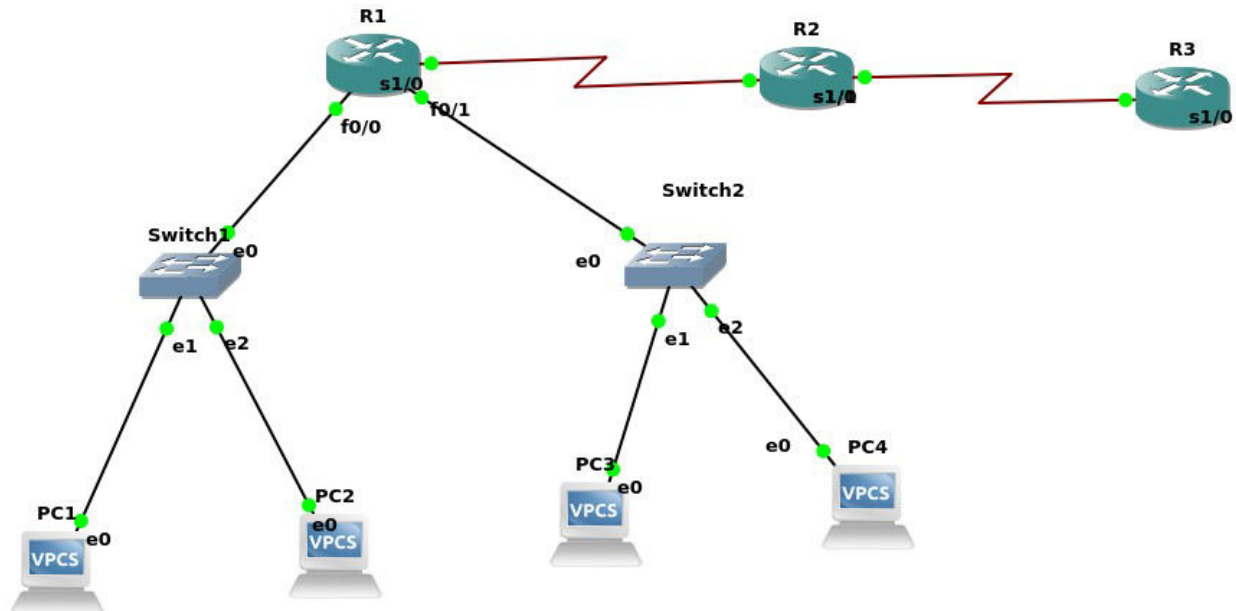


Lab8 :DHCP and DNS: Additional Practice Sheet



Configure A,B & C

R1

```
enter configuration commands, one per line, and with Ctrl-Z  
R1(config)#hostname PRATHAM-1  
PRATHAM-1(config)#int f0/0  
PRATHAM-1(config-if)#ip addr 192.168.10.254 255.255.255.0  
PRATHAM-1(config-if)#no shut
```

```
PRATHAM-1(config)#int f0/1  
PRATHAM-1(config-if)#ip addr 172.16.0.254 255.255.0.0  
PRATHAM-1(config-if)#no shut  
PRATHAM-1(config-if)#exit
```

```
PRATHAM-1(config)#int s1/0  
PRATHAM-1(config-if)#ip addr 172.16.0.254 255.255.255.224  
% 172.16.0.224 overlaps with FastEthernet0/1  
PRATHAM-1(config-if)#ip addr 30.30.30.1 255.255.255.224  
PRATHAM-1(config-if)#no shut
```

R2

```
R2(config)#hostname PRATHAM-2  
PRATHAM-2(config)#int s1/0  
PRATHAM-2(config-if)#ip addr 30.30.30.2 255.255.255.224  
PRATHAM-2(config-if)#no shut
```

```
PRATHAM-2(config)#int s1/1
PRATHAM-2(config-if)#ip addr 20.20.20.1 255.255.255.240
PRATHAM-2(config-if)#no shut
```

R3

```
Router(config)#hostname PRATHAM-3
PRATHAM-3(config)#int s1/0
PRATHAM-3(config-if)#ip addr 20.20.20.2 255.255.255.240
PRATHAM-3(config-if)#no shut
PRATHAM-1(config)#ip route 20.20.20.0 255.255.255.0 30.30.30.2
PRATHAM-1(config)#exit
PRATHAM-1#
*Mar  1 00:11:47.503: %SYS-5-CONFIG_I: Configured from console by console
PRATHAM-1#
```

```
Enter configuration commands, one per line. End with CNTL/Z.
PRATHAM-2(config)#ip route 192.168.10.0 255.255.255.0 30.30.30.1
PRATHAM-2(config)#ip route 172.16.0.0 255.255.0.0 30.30.30.1
PRATHAM-2(config)#exit
```

```
PRATHAM-3(config)#ip route 192.168.10.0 255.255.255.0 20.20.20.1
PRATHAM-3(config)#ip route 172.16.0.0 255.255.0.0 20.20.20.1
PRATHAM-3(config)#ip route 30.30.30.0 255.255.255.224 20.20.20.1
```

Ping

```
PC2> ping 20.20.20.2

84 bytes from 20.20.20.2 icmp_seq=1 ttl=253 time=29.824 ms
84 bytes from 20.20.20.2 icmp_seq=2 ttl=253 time=25.461 ms
84 bytes from 20.20.20.2 icmp_seq=3 ttl=253 time=25.972 ms
84 bytes from 20.20.20.2 icmp_seq=4 ttl=253 time=26.170 ms
84 bytes from 20.20.20.2 icmp_seq=5 ttl=253 time=26.891 ms
```

Setting up dns

```
PRATHAM-3(config)#ip route 30.30.30.0 255.255.255.224 20.20.20.1
PRATHAM-3(config)#ip dns server
PRATHAM-3(config)#ip host www.pratham.com 20.20.20.2
```

Testing DNS

```
PC2> ip dns 20.20.20.2

PC2> ping www.pratham.com
www.pratham.com resolved to 20.20.20.2

84 bytes from 20.20.20.2 icmp_seq=1 ttl=253 time=39.493 ms
84 bytes from 20.20.20.2 icmp_seq=2 ttl=253 time=27.396 ms
84 bytes from 20.20.20.2 icmp_seq=3 ttl=253 time=28.135 ms
84 bytes from 20.20.20.2 icmp_seq=4 ttl=253 time=26.558 ms
84 bytes from 20.20.20.2 icmp_seq=5 ttl=253 time=26.129 ms
```

F.

```
PRATHAM-3(config)#ip dhcp excluded-address 192.168.10.1
PRATHAM-3(config)#ip dhcp excluded-address 192.168.10.254
PRATHAM-3(config)#ip dhcp excluded-address 172.16.0.1
PRATHAM-3(config)#ip dhcp excluded-address 172.16.0.254
PRATHAM-3(config)#ip dhcp pool POOL-CLASS-C
PRATHAM-3(dhcp-config)#network 192.168.10.0 255.255.255.0
PRATHAM-3(dhcp-config)#default-router 192.168.10.254
PRATHAM-3(dhcp-config)#dns-server 20.20.20.2
PRATHAM-3(dhcp-config)#ip dhcp pool POOL-CLASS-B
PRATHAM-3(dhcp-config)#network 172.16.0.0 255.255.0.0
PRATHAM-3(dhcp-config)#default-router 172.16.0.254
PRATHAM-3(dhcp-config)#dns-server 20.20.20.2
PRATHAM-3(dhcp-config)#exit
PRATHAM-3(config)#end
```

Trying DHCP

```
PC3> dhcp
DDD
Can't find dhcp server
```

R1

```
enter configuration commands, one per line. End with CNTL/Z
PRATHAM-1(config)#int f0/0
PRATHAM-1(config-if)#ip helper 20.20.20.2
PRATHAM-1(config-if)#int f0/1
PRATHAM-1(config-if)#ip helper 20.20.20.2
```

H.

PC1

```
PC1> dhcp
DDORA IP 192.168.10.2/24 GW 192.168.10.254
```

```
PC1> show ip
```

```
NAME          : PC1[1]
IP/MASK        : 192.168.10.2/24
GATEWAY        : 192.168.10.254
DNS            : 20.20.20.2
DHCP SERVER    : 20.20.20.2
DHCP LEASE     : 86395, 86400/43200/75600
MAC            : 00:50:79:66:68:00
LPORT         : 10028
RHOST:PORT     : 127.0.0.1:10029
MTU            : 1500
```

PC 3

```
PC3> show ip
```

```
NAME          : PC3[1]
IP/MASK        : 172.16.0.2/16
GATEWAY        : 172.16.0.254
DNS            : 20.20.20.2
DHCP SERVER    : 20.20.20.2
DHCP LEASE     : 86391, 86400/43200/75600
MAC            : 00:50:79:66:68:02
LPORT         : 10032
RHOST:PORT     : 127.0.0.1:10033
MTU            : 1500
```