Computer Networks | CS3001 | Assignment:02

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Daniyal Khan : Mahad Rahat

Assignment | CNET

CISCO

20i-1847 Daniyal Khan

20i-1808 Mahad Rahat

Contents

Configuring Router:

```
Press RETURN to get started!



Router>en
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa0/0
Router(config-if)#ip add 192.168.1.1 255.255.255.0
Router(config-if)#no sh

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

Router(config-if)#exit
Router(config)#int fa0/1
Router(config-if)#ip add 192.168.2.1 255.255.255.0
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Router(config-if)#exit
Router(config)#ip dhcp pool A
Router(dhcp-config)#network 192.168.1.0 255.255.255.0
Router(dhcp-config)#default 192.168.1.1
Router(dhcp-config)#exit
Router(config)#ip dhcp pool B
Router(dhcp-config)#network 192.168.2.0
% Incomplete command.
Router(dhcp-config)#network 192.168.2.0 255.255.255.0
Router(dhcp-config)#default 192.168.2.1
Router(dhcp-config)#exit
Router(config)#
```
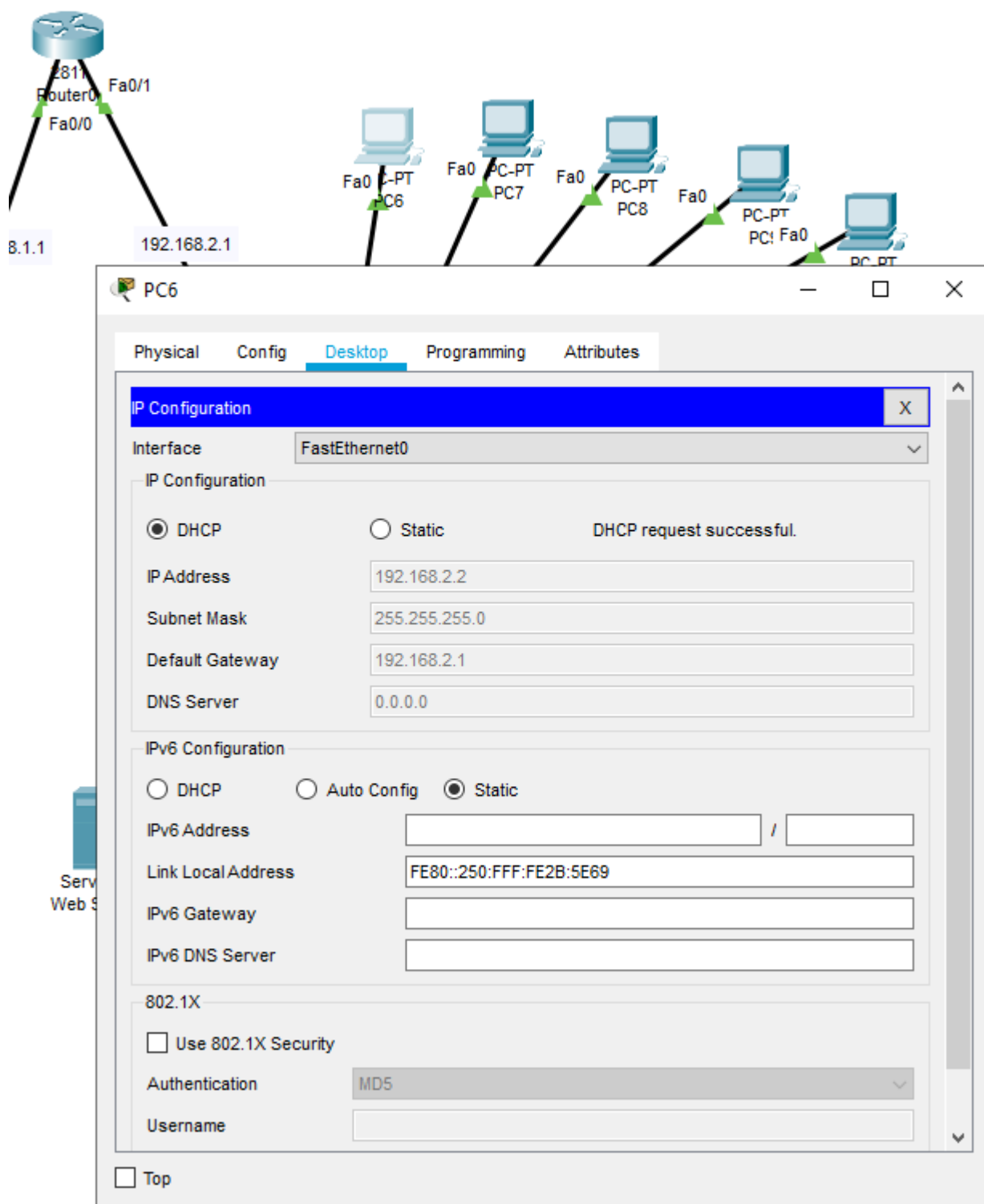
Requesting IP on network B:

IP Configuration

Interface	FastEthernet0

IP Configuration

○ DHCP   ○ Static   DHCP request successful.

IP Address	192.168.2.2
Subnet Mask	255.255.255.0
Default Gateway	192.168.2.1
DNS Server	0.0.0.0

IPv6 Configuration

○ DHCP   ○ Auto Config   ● Static

IPv6 Address		/
Link Local Address	FE80::250:FFF:FE2B:5E69	
IPv6 Gateway		
IPv6 DNS Server		

802.1X

☐ Use 802.1X Security

Authentication	MD5
Username	

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Requesting IP on Network A:
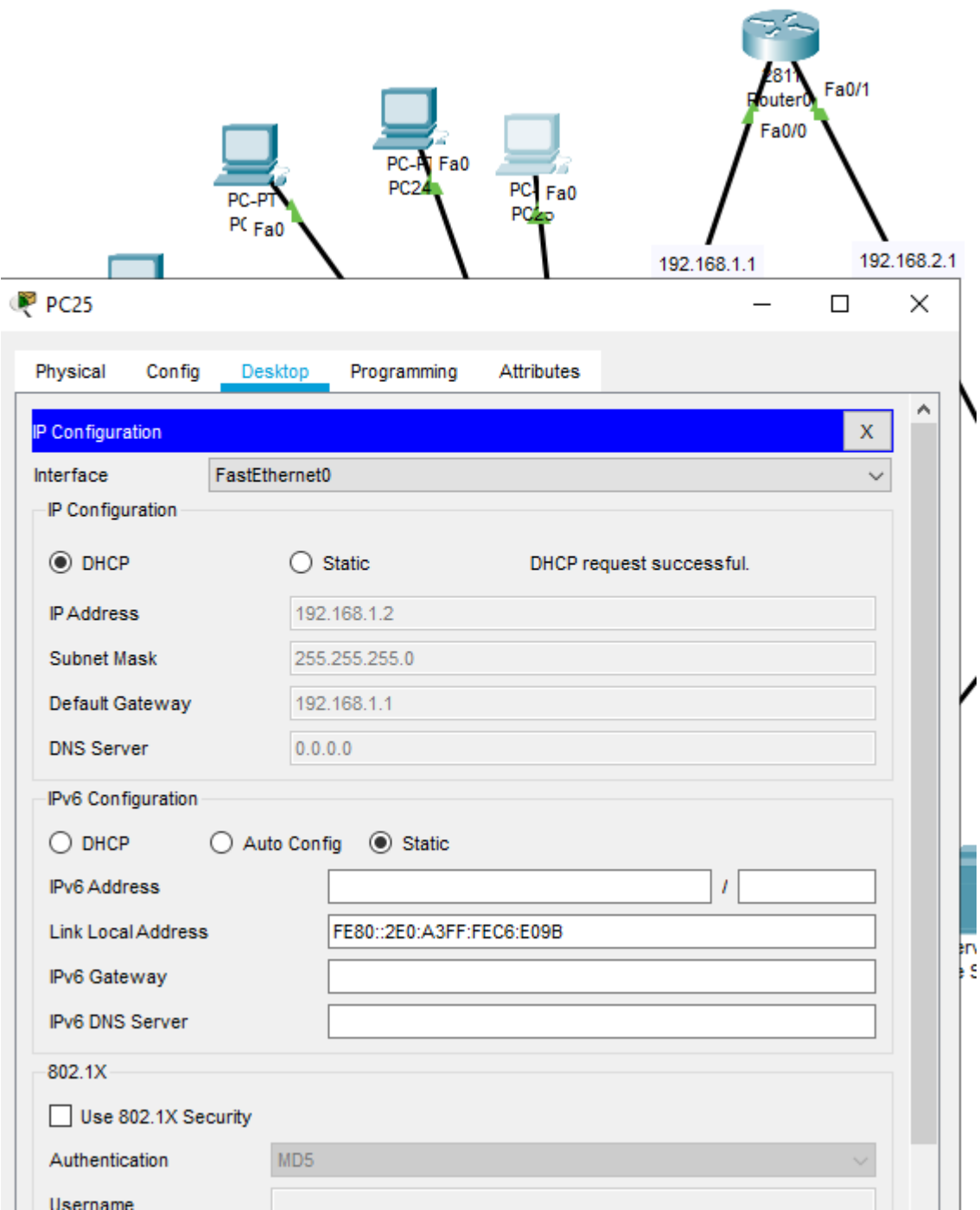
Pinging From Ground floor to Ground Floor and to 1st Floor:

```
C:\>ipconfig

FastEthernet0 Connection:(default port)

    Link-local IPv6 Address.........: FE80::201:64FF:FE4C:53BD
    IP Address......................: 192.168.1.10
    Subnet Mask.....................: 255.255.255.0
    Default Gateway.................: 192.168.1.1

Bluetooth Connection:

    Link-local IPv6 Address.........: ::
    IP Address......................: 0.0.0.0
    Subnet Mask.....................: 0.0.0.0
    Default Gateway.................: 0.0.0.0

C:\>ping 192.168.1.7

Pinging 192.168.1.7 with 32 bytes of data:

Reply from 192.168.1.7: bytes=32 time<1ms TTL=128
Reply from 192.168.1.7: bytes=32 time<1ms TTL=128
Reply from 192.168.1.7: bytes=32 time<1ms TTL=128
Reply from 192.168.1.7: bytes=32 time=11ms TTL=128

Ping statistics for 192.168.1.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 11ms, Average = 2ms

C:\>ping 192.168.2.14

Pinging 192.168.2.14 with 32 bytes of data:

Reply from 192.168.2.14: bytes=32 time=1ms TTL=127
Reply from 192.168.2.14: bytes=32 time<1ms TTL=127
Reply from 192.168.2.14: bytes=32 time=1ms TTL=127
Reply from 192.168.2.14: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.2.14:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

Pinging from 1st floor to 1st floor and to ground floor:

```
C:\>ipconfig

FastEthernet0 Connection:(default port)

   Link-local IPv6 Address.........: FE80::20A:41FF:FEAD:1DD
   IP Address......................: 192.168.2.5
   Subnet Mask.....................: 255.255.255.0
   Default Gateway.................: 192.168.2.1

Bluetooth Connection:

   Link-local IPv6 Address.........: ::
   IP Address......................: 0.0.0.0
   Subnet Mask.....................: 0.0.0.0
   Default Gateway.................: 0.0.0.0

C:\>ping 192.168.2.14

Pinging 192.168.2.14 with 32 bytes of data:

Reply from 192.168.2.14: bytes=32 time=3ms TTL=128
Reply from 192.168.2.14: bytes=32 time<1ms TTL=128
Reply from 192.168.2.14: bytes=32 time<1ms TTL=128
Reply from 192.168.2.14: bytes=32 time=2ms TTL=128

Ping statistics for 192.168.2.14:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 3ms, Average = 1ms

C:\>ping 192.168.1.10

Pinging 192.168.1.10 with 32 bytes of data:

Reply from 192.168.1.10: bytes=32 time=1ms TTL=127
Reply from 192.168.1.10: bytes=32 time=1ms TTL=127
Reply from 192.168.1.10: bytes=32 time<1ms TTL=127
Reply from 192.168.1.10: bytes=32 time=1ms TTL=127

Ping statistics for 192.168.1.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

DNS:

DNS　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　—　□　✕

Physical　Config　**Services**　Desktop　Programming　Attributes

SERVICES
HTTP
DHCP
DHCPv6
TFTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
IoT
VM Management
Radius EAP

DNS

DNS Service　　　　　　　　　　● On　　　　　　　　　　○ Off

Resource Records

Name　[　　　　　　　　　　　]　　　　　　Type [A Record　　　▾]

Address [　　　　　　　　　　　　　　　　　　　　　　　　　　　　　]

Add	Save	Remove

No.	Name	Type	Detail
0	www.daniyalmahad.com	A Record	192.168.2.59
1	www.daniyalmahad.com	A Record	192.168.2.57
2	www.daniyalmahad.com	A Record	192.168.2.54

[DNS Cache]

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WEB　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　—　□　✕

Physical　Config　**Services**　Desktop　Programming　Attributes

SERVICES
HTTP
DHCP
DHCPv6
TFTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
IoT
VM Management
Radius EAP

HTTP

HTTP
● On　　　　○ Off

HTTPS
● On　　　　○ Off

File Manager

	File Name	Edit	Delete
1	copyrights.html	(edit)	(delete)
2	cscoptlogo177x111.jpg		(delete)
3	helloworld.html	(edit)	(delete)
4	image.html	(edit)	(delete)
5	index.html	(edit)	(delete)

[New File]　[Import]

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VLAN:

Commands:

        Config t

        Hostname groundFloor

        Vlan 10

        Name department01

        Int range f0/1-4

        Switchport access vlan 10

        wr

Switch0

Physical Config CLI Attributes

```
ground#config t
Enter configuration commands, one per line.  End with CNTL/Z.
ground(config)#hostname ground
ground(config)#vlan 10
ground(config-vlan)#name VLAN1
ground(config-vlan)#vlan 20
ground(config-vlan)#name VLAN2
ground(config-vlan)#vlan 30
ground(config-vlan)#name VLAN3
ground(config-vlan)#int range f0/1-4
ground(config-if-range)#switchport access vlan 30
ground(config-if-range)#int range f0/5-8
ground(config-if-range)#switch access vlan 20
ground(config-if-range)#int range f0/9-12
ground(config-if-range)#switchport access vlan 10
ground(config-if-range)#sh vlan br
                                  ^
% Invalid input detected at '^' marker.

ground(config-if-range)#exit
ground(config)#sh vlan br
                       ^
% Invalid input detected at '^' marker.

ground(config)#exit
ground#
%SYS-5-CONFIG_I: Configured from console by console

ground#sh vlan br

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa0/13, Fa0/14, Fa0/15, Fa0/16
                                                Fa0/17, Fa0/18, Fa0/19, Fa0/20
                                                Fa0/21, Fa0/22, Fa0/23, Fa0/24
                                                Gig0/1, Gig0/2
10   VLAN1                            active    Fa0/9, Fa0/10, Fa0/11, Fa0/12
20   VLAN2                            active    Fa0/5, Fa0/6, Fa0/7, Fa0/8
30   VLAN3                            active    Fa0/1, Fa0/2, Fa0/3, Fa0/4
1002 fddi-default                     active
1003 token-ring-default               active
1004 fddinet-default                  active
1005 trnet-default                    active
ground#wr
Building configuration...
[OK]
ground#
```

Switch0   — □ ✕

Physical Config CLI Attributes

GLOBAL	
Settings	
Algorithm Settings	
SWITCHING	
VLAN Database	
INTERFACE	
FastEthernet0/1	
FastEthernet0/2	
FastEthernet0/3	
FastEthernet0/4	
FastEthernet0/5	
FastEthernet0/6	
FastEthernet0/7	
FastEthernet0/8	
FastEthernet0/9	
FastEthernet0/10	
FastEthernet0/11	
FastEthernet0/12	

VLAN Configuration

VLAN Number

VLAN Name

Add   Remove

VLAN No	VLAN Name
1	default
10	VLAN3
20	VLAN2
30	VLAN1
1002	fddi-default
1003	token-ring-default
1004	fddinet-default
1005	trnet-default

10

After pinging two different pcs from different vlans:

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.6

Pinging 192.168.1.6 with 32 bytes of data:

Reply from 192.168.1.6: bytes=32 time=1ms TTL=128
Reply from 192.168.1.6: bytes=32 time<1ms TTL=128
Reply from 192.168.1.6: bytes=32 time<1ms TTL=128
Reply from 192.168.1.6: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.1.6

Pinging 192.168.1.6 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
```

>Request timed out.

WEB Server: