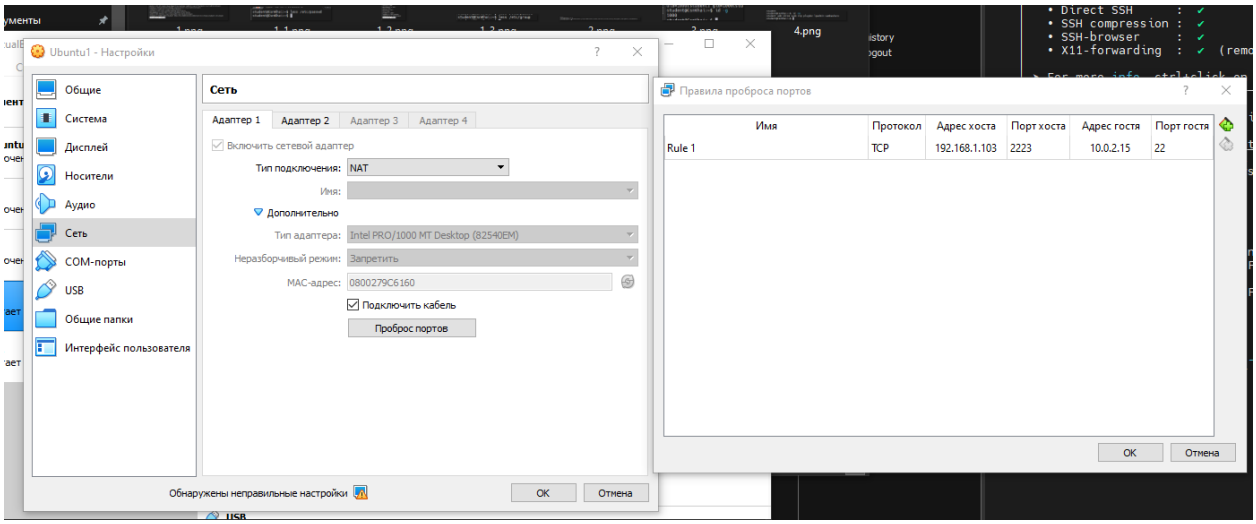
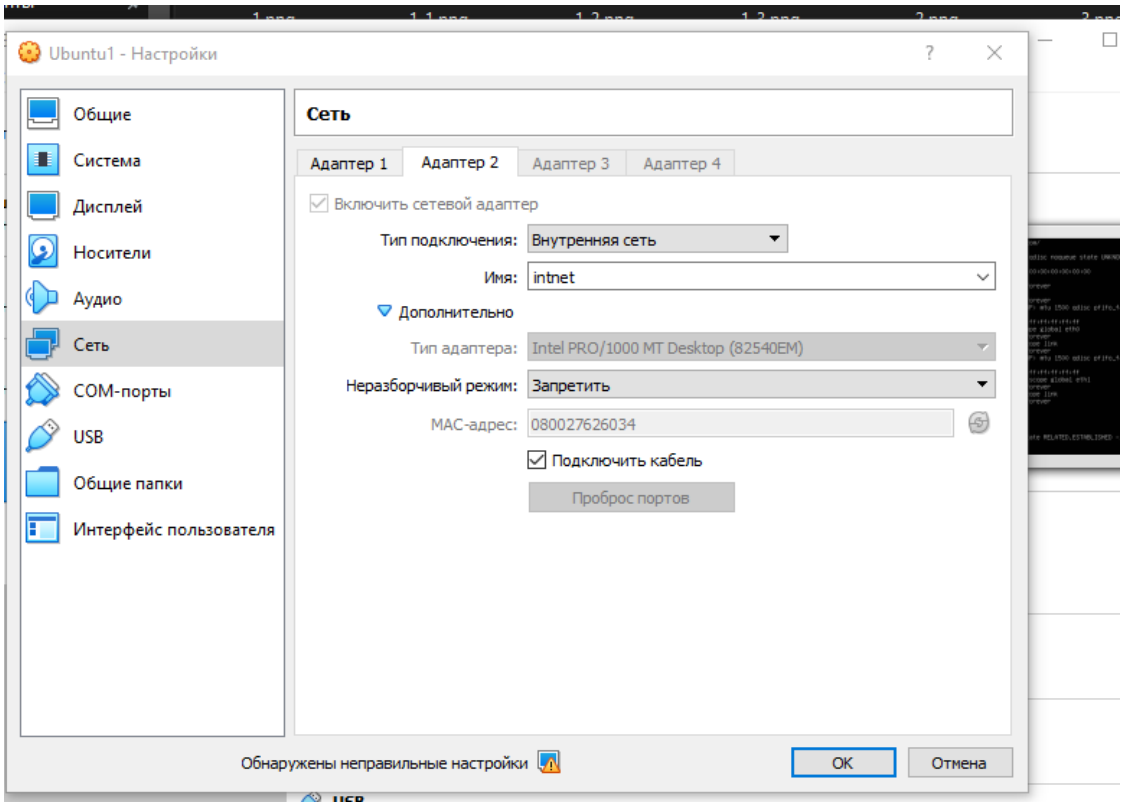
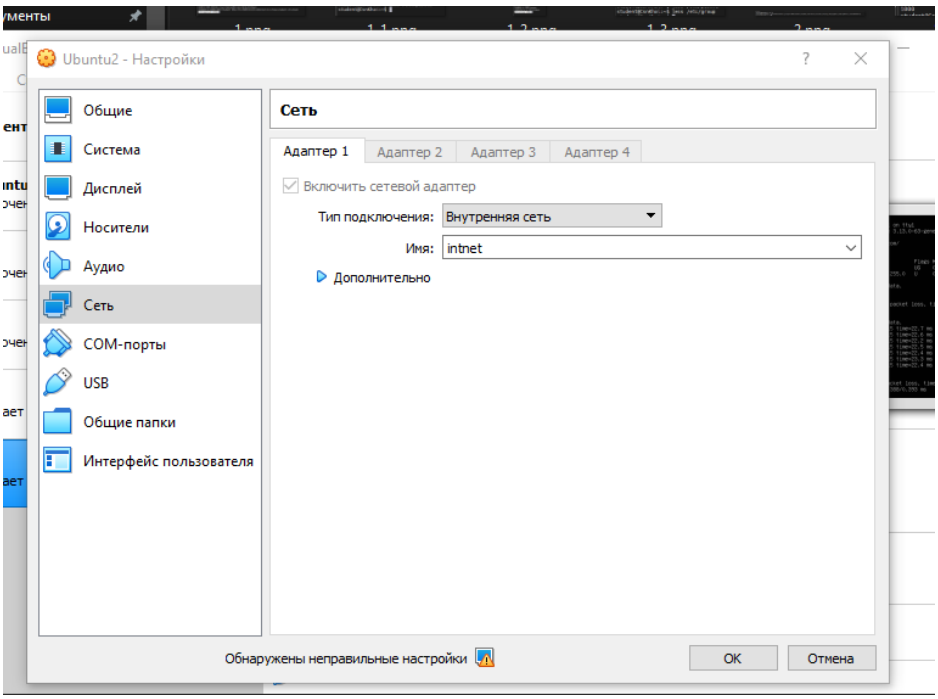
Struna V.R.

