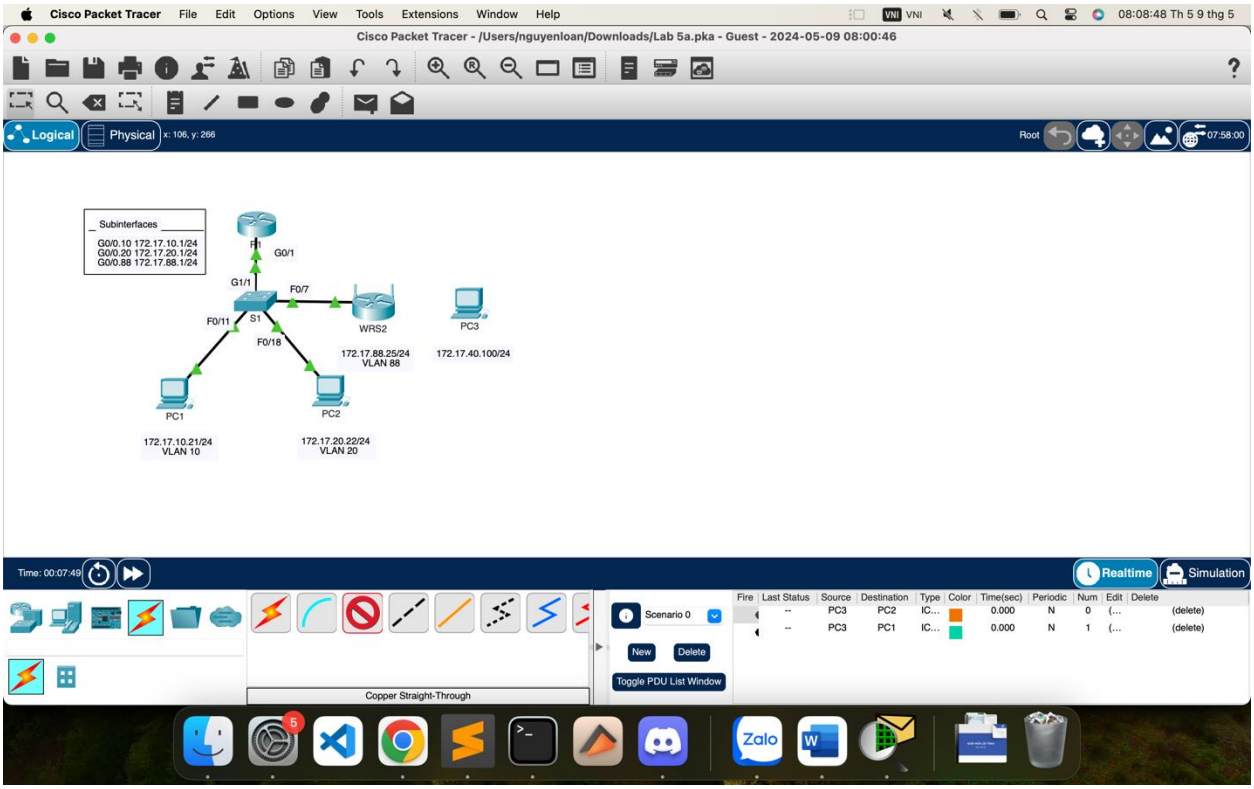
Báo cáo thực hành Lab5
GVHD: Ngô Khánh Khoa

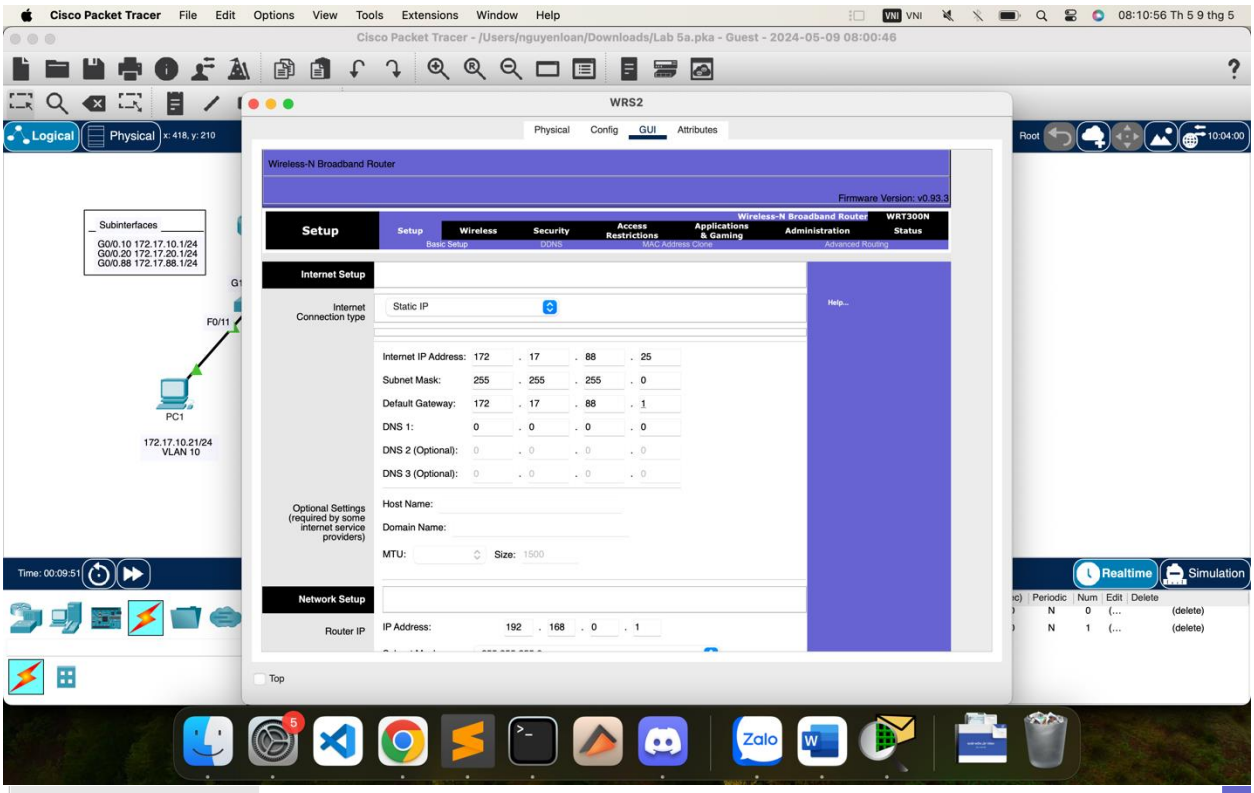
Họ và tên: Đỗ Phương Duy
MSSV: 23520362

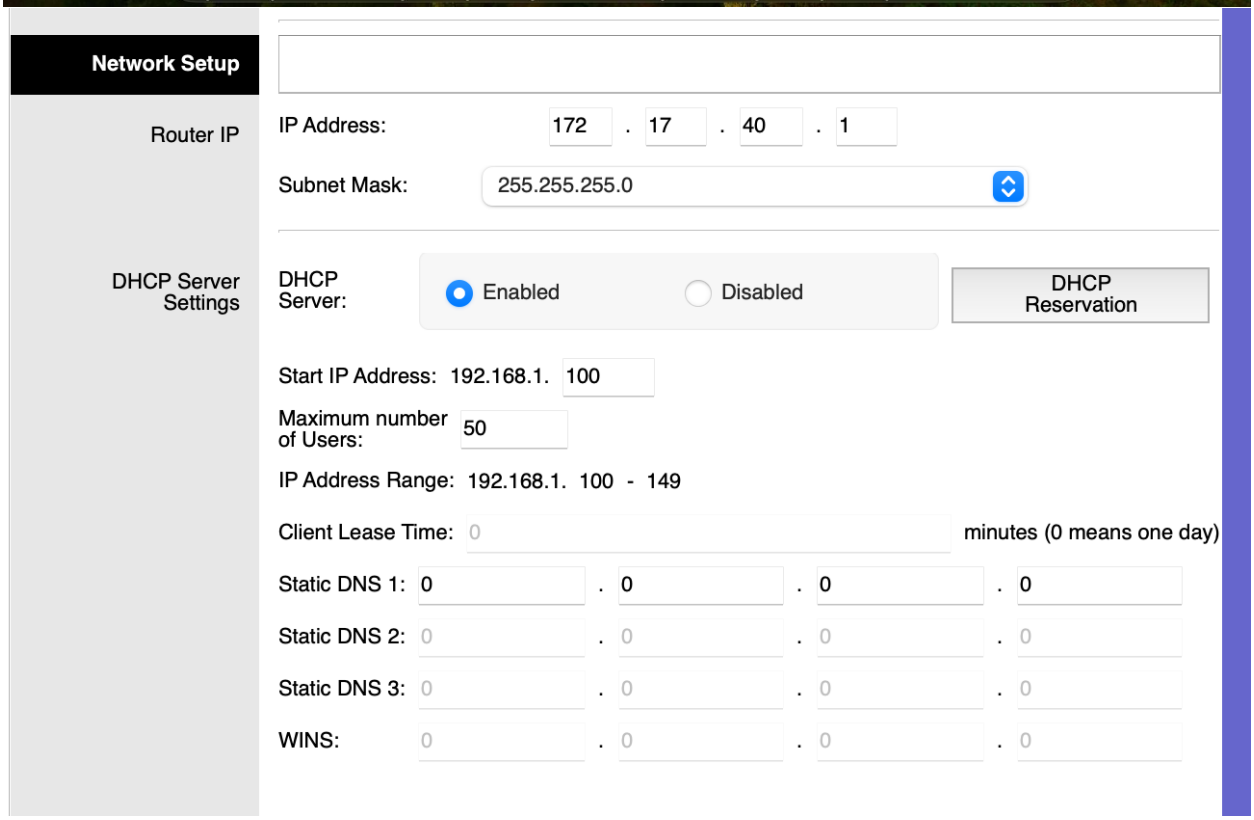
TASK 1:

1.1

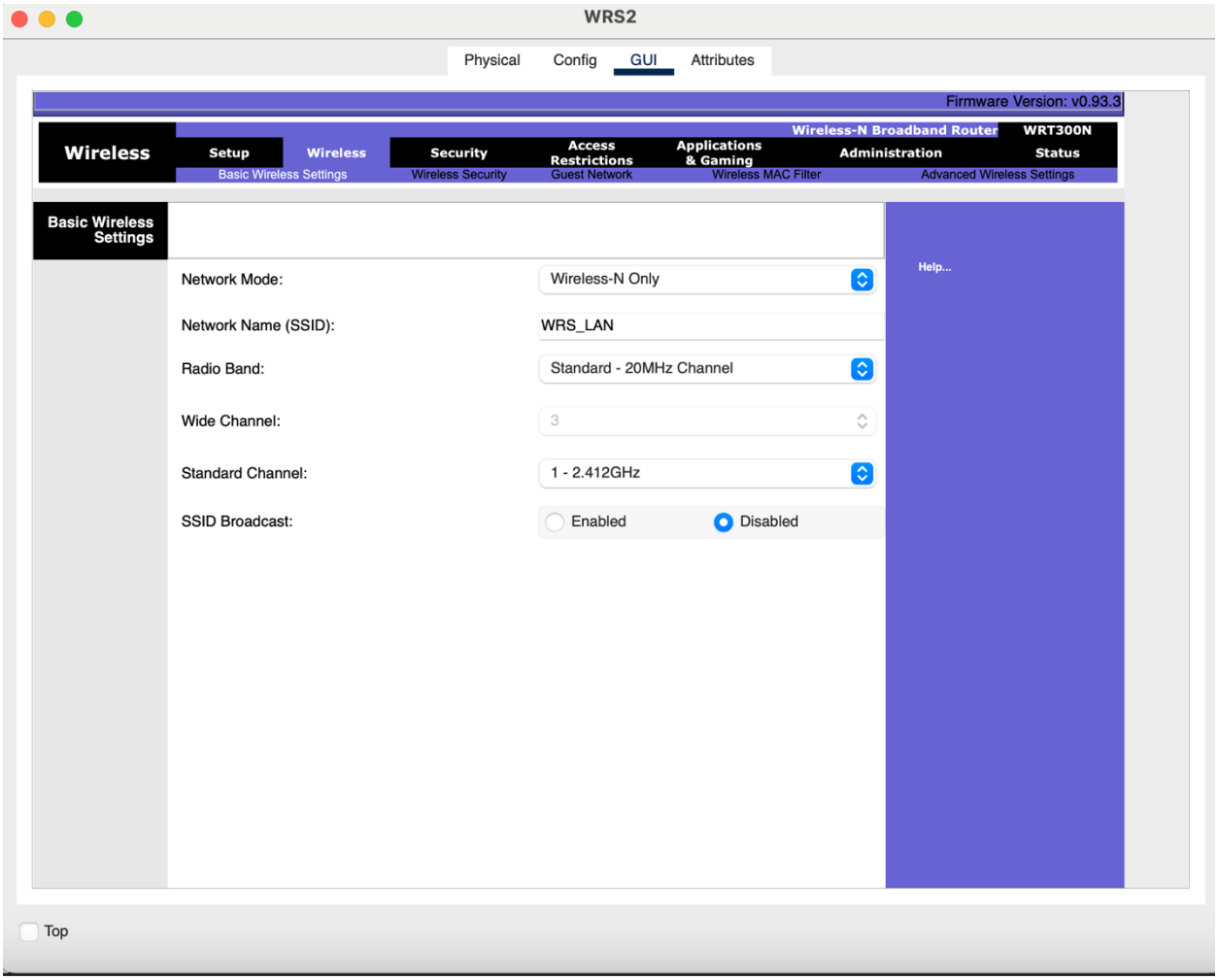


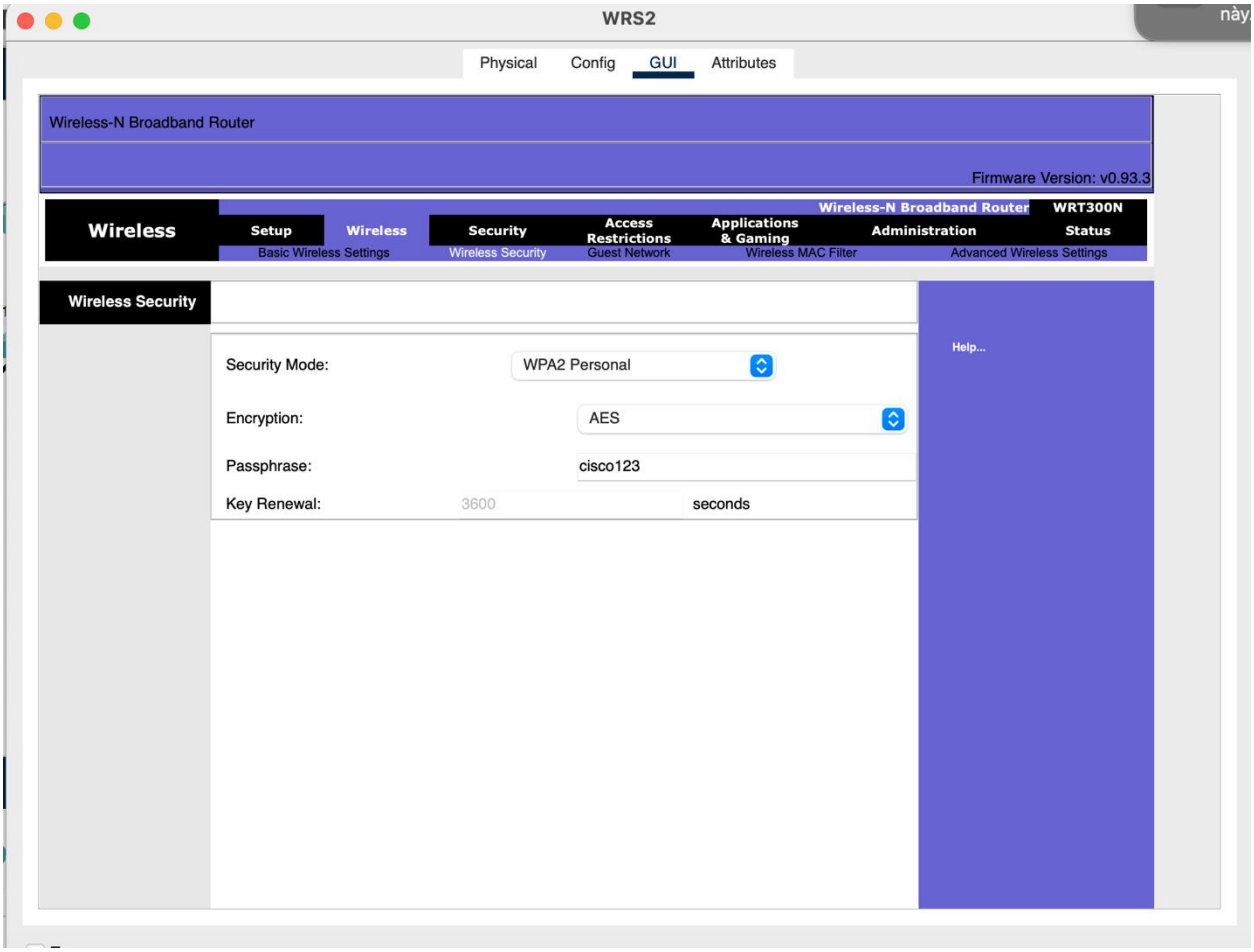
1.2


Cisco Packet Tracer File Edit Options View Tools Extensions Window Help
Cisco Packet Tracer - /Users/nguyenloan/Downloads/Lab 5a.pka - Guest - 2024-05-09 08:00:46
WRS2
Physical Config GUI Attributes
Wireless-N Broadband Router
Firmware Version: v0.93.3
Setup Wireless Security Access Restrictions Applications & Gaming Administration Status
Internet Setup
Internet Connection type
Static IP
Internet IP Address: 172 . 17 . 88 . 25
Subnet Mask: 255 . 255 . 255 . 0
Default Gateway: 172 . 17 . 88 . 1
DNS 1: 0 . 0 . 0 . 0
DNS 2 (Optional):
DNS 3 (Optional):
Optional Settings (required by some internet service providers)
