Name: - Tanishq Parab

Roll No: -A033

TYBSC IT

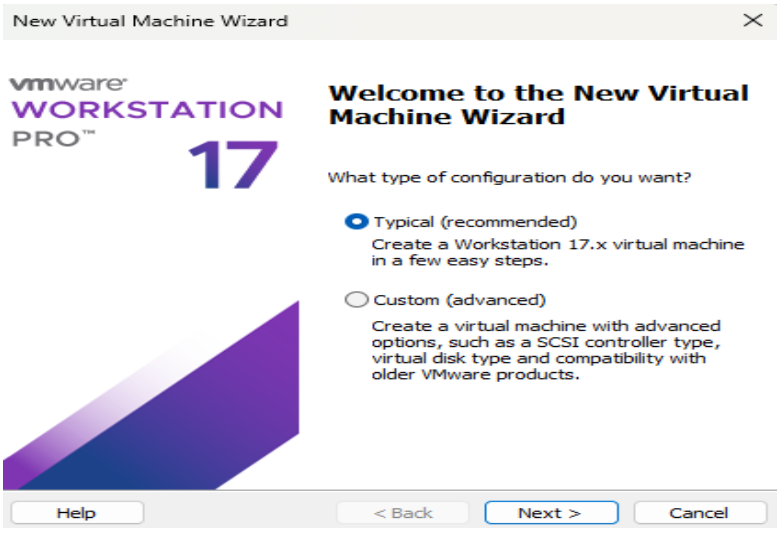
Linux Administration

Practical

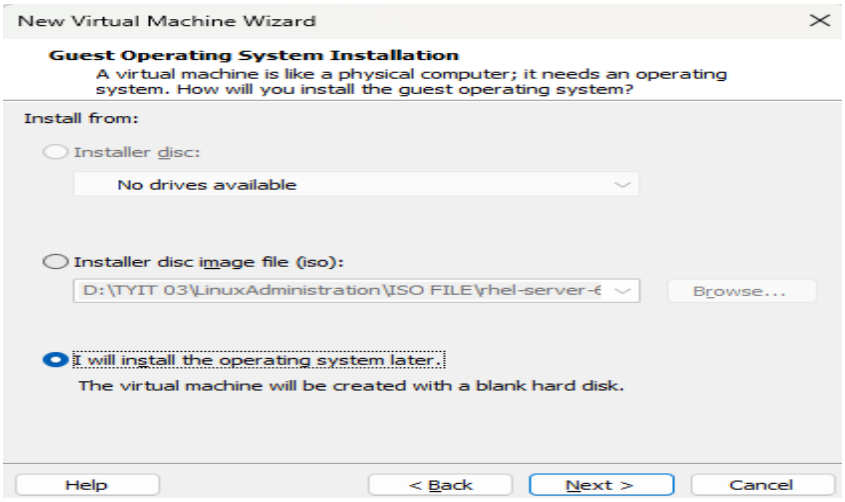
Practical 1

Installation of RHEL 6.X

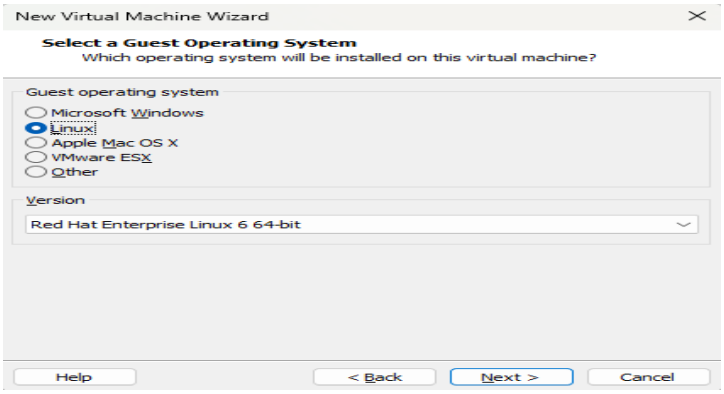
- New Virtual Machine Wizard pop-up appears, click NEXT.

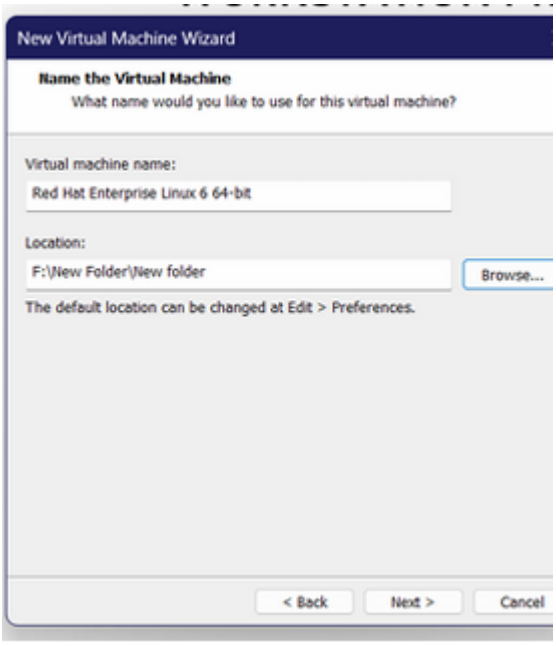


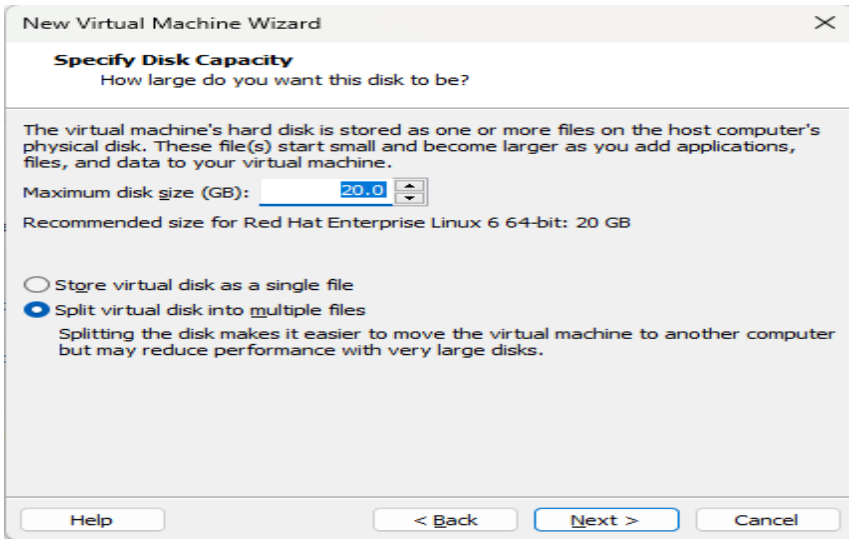
- Select I will install the operating system later and click NEXT.

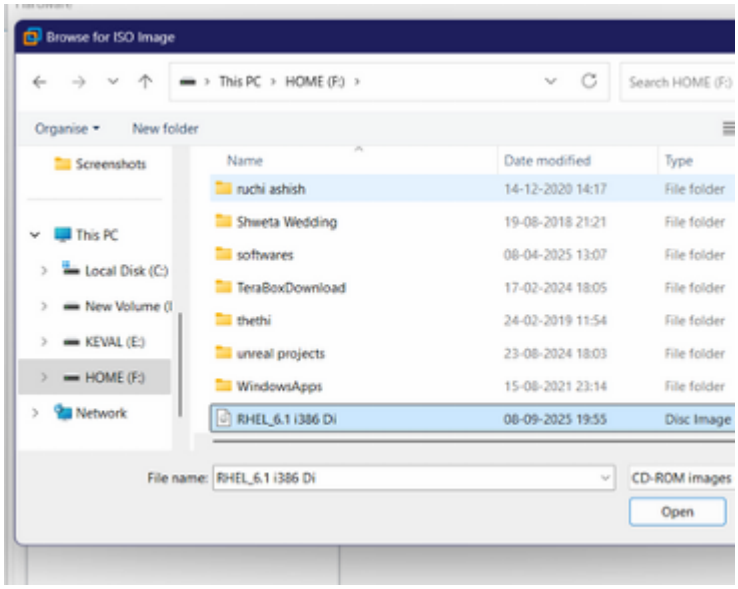


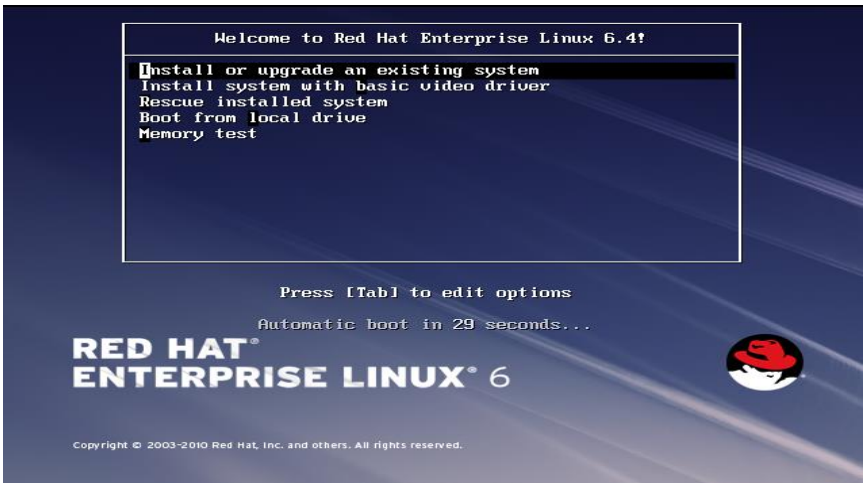
- Click NEXT again

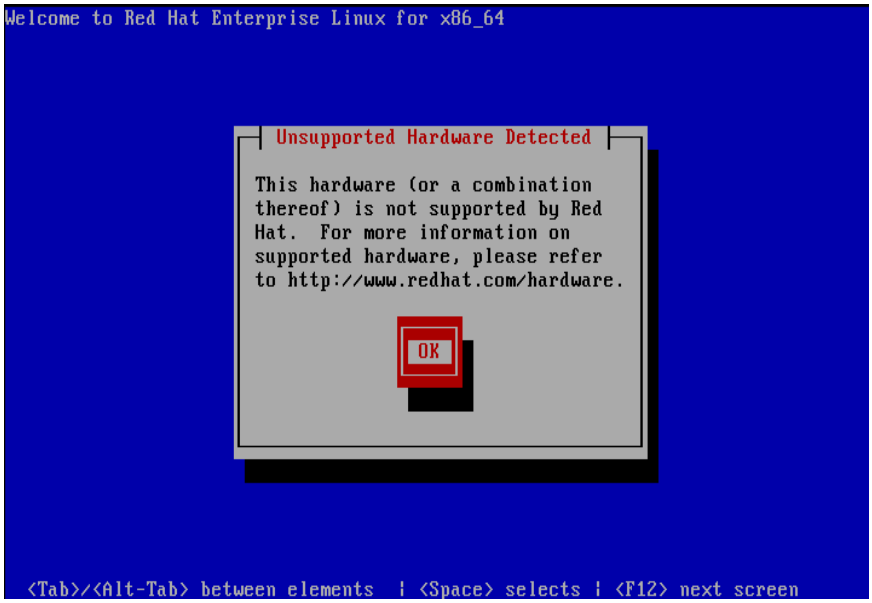

New Virtual Machine Wizard
Select a Guest Operating System
Which operating system will be installed on this virtual machine?
Guest operating system
Microsoft Windows
Linux
Apple Mac OS X
VMware ESX
Other
Version
Red Hat Enterprise Linux 6 64-bit
Help
< Back
Next >
Cancel


New Virtual Machine Wizard
Name the Virtual Machine
What name would you like to use for this virtual machine?
Virtual machine name:
Red Hat Enterprise Linux 6 64-bit
Location:
F:\New Folder\New folder
Browse...
The default location can be changed at Edit > Preferences.
< Back
Next >
Cancel

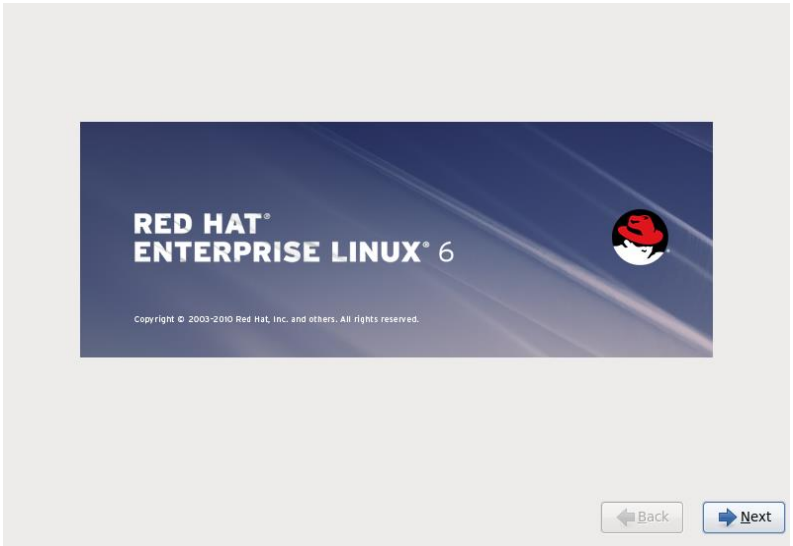

New Virtual Machine Wizard
Specify Disk Capacity
How large do you want this disk to be?
The virtual machine's hard disk is stored as one or more files on the host computer's physical disk. These file(s) start small and become larger as you add applications, files, and data to your virtual machine.
Maximum disk size (GB):
20.0
Recommended size for Red Hat Enterprise Linux 6 64-bit: 20 GB
Store virtual disk as a single file
Split virtual disk into multiple files
Splitting the disk makes it easier to move the virtual machine to another computer but may reduce performance with very large disks.
Help
< Back
Next >
Cancel


Browse for ISO Image
This PC › HOME (F:) ›
Search HOME (F:)
Organise
New folder
Screenshots
This PC
Local Disk (C:)
New Volume (I
KEVAL (E:)
HOME (F:)
Network
Name
Date modified
Type
ruchi ashish
14-12-2020 14:17
File folder
Shweta Wedding
19-08-2018 21:21
File folder
softwares
08-04-2025 13:07
File folder
TeraBoxDownload
17-02-2024 18:05
File folder
thethi
24-02-2019 11:54
File folder
unreal projects
23-08-2024 18:03
File folder
WindowsApps
15-08-2021 23:14
File folder
RHEL_6.1 i386 Di
08-09-2025 19:55
Disc Image
File name:
RHEL_6.1 i386 Di
CD-ROM images
Open