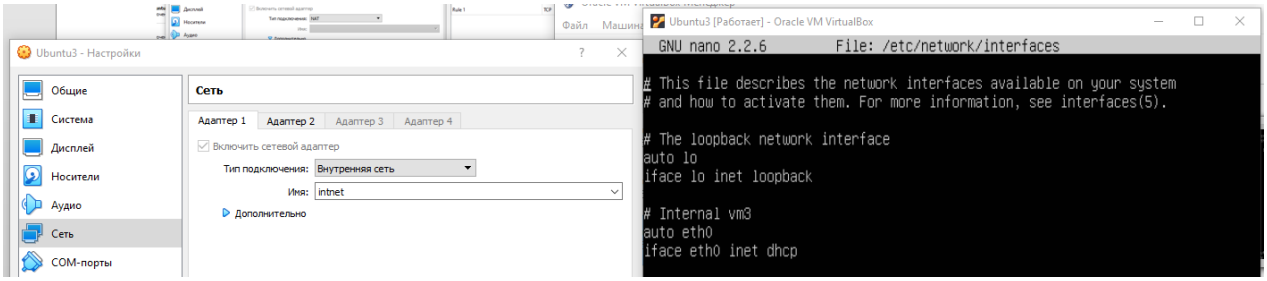
Task№2

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

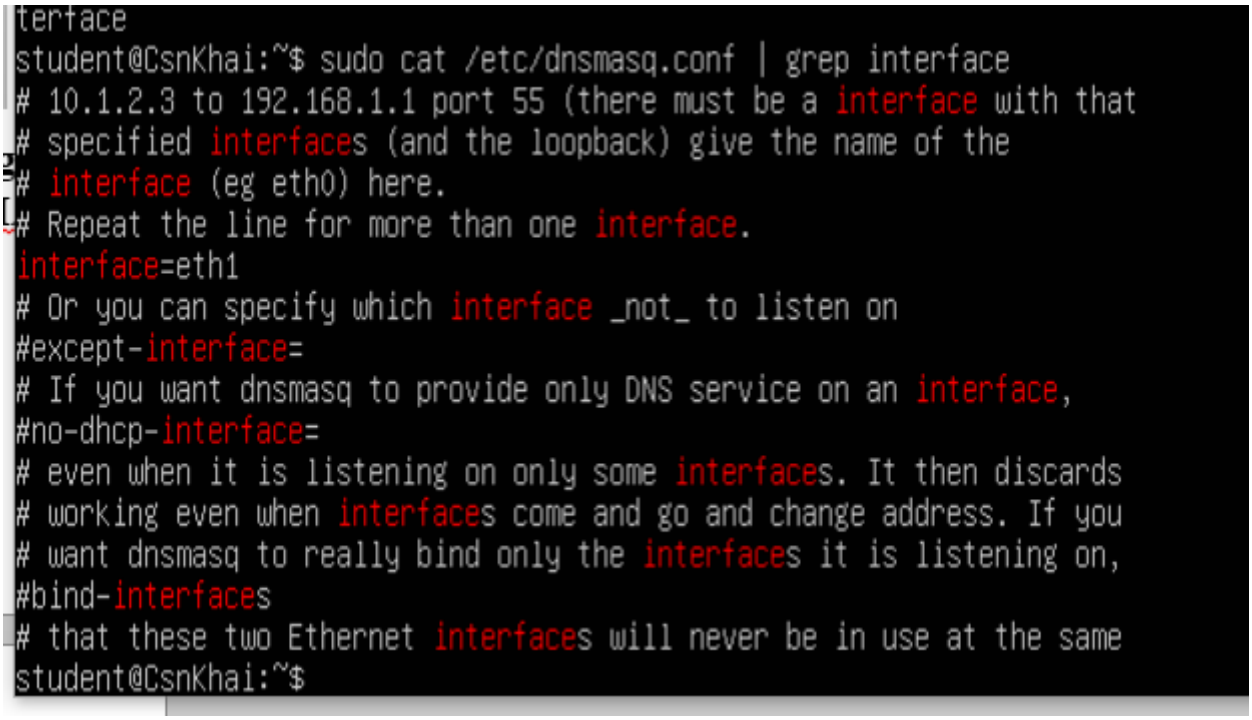








2. Install and configure DHCP server on VM1. (3 ways: using VBoxManage, DNSMASQ and ISC-DHSPSERVER). You should use at least 2 of them.

