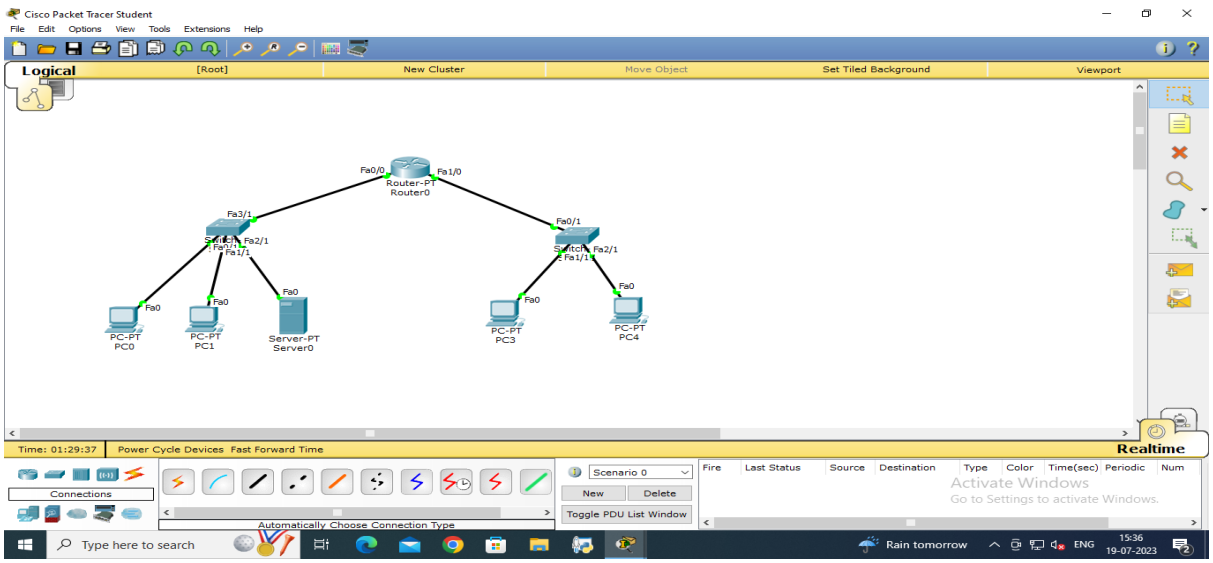
EXPERIMENT – 4

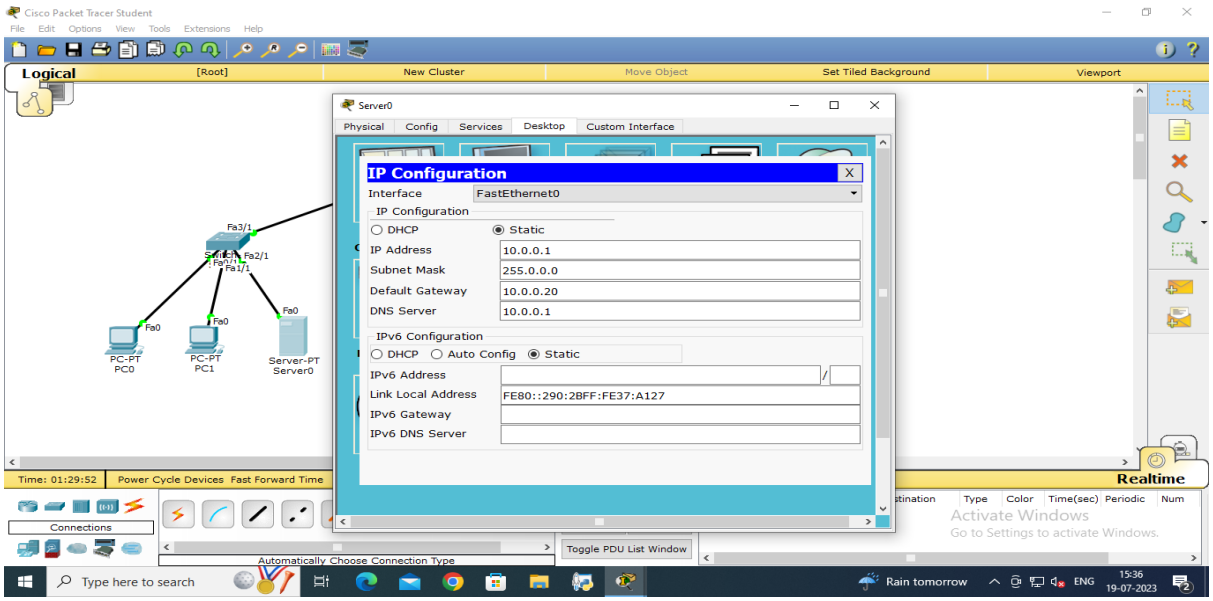
TITLE: CONFIGURING DHCP WITH AND