



# Ganpat University

॥ विद्यया समाजोत्कर्षः ॥

## Institute of Computer Technology

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## -----PRACTICAL 08-----

**AIM :** Configure the Postfix Package to send and receive mail for domain - ganpatuniversity.Yourname.edu.

Ensure that users are able to send and receive the mail..

» Installing the services :

```

Red Hat
Activities Terminal Feb 10 08:25
root@servera:~
File Edit View Search Terminal Help
[root@workstation student]# ssh root@servera
Activate the web console with: systemctl enable --now cockpit.socket

This system is not registered to Red Hat Insights. See https://cloud.redhat.com/
To register this system, run: insights-client --register

Last login: Fri Sep 11 03:42:59 2020
[root@servera ~]# yum install postfix dovecot mailx
Last metadata expiration check: 0:29:02 ago on Sat 10 Feb 2024 07:55:57 AM EST.
Dependencies resolved.
=====
Package Arch Version Repository Size
=====
Installing:
dovecot x86_64 1:2.3.8-2.el8 rhel-8.2-for-x86_64-appstream-rpms 5.0 M
mailx x86_64 12.5-29.el8 rhel-8.2-for-x86_64-baseos-rpms 257 k
postfix x86_64 2:3.3.1-12.el8 rhel-8.2-for-x86_64-baseos-rpms 1.5 M
Installing dependencies:
clucene-core x86_64 2.3.3.4-31.20130812.e8e3d20git.el8 rhel-8.2-for-x86_64-appstream-rpms 590 k
libicu x86_64 60.3.2.el8_1 rhel-8.2-for-x86_64-baseos-rpms 8.8 M
Transaction Summary
=====
Install 5 Packages
Total download size: 16 M
Installed size: 55 M
Is this ok [y/N]: y
  
```

**command:** `ssh student@servera`

**command:** `yum install postfix dovecot mailx`

## » Enabling the installed services :

```
[root@servera ~]# systemctl enable postfix
Created symlink /etc/systemd/system/multi-user.target.wants/postfix.service → /usr/lib/systemd/system/postfix.service.
[root@servera ~]# systemctl start postfix
[root@servera ~]# systemctl enable dovecot
Created symlink /etc/systemd/system/multi-user.target.wants/dovecot.service → /usr/lib/systemd/system/dovecot.service.
[root@servera ~]# systemctl start dovecot
[root@servera ~]#
```

### commands :

**systemctl enable postfix**

**systemctl start postfix**

**systemctl enable dovecot**

**systemctl start dovecot**

## » Create two users and set the password, here I have redhat0000 as my password for both user :

```
[root@servera ~]# sudo useradd tushar
[root@servera ~]# sudo useradd james
[root@servera ~]#
```

```
[root@servera ~]# sudo passwd tushar
Changing password for user tushar.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@servera ~]# sudo passwd james
Changing password for user james.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@servera ~]#
```

### commands :

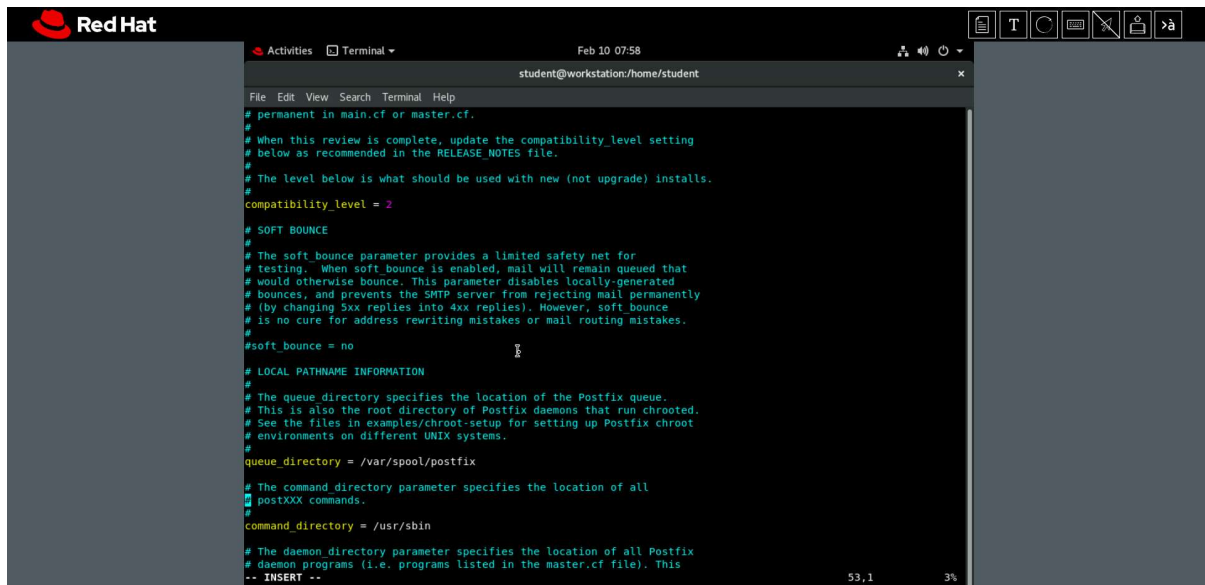
**sudo useradd tushar**

**sudo useradd james**

**sudo passwd tushar**

**sudo passwd james**

## » configuring our postfix :



```

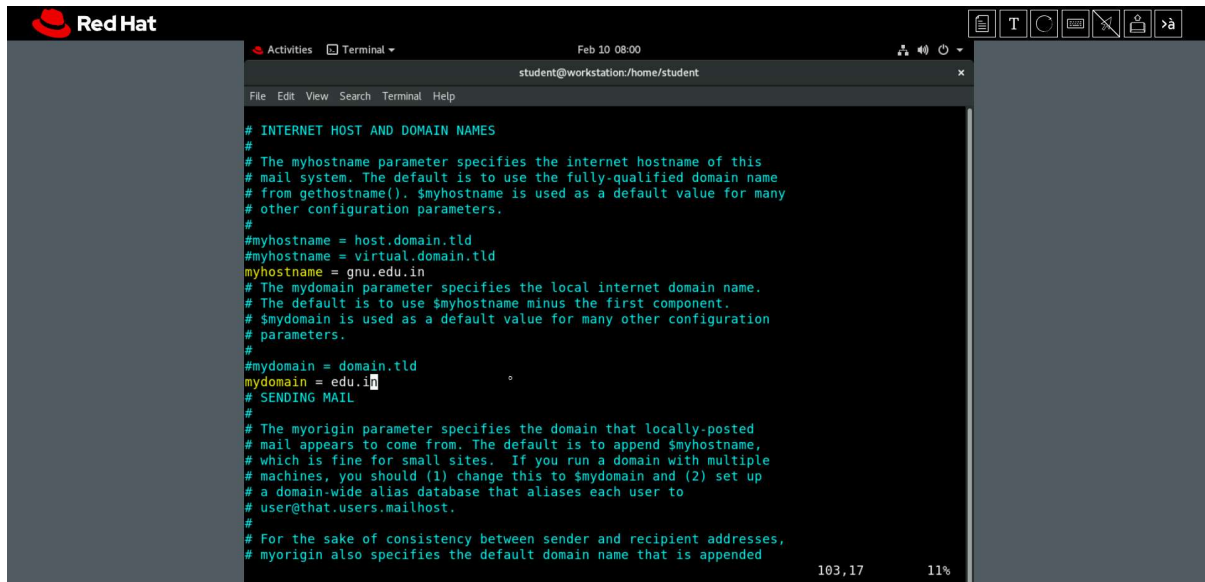
Red Hat
Activities Terminal Feb 10 07:58 student@workstation/home/student
File Edit View Search Terminal Help
# permanent in main.cf or master.cf.
#
# When this review is complete, update the compatibility_level setting
# below as recommended in the RELEASE_NOTES file.
#
# The level below is what should be used with new (not upgrade) installs.
#
compatibility_level = 2
#
# SOFT BOUNCE
#
# The soft_bounce parameter provides a limited safety net for
# testing. When soft_bounce is enabled, mail will remain queued that
# would otherwise bounce. This parameter disables locally-generated
# bounces, and prevents the SMTP server from rejecting mail permanently
# (by changing 5xx replies into 4xx replies). However, soft bounce
# is no cure for address rewriting mistakes or mail routing mistakes.
#
soft_bounce = no
#
# LOCAL PATHNAME INFORMATION
#
# The queue_directory specifies the location of the Postfix queue.
# This is also the root directory of Postfix daemons that run chrooted.
# See the files in examples/chroot-setup for setting up Postfix chroot
# environments on different UNIX systems.
#
queue_directory = /var/spool/postfix
#
# The command_directory parameter specifies the location of all
# postXXX commands.
#
command_directory = /usr/sbin
#
# The daemon_directory parameter specifies the location of all Postfix
# daemon programs (i.e. programs listed in the master.cf file). This
# -- INSERT --
53,1 3%

```

**commands :**

**`vim /etc/postfix/main.cf`**


» **Setting up the host name and domain, usually domain name is going to be the same as the last part of hostname, which is edu.in in this case :**



```

Red Hat
Activities Terminal Feb 10 08:00 student@workstation/home/student
File Edit View Search Terminal Help
# INTERNET HOST AND DOMAIN NAMES
#
# The myhostname parameter specifies the internet hostname of this
# mail system. The default is to use the fully-qualified domain name
# from gethostname(). $myhostname is used as a default value for many
# other configuration parameters.
#
myhostname = host.domain.tld
#myhostname = virtual.domain.tld
myhostname = gnu.edu.in
#
# The mydomain parameter specifies the local internet domain name.
# The default is to use $myhostname minus the first component.
# $mydomain is used as a default value for many other configuration
# parameters.
#
mydomain = domain.tld
mydomain = edu.in
# SENDING MAIL
#
# The myorigin parameter specifies the domain that locally-posted
# mail appears to come from. The default is to append $myhostname,
# which is fine for small sites. If you run a domain with multiple
# machines, you should (1) change this to $mydomain and (2) set up
# a domain-wide alias database that aliases each user to
# user@that.users.mailhost.
#
# For the sake of consistency between sender and recipient addresses,
# myorigin also specifies the default domain name that is appended
103,17 11%

```


**Red Hat**

Activities

Terminal

Feb 10 08:02

student@workstation:/home/student

File Edit View Search Terminal Help

```


# DELIVERY TO MAILBOX
#
# The home_mailbox parameter specifies the optional pathname of a
# mailbox file relative to a user's home directory. The default
# mailbox file is /var/spool/mail/user or /var/mail/user. Specify
# "Maildir/" for qmail-style delivery (the / is required).
#
#home_mailbox = Mailbox
#home_mailbox = Maildir/
home_mailbox = Maildir/

# The mail_spool_directory parameter specifies the directory where
# UNIX-style mailboxes are kept. The default setting depends on the
# system type.
#
#mail_spool_directory = /var/mail
#mail_spool_directory = /var/spool/mail

# The mailbox_command parameter specifies the optional external
# command to use instead of mailbox delivery. The command is run as
# the recipient with proper HOME, SHELL and LOGNAME environment settings.
# Exception: delivery for root is done as $default_user.
#
# Other environment variables of interest: USER (recipient username),
# EXTENSION (address extension), DOMAIN (domain part of address),
# and LOCAL (the address localpart).
#
# Unlike other Postfix configuration parameters, the mailbox_command
-- INSERT --

```

439,24 60%


**Red Hat**

Activities

Terminal

Feb 10 08:06

student@workstation:/home/student

File Edit View Search Terminal Help

```


# The inet_interfaces parameter specifies the network interface
# addresses that this mail system receives mail on. By default,
# the software claims all active interfaces on the machine. The
# parameter also controls delivery of mail to user@[ip.address].
#
# See also the proxy_interfaces parameter, for network addresses that
# are forwarded to us via a proxy or network address translator.
#
# Note: you need to stop/start Postfix when this parameter changes.
#
#inet_interfaces = all
#inet_interfaces = $myhostname
#inet_interfaces = $myhostname, localhost
inet_interfaces = localhost

# Enable IPv4, and IPv6 if supported
inet_protocols = all

# The proxy_interfaces parameter specifies the network interface
# addresses that this mail system receives mail on by way of a
# proxy or network address translation unit. This setting extends
# the address list specified with the inet_interfaces parameter.
#
# You must specify your proxy/NAT addresses when your system is a
# backup MX host for other domains, otherwise mail delivery loops
# will happen when the primary MX host is down.
#
#proxy_interfaces =
#proxy_interfaces = 1.2.3.4
-- INSERT --

```

145,24 17%


**Red Hat**

Activities

Terminal

Feb 10 08:06

student@workstation:/home/student

File Edit View Search Terminal Help

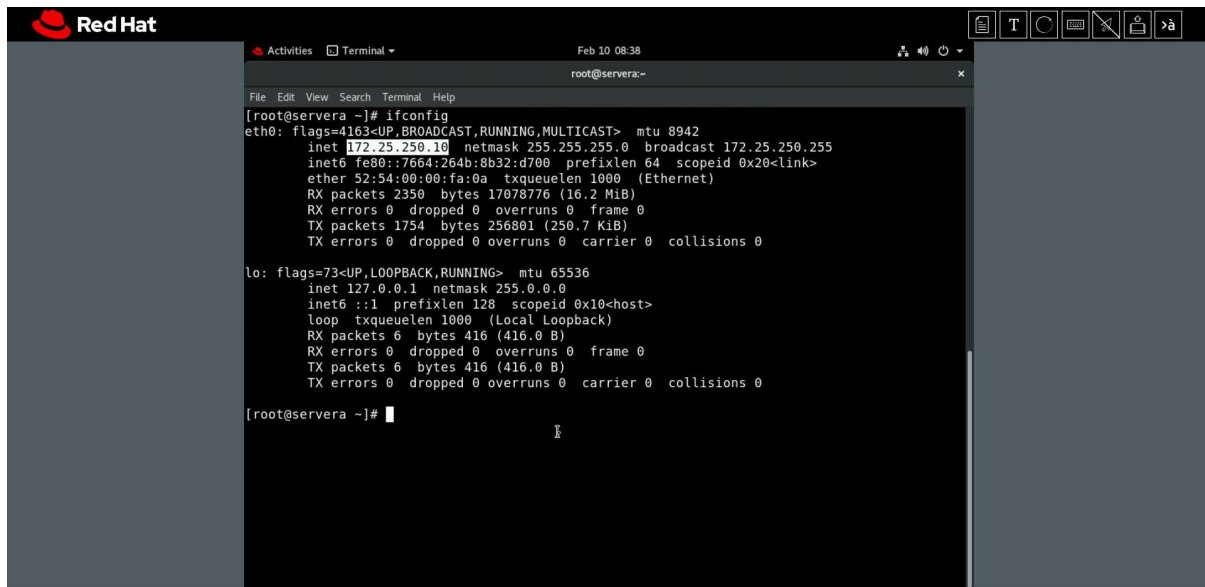
```

# specified elsewhere (see VIRTUAL_README).
#
# Do not specify the names of domains that this machine is backup MX
# host for. Specify those names via the relay_domains settings for
# the SMTP server, or use permit_mx_backup if you are lazy (see
# STANDARD_CONFIGURATION_README).
#
# The local machine is always the final destination for mail addressed
# to user@[the.net.work.address] of an interface that the mail system
# receives mail on (see the inet_interfaces parameter).
#
# Specify a list of host or domain names, /file/name or type:table
# patterns, separated by commas and/or whitespace. A /file/name
# pattern is replaced by its contents; a type:table is matched when
# a name matches a lookup key (the right-hand side is ignored).
# Continue long lines by starting the next line with whitespace.
#
# See also below, section "REJECTING MAIL FOR UNKNOWN LOCAL USERS".
#
mydestination = $myhostname, localhost.$mydomain, localhost
#mydestination = $myhostname, localhost.$mydomain, localhost, $mydomain
#mydestination = $myhostname, localhost.$mydomain, localhost, $mydomain,
# mail.$mydomain, www.$mydomain, ftp.$mydomain
#
# REJECTING MAIL FOR UNKNOWN LOCAL USERS
#
# The local_recipient_maps parameter specifies optional lookup tables
# with all names or addresses of users that are local with respect
# to $mydestination, $inet_interfaces or $proxy_interfaces.
-- INSERT --

```

187,1 22%

## » checking out if using command ipconfig :



```

[root@servera ~]# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 8942
    inet 172.25.250.10  netmask 255.255.255.0  broadcast 172.25.250.255
    inet6 fe80::7664:264b:8b32:d700  prefixlen 64  scopeid 0x20<link>
    ether 52:54:00:00:fa:0a  txqueuelen 1000  (Ethernet)
    RX packets 2350  bytes 17078776 (16.2 MiB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 1754  bytes 256801 (250.7 KiB)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

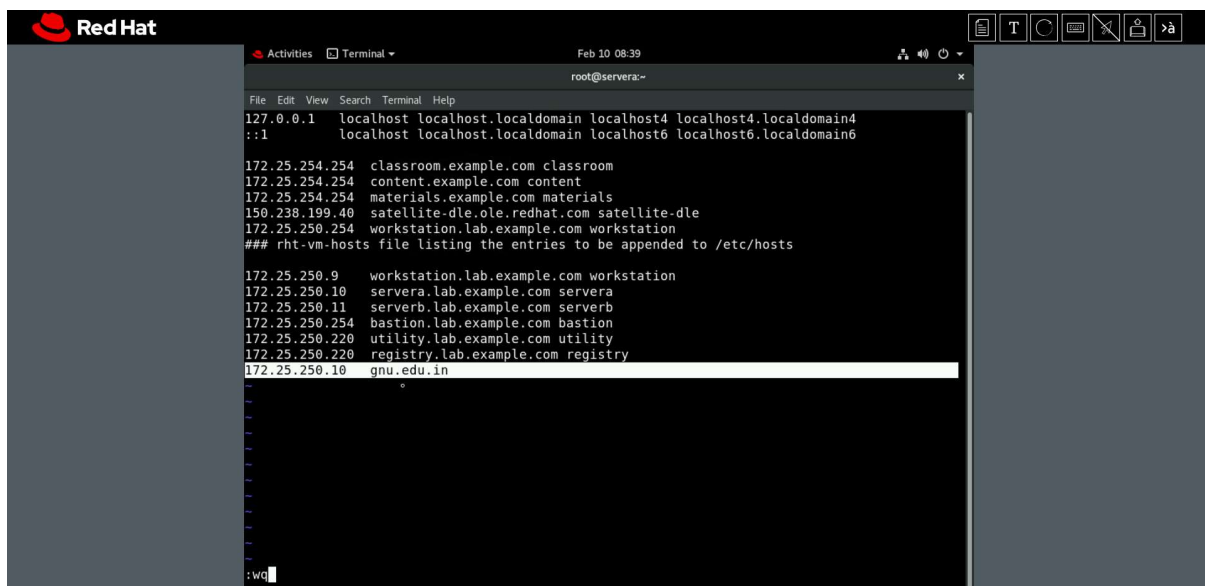
lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
    inet 127.0.0.1  netmask 255.0.0.0
    inet6 ::1  prefixlen 128  scopeid 0x10<host>
    loop txqueuelen 1000  (Local Loopback)
    RX packets 6  bytes 416 (416.0 B)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 6  bytes 416 (416.0 B)
    TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

[root@servera ~]#

```

**command:** `ifconfig`

## » Entering the IP address to directory /etc/hosts :



```

127.0.0.1    localhost localhost.localdomain localhost4 localhost4.localdomain4
::1         localhost localhost.localdomain localhost6 localhost6.localdomain6

172.25.254.254  classroom.example.com classroom
172.25.254.254  content.example.com content
172.25.254.254  materials.example.com materials
150.238.199.40  satellite-dle.ole.redhat.com satellite-dle
172.25.250.254  workstation.lab.example.com workstation
## rht-vm-hosts file listing the entries to be appended to /etc/hosts

172.25.250.9    workstation.lab.example.com workstation
172.25.250.10   servera.lab.example.com servera
172.25.250.11   serverb.lab.example.com serverb
172.25.250.254  bastion.lab.example.com bastion
172.25.250.220  utility.lab.example.com utility
172.25.250.220  registry.lab.example.com registry
172.25.250.10   gnu.edu.in

```

**command:** `vim /etc/hosts`

## » Restarting our both services :

```

[root@servera ~]# systemctl restart postfix
[root@servera ~]# systemctl restart dovecot
[root@servera ~]#

```

**commands :**



```
systemctl restart postfix
```

```
systemctl restart dovecot
```

» Switching to user tushar and then sending mail to james :

```
[root@servera ~]# su tushar
[tushar@servera root]$ sendmail james@gnu.edu.in
this mail sent by tushar
.
[tushar@servera root]$
```

**commands :**

```
su tushar
```

```
sendmail james@gnu.edu.in
```

» Switching to james and checking is we have received the mail or not:

```

Red Hat
Activities Terminal Feb 10 08:49 james@servera:~/Maildir/new
File Edit View Search Terminal Help
[tushar@servera root]$ su james
Password:
[james@servera root]$ ls
ls: cannot open directory '.': Permission denied
[james@servera root]$ cd james
bash: cd: james: Permission denied
[james@servera root]$ cd /home
[james@servera home]$ cd james
[james@servera ~]$ ls
Maildir
[james@servera ~]$ cd Maildir/
[james@servera Maildir]$ ls
cur new tmp
[james@servera Maildir]$ cd new/
[james@servera new]$ ls
1707572749.Vfc03I10446bfM235294.servera.lab.example.com
[james@servera new]$

```

```

[james@servera new]$ cat 1707572749.Vfc03I10446bfM235294.servera.lab.example.com
Return-Path: <tushar@gnu.edu.in>
X-Original-To: james@gnu.edu.in
Delivered-To: james@gnu.edu.in
Received: by gnu.edu.in (Postfix, from userid 1002)
        id 3372D9F8DD; Sat, 10 Feb 2024 08:45:49 -0500 (EST)
Message-Id: <20240210134549.3372D9F8DD@gnu.edu.in>
Date: Sat, 10 Feb 2024 08:42:52 -0500 (EST)
From: tushar@gnu.edu.in

this mail sent by tushar
[james@servera new]$

```