1. Use already created internal-network for three VMs (VM1-VM3). VM1 has NAT and internal, VM2, VM3 – internal only interfaces.

Configuring VM3:

```
GNU nano 2.2.6

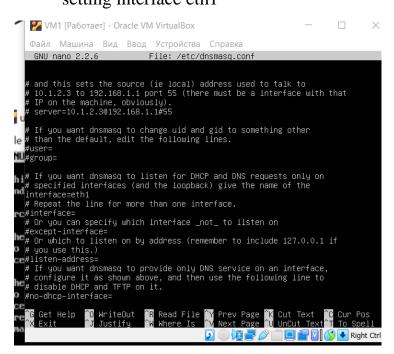
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

# The loopback network interface
auto lo
iface lo inet loopback

# internal
auto etho
iface etho inet static
address 10.10.10.3
netmask 255.255.255.0
broadcast 10.10.10.255
gateway 10.10.10.1
```

2. Install and configure DHCP server on VM1. (3 ways: using VBoxManage, DNSMASQ and ISC-DHSPSERVER). You should use at least 2 of them Using DNSMASQ:

apt-get update
apt-get install dnsmasq
nano /etc/dnsmasq.conf
setting interface eth1



And dchp-range from 10.10.10.10 to 10.10.10.20 with 12h timeout

```
# an explicit netmask instead.

dhcp-range=10.10.10.10.10.10.20,12h_
```

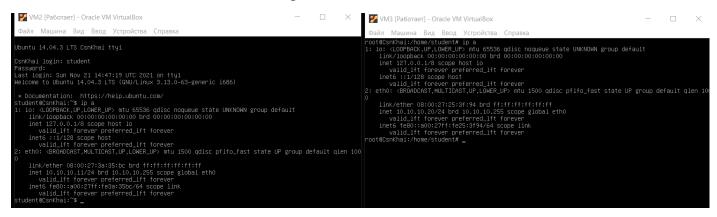
Setting up other machines:

nano /etc/network/interfaces

or# internal
wauto eth0
iface eth0 inet dhcp

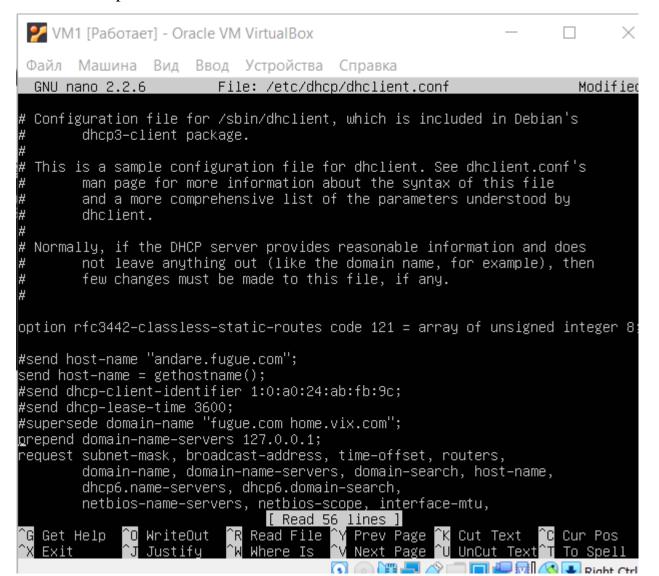
Reboot

3) Check VM2 and VM3 for obtaining network addresses from DHCP server.



4) Using existed network for three VMs (from p.1) install and configure DNS server on VM1. (You can use DNSMASQ, BIND9 or something else).

nano /etc/dhcp/dhclient.conf



5) Check VM2 and VM3 for gaining access to DNS server (naming services)

