HƯỚNG DẪN LAB
LAB 9 – Lab tổng hợp 1

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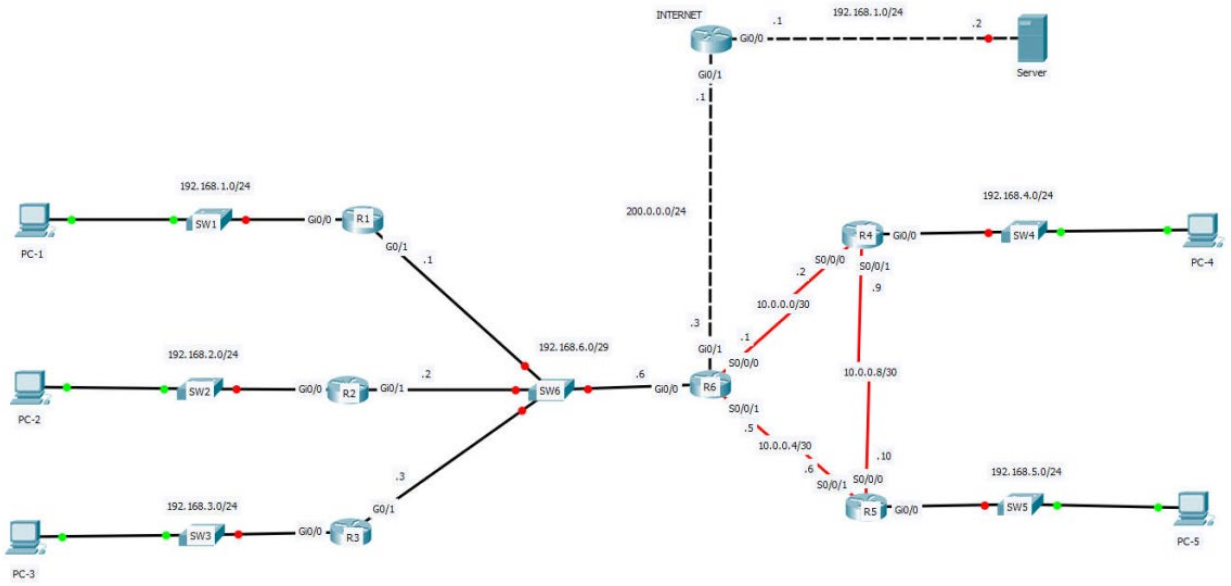
Sơ đồ LAB :



Các bước thực hiện :

Bước 1: Đấu nối như sơ đồ.

Bước 2: Đặt tên và IP cho các router

R1

```
Router(config)# hostname R1
R1(config)# enable secret N3w$t@r
R1(config)# interface Gi0/0
R1(config-if)# ip address 192.168.1.1 255.255.255.0
R1(config-if)# no shut
R1(config-if)# exit
R1(config)# interface Gi0/1
R1(config-if)# ip address 192.168.6.1 255.255.255.248
R1(config-if)# no shutdown
```

Kiểm tra :

```
R1# show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
```

```
GigabitEthernet0/0     192.168.1.1     YES manual up                    up
GigabitEthernet0/1     192.168.6.1     YES manual up                    up
GigabitEthernet0/2     unassigned      YES unset  administratively down down
Vlan1                  unassigned      YES unset  administratively down down
```

R2

```
Router(config)# hostname R2
R2(config)# enable secret N3w$t@r
R2(config)# interface Gi0/0
R2(config-if)# ip address 192.168.2.1 255.255.255.0
R2(config-if)# no shutdown
R2(config-if)# exit
R2(config)# interface Gi0/1
R2(config-if)# ip address 192.168.6.2 255.255.255.248
R2(config-if)# no shutdown
```

Kiểm tra:

```
R2# show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     192.168.2.1     YES manual up                    up
GigabitEthernet0/1     192.168.6.2     YES manual up                    up
GigabitEthernet0/2     unassigned      YES unset  administratively down down
Vlan1                  unassigned      YES unset  administratively down down
```

R3

```
Router(config)# hostname R3
R3(config)# enable secret N3w$t@r
R3(config)# interface Gi0/0
R3(config-if)# ip address 192.168.3.1 255.255.255.0
R3(config-if)# no shutdown
R3(config-if)# exit
R3(config)# interface Gi0/1
R3(config-if)# ip address 192.168.6.3 255.255.255.248
R3(config-if)# no shutdown
```

Kiểm tra :

```
R3# show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     192.168.3.1     YES manual up                    up
GigabitEthernet0/1     192.168.6.3     YES manual up                    up
GigabitEthernet0/2     unassigned      YES unset  administratively down down
Vlan1                  unassigned      YES unset  administratively down down
```

