



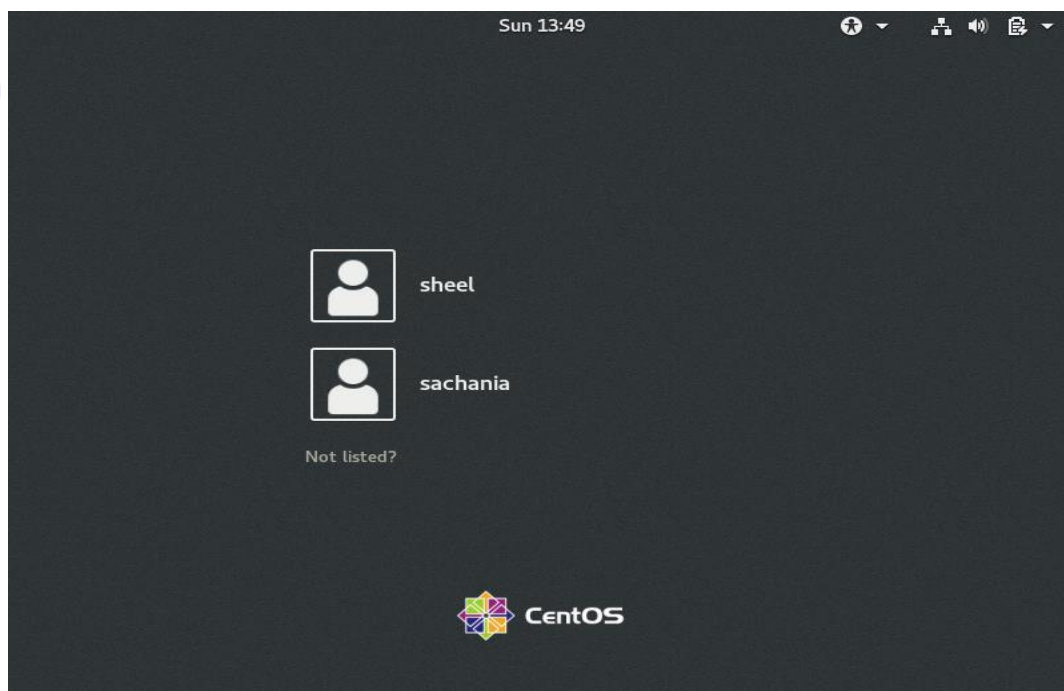
### Basic Linux Commands Assignments

#### **"(BOLD SENTENCES WITH ITALICS ARE ANSWERS)"**

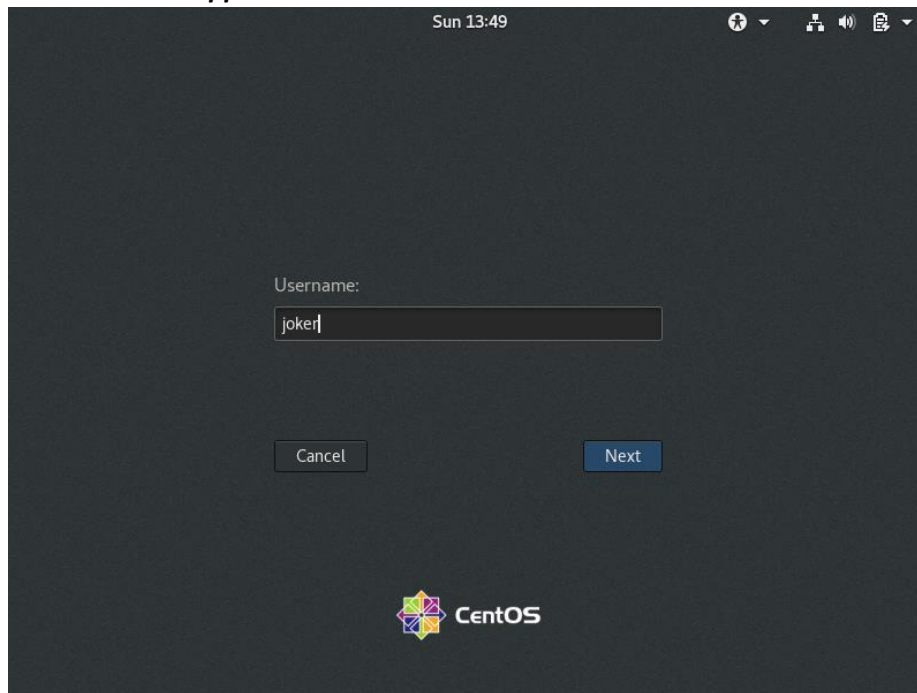
##### Assignment-1

Connect and disconnect with login Access

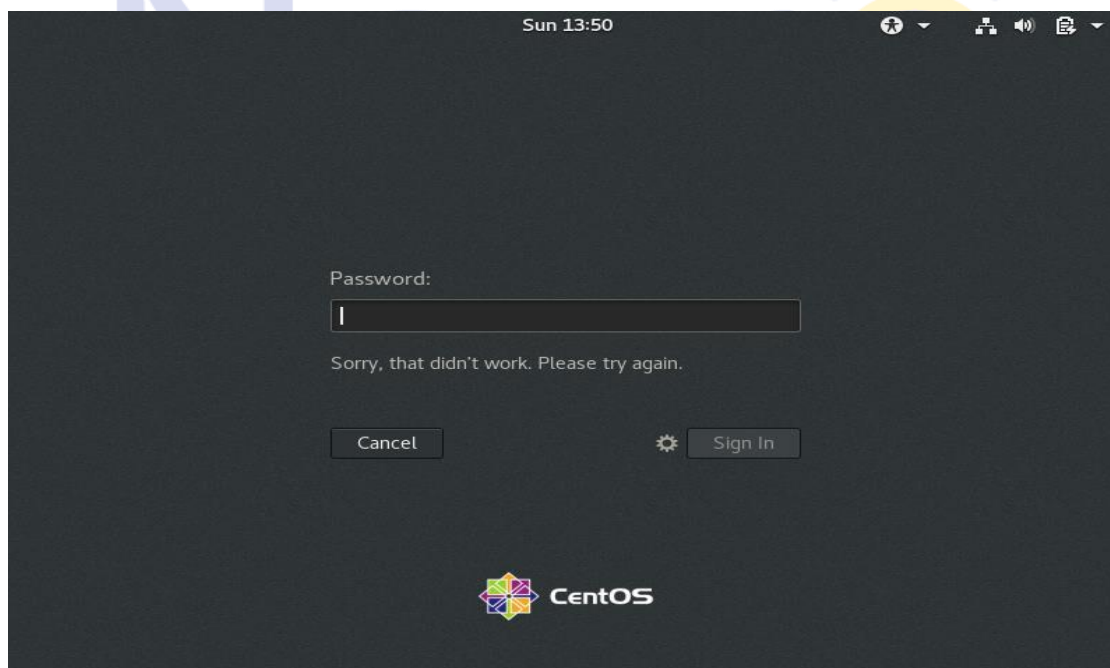
- What happens when you login a non-existent users or username?
  - Provide Screenshot and What you understand, explain in short brief?
- ***If the user is present then this screen appears first after system starts and if we select it further and enter user password it will login successful***



