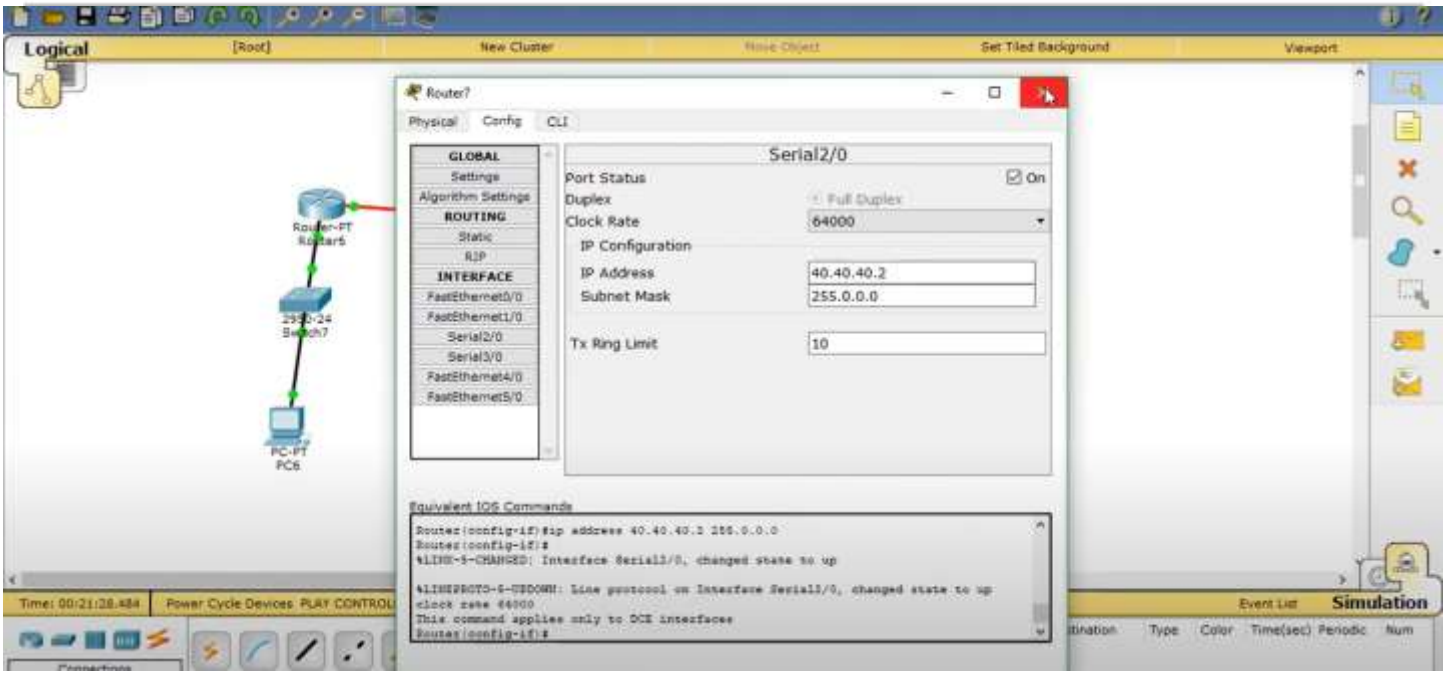

PC7
Physical
Config
Desktop
Custom Interface
IP Configuration
IP Configuration
DHCP
Static
IP Address
20.20.20.2
Subnet Mask
255.0.0.0
Default Gateway
20.20.20.1
DNS Server
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::20C:CFFF:FE60:4024
IPv6 Gateway
IPv6 DNS Server
Router6
Switch7
PC-PT
PC6
Connections