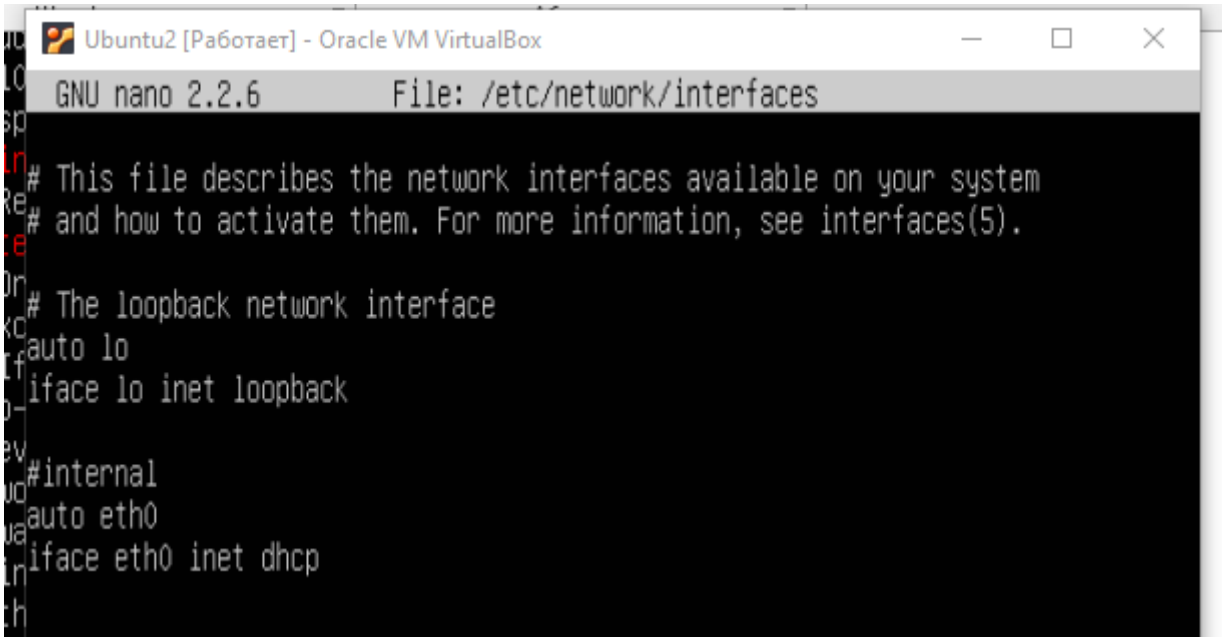


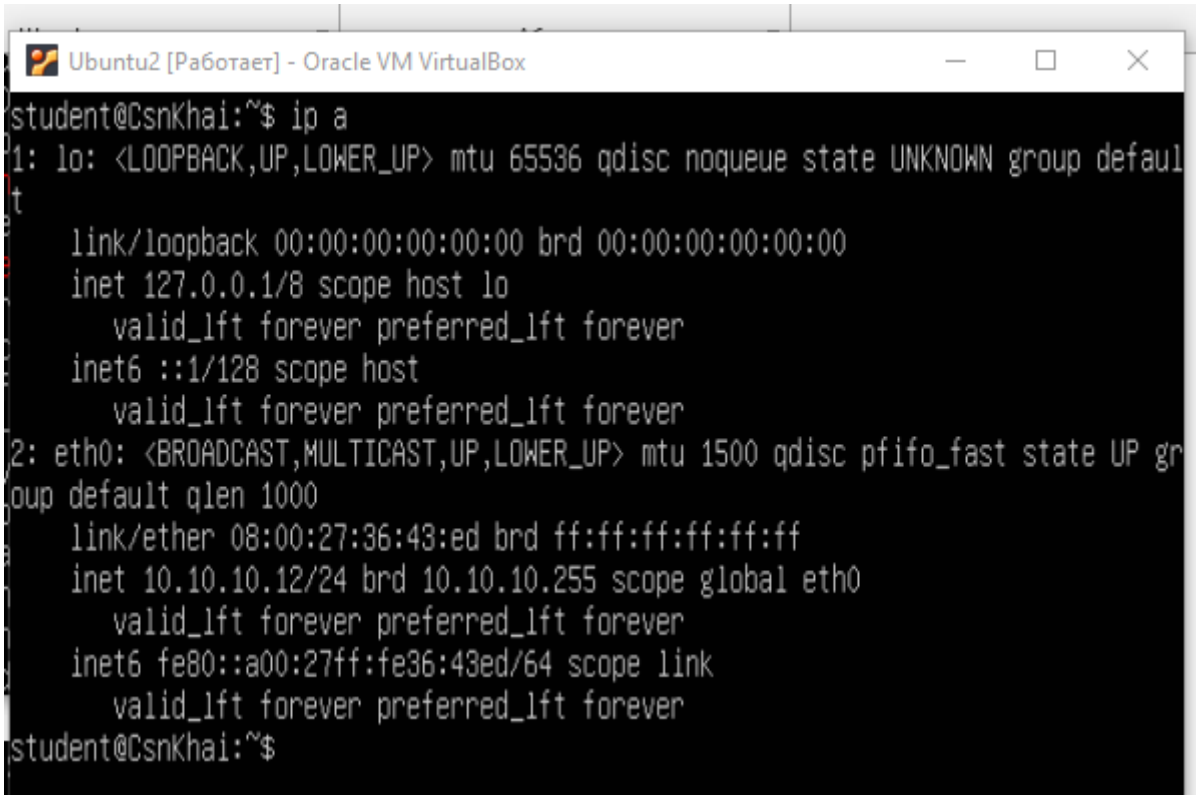
```
#log-dhcp
student@CsnKhai:~$ sudo cat /etc/dnsmasq.conf | grep dhcp-range
dhcp-range=10.10.10.10,10.10.10.20,12h
#dhcp-range=192.168.0.50,192.168.0.150,255.255.255.0,12h
#dhcp-range=set:red,192.168.0.50,192.168.0.150
#dhcp-range=tag:green,192.168.0.50,192.168.0.150,12h
# dhcp-host declarations will be ignored unless there is a dhcp-range
#dhcp-range=192.168.0.0,static
