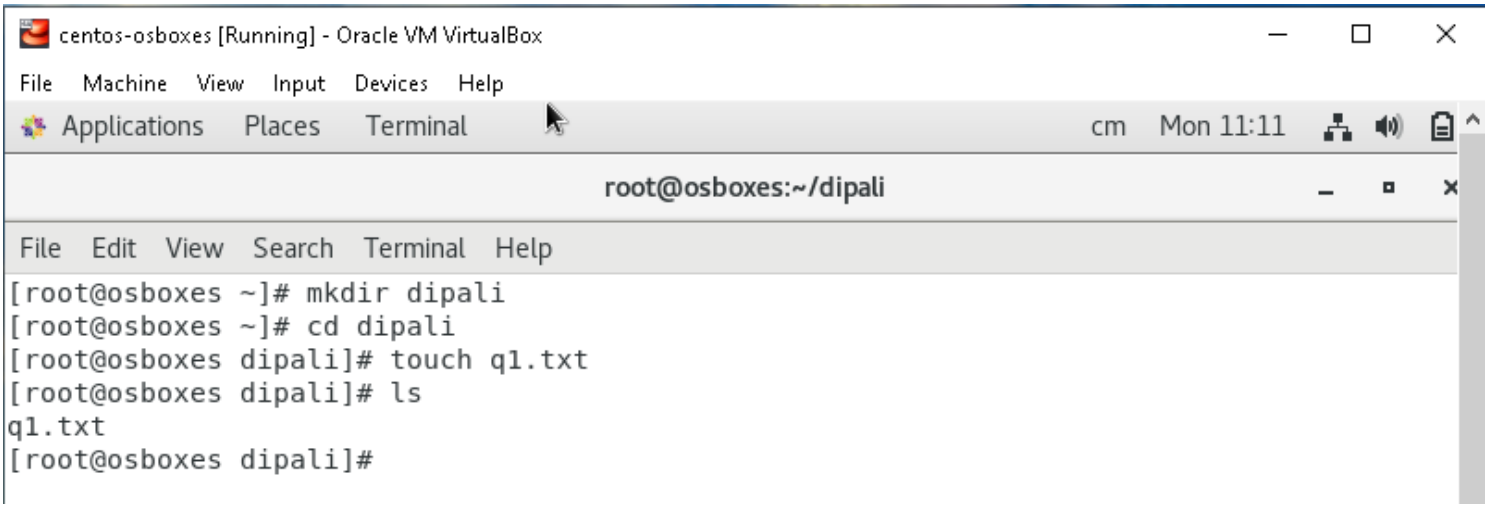
# TASK#1 BASED ON BOTH LINUX SESSIONS

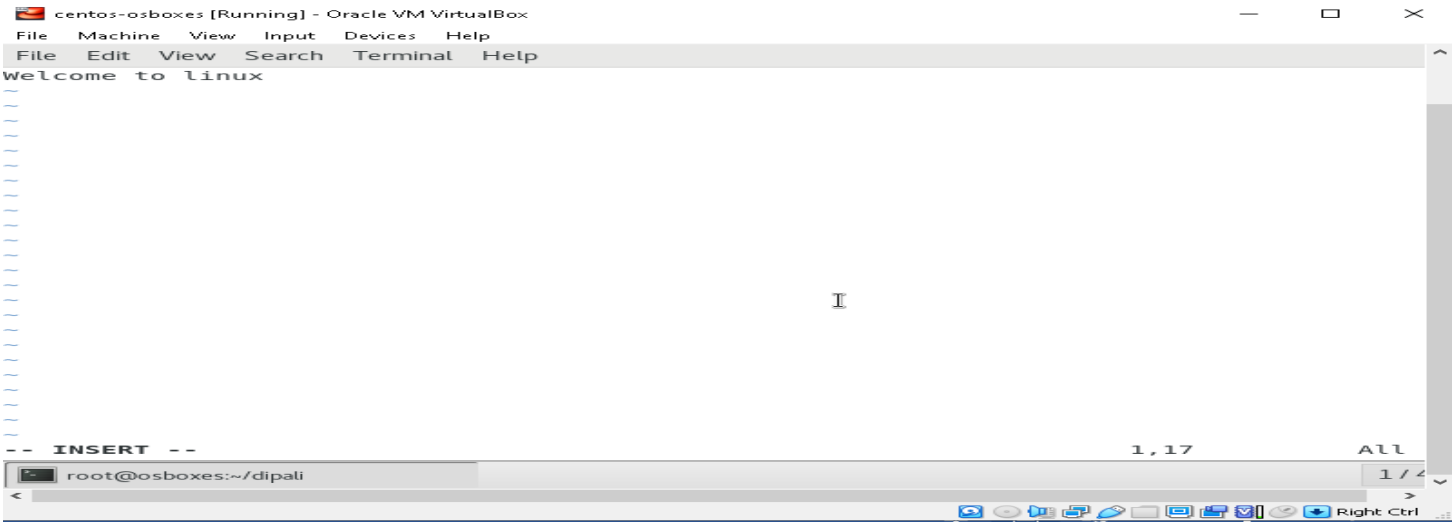
1. **Create a file via touch and update that file and also verify the timestamp and output will be redirected to another file.**

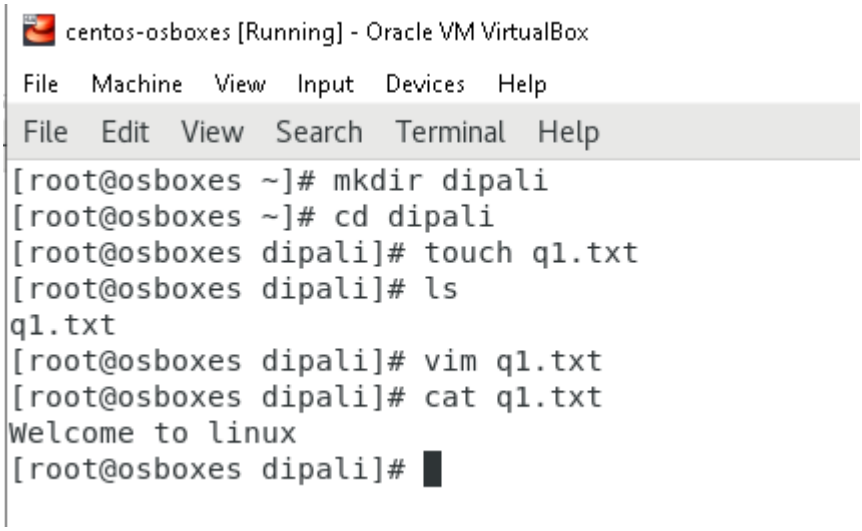
   *Commands Used:*

- mkdir "name"  //makes a directory
- cd  //change directory
- touch "filename.txt"  //it updates the timestamp of the respective file if the file is already existing, otherwise it creates a new file if the file doesn't exists.
- ls  //listing files.




- vim "filename.txt":takes to an editor(something like a notepad)
  - i  //means insert mode
  - :wq  //to come out of the file(write quit)



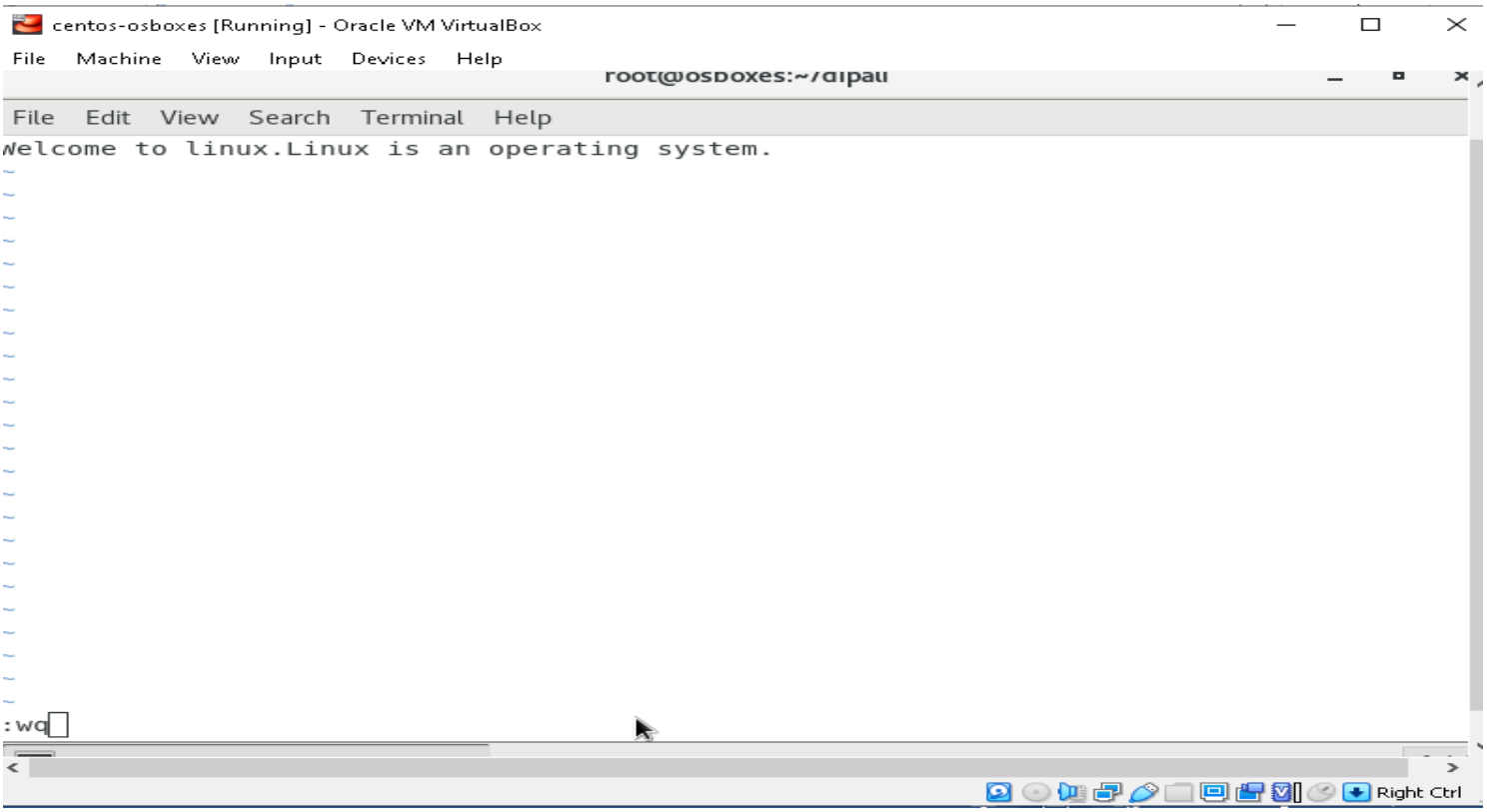



- cat "filename.txt" //checks the contents of the file without opening it.
- ls -al //Long listing of files with hidden files

```
[root@osboxes dipali]# ls -al
total 8
drwxr-xr-x.  2 root root   20 Jul  5 11:15 .
dr-xr-x---. 19 root root 4096 Jul  5 11:15 ..
-rw-r--r--.  1 root root   17 Jul  5 11:15 q1.txt

[root@osboxes dipali]# vim q1.txt
```

**Updating the file q1.txt**




**File “q1.txt” after update**

```
[root@osboxes dipali]# cat q1.txt
Welcome to linux.Linux is an operating system.
[root@osboxes dipali]#
```

2. **Add some of the data as per your choice and append that data via echo command in the same file**

   *Commands used:*

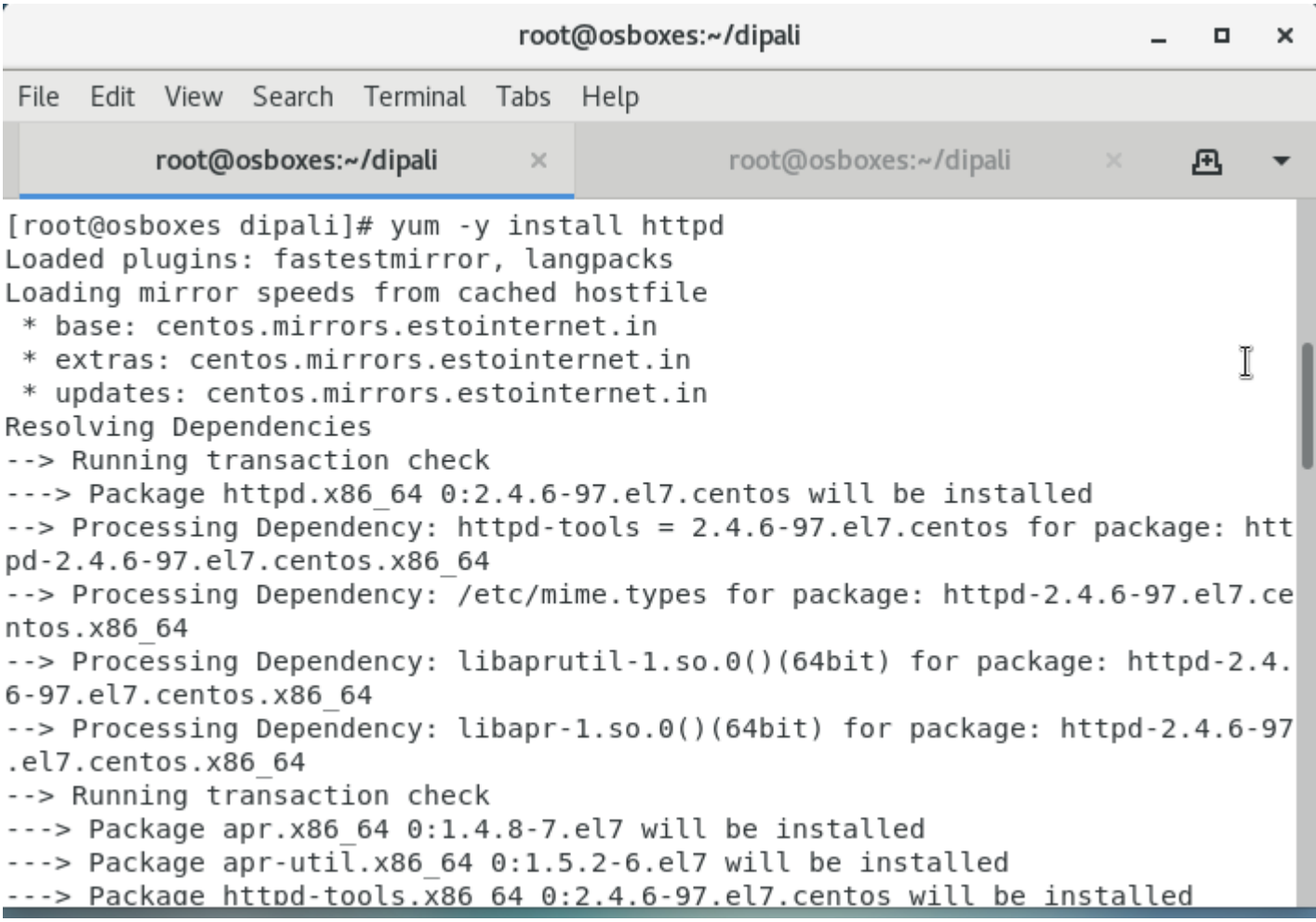
   1. cat file1.txt // Displaying the contents.
   2. echo “some_text >> file1.txt // Appending the statement.
   3. cat file1.txt // Displaying updated content.

