

SEC: A

CN LAB: 07

BATCH: A3

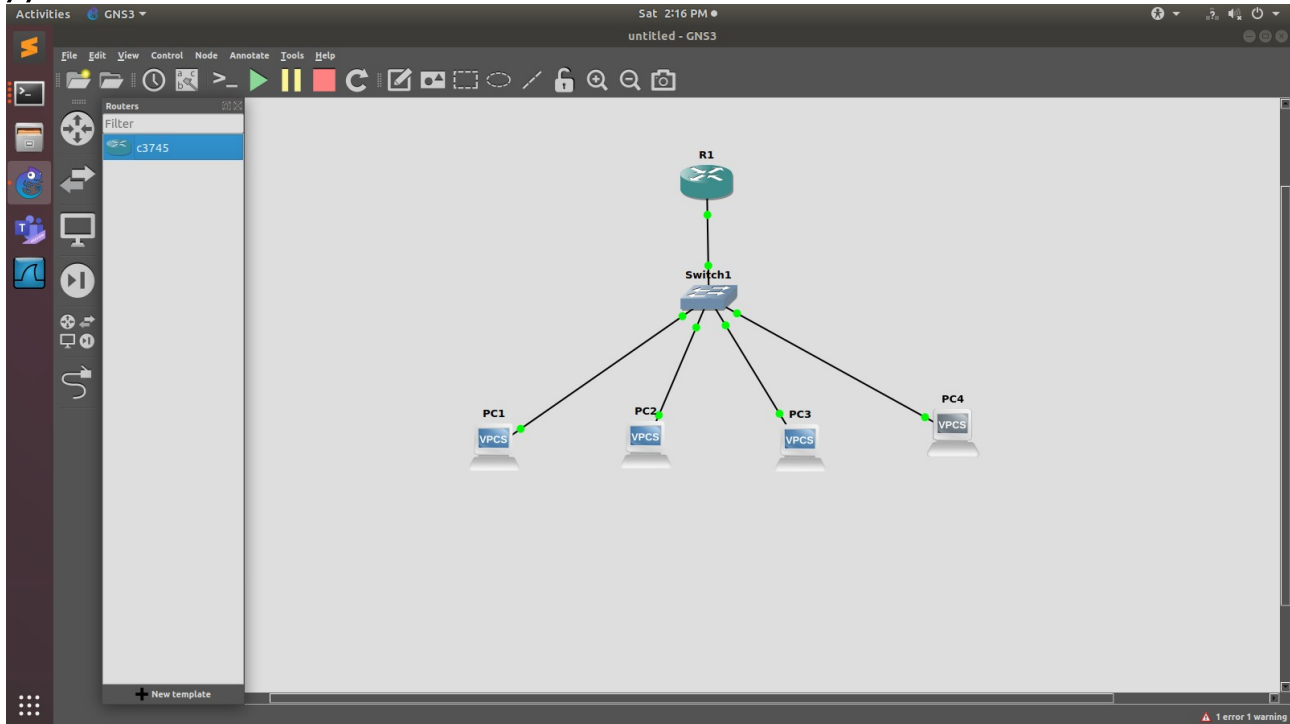
REG: 190905513

CSE 3113

NAME: MOHAMMAD DANISH EQBAL

EXPERIMENT: 01

//TOPOLOGY



//PC1

```
Activities Terminal
Sat 2:11 PM
PC1

File Edit View Search Terminal Help

Trying 127.0.0.1...
Connected to localhost.
Escape character is '^J'.

Welcome to Virtual PC Simulator, version 0.8.1
Dedicated to Dalling.
Build time: Apr 10 2019 16:35:00
Copyright (c) 2007-2015, Paul Meng (mirnshi@gmail.com)
All rights reserved.

VPCS is free software, distributed under the terms of the "BSD" licence.
Source code and license can be found at vpcs.sf.net.
For more information, please visit wiki.freecode.com.cn.

Press '?' to get help.

Executing the startup file

PC1> ip 10.10.10.1/24
Checking for duplicate address...
PC1 : 10.10.10.1 255.255.255.0

PC1> save
Saving startup configuration to startup.vpc
. done

PC1> ping 20.20.20.2
No gateway found

PC1> ip 10.10.10.1 255.255.255.0 10.10.10.254
Checking for duplicate address...
PC1 : 10.10.10.1 255.255.255.0 gateway 10.10.10.254

PC1> ping 20.20.20.1
20.20.20.1 icmp_seq=1 timeout
84 bytes from 20.20.20.1 icmp_seq=2 ttl=63 time=18.443 ms
84 bytes from 20.20.20.1 icmp_seq=3 ttl=63 time=19.395 ms
84 bytes from 20.20.20.1 icmp_seq=4 ttl=63 time=19.312 ms
84 bytes from 20.20.20.1 icmp_seq=5 ttl=63 time=19.296 ms

PC1>
```