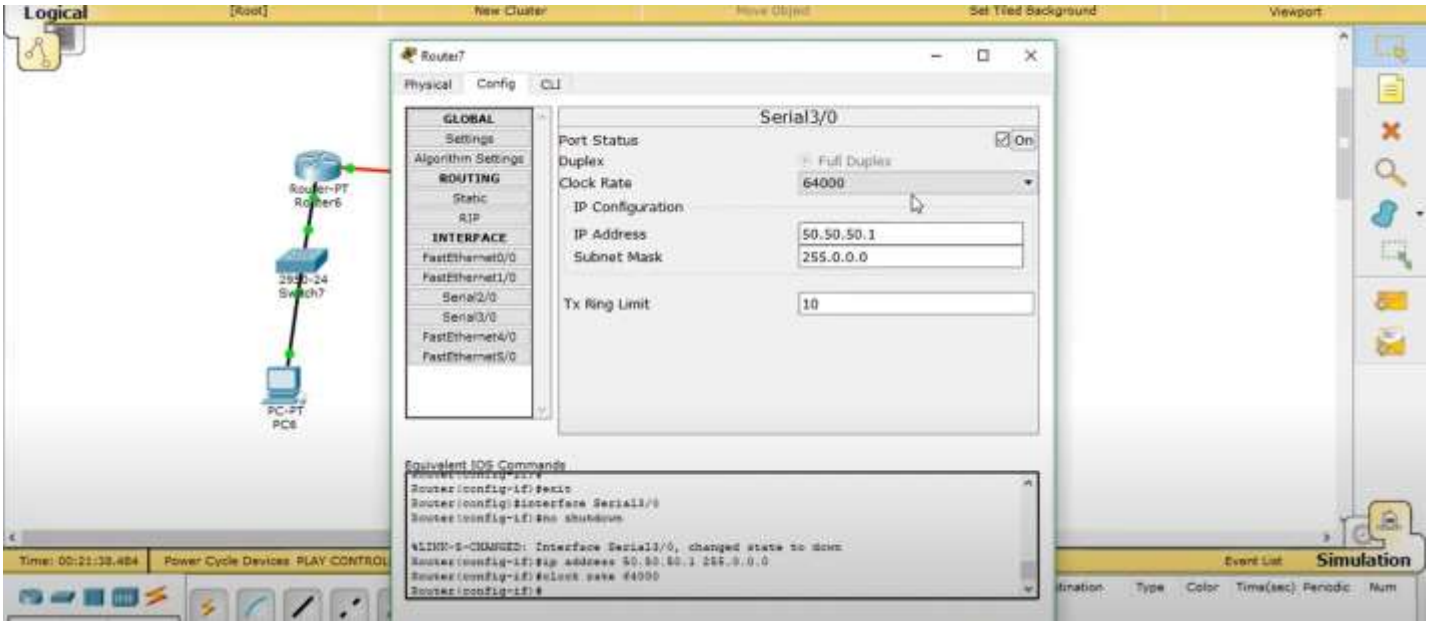

Logical
Router7
Physical
Config
CLI
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
FastEthernet0/0
Port Status
On
Bandwidth
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
MAC Address
0090.0C3D.2AAE
IP Configuration
IP Address
20.20.20.1
Subnet Mask
255.0.0.0
Tx Ring Limit
10
Equivalent IOS Commands
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 20.20.20.1 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
Router-PT Router5
2950-24 Switch7
PC-PT PC6