Host Name:
Domain Name:
MTU: Size: 1500
Network Setup
Router IP
IP Address: 192 . 168 . 0 . 1
Subinterfaces
G0/0.10 172.17.10.1/24
G0/0.20 172.17.20.1/24
G0/0.88 172.17.88.1/24
PC1
172.17.10.21/24
VLAN 10
Realtime Simulation

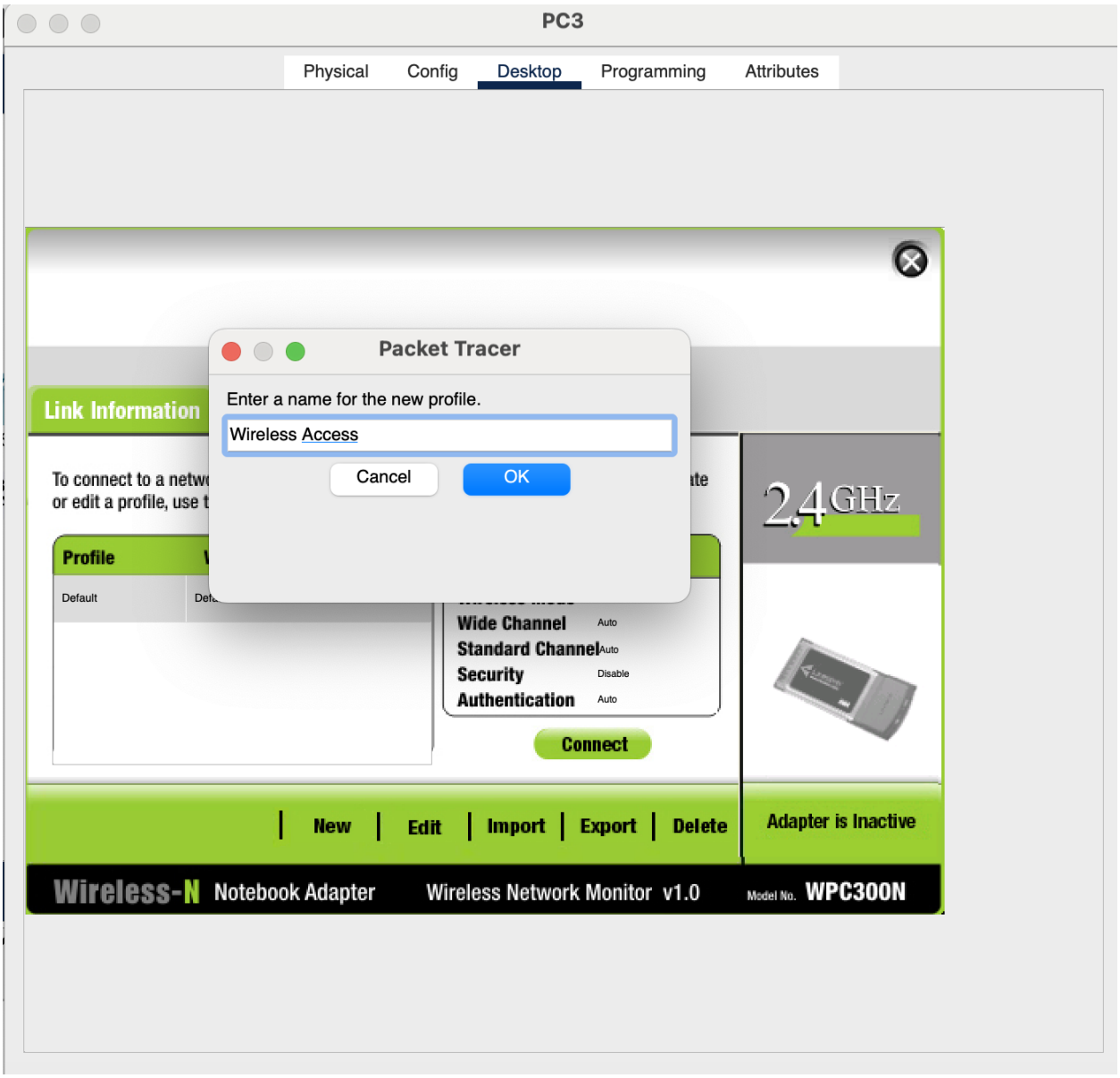

Network Setup
Router IP
IP Address: 172 . 17 . 40 . 1
Subnet Mask: 255.255.255.0
DHCP Server Settings
DHCP Server: Enabled Disabled
DHCP Reservation
Start IP Address: 192.168.1. 100
Maximum number of Users: 50
IP Address Range: 192.168.1. 100 - 149
Client Lease Time: 0 minutes (0 means one day)
Static DNS 1: 0 . 0 . 0 . 0
Static DNS 2: 0 . 0 . 0 . 0
Static DNS 3: 0 . 0 . 0 . 0
WINS: 0 . 0 . 0 . 0

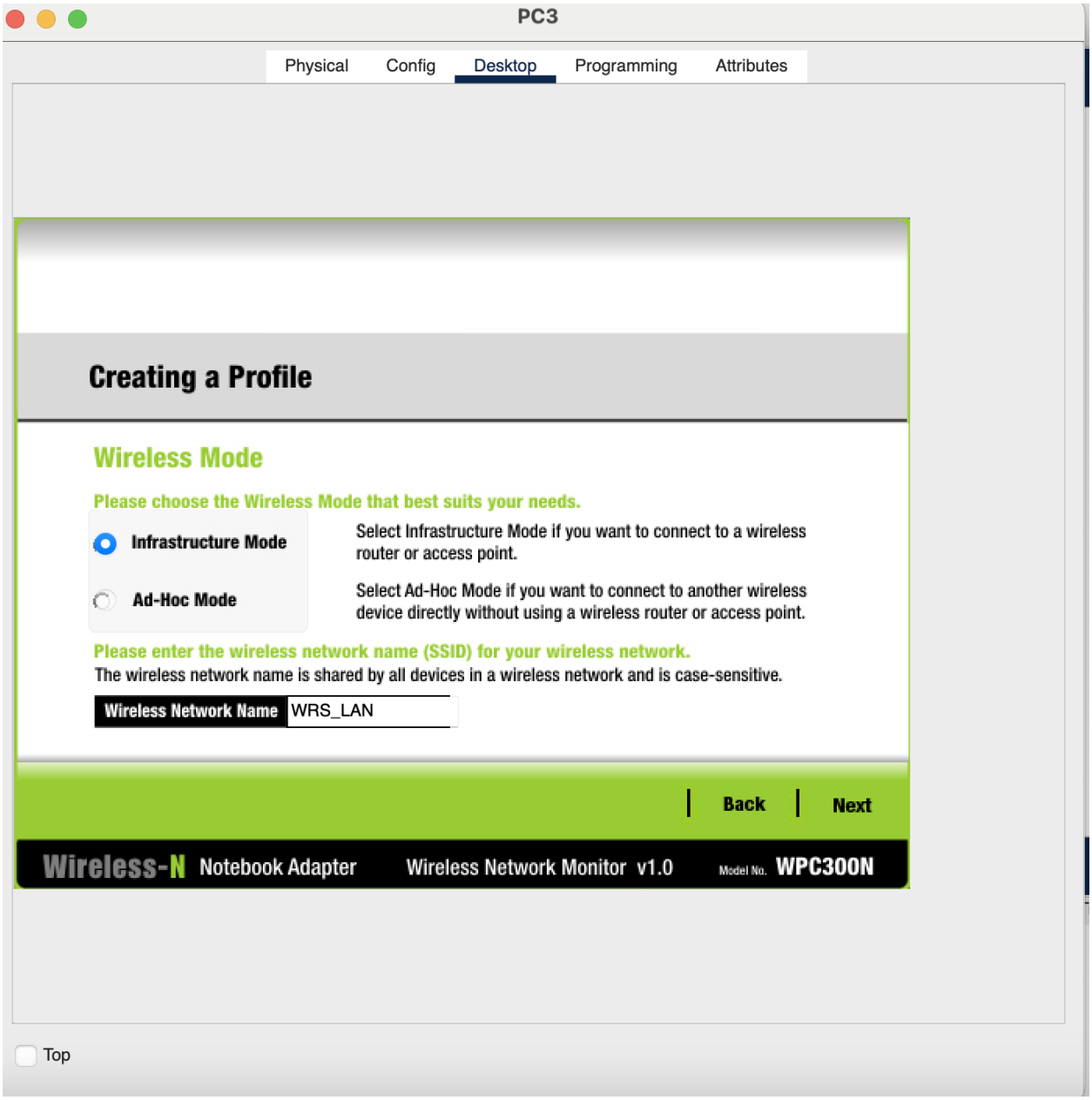
1.3:

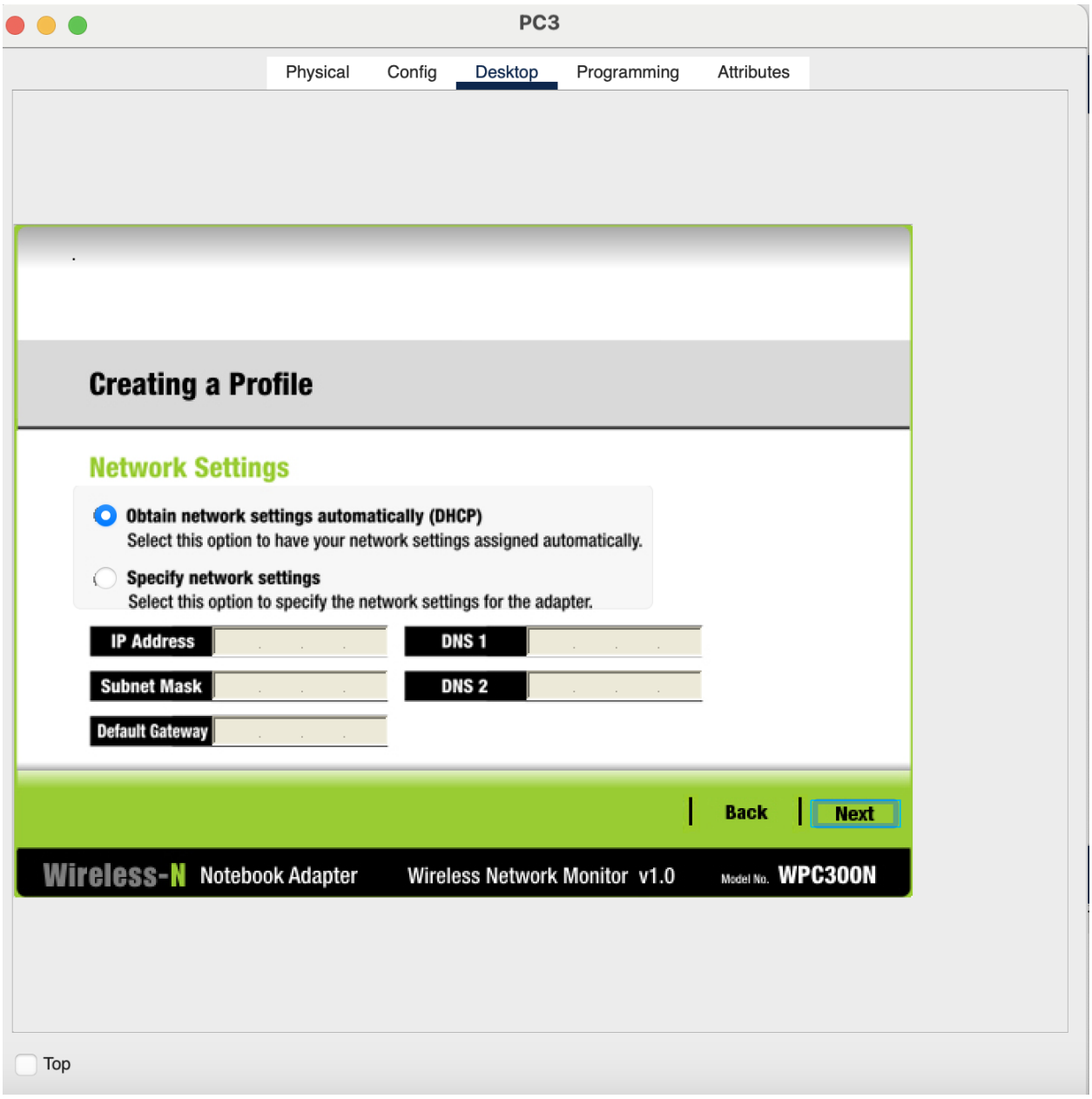

WRS2
Physical
Config
GUI
Attributes
Firmware Version: v0.93.3
Wireless-N Broadband Router
WRT300N
Wireless
Setup
Wireless
Security
Access Restrictions
Applications & Gaming
Administration
Status
Basic Wireless Settings
Wireless Security
Guest Network
Wireless MAC Filter
Advanced Wireless Settings
Basic Wireless Settings
Help...
Network Mode:
Wireless-N Only
Network Name (SSID):
WRS_LAN
Radio Band:
Standard - 20MHz Channel
Wide Channel:
3
Standard Channel:
1 - 2.412GHz
SSID Broadcast:
Enabled
Disabled
Top