//PC2

```
Activities Terminal Sat 2:11 PM PC2
File Edit View Search Terminal Help
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
Welcome to Virtual PC Simulator, version 0.8.1
Dedicated to Daling.
Build time: Apr 10 2019 16:35:00
Copyright (c) 2007-2015, Paul Meng (mirnshi@gmail.com)
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VPCS is free software, distributed under the terms of the "BSD" licence.
Source code and license can be found at vpcs.sf.net.
For more information, please visit wiki.freecode.com.cn.
Press '?' to get help.
Executing the startup file

PC2> ip 10.10.10.2/24
Checking for duplicate address...
PC2 : 10.10.10.2 255.255.255.0

PC2> save
Saving startup configuration to startup.vpc
. done

PC2> ip 10.10.10.2 255.255.255.0 10.10.10.254
Checking for duplicate address...
PC2 : 10.10.10.2 255.255.255.0 gateway 10.10.10.254

PC2> █
```

//PC3

```
Activities Terminal Sat 2:12 PM PC3
File Edit View Search Terminal Help
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
Welcome to Virtual PC Simulator, version 0.8.1
Dedicated to Daling.
Build time: Apr 10 2019 16:35:00
Copyright (c) 2007-2015, Paul Meng (mirnshi@gmail.com)
All rights reserved.
VPCS is free software, distributed under the terms of the "BSD" licence.
Source code and license can be found at vpcs.sf.net.
For more information, please visit wiki.freecode.com.cn.
Press '?' to get help.
Executing the startup file

PC3> ip 20.20.20.1/24
Checking for duplicate address...
PC3 : 20.20.20.1 255.255.255.0

PC3> save
Saving startup configuration to startup.vpc
. done

PC3> ip 20.20.20.1 255.255.255.0 20.20.20.254
Checking for duplicate address...
PC3 : 20.20.20.1 255.255.255.0 gateway 20.20.20.254

PC3> █
```

//PC4

```
Activities Terminal Sat 2:12 PM PC4
File Edit View Search Terminal Help
Escape character is '^]'.
Welcome to Virtual PC Simulator, version 0.8.1
Dedicated to Dalling.
Build time: Apr 10 2019 16:35:00
Copyright (c) 2007-2015, Paul Meng (mirnshi@gmail.com)
All rights reserved.
VPCS is free software, distributed under the terms of the "BSD" licence.
Source code and license can be found at vpcs.sf.net.
For more information, please visit wiki.freecode.com.cn.
Press '?' to get help.
Executing the startup file
PC4> ip 20.20.20.2/24
Checking for duplicate address...
PC4 : 20.20.20.2 255.255.255.0
PC4> save
Saving startup configuration to startup.vpc
. done
PC4> ip 20.20.20.2 255.255.255.0 20.20.20.254
Checking for duplicate address...
PC4 : 20.20.20.2 255.255.255.0 gateway 20.20.20.254
PC4> show ip
NAME      : PC4[1]
IP/MASK    : 20.20.20.2/24
GATEWAY    : 20.20.20.254
DNS        :
MAC        : 00:50:79:66:68:03
LPORT      : 10014
RHOST:PORT : 127.0.0.1:10015
MTU        : 1500
PC4> ping 10.10.10.1
host (20.20.20.254) not reachable
PC4> 
```

//SWITCH1

Activities GNS3 untitled - GNS3 Sat 2:10 PM

Project "untitled" is opened, it cannot be overwritten

Switch1 configuration

General

Name: Switch1

Console type: none

Settings

Port: 8

VLAN: 1

Type: access

QinQ EtherType: 0x0100

Ports

Port	VLAN	Type	Ether
0	10	access	
1	10	access	
2	20	access	
3	20	access	
4	1	dolt1q	
5	1	access	
6	1	access	