WITHOUT A LAN CONNECTION

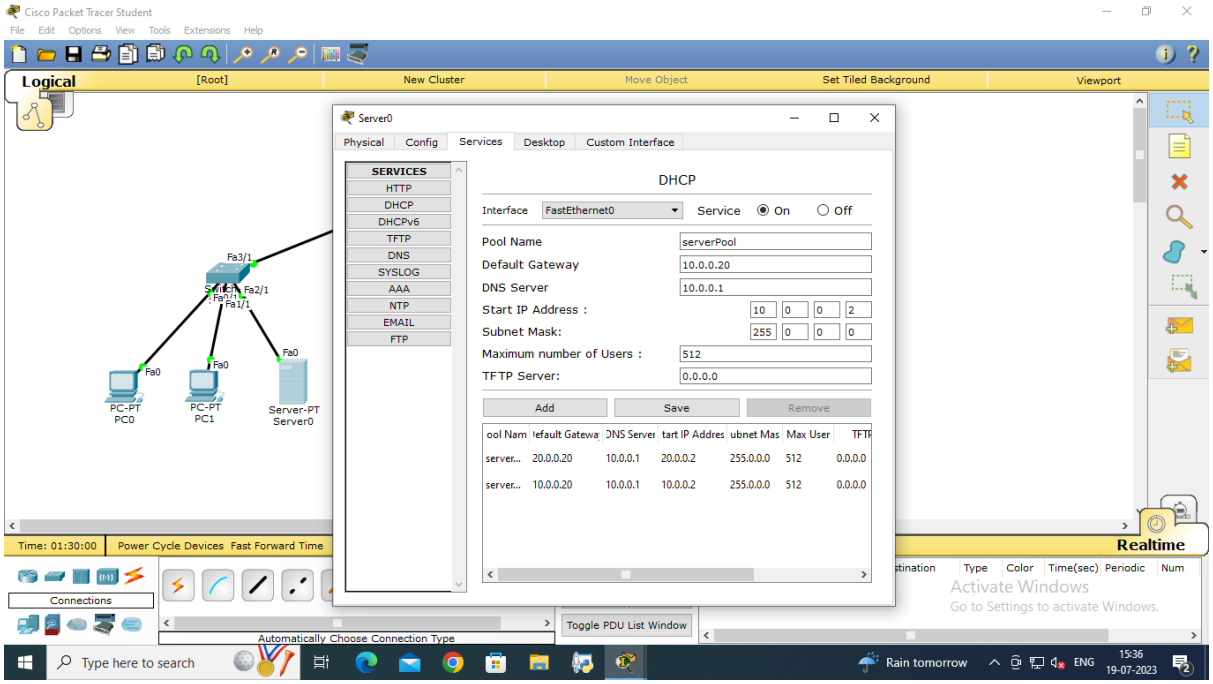
AIM: To configure DHCP with a LAN connection and outside of a LAN.