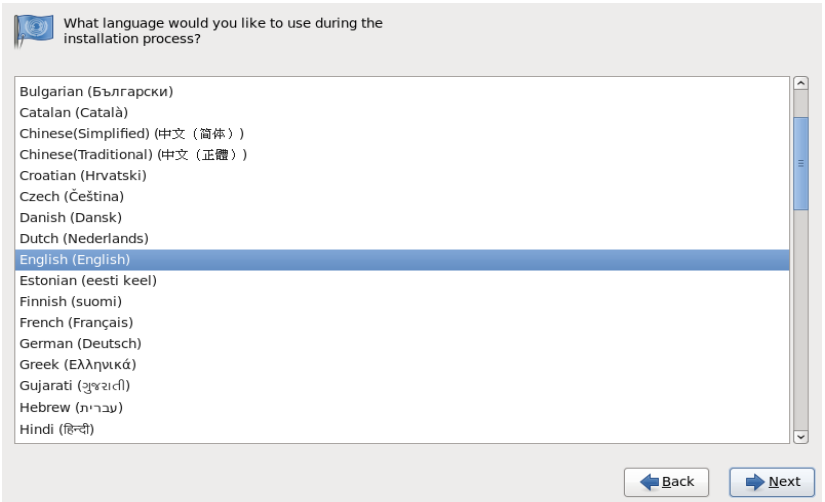


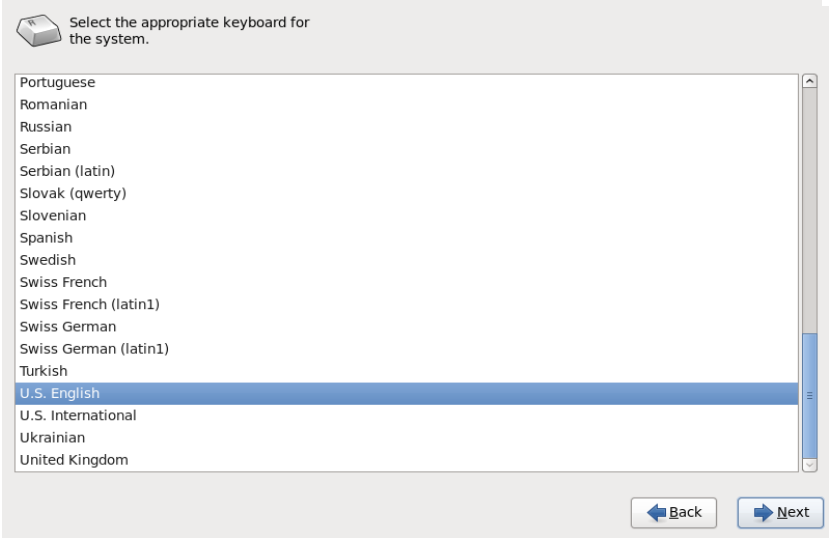


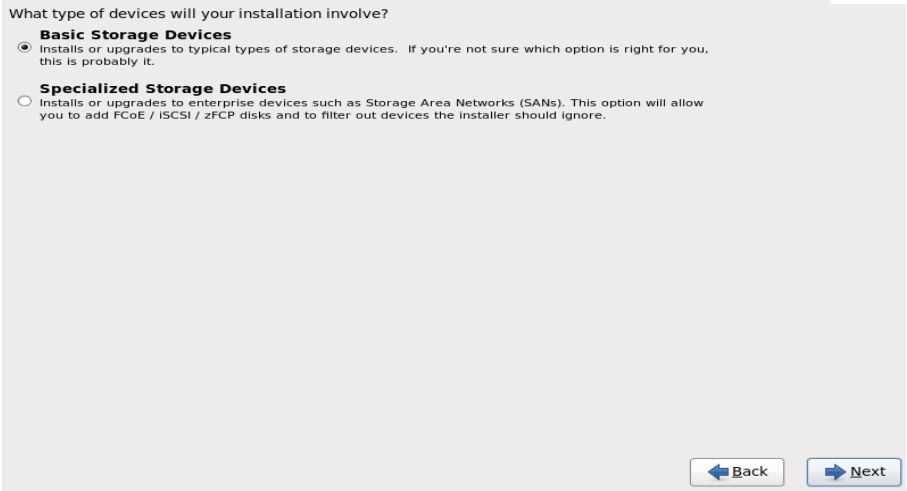
- Click **NEXT**



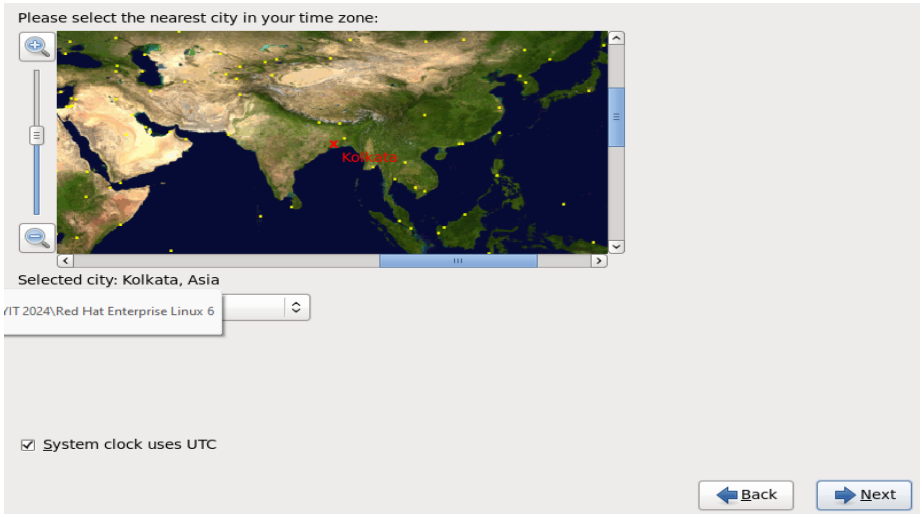
- Default language selected is English and click NEXT.


What language would you like to use during the installation process?
Bulgarian (Български)
Catalan (Català)
Chinese(Simplified) (中文（简体）)
Chinese(Traditional) (中文（正體）)
Croatian (Hrvatski)
Czech (Čeština)
Danish (Dansk)
Dutch (Nederlands)
English (English)
Estonian (eesti keel)
Finnish (suomi)
French (Français)
German (Deutsch)
Greek (Ελληνικά)
Gujarati (ગુજરાતી)
Hebrew (עברית)
Hindi (हिन्दी)
Back
Next

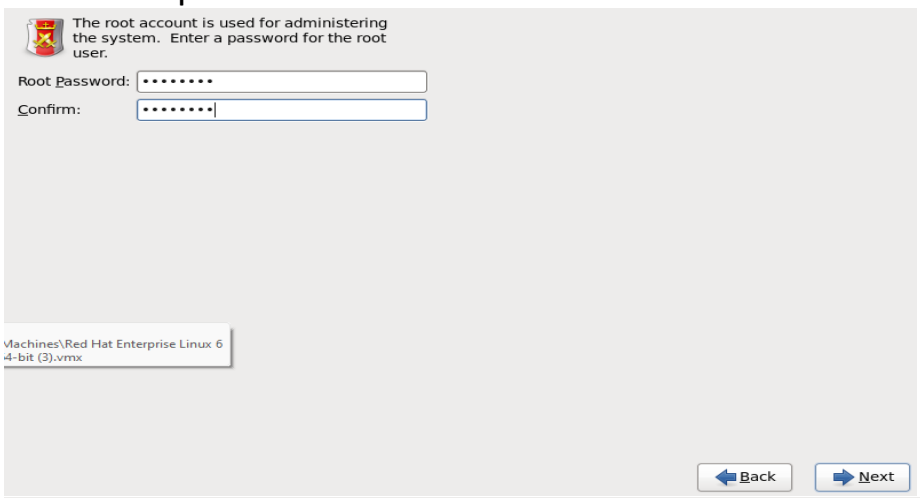

Select the appropriate keyboard for the system.
Portuguese
Romanian
Russian
Serbian
Serbian (latin)
Slovak (qwerty)
Slovenian
Spanish
Swedish
Swiss French
Swiss French (latin1)
Swiss German
Swiss German (latin1)
Turkish
U.S. English
U.S. International
Ukrainian
United Kingdom
Back
Next

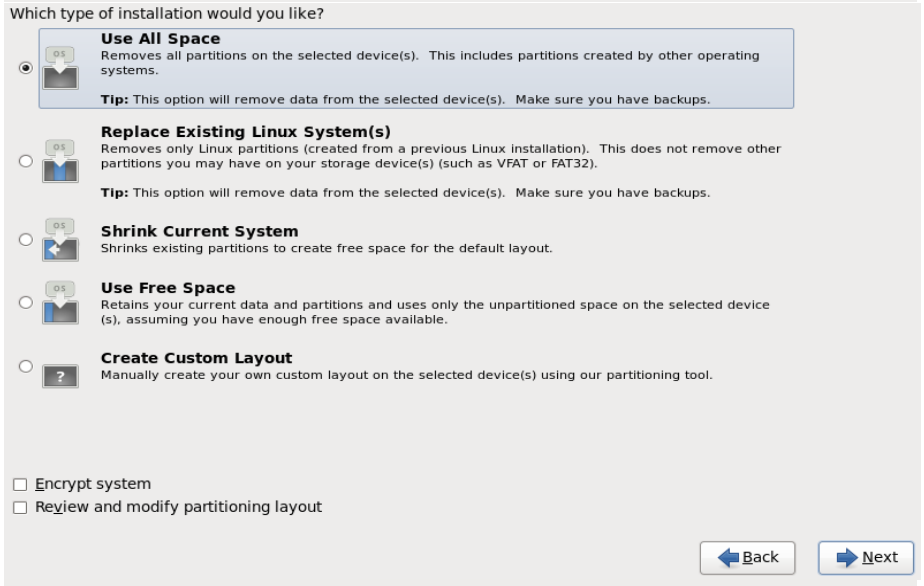

What type of devices will your installation involve?
Basic Storage Devices
Installs or upgrades to typical types of storage devices. If you're not sure which option is right for you, this is probably it.
Specialized Storage Devices
Installs or upgrades to enterprise devices such as Storage Area Networks (SANs). This option will allow you to add FCoE / iSCSI / zFCP disks and to filter out devices the installer should ignore.
Back
Next


Please name this computer. The hostname identifies the computer on a network.
Hostname:
localhost.localdomain.VB
Configure Network
Back
Next



- Set the password for root user.

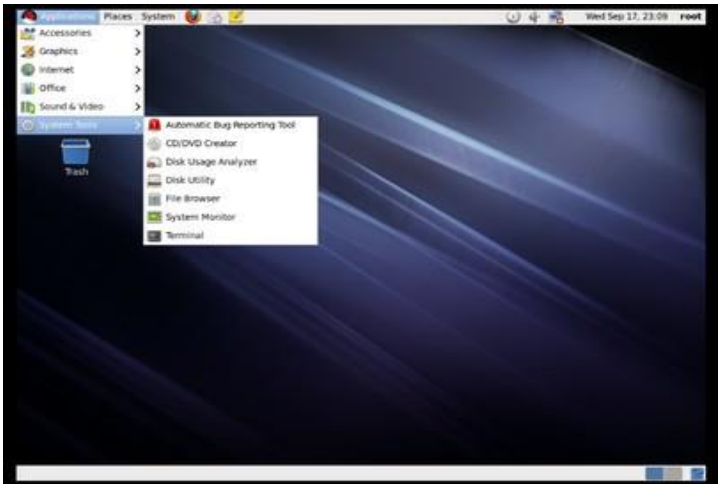


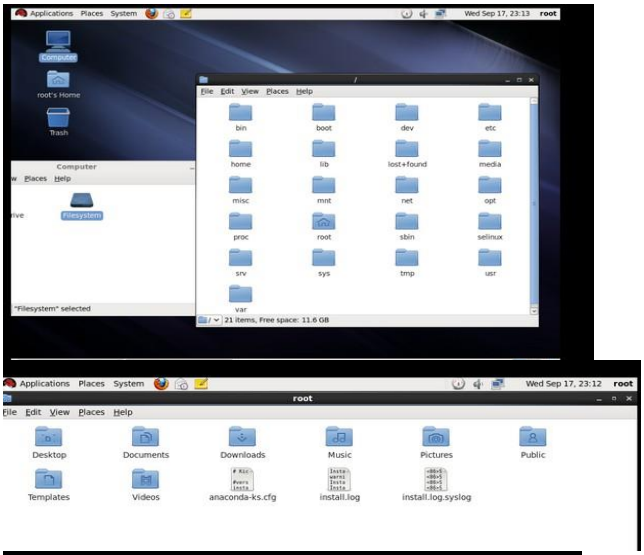


Practical 2

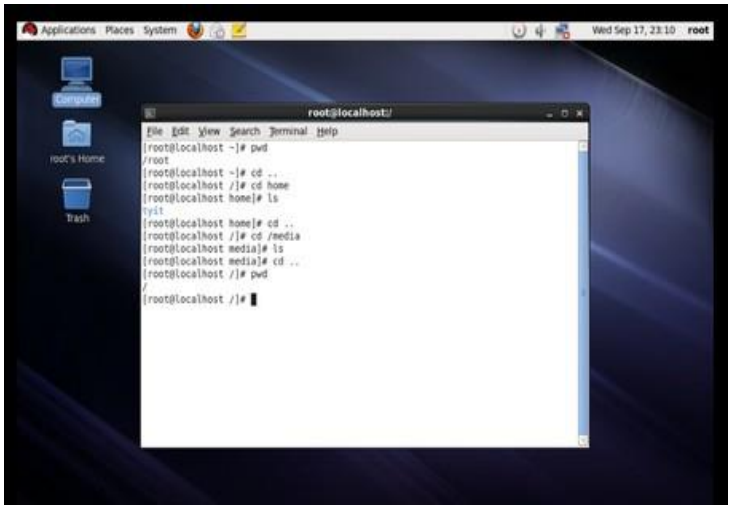
Graphical User Interface and Command Line Interface and Processes