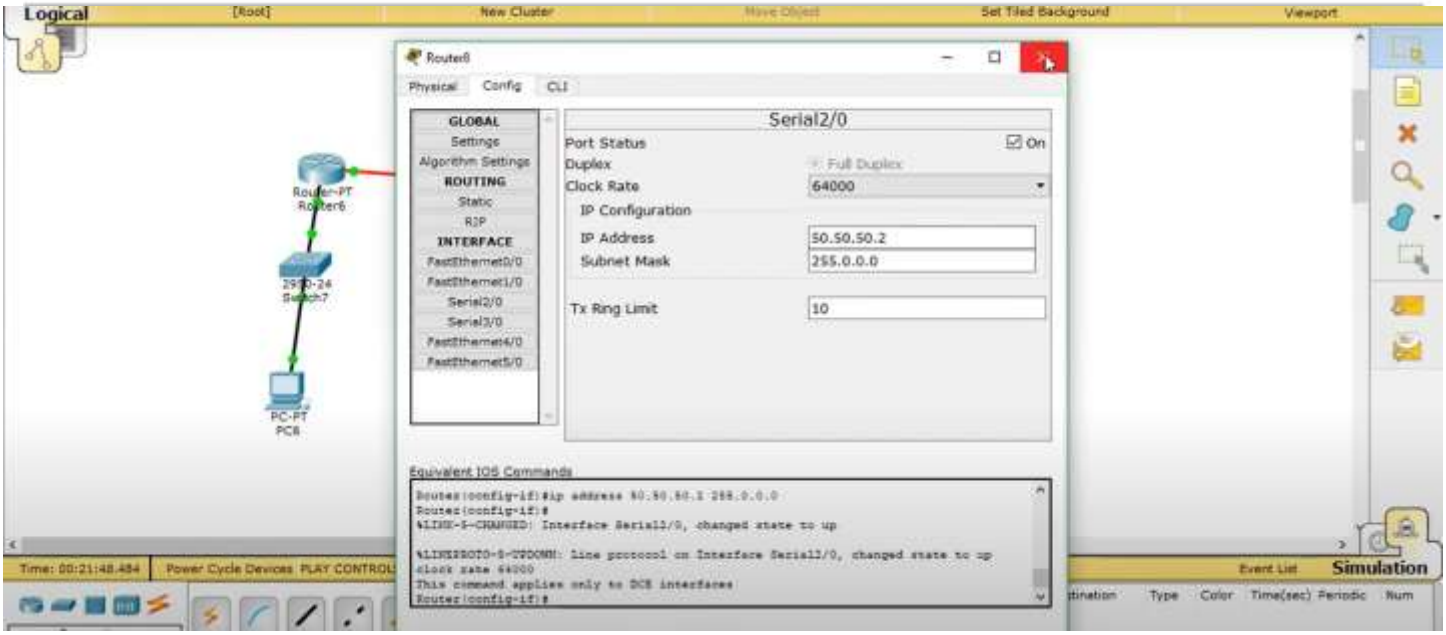

Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
PC8
Physical
Config
Desktop
Custom Interface
IP Configuration
IP Configuration
DHCP
Static
IP Address
30.30.30.2
Subnet Mask
255.0.0.0
Default Gateway
30.30.30.1
DNS Server
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::20S:5EFF:FEAS:488C
IPv6 Gateway
IPv6 DNS Server
Router-PT Router6
2950-24 Switch7
PC-PT PC6