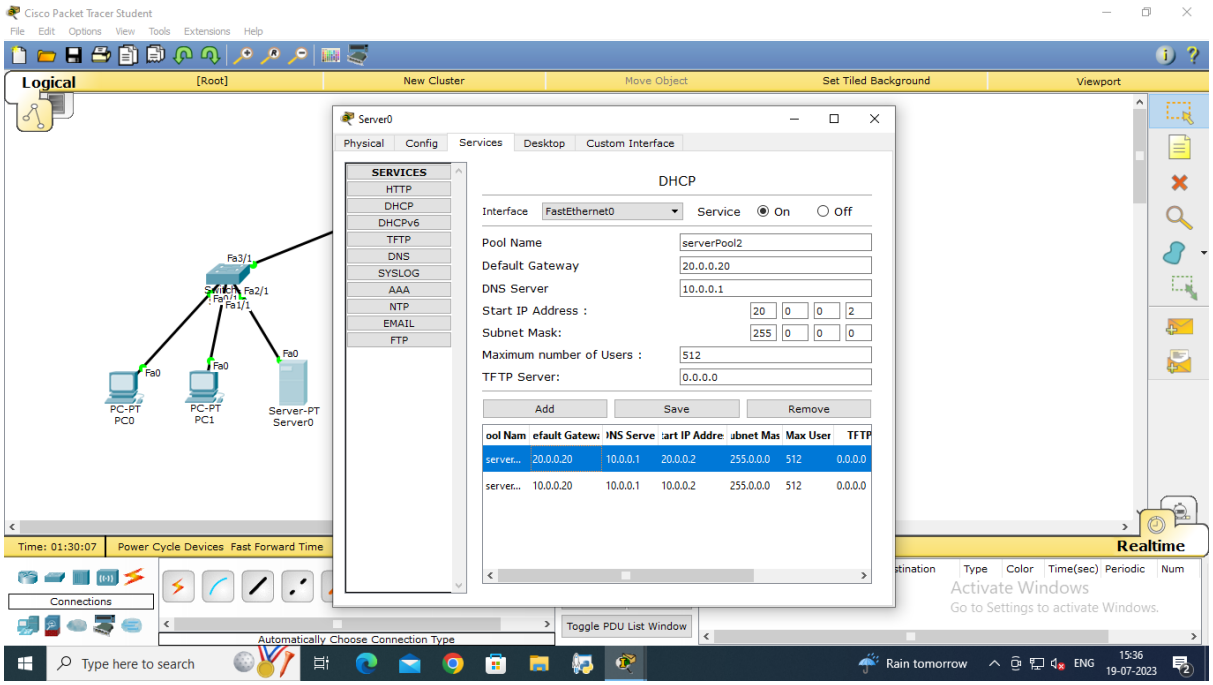
TOPOLOGY:

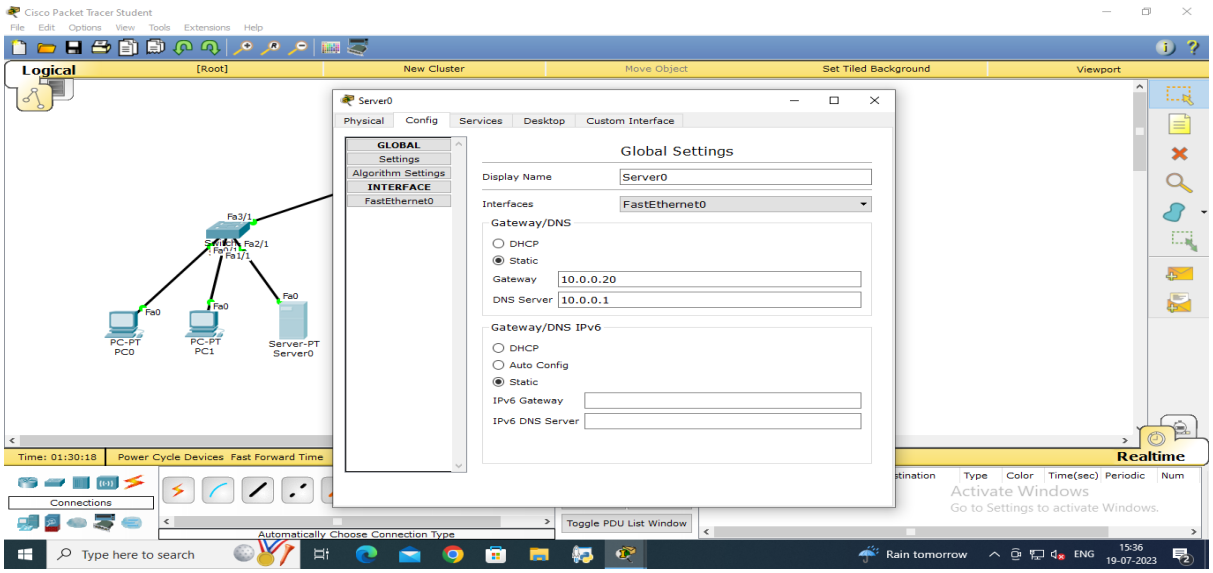


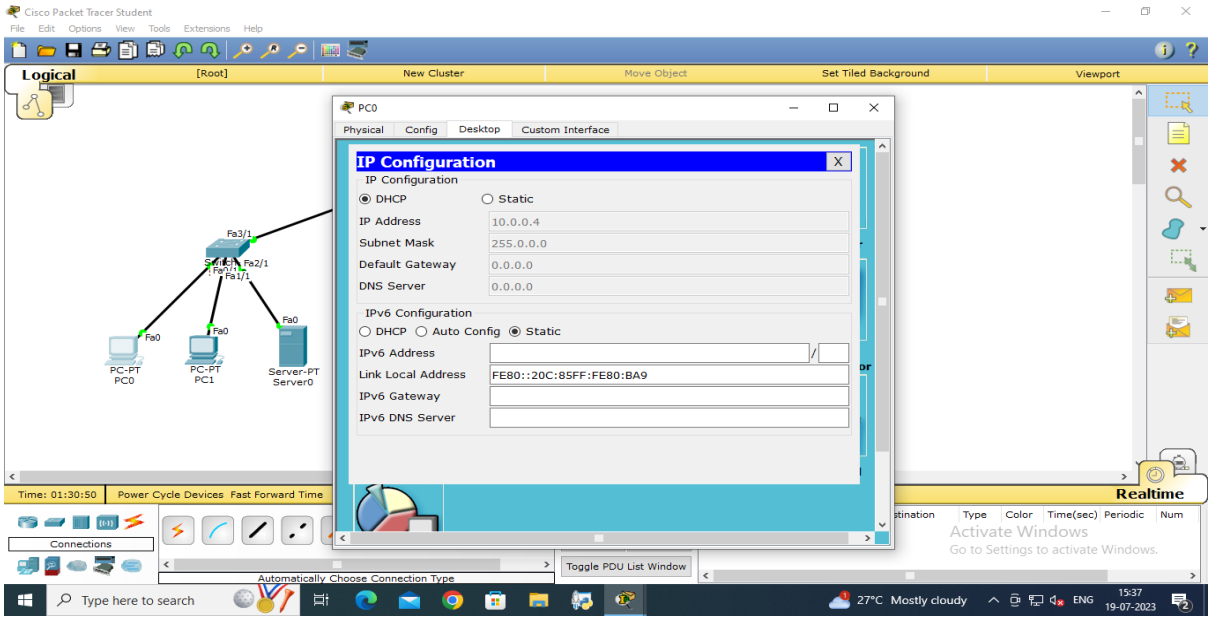
Procedure (steps):

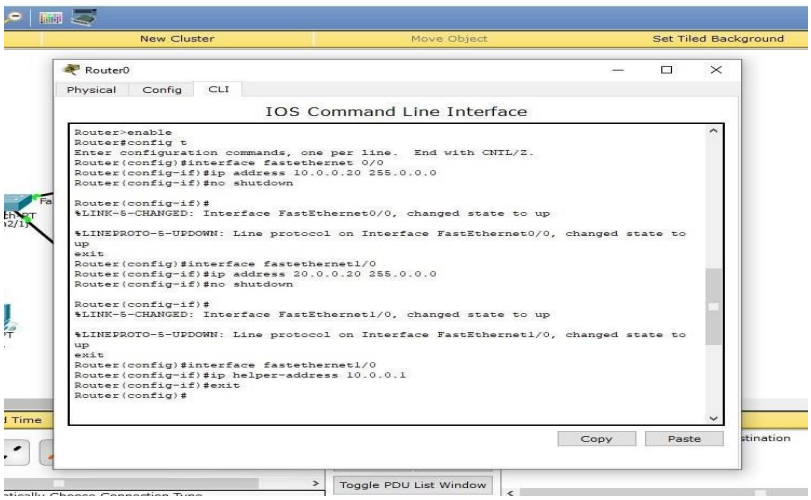



Cisco Packet Tracer Student
Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
Server0
Physical
Config
Services
Desktop
Custom Interface
SERVICES
HTTP
DHCP
DHCPv6
TFTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
DHCP
Interface
FastEthernet0
Service
On
Off
Pool Name
serverPool
Default Gateway
10.0.0.20
DNS Server
10.0.0.1
Start IP Address :
10 0 0 2
Subnet Mask:
255 0 0 0
Maximum number of Users :
512
TFTP Server:
0.0.0.0
Add
Save
Remove
server... 20.0.0.20 10.0.0.1 20.0.0.2 255.0.0.0 512 0.0.0.0
server... 10.0.0.20 10.0.0.1 10.0.0.2 255.0.0.0 512 0.0.0.0
Fa3/1
Fa2/1
Fa1/1
Fa0
PC-PT PC0
PC-PT PC1
Server-PT Server0
Time: 01:30:00
Power Cycle Devices
Fast Forward Time
Realtime
Connections
Automatically Choose Connection Type
Toggle PDU List Window
Activate Windows
Go to Settings to activate Windows.
Type here to search
Rain tomorrow
ENG
15:36
19-07-2023


Cisco Packet Tracer Student
Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
Server0
Physical
Config
Services
Desktop
Custom Interface
SERVICES
HTTP
DHCP
DHCPv6
TFTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
DHCP
Interface
FastEthernet0
Service
On
Off
Pool Name
serverPool2
Default Gateway
20.0.0.20
DNS Server
10.0.0.1
Start IP Address :
20 0 0 2
Subnet Mask:
255 0 0 0
Maximum number of Users :
512
TFTP Server:
0.0.0.0
Add
Save
Remove
server... 20.0.0.20 10.0.0.1 20.0.0.2 255.0.0.0 512 0.0.0.0
server... 10.0.0.20 10.0.0.1 10.0.0.2 255.0.0.0 512 0.0.0.0
Fa3/1
Fa2/1
Fa1/1
Fa0
PC-PT PC0
PC-PT PC1
Server-PT Server0
Time: 01:30:07
Power Cycle Devices
Fast Forward Time
Realtime
Connections
Automatically Choose Connection Type
Toggle PDU List Window
Activate Windows
Go to Settings to activate Windows.
Type here to search
Rain tomorrow
ENG
15:36
19-07-2023


Cisco Packet Tracer Student
Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
Server0
Physical
Config
Services
Desktop
Custom Interface
GLOBAL
Settings
Algorithm Settings
INTERFACE
FastEthernet0
Global Settings
Display Name
Server0
Interfaces
FastEthernet0
Gateway/DNS
DHCP
Static
Gateway
10.0.0.20
DNS Server
10.0.0.1
Gateway/DNS IPv6
DHCP
Auto Config
Static
IPv6 Gateway
IPv6 DNS Server
PC-PT PC0
PC-PT PC1
Server-PT Server0
Time: 01:30:18
Power Cycle Devices
Fast Forward Time
Realtime
Connections
Automatically Choose Connection Type
Toggle PDU List Window
Activate Windows
Type here to search
Rain tomorrow
ENG
15:36
19-07-2023