➔ *If the user is not listed then we need to click on not listed to enter the username and then this screen will appear*



➔ *After this password screen will appear and after entering it will throw error as the user does not exists.*



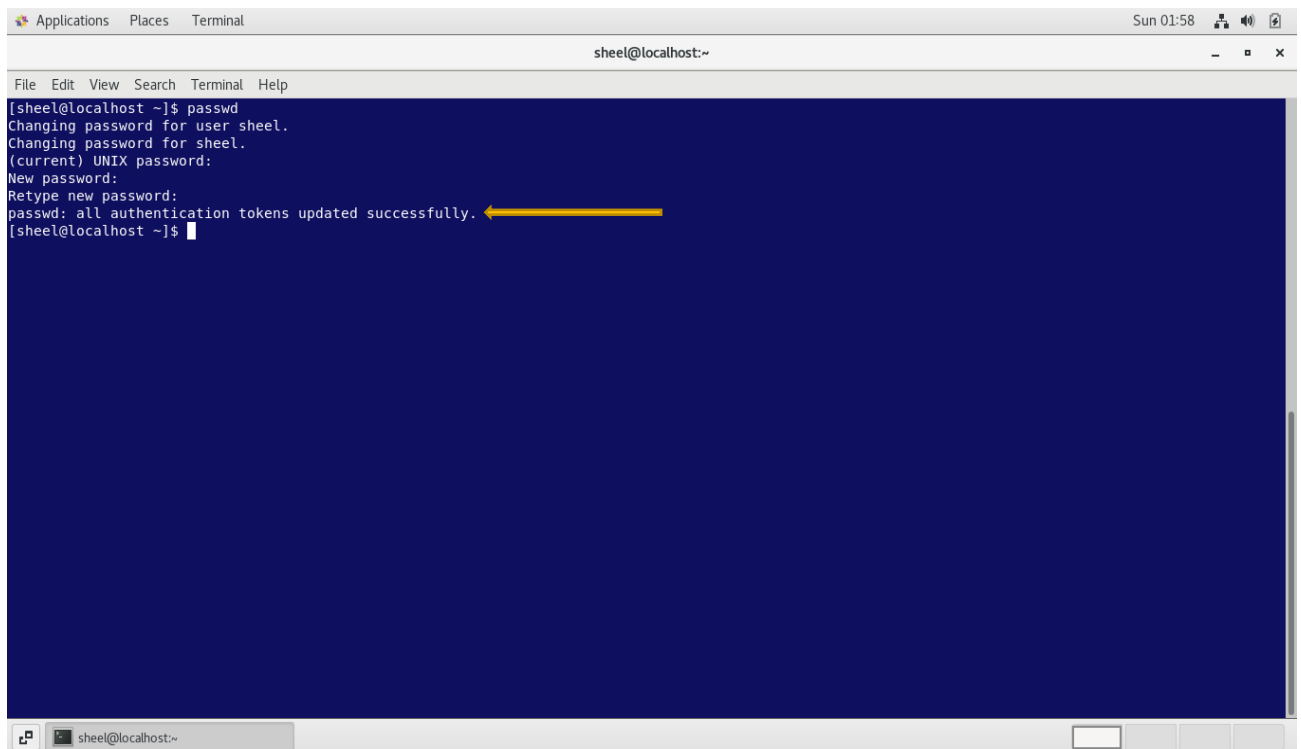
Sheel Sachania

## 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?

➔ **After changing pass to IneuR0n#42 it will change successfully and show us message**



The screenshot shows a terminal window titled "Applications Places Terminal" with a status bar indicating "Sun 01:58". The terminal prompt is "sheel@localhost:~". The user has entered the command "passwd". The terminal output shows the following steps: "Changing password for user sheel.", "Changing password for sheel.", "(current) UNIX password:", "New password:", "Retype new password:", and finally "passwd: all authentication tokens updated successfully." A yellow arrow points to the last line of output. The terminal window has a menu bar with "File Edit View Search Terminal Help" and a taskbar at the bottom showing the terminal icon and the text "sheel@localhost:~".

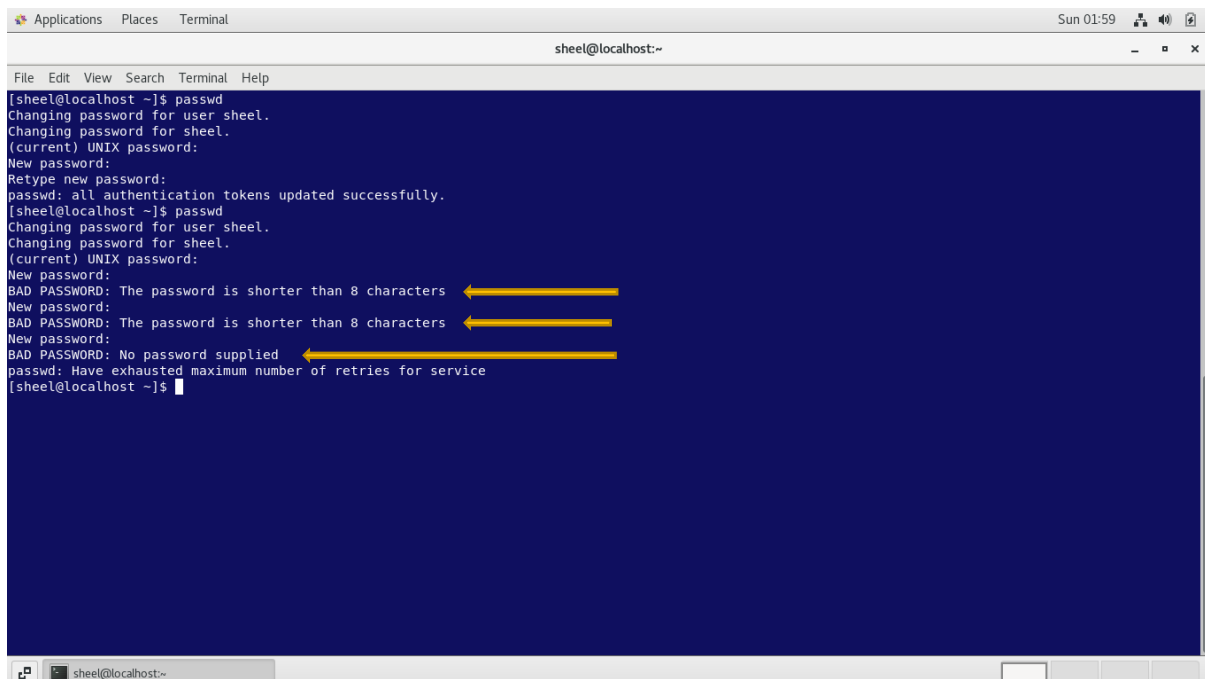
```
sheel@localhost:~$ passwd
Changing password for user sheel.
Changing password for sheel.
(current) UNIX password:
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
sheel@localhost:~$
```

- 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?