#dhcp-range=1234::2, 1234::500, 64, 12h
#dhcp-range=1234::, ra-only
#dhcp-range=1234::, ra-names
#dhcp-range=1234::, ra-only, 48h
#dhcp-range=1234::2, 1234::500, slaac
#dhcp-range=1234::, ra-stateless
#dhcp-range=1234::, ra-stateless, ra-names
# (see dhcp-range for the declaration of the "red" network)
student@CsnKhai:~$ _
```

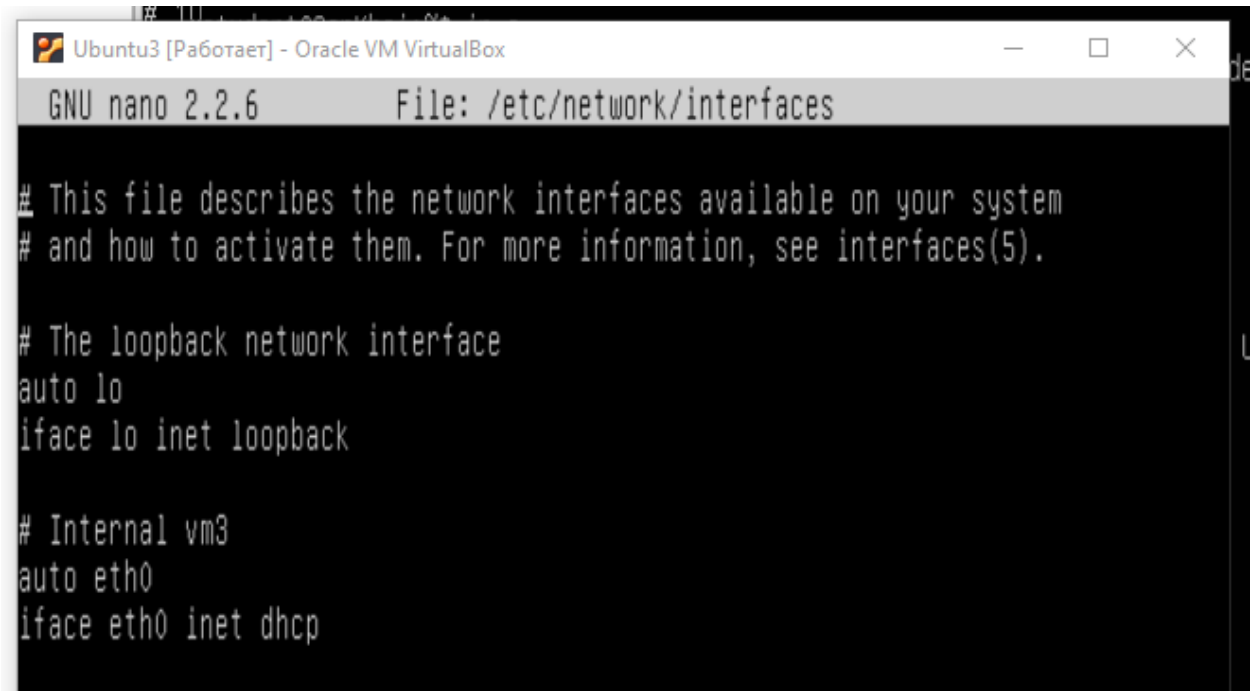
Ubuntu1 [Работает] - Oracle VM VirtualBox