R4

```
Router(config)# hostname R4
R4(config)# enable secret N3w$t@r
R4(config)# interface Gi0/0
R4(config-if)# ip address 192.168.4.1 255.255.255.0
R4(config-if)# no shutdown
R4(config-if)# exit
R4(config)# interface S0/0/0
R4(config-if)# ip address 10.0.0.2 255.255.255.252
R4(config-if)# no shutdown
R4(config-if)# exit
R4(config)# interface S0/0/1
R4(config-if)# ip address 10.0.0.9 255.255.255.252
R4(config-if)# no shutdown
```

Kiểm tra :

```
R4# show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     192.168.4.1     YES manual up                    up
GigabitEthernet0/1     unassigned      YES unset  administratively down down
GigabitEthernet0/2     unassigned      YES unset  administratively down down
Serial0/0/0            10.0.0.2        YES manual down                  down
Serial0/0/1            10.0.0.9        YES manual down                  down
Vlan1                  unassigned      YES unset  administratively down down
```

R5

```
Router(config)# hostname R5
R5(config)# enable secret N3w$t@r
R5(config)# interface Gi0/0
R5(config-if)# ip address 192.168.5.1 255.255.255.0
R5(config-if)# no shutdown
R5(config-if)# exit
R5(config)# interface S0/0/0
R5(config-if)# ip address 10.0.0.10 255.255.255.252
R5(config-if)# no shutdown
R5(config-if)# exit
R5(config)# interface S0/0/1
R5(config-if)# ip address 10.0.0.6 255.255.255.252
R5(config-if)# no shutdown
```

Kiểm tra :

```
R5# show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     192.168.5.1     YES manual up                    up
GigabitEthernet0/1     unassigned      YES unset  administratively down down
GigabitEthernet0/2     unassigned      YES unset  administratively down down
Serial0/0/0            10.0.0.10       YES manual up                    up
Serial0/0/1            10.0.0.6        YES manual down                  down
Vlan1                  unassigned      YES unset  administratively down down
```

R6

```
Router(config)# hostname R6
R6(config)# enable secret N3w$t@r
R6(config)# interface Gi0/0
R6(config-if)# ip address 192.168.6.6 255.255.255.248
R6(config-if)# no shutdown
R6(config-if)# exit
R6(config)# interface Gi0/1
R6(config-if)# ip address 200.0.0.3 255.255.255.0
R6(config-if)# no shutdown
R6(config-if)# exit
R6(config)# interface S0/0/0
R6(config-if)# ip address 10.0.0.1 255.255.255.252
R6(config-if)# no shutdown
R6(config-if)# exit
R6(config)# interface S0/0/1
R6(config-if)# ip address 10.0.0.5 255.255.255.252
R6(config-if)# no shutdown
```

Kiểm tra :

```
R6# show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     192.168.6.6     YES manual up                    up
GigabitEthernet0/1     200.0.0.3       YES manual up                    down
```

```
GigabitEthernet0/2     unassigned      YES unset  administratively down down
Serial0/0/0            10.0.0.1        YES manual up                    up
Serial0/0/1            10.0.0.5        YES manual up                    up
Vlan1                  unassigned      YES unset  administratively down down
```

INTERNET

```
Router(config)# hostname INTERNET
INTERNET(config)# enable secret N3w$t@r
INTERNET(config)# interface Gi0/0
INTERNET(config-if)# ip address 192.168.1.1 255.255.255.0
INTERNET(config-if)# no shutdown
INTERNET(config-if)# exit
INTERNET(config)# interface Gi0/1
INTERNET(config-if)# ip address 200.0.0.1 255.255.255.0
INTERNET(config-if)# no shut
```

Kiểm tra :

```
INTERNET# show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     192.168.1.1     YES manual up                    up
GigabitEthernet0/1     200.0.0.1       YES manual up                    up
GigabitEthernet0/2     unassigned      YES unset  administratively down down
Vlan1                  unassigned      YES unset  administratively down down
```

Bước 3 : Cấu hình SSH cho các router

R1

```
R1(config)# username admin password N3w$t@r
R1(config)# ip domain-name example.com
R1(config)# crypto key genera te rsa
The name for the keys will be: R1.example.com
Choose the size of the key modulus in the range of 360 to 2048 for your
  General Purpose Keys. Choosing a key modulus greater than 512 may take
  a few minutes.

How many bits in the modulus [512]: 2048
% Generating 2048 bit RSA keys, keys will be non-exportable...[OK]

R1(config)# line vty 0 4
R1(config-line)# login local
R1(config-line)# transport input ssh
```