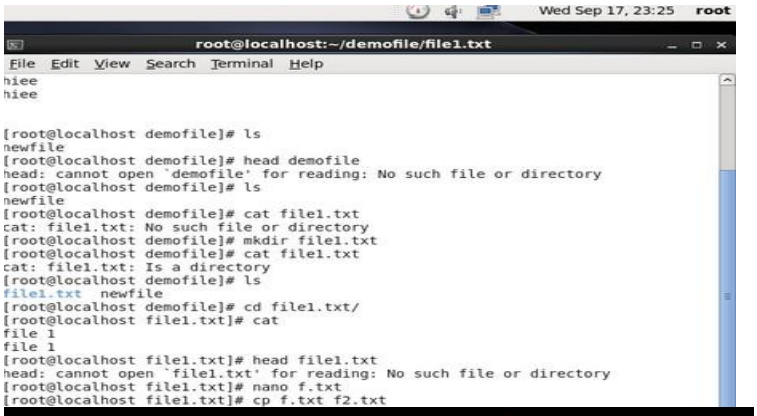
a) Exploring the Graphical Desktop



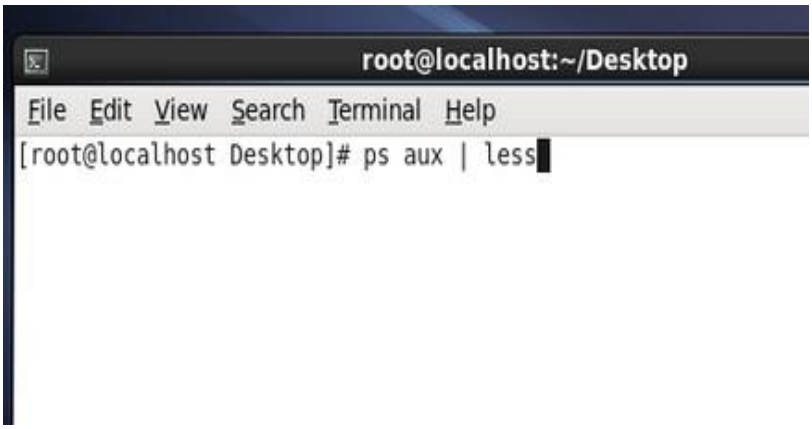


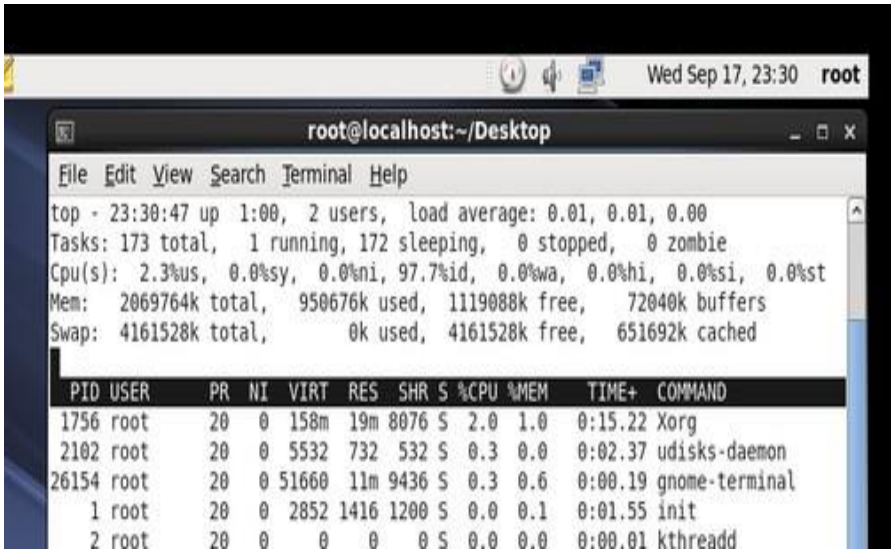
2) b. The Command Line Interface





2) c. Managing Processes





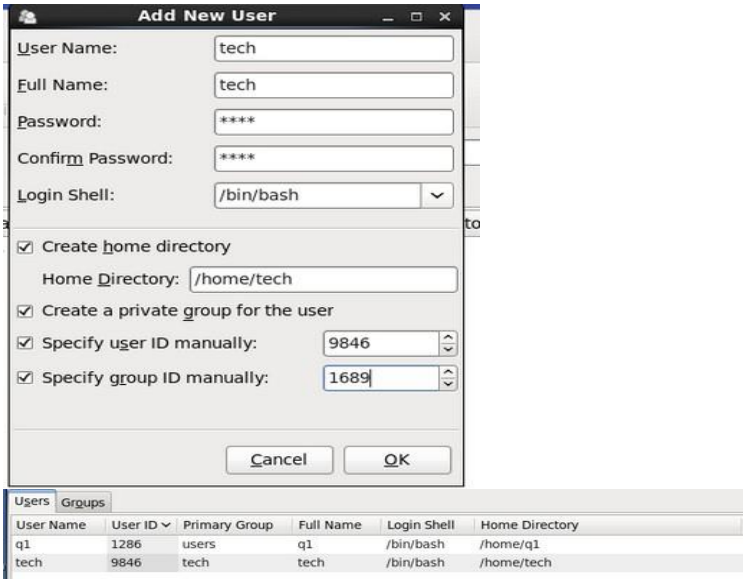
Practical 3

Working with Users, Groups, and Permissions

Users & Groups:

1) Create a user information with a home directory and a user id 1286

2) create a user tech with a user id 9846 and group id 1689

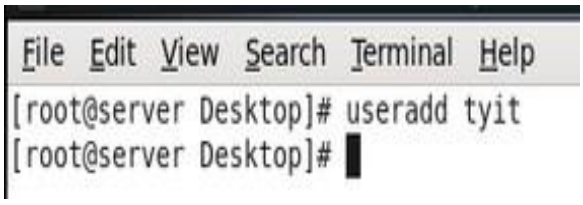


3)remove tyit1 user from project group

project	1690	tyit1
tyit1	9847	tyit1

project	1690	
tyit1	9847	tyit1

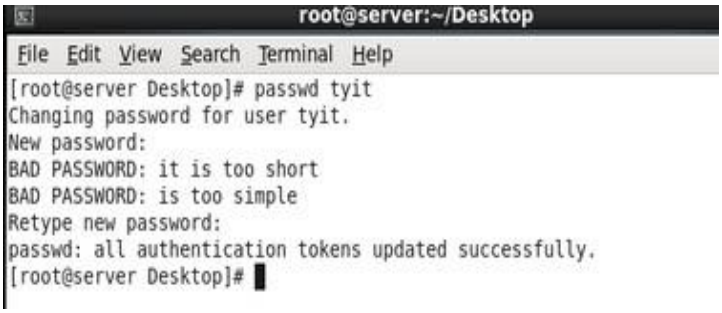
4)add username tyit using user add command



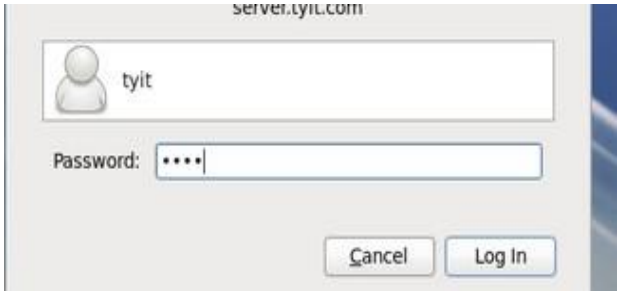
Users Groups

User Name	User ID	Primary Group	Full Name	Login Shell	Home Directory
q1	1286	users	q1	/bin/bash	/home/q1
tech	9846	tech	tech	/bin/bash	/home/tech
tyit1	9847	tyit1	tyit1	/bin/bash	/home/tyit1
tyit	9848	tyit		/bin/bash	/home/tyit

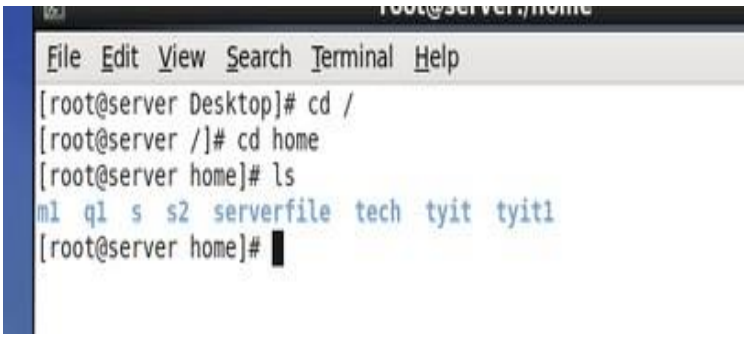
Create a password using passwd command



- Login using this user



5) examine home directory of each user



6) examine /etc/shadow, /etc/group,/etc/passwd

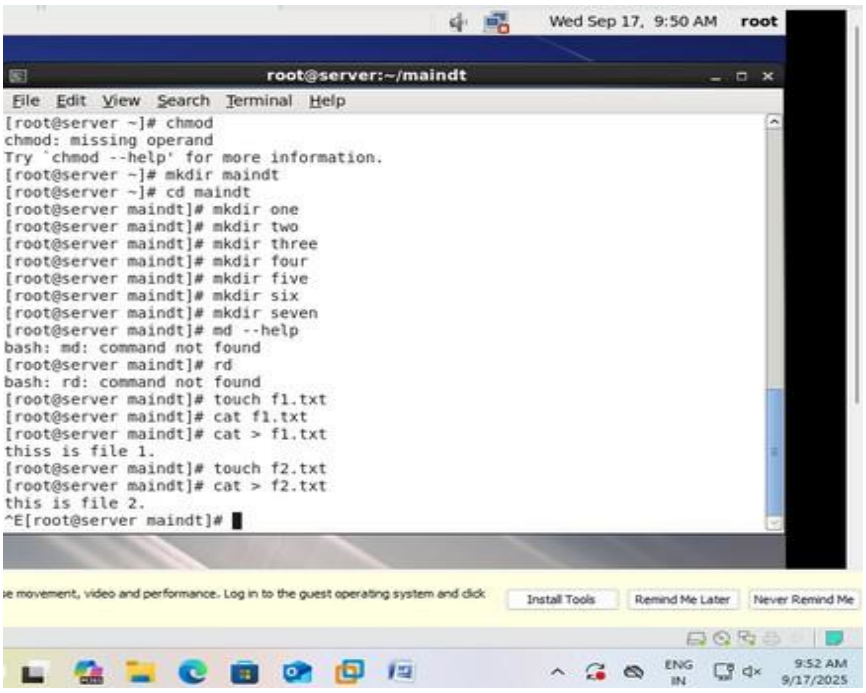
With respect to new addition

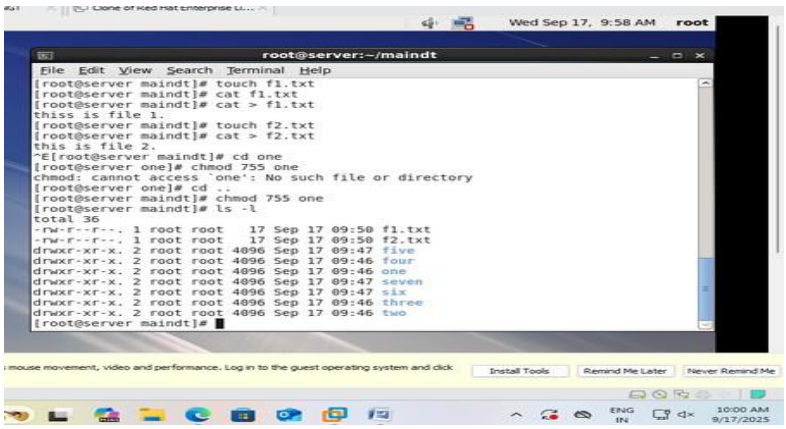
7) Create 2 groups manager and staff add user to the group
8) login using root account with del command.
9) delete any tow users using various options of userdel command

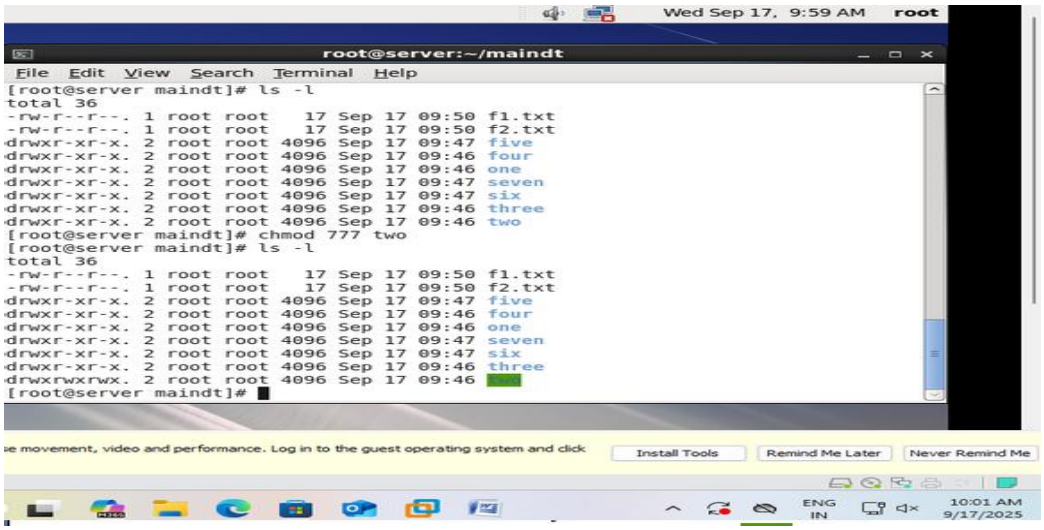
Permissions:

created a main directory

create 7 subdirectories and 2 files in the main directory change permissions.