PC3 VPCS PC4 VPCS

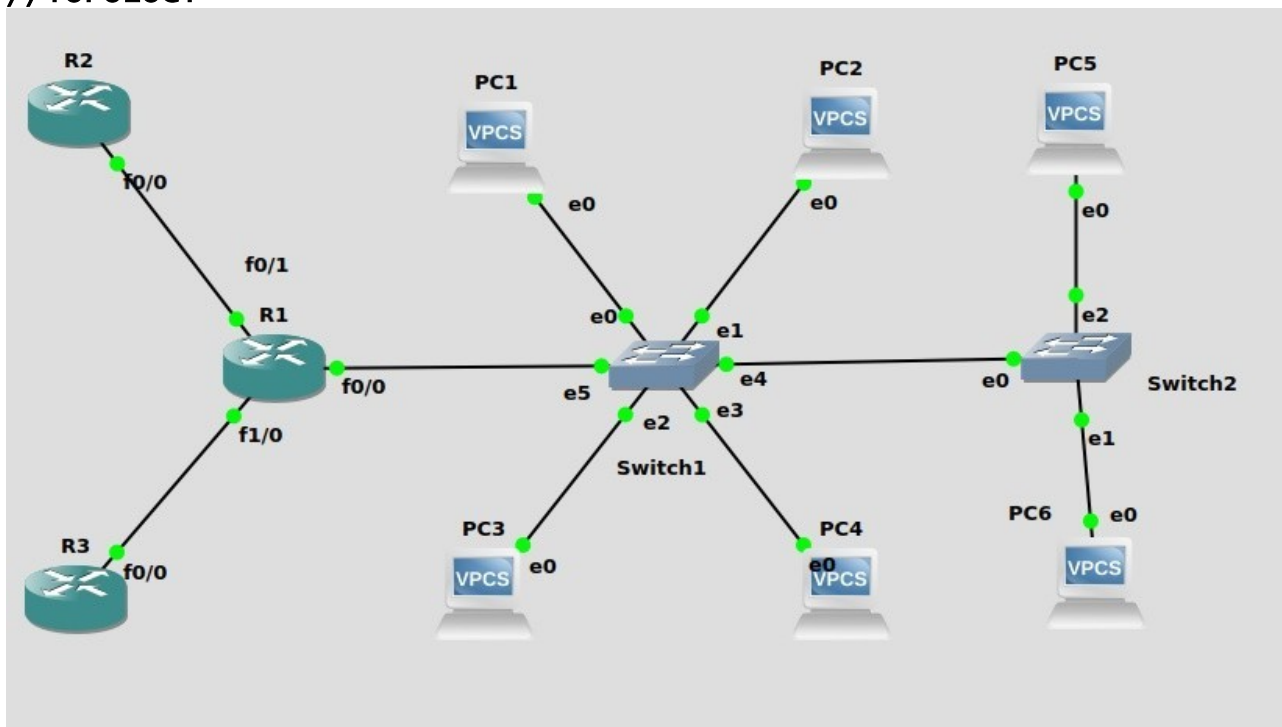
1 error 1 warning

//ROUTER1

```
Activities Terminal Sat 2:10 PM R1
File Edit View Search Terminal Help
Cisco IOS Software, 3700 Software (C3745-ADVENTERPRISEK9_SNA-M), Version 12.4(25d), RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2010 by Cisco Systems, Inc.
Compiled Wed 10-Aug-10 08:18 by prod_rel_team
*Mar 1 00:00:04.235: %SNMP-5-COLDSTART: SNMP agent on host R1 is undergoing a cold start
*Mar 1 00:00:04.735: %LINK-5-CHANGED: Interface FastEthernet0/0, changed state to administratively down
*Mar 1 00:00:04.807: %LINK-5-CHANGED: Interface FastEthernet0/1, changed state to administratively down
*Mar 1 00:00:04.843: %LINK-5-CHANGED: Interface Serial1/0, changed state to administratively down
*Mar 1 00:00:04.843: %LINK-5-CHANGED: Interface Serial1/1, changed state to administratively down
*Mar 1 00:00:04.847: %LINK-5-CHANGED: Interface Serial1/2, changed state to administratively down
*Mar 1 00:00:04.847: %LINK-5-CHANGED: Interface Serial1/3, changed state to administratively down
*Mar 1 00:00:05.735: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to down
*Mar 1 00:00:05.807: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
*Mar 1 00:00:05.843: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0, changed state to down
*Mar 1 00:00:05.843: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/1, changed state to down
*Mar 1 00:00:05.847: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/2, changed state to down
*Mar 1 00:00:05.847: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/3, changed state to down
R1#conf t
R1#config t
R1#config terminal
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#int f0/0
R1(config-if)#ip add 30.30.30.1/24
% Invalid input detected at '^' marker.
R1(config-if)#no shut
R1(config-if)#
*Mar 1 00:02:00.727: %LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to up
*Mar 1 00:02:01.727: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
R1(config-if)#exit
R1(config)#int f0/0.10
R1(config-subif)#encap
R1(config-subif)#encapsulation dot1q 10
R1(config-subif)#ip ad
*Mar 1 00:03:48.459: %LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to up
R1(config-subif)#ip add 10.10.10.254 255.255.255.0
R1(config-subif)#no shut
R1(config-subif)#exit
R1(config)#int f0/0.20
R1(config-subif)#encapsulation dot1q 20
R1(config-subif)#ip add 20.20.20.254 255.255.255.0
R1(config-subif)#no shut
R1(config-subif)#exit
R1(config)#
```

EXPERIMENT: 02

//TOPOLOGY



//DHCP

```
PC1
File Edit View Search Terminal Help
84 bytes from 20.20.20.1 icmp_seq=2 ttl=63 time=17.685 ms
84 bytes from 20.20.20.1 icmp_seq=3 ttl=63 time=19.690 ms
84 bytes from 20.20.20.1 icmp_seq=4 ttl=63 time=20.162 ms
84 bytes from 20.20.20.1 icmp_seq=5 ttl=63 time=20.189 ms
PC1> ping 10.10.10.3
84 bytes from 10.10.10.3 icmp_seq=1 ttl=64 time=0.415 ms
84 bytes from 10.10.10.3 icmp_seq=2 ttl=64 time=0.521 ms
84 bytes from 10.10.10.3 icmp_seq=3 ttl=64 time=0.634 ms
84 bytes from 10.10.10.3 icmp_seq=4 ttl=64 time=0.658 ms
84 bytes from 10.10.10.3 icmp_seq=5 ttl=64 time=0.641 ms
PC1> dhcp
DDDD
Can't find dhcp server
PC1> dhcp
DORA IP 10.10.10.4/24 GW 10.10.10.254
PC1>

PC2
File Edit View Search Terminal Help
PC2> ping 20.20.20.3
20.20.20.3 icmp_seq=1 timeout
84 bytes from 20.20.20.3 icmp_seq=2 ttl=63 time=18.216 ms
84 bytes from 20.20.20.3 icmp_seq=3 ttl=63 time=19.434 ms
84 bytes from 20.20.20.3 icmp_seq=4 ttl=63 time=19.481 ms
84 bytes from 20.20.20.3 icmp_seq=5 ttl=63 time=19.682 ms
PC2> ping 20.20.20.2
84 bytes from 20.20.20.2 icmp_seq=1 ttl=63 time=19.685 ms
84 bytes from 20.20.20.2 icmp_seq=2 ttl=63 time=19.080 ms
84 bytes from 20.20.20.2 icmp_seq=3 ttl=63 time=19.109 ms
84 bytes from 20.20.20.2 icmp_seq=4 ttl=63 time=20.123 ms
84 bytes from 20.20.20.2 icmp_seq=5 ttl=63 time=19.263 ms
PC2> dhcp
DDORA IP 10.10.10.5/24 GW 10.10.10.254
PC2>

PC3
File Edit View Search Terminal Help
84 bytes from 20.20.20.3 icmp_seq=2 ttl=64 time=0.726 ms
84 bytes from 20.20.20.3 icmp_seq=3 ttl=64 time=0.624 ms
84 bytes from 20.20.20.3 icmp_seq=4 ttl=64 time=0.768 ms
84 bytes from 20.20.20.3 icmp_seq=5 ttl=64 time=0.490 ms
PC3> ping 10.10.10.1
10.10.10.1 icmp_seq=1 timeout
84 bytes from 10.10.10.1 icmp_seq=2 ttl=63 time=18.177 ms
84 bytes from 10.10.10.1 icmp_seq=3 ttl=63 time=18.512 ms
84 bytes from 10.10.10.1 icmp_seq=4 ttl=63 time=18.853 ms
84 bytes from 10.10.10.1 icmp_seq=5 ttl=63 time=18.511 ms
PC3> dhcp
DDDD
Can't find dhcp server
PC3> dhcp
DORA IP 20.20.20.4/24 GW 20.20.20.254
PC3>

PC4
File Edit View Search Terminal Help
84 bytes from 10.10.10.3 icmp_seq=3 ttl=63 time=19.099 ms
84 bytes from 10.10.10.3 icmp_seq=4 ttl=63 time=19.373 ms
84 bytes from 10.10.10.3 icmp_seq=5 ttl=63 time=19.438 ms
PC4> ping 10.10.10.2
84 bytes from 10.10.10.2 icmp_seq=1 ttl=63 time=13.392 ms
84 bytes from 10.10.10.2 icmp_seq=2 ttl=63 time=19.525 ms
84 bytes from 10.10.10.2 icmp_seq=3 ttl=63 time=19.114 ms
84 bytes from 10.10.10.2 icmp_seq=4 ttl=63 time=19.100 ms
84 bytes from 10.10.10.2 icmp_seq=5 ttl=63 time=19.368 ms
PC4> dhcp
DDDD
Can't find dhcp server
PC4> dhcp
DORA IP 20.20.20.5/24 GW 20.20.20.254
PC4>
```



```

R2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#int f0/0
R2(config-if)#ip addr 50.50.50.1 255.255.255.0
R2(config-if)#ip dhcp pool lan10
R2(dhcp-config)#network 10.10.10.0 255.255.255.0
                                     ^
% Invalid input detected at '^' marker.

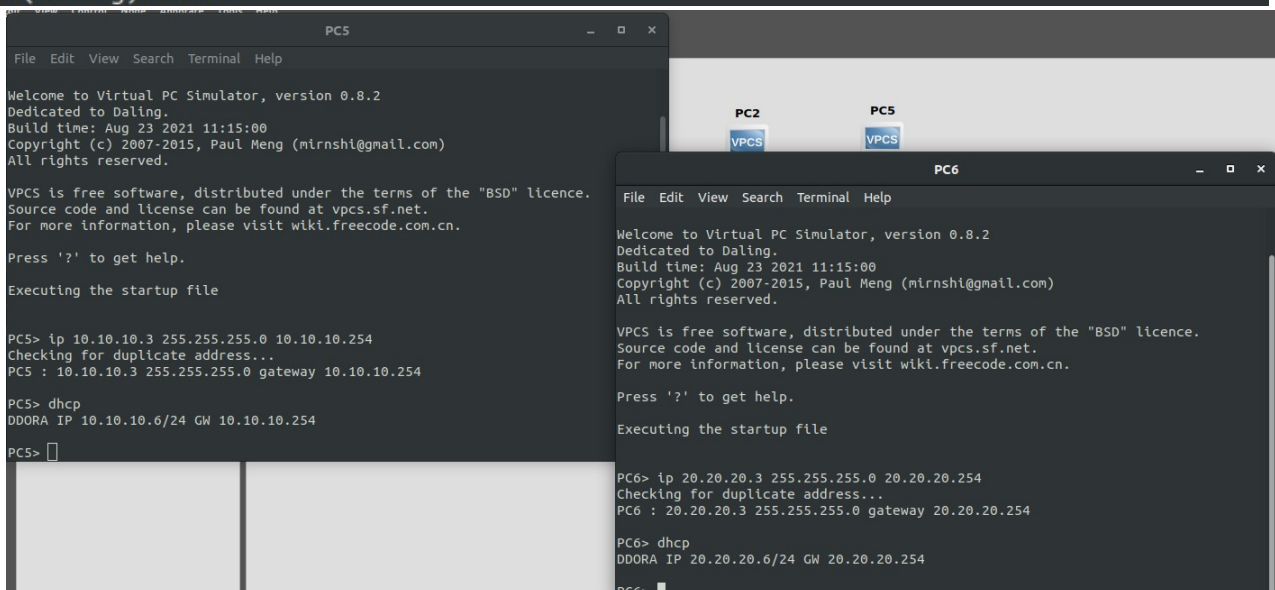
R2(dhcp-config)#network 10.10.10.0 255.255.255.0
R2(dhcp-config)#default
R2(dhcp-config)#default-router 10.10.10.254
R2(dhcp-config)#dns
R2(dhcp-config)#dns-server 60.60.60.1
R2(dhcp-config)#no shut
                                     ^
% Invalid input detected at '^' marker.

R2(dhcp-config)#exit
R2(config)#ip dhcp pool lan20
R2(dhcp-config)#network 20.20.20.0 255.255.255.0
R2(dhcp-config)#default-router 20.20.20.254
R2(dhcp-config)#dns-server 60.60.60.1
R2(dhcp-config)#exit
R2(config)#no shut
% Incomplete command.

R2(config)#do wr
Building configuration...
[OK]
R2(config)#ip route 10.10.10.0 50.50.50.2
% Incomplete command.

R2(config)#ip route 10.10.10.0 255.255.255.0 50.50.50.2
R2(config)#ip route 20.20.20.0 255.255.255.0 50.50.50.2
R2(config)#ip route 30.30.30.0 255.255.255.0 50.50.50.2
R2(config)#ip route 60.60.60.0 255.255.255.0 50.50.50.2
R2(config)#do wr

```



//DNS

```
Compiled Wed 18-Aug-10 08:18 by prod_rel_team
*Mar 1 00:00:04.095: %SNMP-5-COLDSTART: SNMP agent on host R3 is undergoing a cold start
*Mar 1 00:00:04.111: %LINEPROTO-5-UPDOWN: Line protocol on Interface IPv6-mpls, changed state to up
*Mar 1 00:00:04.715: %LINK-5-CHANGED: Interface FastEthernet0/0, changed state to administratively down
*Mar 1 00:00:04.795: %LINK-5-CHANGED: Interface FastEthernet0/1, changed state to administratively down
*Mar 1 00:00:05.715: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to down
*Mar 1 00:00:05.795: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
R3#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R3(config)#int f0/0
R3(config-if)#ip addr 60.60.60.1 255.255.255.0
R3(config-if)#no shu^
% Invalid input detected at '^' marker.

R3(config-if)#no shut
R3(config-if)#exit
R3(config)#
*Mar 1 00:08:23.415: %LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to up
*Mar 1 00:08:24.415: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
R3(config)#ip dn
R3(config)#ip dns server
R3(config)#ip host pc1.com 10.10.10.4
R3(config)#ip host pc2.com 10.10.10.5
R3(config)#ip host pc3.com 20.20.20.4
R3(config)#ip host pc4.com 20.20.20.5
R3(config)#end
R3#wr
Building configuration...
[OK]
R3#
*Mar 1 00:14:45.319: %SYS-5-CONFIG_I: Configured from console by console
R3#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R3(config)#ip route 10.10.10.0 255.255.255.0 60.60.60.2
R3(config)#ip route 20.20.20.0 255.255.255.0 60.60.60.2
R3(config)#ip route 50.50.50.0 255.255.255.0 60.60.60.2
R3(config)#ip route 30.30.30.0 255.255.255.0 60.60.60.2
R3(config)#end
R3#wr
Building configuration...

*Mar 1 00:16:25.403: %SYS-5-CONFIG_I: Configured from console by console[OK]
R3#
```

PC1	PC3
File Edit View Search Terminal Help Cannot resolve pc3.com PC1> ping pc3.com pc3.com resolved to 20.20.20.4 84 bytes from 20.20.20.4 icmp_seq=1 ttl=63 time=30.140 ms 84 bytes from 20.20.20.4 icmp_seq=2 ttl=63 time=19.848 ms 84 bytes from 20.20.20.4 icmp_seq=3 ttl=63 time=18.973 ms 84 bytes from 20.20.20.4 icmp_seq=4 ttl=63 time=19.349 ms 84 bytes from 20.20.20.4 icmp_seq=5 ttl=63 time=19.621 ms PC1> ping pc2.com pc2.com resolved to 10.10.10.5 84 bytes from 10.10.10.5 icmp_seq=1 ttl=64 time=0.291 ms 84 bytes from 10.10.10.5 icmp_seq=2 ttl=64 time=0.588 ms 84 bytes from 10.10.10.5 icmp_seq=3 ttl=64 time=0.427 ms 84 bytes from 10.10.10.5 icmp_seq=4 ttl=64 time=0.471 ms 84 bytes from 10.10.10.5 icmp_seq=5 ttl=64 time=0.558 ms PC1>	File Edit View Search Terminal Help DORA IP 20.20.20.4/24 GW 20.20.20.254 PC3> ping pc1.com pc1.com resolved to 10.10.10.4 84 bytes from 10.10.10.4 icmp_seq=1 ttl=63 time=19.631 ms 84 bytes from 10.10.10.4 icmp_seq=2 ttl=63 time=19.825 ms 84 bytes from 10.10.10.4 icmp_seq=3 ttl=63 time=19.441 ms 84 bytes from 10.10.10.4 icmp_seq=4 ttl=63 time=19.269 ms 84 bytes from 10.10.10.4 icmp_seq=5 ttl=63 time=19.109 ms PC3> ping pc4.com pc4.com resolved to 20.20.20.5 84 bytes from 20.20.20.5 icmp_seq=1 ttl=64 time=0.509 ms 84 bytes from 20.20.20.5 icmp_seq=2 ttl=64 time=0.541 ms 84 bytes from 20.20.20.5 icmp_seq=3 ttl=64 time=0.281 ms 84 bytes from 20.20.20.5 icmp_seq=4 ttl=64 time=0.437 ms 84 bytes from 20.20.20.5 icmp_seq=5 ttl=64 time=0.406 ms PC3>
PC2	PC4
File Edit View Search Terminal Help PC2> ping pc4.com pc4.com resolved to 20.20.20.5 84 bytes from 20.20.20.5 icmp_seq=1 ttl=63 time=29.924 ms 84 bytes from 20.20.20.5 icmp_seq=2 ttl=63 time=19.207 ms 84 bytes from 20.20.20.5 icmp_seq=3 ttl=63 time=19.763 ms 84 bytes from 20.20.20.5 icmp_seq=4 ttl=63 time=19.229 ms 84 bytes from 20.20.20.5 icmp_seq=5 ttl=63 time=19.584 ms PC2> ping pc1.com pc1.com resolved to 10.10.10.4 84 bytes from 10.10.10.4 icmp_seq=1 ttl=64 time=0.547 ms 84 bytes from 10.10.10.4 icmp_seq=2 ttl=64 time=0.625 ms 84 bytes from 10.10.10.4 icmp_seq=3 ttl=64 time=0.431 ms 84 bytes from 10.10.10.4 icmp_seq=4 ttl=64 time=0.613 ms 84 bytes from 10.10.10.4 icmp_seq=5 ttl=64 time=0.607 ms PC2>	File Edit View Search Terminal Help PC4> ping pc3.com pc3.com resolved to 20.20.20.4 84 bytes from 20.20.20.4 icmp_seq=1 ttl=64 time=0.279 ms 84 bytes from 20.20.20.4 icmp_seq=2 ttl=64 time=0.590 ms 84 bytes from 20.20.20.4 icmp_seq=3 ttl=64 time=0.612 ms 84 bytes from 20.20.20.4 icmp_seq=4 ttl=64 time=0.496 ms 84 bytes from 20.20.20.4 icmp_seq=5 ttl=64 time=0.635 ms PC4> ping pc1.com pc1.com resolved to 10.10.10.4 84 bytes from 10.10.10.4 icmp_seq=1 ttl=63 time=20.056 ms 84 bytes from 10.10.10.4 icmp_seq=2 ttl=63 time=19.354 ms 84 bytes from 10.10.10.4 icmp_seq=3 ttl=63 time=19.465 ms 84 bytes from 10.10.10.4 icmp_seq=4 ttl=63 time=19.476 ms 84 bytes from 10.10.10.4 icmp_seq=5 ttl=63 time=19.464 ms PC4>