➔ **First arrow is for pass 1234 & it shows error that pass is short means characters/letter are not enough**

➔ **Second arrow is for pass abcd & it shows same error that pass is short means characters/letter are not enough**

➔ **Third arrow is for no password means it is blank and shows error of no password supplied**



```
[sheel@localhost ~]$ passwd
Changing password for user sheel.
Changing password for sheel.
(current) UNIX password:
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[sheel@localhost ~]$ passwd
Changing password for user sheel.
Changing password for sheel.
(current) UNIX password:
New password:
BAD PASSWORD: The password is shorter than 8 characters
New password:
BAD PASSWORD: The password is shorter than 8 characters
New password:
BAD PASSWORD: No password supplied
passwd: Have exhausted maximum number of retries for service
[sheel@localhost ~]$
```

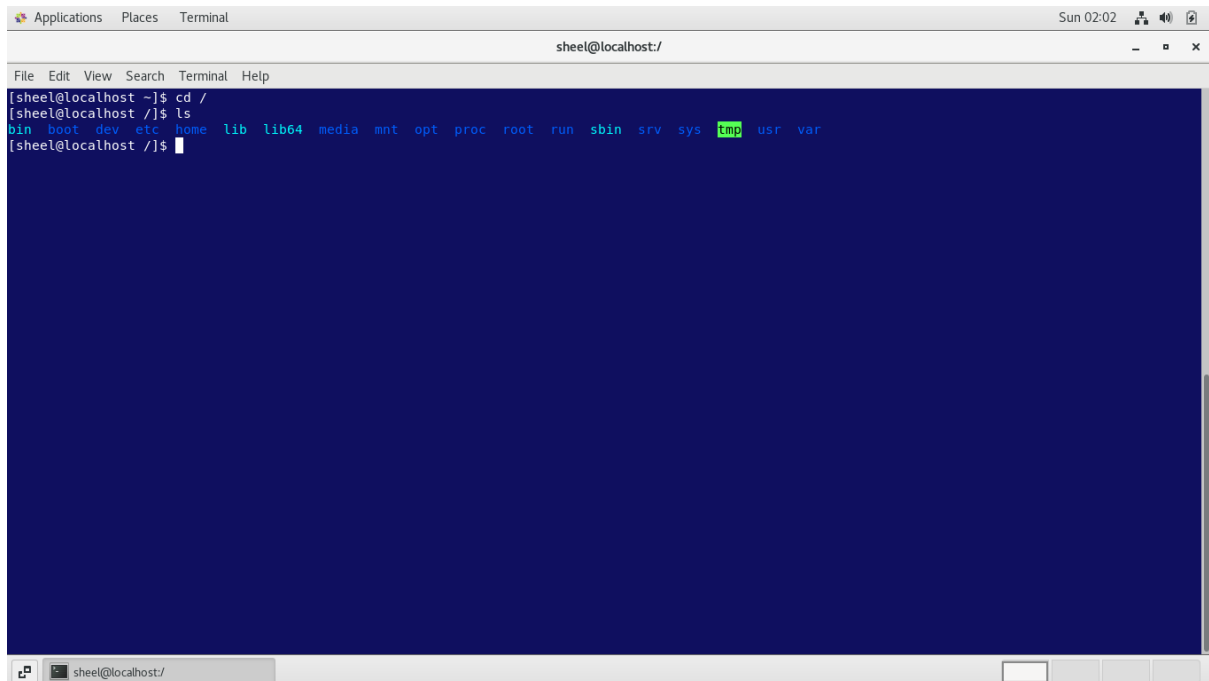
The screenshot shows a terminal window with a dark blue background. It displays the output of the 'passwd' command being run three times. The first two times, the password is successfully changed. The third time, three error messages are shown, each preceded by a yellow arrow pointing to it from the right. The errors are: 'BAD PASSWORD: The password is shorter than 8 characters' (twice) and 'BAD PASSWORD: No password supplied'. The terminal window has a title bar with 'Applications', 'Places', and 'Terminal' menus, and a status bar at the bottom showing 'sheel@localhost:~'.

## 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?

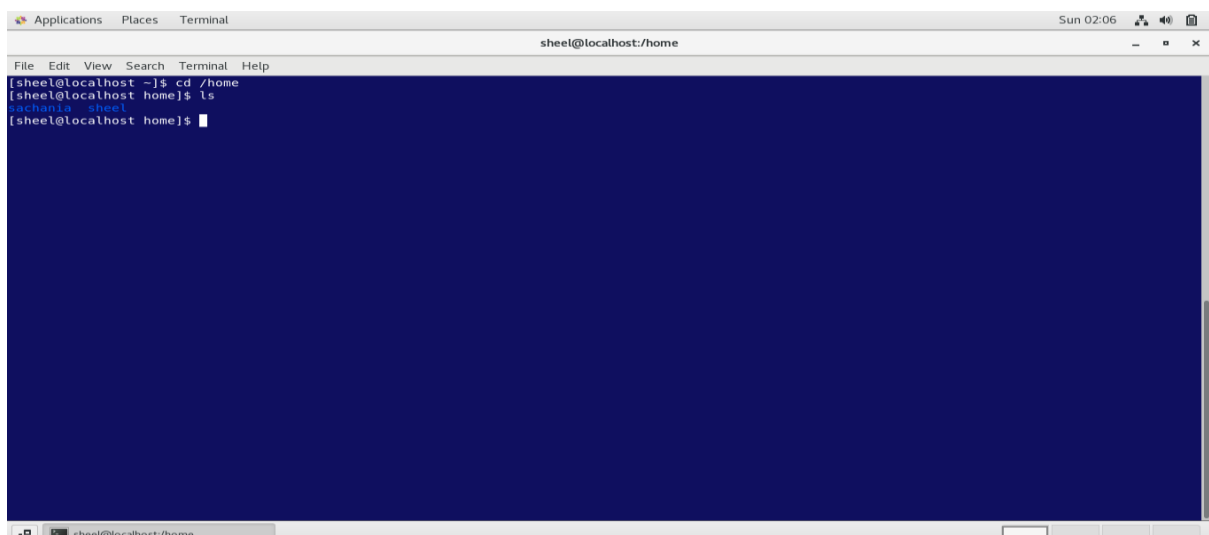
➔ ***cd / represents root directory and ls command lists all the contents of root directory***



```
sheel@localhost: /
ls
bin boot dev etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
```