R2

```
R2(config)# username admin password N3w$t@r
R2(config)# ip domain-name example.com
R2(config)# crypto key genera te rsa
The name for the keys will be: R1.example.com
Choose the size of the key modulus in the range of 360 to 2048 for your
  General Purpose Keys. Choosing a key modulus greater than 512 may take
  a few minutes.

How many bits in the modulus [512]: 2048
% Generating 2048 bit RSA keys, keys will be non-exportable...[OK]

R2(config)# line vty 0 4
R2(config-line)# login local
R2(config-line)# transport input ssh
```

R3

```
R3(config)# username admin password N3w$t@r
R3(config)# ip domain-name example.com
R3(config)# crypto key genera te rsa
The name for the keys will be: R1.example.com
Choose the size of the key modulus in the range of 360 to 2048 for your
  General Purpose Keys. Choosing a key modulus greater than 512 may take
  a few minutes.

How many bits in the modulus [512]: 2048
% Generating 2048 bit RSA keys, keys will be non-exportable...[OK]

R3(config)# line vty 0 4
R3(config-line)# login local
R3(config-line)# transport input ssh
```

R4

```
R4(config)# username admin password N3w$t@r
R4(config)# ip domain-name example.com
R4(config)# crypto key genera te rsa
The name for the keys will be: R1.example.com
Choose the size of the key modulus in the range of 360 to 2048 for your
  General Purpose Keys. Choosing a key modulus greater than 512 may take
  a few minutes.

How many bits in the modulus [512]: 2048
% Generating 2048 bit RSA keys, keys will be non-exportable...[OK]

R4(config)# line vty 0 4
R4(config-line)# login local
R4(config-line)# transport input ssh
```

R5

```
R5(config)# username admin password N3w$t@r
R5(config)# ip domain-name example.com
R5(config)# crypto key genera te rsa
The name for the keys will be: R1.example.com
Choose the size of the key modulus in the range of 360 to 2048 for your
  General Purpose Keys. Choosing a key modulus greater than 512 may take
  a few minutes.

How many bits in the modulus [512]: 2048
% Generating 2048 bit RSA keys, keys will be non-exportable...[OK]

R5(config)# line vty 0 4
R5(config-line)# login local
R5(config-line)# transport input ssh
```

R6

```
R6(config)# username admin password N3w$t@r
R6(config)# ip domain-name example.com
R6(config)# crypto key genera te rsa
The name for the keys will be: R1.example.com
Choose the size of the key modulus in the range of 360 to 2048 for your
  General Purpose Keys. Choosing a key modulus greater than 512 may take
  a few minutes.
```

```
How many bits in the modulus [512]: 2048
% Generating 2048 bit RSA keys, keys will be non-exportable...[OK]

R6(config)# line vty 0 4
R6(config-line)# login local
R6(config-line)# transport input ssh
```

INTERNET

```
INTERNET(config)# username admin password N3w$t@r
INTERNET(config)# ip domain-name example.com
INTERNET(config)# crypto key genera te rsa
The name for the keys will be: R1.example.com
Choose the size of the key modulus in the range of 360 to 2048 for your
  General Purpose Keys. Choosing a key modulus greater than 512 may take
  a few minutes.

How many bits in the modulus [512]: 2048
% Generating 2048 bit RSA keys, keys will be non-exportable...[OK]

INTERNET(config)# line vty 0 4
INTERNET(config-line)# login local
INTERNET config-line)# transport input ssh
```

Bước 4 : Cấu hình Router 6 làm DHCP Server cho subnet 192.168.1.0/24, 192.168.2.0/24, 192.168.3.0/24

R6

```
R6(config)# ip dhcp pool LAN-1
R6(dhcp-config)# network 192.168.1.0 255.255.255.0
R6(dhcp-config)# default-router 192.168.1.1
R6(dhcp-config)# dns 8.8.8.8
R6(dhcp-config)# exit
R6(config)# ip dhcp pool LAN-2
R6(dhcp-config)# network 192.168.2.0 255.255.255.0
R6(dhcp-config)# default-router 192.168.2.1
R6(dhcp-config)# dns 8.8.8.8
R6(dhcp-config)# exit
R6(config)# ip dhcp pool LAN-3
R6(dhcp-config)# network 192.168.3.0 255.255.255.0
R6(dhcp-config)# default-router 192.168.3.1
R6(dhcp-config)# dns 8.8.8.8
R6(dhcp-config)# exit
R6(config)# ip dhcp excluded-address 192.168.1.1
R6(config)# ip dhcp excluded-address 192.168.2.1
R6(config)# ip dhcp excluded-address 192.168.3.1

R6(config)# ip route 192.168.1.0 255.255.255.0 192.168.6.1
R6(config)# ip route 192.168.2.0 255.255.255.0 192.168.6.2
R6(config)# ip route 192.168.3.0 255.255.255.0 192.168.6.3
```

R1

```
R1(config)# interface Gi0/0
R1(config-if)# ip helper-address 192.168.6.6
```

