TRƯỜNG ĐẠI HỌC KHOA HỌC TỰ NHIÊN

KHOA CÔNG NGHỆ THÔNG TIN

ĐỒ ÁN PACKET TRACER

NETWORK DESIGNATION AND CONFIGURATION USING CISCO PACKET

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Lớp: 19CTT1

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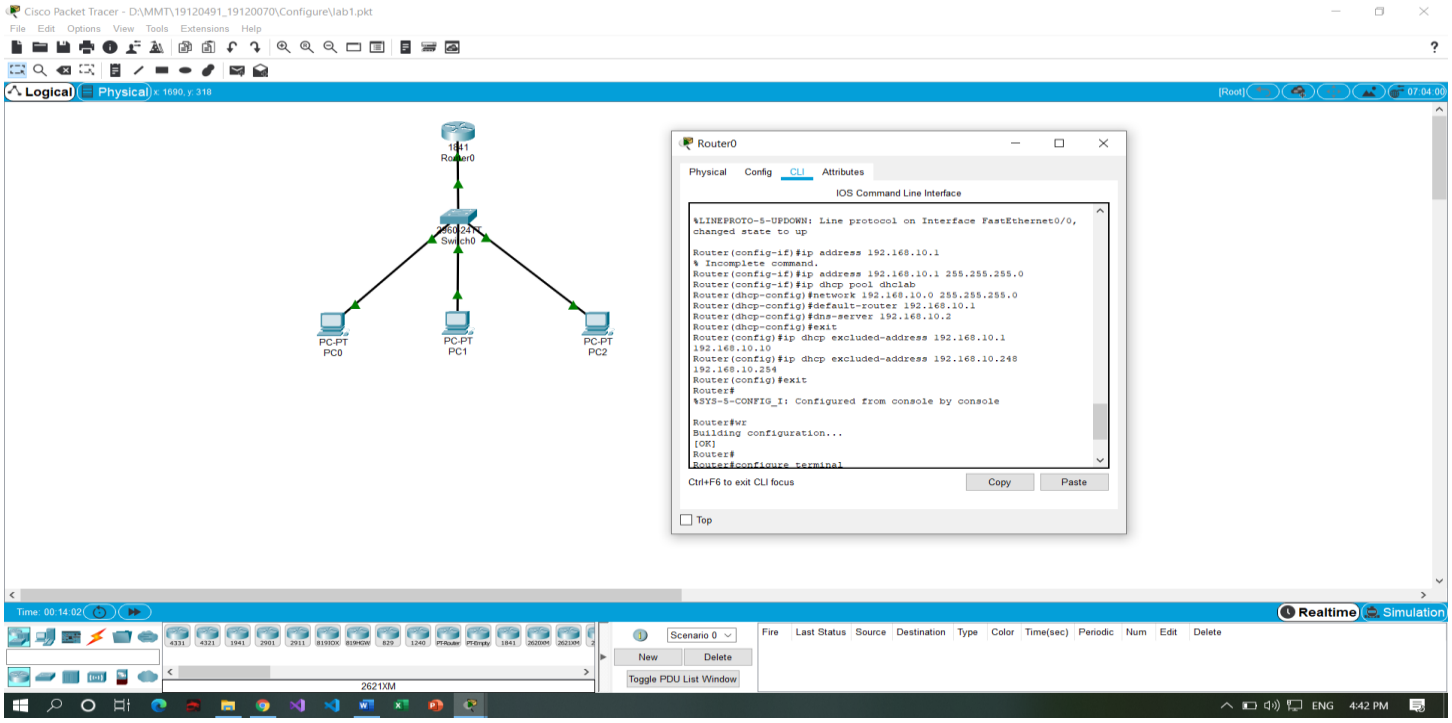
MỤC LỤC

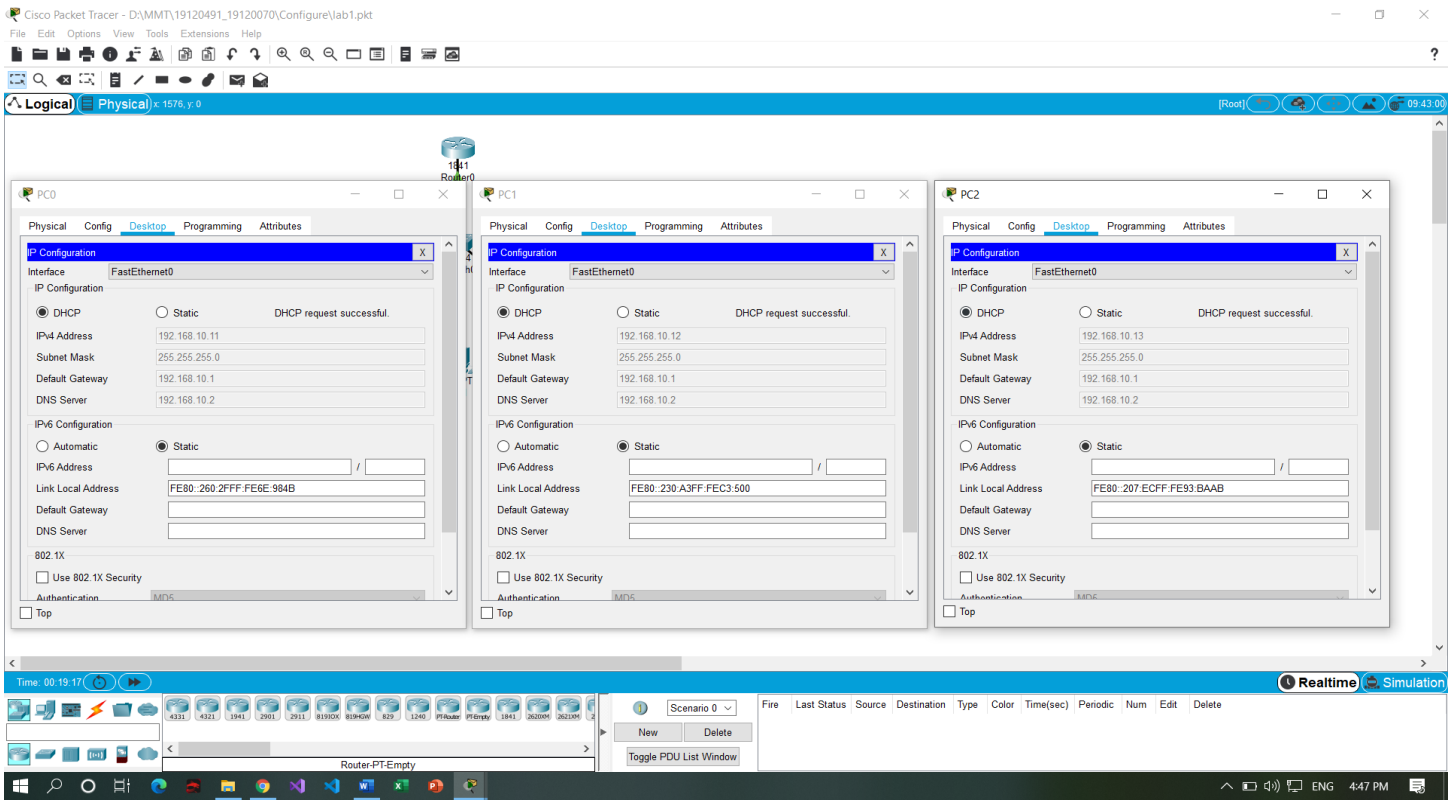
I. Lab 1: DHCP configuration on CISCO router

1. Cấu hình thiết bị

Cấu hình cho router bằng các command trong tab CLI



Cấu hình xong router thì vào từng **PC** →tab **Desktop** chỉnh **IP configuration** sang DHCP



2. Trả lời câu hỏi

1. IP addresses of PC0, PC1, PC2 which were acquired from DHCP

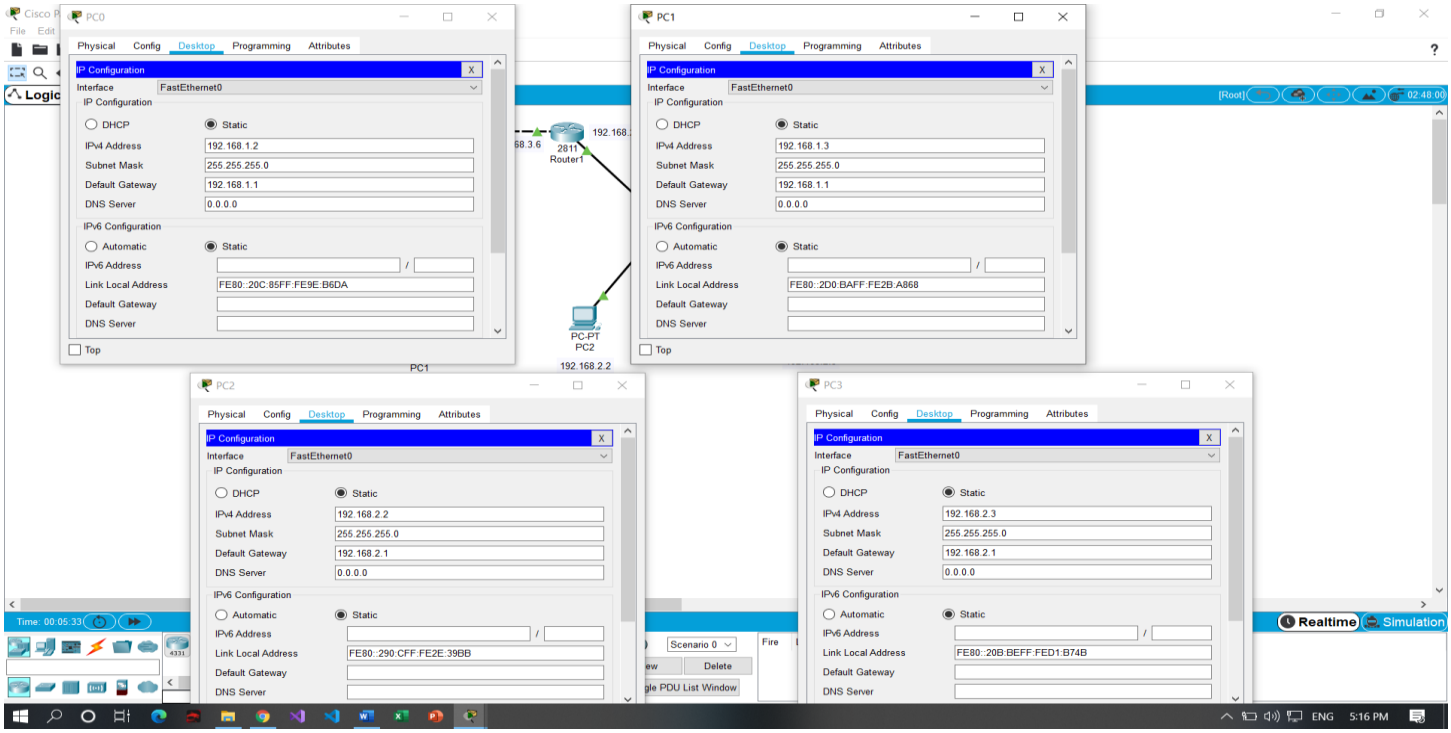
PC	IP address
PC0	192.168.10.11
PC1	192.168.10.12
PC2	192.168.10.13

2. The gateway addresses of PC0, PC1, PC2: 192.168.10.1
3. The DNS server for PC0, PC1, PC2 : 192.168.10.2

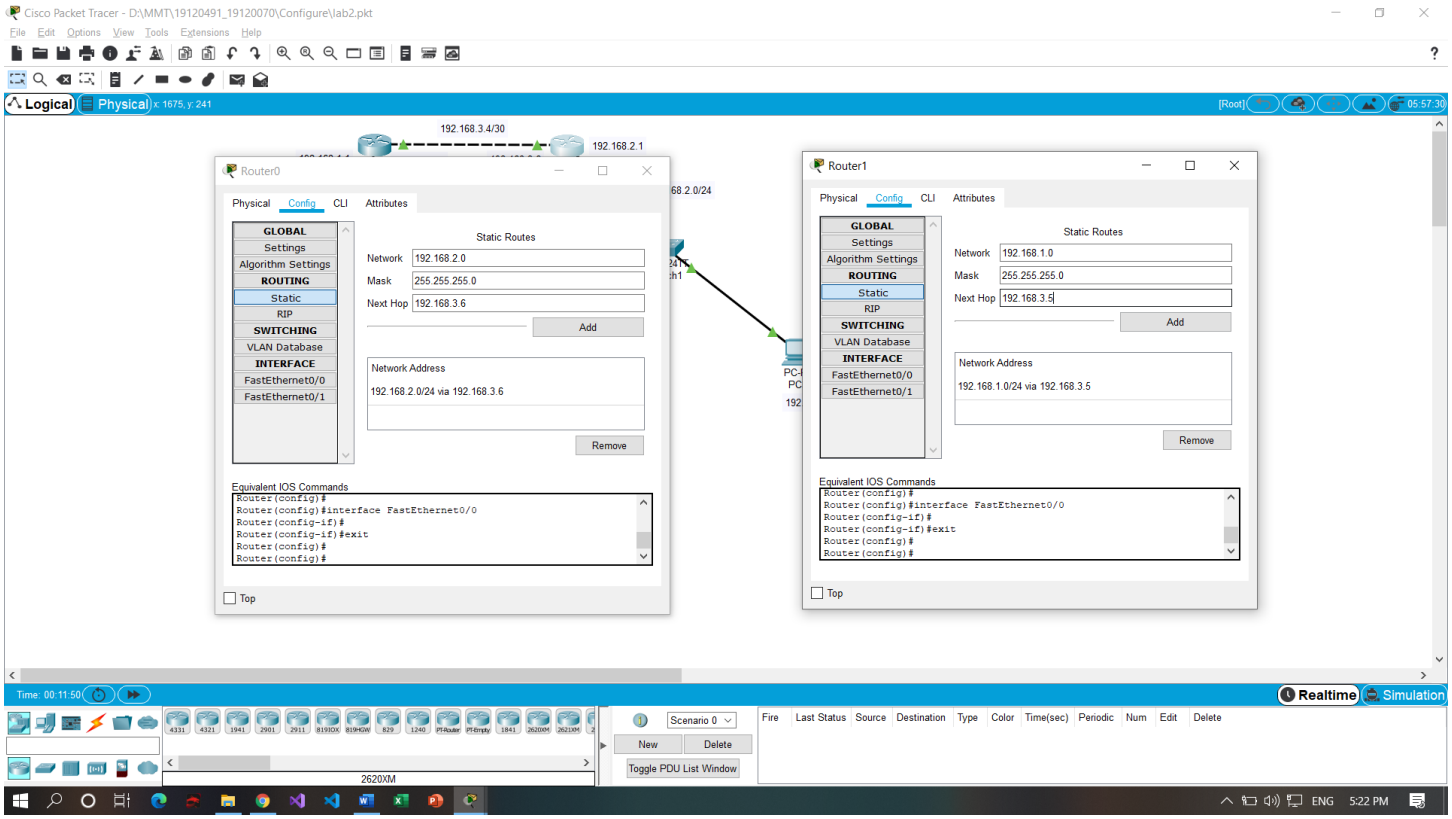
II. Lab 2: Stactic routing implementation

1. Cấu hình thiết bị

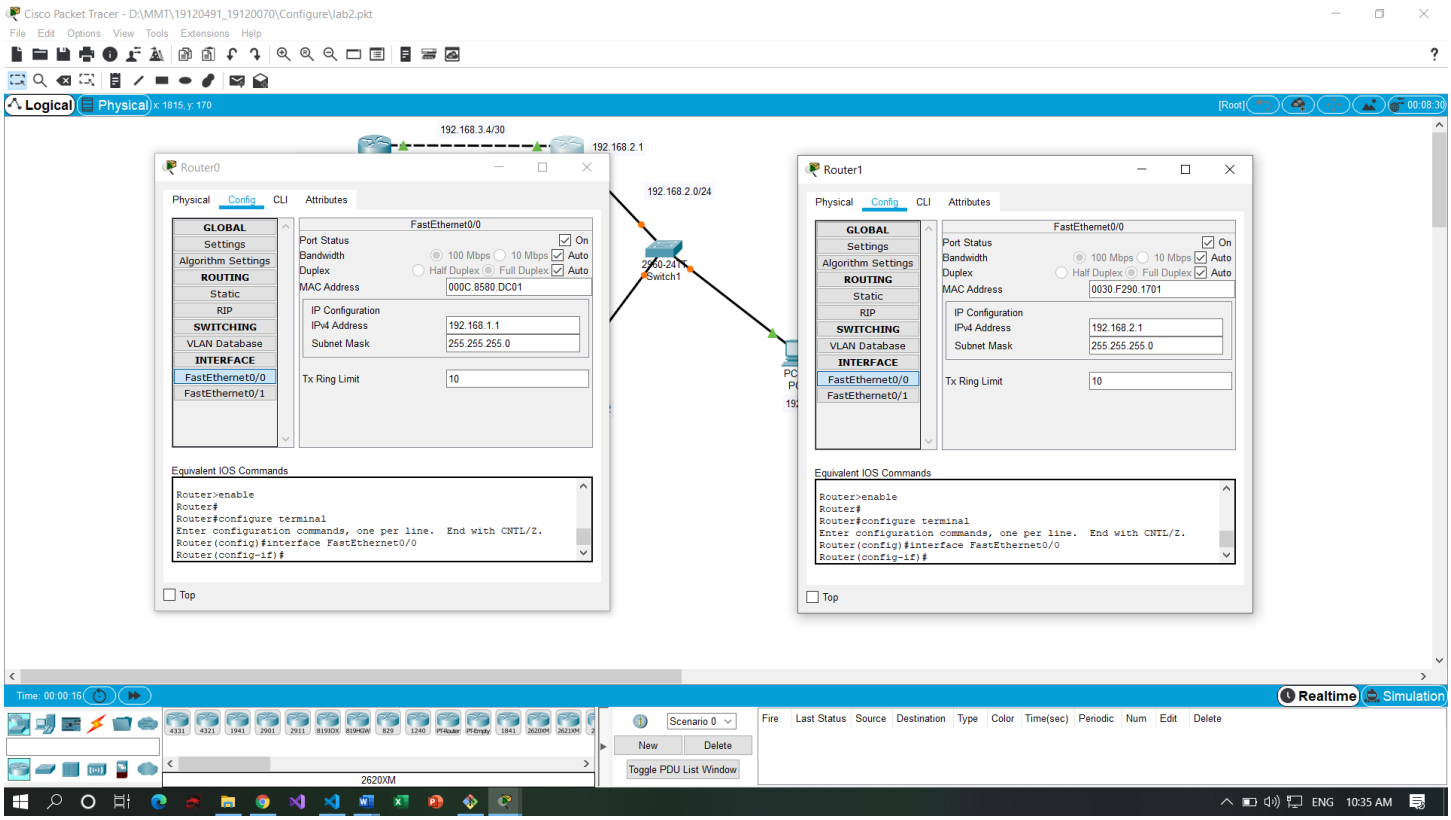
- Cấu hình IP configuration cho các PC: IPv4 address, Subnet Mask, Default Gateway tương ứng cho từng PC.



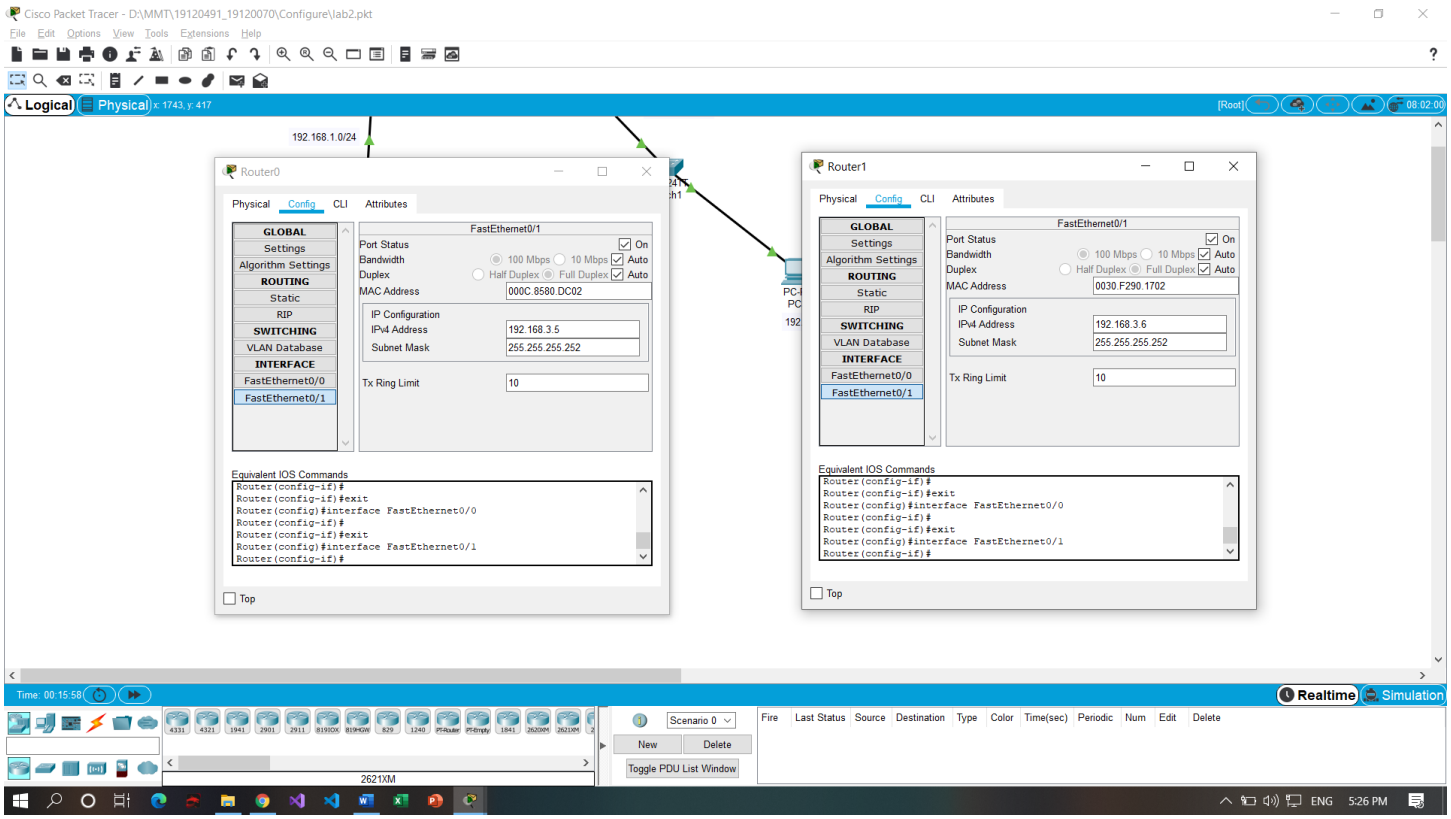
- Cấu hình config cho Router: Static Routes và Interface tương ứng cho từng router
  - Chỉnh Static Routes



- Chỉnh FastEthernet0/0

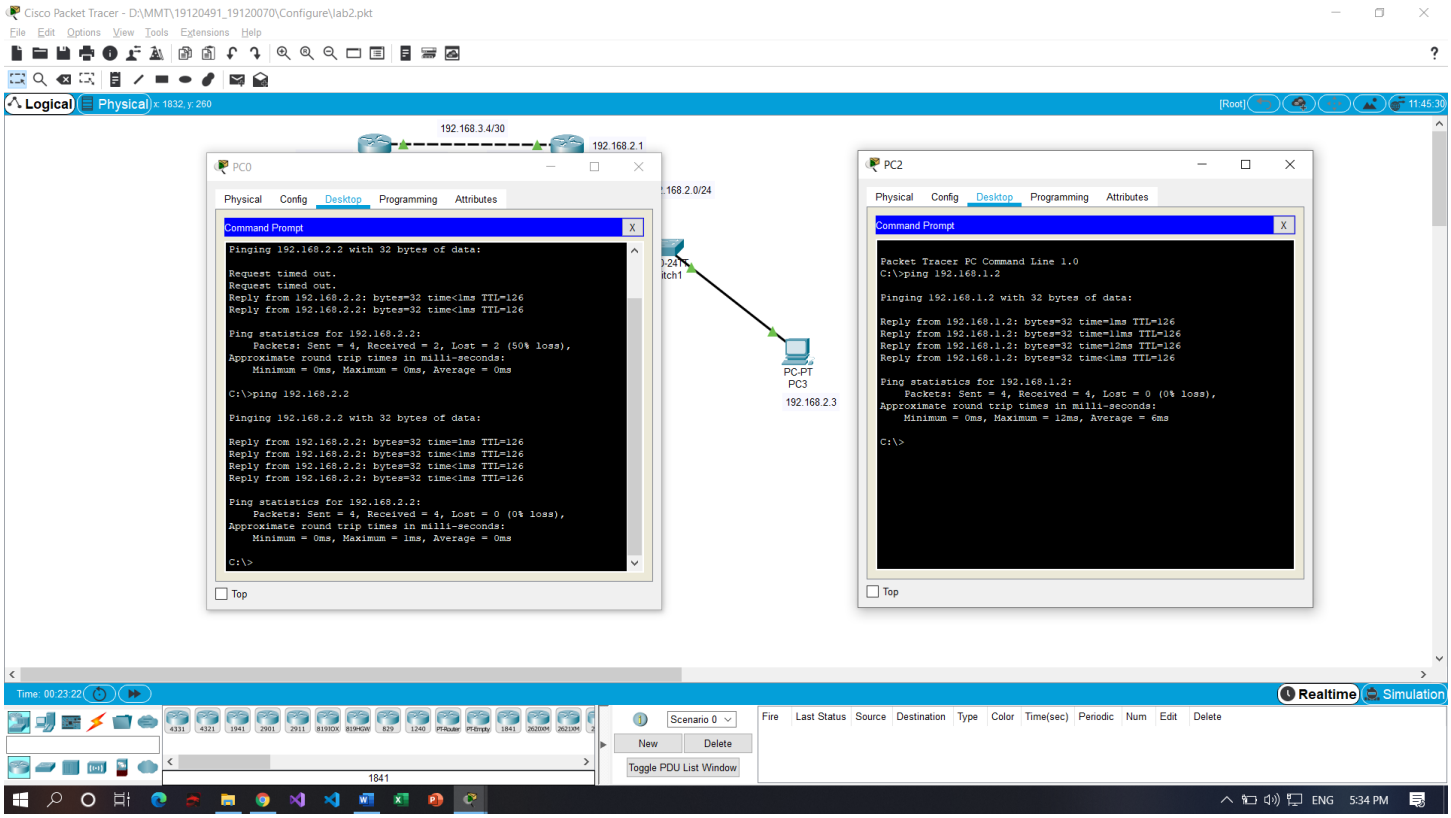


- Chỉnh FastEthernet0/1

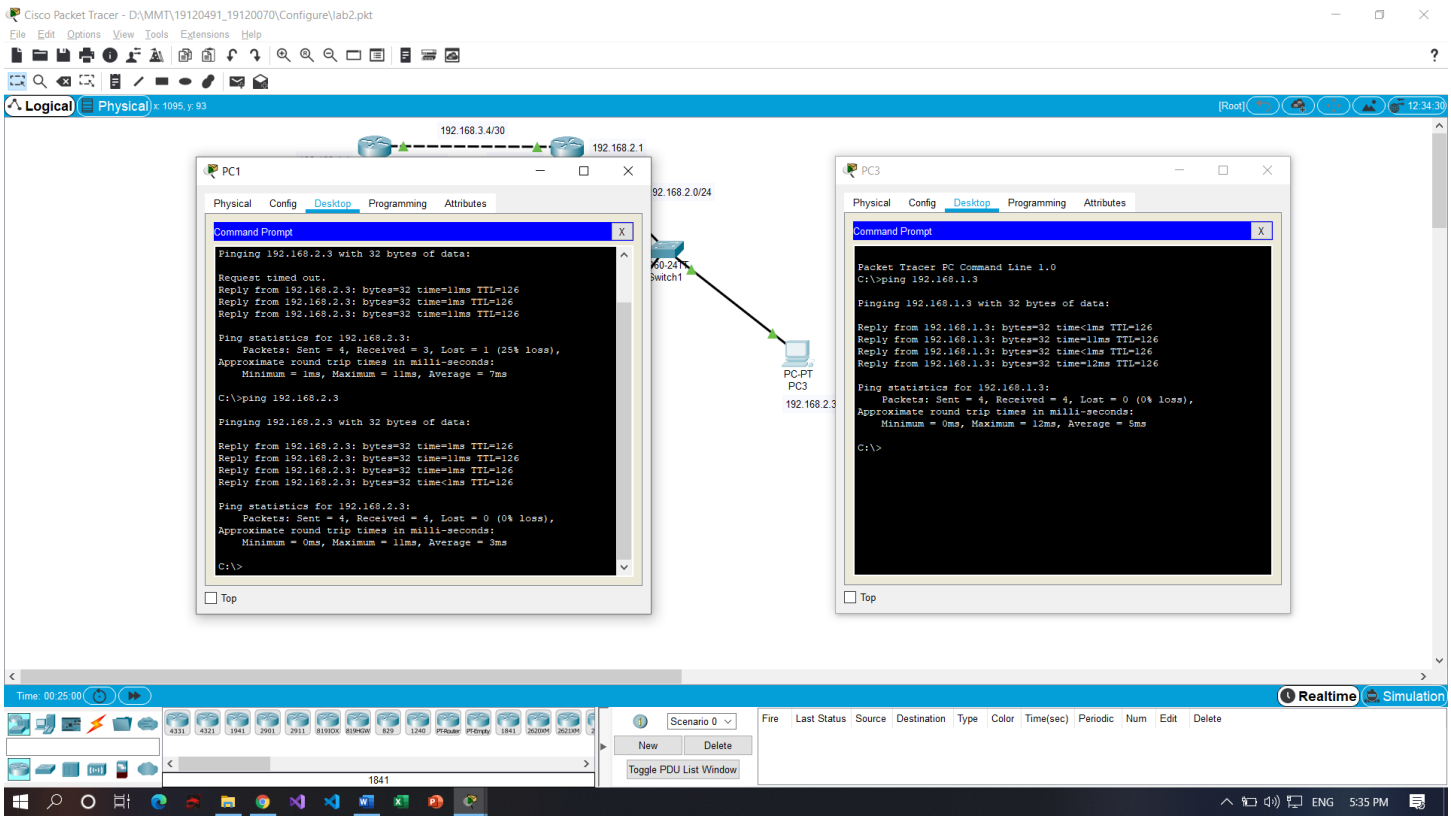


2. Trả lời câu hỏi

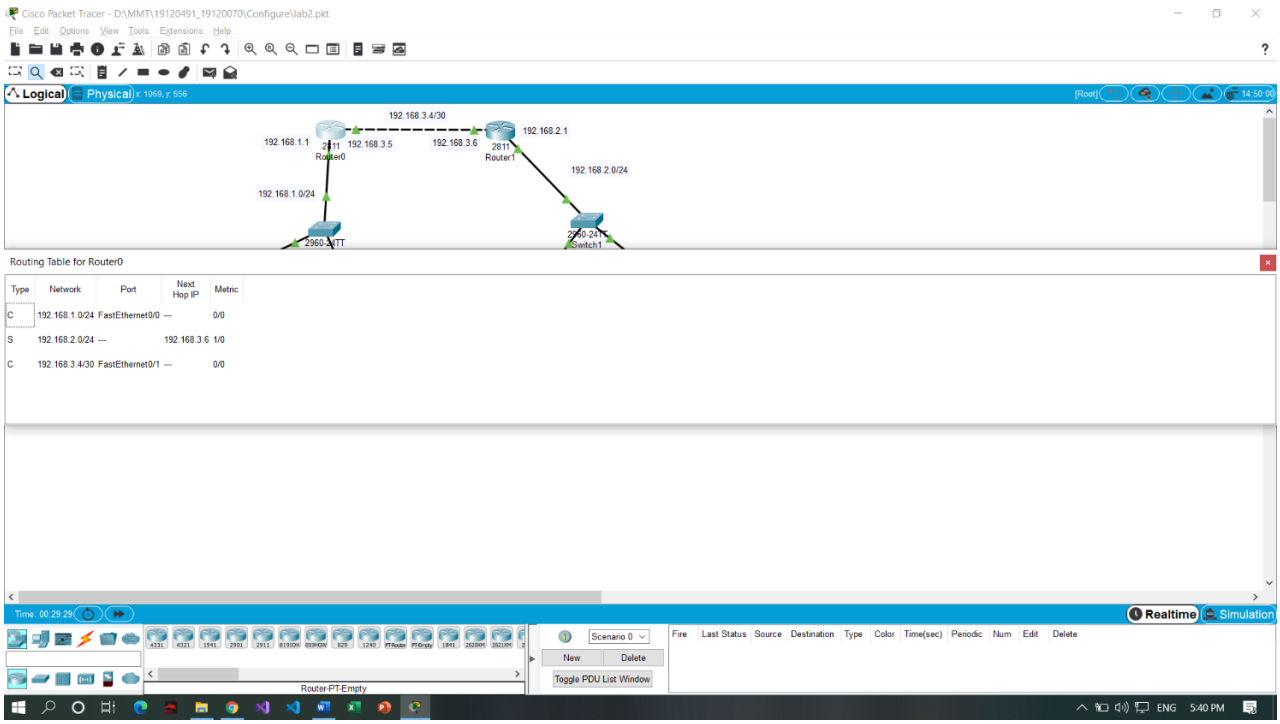
1. Ping between PC0 and PC2, PC3 and PC1
   - PC0 and PC2:



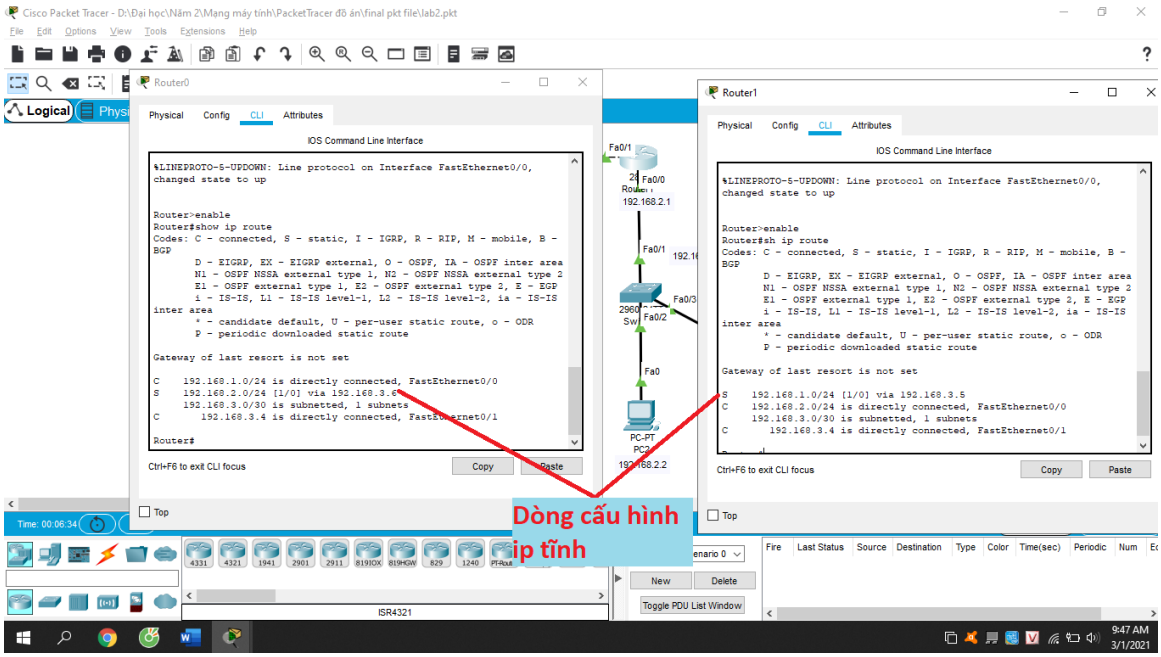
   - PC1 and PC3:



2. The routing table of router R0



3. Line in the routing table is configured by static route

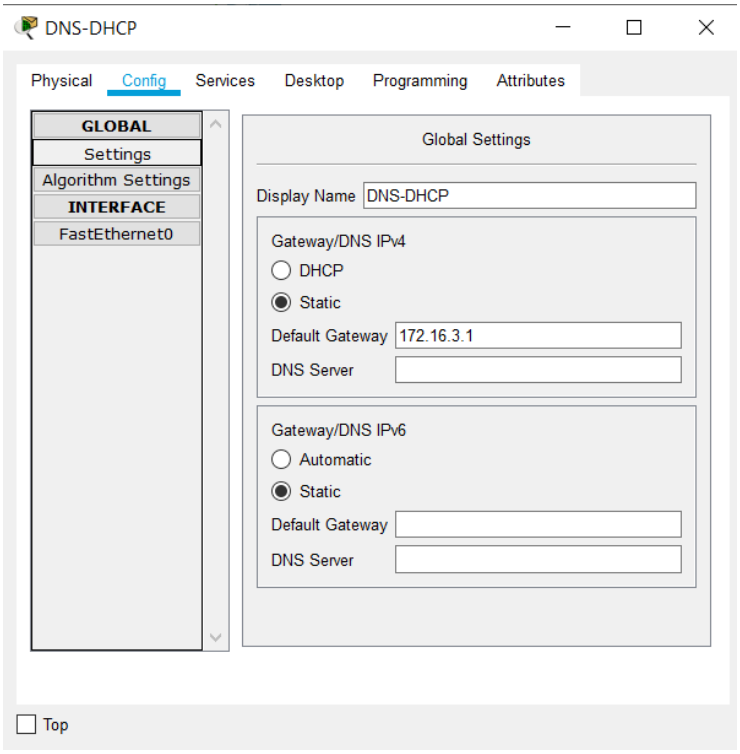


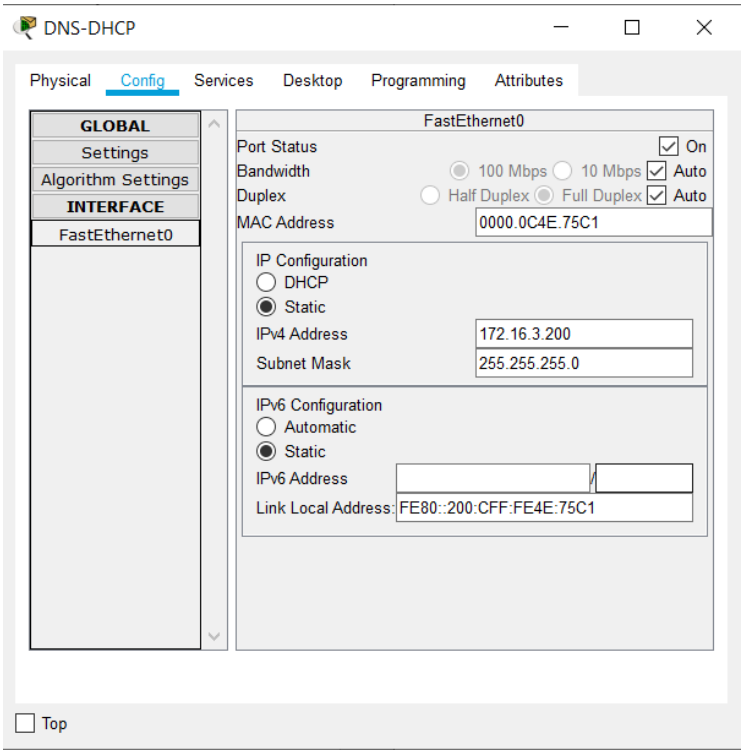
	Router 0	Router 1
Administrative distance (AD)	1	1
Metric	0	0

III. Lab 3: Implement the basic building network topology

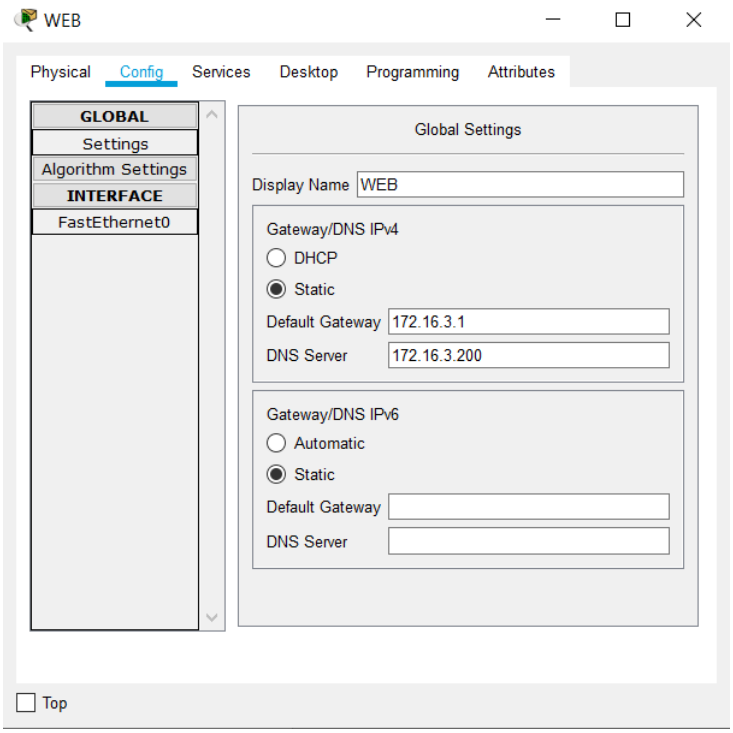
1. Cấu hình thiết bị

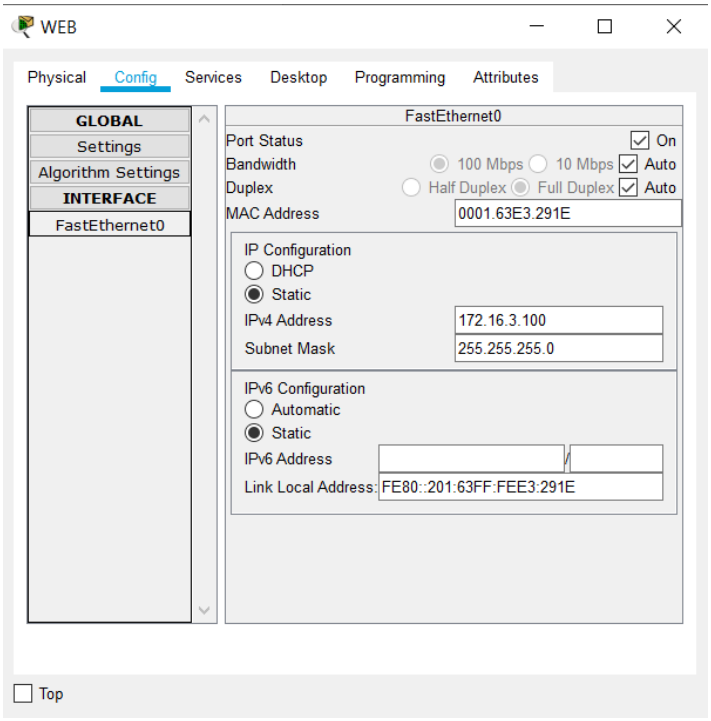
- Cấu hình cho DNS-DHCP server





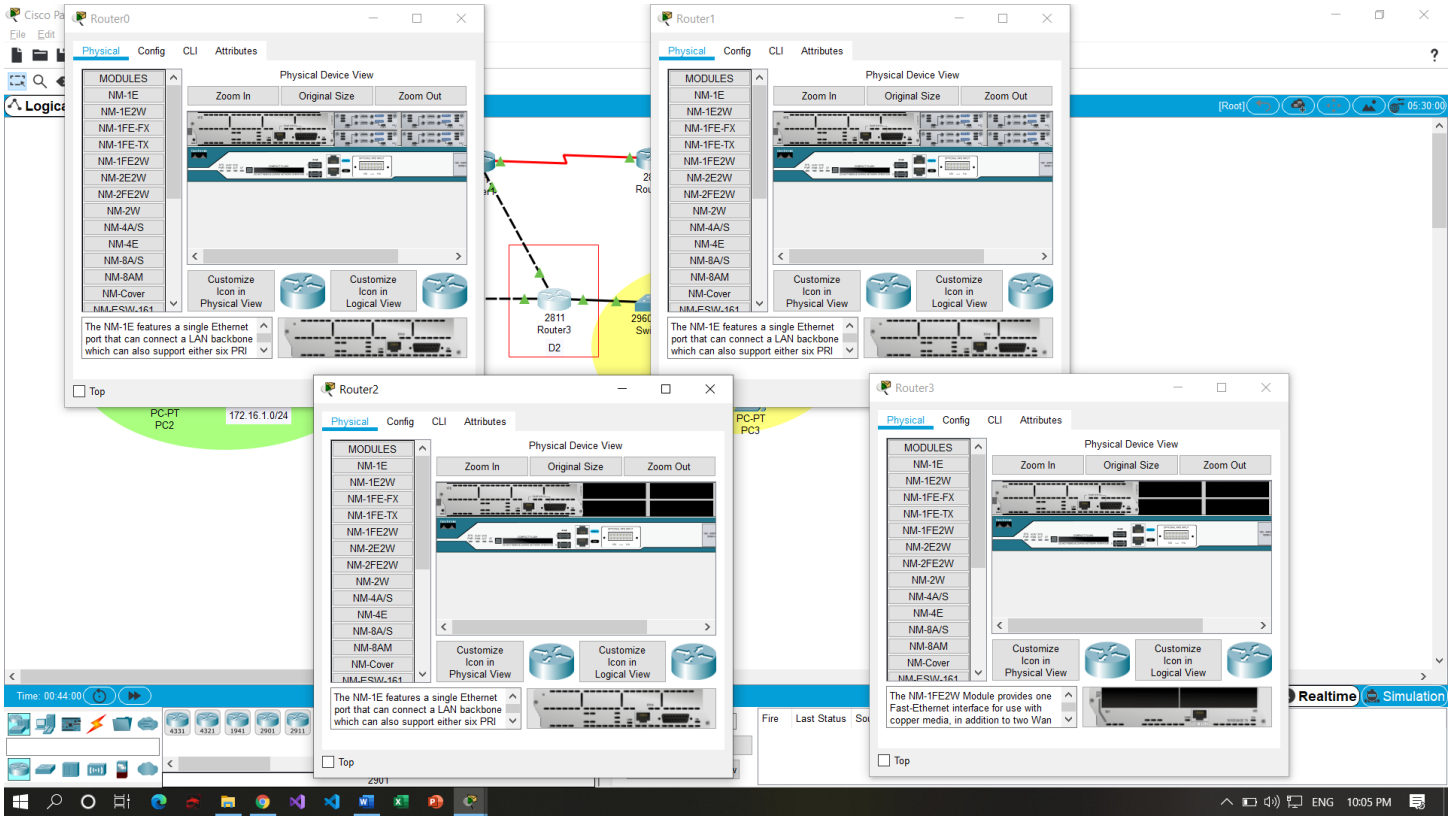
- Cấu hình cho WEB server



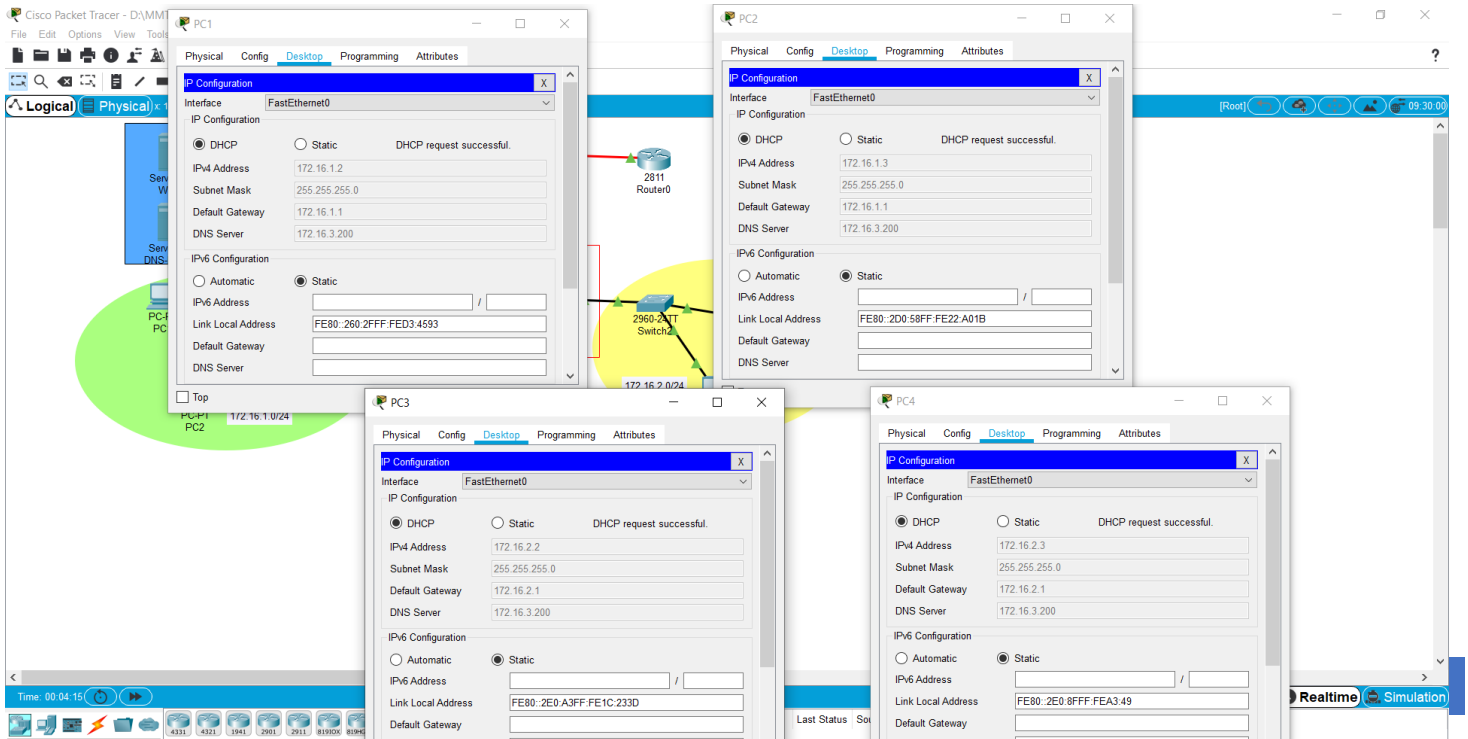


- Cấu hình cho Router: cài đặt module cho router

Router	Module	Chức năng
Router 0	HWIC-2T	Có được interface Se0/3/0
Router 1	- NM-1FE-TX - Se0/3/0	Có được interface Fa1/0 Có được interface Se0/3/0
Router 2	NM-1FE-TX	Có được interface Fa1/0
Router 3	NM-1FE-TX	Có được interface Fa1/0



- Cấu hình cho PC: Vào tab **Desktop** chuyển **IP configuration** thành DHCP



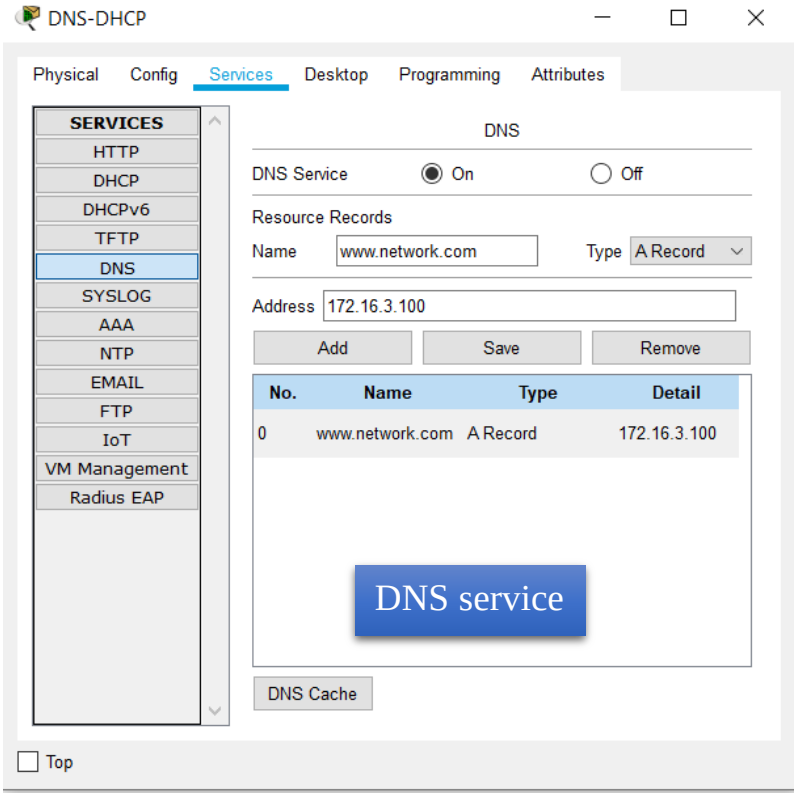
2. Trả lời câu hỏi

1. Finish the network topology

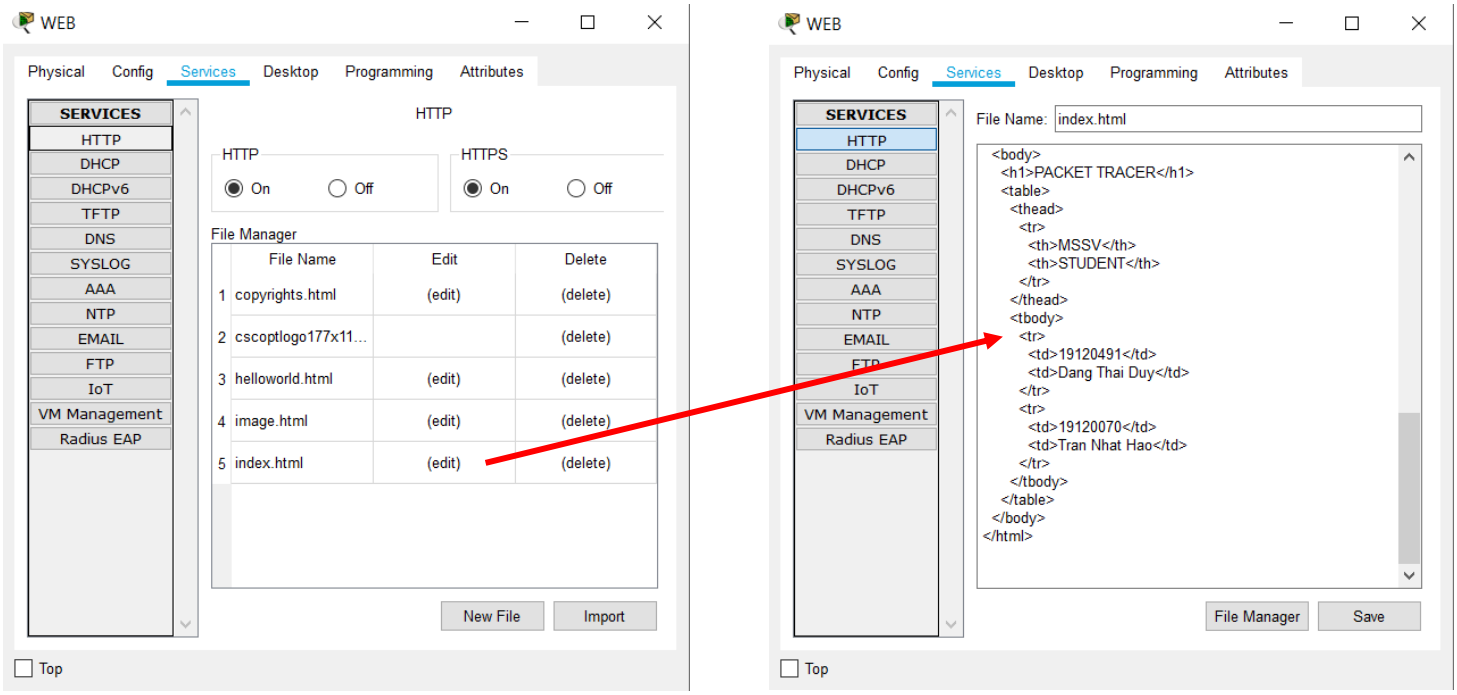
Device Name	Interface	IP address	Device Type
R0	S0/3/0	200.200.1.2/24	Router
R1	F0/0	172.16.3.1/24	Router
	F0/1	192.168.1.1/30	
	F1/0	192.168.2.1/30	
	S0/3/0	200.200.1.1/24	
R2	F0/0	172.16.1.1/24	Router
	F0/0	192.168.1.2/30	
	F1/0	192.168.3.1/30	
R3 (D2)	F0/1	192.168.2.2/30	Router
	F0/0	172.16.2.1/24	
	F1/0	192.168.3.2/30	
Switch1 (D1)			Switch
WEB server	F0	172.16.3.100	Server
DNS-DHCP server	F0	172.16.3.200	Server
PC1	F0	172.16.1.2	End device
PC2	F0	172.16.1.3	End device
PC3	F0	172.16.2.2	End device
PC4	F0	172.16.2.3	End device

2. Configure the DNS server and Web server for www.network.com

- Cấu hình services cho DNS server

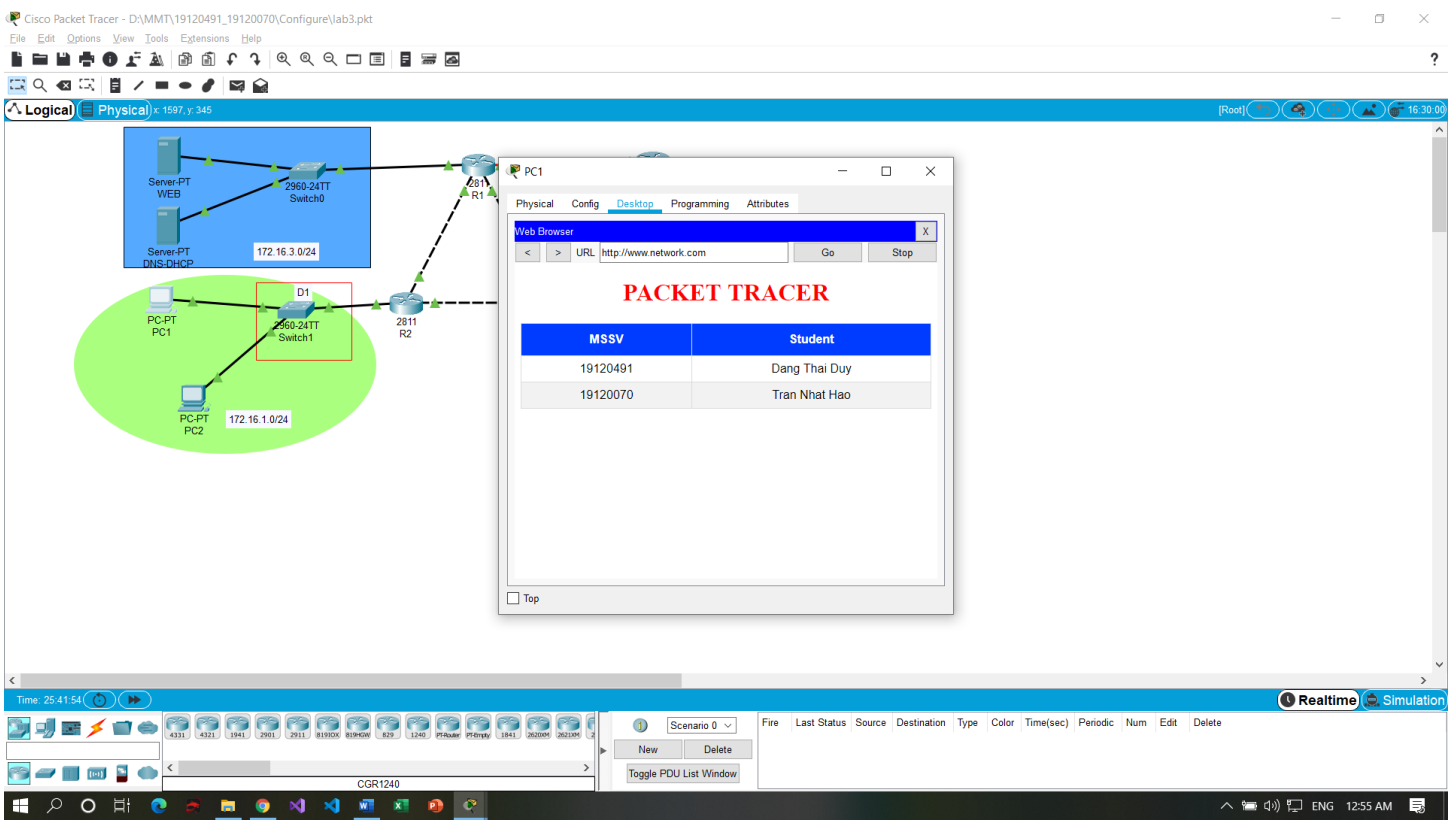


- Cấu hình services cho WEB server

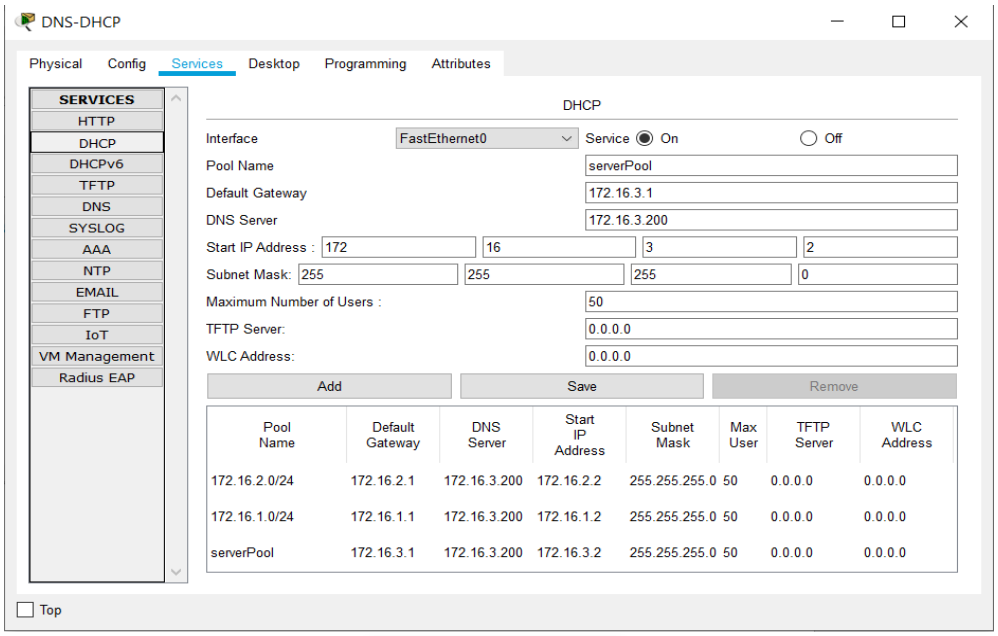


HTTP service

- Truy cập vào www.network.com

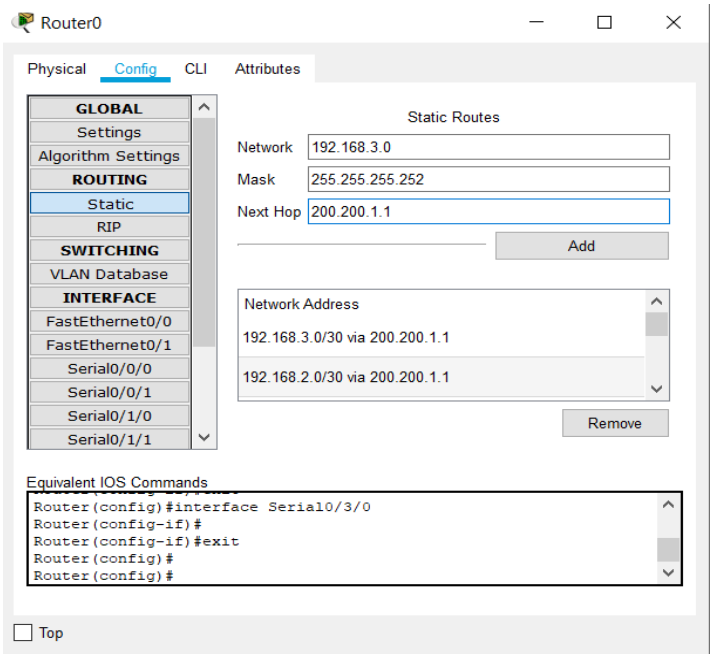


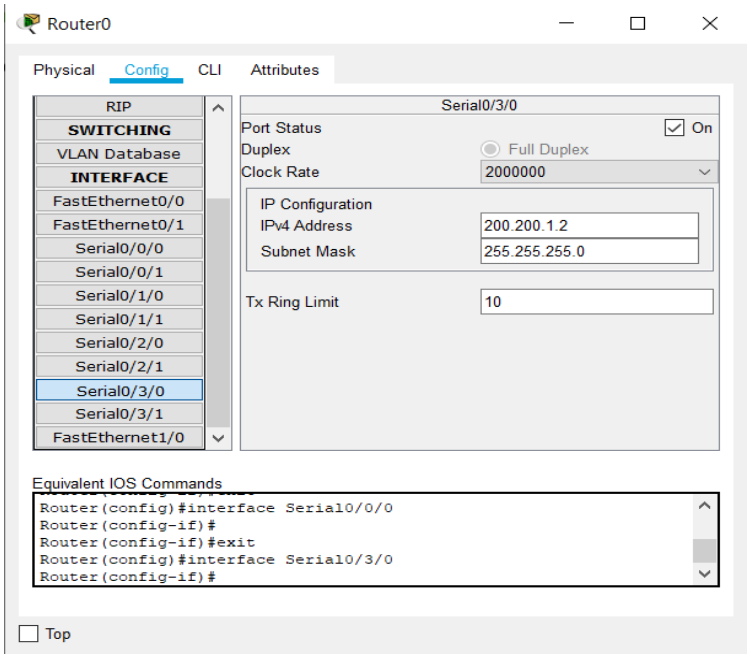
3. Configure the DHCP server to assign the IP addresses to PC1, PC2, PC3, PC4



DHCP service

4. Configure static routing for all routers
   - Chỉnh router 0: Chỉnh lần lượt Static Routes và Interface





Static Routes		
Network	**Mask**	**Next hop**
172.16.1.0	255.255.255.0	200.200.1.1
172.16.2.0	255.255.255.0	200.200.1.1
172.16.3.0	255.255.255.0	200.200.1.1

Interface	**IP Configuration**	
	Ipv4 Address	**Subnet Mask**
Serial0/3/0	200.200.1.2	255.255.255.0

Tương tự như vậy, cấu hình lần lượt cho các router 1, router 2, router 3

- Chỉnh router 1:

Static Routes		
Network	**Mask**	**Next hop**
172.16.1.0	255.255.255.0	192.168.1.2
172.16.2.0	255.255.255.0	192.168.2.2

Interface	**IP Configuration**	
	Ipv4 Address	**Subnet Mask**
FastEthernet0/0	172.16.3.1	255.255.255.0
FastEthernet0/1	192.168.1.1	255.255.255.252
Serial0/3/0	200.200.1.1	255.255.255.0
FastEthernet1/0	192.168.2.1	255.255.255.252

- Chỉnh router 2:

Static Routes		
Network	**Mask**	**Next hop**
172.16.2.0	255.255.255.0	192.168.3.2
172.16.3.0	255.255.255.0	192.168.1.1
200.200.1.0	255.255.255.0	192.168.1.1

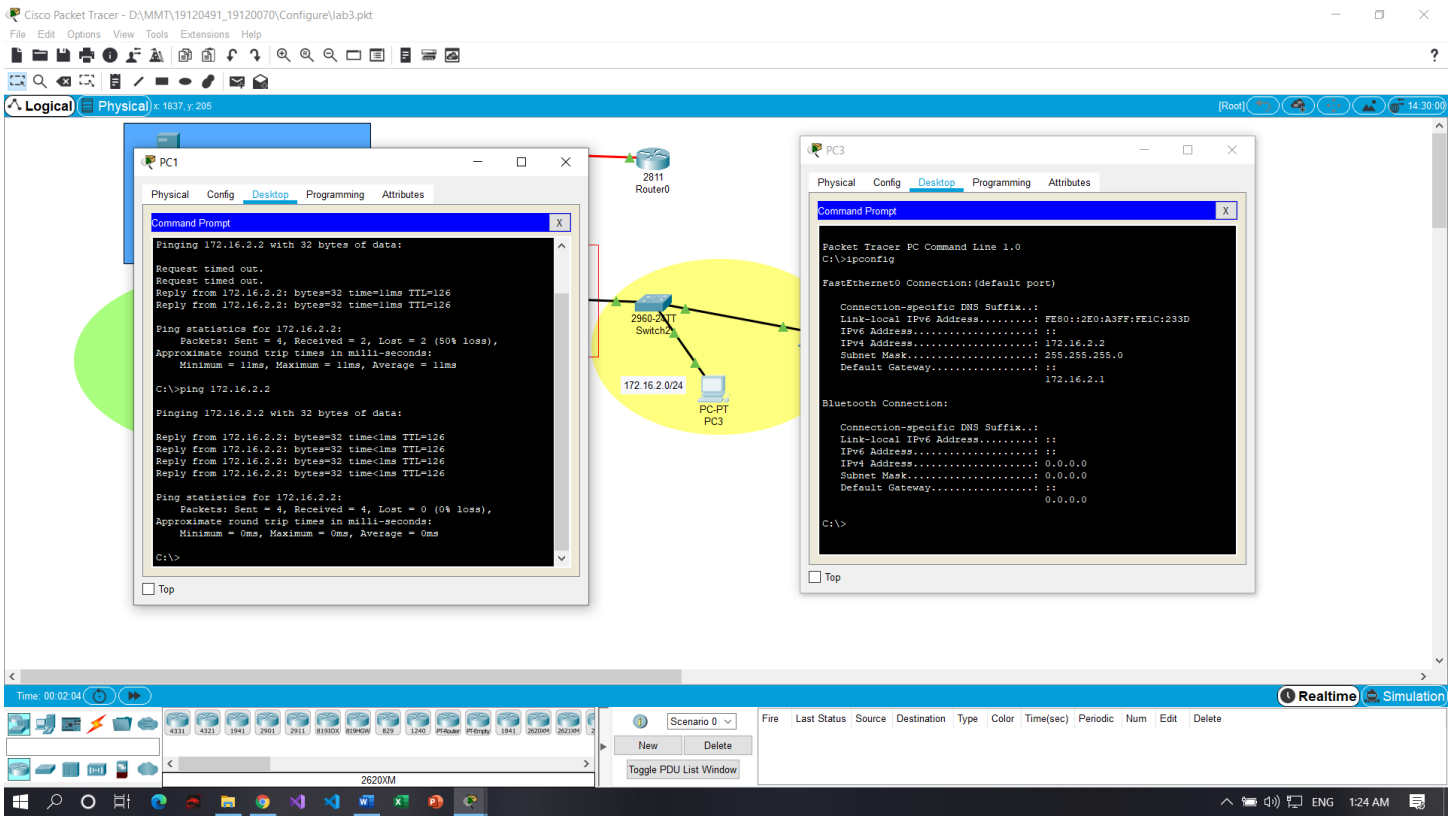
Interface	**IP Configuration**	
	Ipv4 Address	**Subnet Mask**
FastEthernet0/0	172.16.1.1	255.255.255.0
FastEthernet0/1	192.168.1.2	255.255.255.252
FastEthernet1/0	192.168.3.1	255.255.255.252

- Chỉnh router 3:

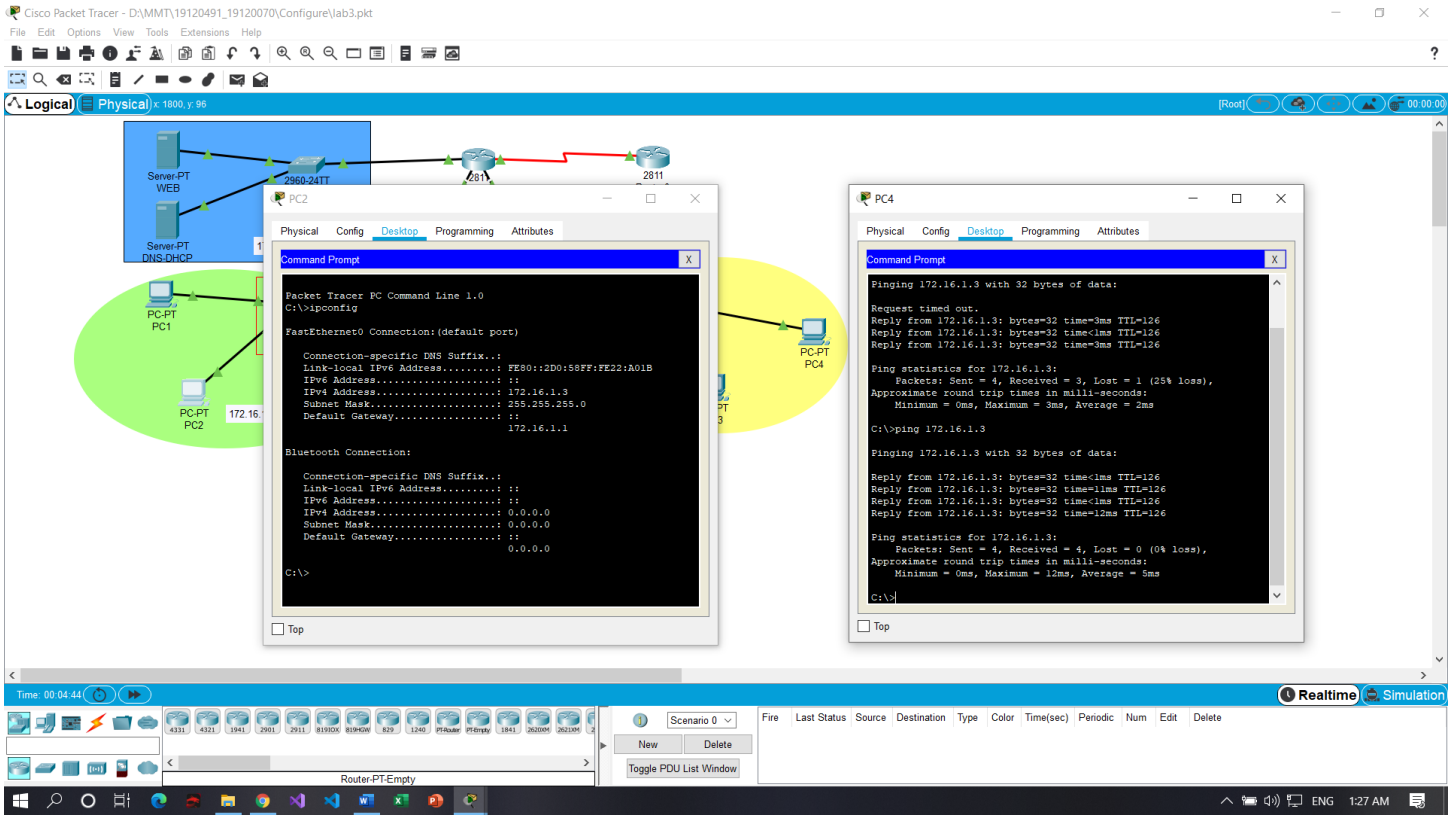
Static Routes		
Network	**Mask**	**Next hop**
172.16.1.0	255.255.255.0	192.168.3.1
172.16.3.0	255.255.255.0	192.168.2.1
200.200.1.0	255.255.255.0	192.168.2.1

Interface	**IP Configuration**	
	Ipv4 Address	**Subnet Mask**
FastEthernet0/0	172.16.1.1	255.255.255.0
FastEthernet0/1	192.168.1.2	255.255.255.252
FastEthernet1/0	192.168.3.1	255.255.255.252

5. Execute ping command from PC1 to PC3, PC4 to PC2
   - Ping from PC1 to PC3



- Ping from PC4 to PC2



6. Access the web pages at http://www.network.com address via web browser