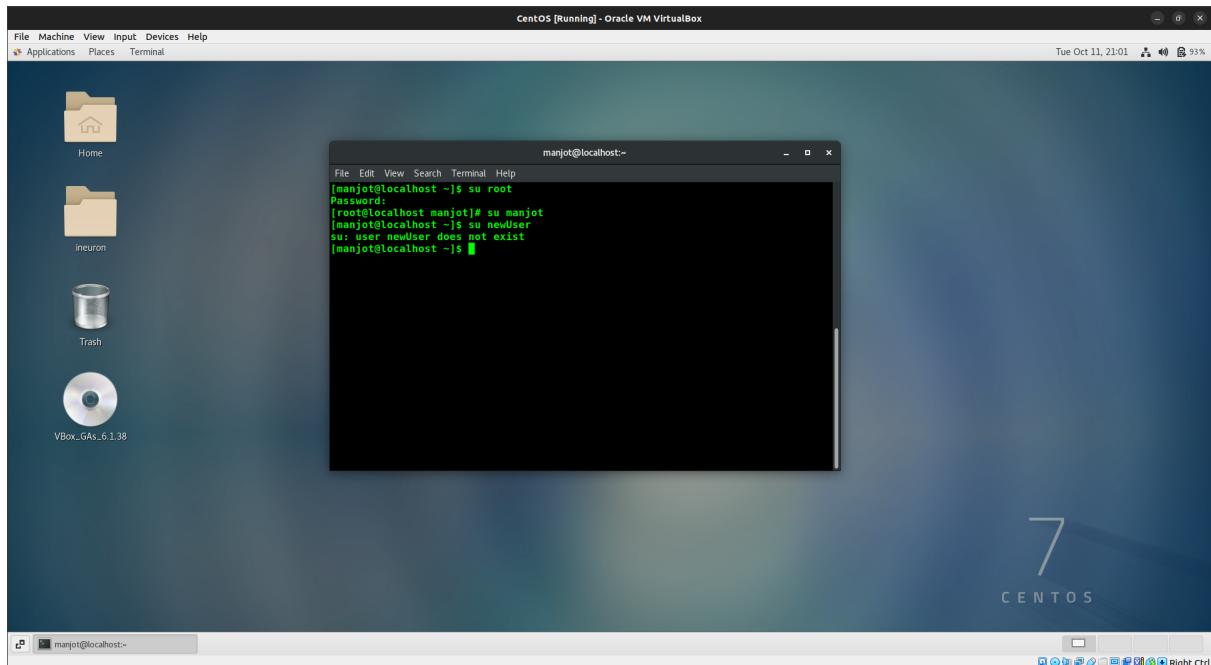


Assignment-1

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?

Solution:-



In Linux, the command "su" means switch user, so if there is no such user, then we get an error message that says no such user exists.

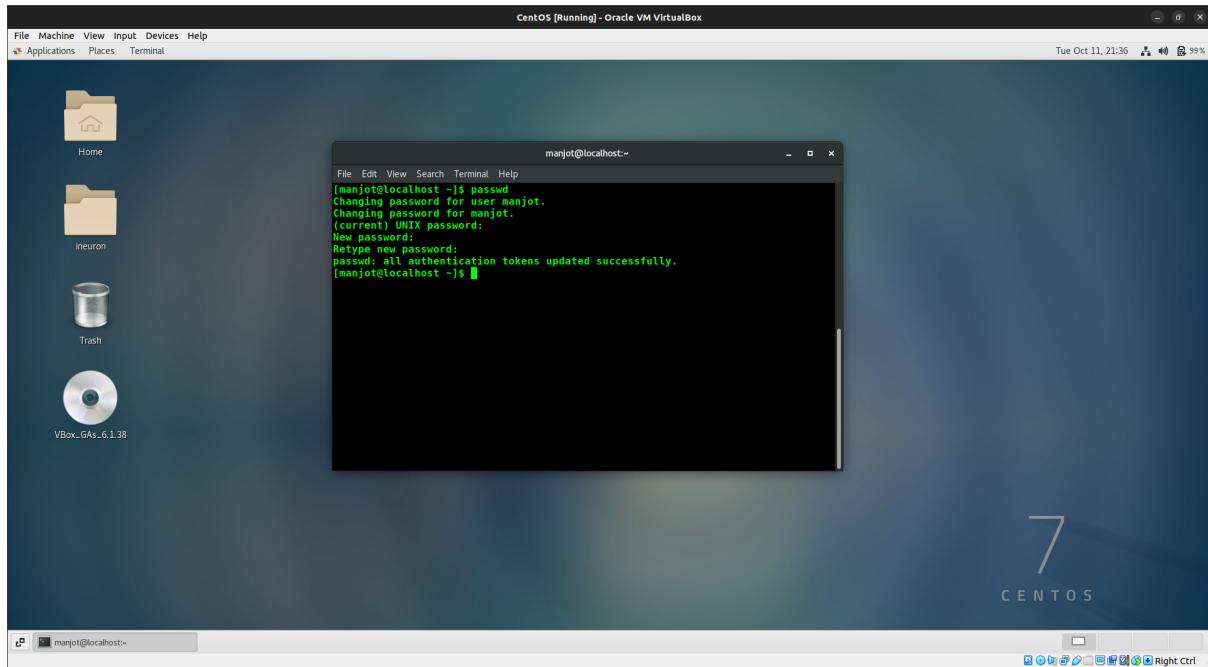
Assignment-2

Password changing

- Login into your account and then change password?
 - Change your password into *IneuR0n#42* and hit the Enter key
 - Explain what happen and give screenshot?
 - Try again to change password but use like password *1234* or *abcd*
 - Explain what happen and give screenshot?
 - Try again to change password but now don't use any password just hit Enter key
 - Explain what happen and give screenshot?

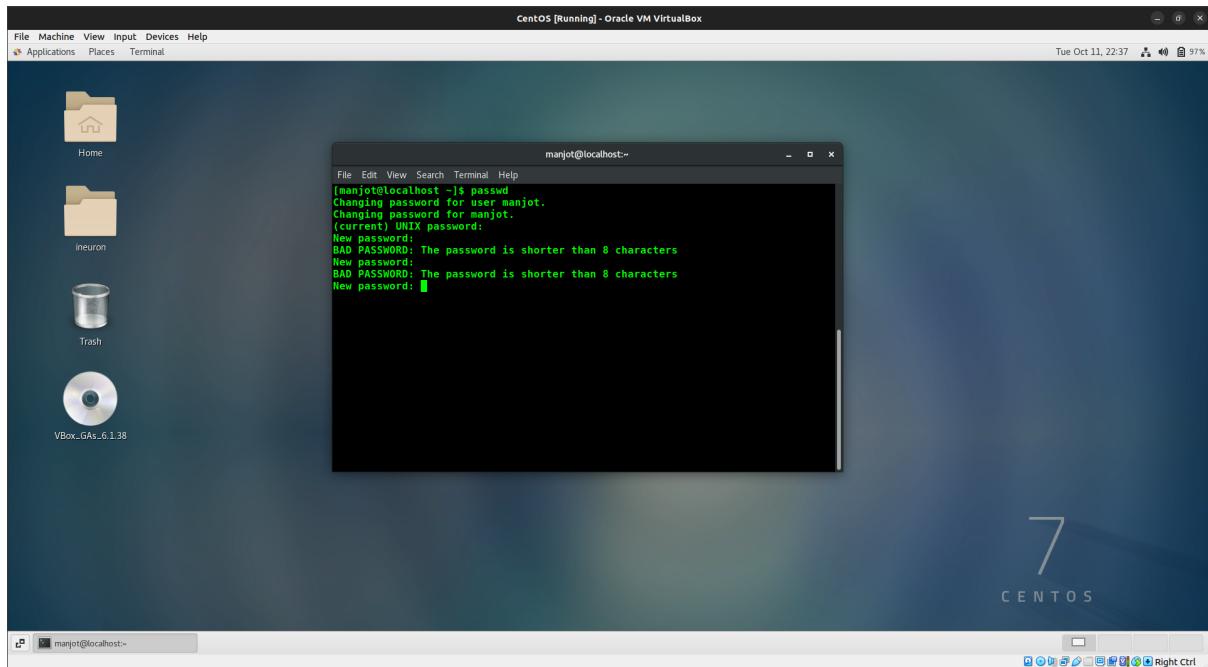
Solution:-

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



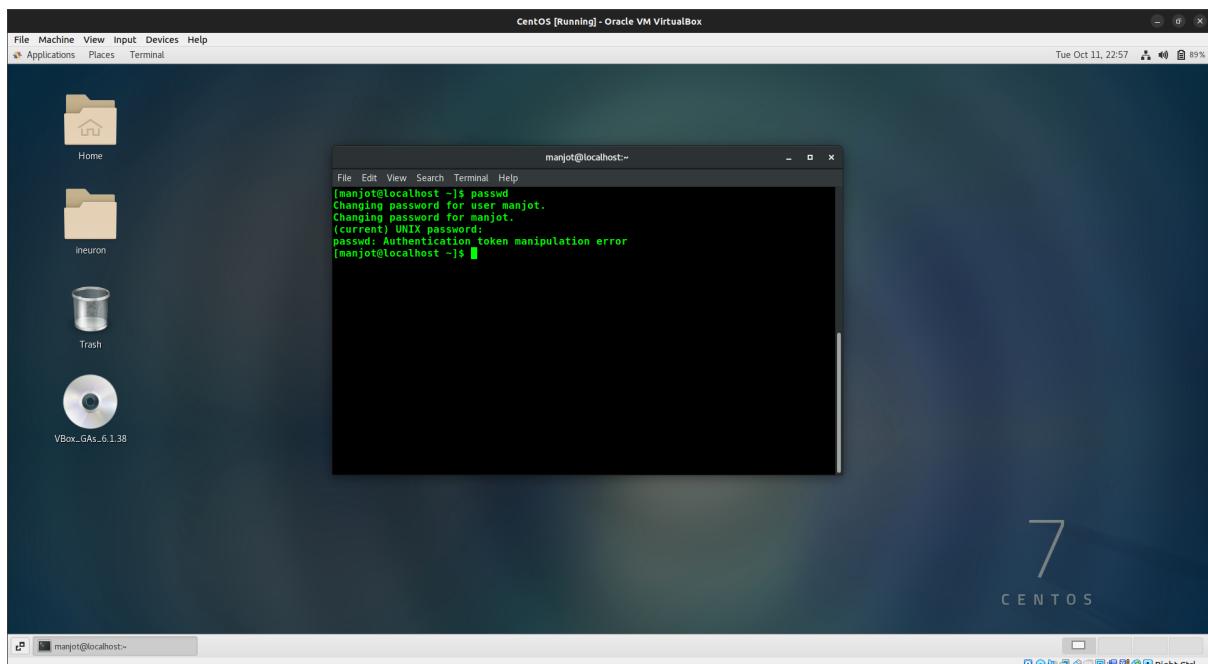
As "IneuR0n#42" is a strong password, no warning was given when changing the password in Linux with the command "passwd"

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



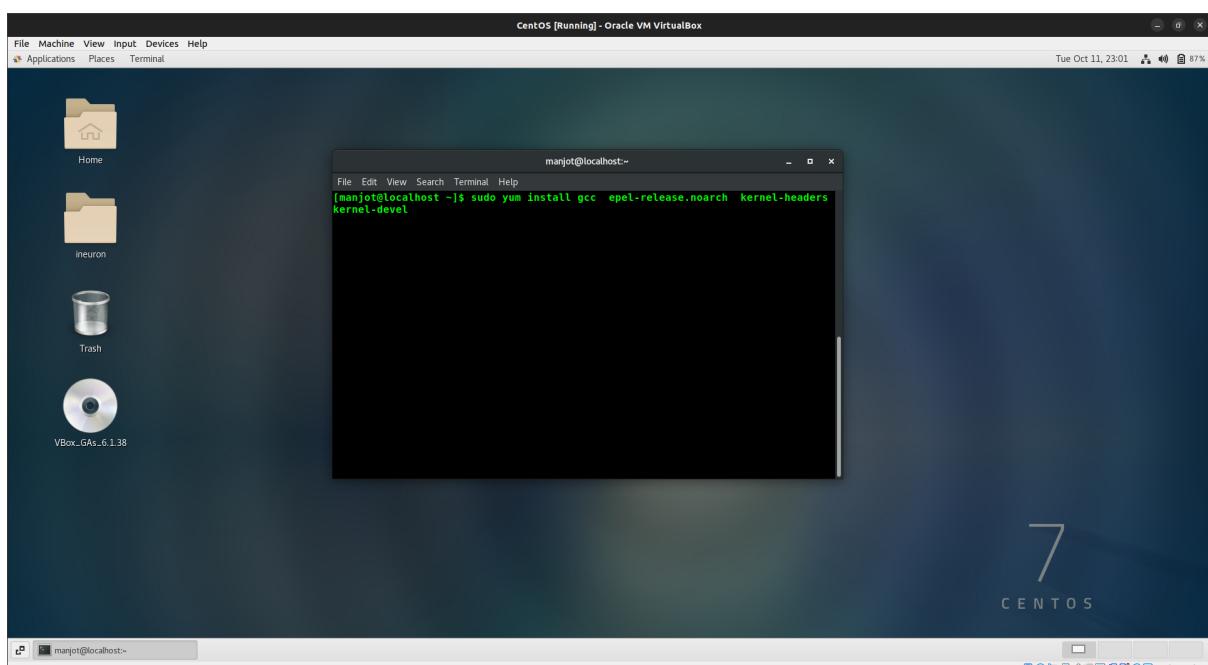
The minimum password length in Linux is eight characters, so the system does not allow you to change it

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



Password Reset Failed

Rough Notes:- Assignment-1 and 2



Assignment 2 :- Please update your CentOS machine
"sudo yum -y update"

Assignment 1 :- Install all the dependencies for making centOS full screen

Add dependency with command

"sudo yum install gcc epel-release.noarch kernel-headers kernel-devel"

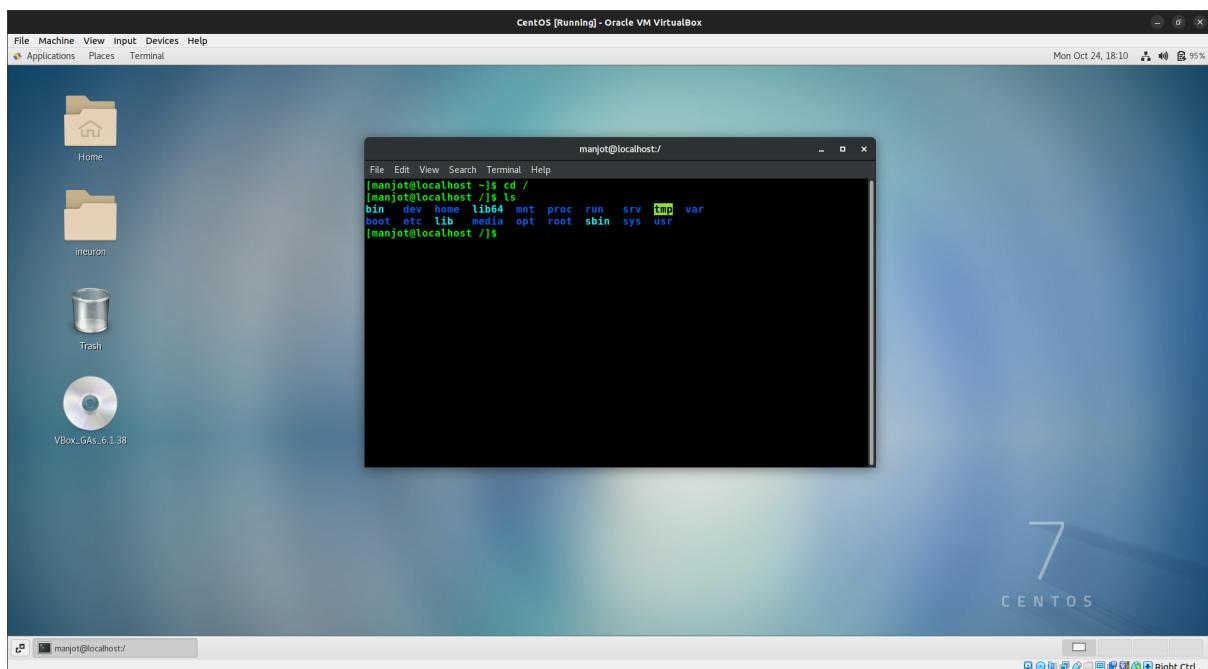
Top bar of Virtual Machine - Devices → Insert Guest Additions CD Image

After that click on CD icon on Desktop and Install Guest Addition and reboot ur system.

Assignment-3:- Working with Directories

- Enter the command cd / and then ls and then hit Enter key
 - Take screenshot and explain what output we got?

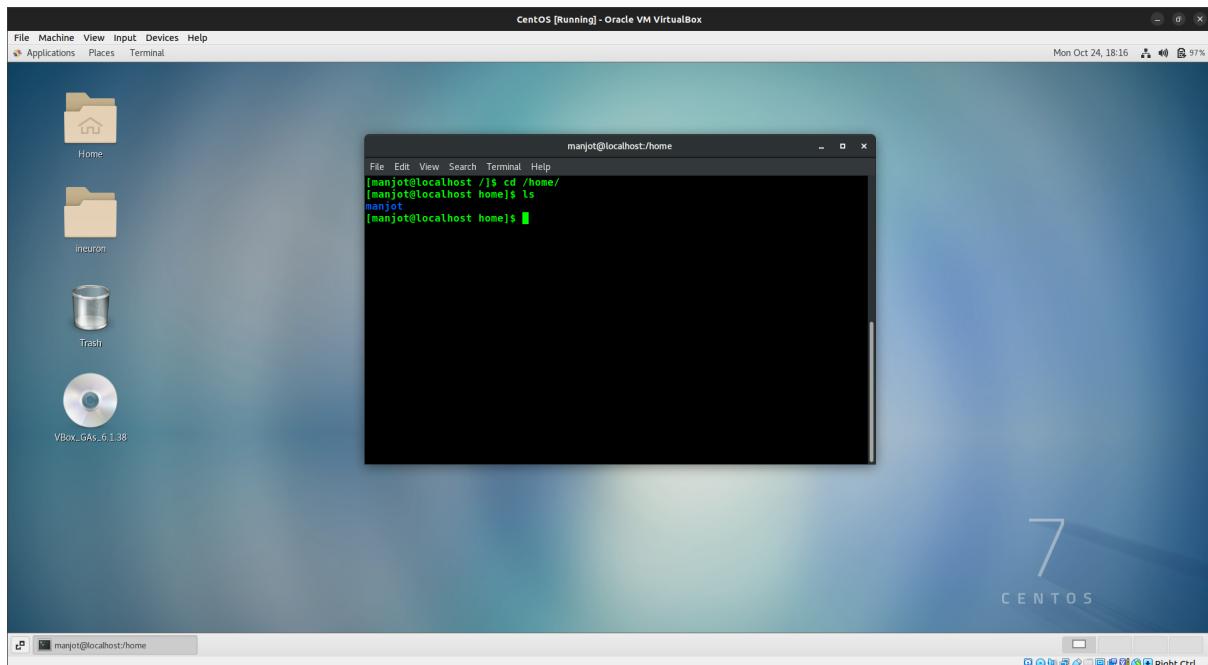
Solution:-



We see the directories inside root directory which belongs to owner root, this is end where we can do cd ..

- Enter the command now cd /home and then hit Enter key
 - Do ls, provide screenshot and explain what is /home directory used for?

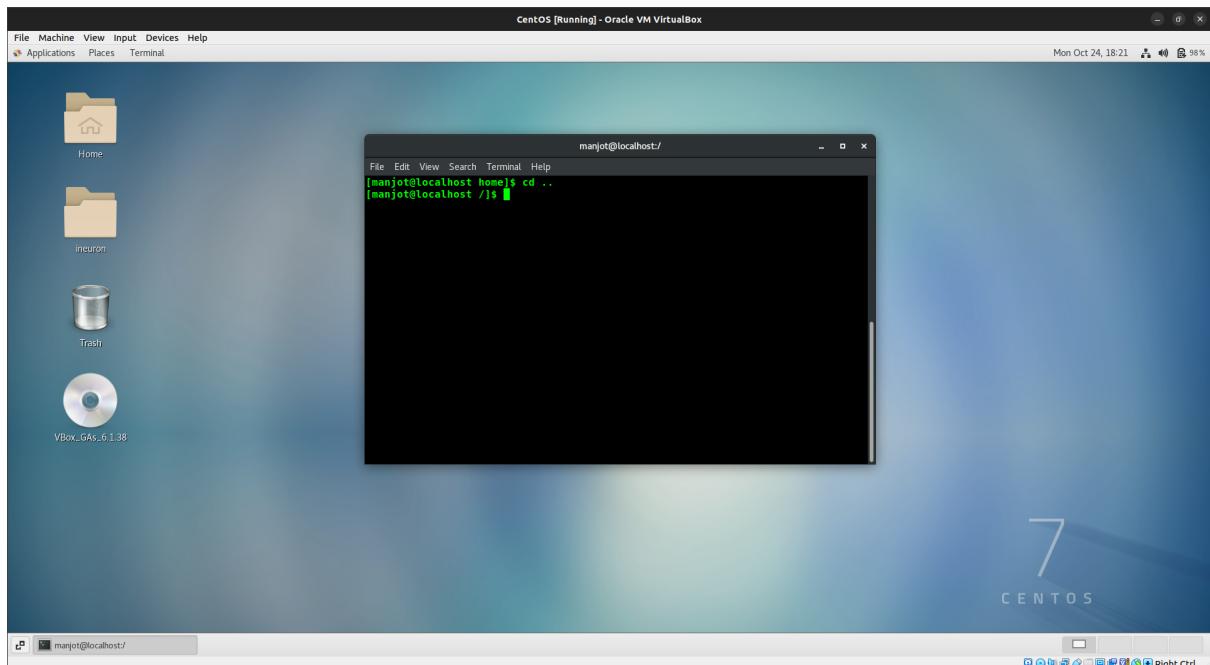
Solution:-



Inside /home directory we see all the users of our system, each users have their own directory where they store there file, folder, and media.

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

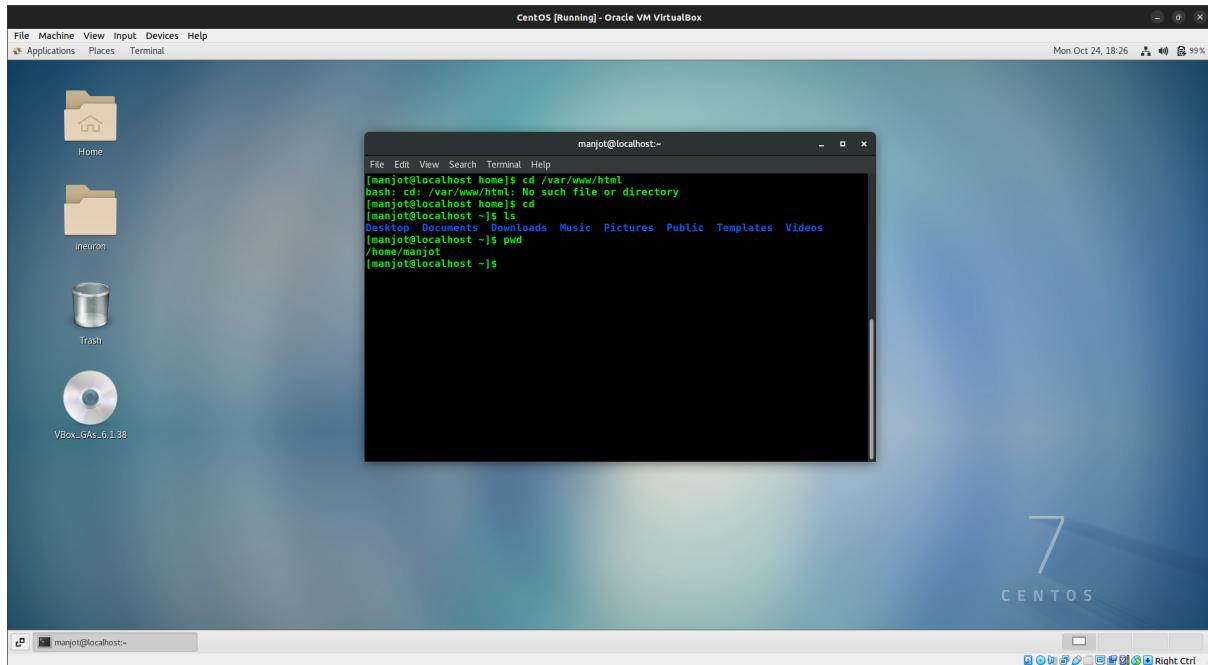
Solution:



We go to previous directory from present working directory

- Now enter cd /var/www/html and then type cd and hit Enter key
 - Explain what happen and give screenshot?

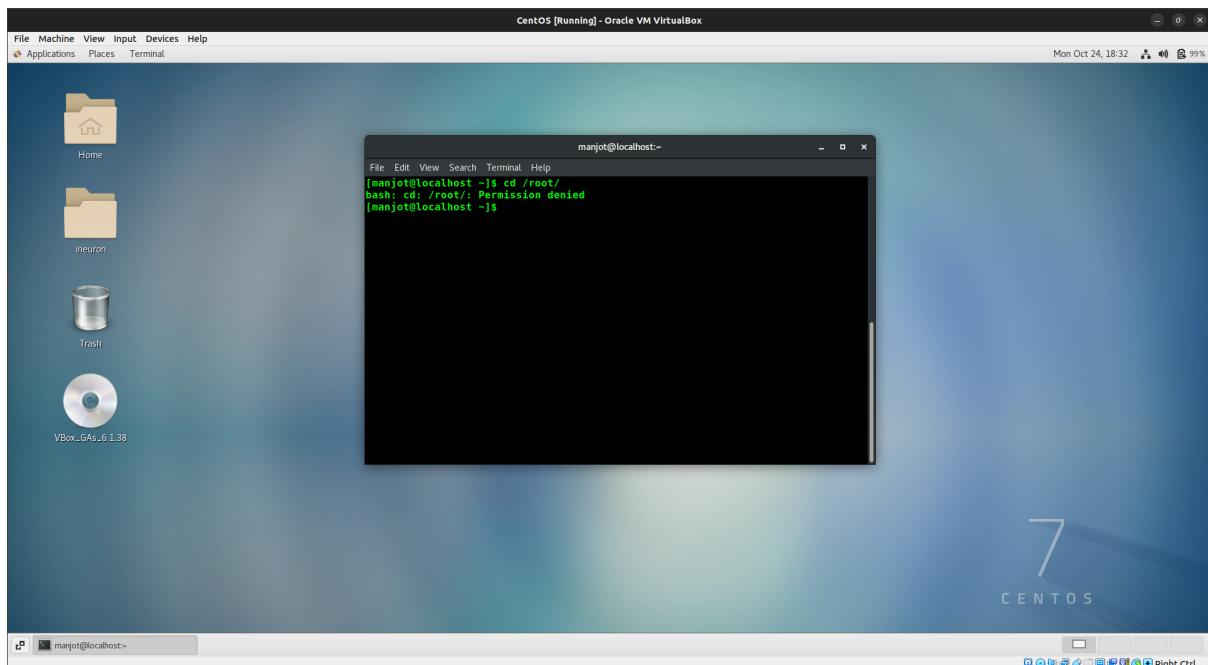
Solution:-



In my case cd /var/www/html gave me no such file because i have no web services running yet. And cd without path brings us to the current users home directory.

- Now type cd /root and then hit Enter key
 - Do ls, check any output we have on screen if yes then take screenshot?

Solution:-

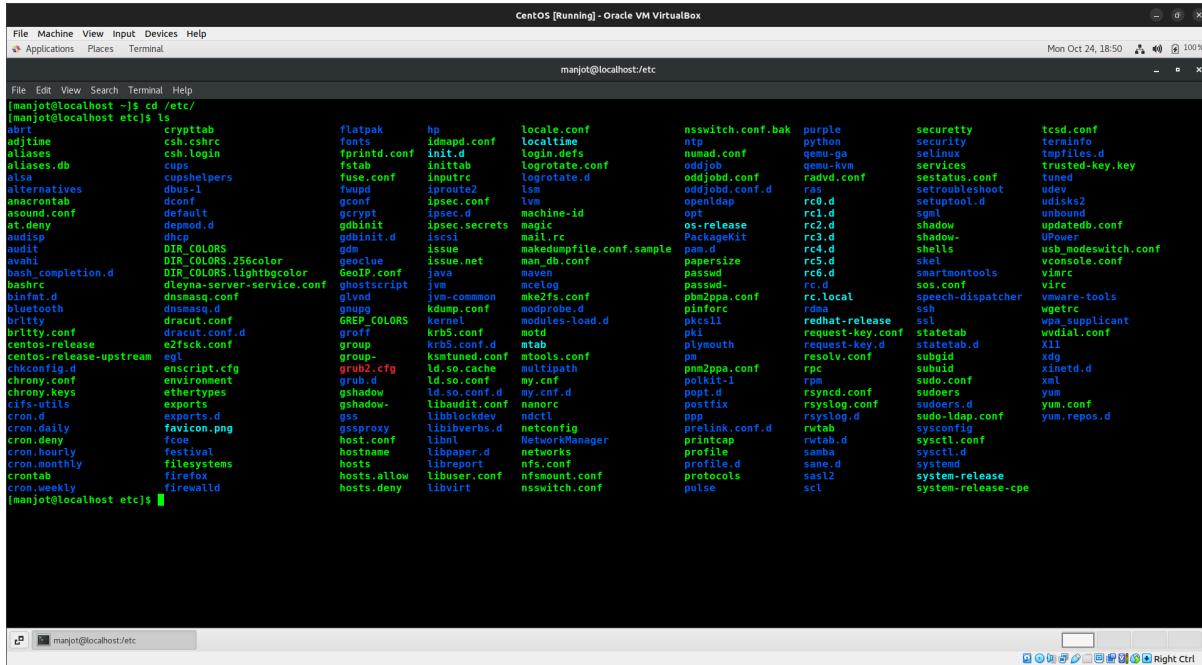


Permission denied.

Assignment-4:- Working with File Listing

- Go to cd /etc and type ls
 - Take screenshot and explain what files you have seeing?
 - Take screenshot and explain what different output you found compare to previous command you used?

solution:-



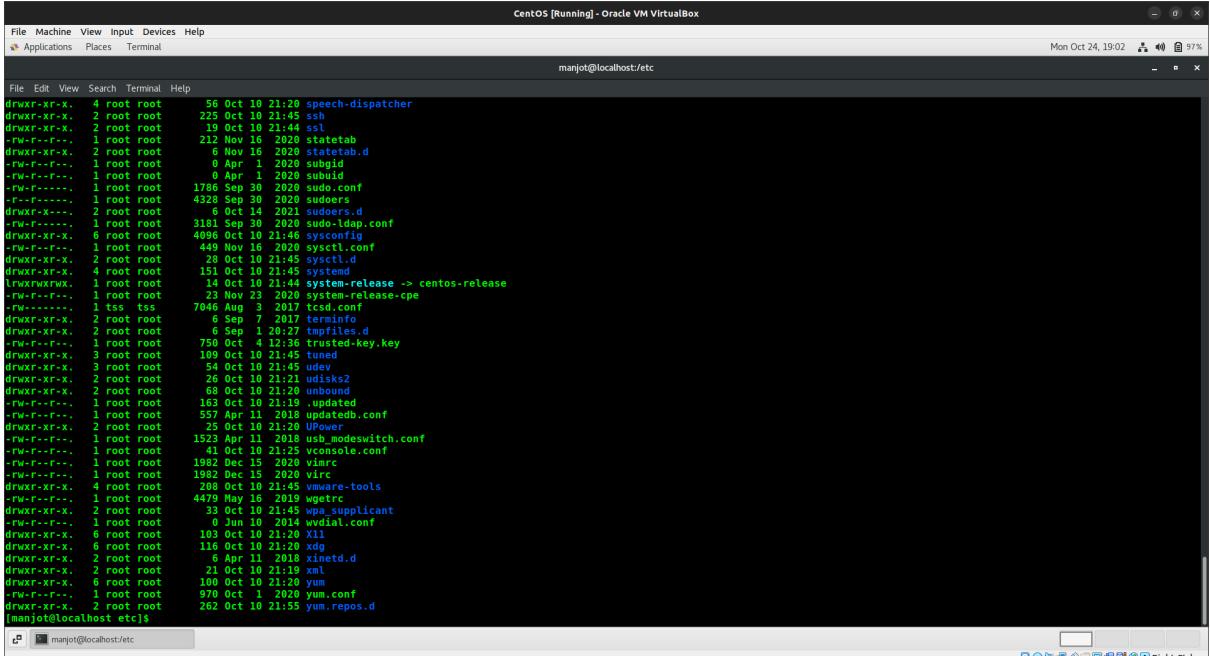
The screenshot shows a terminal window titled "CentOS [Running] - Oracle VM VirtualBox". The command entered was "ls" in the "/etc" directory. The output lists numerous configuration files and directories, including:

```
[manjot@localhost ~]$ cd /etc/
[manjot@localhost etc]$ ls
abrt      crypttab    flatpak    hp        locale.conf    nsswitch.conf.bak    purple    security    tsd.conf
adjtime   csh.cshrc   fonts      init.d    localtime     ntp        python    selinux    terminfo
aliases   csh.login   fprintd.conf  init.d    login.defs    numad.conf    qemu-ga  services    tmpfiles.d
aliases.db cups       fprintd.conf  init.d    logrotate.conf oddjob     qemu-kvm  setenforce.conf  trusted-key.key
alternatives dbus-1    fprintd.conf  init.d    logrotate.conf oddjob.conf  radvd.conf  setenforce.conf  udev
anacrontab dconf      gconf      ipsec.d   machine-id   openldap    rc0.d    setuphd    setenforce.conf
asound.conf default   gcrypt     ipsec.d   magic        opt.d      rc1.d    setuphd    setenforce.conf
at.deny    depmod.d   gdbinits   ipsec.secrets os-release   rc2.d    shadow    updatehd.conf
audisp    dhcpc     gdbinits.d  iscsi     mail.rc     PackagelKit  rc3.d    shadow-  UPower
audit    DIR_COLORS   gdm        issue.net  makeadumpfile.conf.sample pam        rc4.d    shells    usb_modeswitch.conf
avahi    DIR_COLORS_256color  modprobe  java     javaws     passwd     rc5.d    shells    vncserver.conf
bash_completion.d  DIR_COLORS_lightbgcolor  GeoIP.conf  jawa     javaws     passwd     rc6.d    smartmontools  vimrc
bashrc   dleyna-server-service.conf  ghostscript  jvm      mcelog     passwd     rc.d     sos.conf   virc
binfmt.d  dnsmasq.conf  glvnd     jvm-common  mke2fs.conf  pbm2ppa.conf  rc.local  speech-dispatcher  vmware-tools
bluetooth dnsmasq.d    gnupg     kernel     kdump.conf  modprobe.d  pinforc  rdma     ssh      wgetrc
brltty    dracut.conf  gpg       kernel     modules-load.d pkcs11     redhat-release  ssl      wpa_supplicant
brltty.conf dracut.conf.d  gpg       kernel     modules-load.d pkcs11     request-key.conf  statestab  wvdial.conf
centos-release  egl      grub     kernel     modules-load.d pkcs11     resolv.conf  statestab.d  xinetd
chckconfig.d  encrypt.cfg  grub2.cfg  ld.so.cache  multipath  pm2ppa.conf  rpc      subuid    xinetd.d
chrony.conf  environment  grub.d    ld.so.conf    my.cnf     polkit-1    rpm      sudo.conf  subuid    xinetd
chrony_keys ethertypes  gshadow    ld.so.conf.d  my.cnf.d   pop.d      rsyncd.conf  sudoers   sudoers.d  xinetd
cifs-utils  exports    gshadow-  libaudit.conf  nanorc    postfix    rsyslog.conf  sudoers.d  sudoers.d  xinetd
cron      exports.d   gso      libiblockdev  ndctl     ppp      rsyslogd    sudoers.d  sudoers.d  xinetd
cron.daily favicon.png  gssproxy  libibverbs.d  network   printcap  rsyslogd    sudoers.d  sudoers.d  xinetd
cron.deny   fcon      host.conf  libibl     NetworkManager  profile   rsyslogd    sudoers.d  sudoers.d  xinetd
cron.hourly  filesystems  hosts    libreport   nfs.conf   protocols  rsyslogd    sudoers.d  sudoers.d  xinetd
cron.monthly  firefox   libuser.conf  libvirt     nfsmount.conf  profile.d  rsyslogd    sudoers.d  sudoers.d  xinetd
crontab    firewalld  hosts.allow  libvirt     nsswitch.conf  protocols  rsyslogd    sudoers.d  sudoers.d  xinetd
cron.weekly  hosts.deny libvirt     libvirt     nsswitch.conf  pulse     rsyslogd    sudoers.d  sudoers.d  xinetd
[manjot@localhost etc]$
```

It lists down all the directories inside it. This is the nerve centre of your system, it contains all system-related configuration files here or in its sub-directories.

- Then type ls -al and hit Enter key
 - Take screenshot and explain what new file or directory you found?

solution:-



```

CentOS [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places Terminal
manjot@localhost:/etc
Mon Oct 24, 19:02 40 97%
File Edit View Search Terminal Help
drwxr-xr-x. 4 root root 56 Oct 10 21:20 speech-dispatcher
drwxr-xr-x. 2 root root 225 Oct 10 21:45 ssh
drwxr-xr-x. 2 root root 19 Oct 10 21:44 ssl
-rw-r--r--. 1 root root 212 Nov 16 2020 statetab
drwxr-xr-x. 2 root root 72 Oct 10 2020 subgid
-rw-r--r--. 1 root root 8 Apr 1 2020 subuid
-rw-r--r--. 1 root root 0 Apr 1 2020 subuild
-rw-r-----. 1 root root 1786 Sep 30 2020 sudo.conf
-rw-r-----. 1 root root 4328 Sep 30 2020 sudoers
drwxr-xr-x. 2 root root 6 Oct 14 2021 sudoers.d
-rw-r--r--. 1 root root 3187 Oct 10 2020 sudo-ldap.conf
drwxr-xr-x. 6 root root 4096 Oct 10 2020 sysctl.d
-rw-r--r--. 1 root root 449 Nov 16 2020 sysctl.conf
drwxr-xr-x. 2 root root 28 Oct 10 21:45 systemd
drwxr-xr-x. 4 root root 151 Oct 10 21:45 system-release
lrwxrwxrwx. 1 root root 14 Oct 10 21:44 system-release --> centos-release
-rw-r--r--. 1 root root 23 Nov 23 2020 system-release-cpe
-rw-r--r--. 1 tss tss 7046 Aug 2019 tccd.conf
drwxr-xr-x. 1 root root 4096 Oct 7 2020 tmpfiles.d
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 10 21:45 tuned
drwxr-xr-x. 3 root root 54 Oct 10 21:45 udev
drwxr-xr-x. 2 root root 26 Oct 10 21:21 udisks2
drwxr-xr-x. 2 root root 60 Oct 10 21:45 ubmount
-rw-r--r--. 1 root root 163 Oct 10 21:19 updatedated
-rw-r--r--. 1 root root 557 Apr 11 2018 updatedb.conf
drwxr-xr-x. 2 root root 25 Oct 10 21:20 UPower
-rw-r--r--. 1 root root 1523 Apr 11 2018 usb_modeswitch.conf
-rw-r--r--. 1 root root 41 Oct 10 21:25 vconsole.conf
-rw-r--r--. 1 root root 1982 Dec 10 2020 vimrc
-rw-r--r--. 1 root root 1892 Dec 10 2020 vimrc
drwxr-xr-x. 4 root root 208 Oct 10 21:45 vmware-tools
-rw-r--r--. 1 root root 4479 May 16 2019 wgetrc
drwxr-xr-x. 2 root root 33 Oct 10 21:45 wpa_supplicant
-rw-r--r--. 1 root root 0 Jun 10 2014 wvdial.conf
drwxr-xr-x. 6 root root 103 Oct 10 21:20 X11
drwxr-xr-x. 6 root root 118 Oct 10 21:20 xinetd
drwxr-xr-x. 2 root root 5 Apr 11 2018 xinetd.d
drwxr-xr-x. 2 root root 21 Oct 10 21:19 xml
drwxr-xr-x. 6 root root 100 Oct 10 21:20 yum
-rw-r--r--. 1 root root 970 Oct 1 2020 yum.conf
drwxr-xr-x. 2 root root 262 Oct 10 21:55 yum.repos.d
[manjot@localhost etc]$
```

ls -al. means show a long listing of all files in the current directory

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

solution:-

File Machine View Input Devices Help
Applications Places Terminal

Mon Oct 24, 19:07 40 95%

manjot@localhost:~\$

```
manjot@localhost:~/etc$
```

`ls -i` lists file's inode index number, inode index number means it's a reference (index) about the file and directory on the system

- Then use `ls -help` and see other options about `ls` command
 - Explore it and try with other attribute we can use with `ls` command

solution:-

```
File Machine View Input Devices Help
Applications Places Terminal manjot@localhost:~
```

manjot@localhost etc]\$ ls --size

```
total 1352
0 abrt 0 depmod.d 4 GREP_COLORS 0 libblockdev 0 ntp 0 rc3.d 4 statetab
4 adjtime 0 dhcpc 4 groff 4 libverbs.d 4 numad.conf 0 rc4.d 0 statetab.d
12 aliases.db 8 DIR_COLORS 4 group 4 libvnc 4 oddjob 0 rc5.d 0 subgid
0 also 8 DIR_COLORS.lightgbgcolor 4 libuser 4 libuser_d 4 oddjobd.conf 0 rc6.d 0 subuid
4 alternatives 4 dleyna-server-service.conf 4 grub.d 4 libreport 4 openldap 0 rc.local 0 sudo
4 anacrontab 28 dnsmasq.conf 4 grubshadow 4 libvirt 0 opt 0 rdma 0 sudoers
4 asound.conf 0 dnsmasq.d 4 gshadow 4 locale.conf 0 os-release 0 redhat-release 4 sudo
4 at.deny 4 dracut.conf 0 gss 0 localtime 0 PackageKit 4 request-key.conf 4 sysconfig
4 audisp 0 dracut.conf.d 0 gssproxy 4 login.defs 4 pam 0 request-key.d 4 sysctl
4 audit 4 esckick.conf 4 hostname 4 logrotate.conf 4 pam_d 0 request-key.d 4 sysctl.conf
4 auth 0 eskip.conf 4 hosts 4 lsm 4 papersize 4 resolv.conf 4 sysctl.d
4 bash_completion.d 8 eskip.conf 4 hosts.allow 0 lvm 4 passwd 4 rpm
4 bashrc 0 environment 4 hosts.deny 4 machine-id 4 passwd 0 rpm
4 bashrc 0 environment 4 hosts.deny 4 machine-id 4 pmbs2pa.conf 4 rsyncd.conf 4 system-release
4 binfmt.d 4 ethertypes 4 hosts.deny 4 machine-id 4 pinforc 4 syslog.conf 8 tcdis.conf
4 bluetooth 0 exports 4 hosts.deny 4 machine-id 0 pkcsl 0 syslogd 0 terminfo
16 bratty 0 exports.d 4 idmapd.conf 4 mail.rc 0 pki 4 rvtab 0 tmfiles.d
24 buildroot.conf 0 favicon.png 4 init 1 makeunicode.conf.sample 0 Plymouth 4 rtinetd 4 trusted-key.key
4 centos-release 0 framebuffer 4 initstab 8 mangle.conf 0 rtinetd 0 tunneled
4 centos-release-upstream 0 festival 4 inputrc 0 maven 0 rm 0 smp 0 tunneled
4 chkconfig.d 4 filesystems 4 iproute 0 mcels 0 polkit-1 0 sane.d 0 udev
4 chrony.conf 0 firefox 4 ipsec.conf 4 mke2fs.conf 0 polkit-1 0 sasl2 0 udisks2
4 chrony_keys 0 firewalld 0 ipsec 4 modprobe.d 0 popt.d 0 scl 0 unbound
4 cifs-utils 0 flatpak 4 ipsec.secrets 0 modules-load.d 0 postfix 4 security
0 cron.d 0 fonts 0 iiscsi 0 modt 0 prelink.conf.d 0 selinux 0 UPower
0 cron.daily 4 fontbind.conf 0 issue 0 mtab 0 printed 0 serialconsole.conf
0 cron.deny 4 ftrace 0 iisnode.net 4 netconf 4 profile 4 restatne.conf 0 vimeo
0 cron.hourly 4 fuse.conf 0 java 0 multipath 4 profile.d 0 setrroubleshoot 4 virc
0 cron.monthly 0 fwupd 0 jvm 0 my.cnf 4 protocols 4 setuptool.d 0 vmware-tools
4 crontab 0 gconf 0 kvm 0 my.cnf.d 0 pulse 0 sgml 8 wgetrc
0 cron.weekly 0 gcrypt 0 kdump.conf 12 nanorc 0 python 4 shadow 0 wpa_supplicant
0 cryptab 4 gobsint 0 kernel 0 ndctl 0 qemu-ga 4 shadow-
4 curl-ehsrc 0 gobsint.d 0 kernel.conf 0 NetworkManager 0 qemu-kvm 4 shells
0 curl 0 gpm 0 kmod 0 NetworkManager 0 qpid 0 ssh 0 X11
0 cups 0 gpm�ue 0 kmod.conf 0 networks 0 radvd.conf 0 smartmontools 0 xinetd.d
0 cupshelpers 4 GeoIP.conf 0 ld.so.cache 4 nts.conf 0 ras 4 sos.conf 0 xml
0 dbus-1 0 ghostscript 4 ld.so.conf 4 nfsmount.conf 0 rc0.d 0 speech-dispatcher 0 yum
0 dconf 0 glvnd 0 ld.so.conf.d 4 nswitch.conf 0 rc1.d 0 ssh 4 yum.conf
0 default 0 gnugp 4 libaudit.conf 4 nswitch.conf.bak 0 rc2.d 0 ssl 0 yum.repos.d
```

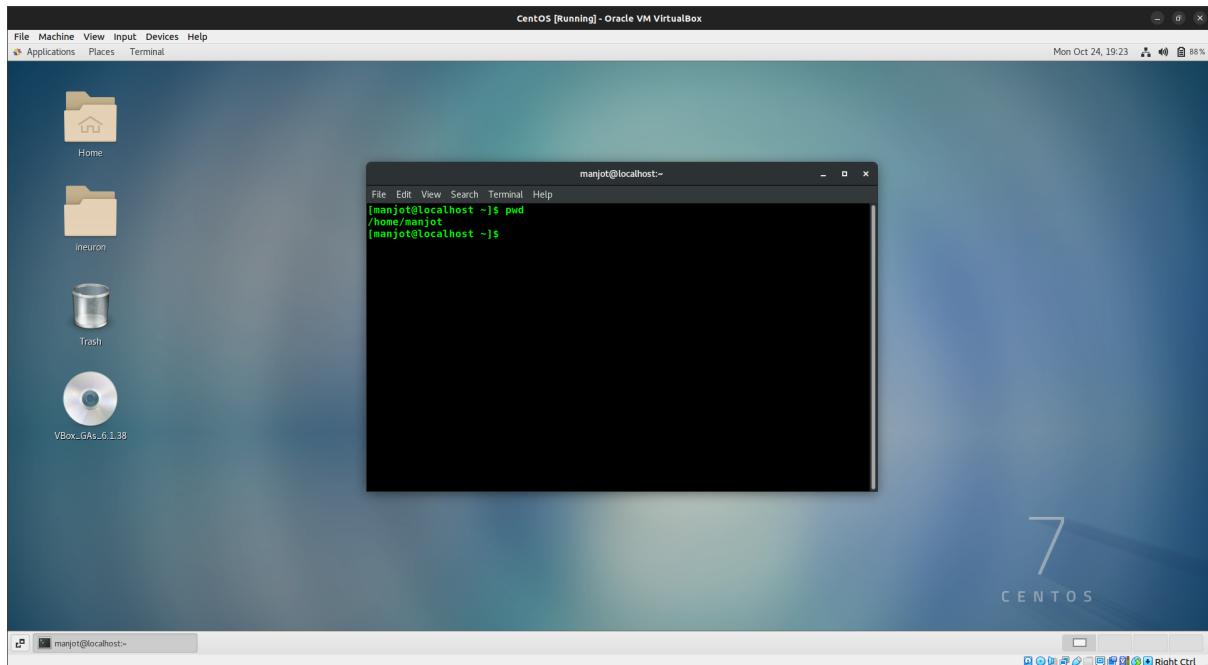
`ls -size` shows the size of each file and folder.

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.

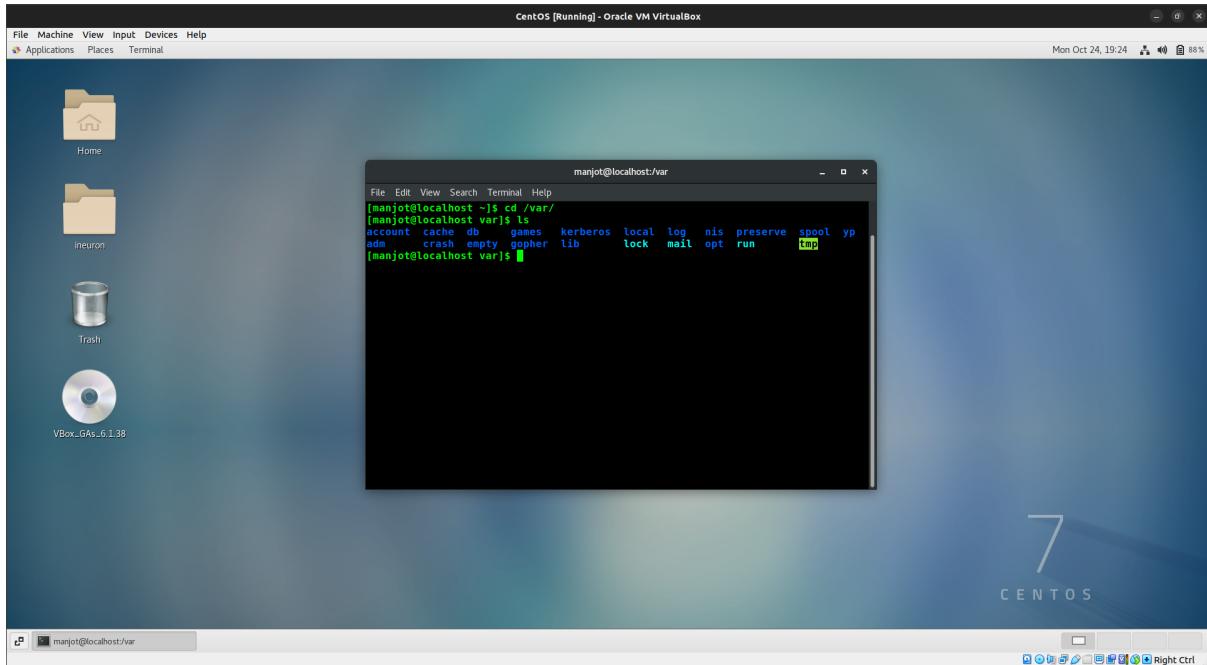
- Open terminal after restart the linux
 - Check which location you working, type **pwd** and take screenshot

solution:-



- Now use cd /var and hit Enter key
 - Do ls, and see what output comes, give screenshot?

Solution:-



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