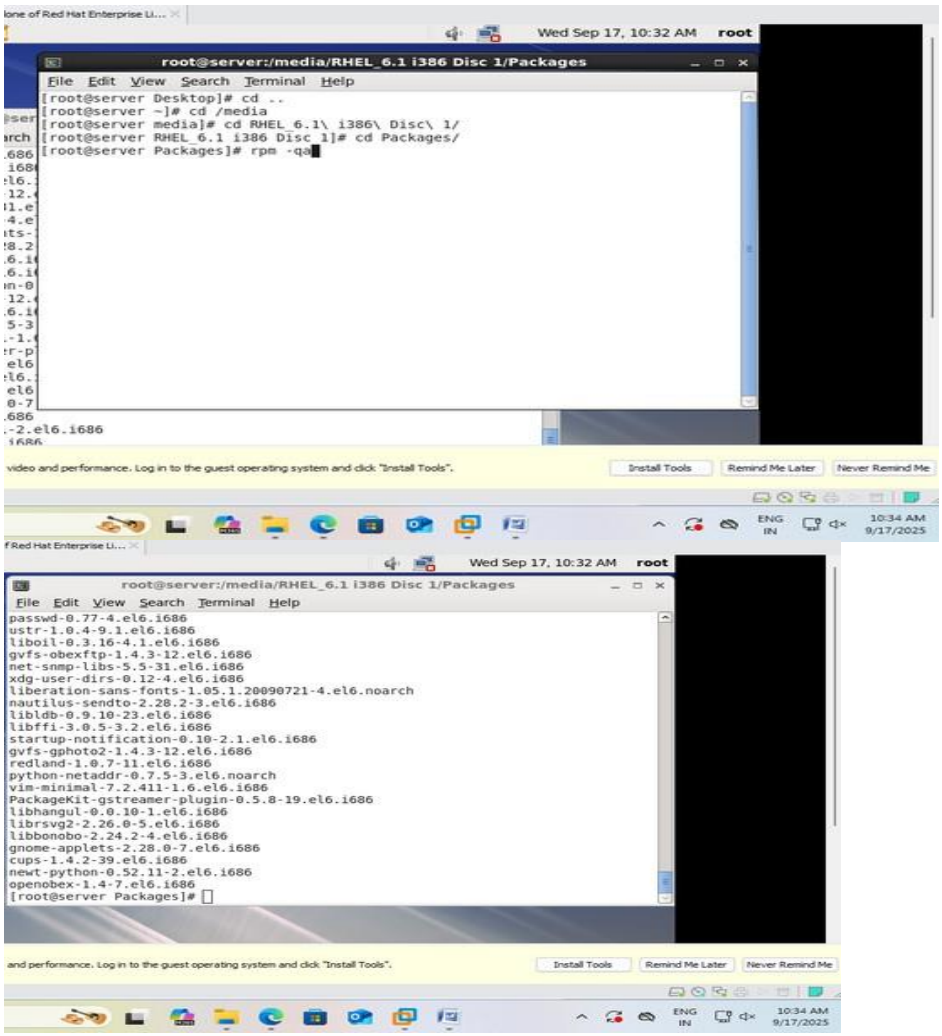



Wed Sep 17, 9:59 AM root
root@server:~/maindt
File Edit View Search Terminal Help
[root@server maindt]# ls -l
total 36
-rw-r--r--. 1 root root 17 Sep 17 09:50 f1.txt
-rw-r--r--. 1 root root 17 Sep 17 09:50 f2.txt
drwxr-xr-x. 2 root root 4096 Sep 17 09:47 five
drwxr-xr-x. 2 root root 4096 Sep 17 09:46 four
drwxr-xr-x. 2 root root 4096 Sep 17 09:46 one
drwxr-xr-x. 2 root root 4096 Sep 17 09:47 seven
drwxr-xr-x. 2 root root 4096 Sep 17 09:47 six
drwxr-xr-x. 2 root root 4096 Sep 17 09:46 three
drwxr-xr-x. 2 root root 4096 Sep 17 09:46 two
[root@server maindt]# chmod 777 two
[root@server maindt]# ls -l
total 36
-rw-r--r--. 1 root root 17 Sep 17 09:50 f1.txt
-rw-r--r--. 1 root root 17 Sep 17 09:50 f2.txt
drwxr-xr-x. 2 root root 4096 Sep 17 09:47 five
drwxr-xr-x. 2 root root 4096 Sep 17 09:46 four
drwxr-xr-x. 2 root root 4096 Sep 17 09:46 one
drwxr-xr-x. 2 root root 4096 Sep 17 09:47 seven
drwxr-xr-x. 2 root root 4096 Sep 17 09:47 six
drwxr-xr-x. 2 root root 4096 Sep 17 09:46 three
drwxrwxrwx. 2 root root 4096 Sep 17 09:46 two
[root@server maindt]#
e movement, video and performance. Log in to the guest operating system and click
Install Tools
Remind Me Later
Never Remind Me
ENG
IN
10:01 AM
9/17/2025

Practical 4

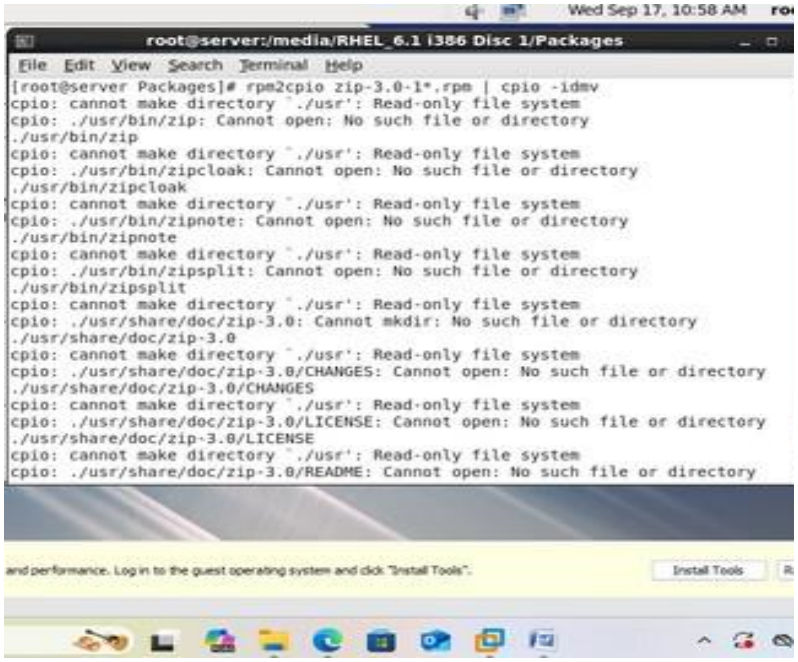
Working with RPM Storage and Networking

4) a Using Query Options



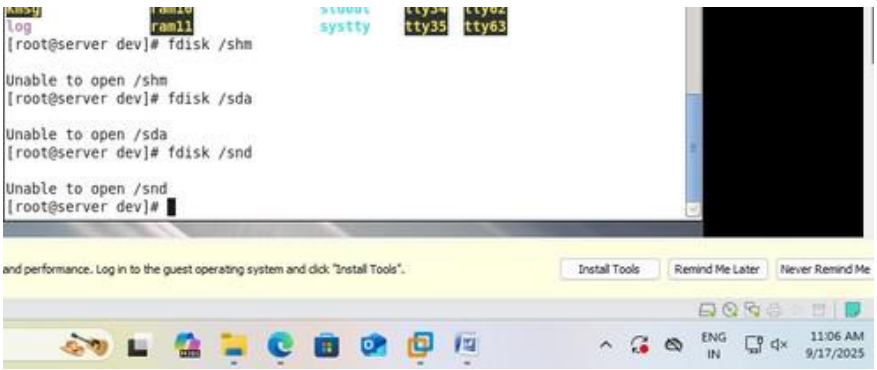
4) b Extracting Files From RPMs

```
[root@server Packages]# rpm -qa | grep zip
bzip2-1.0.5-7.el6_0.i686
unzip-6.0-1.el6.i686
zip-3.0-1.el6.i686
bzip2-libs-1.0.5-7.el6_0.i686
gzip-1.3.12-18.el6.i686
[root@server Packages]# rpm -qa | grep network
system-config-network-tui-1.6.0.el6.2-1.el6.noarch
```



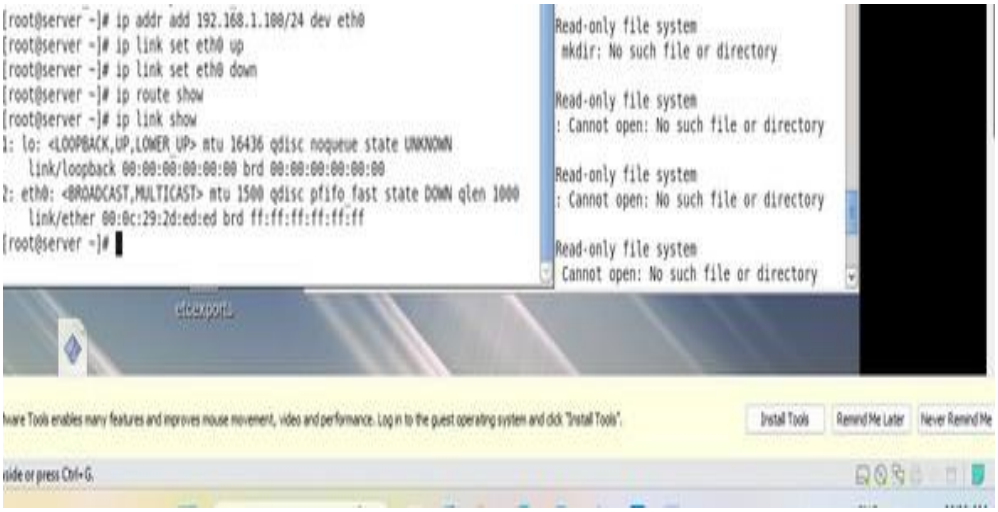
4) c Configuring and Managing Storage

```
[root@server ~]# cd /dev
[root@server dev]# ls
agpgart         loop0          ram12     tty      tty36   tty7
autofs          loop1          ram13     tty0     tty37   tty8
block           loop2          ram14     tty1     tty38   tty9
bsg             loop3          ram15     tty10    tty39   ttyS0
bus             loop4          ram2      tty11    tty4    ttyS1
```



4) d Connecting to the Network

```
[root@server Desktop]# cd ..
[root@server ~]# ip addr show
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 16436 qdisc noqueue state UNKNOWN
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UNKNO
WN qlen 1000
    link/ether 00:0c:29:2d:ed:ed brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.3/24 brd 192.168.1.255 scope global eth0
    inet6 fe80::20c:29ff:fe2d:eded/64 scope link
       valid_lft forever preferred_lft forever
[root@server ~]#
```



Practical 5

Practical 6

DNS, DHCP and Mail Server Configuring DNS

Go to main -> terminal Gedit

/etc/hosts

Add after 2 line – 192.168.1.3 srver.tyit.com

Save

Gedit /etc/sysconfig/network-scripts/ifcfg.eth0 File open

Gedit /etc/sysconfig/networl Localhost

domain –delete Write- server.tyit.com

Save

Gedit /etc/resolv.conf

Add NAMESERVER 192.168.1.3

Save

Cd /etc

Service network restart ok ok

If not then click on network manager to turn it on then try

Now, cd ..

Cd media/RHEL…./Packages

Now,

Rpm –ivh bind*

Install

Gedit /etc/named.conf

empt

y Install now properly

Ls

bind*

Now,

Rpm –vh bind-9.7.3-

2.e16.i686.rpm Gedit

/etc/named.conf

File will open

Options……?

Cd etc

Ls named*

Gedit /etc/named.rfc192.zones

Copy one zone " " in {….}

Than change name as zone

……? And file reversed.zone

Cd .. (go to

root) Cd

/var/named Ls

Cp named.localhost

Forward.zone Cp

named.loopback reversed.zone

Gedit forwar.zone

IN SOA server.tyit.com root.server.tyit.com { …}

IN NS server.tyit.com

SERVER IN A

1912.168.1.3

Gedit reversed.zone

IN SOA server.tyit.com root.server.tyit.com

IN NS sever.tyit.com

IN PTR

server.tyit.com

Chgrp named

forward.zoe Ls –l

Chgrp named reversed.zone

Ls –l

Service named start

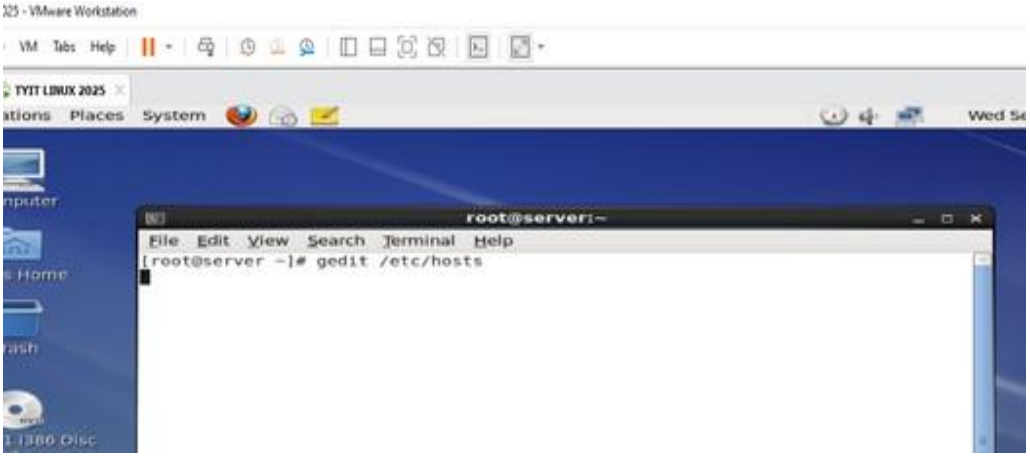
Dig server.tyit.com

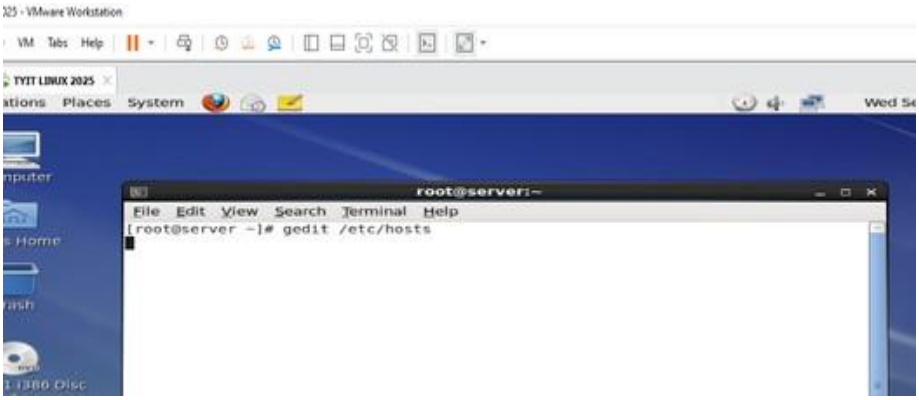
If timed out the turn on the network

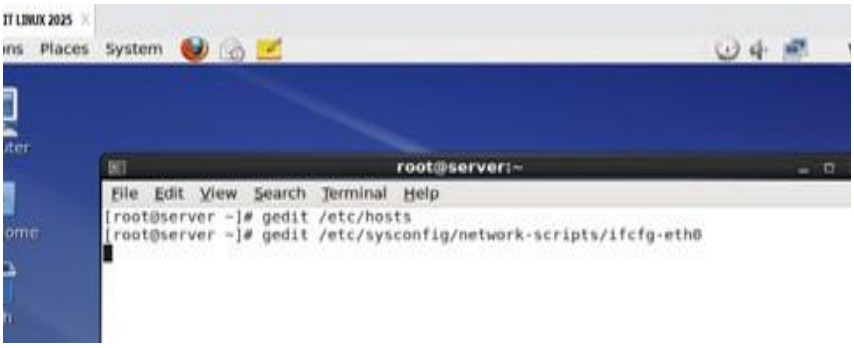
manager(systemeth0) The try it again

Requirmentd gor configuration DNS

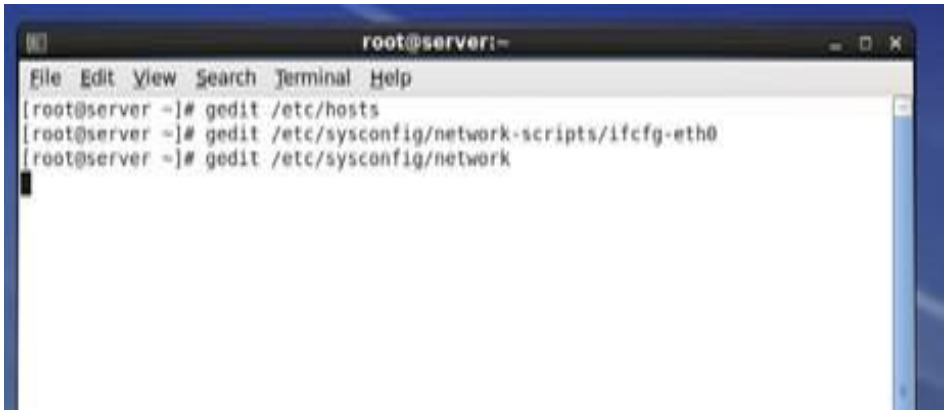
Bind package create forward & reversed file


025 - VMware Workstation
VM Tabs Help
TYIT LINUX 2025
ations Places System
Wed Se
root@server:~
File Edit View Search Terminal Help
[root@server ~]# gedit /etc/hosts

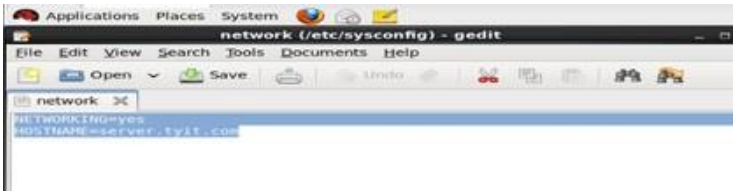

025 - VMware Workstation
VM Tabs Help
TYIT LINUX 2025
ations Places System
Wed Se
root@server:~
File Edit View Search Terminal Help
[root@server ~]# gedit /etc/hosts

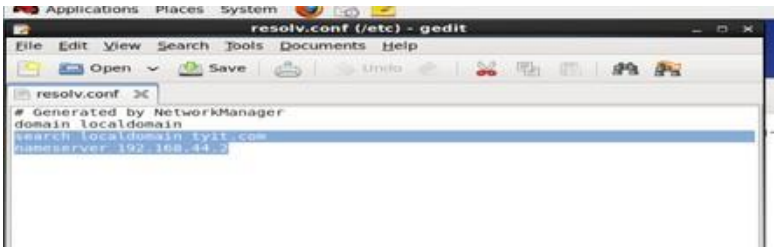

IT LINUX 2025
ns Places System
root@server:~
File Edit View Search Terminal Help
[root@server ~]# gedit /etc/hosts
[root@server ~]# gedit /etc/sysconfig/network-scripts/ifcfg-eth0

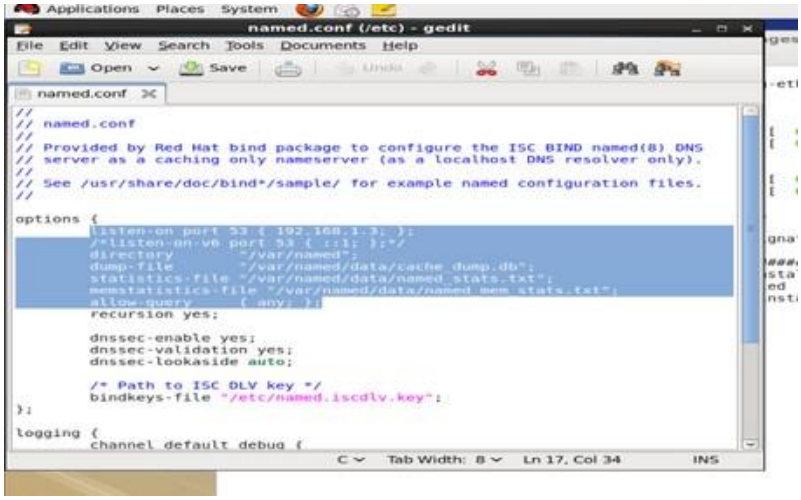

*ifcfg-eth0 (/etc/sysconfig/network-scripts) - gedit
File Edit View Search Tools Documents Help
Open
Save
Undo
*ifcfg-eth0
DEVICE="eth0"
NM_CONTROLLED="yes"
ONBOOT="no"
TYPE=Ethernet
BOOTPROTO=none #updated =none here
IPADDR=192.168.1.3
PREFIX=24
DNS1=192.168.1.3
DEFROUTE=yes
IPV4_FAILURE_FATAL=yes
IPV6INIT=no
NAME="System eth0"
UUID=5fb06bd0-0bb0-7ffb-45f1-d6edd65f3e03
GATEWAY=192.168.1.0
HWADDR=00:0C:29:FB:2A:05

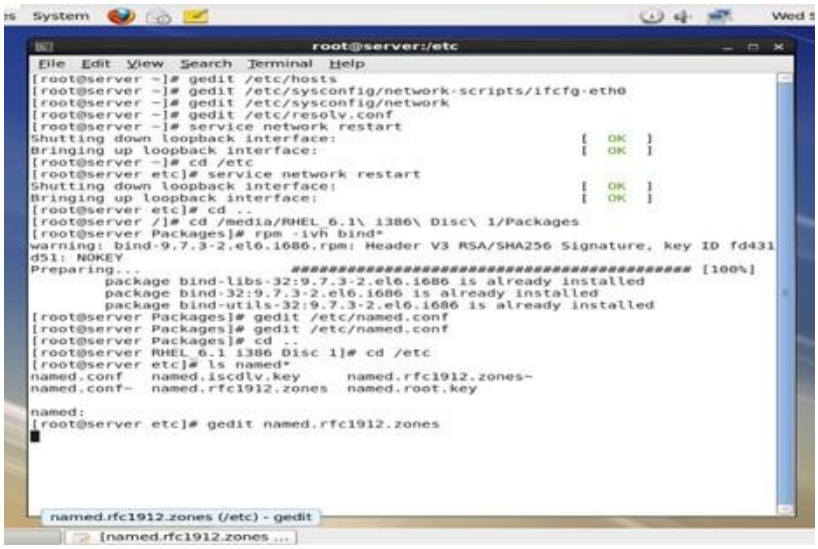

root@server:~
File Edit View Search Terminal Help
[root@server ~]# gedit /etc/hosts
[root@server ~]# gedit /etc/sysconfig/network-scripts/ifcfg-eth0
[root@server ~]# gedit /etc/sysconfig/network

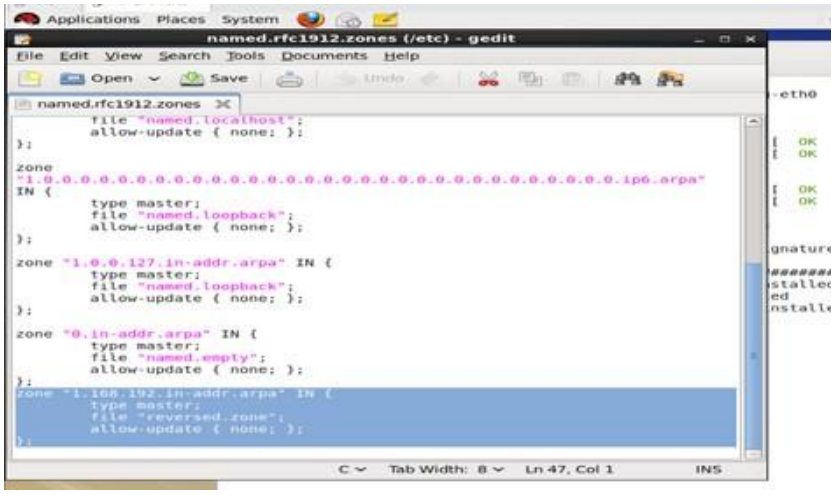
6) a Configuring DNS

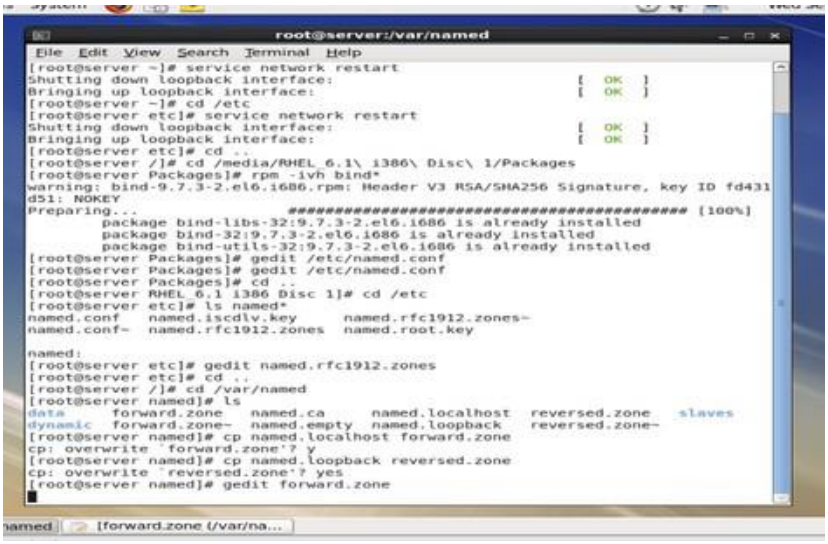


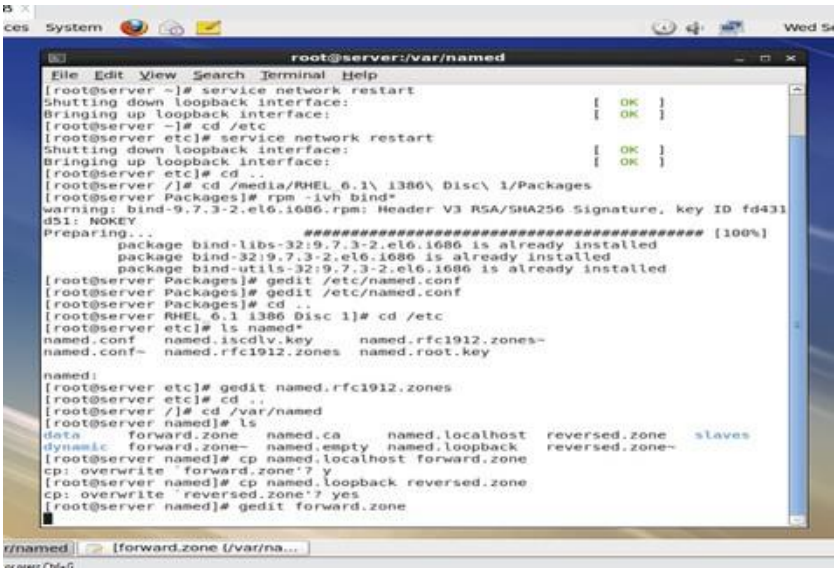


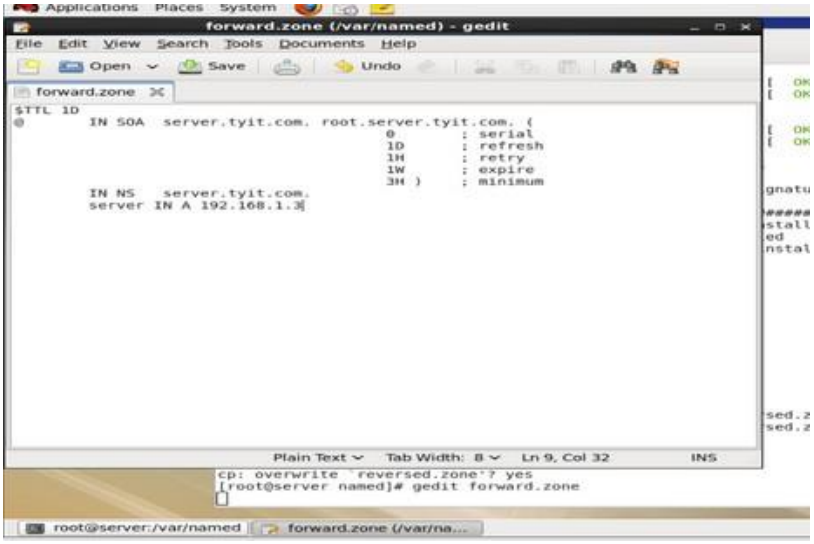

Applications Places System
named.conf (/etc) - gedit
File Edit View Search Tools Documents Help
Open Save
named.conf
//
// named.conf
//
// Provided by Red Hat bind package to configure the ISC BIND named(8) DNS
// server as a caching only nameserver (as a localhost DNS resolver only).
//
// See /usr/share/doc/bind*/sample/ for example named configuration files.
//
options {
listen-on port 53 { 192.168.1.3; };
//listen-on-v6 port 53 { ::1; };*/
directory "/var/named";
dump-file "/var/named/data/cache_dump.db";
statistics-file "/var/named/data/named_stats.txt";
memstatistics-file "/var/named/data/named_mem_stats.txt";
allow-query { any; };
recursion yes;
dnssec-enable yes;
dnssec-validation yes;
dnssec-lookaside auto;
/* Path to ISC DLV key */
bindkeys-file "/etc/named.iscdlv.key";
};
logging {
channel default_debug {
C Tab Width: 8 Ln 17, Col 34 INS


System
Wed
root@server:/etc
File Edit View Search Terminal Help
[root@server ~]# gedit /etc/hosts
[root@server ~]# gedit /etc/sysconfig/network-scripts/ifcfg-eth0
[root@server ~]# gedit /etc/sysconfig/network
[root@server ~]# gedit /etc/resolv.conf
[root@server ~]# service network restart
Shutting down loopback interface: [OK]
Bringing up loopback interface: [OK]
[root@server ~]# cd /etc
[root@server etc]# service network restart
Shutting down loopback interface: [OK]
Bringing up loopback interface: [OK]
[root@server etc]# cd ..
[root@server /]# cd /media/RHEL_6.1\ 1386\ Disc\ 1/Packages
[root@server Packages]# rpm -ivh bind*
warning: bind-9.7.3-2.el6.i686.rpm: Header V3 RSA/SHA256 Signature, key ID fd431
d51: NOKEY
Preparing... ### [100%]
package bind-libs-32:9.7.3-2.el6.i686 is already installed
package bind-32:9.7.3-2.el6.i686 is already installed
package bind-utils-32:9.7.3-2.el6.i686 is already installed
[root@server Packages]# gedit /etc/named.conf
[root@server Packages]# gedit /etc/named.conf
[root@server Packages]# cd ..
[root@server RHEL_6.1 1386 Disc 1]# cd /etc
[root@server etc]# ls named*
named.conf named.iscdlv.key named.rfc1912.zones~
named.conf~ named.rfc1912.zones named.root.key
named:
[root@server etc]# gedit named.rfc1912.zones
named.rfc1912.zones (/etc) - gedit
[named.rfc1912.zones ...