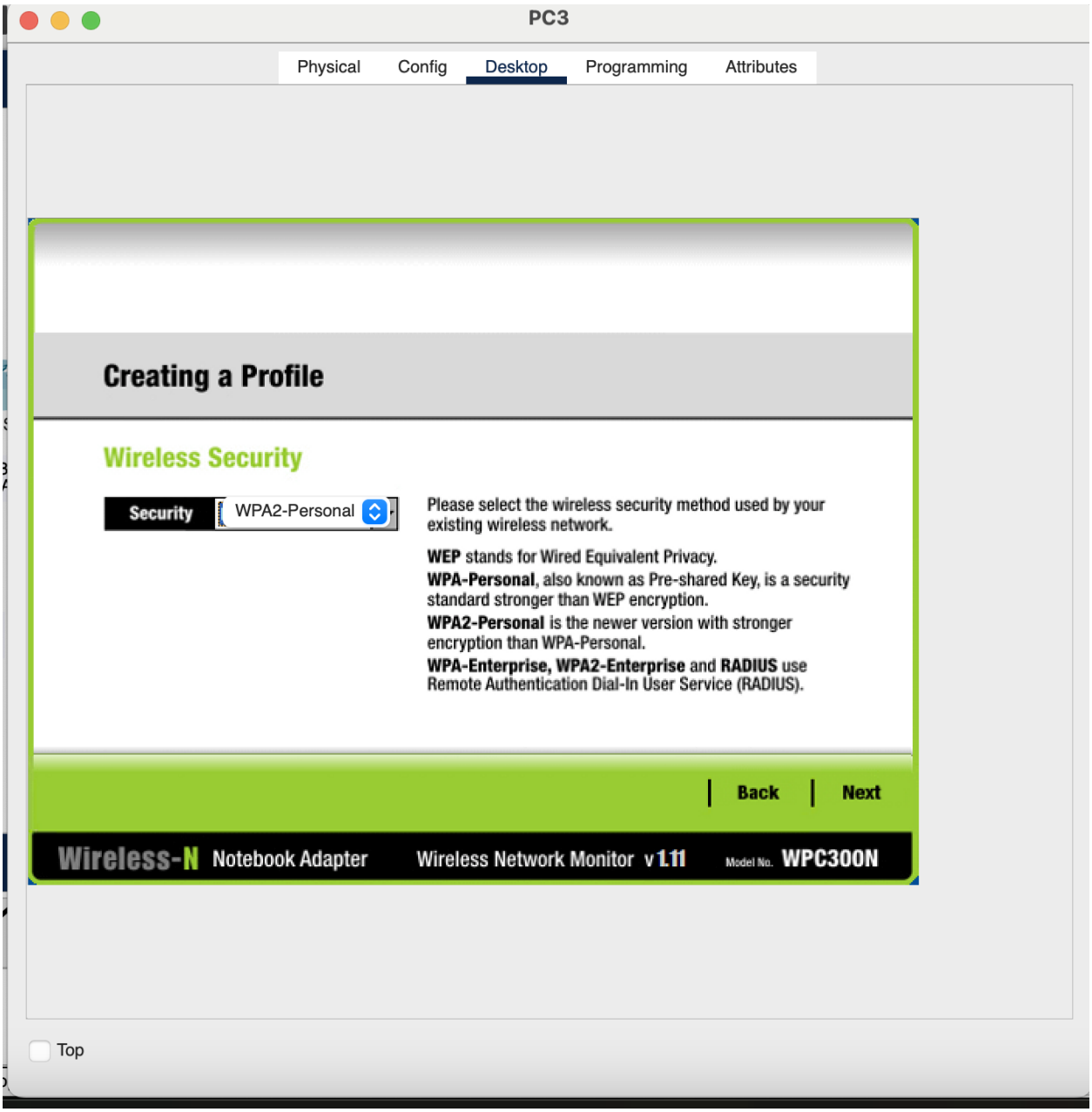

WRS2
Physical
Config
GUI
Attributes
Wireless-N Broadband Router
Firmware Version: v0.93.3
Wireless
Setup
Wireless
Security
Access Restrictions
Applications & Gaming
Administration
Status
Basic Wireless Settings
Wireless Security
Guest Network
Wireless MAC Filter
Advanced Wireless Settings
Wireless Security
Security Mode:
WPA2 Personal
Encryption:
AES
Passphrase:
cisco123
Key Renewal:
3600
seconds
Help...

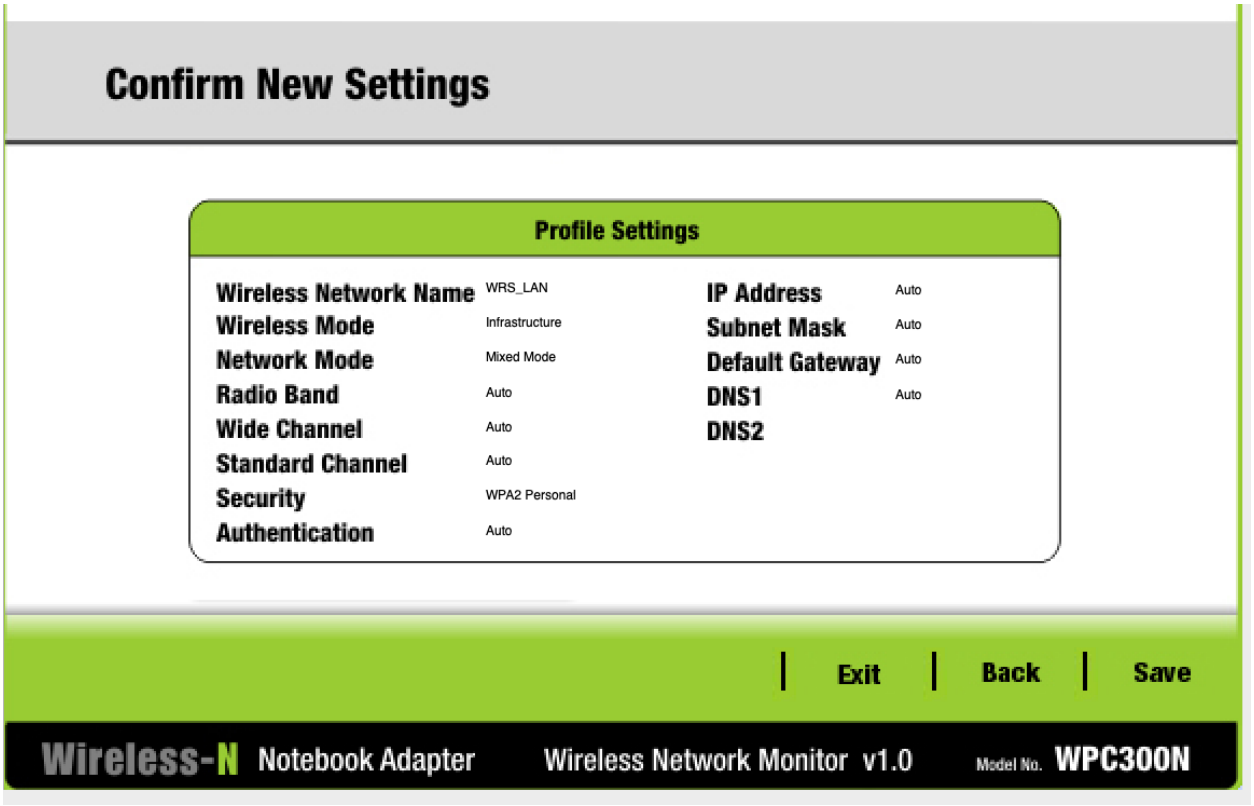
1.4:


PC3
Physical
Config
Desktop
Programming
Attributes
Packet Tracer
Enter a name for the new profile.
Wireless Access
Cancel
OK
Link Information
Profile
Default
Wide Channel
Auto
Standard Channel
Auto
Security
Disable
Authentication
Auto
Connect
2.4GHz
New
Edit
Import
Export
Delete
Adapter is Inactive
Wireless-N
Notebook Adapter
Wireless Network Monitor v1.0
Model No.
WPC300N


PC3
Physical
Config
Desktop
Programming
Attributes
Creating a Profile
Wireless Mode
Please choose the Wireless Mode that best suits your needs.
Infrastructure Mode
Ad-Hoc Mode
Select Infrastructure Mode if you want to connect to a wireless router or access point.
Select Ad-Hoc Mode if you want to connect to another wireless device directly without using a wireless router or access point.
Please enter the wireless network name (SSID) for your wireless network.
The wireless network name is shared by all devices in a wireless network and is case-sensitive.
Wireless Network Name
WRS_LAN
Back
Next
Wireless-N Notebook Adapter
Wireless Network Monitor v1.0
Model No. WPC300N
Top


PC3
Physical
Config
Desktop
Programming
Attributes
Creating a Profile
Network Settings
Obtain network settings automatically (DHCP)
Select this option to have your network settings assigned automatically.
Specify network settings
Select this option to specify the network settings for the adapter.
IP Address
Subnet Mask
Default Gateway
DNS 1
DNS 2
Back
Next
Wireless-N Notebook Adapter
Wireless Network Monitor v1.0
Model No. WPC300N
Top

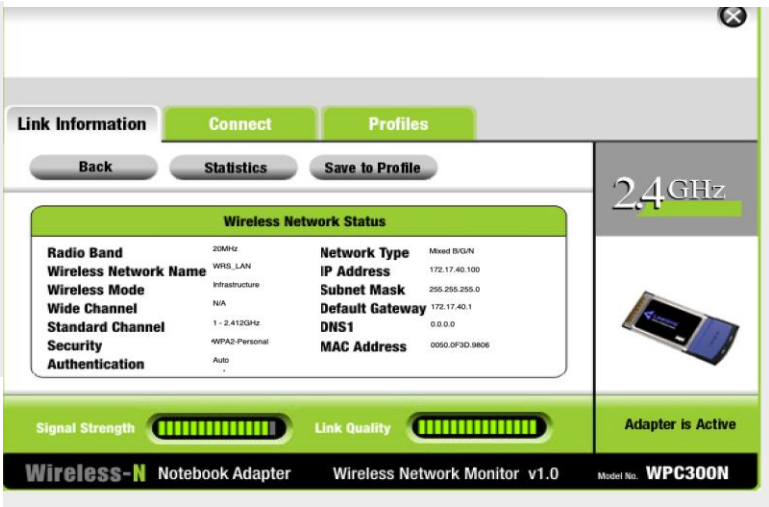

PC3
Physical
Config
Desktop
Programming
Attributes
Creating a Profile
Wireless Security
Security
WPA2-Personal
Please select the wireless security method used by your existing wireless network.
WEP stands for Wired Equivalent Privacy.
WPA-Personal, also known as Pre-shared Key, is a security standard stronger than WEP encryption.
WPA2-Personal is the newer version with stronger encryption than WPA-Personal.
WPA-Enterprise, WPA2-Enterprise and RADIUS use Remote Authentication Dial-In User Service (RADIUS).
Back
Next
Wireless-N Notebook Adapter
Wireless Network Monitor v1.1.1
Model No. WPC300N
Top


Confirm New Settings
Profile Settings
Wireless Network Name
WRS_LAN
Wireless Mode
Infrastructure
Network Mode
Mixed Mode
Radio Band
Auto
Wide Channel
Auto
Standard Channel
Auto
Security
WPA2 Personal
Authentication
Auto
IP Address
Auto
Subnet Mask
Auto
Default Gateway
Auto
DNS1
Auto
DNS2
Exit
Back
Save
Wireless-N Notebook Adapter
Wireless Network Monitor v1.0
Model No. WPC300N