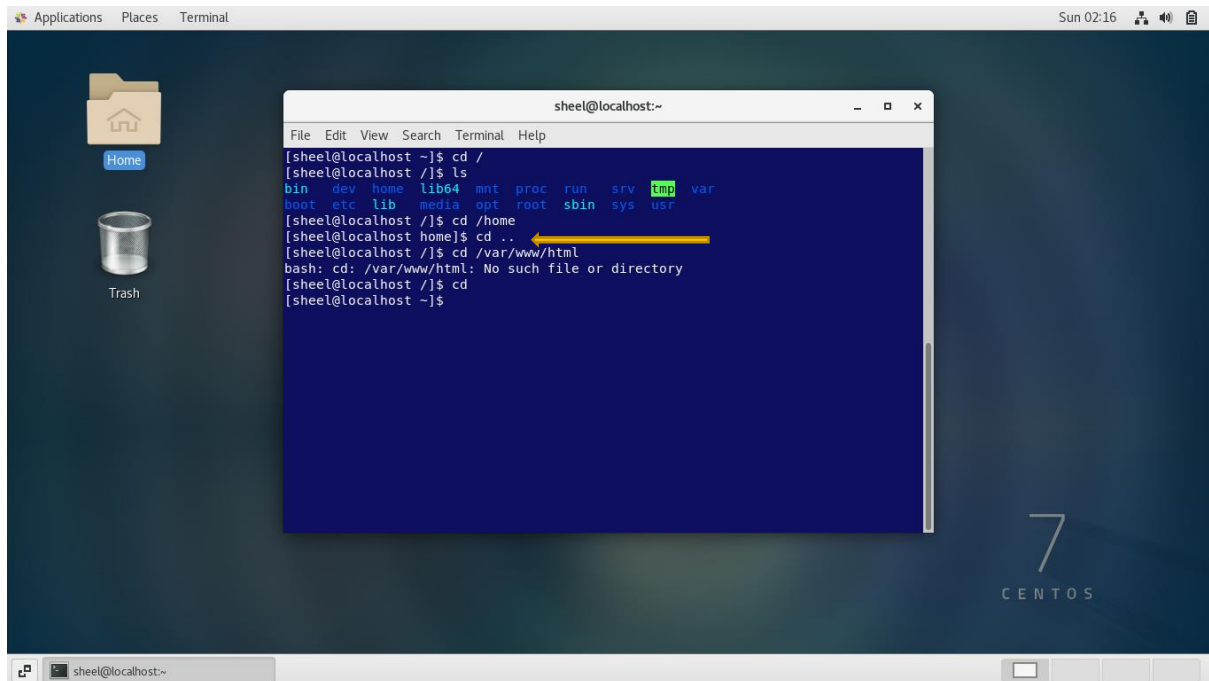
- Enter the command now **cd /home** and then hit **Enter** key
  - Do **ls**, provide screenshot and explain what is **/home** directory used for?

➔ ***cd /home will get us into home directory and after that running ls command will list all contents of home directory.***



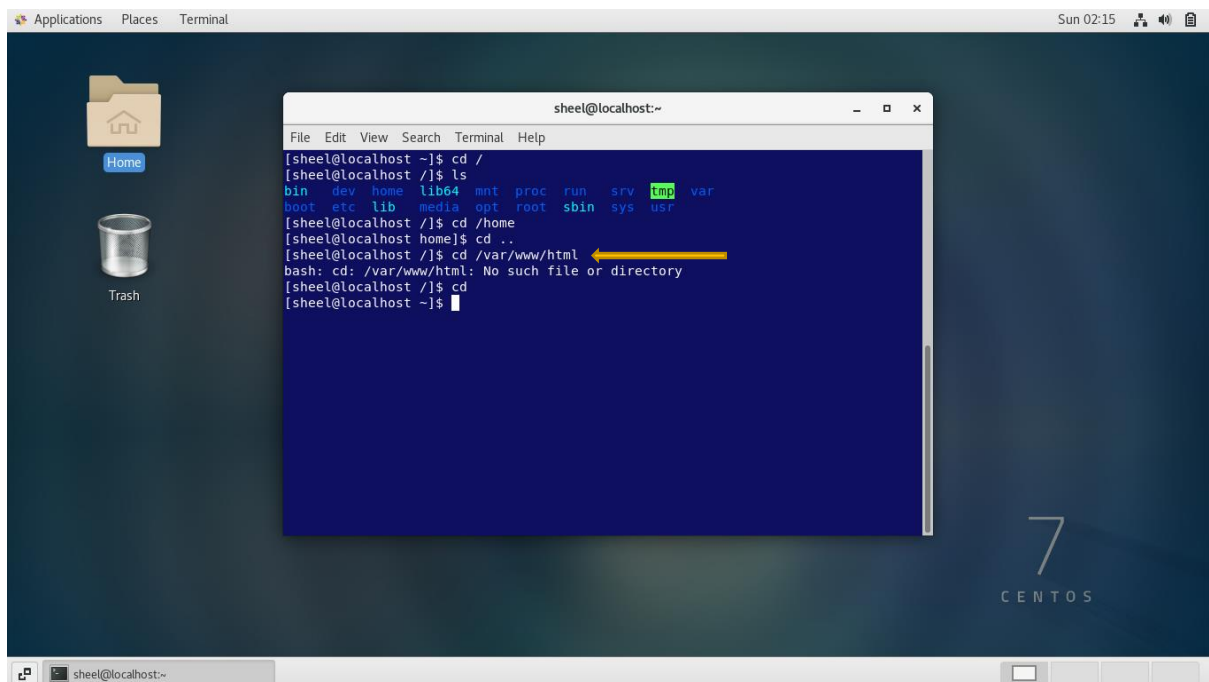
```
sheel@localhost: /home
ls
sachania sheel
```

- Enter **cd ..** and hit **Enter** key [ *Note: here we have space after cd then use double dot* ]
  - Check what happen and give screenshot?
- ➔ **After running cd .. what it does is that it will move to the parent directory of current directory or the directory one level up from the current directory**



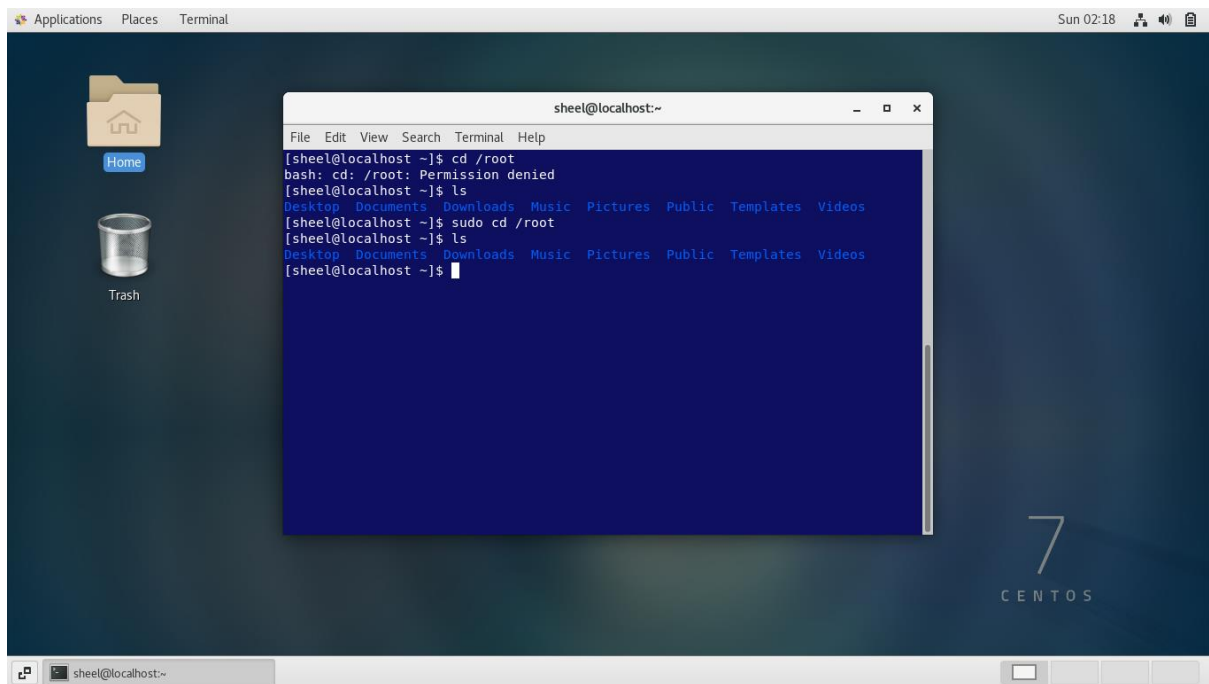
```
sheel@localhost:~  
File Edit View Search Terminal Help  
[sheel@localhost ~]$ cd /  
[sheel@localhost /]$ ls  
bin  dev  home  lib64  mnt  proc  run  srv  tmp  var  
boot  etc  lib   media  opt  root  sbin  sys  usr  
[sheel@localhost /]$ cd /home  
[sheel@localhost home]$ cd ..  
[sheel@localhost /]$ cd /var/www/html  
bash: cd: /var/www/html: No such file or directory  
[sheel@localhost /]$ cd  
[sheel@localhost ~]$
```

- Now enter **cd /var/www/html** and then type **cd** and hit **Enter** key
  - Explain what happen and give screenshot?
  -
- ➔ **/var/www/html is just the default root folder of the web server**
- ➔ **cd command just moves back into the parent directory or move all the way back to the root directory**



```
sheel@localhost:~  
File Edit View Search Terminal Help  
[sheel@localhost ~]$ cd /  
[sheel@localhost /]$ ls  
bin  dev  home  lib64  mnt  proc  run  srv  tmp  var  
boot  etc  lib   media  opt  root  sbin  sys  usr  
[sheel@localhost /]$ cd /home  
[sheel@localhost home]$ cd ..  
[sheel@localhost /]$ cd /var/www/html  
bash: cd: /var/www/html: No such file or directory  
[sheel@localhost /]$ cd  
[sheel@localhost ~]$
```

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



iNeuron

## 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?
- ➔ ***/etc/ is where configuration files and directories are located***

[illegible]

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

➔ You can list the permissions of the files and directories as well as other attributes such as folder names, file and directory sizes, and modified date and time which also include the hidden files as shown in output below.