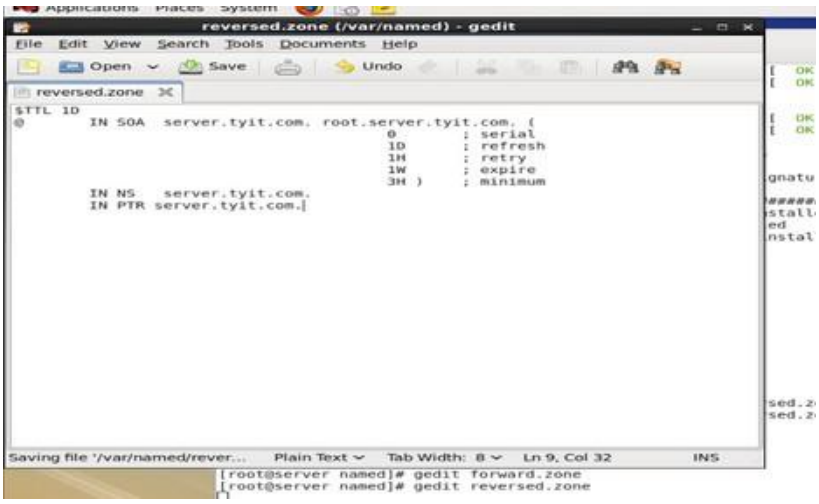

Applications Places System
named.rfc1912.zones (/etc) - gedit
File Edit View Search Tools Documents Help
Open Save
named.rfc1912.zones
file "named.localhost";
allow-update { none; };
};
zone
"1.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.ip6.arpa"
IN {
type master;
file "named.loopback";
allow-update { none; };
};
zone "1.0.0.127.in-addr.arpa" IN {
type master;
file "named.loopback";
allow-update { none; };
};
zone "0.in-addr.arpa" IN {
type master;
file "named.empty";
allow-update { none; };
};
zone "1.168.192.in-addr.arpa" IN {
type master;
file "reversed.zone";
allow-update { none; };
};
C Tab Width: 8 Ln 47, Col 1 INS

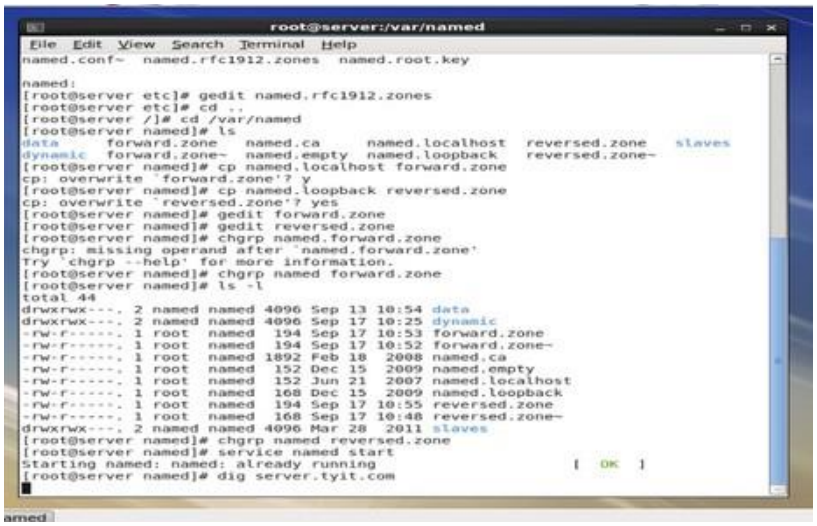

root@server:/var/named
File Edit View Search Terminal Help
[root@server ~]# service network restart
Shutting down loopback interface: [OK]
Bringing up loopback interface: [OK]
[root@server ~]# cd /etc
[root@server etc]# service network restart
Shutting down loopback interface: [OK]
Bringing up loopback interface: [OK]
[root@server etc]# cd ..
[root@server /]# cd /media/RHEL_6.1\ i386\ Disc\ 1/Packages
[root@server Packages]# rpm -ivh bind*
warning: bind-9.7.3-2.el6.i686.rpm: Header V3 RSA/SHA256 Signature, key ID fd431
d51: NOKEY
Preparing... ### [100%]
package bind-libs-32:9.7.3-2.el6.i686 is already installed
package bind-32:9.7.3-2.el6.i686 is already installed
package bind-utils-32:9.7.3-2.el6.i686 is already installed
[root@server Packages]# gedit /etc/named.conf
[root@server Packages]# gedit /etc/named.conf
[root@server Packages]# cd ..
[root@server RHEL_6.1 i386 Disc 1]# cd /etc
[root@server etc]# ls named*
named.conf named.iscdlv.key named.rfc1912.zones~
named.conf~ named.rfc1912.zones named.root.key
named:
[root@server etc]# gedit named.rfc1912.zones
[root@server etc]# cd ..
[root@server /]# cd /var/named
[root@server named]# ls
data forward.zone named.ca named.localhost reversed.zone slaves
dynamic forward.zone~ named.empty named.loopback reversed.zone~
[root@server named]# cp named.localhost forward.zone
cp: overwrite 'forward.zone'? y
[root@server named]# cp named.loopback reversed.zone
cp: overwrite 'reversed.zone'? yes
[root@server named]# gedit forward.zone
[forward.zone (/var/na...


ces System
Wed 5
root@server:/var/named
File Edit View Search Terminal Help
[root@server ~]# service network restart
Shutting down loopback interface: [OK]
Bringing up loopback interface: [OK]
[root@server ~]# cd /etc
[root@server etc]# service network restart
Shutting down loopback interface: [OK]
Bringing up loopback interface: [OK]
[root@server etc]# cd ..
[root@server /]# cd /media/RHEL_6.1\ i386\ Disc\ 1/Packages
[root@server Packages]# rpm -ivh bind*
warning: bind-9.7.3-2.el6.i686.rpm: Header V3 RSA/SHA256 Signature, key ID fd431
d51: NOKEY
Preparing... ### [100%]
package bind-libs-32:9.7.3-2.el6.i686 is already installed
package bind-32:9.7.3-2.el6.i686 is already installed
package bind-utils-32:9.7.3-2.el6.i686 is already installed
[root@server Packages]# gedit /etc/named.conf
[root@server Packages]# gedit /etc/named.conf
[root@server Packages]# cd ..
[root@server RHEL_6.1 i386 Disc 1]# cd /etc
[root@server etc]# ls named*
named.conf named.iscdlv.key named.rfc1912.zones~
named.conf~ named.rfc1912.zones named.root.key
named:
[root@server etc]# gedit named.rfc1912.zones
[root@server etc]# cd ..
[root@server /]# cd /var/named
[root@server named]# ls
data forward.zone named.ca named.localhost reversed.zone slaves
dynamic forward.zone~ named.empty named.loopback reversed.zone~
[root@server named]# cp named.localhost forward.zone
cp: overwrite 'forward.zone'? y
[root@server named]# cp named.loopback reversed.zone
cp: overwrite 'reversed.zone'? yes
[root@server named]# gedit forward.zone
r/named
[forward.zone (/var/na...


Applications Places System
forward.zone (/var/named) - gedit
File Edit View Search Tools Documents Help
Open Save Undo
forward.zone
$TTL 1D
@ IN SOA server.tyit.com. root.server.tyit.com. (
0 ; serial
1D ; refresh
1H ; retry
1W ; expire
3H) ; minimum
IN NS server.tyit.com.
server IN A 192.168.1.3
Plain Text Tab Width: 8 Ln 9, Col 32 INS
cp: overwrite `reversed.zone'? yes
[root@server named]# gedit forward.zone
root@server:/var/named
forward.zone (/var/na...


System
Wed 5
root@server:/var/named
File Edit View Search Terminal Help
Shutting down loopback interface: [OK]
Bringing up loopback interface: [OK]
[root@server ~]# cd /etc
[root@server etc]# service network restart
Shutting down loopback interface: [OK]
Bringing up loopback interface: [OK]
[root@server etc]# cd ..
[root@server /]# cd /media/RHEL_6.1\ i386\ Disc\ 1/Packages
[root@server Packages]# rpm -ivh bind*
warning: bind-9.7.3-2.el6.i686.rpm: Header V3 RSA/SHA256 Signature, key ID fd431
d51: NOKEY
Preparing... ### [100%]
package bind-libs-32:9.7.3-2.el6.i686 is already installed
package bind-32:9.7.3-2.el6.i686 is already installed
package bind-utils-32:9.7.3-2.el6.i686 is already installed
[root@server Packages]# gedit /etc/named.conf
[root@server Packages]# gedit /etc/named.conf
[root@server Packages]# cd ..
[root@server RHEL 6.1 i386 Disc 1]# cd /etc
[root@server etc]# ls named*
named.conf named.iscdlv.key named.rfc1912.zones~
named.conf~ named.rfc1912.zones named.root.key
named:
[root@server etc]# gedit named.rfc1912.zones
[root@server etc]# cd ..
[root@server /]# cd /var/named
[root@server named]# ls
data forward.zone named.ca named.localhost reversed.zone slaves
dynamic forward.zone~ named.empty named.loopback reversed.zone~
[root@server named]# cp named.localhost forward.zone
cp: overwrite `forward.zone'? y
[root@server named]# cp named.loopback reversed.zone
cp: overwrite `reversed.zone'? yes
[root@server named]# gedit forward.zone
[root@server named]# gedit reversed.zone
med
[reversed.zone (/var/n...


Applications Places System
reversed.zone (/var/named) - gedit
File Edit View Search Tools Documents Help
Open Save Undo
reversed.zone
$TTL 1D
@ IN SOA server.tyit.com. root.server.tyit.com. (
0 ; serial
1D ; refresh
1H ; retry
1W ; expire
3H) ; minimum
IN NS server.tyit.com.
IN PTR server.tyit.com.
Saving file '/var/named/rever... Plain Text Tab Width: 8 Ln 9, Col 32 INS
[root@server named]# gedit forward.zone
[root@server named]# gedit reversed.zone



6) b Configuring DHCP

Ifconfig

For editing – go to network

manager.(two pc) Right click , wired

->system eth0 than edit

Click on manual -> near table ->click add-> put

address 192.168.1.3 Net mask – 255.255.255.0

Dns sever –

192.168.1.3

Gateway-

192.168.1.0

Ifconfig

If ip add has changed to 192….

It is correct If no than type =

service network restart. rpm –

qa | grep dhcp

ls

gedit

/etc/dhcp/dhcpd.conf

close opend file.

Cp /usr/share/doc/dhcp-4.1.1/dhcpd.conf.sample /etc/dhcp/dhcpd.conf

Overwrite? Yes

gedit /etc/dhcp/dhcpd.conf

go to line subnet 255.255.255.0

(below this is very basic subnet

declaration) Change it to

Service dhcp start

Service dhcp restart

Chkconfig dhcpd on

Chkconfig –list

dhcpd Dhcp 6:off

1:off 2:on

Dhcp server is setup now machine is

Now

ready Close power off

Right click -> manage ->clone ->click->next

Current stare create linked clone 0 first ->next ->clone of

red.hat linux

Close

Now clone machine will start

Open og linux machine as root -> systemeth0->edit-

>manual->apply Gedit /etc/sysconfig/network-scripts/ifcfg-eth0

Other way

Cd /etc

Cd sysconfig

Cd network-scripts

Gedit ifcfg-eth0

File will open

BOOTPROTO=dhcp (means you are dhcp current)
Now

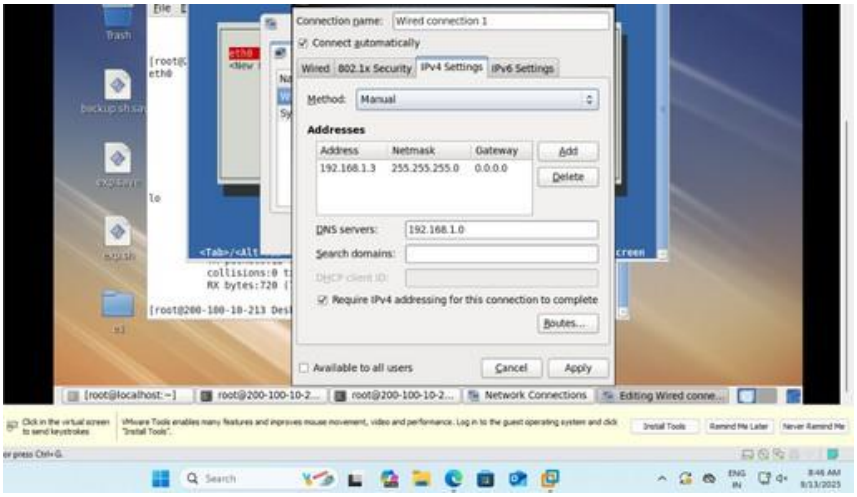
Service network restart

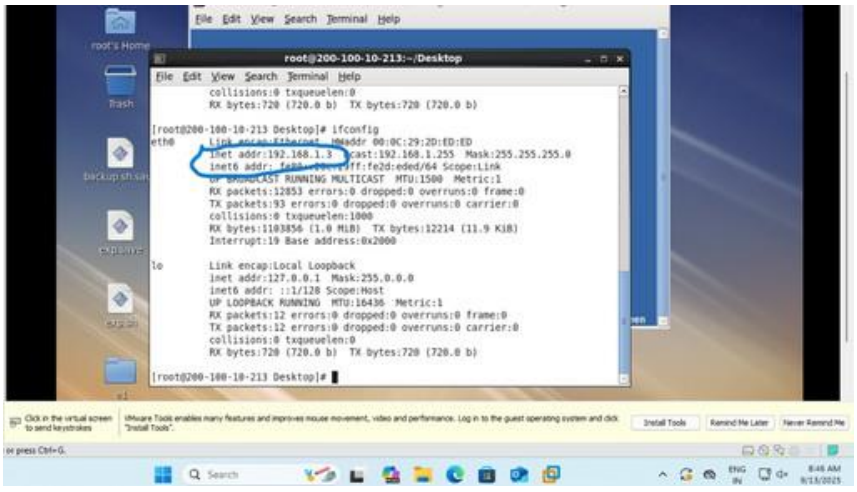
Ok ok wil be displayed Ifconfig

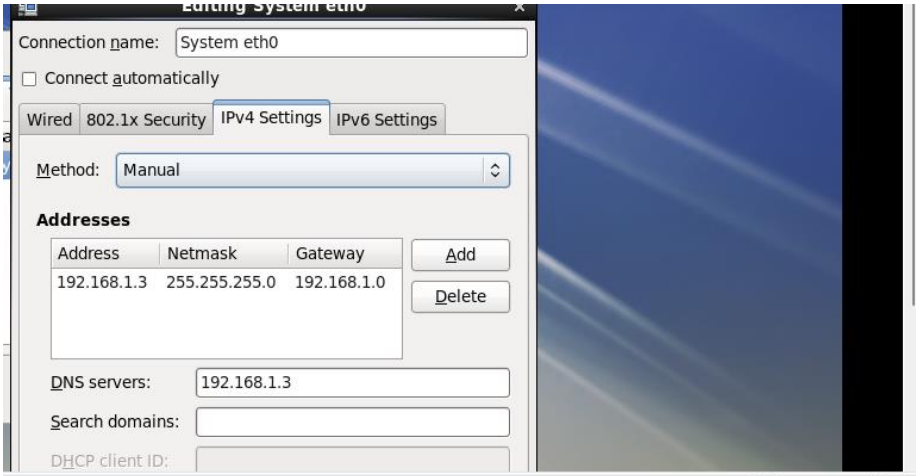
Minimize-> clone machine -> click right click -> settings -> memory adapter -> custom a virtual machine