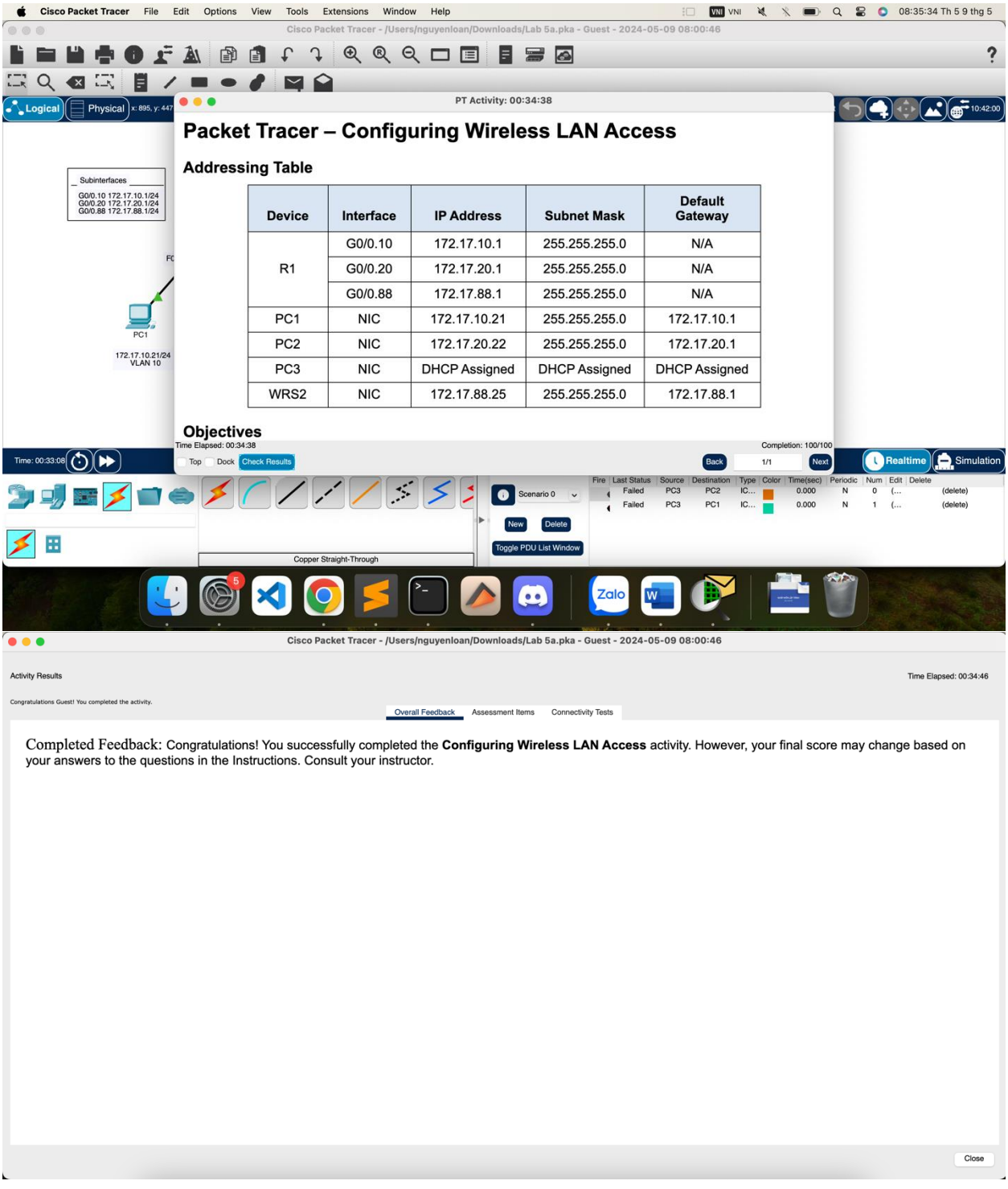

PC3
Physical
Config
Desktop
Programming
Attributes
Link Information
Connect
Profiles
More Information
Infrastructure Mode
2.4GHz
You have successfully connected to the access point
Signal Strength
Link Quality
Adapter is Active
Wireless-N Notebook Adapter
Wireless Network Monitor v1.0
Model No. WPC300N
Top

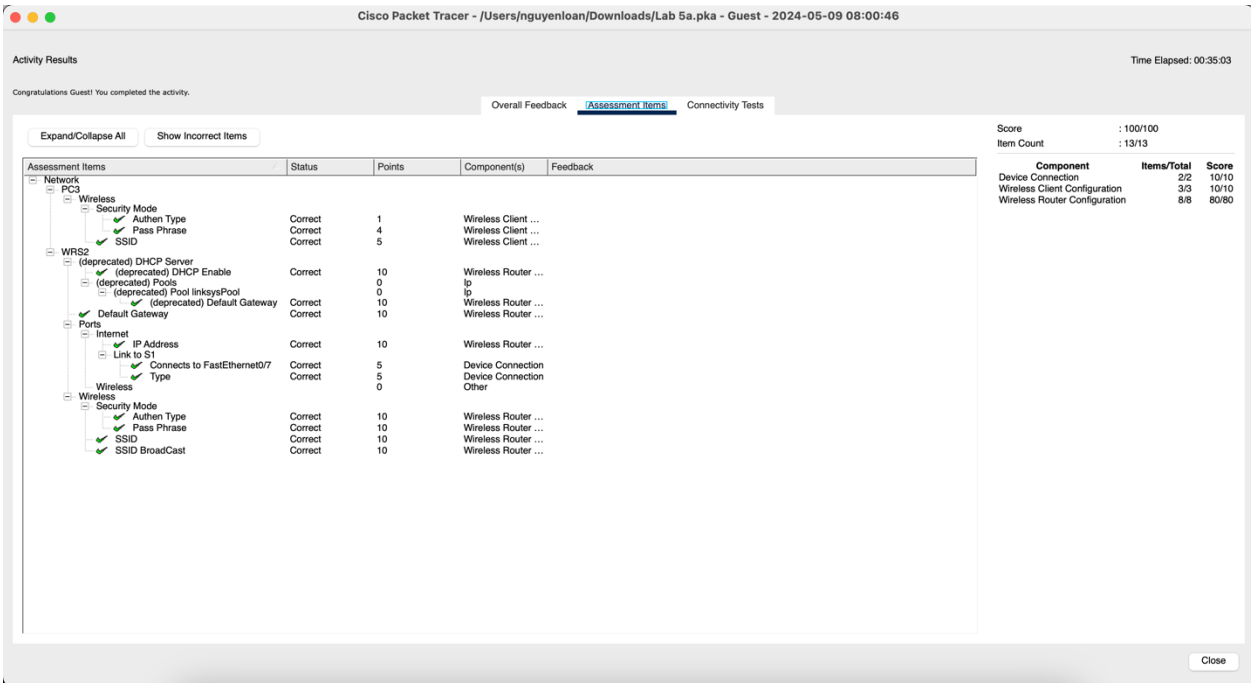
1.5:


Link Information
Connect
Profiles
More Information
Infrastructure Mode
2.4GHz
You have successfully connected to the access point
Signal Strength
Link Quality
Adapter is Active
Wireless-N Notebook Adapter
Wireless Network Monitor v1.0
Model No. WPC300N


Link Information
Connect
Profiles
Back
Statistics
Save to Profile
2.4GHz
Wireless Network Status
Radio Band
Wireless Network Name
Wireless Mode
Wide Channel
Standard Channel
Security
Authentication
Network Type
IP Address
Subnet Mask
Default Gateway
DNS1
MAC Address
Signal Strength
Link Quality
Adapter is Active
Wireless-N Notebook Adapter
Wireless Network Monitor v1.0
Model No. WPC300N

1.6:


Cisco Packet Tracer File Edit Options View Tools Extensions Window Help
Cisco Packet Tracer - /Users/nguyenloan/Downloads/Lab 5a.pka - Guest - 2024-05-09 08:00:46
Logical
Physical
PT Activity: 00:34:38
Packet Tracer – Configuring Wireless LAN Access
Addressing Table
Device | Interface | IP Address | Subnet Mask | Default Gateway
R1 | G0/0.10 | 172.17.10.1 | 255.255.255.0 | N/A
G0/0.20 | 172.17.20.1 | 255.255.255.0 | N/A
G0/0.88 | 172.17.88.1 | 255.255.255.0 | N/A
PC1 | NIC | 172.17.10.21 | 255.255.255.0 | 172.17.10.1
PC2 | NIC | 172.17.20.22 | 255.255.255.0 | 172.17.20.1
PC3 | NIC | DHCP Assigned | DHCP Assigned | DHCP Assigned
WRS2 | NIC | 172.17.88.25 | 255.255.255.0 | 172.17.88.1
Objectives
Time Elapsed: 00:34:38
Completion: 100/100
Check Results
Back
Next
Realtime
Simulation
Subinterfaces
G0/0.10 172.17.10.1/24
G0/0.20 172.17.20.1/24
G0/0.88 172.17.88.1/24
PC1
172.17.10.21/24
VLAN 10
Copper Straight-Through
Scenario 0
New
Delete
Toggle PDU List Window
Cisco Packet Tracer - /Users/nguyenloan/Downloads/Lab 5a.pka - Guest - 2024-05-09 08:00:46
Activity Results
Time Elapsed: 00:34:46
Congratulations Guest! You completed the activity.
Overall Feedback
Assessment Items
Connectivity Tests
Completed Feedback: Congratulations! You successfully completed the Configuring Wireless LAN Access activity. However, your final score may change based on your answers to the questions in the Instructions. Consult your instructor.
Close



TASK2:

2.1:

```
User Access Verification

Password:
Password:

R1>enable
Password:
R1#config t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)# interface gigabite
R1(config)# interface gigabitethernet 0/0
R1(config-if)# ip address 192.168.10.1 255.255.255.0
R1(config-if)#no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up

R1(config-if)#exit
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console
copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R1#
```

Thao tác tương tự với 0/1 của R1, 0/0 của R2 và 0/1 của R2 với ip address và submask tương ứng với bảng.

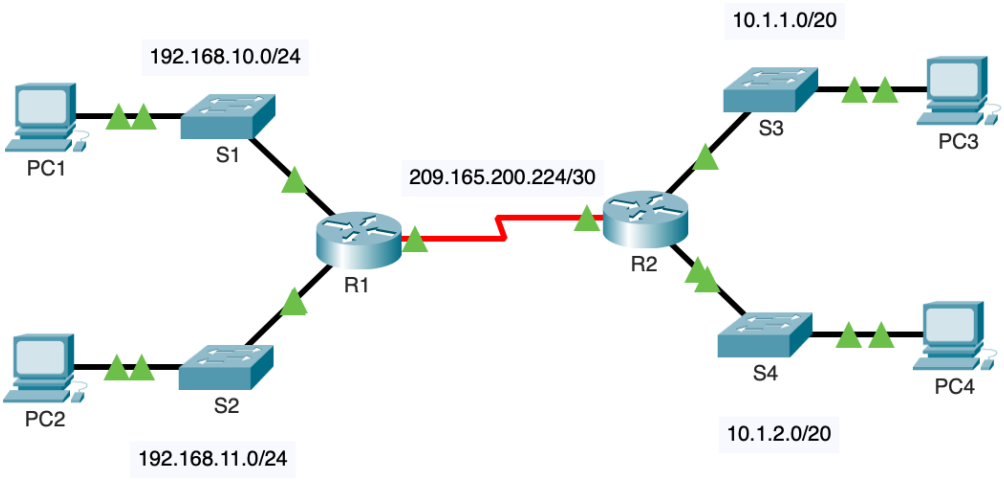
2.2:

```
R1#show run
Building configuration...

Current configuration : 1204 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname R1
!
!
!
enable secret 5 $1$mERr$9cTjUIEqNGurQiFU.ZeCi1
!
!
!
!
!
!
ip cef
no ipv6 cef
```

```
R1#show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     192.168.10.1    YES manual up                    up
GigabitEthernet0/1     unassigned      YES unset  administratively down down
Serial0/0/0            209.165.200.225 YES manual up                    up
Serial0/0/1            unassigned      YES unset  administratively down down
FastEthernet0/1/0      unassigned      YES unset  administratively down down
FastEthernet0/1/1      unassigned      YES unset  administratively down down
FastEthernet0/1/2      unassigned      YES unset  administratively down down
FastEthernet0/1/3      unassigned      YES unset  administratively down down
Vlan1                  unassigned      YES unset  administratively down down
R1#
```

```
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 not set

     192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.10.0/24 is directly connected, GigabitEthernet0/0
L       192.168.10.1/32 is directly connected, GigabitEthernet0/0
     209.165.200.0/24 is variably subnetted, 3 subnets, 3 masks
D       209.165.200.0/24 is a summary, 00:05:58, Null0
C       209.165.200.224/30 is directly connected, Serial0/0/0
L       209.165.200.225/32 is directly connected, Serial0/0/0
```

2.3:



PT Activity: 00:22:57

Packet Tracer - Connect a Router to a LAN

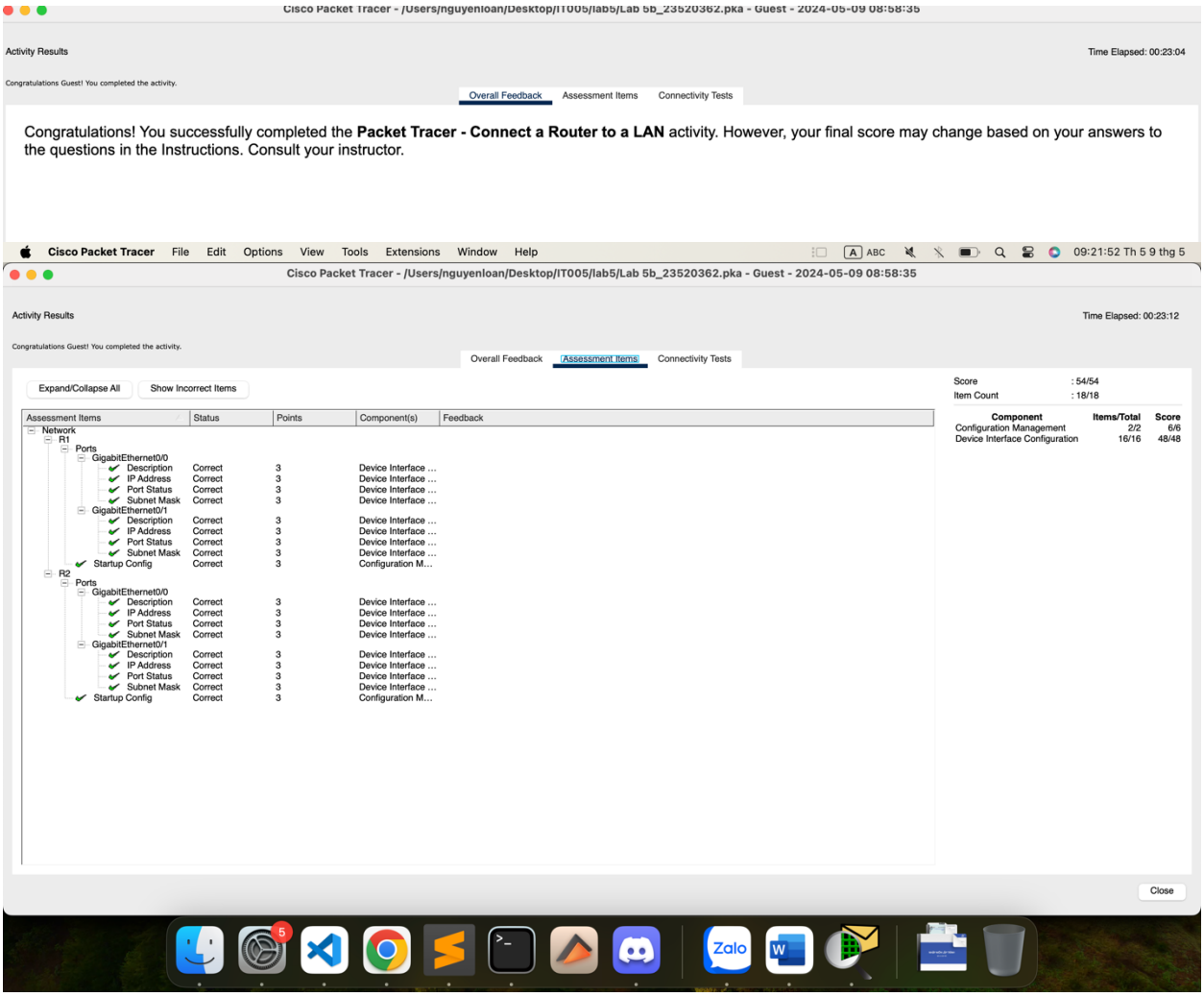
Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
R1	G0/0	192.168.10.1	255.255.255.0	N/A
	G0/1	192.168.11.1	255.255.255.0	N/A
	S0/0/0 (DCE)	209.165.200.225	255.255.255.252	N/A
R2	G0/0	10.1.1.1	255.255.255.0	N/A
	G0/1	10.1.2.1	255.255.255.0	N/A
	S0/0/0	209.165.200.226	255.255.255.252	N/A
PC1	NIC	192.168.10.10	255.255.255.0	192.168.10.1
PC2	NIC	192.168.11.10	255.255.255.0	192.168.11.1
PC3	NIC	10.1.1.10	255.255.255.0	10.1.1.1
PC4	NIC	10.1.2.10	255.255.255.0	10.1.2.1

Objectives

Time Elapsed: 00:22:57 Completion: 54/54

Top Dock Check Results Back 1/1 Next



TASK 3:

3.1:

Mô hình có 8 mạng con

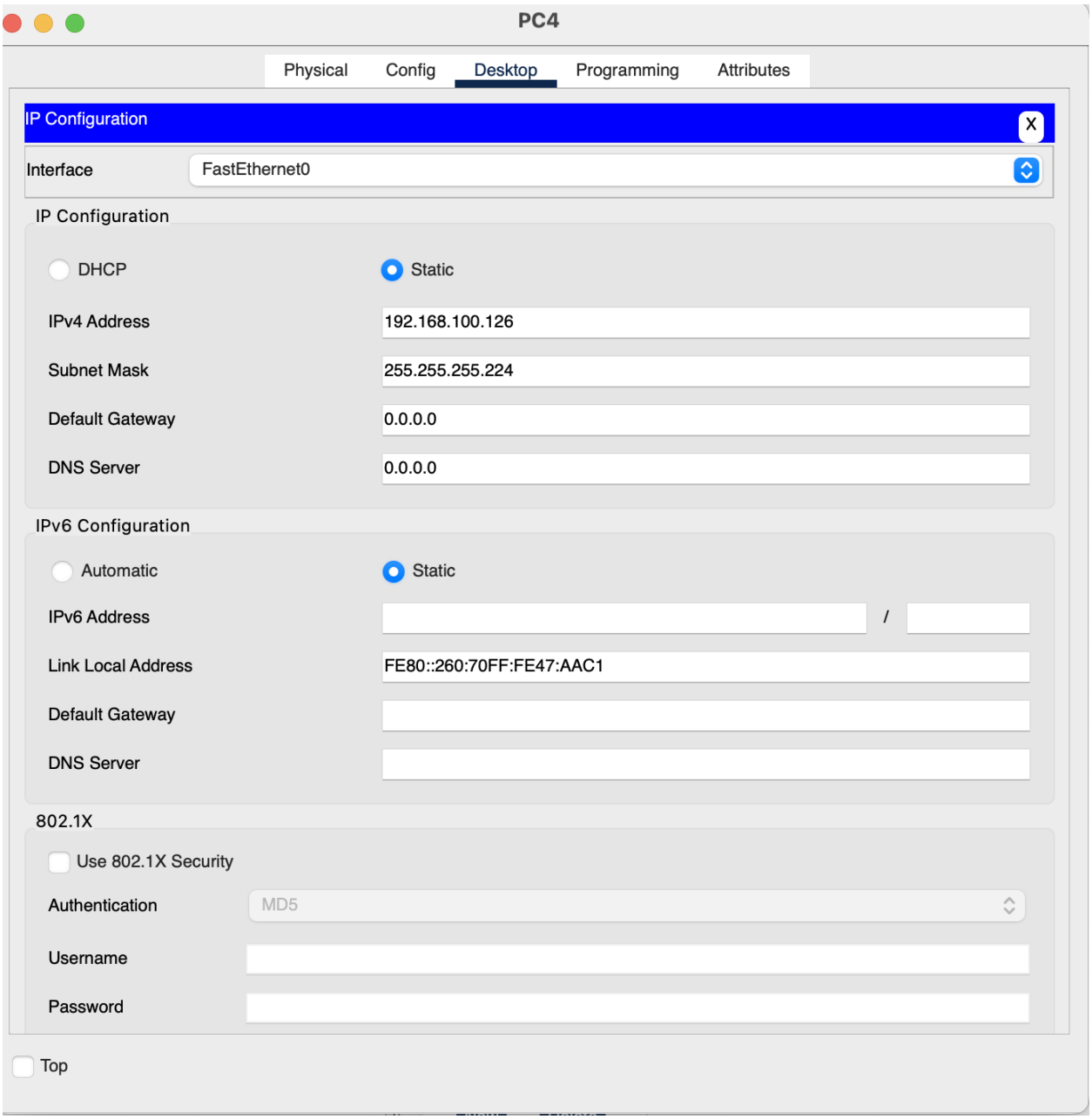
STT	Địa chỉ mạng	Địa chỉ đầu	Địa chỉ cuối	Địa chỉ broadcast
0	192.168.100.0	192.168.100.1	192.168.100.30	192.168.100.31
1	192.168.100.32	192.168.100.33	192.168.100.62	192.168.100.63
2	192.168.100.64	192.168.100.65	192.168.100.94	192.168.100.95
3	192.168.100.96	192.168.100.97	192.168.100.126	192.168.100.127
4	192.168.100.128	192.168.100.129	192.168.100.158	192.168.100.159
5	192.168.100.160	192.168.100.161	192.168.100.190	192.168.100.191
6	192.168.100.192	192.168.100.193	192.168.100.222	192.168.100.223
7	192.168.100.224	192.168.100.225	192.168.100.254	192.168.100.255

Devices	Interface	IP Address	Subnet Mask	Default Gateway
R1	G0/0	192.168.100.1	255.255.255.224	N/A
	G0/1	192.168.100.33	255.255.255.224	N/A
	S0/0/0	192.168.100.129	255.255.255.224	N/A
R2	G0/0	192.168.100.65	255.255.255.224	N/A
	G0/1	192.168.100.97	255.255.255.224	N/A
	S0/0/0	192.168.100.158	255.255.255.224	N/A
S1	VLAN1	192.168.100.2	255.255.255.224	192.168.100.1
S2	VLAN1	192.168.100.34	255.255.255.224	192.168.100.33
S3	VLAN1	192.168.100.66	255.255.255.224	192.168.100.65
S4	VLAN1	192.168.100.98	255.255.255.224	192.168.100.97
PC1	NIC	192.168.100.30	255.255.255.224	192.168.100.1
PC2	NIC	192.168.100.62	255.255.255.224	192.168.100.33
PC3	NIC	192.168.100.94	255.255.255.224	192.168.100.65
PC4	NIC	192.168.100.126	255.255.255.224	192.168.100.97

3.2:

```
R1>enable
R1#config t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#
R1(config)# interface giga
R1(config)# interface gigabitEthernet 0/0
R1(config-if)# ip address 192.168.100.1 255.255.255.224
R1(config-if)# no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
exit
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console
copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R1# config t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)# interface gi
R1(config)# interface gigabitEthernet 0/1
R1(config-if)# ip address 192.168.100.33 255.255.255.224
R1(config-if)# no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

R1(config-if)#exit
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console
copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
R1#
```

```
S3>enable
S3#config t
Enter configuration commands, one per line.  End with CNTL/Z.
S3(config)#interface v
S3(config)#interface vlan 1
S3(config-if)#ip address 192.168.100.66 255.255.255.224
S3(config-if)#no shutdown

S3(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up

S3(config-if)#exit
S3(config)#exit
S3#
%SYS-5-CONFIG_I: Configured from console by console
copy runstart
% Incomplete command.
S3#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
S3#
```


PC4
Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
192.168.100.126
Subnet Mask
255.255.255.224
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
/
Link Local Address
FE80::260:70FF:FE47:AAC1
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top

3.3:

Expand/Collapse All | Show Incorrect Items

Assessment Items	Status	Points	Component(s)	Feedback
Network				
PC4				
✗ Default Gateway	Incorrect	2	Default Gateway…	
Ports				
FastEthernet0				
✓ IP Address	Correct	2	IPv4 Host Addre…	
✓ Subnet Mask	Correct	2	IPv4 Subnet Ma…	
R1				
Ports				
GigabitEthernet0/0				
✓ IP Address	Correct	3	IPv4 Host Addre…	
✓ Port Status	Correct	1	Device Interface …	
✓ Subnet Mask	Correct	3	IPv4 Subnet Ma…	
GigabitEthernet0/1				
✓ IP Address	Correct	3	IPv4 Host Addre…	
✓ Port Status	Correct	1	Device Interface …	
✓ Subnet Mask	Correct	3	IPv4 Subnet Ma…	
S3				
✗ Default Gateway	Incorrect	3	Default Gateway…	
Ports				
Vlan1				
✓ IP Address	Correct	3	IPv4 Host Addre…	
✓ Port Status	Correct	1	Device Interface …	
✓ Subnet Mask	Correct	3	IPv4 Subnet Ma…	