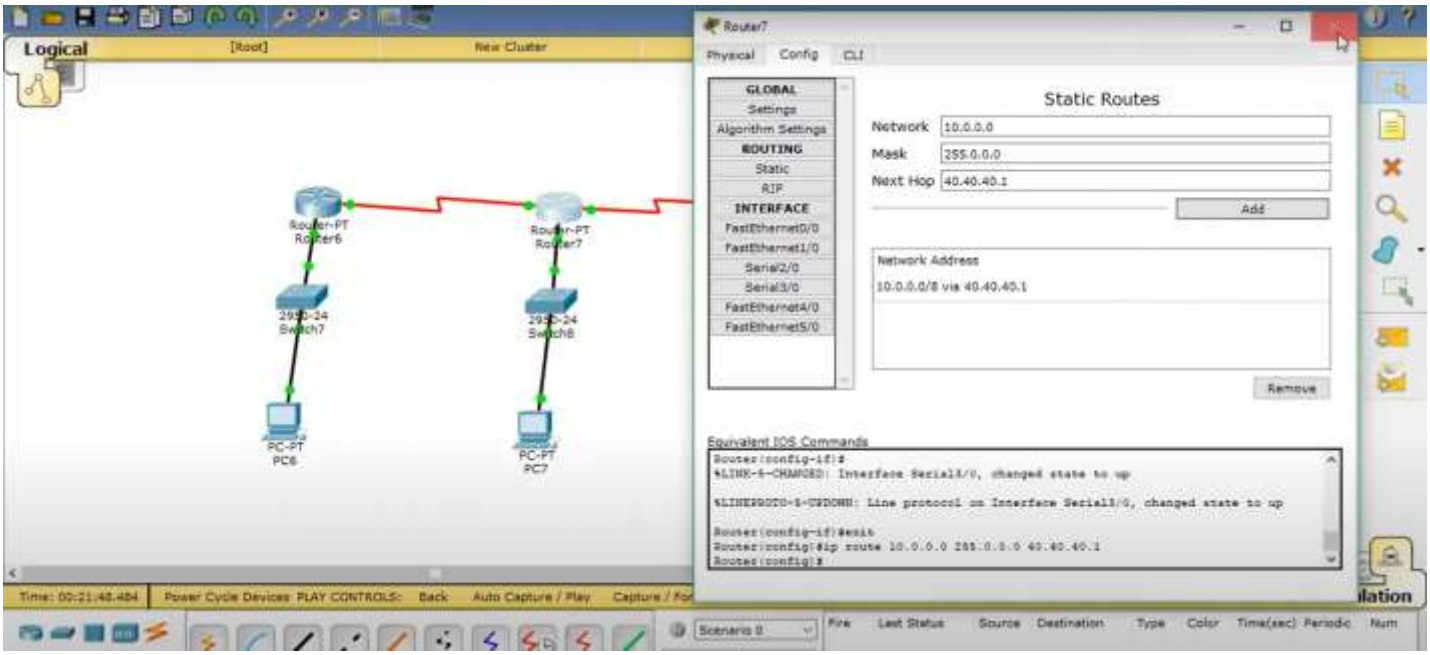

Logical
Router6
Physical
Config
CLI
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
FastEthernet0/0
Port Status
On
Bandwidth
Auto
Duplex
Auto
MAC Address
0001.432C.18C3
IP Configuration
IP Address
30.30.30.1
Subnet Mask
255.0.0.0
Tx Ring Limit
10
Equivalent IOS Commands
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 30.30.30.1 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
Router-PT
Router6
2950-24
Switch7
PC-PT
PC6
Event List
Simulation