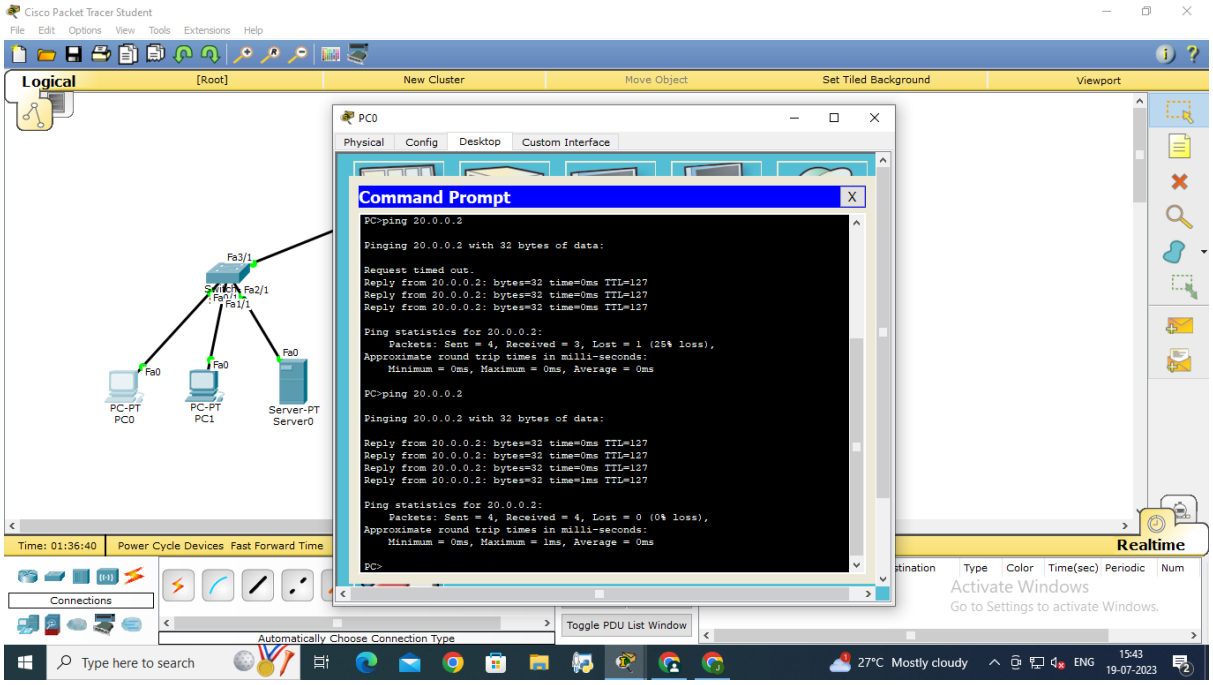
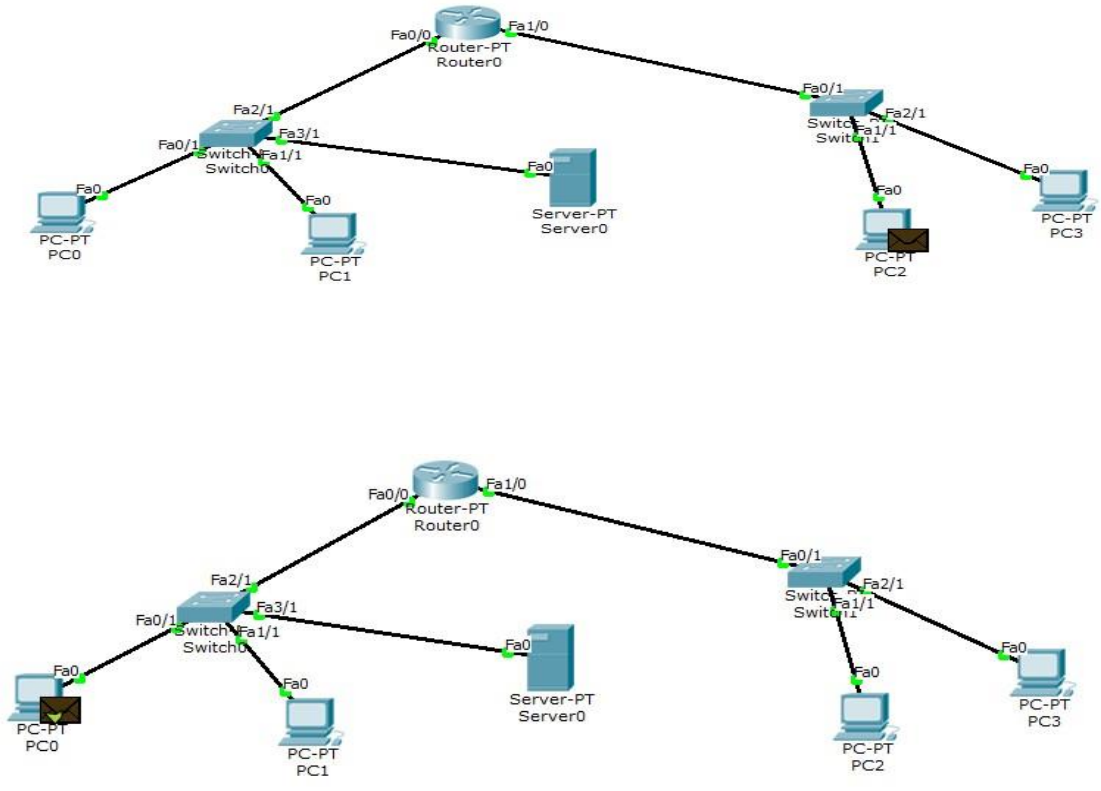

Cisco Packet Tracer Student
Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
PC0
Physical
Config
Desktop
Custom Interface
IP Configuration
IP Configuration
DHCP
Static
IP Address
10.0.0.4
Subnet Mask
255.0.0.0
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::20C:85FF:FE80:BA9
IPv6 Gateway
IPv6 DNS Server
PC-PT PC0
PC-PT PC1
Server-PT Server0
Time: 01:30:50
Power Cycle Devices
Fast Forward Time
Realtime
Connections
Automatically Choose Connection Type
Toggle PDU List Window
Activate Windows
Type here to search
27°C Mostly cloudy
ENG
15:37
19-07-2023


New Cluster
Move Object
Set Tiled Background
Router0
Physical
Config
CLI
IOS Command Line Interface
Router>enable
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface fastethernet 0/0
Router(config-if)#ip address 10.0.0.20 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
exit
Router(config)#interface fastethernet1/0
Router(config-if)#ip address 20.0.0.20 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up
exit
Router(config)#interface fastethernet1/0
Router(config-if)#ip helper-address 10.0.0.1
Router(config-if)#exit
Router(config)#
Copy
Paste
Toggle PDU List Window

PING RESULTS: (CMD)

Source: PC0

Destination: PC3



STIMULATION RESULTS: