

Homework: Dynamic Host Configuration Protocol (DHCP)

Assumed Centos 8 minimal install stream in VirtualBox in TestVM1 and TestVM2

On the TestVM1:

```
$ ip l
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP mode
DEFAULT group default qlen 1000
    link/ether 08:00:27:fe:94:09 brd ff:ff:ff:ff:ff:ff

$ sudo nmcli con modify enp0s3 ipv4.addresses 192.168.2.99 192.168.168.192 ipv4.method
manual ipv4.gateway 192.168.2.253
$ sudo nmcli con mod enp0s3 autoconnect yes
$ sudo nmcli con up enp0s3
$ echo nameserver 8.8.8.8 > /etc/resolv.conf
$ sudo dnf -y update
$ sudo dnf -y install dhcp-server
$ sudo vi /etc/dhcp/dhcpd.conf
option domain-name      "my-devops-school.com";
option domain-name-servers ns1.my-devops-school.com;
```

```
authoritative;  
default-lease-time 600;  
max-lease-time 7200;  
subnet 192.168.168.0 netmask 255.255.255.0 {  
    range dynamic-bootp 192.168.168.193 192.168.168.200;  
    option broadcast-address 192.168.168.255;  
    option routers 192.168.168.192;  
}
```

```
$ sudo systemctl enable --now dhcpd  
$ sudo firewall-cmd --add-service=dhcp --permanent  
$ sudo firewall-cmd --reload  
$ sudo dnf -y install net-tools  
$ sudo netstat -tuanp | grep dhcpd  
udp        0      0 0.0.0.0:67  
          0      0 0.0.0.0:67
```

On the TestVM2

```
$ ip l
```

```
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP mode DEFAULT  
group default qlen 1000  
    link/ether 08:00:27:91:be:21 brd ff:ff:ff:ff:ff:ff
```

On the TestVM1

dhcpd.conf:

```
host myclient {  
    hardware ethernet 08:00:27:91:be:21;  
    fixed-address 192.168.168.200;  
}
```

```
$ sudo systemctl restart dhcpd
```

On the TestVM2

```
$ dhclient
```