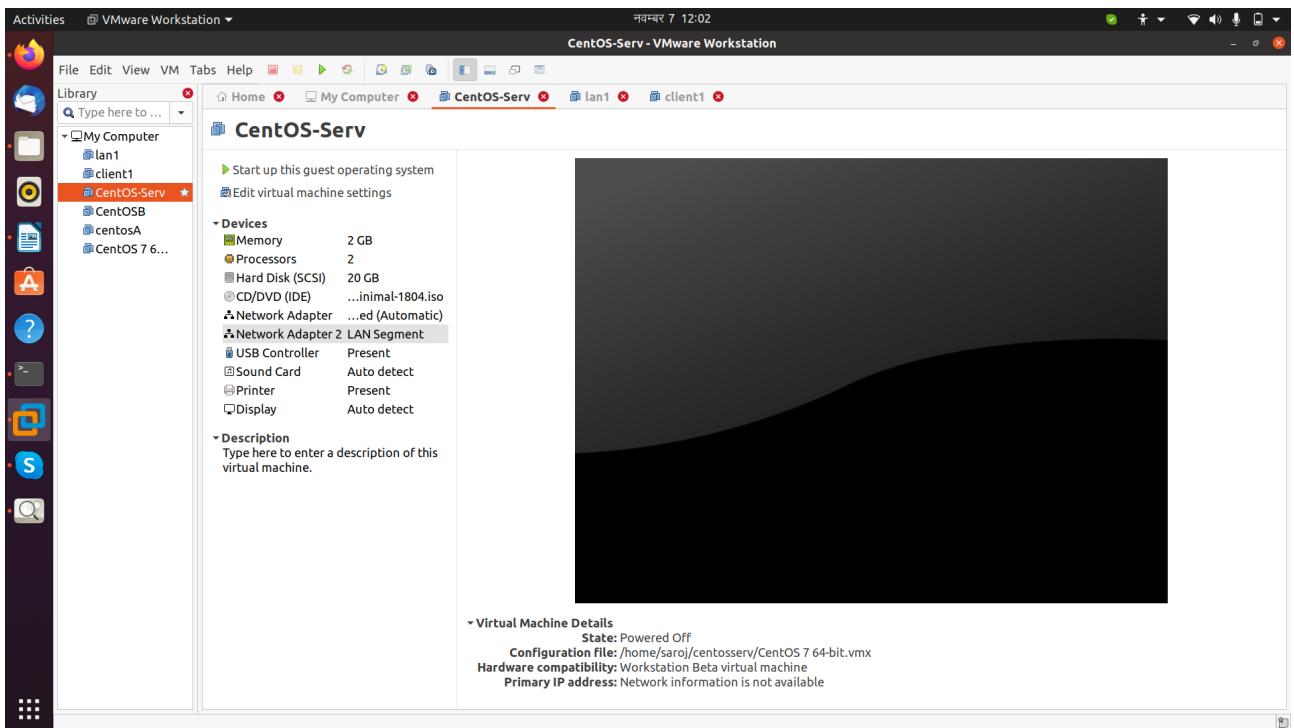


Q1 A)

```
ip a
ifup ens33
ip a
ping google.com
ip a
hostname
vi /etc/host
vi /etc/hosts
vi /etc/hostname
reboot
vi /etc/default/grub
grub2-mkconfig -o /boot/grub2/grub.cfg
reboot
ip a
cd /etc/sysconfig/network-scripts/
ls
mv ifcfg-ens33 ifcfg-eth0
ls
cat ifcfg-eth0
ls
vi ifcfg-ens34
mv ifcfg-ens34 ifcfg-eth1
ls
cat ifcfg-eth1
vi ifcfg-eth0
systemctl stop NetworkManager
systemctl disable NetworkManager
systemctl restart NetworkManager
reboot
ip a
ping google.com
yum install epel-release -y
systemctl stop firewalld
systemctl disable firewalld
yum install iptables-services -y
systemctl enable iptables
systemctl start iptables
systemctl status iptables
systemctl stop iptables
systemctl status iptables
```



The screenshot shows a terminal window with root privileges on an Ubuntu system. The user has run several commands to configure the firewall and network interfaces. The commands include:

```
root@saroserv:~# systemctl start firewalld
root@saroserv:~# firewall-cmd --get-active-zones
root@saroserv:~# firewall-cmd --zone=public --add-service openvpn
root@saroserv:~# firewall-cmd --zone=public --add-service openvpn --permanent
root@saroserv:~# firewall-cmd --list-services --zone=public
root@saroserv:~# firewall-cmd --add-masquerade
root@saroserv:~# firewall-cmd --query-masquerade
root@saroserv:~# SHARK=$(ip route get 8.8.8.8 | awk 'NR==1 {print $NF-2}')
root@saroserv:~# firewall-cmd --permanent --direct --passthrough ipv4 -t nat -A POSTROUTING -s 10.8.0.0/24 -o $SHARK -j MASQUERADE
root@saroserv:~# firewall-cmd --reload
root@saroserv:~# systemctl restart network.service
root@saroserv:~# systemctl status firewalld
root@saroserv:~# systemctl restart openvpn@server.service
root@saroserv:~# systemctl status openvpn@server.service
root@saroserv:~# ip a
root@saroserv:~# history
root@saroserv:~# history -all
root@saroserv:~# history -a
root@saroserv:~# history
[root@saroserv ~]# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
        inet6 ::1/128 scope host
            valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 00:0c:29:f8:55:b3 brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.68/24 brd 192.168.1.255 scope global dynamic eth0
        valid_lft 82253sec preferred_lft 82253sec
        inet6 fe80::20c:29ff:fef8:55b3/64 scope link
            valid_lft forever preferred_lft forever
3: eth1: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 00:0c:29:f8:55:bd brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.10/24 brd 192.168.1.255 scope global eth1
        valid_lft forever preferred_lft forever
        inet6 fe80::20c:29ff:fef8:55bd/64 scope link
            valid_lft forever preferred_lft forever
4: tun0: <POINTOPOINT,MULTICAST,NOARP,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UNKNOWN group default qlen 100
    link/none
    inet 10.8.0.1/24 brd 10.8.0.255 scope global tun0
        valid_lft forever preferred_lft forever
        inet6 fe80::81a4:fid:bcba:31e4/64 scope link flags 800
            valid_lft forever preferred_lft forever
[root@saroserv ~]#
```