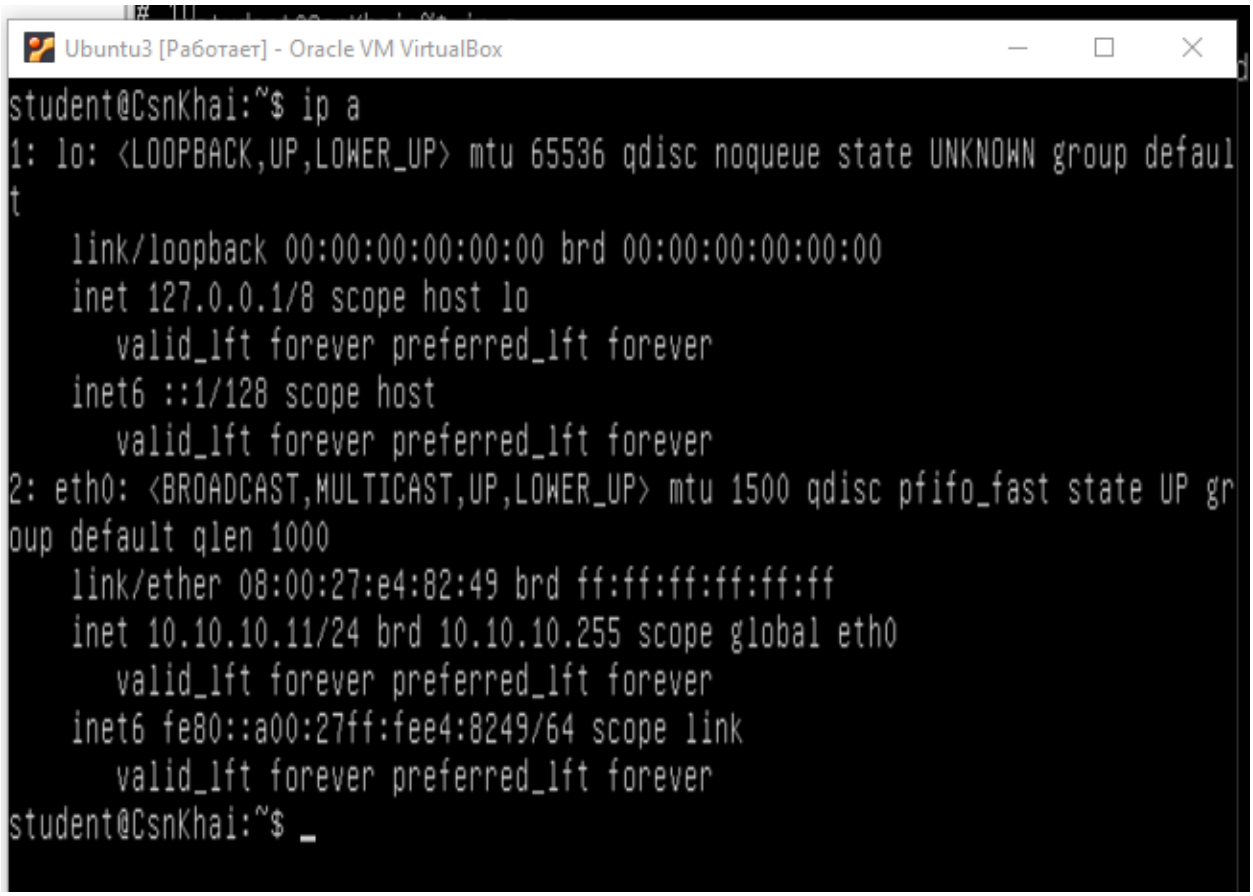
```
 GNU nano 2.2.6        File: /etc/dhcp/dhclient.conf        Modified

# Configuration file for /sbin/dhclient, which is included in Debian's
#       dhcp3-client package.
#
# This is a sample configuration file for dhclient. See dhclient.conf's
#       man page for more information about the syntax of this file
#       and a more comprehensive list of the parameters understood by
#       dhclient.
#
# Normally, if the DHCP server provides reasonable information and does
#       not leave anything out (like the domain name, for example), then
#       few changes must be made to this file, if any.
#

option rfc3442-classless-static-routes code 121 = array of unsigned integer 8;

#send host-name "andare.fugue.com";
send host-name = gethostname();
#send dhcp-client-identifier 1:0:a0:24:ab:fb:9c;
#send dhcp-lease-time 3600;
#supersede domain-name "fugue.com home.vix.com";
prepend domain-name-servers 127.0.0.1;
request subnet-mask, broadcast-address, time-offset, routers,
        domain-name, domain-name-servers, domain-search, host-name,
        dhcp6.name-servers, dhcp6.domain-search,
        netbios-name-servers, netbios-scope, interface-mtu,
```