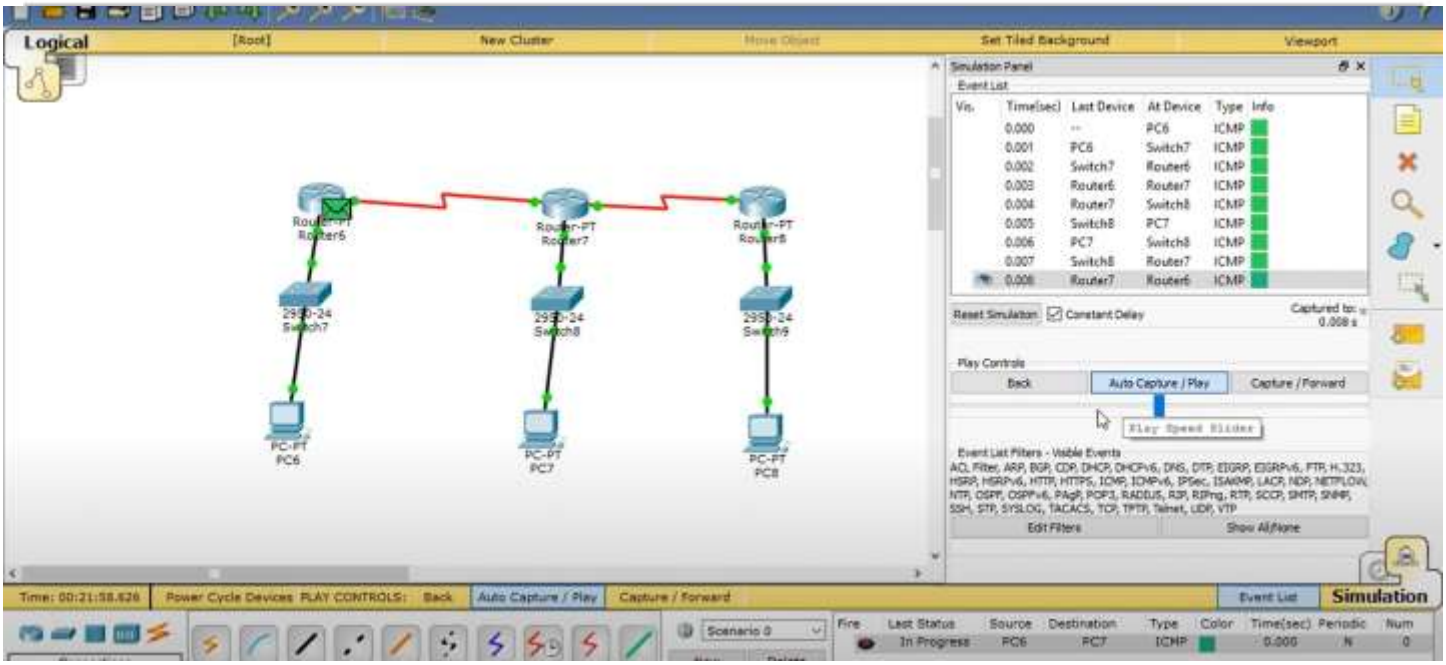

Logical
Router6
Physical
Config
CLI
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
Serial2/0
Port Status
On
Duplex
Full Duplex
Clock Rate
64000
IP Configuration
IP Address
40.40.40.1
Subnet Mask
255.0.0.0
Tx Ring Limit
10
Equivalent IOS Commands
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#no shutdown
%LINK-5-CHANGED: Interface Serial2/0, changed state to down
Router(config-if)#ip address 40.40.40.1 255.0.0.0
Router(config-if)#clock rate 64000
Router(config-if)#
Router-PT
Router6
2950-24
Switch7
PC-PT
PC6
Event List
Simulation

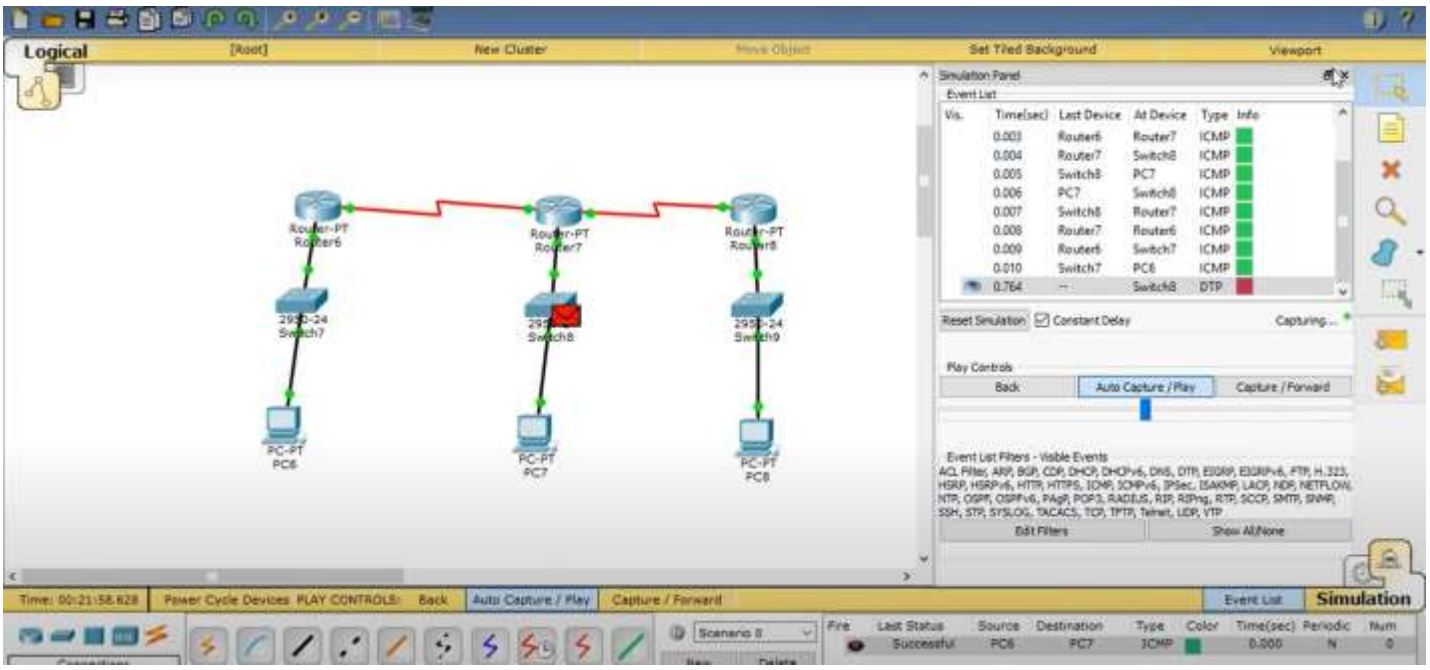

Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
Router7
Physical
Config
CLI
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
Serial2/0
Port Status
On
Duplex
Full Duplex
Clock Rate
64000
IP Configuration
IP Address
40.40.40.2
Subnet Mask
255.0.0.0
Tx Ring Limit
10
Equivalent IOS Commands
Router(config-if)#ip address 40.40.40.2 255.0.0.0
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
clock rate 64000
This command applies only to DCE interfaces
Router(config-if)#
Router-PT
Router5
2950-24
Switch7
PC-PT
PC6
Time: 00:21:28.484
Power Cycle Devices
PLAY CONTROL
Event List
Simulation
Type
Color
Time(sec)
Periodic
Num