R2

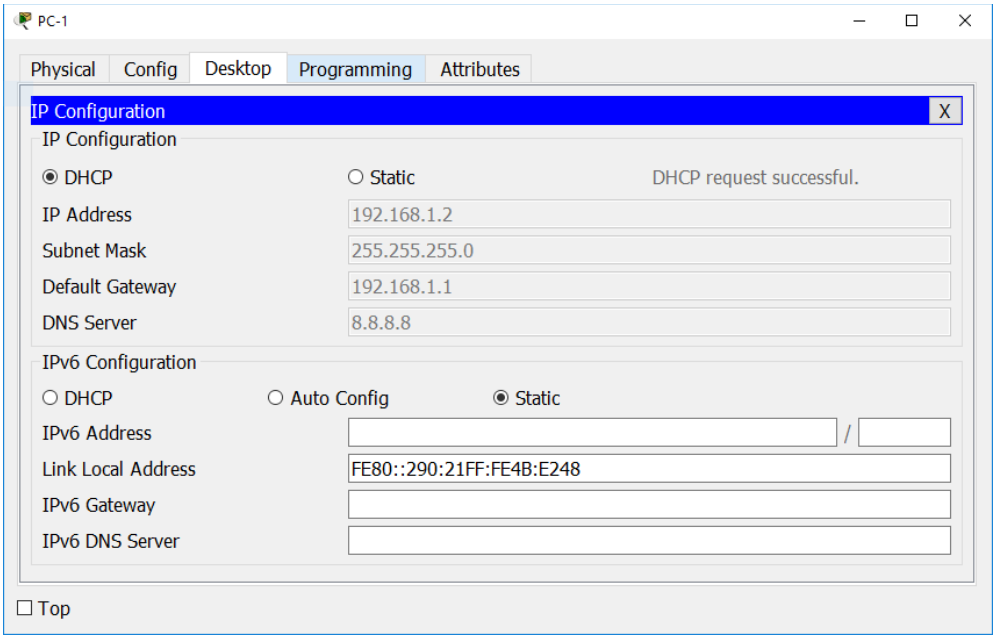
```
R2(config)# interface Gi0/0
R2(config-if)# ip helper-address 192.168.6.6
```

R3

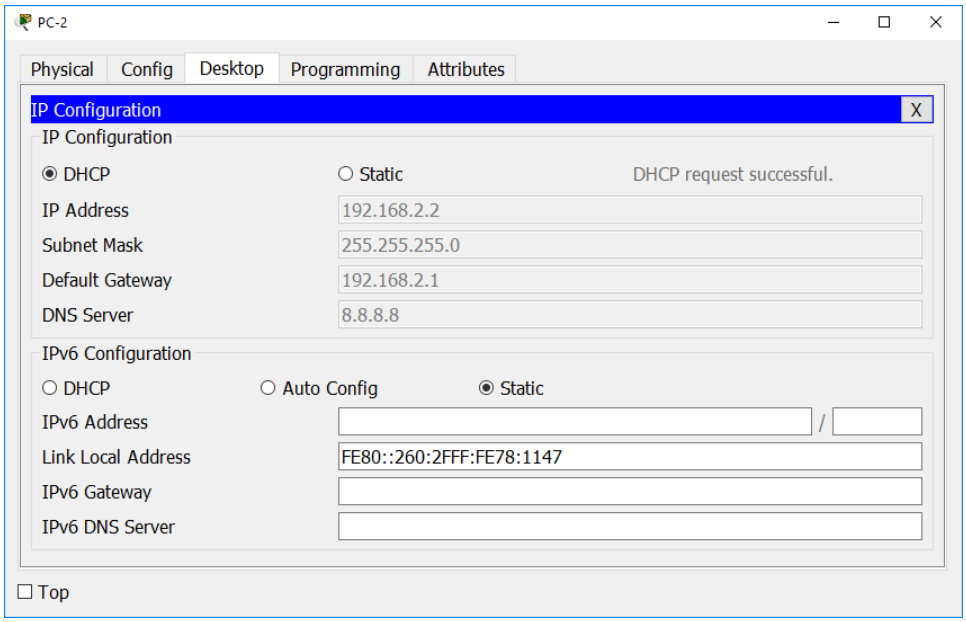
```
R3(config)# interface Gi0/0
R3(config-if)# ip helper-address 192.168.6.6
```