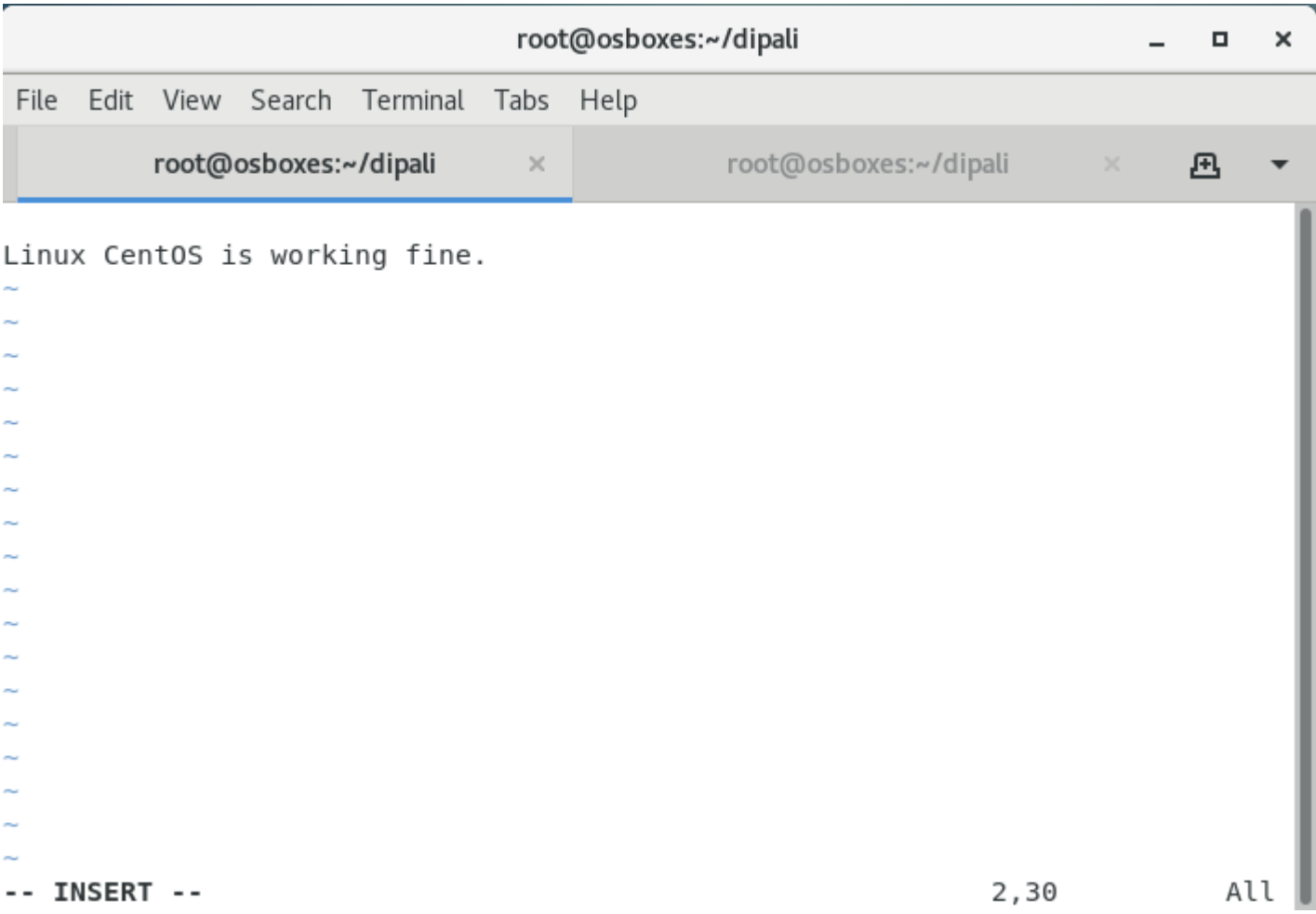
```
[root@osboxes dipali]# cat q1.txt
Welcome to linux.Linux is an operating system.
[root@osboxes dipali]# echo ¨CentOS is a discontinued linux distribution. ¨ >
> q1.txt
[root@osboxes dipali]# cat q1.txt
Welcome to linux.Linux is an operating system.
 CentOS is a discontinued linux distribution. ¨
[root@osboxes dipali]#
```

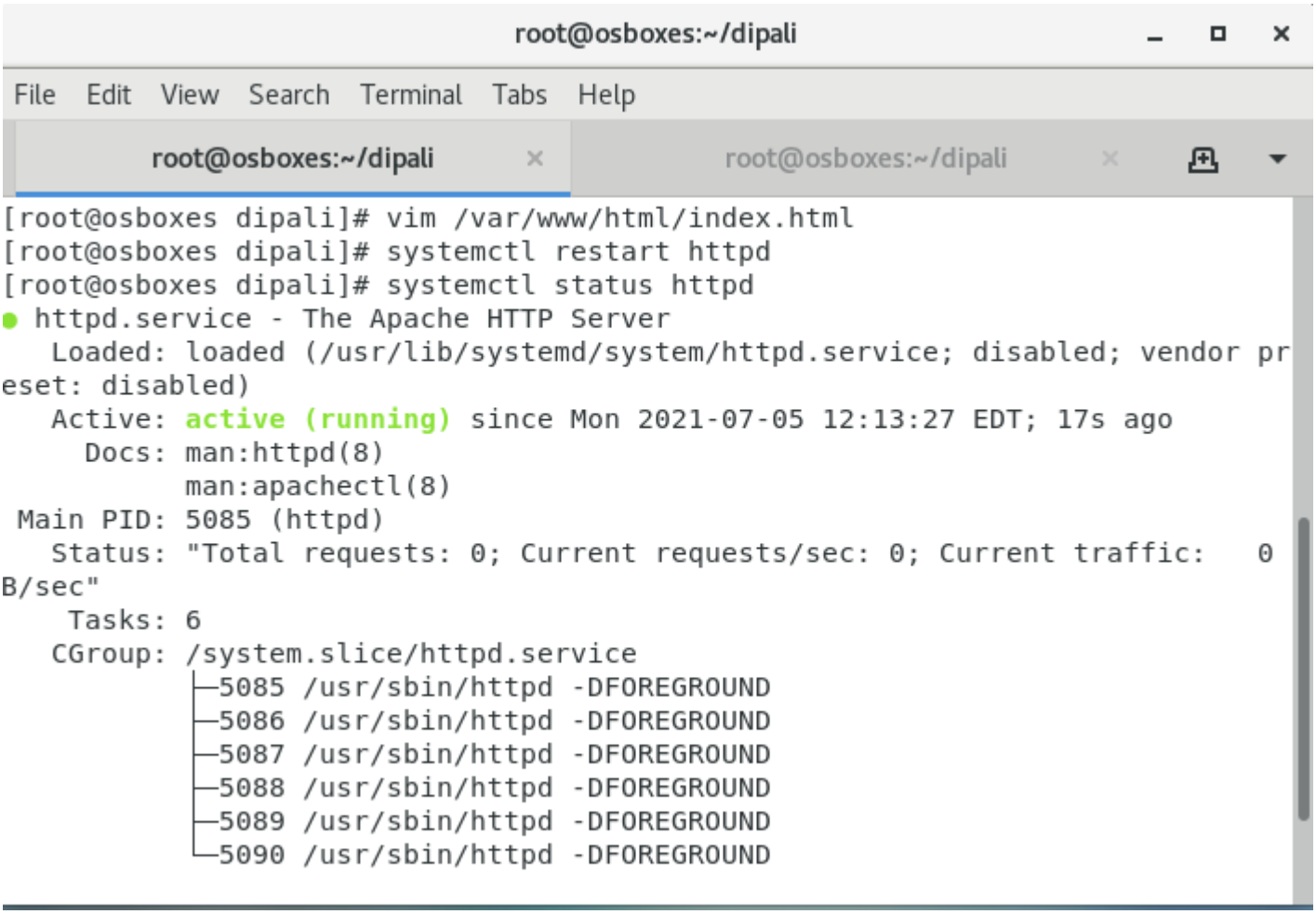
3. **Install httpd and set up your own web server.**

   *Commands used:*

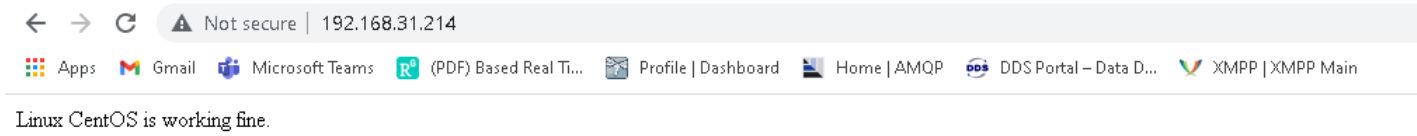
   1. yum –y install httpd
   2. vim /var/www/html/index.html
   3. systemctl restart httpd // Restarting httpd
   4. systemctl status httpd // Checking the status
   5. ifconfig enp0s3 | grep inet // Ip address of Linux CentOS machine.
   6. iptables –F // Use this when firewall is blocking your connection.


root@osboxes:~/dipali
File Edit View Search Terminal Tabs Help
root@osboxes:~/dipali
root@osboxes:~/dipali
[root@osboxes dipali]# yum -y install httpd
Loaded plugins: fastestmirror, langpacks
Loading mirror speeds from cached hostfile
* base: centos.mirrors.estointernet.in
* extras: centos.mirrors.estointernet.in
* updates: centos.mirrors.estointernet.in
Resolving Dependencies
--> Running transaction check
---> Package httpd.x86_64 0:2.4.6-97.el7.centos will be installed
--> Processing Dependency: httpd-tools = 2.4.6-97.el7.centos for package: httpd-2.4.6-97.el7.centos.x86_64
--> Processing Dependency: /etc/mime.types for package: httpd-2.4.6-97.el7.centos.x86_64
--> Processing Dependency: libaprutil-1.so.0()(64bit) for package: httpd-2.4.6-97.el7.centos.x86_64
--> Processing Dependency: libapr-1.so.0()(64bit) for package: httpd-2.4.6-97.el7.centos.x86_64
--> Running transaction check
---> Package apr.x86_64 0:1.4.8-7.el7 will be installed
---> Package apr-util.x86_64 0:1.5.2-6.el7 will be installed
---> Package httpd-tools.x86_64 0:2.4.6-97.el7.centos will be installed


root@osboxes:~/dipali
File Edit View Search Terminal Tabs Help
root@osboxes:~/dipali
root@osboxes:~/dipali
Linux CentOS is working fine.
-- INSERT --
2,30
All


root@osboxes:~/dipali
File Edit View Search Terminal Tabs Help
root@osboxes:~/dipali
root@osboxes:~/dipali
[root@osboxes dipali]# vim /var/www/html/index.html
[root@osboxes dipali]# systemctl restart httpd
[root@osboxes dipali]# systemctl status httpd
● httpd.service - The Apache HTTP Server
Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor pr
eset: disabled)
Active: active (running) since Mon 2021-07-05 12:13:27 EDT; 17s ago
Docs: man:httpd(8)
man:apachectl(8)
Main PID: 5085 (httpd)
Status: "Total requests: 0; Current requests/sec: 0; Current traffic: 0
B/sec"
Tasks: 6
CGroup: /system.slice/httpd.service
├─5085 /usr/sbin/httpd -DFOREGROUND
├─5086 /usr/sbin/httpd -DFOREGROUND
├─5087 /usr/sbin/httpd -DFOREGROUND
├─5088 /usr/sbin/httpd -DFOREGROUND
├─5089 /usr/sbin/httpd -DFOREGROUND
└─5090 /usr/sbin/httpd -DFOREGROUND

```
[root@osboxes dipali]# ifconfig enp0s3 | grep inet
        inet 192.168.31.214  netmask 255.255.255.0  broadcast 192.168.31.255
        inet6 fe80::3ac3:69aa:8708:cbb6  prefixlen 64  scopeid 0x20<link>
[root@osboxes dipali]# iptables -F
[root@osboxes dipali]#
```

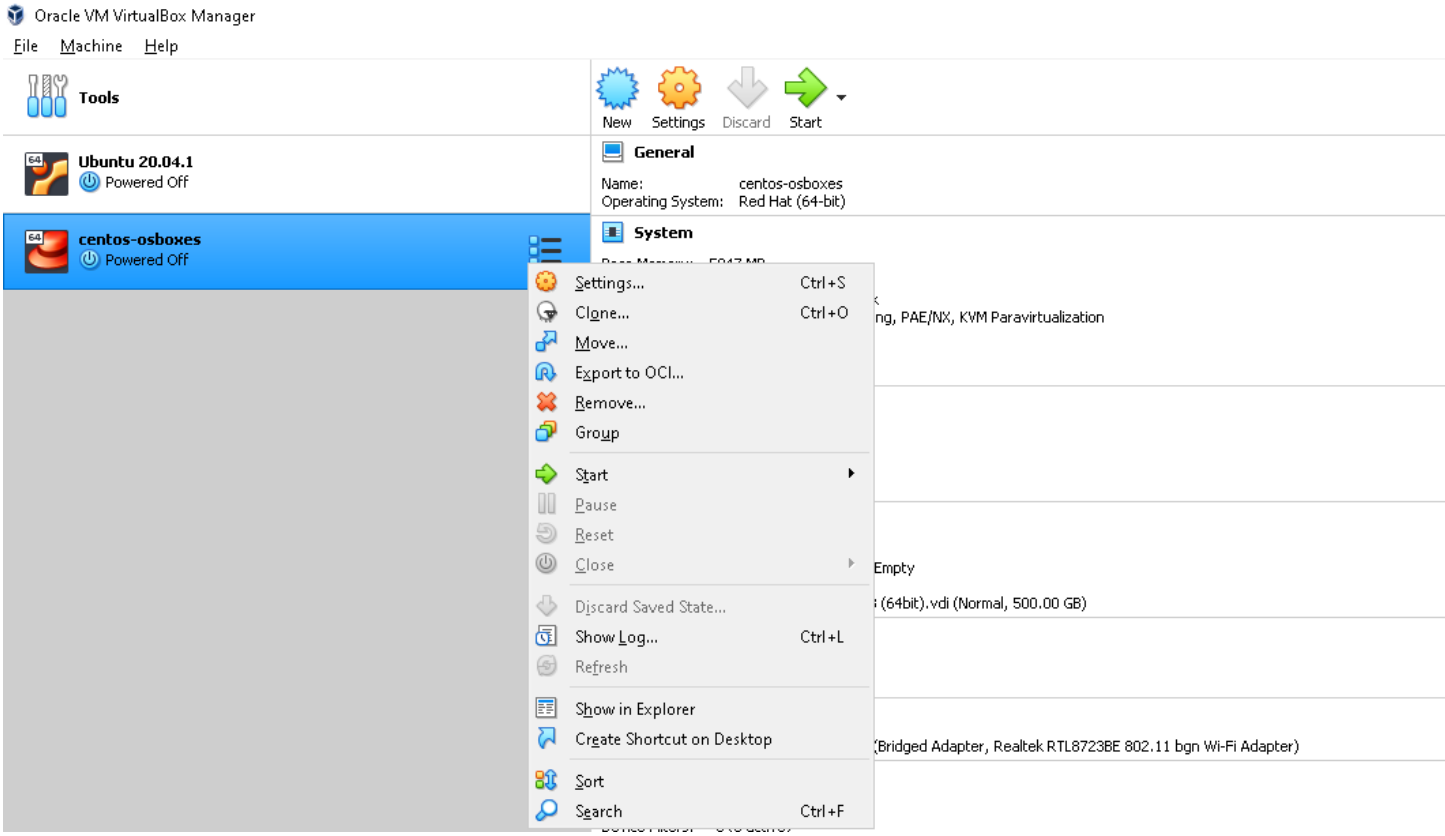


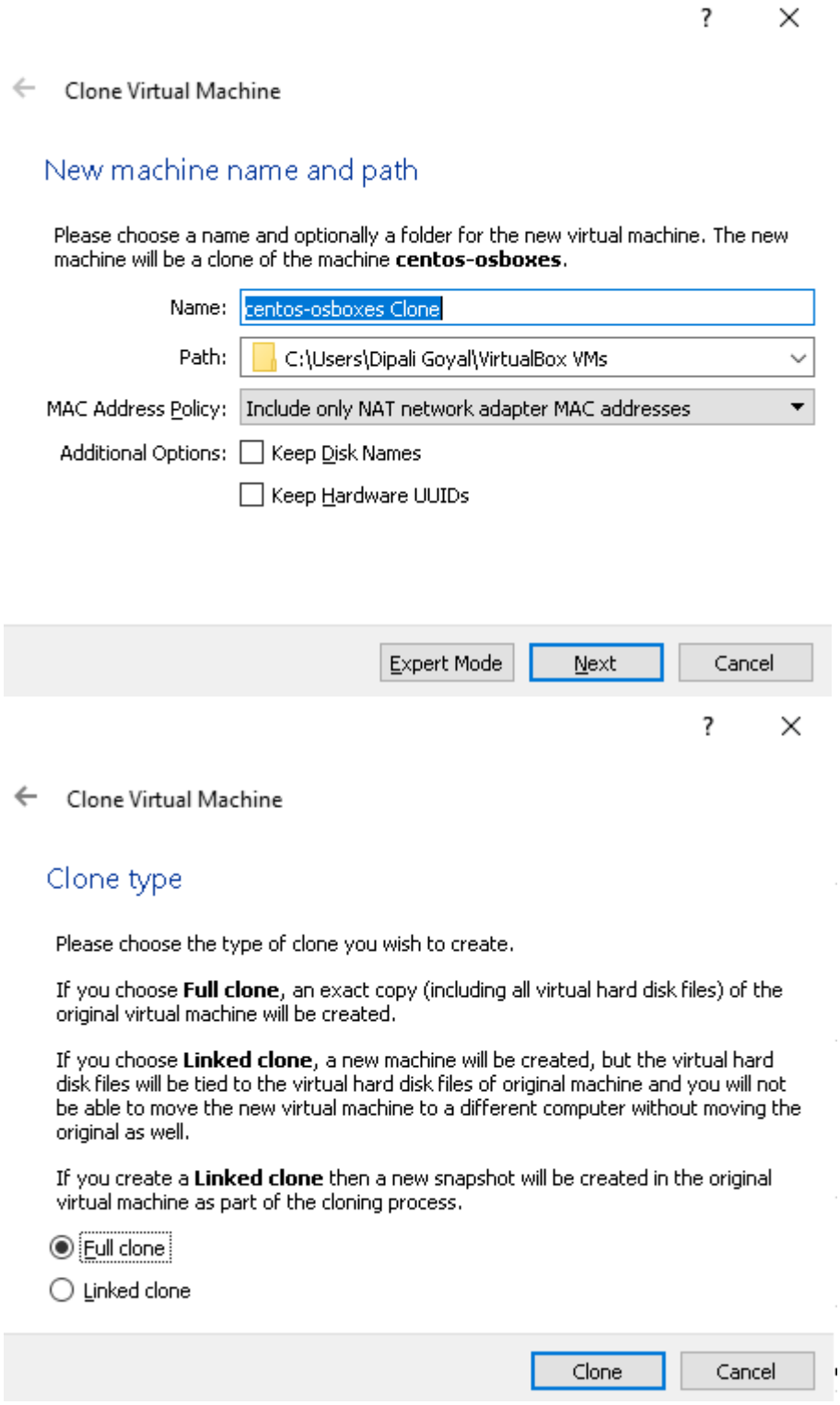

Linux CentOS is working fine.

**4. Copy some files from one Linux host to another Linux host via SCP.**

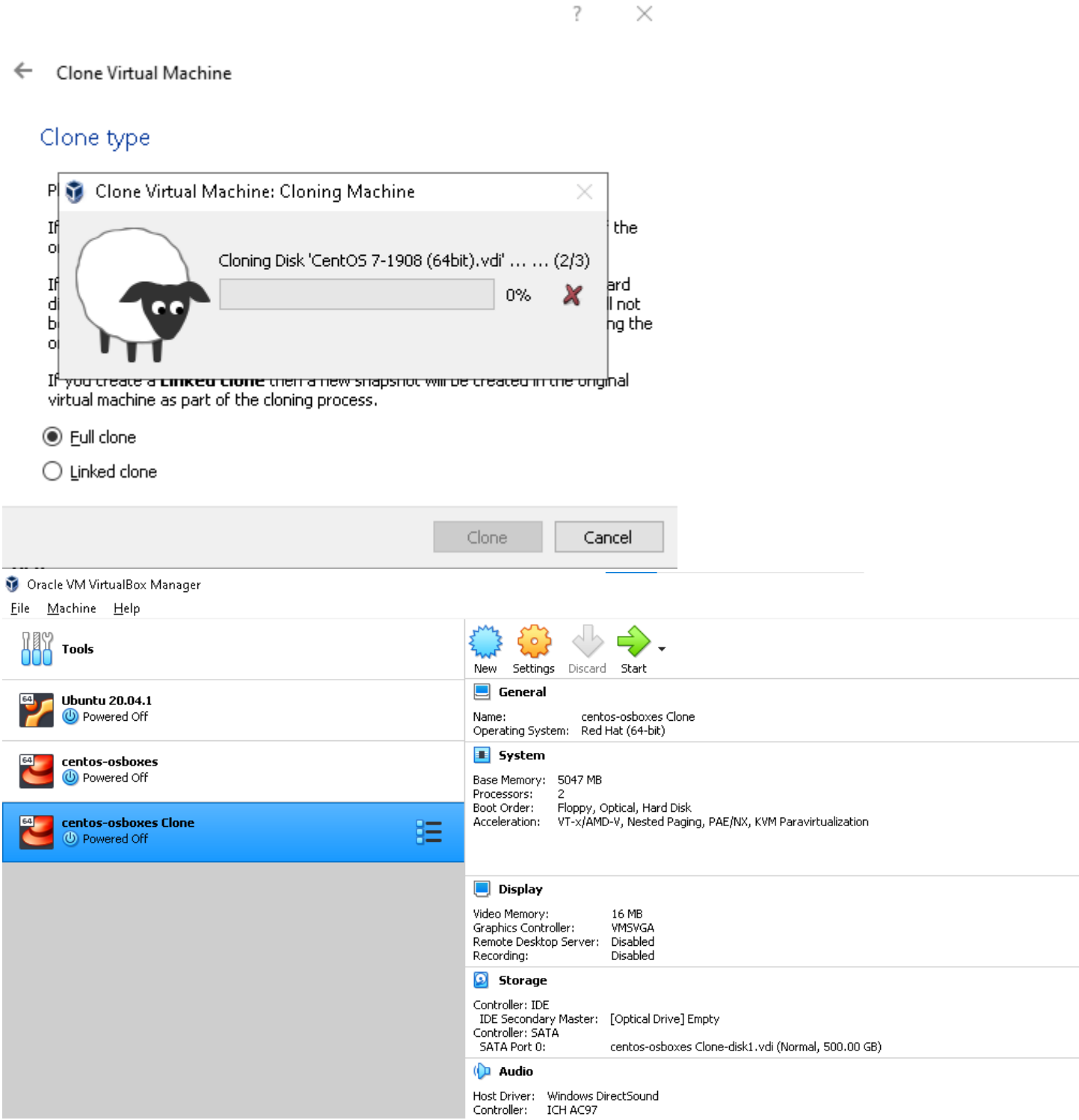
**Steps:**

- Firstly turn off the running linux machine.
- Secondly make the clone of it.
- Turn on both the machines.




Clone Virtual Machine
New machine name and path
Please choose a name and optionally a folder for the new virtual machine. The new machine will be a clone of the machine centos-osboxes.
Name: centos-osboxes Clone
Path: C:\Users\Dipali Goyal\VirtualBox VMs
MAC Address Policy: Include only NAT network adapter MAC addresses
Additional Options: Keep Disk Names
Keep Hardware UUIDs
Expert Mode
Next
Cancel

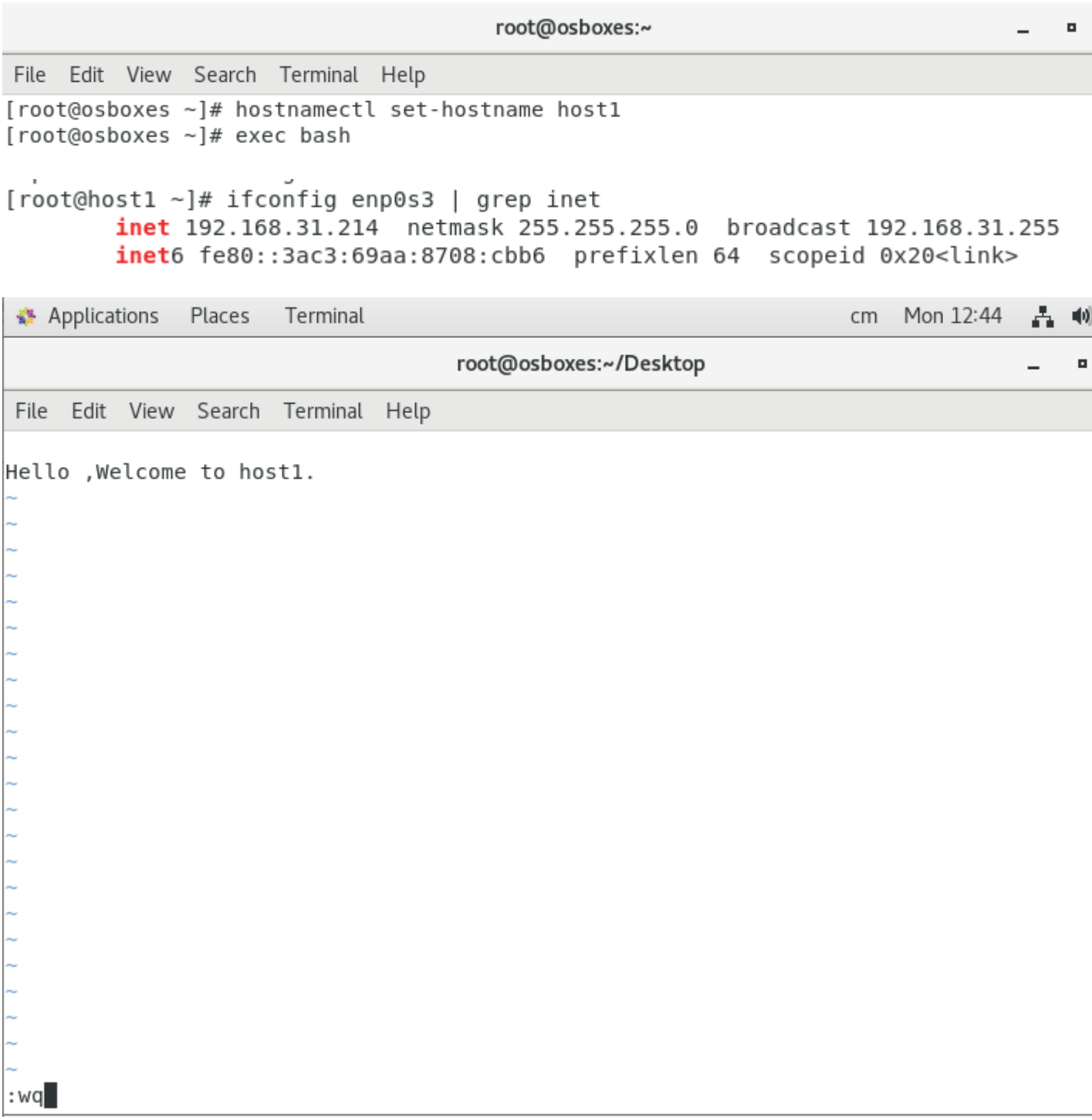

Clone Virtual Machine
Clone type
Please choose the type of clone you wish to create.
If you choose Full clone, an exact copy (including all virtual hard disk files) of the original virtual machine will be created.
If you choose Linked clone, a new machine will be created, but the virtual hard disk files will be tied to the virtual hard disk files of original machine and you will not be able to move the new virtual machine to a different computer without moving the original as well.
If you create a Linked clone then a new snapshot will be created in the original virtual machine as part of the cloning process.
Full clone
Linked clone
Clone
Cancel

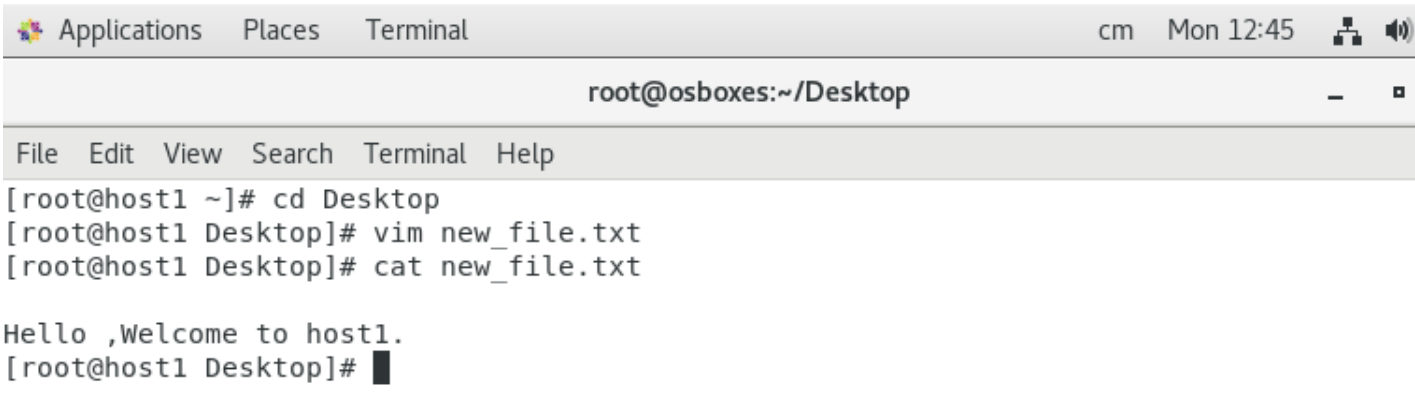



- Type this command in Host1 (Original centOS) :
    - hostnamectl set-hostname host1
    - exec bash
    - ifconfig enp0s3 | grep inet
    - cd Desktop
    - vim new_file.txt
    - cat new_file.txt
    - scp new_file.txt root@192.168.31.13:/tmp
- Type this command in Host2 (Cloned centOS) :

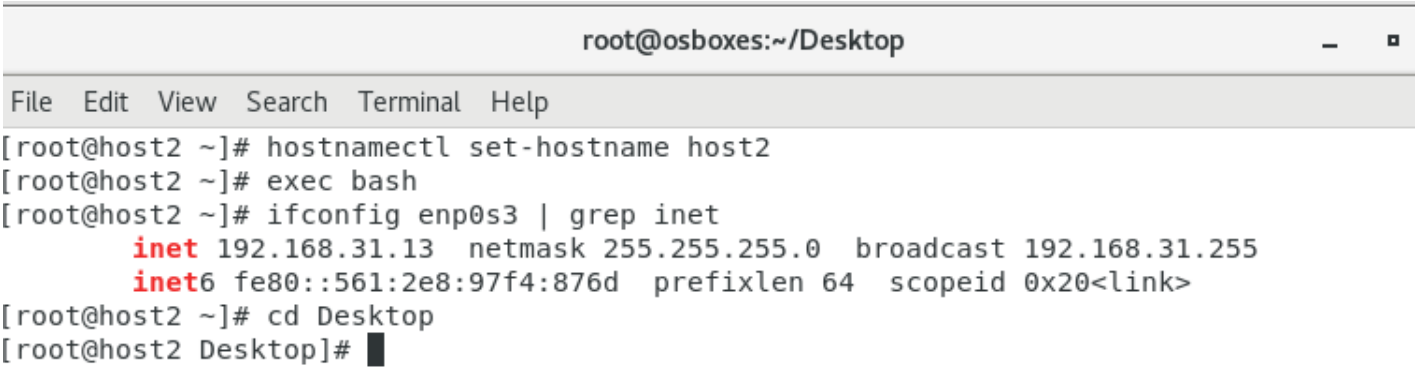
- hostnamectl set-hostname host2
- exec bash
- ifconfig enp0s3 | grep inet
- cd Desktop
- ls –al
- ls /tmp/ | grep new_file
- cat /tmp/ | grep new_file.txt

**Host1**

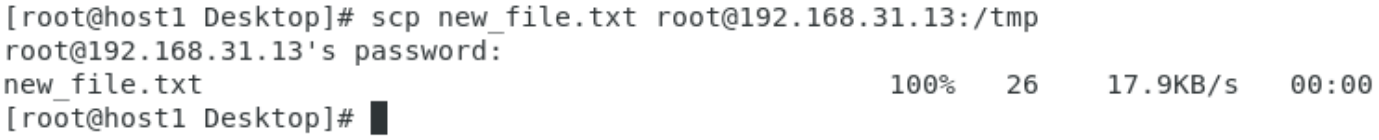





**Host 2**




**Host 1**

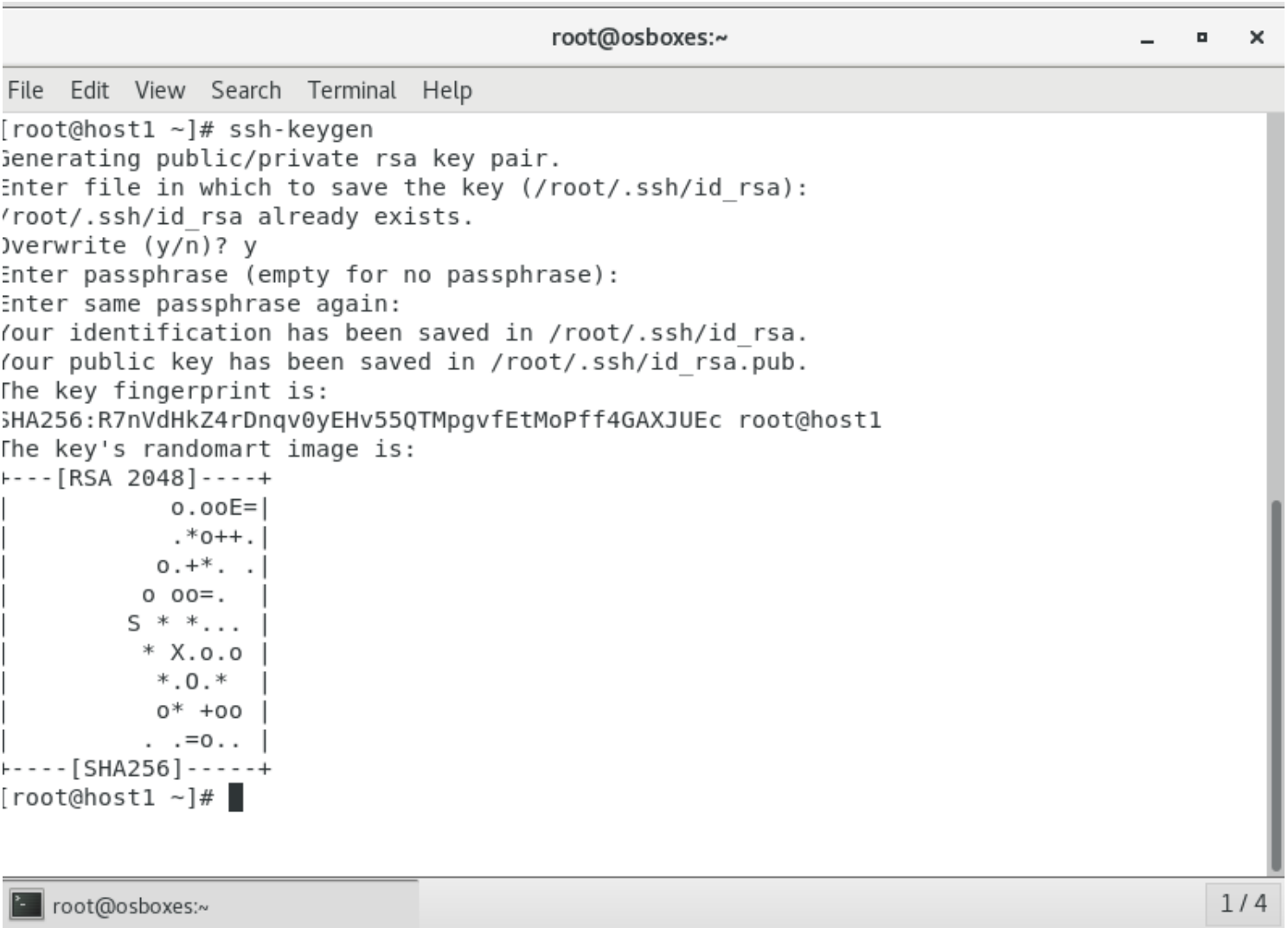


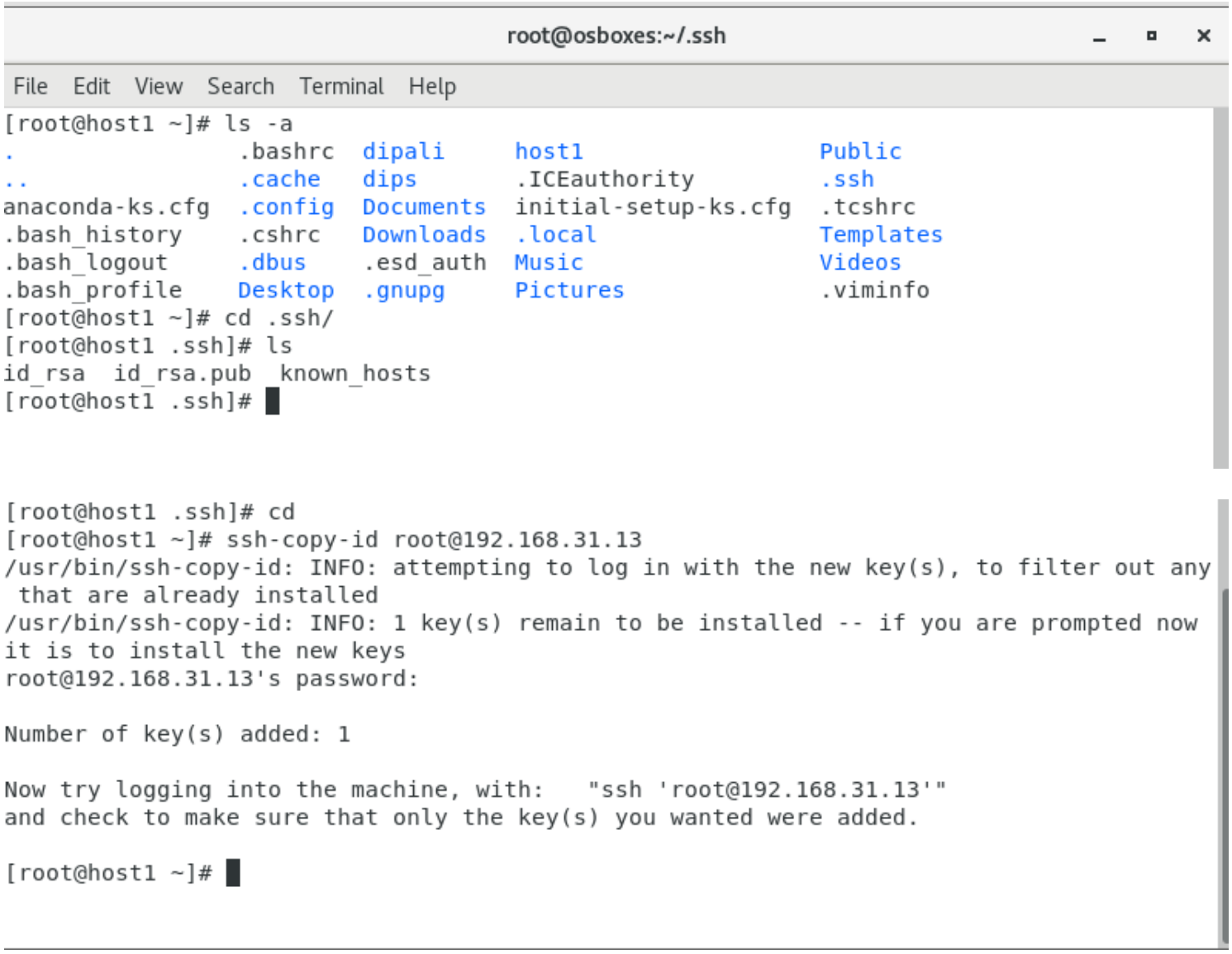

**Host 2**

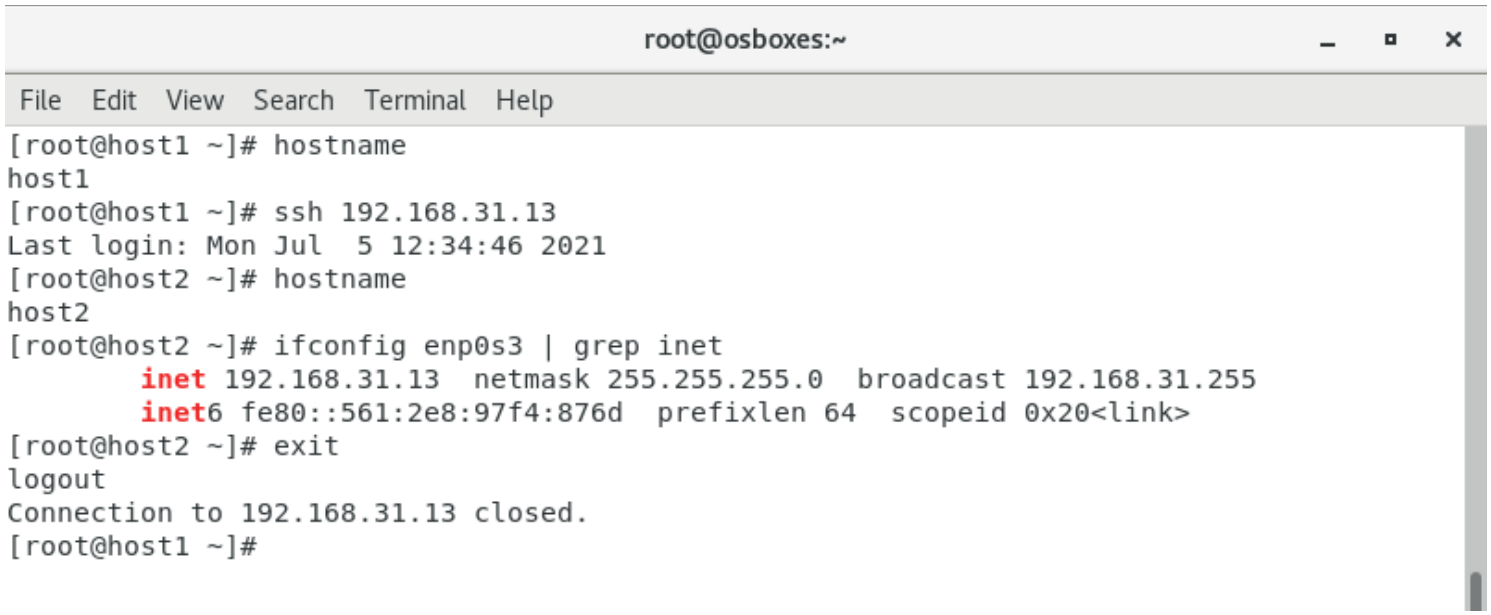
5. **Create another VM and setup password less authentication**

*Commands used:*

1. ssh-keygen
2. ls –a
3. cd .ssh/
4. ls
5. cd
6. ssh-copy-id root@192.168.31.13
7. hostname // Host1
8. ssh 192.168.29.227 // ip address of Host2
9. hostname // Host2
10. exit // Coming out from Host2




root@osboxes:~/.ssh
File Edit View Search Terminal Help
[root@host1 ~]# ls -a
. .bashrc dipali host1 Public
.. .cache dips .ICEauthority .ssh
anaconda-ks.cfg .config Documents initial-setup-ks.cfg .tcshrc
.bash_history .cshrc Downloads .local Templates
.bash_logout .dbus .esd_auth Music Videos
.bash_profile Desktop .gnupg Pictures .viminfo
[root@host1 ~]# cd .ssh/
[root@host1 .ssh]# ls
id_rsa id_rsa.pub known_hosts
[root@host1 .ssh]#
[root@host1 .ssh]# cd
[root@host1 ~]# ssh-copy-id root@192.168.31.13
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any
that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now
it is to install the new keys
root@192.168.31.13's password:
Number of key(s) added: 1
Now try logging into the machine, with: "ssh 'root@192.168.31.13'"
and check to make sure that only the key(s) you wanted were added.
[root@host1 ~]#


root@osboxes:~
File Edit View Search Terminal Help
[root@host1 ~]# hostname
host1
[root@host1 ~]# ssh 192.168.31.13
Last login: Mon Jul 5 12:34:46 2021
[root@host2 ~]# hostname
host2
[root@host2 ~]# ifconfig enp0s3 | grep inet
inet 192.168.31.13 netmask 255.255.255.0 broadcast 192.168.31.255
inet6 fe80::561:2e8:97f4:876d prefixlen 64 scopeid 0x20<link>
[root@host2 ~]# exit
logout
Connection to 192.168.31.13 closed.
[root@host1 ~]#