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

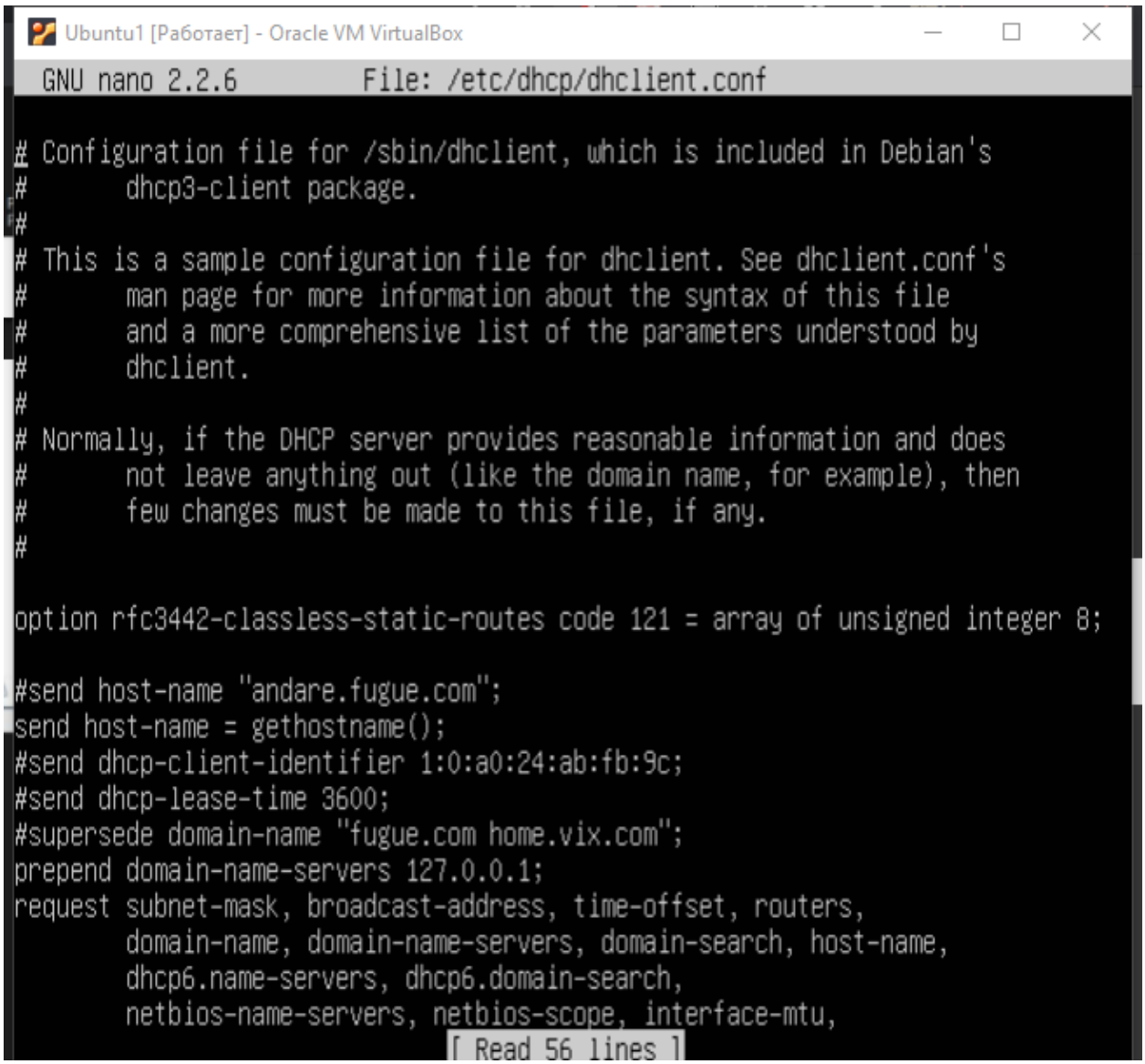




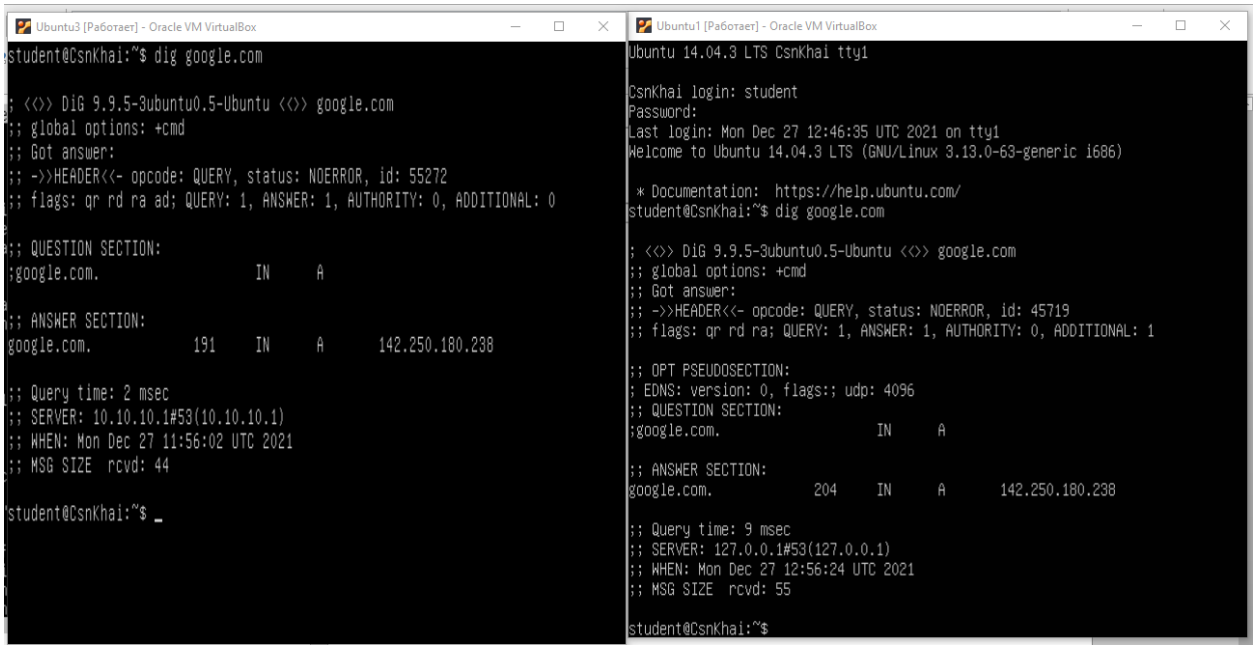