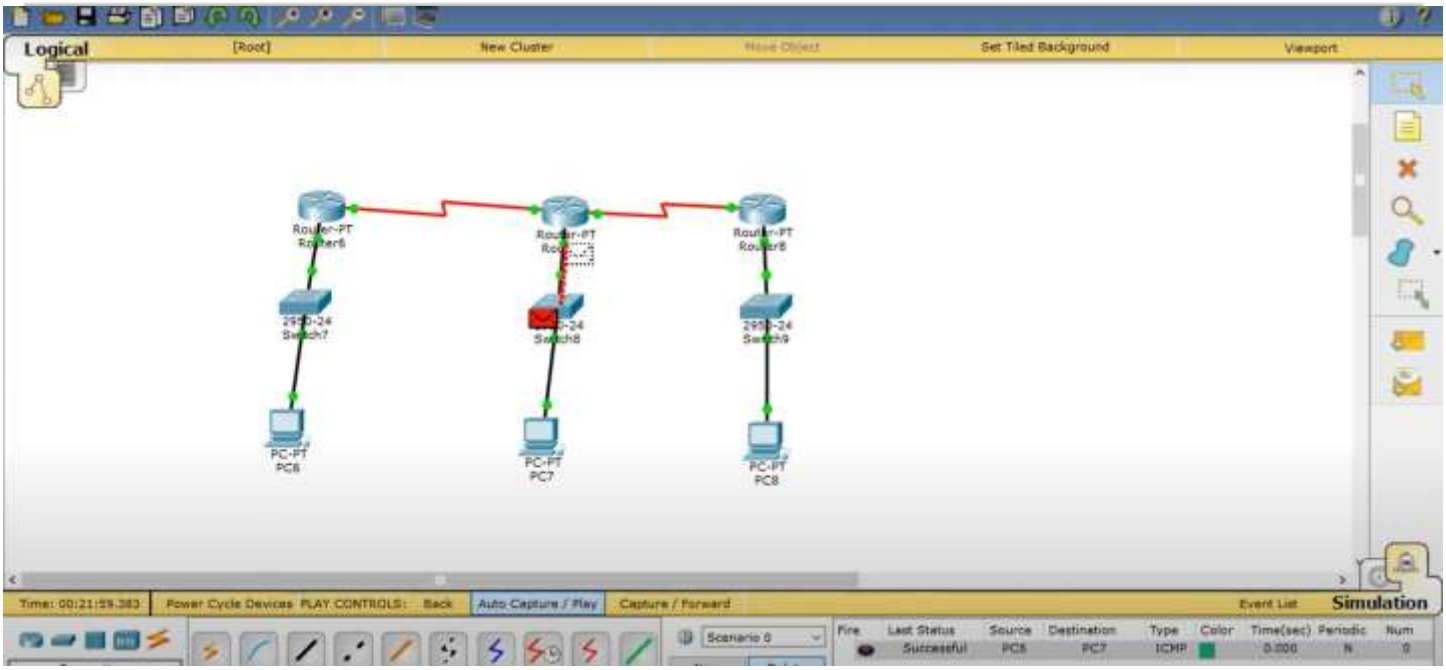

Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
Router7
Physical
Config
CLI
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
Serial3/0
Port Status
On
Duplex
Full Duplex
Clock Rate
64000
IP Configuration
IP Address
50.50.50.1
Subnet Mask
255.0.0.0
Tx Ring Limit
10
Equivalent IOS Commands
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#no shutdown
%LINK-5-CHANGED: Interface Serial3/0, changed state to down
Router(config-if)#ip address 50.50.50.1 255.0.0.0
Router(config-if)#clock rate 64000
Router(config-if)#
Router-PT
Router6
2950-24
Switch7
PC-PT
PC8
Time: 00:21:38.484
Power Cycle Devices
PLAY CONTROL
Event List
Simulation
Type
Color
Time(sec)
Periodic
Num

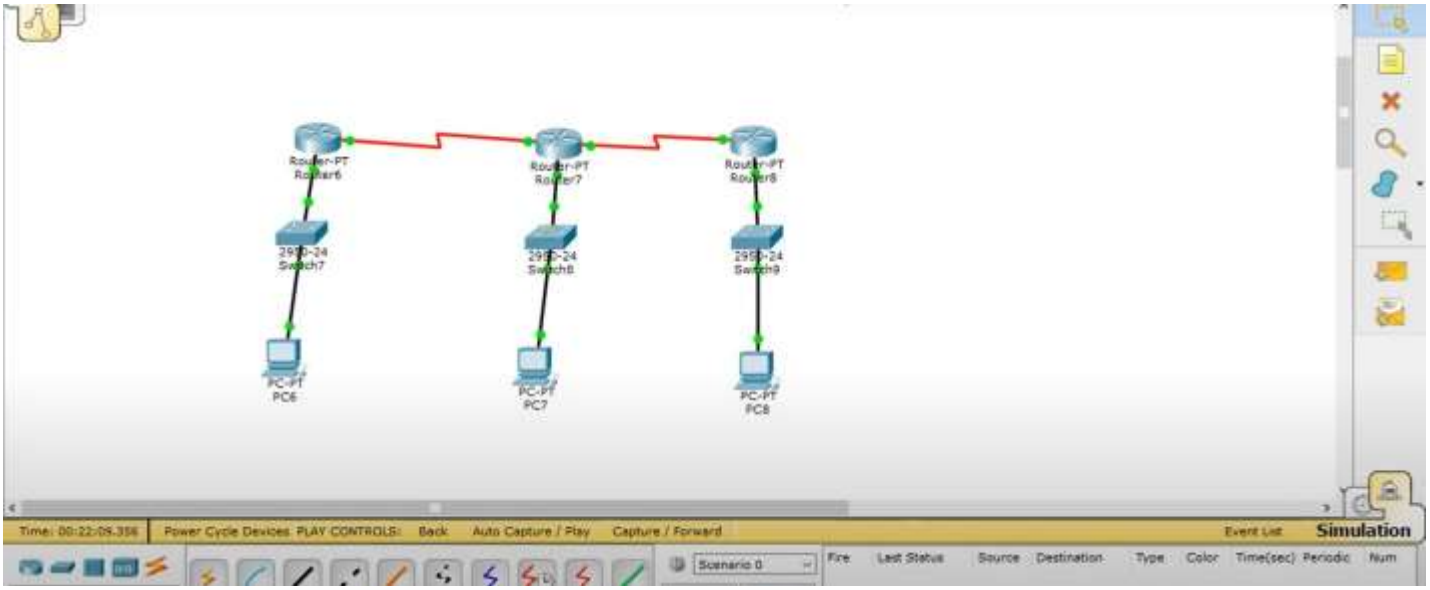

Logical
[Root]
New Cluster
Set Tiled Background
Viewport
Router6
Physical
Config
CLI
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
Serial2/0
Port Status
On
Duplex
Full Duplex
Clock Rate
64000
IP Configuration
IP Address
50.50.50.2
Subnet Mask
255.0.0.0
Tx Ring Limit
10
Router-PT Router6
2950-24 Switch7
PC-PT PC6
Equivalent IOS Commands
Router(config-if)#ip address 50.50.50.1 255.0.0.0
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
clock rate 64000
This command applies only to DCE interfaces
Router(config-if)#
Time: 00:21:48.484
Power Cycle Devices
PLAY CONTROL
Event List
Simulation


Logical
[Root]
New Cluster
Router7
Physical
Config
CLI
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
Static Routes
Network
10.0.0.0
Mask
255.0.0.0
Next Hop
40.40.40.1
Add
Network Address
10.0.0.0/8 via 40.40.40.1
Remove
Router-PT Router6
Router-PT Router7
2950-24 Switch7
2950-24 Switch8
PC-PT PC6
PC-PT PC7
Equivalent IOS Commands
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
Router(config-if)#exit
Router(config)#ip route 10.0.0.0 255.0.0.0 40.40.40.1
Router(config)#
Time: 00:21:48.484
Power Cycle Devices
PLAY CONTROLS:
Back
Auto Capture / Play
Capture / For
Scenario 0
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num


Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device Type Info
0.000 -- PC6 ICMP
0.001 PC6 Switch7 ICMP
0.002 Switch7 Router6 ICMP
0.003 Router6 Router7 ICMP
0.004 Router7 Switch8 ICMP
0.005 Switch8 PC7 ICMP
0.006 PC7 Switch8 ICMP
0.007 Switch8 Router7 ICMP
0.008 Router7 Router6 ICMP
Reset Simulation
Constant Delay
Captured to: 0.008 s
Play Controls
Back
Auto Capture / Play
Capture / Forward
Play Speed Slider
Event List Filters - Visible Events
Edit Filters
Show All/None
Router-PT Router6
Router-PT Router7
Router-PT Router8
2950-24 Switch7
2950-24 Switch8
2950-24 Switch9
PC-PT PC6
PC-PT PC7
PC-PT PC8
Time: 00:21:58.628
Power Cycle Devices
PLAY CONTROLS:
Back
Auto Capture / Play
Capture / Forward
Event List
Simulation
Scenario 0
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
In Progress
PC6
PC7
ICMP
0.000
N
0


Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device Type Info
0.003 Router6 Router7 ICMP
0.004 Router7 Switch8 ICMP
0.005 Switch8 PC7 ICMP
0.006 PC7 Switch8 ICMP
0.007 Switch8 Router7 ICMP
0.008 Router7 Router6 ICMP
0.009 Router6 Switch7 ICMP
0.010 Switch7 PC6 ICMP
0.764 -- Switch8 DTP
Reset Simulation
Constant Delay
Capturing...
Play Controls
Back
Auto Capture / Play
Capture / Forward
Event List Filters - Visible Events
Edit Filters
Show All/None
Router-PT Router6
Router-PT Router7
Router-PT Router8
2950-24 Switch7
2950-24 Switch8
2950-24 Switch9
PC-PT PC6
PC-PT PC7
PC-PT PC8
Time: 00:21:58.628
Power Cycle Devices
PLAY CONTROLS:
Back
Auto Capture / Play
Capture / Forward
Event List
Simulation
Scenario 0
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Successful
PC6
PC7
ICMP
0.000
N
0





4. Result/Output/Writing Summary:

Learning outcomes (What I have learnt):

1.I learnt how the data is transferred through different network.

2.

3.

4.

5.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			