Kiểm tra : lần lượt cho các PC-1, PC-2 và PC-3 nhận IP bằng DHCP

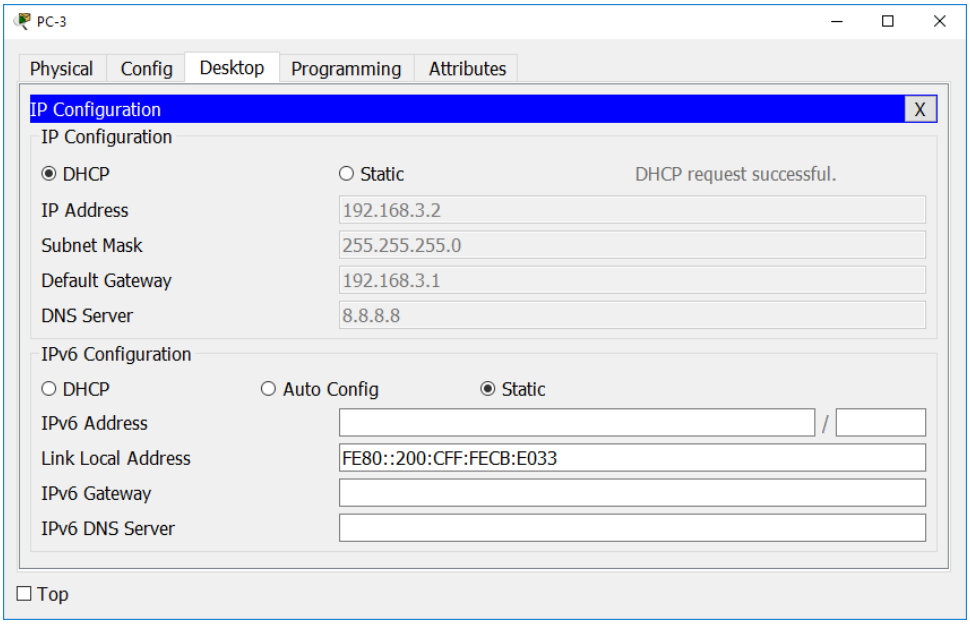
PC-1 :



PC-2 :



PC-3 :



Bước 5 : Cấu hình DHCP Server trên R4 và R5

R4

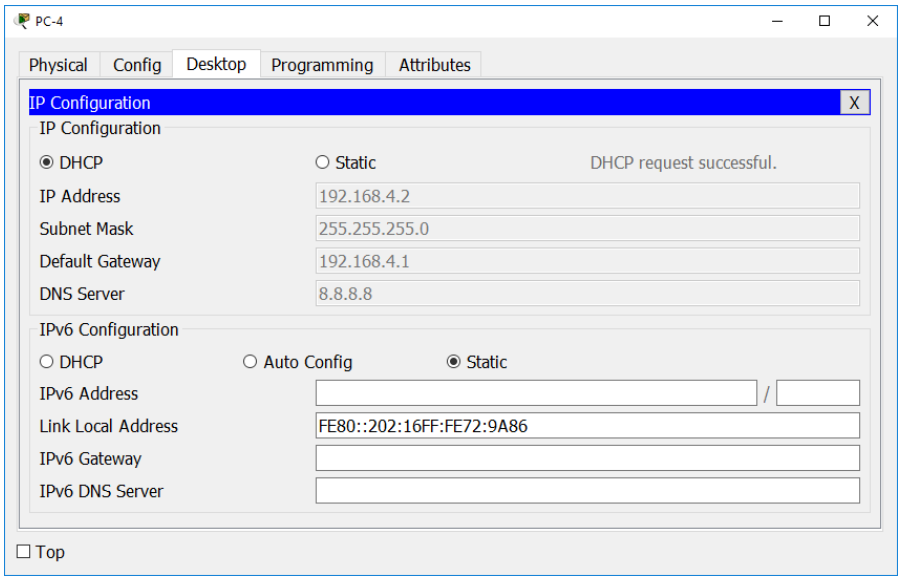
```
R4(config)# ip dhcp pool LAN-4
R4(dhcp-config)# network 192.168.4.0 255.255.255.0
R4(dhcp-config)# default-router 192.168.4.1
R4(dhcp-config)# dns 8.8.8.8
R4(dhcp-config)# exit
R4(config)# ip dhcp excluded-address 192.168.4.1
```

R5

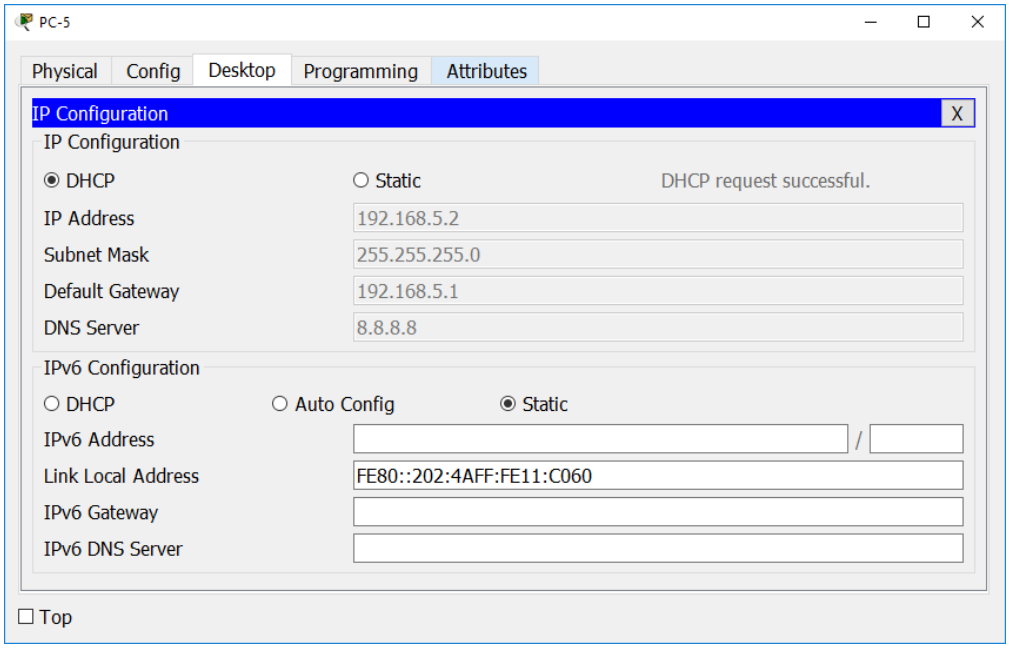
```
R5(config)# ip dhcp pool LAN-5
R5(dhcp-config)# network 192.168.5.0 255.255.255.0
R5(dhcp-config)# default-router 192.168.5.1
R5(dhcp-config)# dns 8.8.8.8
R5(dhcp-config)# exit
R5(config)# ip dhcp excluded-address 192.168.5.1
```

Kiểm tra : lần lượt cho các PC-4, PC-5

PC-4 :



PC-5 :



Bước 5 : Cấu hình định tuyến

R1

```
R1(config)# ip route 192.168.2.0 255.255.255.0 192.168.6.2
R1(config)# ip route 192.168.3.0 255.255.255.0 192.168.6.3
R1(config)# ip route 0.0.0.0 0.0.0.0 192.168.6.6
```

Kiểm tra :

```
R1# show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 192.168.6.6 to network 0.0.0.0

     192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.1.0/24 is directly connected, GigabitEthernet0/0
L       192.168.1.1/32 is directly connected, GigabitEthernet0/0
S    192.168.2.0/24 [1/0] via 192.168.6.2
S    192.168.3.0/24 [1/0] via 192.168.6.3
     192.168.6.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.6.0/29 is directly connected, GigabitEthernet0/1
L       192.168.6.1/32 is directly connected, GigabitEthernet0/1
S*   0.0.0.0/0 [1/0] via 192.168.6.6
```

R2

```
R2(config)# ip route 192.168.1.0 255.255.255.0 192.168.6.1
R2(config)# ip route 192.168.3.0 255.255.255.0 192.168.6.3
R2(config)# ip route 0.0.0.0 0.0.0.0 192.168.6.6
```

Kiểm tra :

```
R2# show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 192.168.6.6 to network 0.0.0.0

S    192.168.1.0/24 [1/0] via 192.168.6.1
     192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/24 is directly connected, GigabitEthernet0/0
L       192.168.2.1/32 is directly connected, GigabitEthernet0/0
S    192.168.3.0/24 [1/0] via 192.168.6.3
     192.168.6.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.6.0/29 is directly connected, GigabitEthernet0/1
L       192.168.6.2/32 is directly connected, GigabitEthernet0/1
S*   0.0.0.0/0 [1/0] via 192.168.6.6
```

R3

```
R3(config)# ip route 192.168.1.0 255.255.255.0 192.168.6.1
```

```
R3(config)# ip route 192.168.2.0 255.255.255.0 192.168.6.2
R3(config)# ip route 0.0.0.0 0.0.0.0 192.168.6.6

R3# show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 192.168.6.6 to network 0.0.0.0

S     192.168.1.0/24 [1/0] via 192.168.6.1
S     192.168.2.0/24 [1/0] via 192.168.6.2
      192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
C        192.168.3.0/24 is directly connected, GigabitEthernet0/0
L        192.168.3.1/32 is directly connected, GigabitEthernet0/0
      192.168.6.0/24 is variably subnetted, 2 subnets, 2 masks
C        192.168.6.0/29 is directly connected, GigabitEthernet0/1
L        192.168.6.3/32 is directly connected, GigabitEthernet0/1
S*    0.0.0.0/0 [1/0] via 192.168.6.6
```

R4

```
R4(config)# ip route 192.168.5.0 255.255.255.0 10.0.0.10
R4(config)# ip route 0.0.0.0 0.0.0.0 10.0.0.1
```

Kiểm tra :

```
R4# show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 10.0.0.1 to network 0.0.0.0

      10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
C        10.0.0.0/30 is directly connected, Serial0/0/0
L        10.0.0.2/32 is directly connected, Serial0/0/0
C        10.0.0.8/30 is directly connected, Serial0/0/1
L        10.0.0.9/32 is directly connected, Serial0/0/1
      192.168.4.0/24 is variably subnetted, 2 subnets, 2 masks
C        192.168.4.0/24 is directly connected, GigabitEthernet0/0
L        192.168.4.1/32 is directly connected, GigabitEthernet0/0
S     192.168.5.0/24 [1/0] via 10.0.0.10
S*    0.0.0.0/0 [1/0] via 10.0.0.1
```

R5

```
R5(config)# ip route 192.168.4.0 255.255.255.0 10.0.0.9
R5(config)# ip route 0.0.0.0 0.0.0.0 10.0.0.5
```

Kiểm tra :

```
R5# show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
```

```
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 10.0.0.5 to network 0.0.0.0

     10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
C       10.0.0.4/30 is directly connected, Serial0/0/1
L       10.0.0.6/32 is directly connected, Serial0/0/1
C       10.0.0.8/30 is directly connected, Serial0/0/0
L       10.0.0.10/32 is directly connected, Serial0/0/0
S    192.168.4.0/24 [1/0] via 10.0.0.9
     192.168.5.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.5.0/24 is directly connected, GigabitEthernet0/0
L       192.168.5.1/32 is directly connected, GigabitEthernet0/0
S*   0.0.0.0/0 [1/0] via 10.0.0.5
```

R6

```
R6(config)# ip route 192.168.4.0 255.255.255.0 10.0.0.2
R6(config)# ip route 192.168.5.0 255.255.255.0 10.0.0.6
R6(config)# ip route 0.0.0.0 0.0.0.0 200.0.0.1

R6# show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 200.0.0.1 to network 0.0.0.0

     10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
C       10.0.0.0/30 is directly connected, Serial0/0/0
L       10.0.0.1/32 is directly connected, Serial0/0/0
C       10.0.0.4/30 is directly connected, Serial0/0/1
L       10.0.0.5/32 is directly connected, Serial0/0/1
S    192.168.1.0/24 [1/0] via 192.168.6.1
S    192.168.2.0/24 [1/0] via 192.168.6.2
S    192.168.3.0/24 [1/0] via 192.168.6.3
S    192.168.4.0/24 [1/0] via 10.0.0.2
S    192.168.5.0/24 [1/0] via 10.0.0.6
     192.168.6.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.6.0/29 is directly connected, GigabitEthernet0/0
L       192.168.6.6/32 is directly connected, GigabitEthernet0/0
     200.0.0.0/24 is variably subnetted, 2 subnets, 2 masks
C       200.0.0.0/24 is directly connected, GigabitEthernet0/1
L       200.0.0.3/32 is directly connected, GigabitEthernet0/1
S*   0.0.0.0/0 [1/0] via 200.0.0.1
```

Bước 6 : Cấu hình NAT overload trên R6

R1

```
R6(config)# access-list 1 permit any
R6(config)# ip nat inside source list 1 interface Gi0/1 overload
R6(config)# interface Gi0/1
R6(config-if)# ip nat outside
```

```
R6(config-if)# exit
R6(config)# interface Gi0/0
R6(config-if)# ip nat inside
R6(config-if)# exit
R6(config)# interface S0/0/0
R6(config-if)# ip nat inside
R6(config-if)# exit
R6(config)# interface S0/0/1
R6(config-if)# ip nat inside
R6(config-if)# exit
```

Bước 7 : Cấu hình NAT tĩnh trên router INTERNET

INTERNET

```
INTERNET(config)# ip nat inside source static 192.168.1.2 200.0.0.2
INTERNET(config)# interface Gi0/0
INTERNET(config-if)# ip nat inside
INTERNET(config-if)# exit
INTERNET(config)# interface Gi0/1
INTERNET(config-if)# ip nat outside
```

Bước 8 : Cấu hình Access List chặn các PC trong mạng 192.168.4.0/24 và 192.168.5.0/24 download file từ Server bằng FTP và TFTP. Những traffic còn lại được cho phép.

R6

```
R6(config)# access-list 100 deny tcp 192.168.4.0 0.0.0.255 host 200.0.0.2 eq 21
R6(config)# access-list 100 deny udp 192.168.4.0 0.0.0.255 host 200.0.0.2 eq 69
R6(config)# access-list 100 deny tcp 192.168.5.0 0.0.0.255 host 200.0.0.2 eq 21
R6(config)# access-list 100 deny udp 192.168.5.0 0.0.0.255 host 200.0.0.2 eq 69
R6(config)# access-list 100 permit ip any any
R6(config)# interface Gi0/1
R6(config-if)# ip access-group 100 out
```

Kiểm tra :

```
R6# show access-lists
Standard IP access list 1
    10 permit any (4 match(es))
Extended IP access list 100
    10 deny tcp 192.168.4.0 0.0.0.255 host 200.0.0.2 eq ftp
    20 deny udp 192.168.4.0 0.0.0.255 host 200.0.0.2 eq tftp
    30 deny tcp 192.168.5.0 0.0.0.255 host 200.0.0.2 eq ftp
    40 deny udp 192.168.5.0 0.0.0.255 host 200.0.0.2 eq tftp
    50 permit ip any any

R6# show ip interface Gi0/1
GigabitEthernet0/1 is up, line protocol is up (connected)
  Internet address is 200.0.0.3/24
  Broadcast address is 255.255.255.255
  Address determined by setup command
  MTU is 1500 bytes
  Helper address is not set
  Directed broadcast forwarding is disabled
  Outgoing access list is 100
  Inbound  access list is not set
  Proxy ARP is enabled
  Security level is default
```

```
  Split horizon is enabled
  ICMP redirects are always sent
  ICMP unreachables are always sent
  ICMP mask replies are never sent
  IP fast switching is disabled
  IP fast switching on the same interface is disabled
  IP Flow switching is disabled
  IP Fast switching turbo vector
  IP multicast fast switching is disabled
  IP multicast distributed fast switching is disabled
  Router Discovery is disabled
  IP output packet accounting is disabled
  IP access violation accounting is disabled
  TCP/IP header compression is disabled
  RTP/IP header compression is disabled
  Probe proxy name replies are disabled
  Policy routing is disabled
  Network address translation is disabled
  BGP Policy Mapping is disabled
  Input features: MCI Check
  WCCP Redirect outbound is disabled
  WCCP Redirect inbound is disabled
  WCCP Redirect exclude is disabled
```

Bước 9 : Cấu hình Access List chặn các PC trong mạng 192.168.1.0/24, 192.168.2.0/24, 192.168.3.0/24 truy cập web vào Server. Những traffic còn lại được cho phép.

R6

```
R6(config)# access-list 101 deny ip 192.168.1.0 0.0.0.255 host 200.0.0.2
R6(config)# access-list 101 deny ip 192.168.2.0 0.0.0.255 host 200.0.0.2
R6(config)# access-list 101 deny ip 192.168.3.0 0.0.0.255 host 200.0.0.2
R6(config)# access-list 101 permit ip any any
R6(config)# interface Gi0/0
R6(config-if)# ip access-group 101 in
```

Kiểm tra :

```
R6# show access-lists
Standard IP access list 1
    10 permit any (4 match(es))
Extended IP access list 100
    10 deny tcp 192.168.4.0 0.0.0.255 host 200.0.0.2 eq ftp
    20 deny udp 192.168.4.0 0.0.0.255 host 200.0.0.2 eq tftp
    30 deny tcp 192.168.5.0 0.0.0.255 host 200.0.0.2 eq ftp
    40 deny udp 192.168.5.0 0.0.0.255 host 200.0.0.2 eq tftp
    50 permit ip any any
Extended IP access list 101
    10 deny ip 192.168.1.0 0.0.0.255 host 200.0.0.2
    20 deny ip 192.168.2.0 0.0.0.255 host 200.0.0.2
    30 deny ip 192.168.3.0 0.0.0.255 host 200.0.0.2
    40 permit ip any any

R6# show ip interface Gi0/0
GigabitEthernet0/0 is up, line protocol is up (connected)
  Internet address is 192.168.6.6/29
  Broadcast address is 255.255.255.255
  Address determined by setup command
  MTU is 1500 bytes
  Helper address is not set
  Directed broadcast forwarding is disabled
```

```
  Outgoing access list is not set
  Inbound  access list is 101
  Proxy ARP is enabled
  Security level is default
  Split horizon is enabled
  ICMP redirects are always sent
  ICMP unreachables are always sent
  ICMP mask replies are never sent
  IP fast switching is disabled
  IP fast switching on the same interface is disabled
  IP Flow switching is disabled
  IP Fast switching turbo vector
  IP multicast fast switching is disabled
  IP multicast distributed fast switching is disabled
  Router Discovery is disabled
  IP output packet accounting is disabled
  IP access violation accounting is disabled
  TCP/IP header compression is disabled
  RTP/IP header compression is disabled
  Probe proxy name replies are disabled
  Policy routing is disabled
  Network address translation is disabled
  BGP Policy Mapping is disabled
  Input features: MCI Check
  WCCP Redirect outbound is disabled
  WCCP Redirect inbound is disabled
  WCCP Redirect exclude is disabled
```