DevOps Pro

SUNBMITTED BY

MANISH KUMAR
✉ mmaurya694@gmail.com
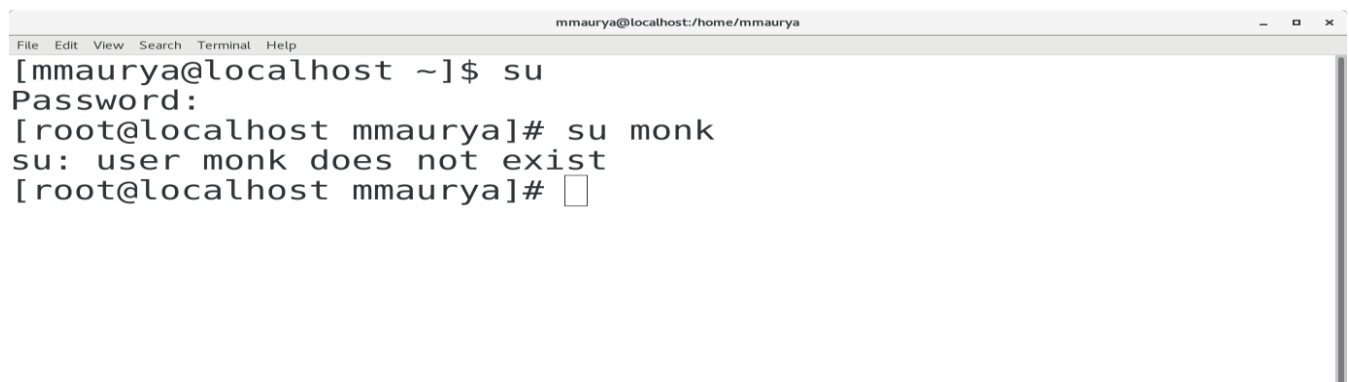
UNDER THE GUIDANCE OF

Hitesh Choudhary & Saksham Choudhary

Assignment-1

Connect and disconnect with login Access

- What happens when you login a non-existent users or username?
  - Provide Screenshot and What you understand, explain in short brief?

Answer : a failed login attempt against a non-existent user will always fail since there is no password to match. This could show attempts to enumerate users or it may show attempts to profile an application.
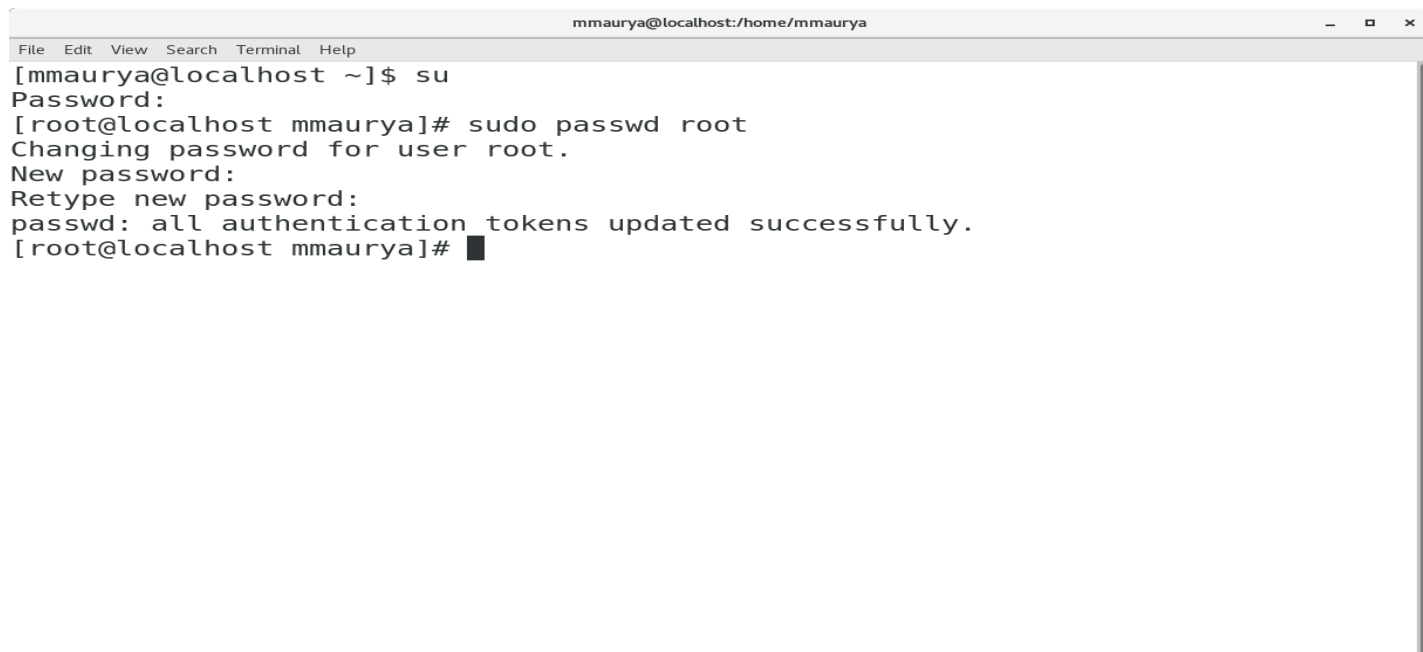


```
mmaurya@localhost:/home/mmaurya                                    _  □  ×
File  Edit  View  Search  Terminal  Help
[mmaurya@localhost ~]$ su
Password:
[root@localhost mmaurya]# su monk
su: user monk does not exist
[root@localhost mmaurya]# 
```

Assignment-2

Password changing

- **Login into your account and then change password?**

  Change your password into IneuR0n#42 and hit the Enter key

```
                        mmaurya@localhost:/home/mmaurya                    _  □  ×
File  Edit  View  Search  Terminal  Help
[mmaurya@localhost ~]$ su
Password:
[root@localhost mmaurya]# sudo passwd root
Changing password for user root.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost mmaurya]# ▮
```
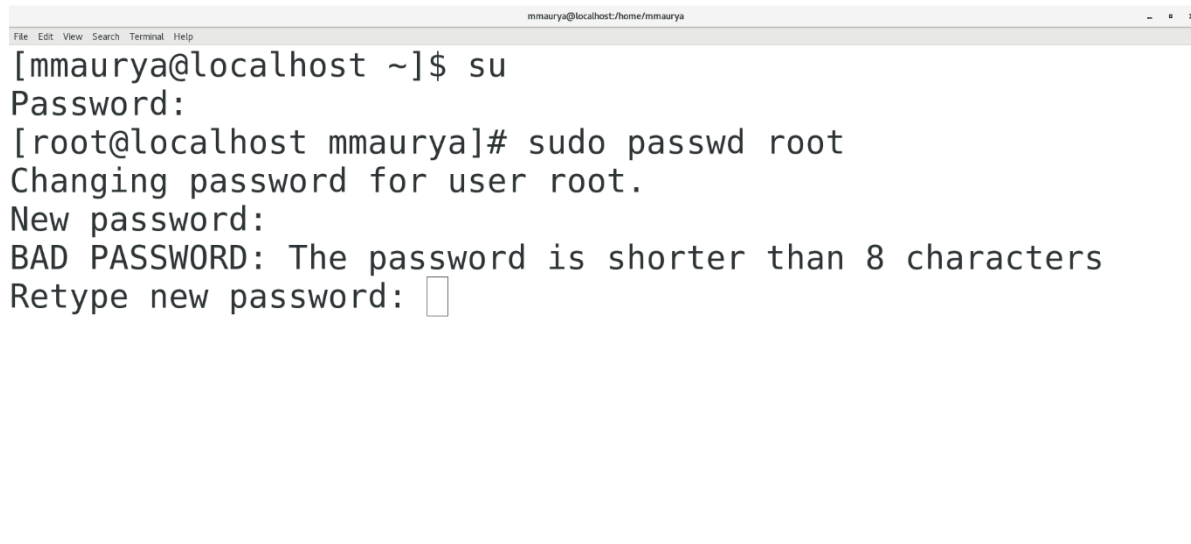
▪ Explain what happen and give screenshot?

Ans In Linux- operating systems apply the passwd commands for changing the   password of the user. The ***passwd*** command is used for updating the authentication password

Try again to change password but use like password 1234 or abcd

▪ Explain what happen and give screenshot?

When I use like use like password 1234 or abcd then we have got some message in Centos terminal

Overcome to these type message

The passwords must a combination of 10 to 20 characters containing multiple characters from all of the below sets as a normal guideline:
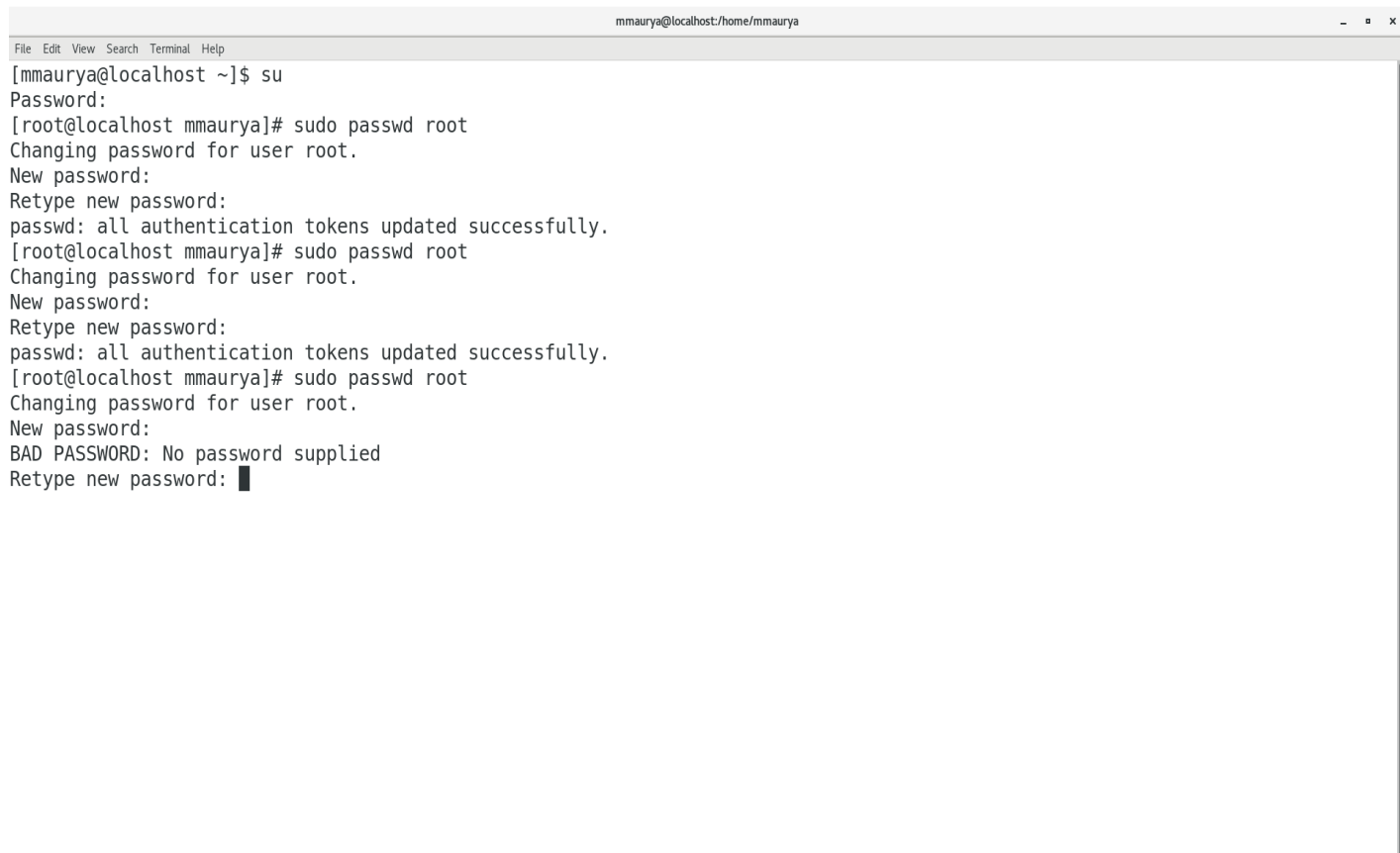
Upper case alphabetics

Lower case alphabetics

Digits 0 to 9

Special characters or punctuation marks

- **Try again to change password but now don't use any password just hit Enter key**

  Explain what happen and give screenshot?


```
                                    mmaurya@localhost:/home/mmaurya                                    _  □  ✕
File  Edit  View  Search  Terminal  Help
[mmaurya@localhost ~]$ su
Password:
[root@localhost mmaurya]# sudo passwd root
Changing password for user root.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost mmaurya]# sudo passwd root
Changing password for user root.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost mmaurya]# sudo passwd root
Changing password for user root.
New password:
BAD PASSWORD: No password supplied
Retype new password: █
```

Assignment-3

Working with Directories

- **Enter the command cd / and then ls and then hit Enter ke**y

    Take screenshot and explain what output we got?

- Enter the command now cd /home and then hit Enter key

    Do ls, provide screenshot and explain what is /home directory used for?

- Enter the command now cd /home and then hit Enter key

Do ls, provide screenshot and explain what is /home directory   used for?

home directory is the directory or folder commonly given to a user on a network or Linux variant operating system. With the home directory the user can store all their personal information, files, login scripts, and user information. With a Linux web server, the home directory is also where you'd find the public_html directory containing all files used for a website.

- **_Enter cd .. and hit Enter key [Note: here we have space aer cd then use double dot]_**
  - Check what happen and give screenshot?

Ans   If you type cd .. you will change into the current directory

Suppose we are currently in the /usr/local/share directory. To switch to the /usr/local directory (one level up from the current directory)

- **Now enter cd /var/www/html and then type cd and hit Enter key**

  Explain what happened and give a screenshot.

  Ans   the error showing is this:

  bash: cd: /var/www/html/   : No such file or directory

File Edit View Search Terminal Help

```
[mmaurya@localhost var]$ cd /
[mmaurya@localhost /]$ cd /home
[mmaurya@localhost home]$ cd ..
[mmaurya@localhost /]$ cd /var/www/html/
bash: cd: /var/www/html/: No such file or directory
[mmaurya@localhost /]$
```

- **Now type cd /root and then hit Enter key**

o Do ls, check any output we have on screen if yes then take screenshot?

```
[mmaurya@localhost /]$ cd
[mmaurya@localhost ~]$ ls
Desktop   Documents   Downloads   Music   Pictures   Public   Templates   Videos
[mmaurya@localhost ~]$ cd /home
[mmaurya@localhost home]$ cd ..
[mmaurya@localhost /]$ cd /var/www/html
bash: cd: /var/www/html: No such file or directory
[mmaurya@localhost /]$ cd /var/www/html cd
bash: cd: /var/www/html: No such file or directory
[mmaurya@localhost /]$ cd /root
bash: cd: /root: Permission denied
[mmaurya@localhost /]$ ls
bin    dev   home   lib64   mnt   proc   run    srv   tmp   var
boot   etc   lib    media   opt   root   sbin   sys   usr
[mmaurya@localhost /]$ 
```

Assignment-4

Working with File Listing

- **Go to cd /etc and type ls**
- o Take screenshot and explain what files you have been seeing?

This command `cd /etc` changes directory to the directory specified after the slash `/`. The `/etc` refers to a folder in the root called `etc`. If the Linux user was inside the `/etc` folder, typing `cd /` would bring the user to the root.

File Edit View Search Terminal Help

```
[mmaurya@localhost ~]$ cd /etc
[mmaurya@localhost etc]$ ls
abrt                       hosts.allow               profile
adjtime                    hosts.deny                profile.d
aliases                    hp                        protocols
aliases.db                 idmapd.conf               pulse
alsa                       init.d                    purple
alternatives               inittab                   python
anacrontab                 inputrc                   qemu-ga
asound.conf                iproute2                  qemu-kvm
at.deny                    ipsec.conf                radvd.conf
audisp                     ipsec.d                   ras
audit                      ipsec.secrets             rc0.d
avahi                      iscsi                     rc1.d
bash_completion.d          issue                     rc2.d
bashrc                     issue.net                 rc3.d
binfmt.d                   java                      rc4.d
bluetooth                  jvm                       rc5.d
brltty                     jvm-commmon               rc6.d
brltty.conf                kdump.conf                rc.d
centos-release             kernel                    rc.local
centos-release-upstream    krb5.conf                 rdma
chkconfig.d                krb5.conf.d               redhat-release
chrony.conf                ksmtuned.conf             request-key.conf
chrony.keys                ld.so.cache               request-key.d
cifs-utils                 ld.so.conf                resolv.conf
cron.d                     ld.so.conf.d              rpc
cron.daily                 libaudit.conf             rpm
cron.deny                  libblockdev               rsyncd.conf
cron.hourly                libibverbs.d              rsyslog.conf
cron.monthly               libnl                     rsyslog.d
crontab                    libpaper.d                rwtab
       ..                         ...                       .
```
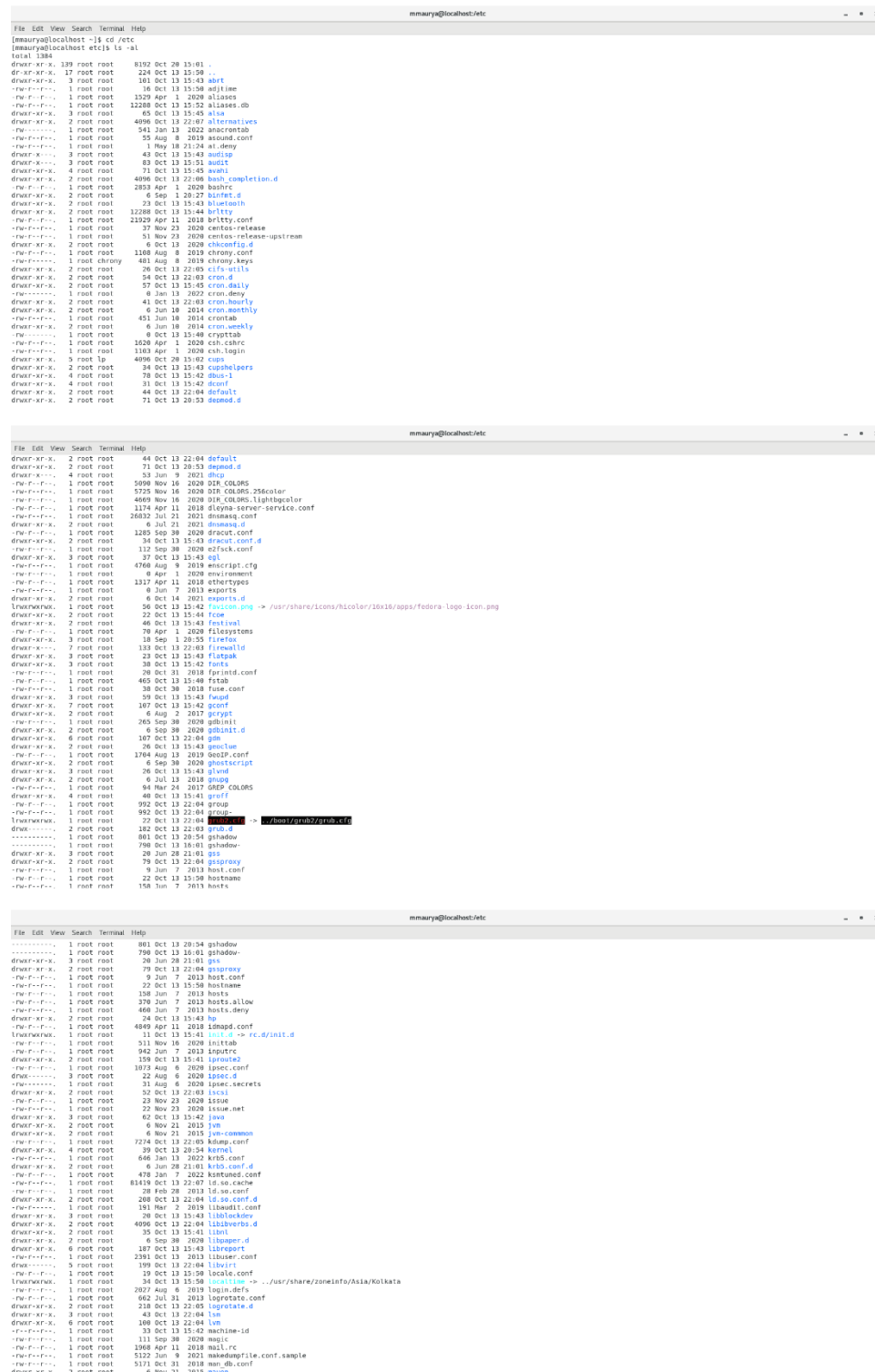
File Edit View Search Terminal Help

```
cron.weekly                libreport                 rwtab.d
crypttab                   libuser.conf              samba
csh.cshrc                  libvirt                   sane.d
csh.login                  locale.conf               sasl2
cups                       localtime                 scl
cupshelpers                login.defs                securetty
dbus-1                     logrotate.conf            security
dconf                      logrotate.d               selinux
default                    lsm                       services
depmod.d                   lvm                       sestatus.conf
dhcp                       machine-id                setroubleshoot
DIR_COLORS                 magic                     setuptool.d
DIR_COLORS.256color        mail.rc                   sgml
DIR_COLORS.lightbgcolor    makedumpfile.conf.sample  shadow
dleyna-server-service.conf man_db.conf               shadow-
dnsmasq.conf               maven                     shells
dnsmasq.d                  mcelog                    skel
dracut.conf                mke2fs.conf               smartmontools
dracut.conf.d              modprobe.d                sos.conf
e2fsck.conf                modules-load.d            speech-dispatcher
egl                        motd                      ssh
enscript.cfg               mtab                      ssl
environment                mtools.conf               statetab
ethertypes                 multipath                 statetab.d
exports                    my.cnf                    subgid
exports.d                  my.cnf.d                  subuid
favicon.png                nanorc                    sudo.conf
fcoe                       ndctl                     sudoers
festival                   netconfig                 sudoers.d
filesystems                NetworkManager            sudo-ldap.conf
firefox                    networks                  sysconfig
firewalld                  nfs.conf                  sysctl.conf
```

File Edit View Search Terminal Help

```
filesystems                NetworkManager            sudo-ldap.conf
firefox                    networks                  sysconfig
firewalld                  nfs.conf                  sysctl.conf
flatpak                    nfsmount.conf             sysctl.d
fonts                      nsswitch.conf             systemd
fprintd.conf               nsswitch.conf.bak         system-release
fstab                      ntp                       system-release-cpe
fuse.conf                  numad.conf                tcsd.conf
fwupd                      oddjob                    terminfo
gconf                      oddjobd.conf              tmpfiles.d
gcrypt                     oddjobd.conf.d            trusted-key.key
gdbinit                    openldap                  tuned
gdbinit.d                  opt                       udev
gdm                        os-release                udisks2
geoclue                    PackageKit                unbound
GeoIP.conf                 pam.d                     updatedb.conf
ghostscript                papersize                 UPower
glvnd                      passwd                    usb_modeswitch.conf
gnupg                      passwd-                   vconsole.conf
GREP_COLORS                pbm2ppa.conf              vimrc
groff                      pinforc                   virc
group                      pkcs11                    vmware-tools
group-                     pki                       wgetrc
grub2.cfg                  plymouth                  wpa_supplicant
grub.d                     pm                        wvdial.conf
gshadow                    pnm2ppa.conf              X11
gshadow-                   polkit-1                  xdg
gss                        popt.d                    xinetd.d
gssproxy                   postfix                   xml
host.conf                  ppp                       yum
hostname                   prelink.conf.d            yum.conf
hosts                      printcap                  yum.repos.d
```

o   Take screenshot and explain what different output you found compare to previous command you used?

Then type ls -al and hit Enter key

o Take screenshot and explain what new file or directory you found?

```
File  Edit  View  Search  Terminal  Help
drwxr-xr-x.   2 root root       44 Oct 13 22:04 default
drwxr-xr-x.   2 root root       71 Oct 13 20:53 depmod.d
drwxr-x---.   4 root root       53 Jun  9 2021 dhcp
-rw-r--r--.   1 root root     5098 Nov 16 2020 DIR_COLORS
-rw-r--r--.   1 root root     5725 Nov 16 2020 DIR_COLORS.256color
-rw-r--r--.   1 root root     4669 Nov 16 2020 DIR_COLORS.lightbgcolor
-rw-r--r--.   1 root root     1174 Apr 11 2018 sleyna-server-service.conf
-rw-r--r--.   1 root root    26832 Jul 21 2021 dnsmasq.conf
drwxr-xr-x.   2 root root        6 Jul 21 2021 dnsmasq.d
-rw-r--r--.   1 root root     1285 Sep 30 2020 dracut.conf
drwxr-xr-x.   2 root root       34 Oct 13 15:43 dracut.conf.d
-rw-r--r--.   1 root root      112 Sep 30 2020 e2fsck.conf
drwxr-xr-x.   3 root root       37 Oct 13 15:43 egl
-rw-r--r--.   1 root root     4768 Aug  9 2019 enscript.cfg
-rw-r--r--.   1 root root        0 Apr  1 2020 environment
-rw-r--r--.   1 root root     1317 Apr 11 2018 ethertypes
-rw-r--r--.   1 root root        0 Jun  7 2013 exports
drwxr-xr-x.   2 root root        6 Oct 14 2021 exports.d
lrwxrwxrwx.   2 root root       56 Oct 13 15:42 favicon.png -> /usr/share/icons/hicolor/16x16/apps/fedora-logo-icon.png
drwxr-xr-x.   2 root root       22 Oct 13 15:42 fcoe
drwxr-xr-x.   2 root root       46 Oct 13 15:43 festival
-rw-r--r--.   1 root root       70 Apr  1 2020 filesystems
drwxr-xr-x.   3 root root       18 Sep  1 20:55 firefox
drwxr-x---.   7 root root      133 Oct 13 22:02 firewalld
drwxr-xr-x.   3 root root       23 Oct 13 15:43 flatpak
drwxr-xr-x.   3 root root       38 Oct 13 15:42 fonts
-rw-r--r--.   1 root root       20 Oct 31 2018 fprintd.conf
-rw-r--r--.   1 root root      465 Oct 13 15:46 fstab
-rw-r--r--.   1 root root       38 Oct 30 2018 fuse.conf
drwxr-xr-x.   3 root root       59 Oct 13 15:43 fwupd
drwxr-xr-x.   2 root root      107 Oct 13 15:42 gconf
drwxr-xr-x.   7 root root        6 Aug  2 2017 gcrypt
-rw-r--r--.   1 root root      265 Sep 30 2020 gdbinit
drwxr-xr-x.   2 root root        6 Sep 30 2020 gdbinit.d
drwxr-xr-x.   6 root root      107 Oct 13 22:04 gdm
drwxr-xr-x.   2 root root       26 Oct 13 15:43 geoclue
-rw-r--r--.   1 root root     1704 Aug 13 2019 GeoIP.conf
drwxr-xr-x.   5 root root        6 Sep 30 2020 ghostscript
drwxr-xr-x.   3 root root       26 Oct 13 15:43 glvnd
drwxr-xr-x.   2 root root        6 Jul 13 2018 gnupg
drwxr-xr-x.   4 root root       94 Mar 24 2017 GREP_COLORS
-rw-r--r--.   4 root root       40 Oct 13 15:41 groff
-rw-r--r--.   1 root root      992 Oct 13 22:04 group
-rw-r--r--.   1 root root      992 Oct 13 22:04 group-
lrwxrwxrwx.   2 root root       22 Oct 13 22:04 grub2.cfg -> ../boot/grub2/grub.cfg
drwx------.   2 root root      182 Oct 13 22:03 grub.d
----------.   1 root root      801 Oct 13 20:54 gshadow
----------.   1 root root      790 Oct 13 16:01 gshadow-
drwxr-xr-x.   3 root root       20 Jun 28 21:01 gss
drwxr-xr-x.   2 root root       79 Oct 13 22:04 gssproxy
-rw-r--r--.   1 root root        9 Jun  7 2013 host.conf
-rw-r--r--.   1 root root       22 Oct 13 15:50 hostname
-rw-r--r--.   1 root root      158 Jun  7 2013 hosts
```

```
File  Edit  View  Search  Terminal  Help
drwxr-xr-x.   3 root root       38 Oct 13 15:43 ndctl
-rw-r--r--.   1 root root      767 Aug  9 2019 netconfig
drwxr-xr-x.   8 root root      145 Jun  9 2021 NetworkManager
-rw-r--r--.   1 root root       58 Nov 16 2020 networks
-rw-r--r--.   1 root root     1023 Oct 14 2021 nfs.conf
-rw-r--r--.   1 root root     3391 Oct 14 2021 nfsmount.conf
-rw-r--r--.   1 root root     1949 Oct 13 15:42 nsswitch.conf
-rw-r--r--.   1 root root     1938 Sep 30 2020 nsswitch.conf.bak
drwxr-xr-x.   2 root root       38 Oct 13 15:45 ntp
-rw-r--r--.   1 root root       91 Dec  3 2012 numad.conf
drwxr-xr-x.   2 root root        6 Mar  6 2015 oddjob
-rw-r--r--.   1 root root     4922 Mar  6 2015 oddjobd.conf
drwxr-xr-x.   2 root root       70 Oct 13 15:43 oddjobd.conf.d
drwxr-xr-x.   3 root root       36 Oct 13 22:03 openldap
drwxr-xr-x.   2 root root        6 Apr 11 2018 opt
lrwxrwxrwx.   1 root root       21 Oct 13 22:02 os-release -> ../usr/lib/os-release
drwxr-xr-x.   2 root root       92 Oct 13 15:45 PackageKit
drwxr-xr-x.   2 root root     4096 Oct 13 22:05 pam.d
-rw-r--r--.   1 root root       68 Sep 30 2020 papersize
-rw-r--r--.   1 root root     2319 Oct 13 20:54 passwd
-rw-r--r--.   1 root root     2274 Oct 13 15:50 passwd-
-rw-r--r--.   1 root root     1362 Jun 10 2014 pbm2ppa.conf
-rw-r--r--.   1 root root     2872 Jun 10 2014 pinforc
drwxr-xr-x.   3 root root       21 Oct 13 15:41 pkcs11
drwxr-xr-x.  12 root root      151 Oct 13 15:45 pki
drwxr-xr-x.   2 root root       20 Oct 13 15:43 plymouth
drwxr-xr-x.   5 root root       52 Oct 13 15:41 pm
-rw-r--r--.   1 root root     6300 Jun 10 2014 pnm2ppa.conf
drwxr-xr-x.   5 root root       72 Jan 26 2022 polkit-1
drwxr-xr-x.   2 root root        6 Jun 10 2014 popt.d
drwxr-xr-x.   2 root root      154 Oct 13 15:45 postfix
drwxr-xr-x.   3 root root      219 Oct 13 22:03 ppp
drwxr-xr-x.   3 root root      105 Oct 13 22:05 prelink.conf.d
-rw-r--r--.   1 root root      233 Jun  7 2013 printcap
-rw-r--r--.   1 root root     1819 Apr  1 2020 profile
drwxr-xr-x.   2 root root     4096 Oct 13 22:05 profile.d
-rw-r--r--.   1 root root     6545 Apr  1 2020 protocols
drwxr-xr-x.   2 root root       79 Oct 13 22:04 pulse
drwxr-xr-x.   2 root root       23 Oct 13 15:44 purple
-rw-------.   1 root root        0 Oct 13 15:42 .pwd.lock
drwxr-xr-x.   2 root root       35 Oct 13 22:02 python
drwxr-xr-x.   3 root root       50 Oct 13 15:45 qemu-ga
drwxr-xr-x.   2 root root       51 Oct 13 22:04 qemu-kvm
-rw-r--r--.   1 root root      433 Oct 30 2018 radvd.conf
drwxr-xr-x.   3 root root       27 Oct 13 15:45 ras
lrwxrwxrwx.   1 root root       10 Oct 13 22:03 rc0.d -> rc.d/rc0.d
lrwxrwxrwx.   1 root root       10 Oct 13 22:03 rc1.d -> rc.d/rc1.d
lrwxrwxrwx.   1 root root       10 Oct 13 22:03 rc2.d -> rc.d/rc2.d
lrwxrwxrwx.   1 root root       10 Oct 13 22:03 rc3.d -> rc.d/rc3.d
lrwxrwxrwx.   1 root root       10 Oct 13 22:03 rc4.d -> rc.d/rc4.d
lrwxrwxrwx.   1 root root       10 Oct 13 22:03 rc5.d -> rc.d/rc5.d
lrwxrwxrwx.   1 root root       10 Oct 13 22:03 rc6.d -> rc.d/rc6.d
```

```
File  Edit  View  Search  Terminal  Help
drwxr-xr-x.   3 root root       21 Oct 13 15:41 sgml
----------.   1 root root     1266 Oct 17 22:18 shadow
----------.   1 root root     1246 Oct 13 15:50 shadow-
-rw-r--r--.   1 root root       63 Oct 13 15:45 shells
drwxr-xr-x.   3 root root       70 Oct 13 22:02 skel
drwxr-xr-x.   3 root root       74 Oct 13 15:45 smartmontools
-rw-r--r--.   1 root root      138 Jun 28 20:59 sos.conf
drwxr-xr-x.   4 root root       56 Oct 13 15:43 speech-dispatcher
drwxr-xr-x.   2 root root      225 Oct 13 22:05 ssh
drwxr-xr-x.   2 root root       19 Oct 13 22:02 ssl
-rw-r--r--.   1 root root      212 Nov 16 2020 statetab
drwxr-xr-x.   2 root root        6 Nov 16 2020 statetab.d
-rw-r--r--.   1 root root        0 Apr  1 2020 subgid
-rw-r--r--.   1 root root        0 Apr  1 2020 subuid
-rw-r-----.   1 root root     1786 Sep 30 2020 sudo.conf
-r--r-----.   1 root root     4328 Sep 30 2020 sudoers
drwxr-x---.   2 root root        6 Oct 14 2021 sudoers.d
-rw-------.   1 root root    16384 Oct 13 16:10 .sudoers.tmp.swp
-rw-------.   1 root root     3181 Sep 30 2020 sudo-ldap.conf
drwxr-xr-x.   6 root root     4096 Oct 13 22:05 sysconfig
-rw-r--r--.   1 root root      449 Nov 16 2020 sysctl.conf
drwxr-xr-x.   2 root root       28 Oct 13 22:03 sysctl.d
drwxr-xr-x.   4 root root      151 Oct 13 22:03 systemd
lrwxrwxrwx.   1 root root       14 Oct 13 22:02 system-release -> centos-release
-rw-r--r--.   1 root root       23 Nov 23 2020 system-release-cpe
-rw-------.   1 tss  tss      7046 Aug  3 2017 tcsd.conf
drwxr-xr-x.   2 root root        6 Sep  7 2017 terminfo
drwxr-xr-x.   2 root root        6 Sep  1 20:27 tmpfiles.d
-rw-r--r--.   1 root root      750 Oct  4 12:36 trusted-key.key
drwxr-xr-x.   3 root root      109 Oct 13 22:04 tuned
drwxr-xr-x.   3 root root       54 Oct 13 22:03 udev
drwxr-xr-x.   2 root root       26 Oct 13 15:44 udisks2
drwxr-xr-x.   2 root root       68 Oct 13 15:43 unbound
-rw-r--r--.   1 root root      163 Oct 13 15:41 .updated
-rw-r--r--.   1 root root      557 Apr 11 2018 updatedb.conf
drwxr-xr-x.   2 root root       25 Oct 13 15:43 UPower
-rw-r--r--.   1 root root     1523 Apr 11 2018 usb_modeswitch.conf
-rw-r--r--.   1 root root       37 Oct 13 15:50 vconsole.conf
-rw-r--r--.   1 root root     1982 Dec 15 2020 vimrc
-rw-r--r--.   1 root root     1982 Dec 15 2020 virc
drwxr-xr-x.   4 root root      208 Oct 13 22:03 vmware-tools
-rw-r--r--.   1 root root     4479 May 16 2019 wgetrc
drwxr-xr-x.   2 root root       33 Oct 13 22:03 wpa_supplicant
-rw-r--r--.   1 root root        0 Jun 10 2014 wvdial.conf
drwxr-xr-x.   6 root root      103 Oct 13 15:42 X11
drwxr-xr-x.   6 root root      116 Oct 13 15:43 xdg
drwxr-xr-x.   2 root root        6 Apr 11 2018 xinetd.d
drwxr-xr-x.   2 root root       21 Oct 13 15:41 xml
drwxr-xr-x.   6 root root      100 Oct 13 15:42 yum
-rw-r--r--.   1 root root      970 Oct  1 2020 yum.conf
drwxr-xr-x.   2 root root      262 Oct 17 21:45 yum.repos.d
[mmaurya@localhost etc]$
```

- ## Then use ls -i and hit Enter key
  - o Now see what different output its shows and take screenshot?

    Ans   To display the inode number of files and directories, append the `-i` flag at the end of the ls   command as shown **Syntax**

- ## Then use ls –help and see other options about ls command

    Explore it and try with other attribute we can use with ls command

❖ Assignment-5

Know where you are and where you working Here we use pwd, cd and ls as combine task to understand where you working on terminal and how you can switch from one directory to another one.

● **Open terminal after restart the Linux**
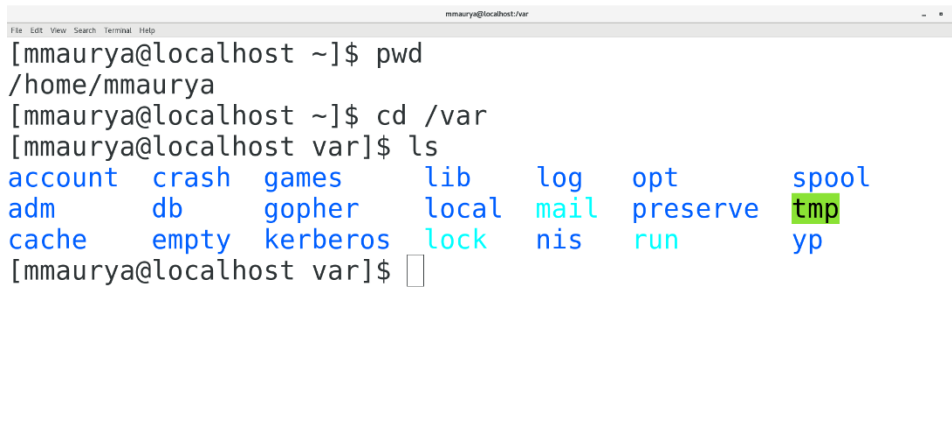
o Check which location you working, type pwd and take screenshot

```
[mmaurya@localhost ~]$ pwd
/home/mmaurya
[mmaurya@localhost ~]$ █
```

● **Now use cd /var and hit Enter key**

 o Do ls, and see what output comes, give screenshot?

```
[mmaurya@localhost ~]$ pwd
/home/mmaurya
[mmaurya@localhost ~]$ cd /var
[mmaurya@localhost var]$ ls
account   crash   games     lib     log    opt        spool
adm       db      gopher    local   mail   preserve   tmp
cache     empty   kerberos  lock    nis    run        yp
[mmaurya@localhost var]$
```

● Do explore other help options of each command to learn more other things we can do with these commands

ls –version   It checks the version of ls command.

ls -r   It is used to print the list in reverse order