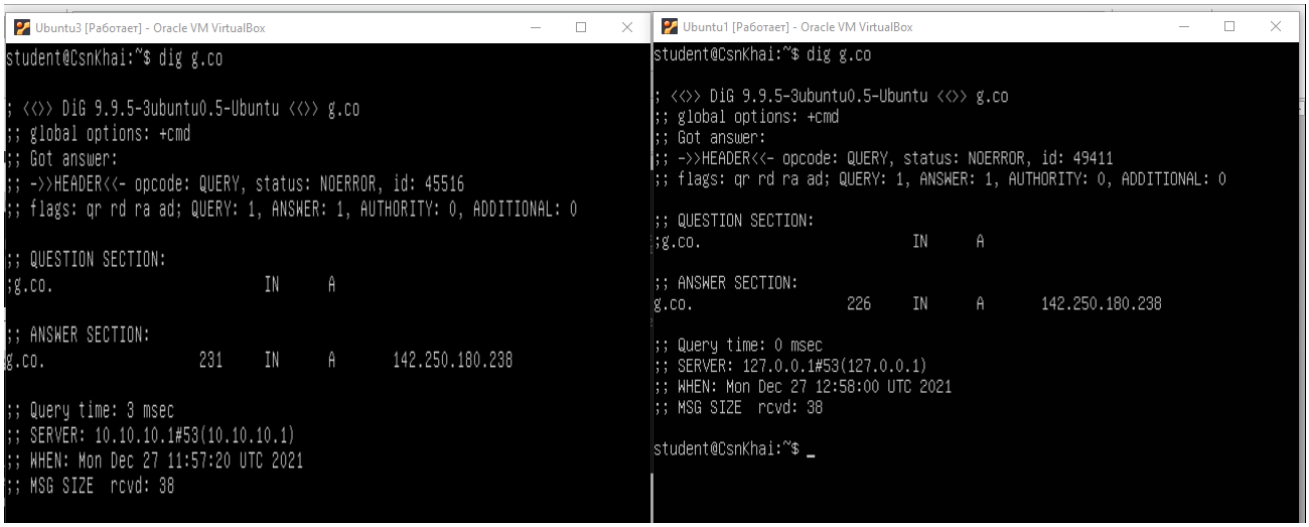


4. Using existed network for three VMs (from p.1) install and configure DNS server on VM1. (You can use DNSMASQ, BIND9 or something else).