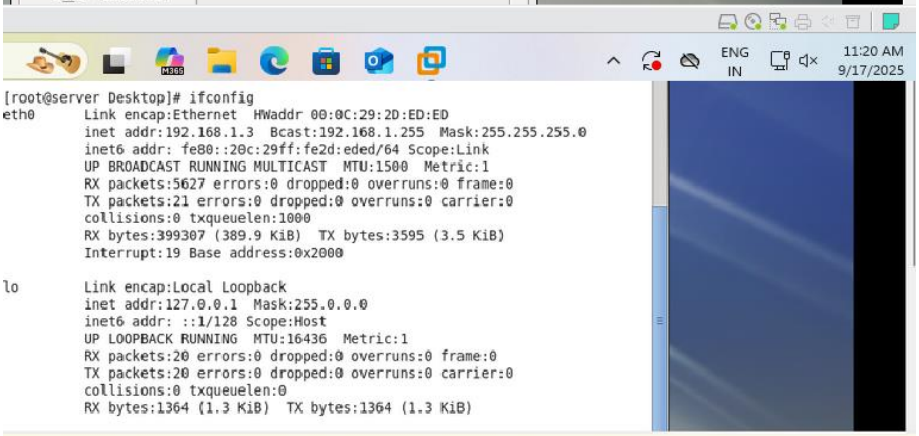
Close

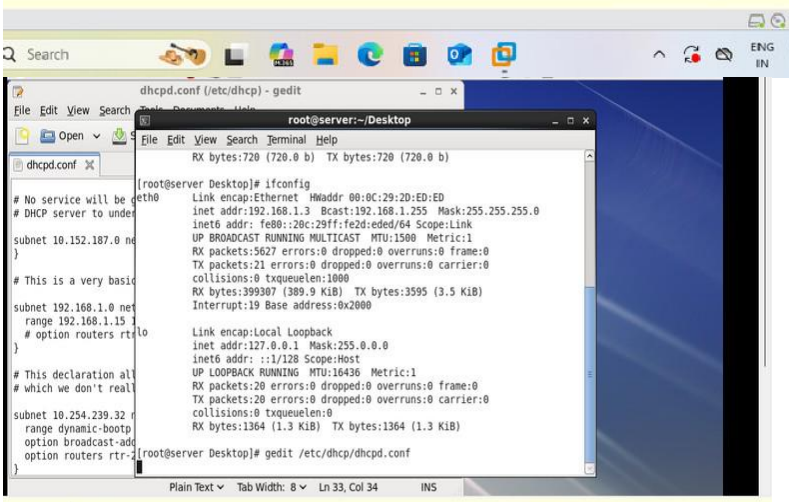
~



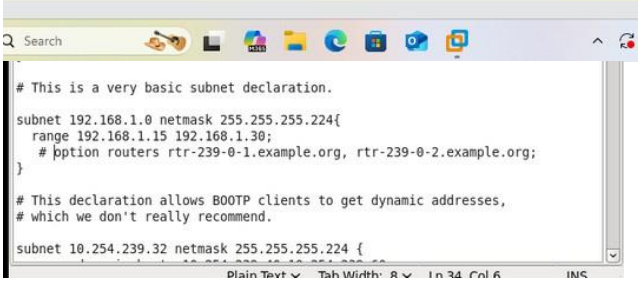



Editing System eth0
Connection name: System eth0
Connect automatically
Wired
802.1x Security
IPv4 Settings
IPv6 Settings
Method: Manual
Addresses
Address
Netmask
Gateway
192.168.1.3
255.255.255.0
192.168.1.0
Add
Delete
DNS servers: 192.168.1.3
Search domains:
DHCP client ID:

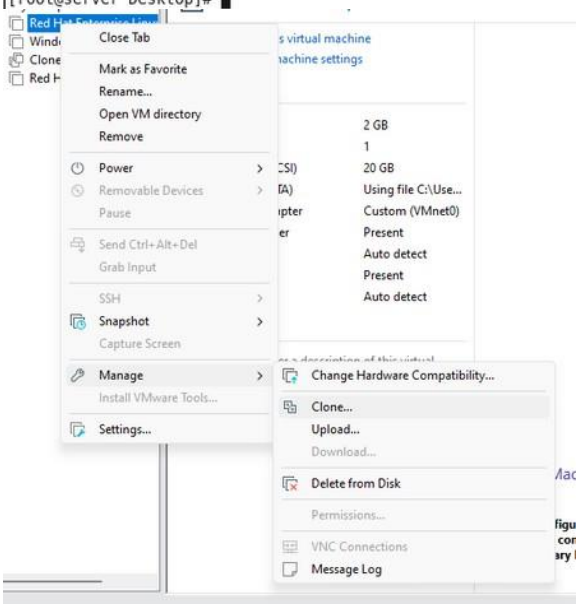

ENG
IN
11:20 AM
9/17/2025
[root@server Desktop]# ifconfig
eth0 Link encap:Ethernet HWaddr 00:0C:29:2D:ED:ED
inet addr:192.168.1.3 Bcast:192.168.1.255 Mask:255.255.255.0
inet6 addr: fe80::20c:29ff:fe2d:eded/64 Scope:Link
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:5627 errors:0 dropped:0 overruns:0 frame:0
TX packets:21 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:399307 (389.9 KiB) TX bytes:3595 (3.5 KiB)
Interrupt:19 Base address:0x2000
lo Link encap:Local Loopback
inet addr:127.0.0.1 Mask:255.0.0.0
inet6 addr: ::1/128 Scope:Host
UP LOOPBACK RUNNING MTU:16436 Metric:1
RX packets:20 errors:0 dropped:0 overruns:0 frame:0
TX packets:20 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:1364 (1.3 KiB) TX bytes:1364 (1.3 KiB)
les many features and improves mouse movement, video and performance. Log in to the guest operating system and click
Install Tools
Remind Me Later
Never Remind Me

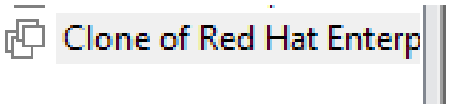

Search
ENG
IN
11:28 AM
9/17/2025
dhcpd.conf (/etc/dhcp) - gedit
File Edit View Search
Open
dhcpd.conf
root@server:~/Desktop
File Edit View Search Terminal Help
RX bytes:720 (720.0 b) TX bytes:720 (720.0 b)
[root@server Desktop]# ifconfig
eth0 Link encap:Ethernet HWaddr 00:0C:29:2D:ED:ED
inet addr:192.168.1.3 Bcast:192.168.1.255 Mask:255.255.255.0
inet6 addr: fe80::20c:29ff:fe2d:eded/64 Scope:Link
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:5627 errors:0 dropped:0 overruns:0 frame:0
TX packets:21 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:399307 (389.9 KiB) TX bytes:3595 (3.5 KiB)
Interrupt:19 Base address:0x2000
lo Link encap:Local Loopback
inet addr:127.0.0.1 Mask:255.0.0.0
inet6 addr: ::1/128 Scope:Host
UP LOOPBACK RUNNING MTU:16436 Metric:1
RX packets:20 errors:0 dropped:0 overruns:0 frame:0
TX packets:20 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:1364 (1.3 KiB) TX bytes:1364 (1.3 KiB)
[root@server Desktop]# gedit /etc/dhcp/dhcpd.conf
Plain Text
Tab Width: 8
Ln 33, Col 34
INS
Install Tools
Remind Me Later
Never Remind Me

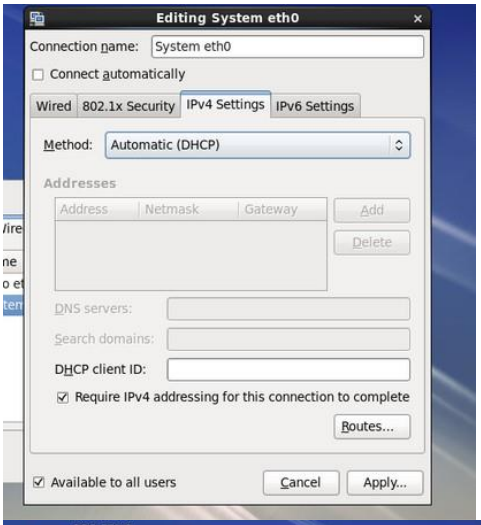

Search
ENG
IN
11:29 AM
9/17/2025
[root@server Desktop]# gedit /etc/dhcp/dhcpd.conf
[root@server Desktop]# cp /usr/share/doc/dhcp-4.1.1/dhcpd.conf.sample /etc/dhcp/dhcpd.conf
cp: overwrite `/etc/dhcp/dhcpd.conf'? y
[root@server Desktop]#
les many features and improves mouse movement, video and performance. Log in to the guest operating system and click
Install Tools
Remind Me Later
Never Remind Me

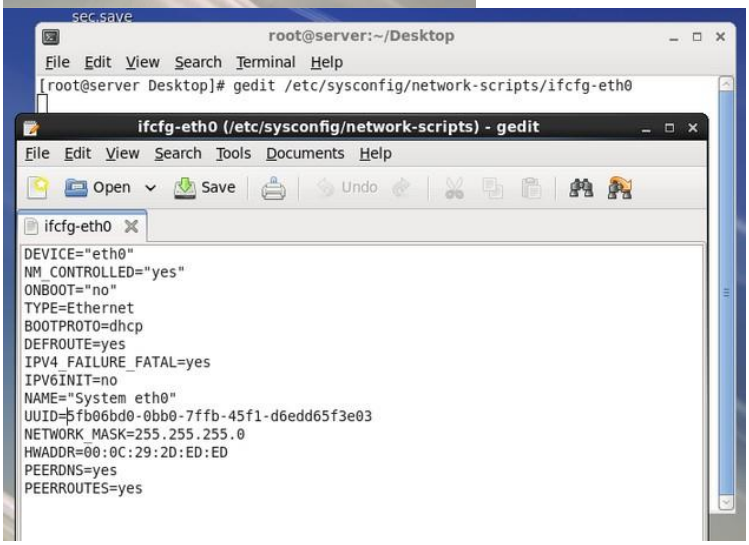

Search
ENG
IN
11:31 AM
9/17/2025
# This is a very basic subnet declaration.
subnet 192.168.1.0 netmask 255.255.255.224{
range 192.168.1.15 192.168.1.30;
# option routers rtr-239-0-1.example.org, rtr-239-0-2.example.org;
}
# This declaration allows BOOTP clients to get dynamic addresses,
# which we don't really recommend.
subnet 10.254.239.32 netmask 255.255.255.224 {
Plain Text
Tab Width: 8
Ln 34, Col 6
INS

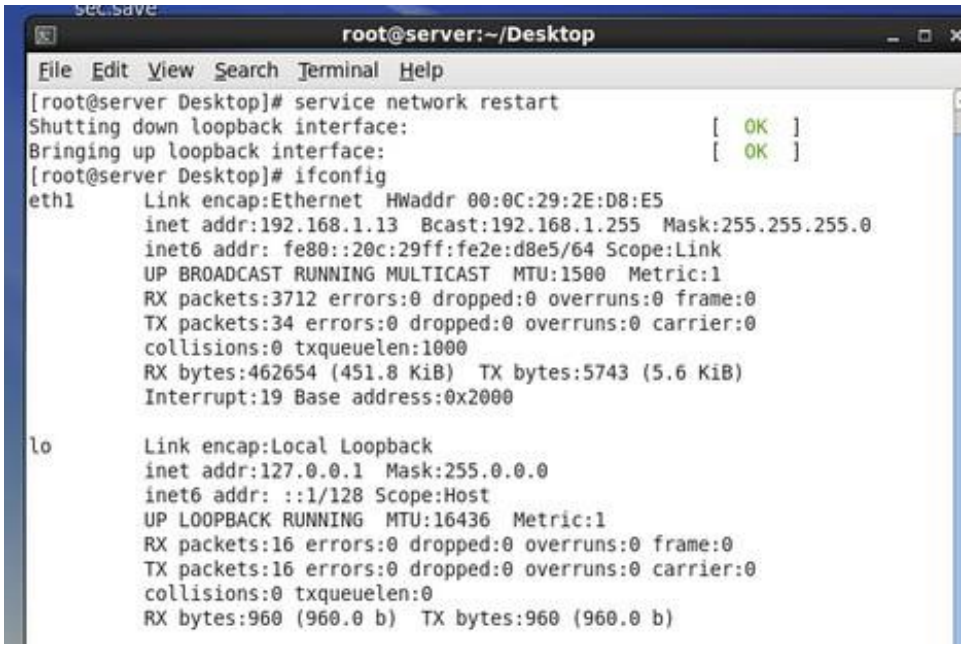
```
[root@server Desktop]# service dhcpd start
Starting dhcpd:                                            [  OK  ]
[root@server Desktop]# service dhcpd restart
Shutting down dhcpd:                                       [  OK  ]
Starting dhcpd:                                            [  OK  ]
[root@server Desktop]# chkconfig dhcpd on
[root@server Desktop]# chkconfig --list  dhcpd
dhcpd           0:off   1:off   2:on    3:on    4:on    5:on    6:off
[root@server Desktop]#
```

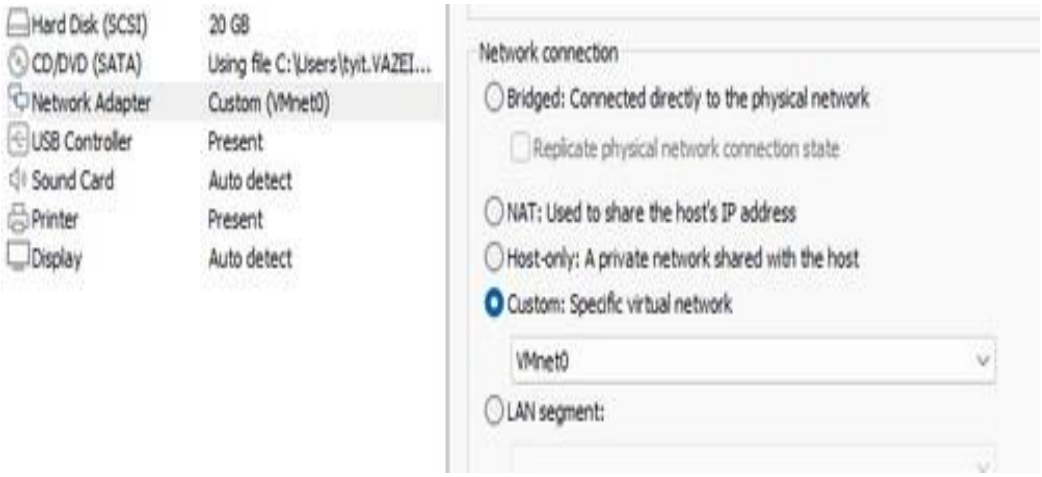





Editing System eth0
Connection name: System eth0
Connect automatically
Wired
802.1x Security
IPv4 Settings
IPv6 Settings
Method: Automatic (DHCP)
Addresses
Address
Netmask
Gateway
Add
Delete
DNS servers:
Search domains:
DHCP client ID:
Require IPv4 addressing for this connection to complete
Routes...
Available to all users
Cancel
Apply...


sec.save
root@server:~/Desktop
File Edit View Search Terminal Help
[root@server Desktop]# gedit /etc/sysconfig/network-scripts/ifcfg-eth0
ifcfg-eth0 (/etc/sysconfig/network-scripts) - gedit
File Edit View Search Tools Documents Help
Open
Save
Undo
ifcfg-eth0
DEVICE="eth0"
NM_CONTROLLED="yes"
ONBOOT="no"
TYPE=Ethernet
BOOTPROTO=dhcp
DEFROUTE=yes
IPV4_FAILURE_FATAL=yes
IPV6INIT=no
NAME="System eth0"
UUID=5fb06bd0-0bb0-7ffb-45f1-d6edd65f3e03
NETWORK_MASK=255.255.255.0
HWADDR=00:0C:29:2D:ED:ED
PEERDNS=yes
PEERROUTES=yes





6) c. Setting Up a Mail Server

Rpm –qa | grep sendmail cd..

cd /etc/media/RHEL…/Packages

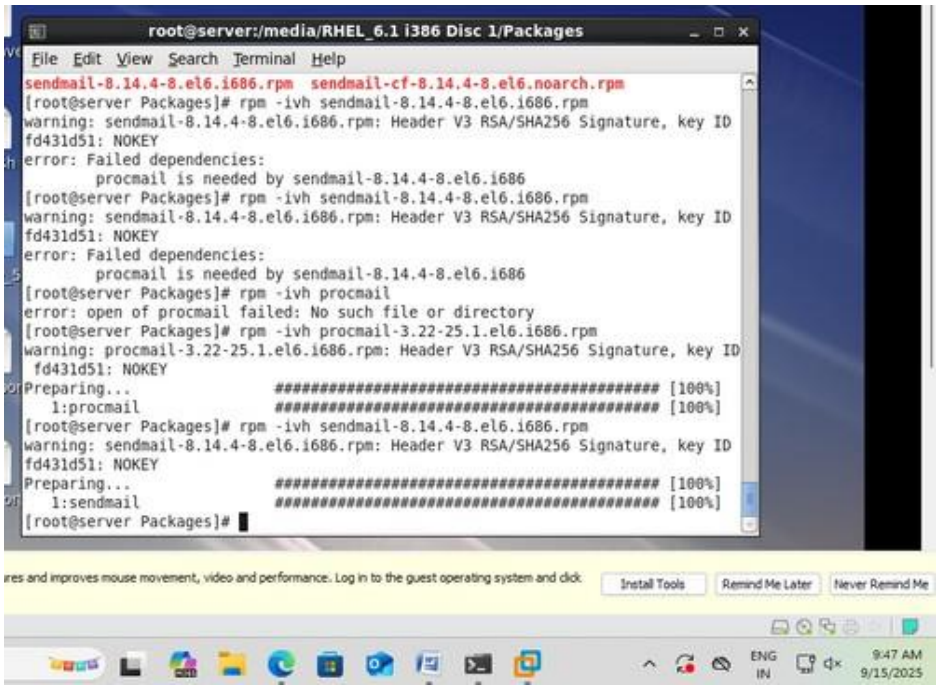
ls sendmail*

rpm –ivh procmail…ctrl+d

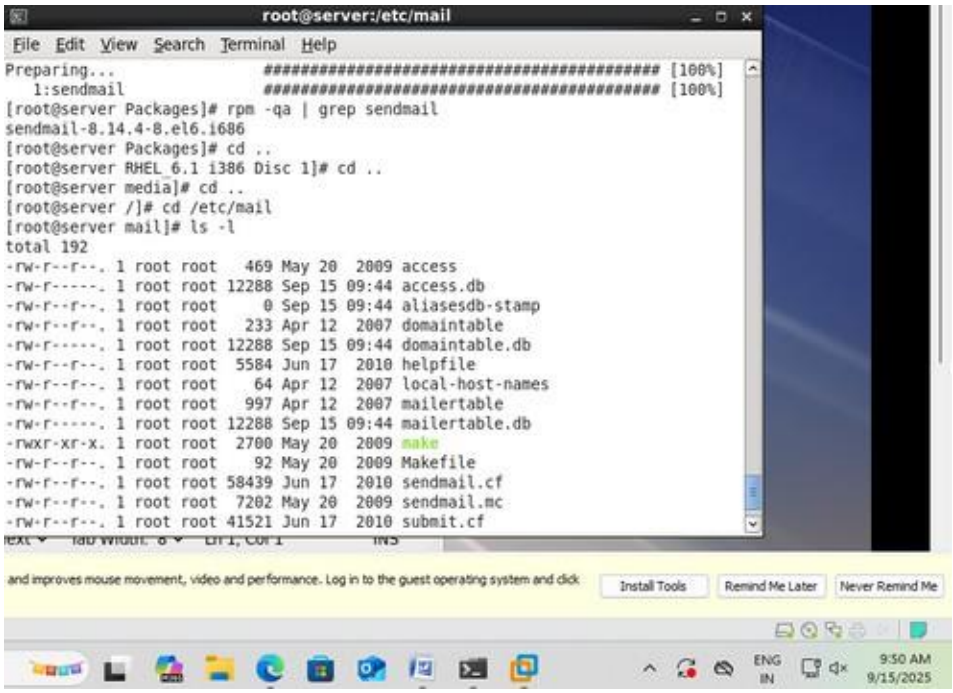
rpm –ivh sendmail…ctrl+d

rpm –ivh sendmail.cf..ctrl+d

(we have to install all three files if it is not available)



rpm –qa | grep sendmail

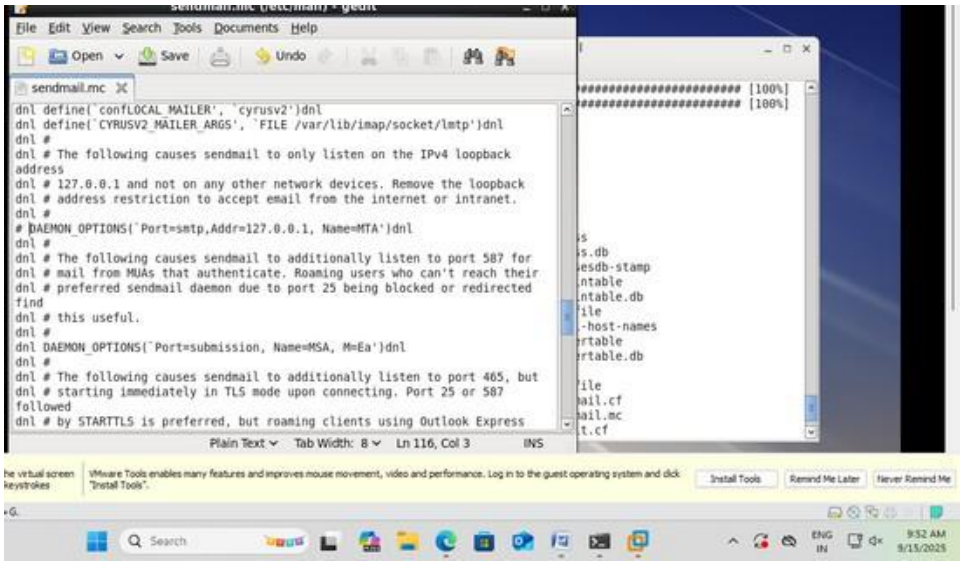


cd ..

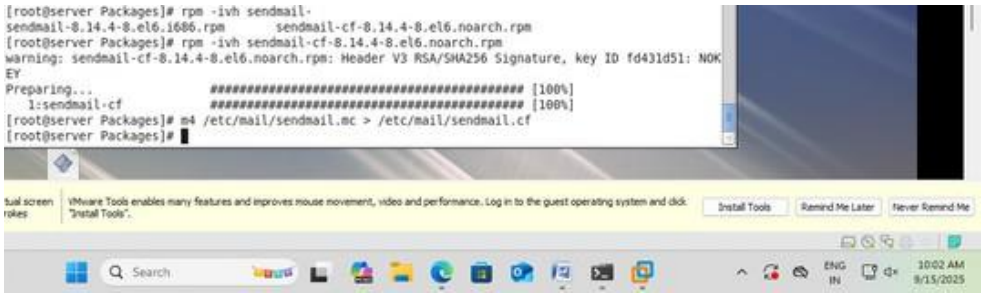
cd /etc/mail

gedit sendmail.mc

(comment line 116)



m4 /etc/mail/sendmail.mc > /etc/mail/sendmail.cf



service named start service sendmail

start dig server.tyit.com

cd /root

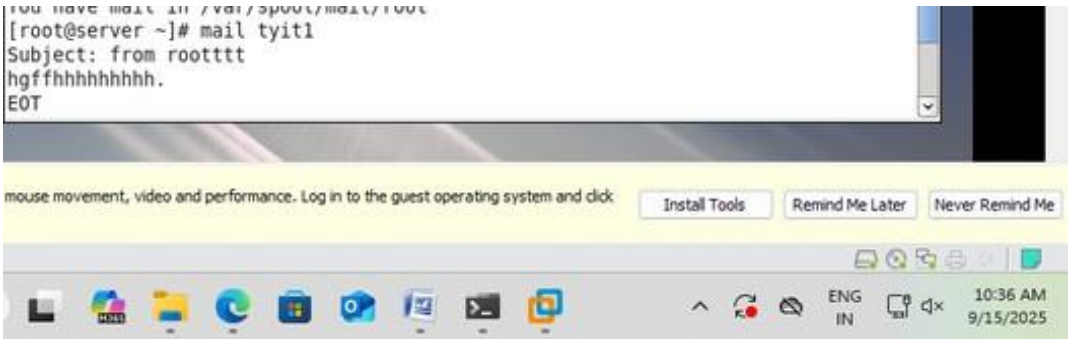
Now we will send the mail from root to tyit1

[root@server /]# mail tyit1

Subject : heiww

Body part.

Cntrl + D x2

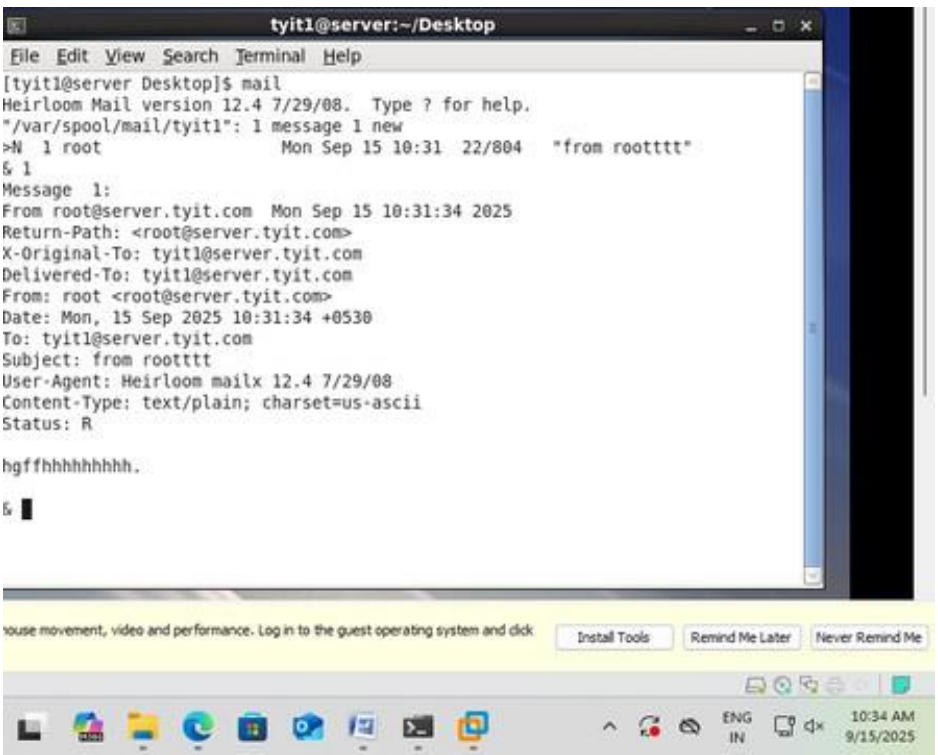


Now , login to tyit1

Open cmd -> Type

mail

the mail sent by the root user is shown here



PRACTICAL 8 : Shell Scripts

8) a Writing shell scripts

1. Write a shell script that will accept directory name if the directory does not exist create a directory create 3 empty files in that directory. If the directory exist list the content of directory

```
read -p "Enter the directory name:"

if [-d "$e1"]; then
  echo "directory '$e1' exists."
  echo "listing contents:"
ls -l "$e1"
else
  echo "directory 'e1' does not exist. Creating now..."
  mkdir "$e1"

  touch "$e1/file1.txt"
  touch "$e1/file2.txt"
  touch "$e1/file3.txt"

  echo "created directory and added 3 empty files:"
  ls -l "$e1"
  fi
```

1 Write a shell script for process management with the following menu:

- List the name currently logged in users
- Check the group which the current user belongs to
- View the active process
- Find the info of process like (-pid,user,owner,pty,etc)

```
File  Edit  View  Search  Terminal  Help
[root@server Desktop]# nano sec.sh
```

```
a  all w/ tty, including other users  -t by tty
g  OBSOLETE -- DO NOT USE             -u by effective user ID (supports names)
r  only running processes             U  processes for specified users
x  processes w/o controlling ttys     t  by tty
********** output format **********  ********** long options **********

PROCESS MANAGEMENT MENU:
1. List currently logged-in users
2. Check groups of current user
3. View active processes
4.Get info of a specific process
5. Exit
Enter your choice[1-5]:
```