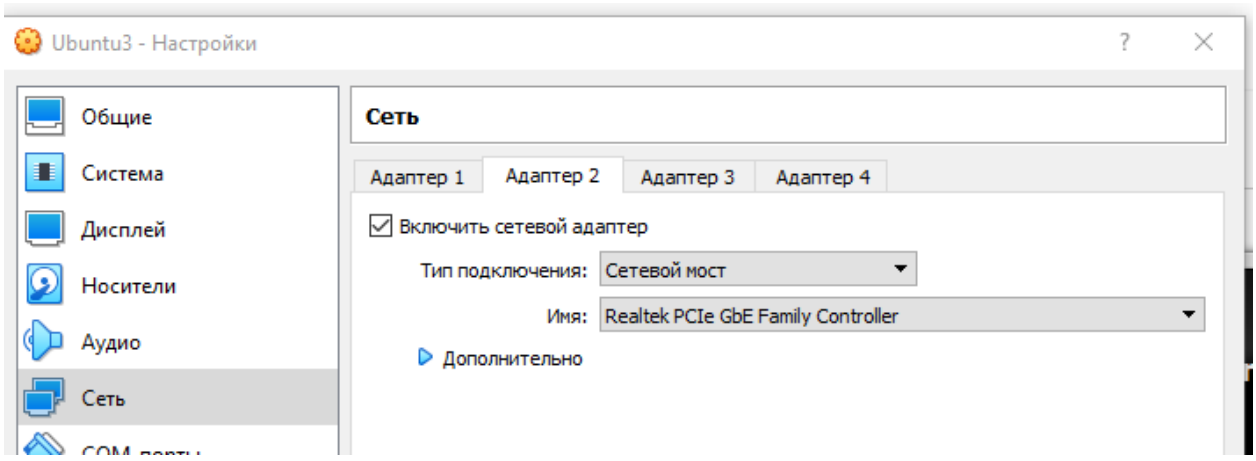


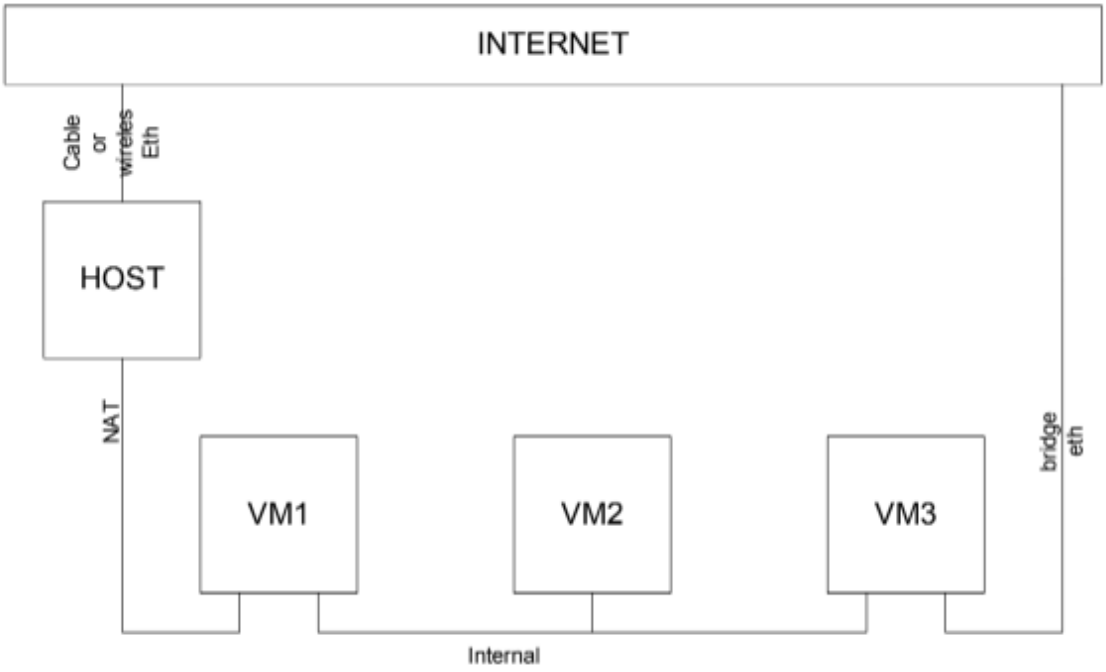
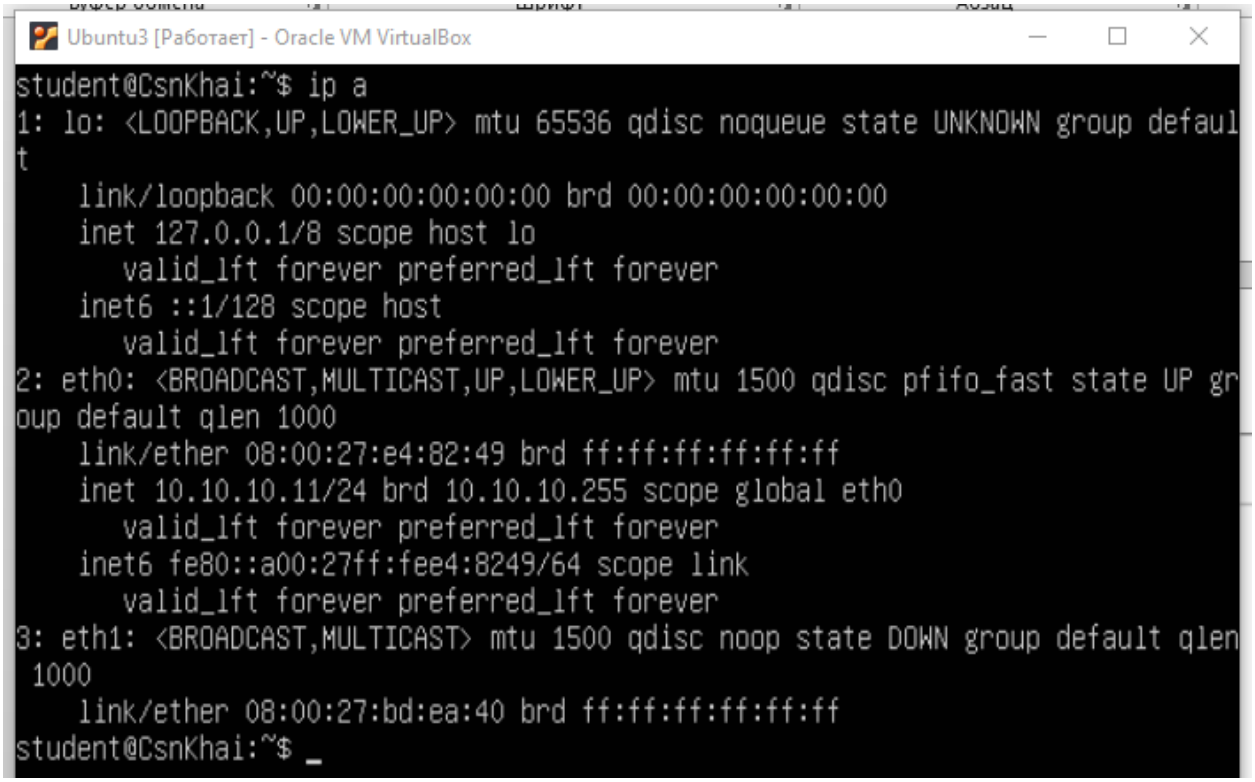
5. Check VM2 and VM3 for gaining access to DNS server (naming services).





6. ***Using the scheme which follows, configure dynamic routing using OSPF protocol.





7. Check results.