## Sheel Sachania

```
Applications Places Terminal
sheel@localhost/etc
File Edit View Search Terminal Help
[sheel@localhost etc]$ ls -al
total 1376
drwxr-xr-x. 139 root root      8192 Oct 16 13:15 .
drwxr-xr-x. 17 root root      224 Oct 16 08:56 ..
drwxr-xr-x. 3 root root      101 Oct 16 08:41 abrt
-rw-r--r--. 1 root root       16 Oct 16 08:56 adjtime
-rw-r--r--. 1 root root     1529 Apr 1 2020 aliases
-rw-r--r--. 1 root root    12288 Oct 16 08:53 aliases.db
drwxr-xr-x. 3 root root       65 Oct 16 08:43 alsa
drwxr-xr-x. 2 root root    4096 Oct 16 01:27 alternatives
-rw-r--r--. 1 root root      541 Jan 13 2022 anacrontab
-rw-r--r--. 1 root root       55 Aug 8 2019 asound.conf
-rw-r--r--. 1 root root       14 May 8 21:24 at.deny
drwxr-xr-x. 3 root root       43 Oct 16 08:41 audit
drwxr-xr-x. 3 root root       83 Oct 16 08:53 audit
drwxr-xr-x. 4 root root       71 Oct 16 08:43 avahi
drwxr-xr-x. 2 root root    4096 Oct 16 01:26 bash_completion.d
-rw-r--r--. 1 root root     2853 Apr 1 2020 bashrc
drwxr-xr-x. 2 root root        6 Sep 1 20:27 binfmt.d
drwxr-xr-x. 2 root root       23 Oct 16 08:48 bluetooth
drwxr-xr-x. 2 root root    12288 Oct 16 08:42 brlty
-rw-r--r--. 1 root root    21929 Apr 11 2018 brlty.conf
-rw-r--r--. 1 root root       37 Nov 23 2020 centos-release
-rw-r--r--. 1 root root       51 Nov 23 2020 centos-release-upstream
drwxr-xr-x. 2 root root        6 Oct 13 2020 chkconfig.d
-rw-r--r--. 1 root root    1180 Aug 8 2019 chrony.conf
-rw-r--r--. 1 root root     481 Aug 8 2019 chrony.keys
drwxr-xr-x. 2 root root       26 Oct 16 01:25 cifs-utils
drwxr-xr-x. 2 root root       34 Oct 16 01:23 cron.d
drwxr-xr-x. 2 root root       57 Oct 16 08:44 cron.daily
-rw-r--r--. 1 root root        8 Jan 13 2022 cron.deny
drwxr-xr-x. 2 root root       41 Oct 16 01:23 cron.hourly
drwxr-xr-x. 2 root root       6 Jun 10 2014 cron.monthly
-rw-r--r--. 1 root root      451 Jun 10 2014 crontab
drwxr-xr-x. 2 root root       6 Jun 10 2014 cron.weekly
-rw-r--r--. 1 root root        6 Oct 16 08:37 crypttab
-rw-r--r--. 1 root root     1620 Apr 1 2020 csh.cshrc
drwxr-xr-x. 1 root root     1183 Apr 1 2020 csh.login
drwxr-xr-x. 5 root root       4096 Oct 16 13:16 cups
drwxr-xr-x. 2 root root       34 Oct 16 08:42 cupshelpers
drwxr-xr-x. 4 root root       78 Oct 16 08:40 dbus-1
drwxr-xr-x. 4 root root       31 Oct 16 08:40 dconf
drwxr-xr-x. 2 root root       44 Oct 16 01:25 default
drwxr-xr-x. 2 root root       71 Oct 16 13:13 depmod.d
drwxr-xr-x. 4 root root       53 Jun 9 2021 dhcp
-rw-r--r--. 1 root root     5090 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 elyza-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 16 08:40 dracut-udev.d

Applications Places Terminal
sheel@localhost/etc
File Edit View Search Terminal Help
-rw-r--r--. 1 root root        8 Apr 1 2020 environment
-rw-r--r--. 1 root root    1317 Apr 11 2018 ethertypes
-rw-r--r--. 1 root root        6 Jun 7 2013 exports
drwxr-xr-x. 2 root root        6 Oct 14 2021 exports.d
lrwxrwxrwx. 1 root root       50 Oct 16 08:39 favicon.png -> /usr/share/icons/hicolor/16x16/apps/fedora-logo-icon.png
drwxr-xr-x. 2 root root       22 Oct 16 08:42 fcoe
drwxr-xr-x. 2 root root       46 Oct 16 08:40 festival
-rw-r--r--. 1 root root       70 Apr 1 2020 filesystems
drwxr-xr-x. 3 root root       18 Sep 1 20:55 firefex
drwxr-xr-x. 7 root root      133 Oct 16 01:23 firewallld
drwxr-xr-x. 3 root root       23 Oct 16 08:41 flatpak
drwxr-xr-x. 3 root root       38 Oct 16 08:39 fonts
-rw-r--r--. 1 root root      20 Oct 31 2018 fprintd.conf
drwxr-xr-x. 1 root root     405 Oct 16 08:37 fsck
-rw-r--r--. 1 root root       38 Oct 30 2018 fuse.conf
drwxr-xr-x. 3 root root       59 Oct 16 08:42 fwupd
drwxr-xr-x. 7 root root      197 Oct 16 08:40 gcc.conf
drwxr-xr-x. 2 root root        6 Aug 2 2017 gcrypt
-rw-r--r--. 1 root root     269 Sep 30 2020 gdbinit
drwxr-xr-x. 2 root root        6 Sep 30 2020 gdbinit.d
drwxr-xr-x. 6 root root      197 Oct 16 01:24 gdm
drwxr-xr-x. 2 root root       26 Oct 16 08:41 gesticlue
-rw-r--r--. 1 root root    1704 Aug 13 2019 GeoIP.conf
drwxr-xr-x. 2 root root        6 Sep 30 2020 ghostscript
drwxr-xr-x. 3 root root       26 Oct 16 08:40 glnd
drwxr-xr-x. 2 root root        6 Jul 13 2018 gnupg
-rw-r--r--. 1 root root     94 Mar 24 2017 GREP.COLORS
drwxr-xr-x. 4 root root       40 Oct 16 08:38 groff
-rw-r--r--. 1 root root    1012 Oct 16 12:55 group
-rw-r--r--. 1 root root     998 Oct 16 01:24 group-
lrwxrwxrwx. 1 root root       22 Oct 16 01:24 grub2.cfg -> ../boot/grub2/grub.cfg
drwxr-xr-x. 2 root root      182 Oct 16 01:23 grub.d
-rw-r--r--. 1 root root       817 Oct 16 12:55 gshadow
-rw-r--r--. 1 root root     886 Oct 16 01:07 gshadow-
drwxr-xr-x. 3 root root       20 Jun 28 21:01 gss
drwxr-xr-x. 2 root root       79 Oct 16 01:24 gssproxy
-rw-r--r--. 1 root root        9 Jun 7 2013 host.conf
-rw-r--r--. 1 root root       22 Oct 16 08:56 hostname
-rw-r--r--. 1 root root     158 Jun 7 2013 hosts
-rw-r--r--. 1 root root     370 Jun 7 2013 hosts.allow
-rw-r--r--. 1 root root     460 Jun 7 2013 hosts.deny
drwxr-xr-x. 2 root root       24 Oct 16 08:41 hp
-rw-r--r--. 1 root root    4849 Apr 11 2018 idmapi.conf
-rw-r--r--. 1 root root       11 Oct 16 08:38 init.d -> rc.d/init.d
-rw-r--r--. 1 root root     511 Nov 16 2020 inittab
-rw-r--r--. 1 root root     942 Jun 7 2013 inputrc
drwxr-xr-x. 2 root root     158 Oct 16 08:38 irqroute
-rw-r--r--. 1 root root    1073 Aug 6 2020 ipsec.conf
drwxr-xr-x. 3 root root       22 Aug 6 2020 ipsec.d
-rw-r--r--. 1 root root       31 Aug 6 2020 ipsec.secrets
drwxr-xr-x. 2 root root       52 Oct 16 01:23 iscsi
-rw-r--r--. 1 root root       23 Nov 23 2020 issue
-rw-r--r--. 1 root root       23 Nov 23 2020 issue.d
```

# Sheel Sachania

```
Applications Places Terminal
sheel@localhost/etc

File Edit View Search Terminal Help
dnxkr-xf-x: 3 root root 82 Oct 16 00:40 jare
dnxkr-xf-x: 2 root root 6 Nov 21 2015 jvs
dnxkr-xf-x: 2 root root 6 Nov 21 2015 jvs:common
dnxkr-xf-x: 1 root root 7274 Oct 16 01:25 kdump.conf
dnxkr-xf-x: 4 root root 39 Oct 16 13:14 kernel
dnxkr-xf-x: 1 root root 646 Jan 13 2022 krb5.conf
dnxkr-xf-x: 2 root root 6 Jun 28 21:01 krb5.conf.d
dnxkr-xf-x: 1 root root 478 Jan 7 2022 kstuned.conf
dnxkr-xf-x: 1 root root 8129 Oct 16 13:12 ld.so.cache
dnxkr-xf-x: 1 root root 28 Feb 28 2013 ld.so.conf
dnxkr-xf-x: 2 root root 208 Oct 16 01:25 ld.so.conf.d
dnxkr-xf-x: 1 root root 191 Mar 2 2019 libaudit.conf
dnxkr-xf-x: 3 root root 20 Oct 16 00:40 liblockdev
dnxkr-xf-x: 2 root root 4096 Oct 16 01:24 liblverbs.d
dnxkr-xf-x: 2 root root 35 Oct 16 00:38 libnl
dnxkr-xf-x: 2 root root 6 Sep 30 2020 libpaper.d
dnxkr-xf-x: 6 root root 107 Oct 16 00:40 libreport
dnxkr-xf-x: 1 root root 2391 Oct 13 2013 libuser.conf
dnxkr-xf-x: 5 root root 199 Oct 16 01:24 libvirt
dnxkr-xf-x: 1 root root 19 Oct 16 00:50 locale.conf
dnxkr-xf-x: 1 root root 34 Oct 16 00:50 localtime -> ../usr/share/zoneinfo/Asia/Kolkata
dnxkr-xf-x: 1 root root 2027 Aug 6 2019 login.defs
dnxkr-xf-x: 1 root root 862 Jul 31 2013 logrotate.conf
dnxkr-xf-x: 2 root root 218 Oct 16 01:25 logrotate.d
dnxkr-xf-x: 3 root root 43 Oct 16 01:23 lvm
dnxkr-xf-x: 6 root root 100 Oct 16 01:24 lvm
dnxkr-xf-x: 1 root root 33 Oct 16 00:40 machine-id
dnxkr-xf-x: 1 root root 111 Sep 30 2020 magic
dnxkr-xf-x: 1 root root 1908 Apr 11 2018 mail.rc
dnxkr-xf-x: 1 root root 5122 Jun 9 2021 makedumpfile.conf.sample
dnxkr-xf-x: 1 root root 5173 Oct 31 2018 man_db.conf
dnxkr-xf-x: 2 root root 6 Nov 21 2015 maven
dnxkr-xf-x: 3 root root 61 Oct 16 00:43 mcclisp
dnxkr-xf-x: 1 root root 1106 Sep 30 2020 mke2fs.conf
dnxkr-xf-x: 2 root root 166 Oct 16 01:25 mdprobe.d
dnxkr-xf-x: 2 root root 6 Sep 1 20:27 modules-load.d
dnxkr-xf-x: 1 root root 6 Jun 7 2013 mtd
dnxkr-xf-x: 1 root root 17 Oct 16 00:37 mtab -> /proc/self/mounts
dnxkr-xf-x: 1 root root 2020 Jun 10 2014 mtools.conf
dnxkr-xf-x: 2 root root 6 Aug 21 2021 multipath
dnxkr-xf-x: 1 root root 576 Sep 30 2020 my.cnf
dnxkr-xf-x: 2 root root 31 Oct 16 00:40 my.cnf.d
dnxkr-xf-x: 1 root root 8892 Jun 10 2014 nandrc
dnxkr-xf-x: 3 root root 36 Oct 16 00:40 ndctl
dnxkr-xf-x: 1 root root 767 Aug 9 2019 netconfig
dnxkr-xf-x: 6 root root 145 Jun 9 2021 netconf-manager
dnxkr-xf-x: 1 root root 50 Nov 16 2020 networks
dnxkr-xf-x: 1 root root 1023 Oct 14 2021 nfs.conf
dnxkr-xf-x: 1 root root 1391 Oct 14 2021 nfsmount.conf
dnxkr-xf-x: 1 root root 1949 Oct 16 00:40 nsswitch.conf
dnxkr-xf-x: 1 root root 1938 Sep 30 2020 nsswitch.conf.bak
dnxkr-xf-x: 2 root root 36 Oct 16 00:44 ntp

sheel@localhost/etc

Applications Places Terminal
sheel@localhost/etc

File Edit View Search Terminal Help
dnxkr-xf-x: 1 root root 91 Dec 3 2012 named.conf
dnxkr-xf-x: 2 root root 6 Mar 6 2015 oddjob
dnxkr-xf-x: 1 root root 4823 Mar 6 2015 oddjobd.conf
dnxkr-xf-x: 2 root root 76 Oct 16 00:41 oddjobd.conf.d
dnxkr-xf-x: 3 root root 38 Oct 16 01:23 opendap
dnxkr-xf-x: 2 root root 6 Apr 11 2018 opt
dnxkr-xf-x: 1 root root 21 Oct 16 01:22 os-release -> ../usr/lib/os-release
dnxkr-xf-x: 2 root root 92 Oct 16 00:41 Packstack
dnxkr-xf-x: 2 root root 4096 Oct 16 01:25 pam.d
dnxkr-xf-x: 1 root root 40 Sep 30 2020 passwsize
dnxkr-xf-x: 1 root root 2362 Oct 16 12:55 passwd
dnxkr-xf-x: 1 root root 2317 Oct 16 01:07 passwd
dnxkr-xf-x: 1 root root 1302 Jun 10 2014 pbm2ppa.conf
dnxkr-xf-x: 1 root root 1072 Jun 10 2014 piforce
dnxkr-xf-x: 3 root root 21 Oct 16 00:38 pkcs11
dnxkr-xf-x: 12 root root 151 Oct 16 00:44 pk
dnxkr-xf-x: 2 root root 28 Oct 16 00:41 plymouth
dnxkr-xf-x: 5 root root 39 Oct 16 00:37 pm
dnxkr-xf-x: 1 root root 6306 Jun 10 2014 pnm2ppa.conf
dnxkr-xf-x: 5 root root 72 Jan 26 2022 polkit-1
dnxkr-xf-x: 2 root root 6 Jan 10 2014 post.d
dnxkr-xf-x: 2 root root 154 Oct 16 00:43 postfix
dnxkr-xf-x: 3 root root 235 Oct 16 01:23 pps
dnxkr-xf-x: 2 root root 105 Oct 16 01:25 pvcLink.conf.d
dnxkr-xf-x: 1 root root 233 Jun 7 2013 printcap
dnxkr-xf-x: 1 root root 1039 Apr 1 2020 profile
dnxkr-xf-x: 2 root root 4096 Oct 16 01:22 profile.d
dnxkr-xf-x: 1 root root 6549 Apr 1 2020 protocols
dnxkr-xf-x: 2 root root 79 Oct 16 01:23 public
dnxkr-xf-x: 2 root root 23 Oct 16 00:42 purple
dnxkr-xf-x: 1 root root 0 Oct 16 00:40 pwd.lock
dnxkr-xf-x: 2 root root 39 Oct 16 01:22 pytho
dnxkr-xf-x: 3 root root 50 Oct 16 00:44 qemu.ga
dnxkr-xf-x: 2 root root 51 Oct 16 01:24 qemu.kvm
dnxkr-xf-x: 1 root root 433 Oct 16 2018 radvd.conf
dnxkr-xf-x: 8 root root 27 Oct 16 00:45
dnxkr-xf-x: 1 root root 10 Oct 16 01:23 rc8.d -> rc.d/rc8.d
dnxkr-xf-x: 1 root root 10 Oct 16 01:23 rc1.d -> rc.d/rc1.d
dnxkr-xf-x: 1 root root 10 Oct 16 01:23 rc2.d -> rc.d/rc2.d
dnxkr-xf-x: 1 root root 10 Oct 16 01:23 rc3.d -> rc.d/rc3.d
dnxkr-xf-x: 1 root root 10 Oct 16 01:23 rc4.d -> rc.d/rc4.d
dnxkr-xf-x: 1 root root 10 Oct 16 01:23 rc5.d -> rc.d/rc5.d
dnxkr-xf-x: 1 root root 10 Oct 16 01:23 rc6.d -> rc.d/rc6.d
dnxkr-xf-x: 10 root root 127 Nov 16 2020 rc.d
dnxkr-xf-x: 1 root root 13 Oct 16 01:23 rc.local -> rc.d/rc.local
dnxkr-xf-x: 3 root root 94 Oct 16 01:24 rdma
dnxkr-xf-x: 1 root root 14 Oct 16 01:22 rebase-release -> centos-release
dnxkr-xf-x: 1 root root 1787 Jun 10 2014 request-key.conf
dnxkr-xf-x: 2 root root 30 Oct 16 01:24 request-key.d
dnxkr-xf-x: 1 root root 78 Oct 16 13:15 resolv.conf
dnxkr-xf-x: 1 root root 1038 Dec 25 2012 rpm
dnxkr-xf-x: 2 root root 128 Nov 24 2021 rpm
```

Sheel Sachania

```
Applications Places Terminal
Sun 13-34

sheel@localhost:etc

File Edit View Search Terminal Help

sheel@localhost:~$ ls -l /etc/passwd
-rw-r--r-- 1 root root 1399 Oct 16 12:55 shadow
-rw-r--r-- 1 root root 1376 Oct 16 02:01 shadow-
-rw-r--r-- 1 root root 63 Oct 16 00:44 shells
drwxr-xr-x 3 root root 78 Oct 16 01:22 skel
drwxr-xr-x 3 root root 74 Oct 16 00:44 smartnontools
-rw-r--r-- 1 root root 138 Jun 29 20:50 sss.conf
drwxr-xr-x 4 root root 56 Oct 16 00:41 speech-dispatcher
drwxr-xr-x 2 root root 225 Oct 16 01:25 ssh
drwxr-xr-x 2 root root 19 Oct 16 01:22 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 22 Oct 16 01:07 subgid
-rw-r--r-- 1 root root 0 Apr 1 2020 subuid
-rw-r--r-- 1 root root 22 Oct 16 01:07 subuid
-rw-r--r-- 1 root root 0 Apr 1 2020 subuid
-rw-r--r-- 1 root root 1706 Sep 30 2020 sudo.conf
drwxr-xr-x 1 root root 4328 Sep 30 2020 sudodirs
drwxr-xr-x 2 root root 6 Oct 14 2021 sudodirs.d
-rw-r--r-- 1 root root 3161 Sep 30 2020 sudo-ldap.conf
drwxr-xr-x 1 root root 4096 Oct 16 01:25 sysconf.d
-rw-r--r-- 1 root root 449 Nov 16 2020 sysctl.conf
drwxr-xr-x 2 root root 28 Oct 16 01:23 sysctl.d
-rw-r--r-- 1 root root 151 Oct 16 01:23 systemd
drwxr-xr-x 1 root root 14 Oct 16 01:22 system-release -> centos-release
-rw-r--r-- 1 root root 23 Nov 23 2020 system-release-cpe
-rw-r--r-- 1 tmp tmp 7046 Aug 3 2017 tcsl.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 199 Oct 16 01:25 tuned
drwxr-xr-x 1 root root 54 Oct 16 01:23 uddev
drwxr-xr-x 2 root root 26 Oct 16 00:42 udisks2
drwxr-xr-x 2 root root 68 Oct 10 41 unbound
-rw-r--r-- 1 root root 163 Oct 16 00:37 updatedb.conf
-rw-r--r-- 1 root root 557 Apr 11 2016 updatedb.conf
-rw-r--r-- 2 root root 25 Oct 16 00:41 upower
-rw-r--r-- 1 root root 1523 Apr 11 2016 usb_modeswitch.conf
-rw-r--r-- 1 root root 37 Oct 16 00:50 vconsole.conf
-rw-r--r-- 1 root root 1982 Dec 15 2020 vmware
-rw-r--r-- 1 root root 1982 Dec 15 2020 vmrc
drwxr-xr-x 4 root root 208 Oct 16 01:23 vmware-tools
-rw-r--r-- 1 root root 4479 May 16 2019 wgetrc
drwxr-xr-x 2 root root 33 Oct 16 01:23 wpa_supplicant
-rw-r--r-- 1 root root 0 Jun 10 2014 wvdial.conf
drwxr-xr-x 6 root root 103 Oct 16 00:40 x11
-rw-r--r-- 1 root root 116 Oct 16 00:41 xdg
drwxr-xr-x 2 root root 6 Apr 11 2018 xinetd.d
drwxr-xr-x 2 root root 21 Oct 16 00:38 xml
-rw-r--r-- 1 root root 186 Oct 16 00:40 xym
-rw-r--r-- 1 root root 976 Oct 1 2020 yum.conf
drwxr-xr-x 2 root root 220 Oct 16 01:22 yum.repos.d
sheel@localhost:etc$
```

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

➔ *The `ls -l` command will list the index (called inode) number of each file and directory. In the output below you can have some number index/inode printed before the files and directories.*

Applications

Places

Terminal

File

Edit

View

Search

Terminal

Help

```

#root-xr-x. 2 root root 21 Oct 16 00:38 yum
#root-xr-x. 2 root root 100 Oct 16 00:40 yum
#root-xr-x. 2 root root 970 Oct 16 01:22 yum.conf
#root-xr-x. 2 root root 220 Oct 16 01:22 yum.repos.d
[shel@localhost etc]$ ls -l
-rw-r--r-- 1 root root 1511966 dnmssm.c
-rw-r--r-- 1 root root 17381017 dracut.conf
-rw-r--r-- 1 root root 3456176 dracut.conf.d
-rw-r--r-- 1 root root 17340875 e2fsck.conf
-rw-r--r-- 1 root root 1241616 gpl
-rw-r--r-- 1 root root 180176275 encrypt.cfg
-rw-r--r-- 1 root root 16778350 environment
-rw-r--r-- 1 root root 17471905 etherpypes
-rw-r--r-- 1 root root 17390951 exports
-rw-r--r-- 1 root root 2196443 exports.d
-rw-r--r-- 1 root root 17390510 faxmodem.png
-rw-r--r-- 1 root root 15157024 fcoe
-rw-r--r-- 1 root root 34636045 festival
-rw-r--r-- 1 root root 16777352 filesystems
-rw-r--r-- 1 root root 38205741 firewalld
-rw-r--r-- 1 root root 35187290 firewalld
-rw-r--r-- 1 root root 17635800 fltkapp
-rw-r--r-- 1 root root 87 fonts
-rw-r--r-- 1 root root 17553390 fprind.conf
-rw-r--r-- 1 root root 16777282 fstab
-rw-r--r-- 1 root root 18002221 fuse.conf
-rw-r--r-- 1 root root 1903720 fwupd
-rw-r--r-- 1 root root 34582354 gconf
-rw-r--r-- 1 root root 123752 gcrypt
-rw-r--r-- 1 root root 17349903 grubinit
-rw-r--r-- 1 root root 51627301 grubinit.d
-rw-r--r-- 1 root root 15136099 grub
-rw-r--r-- 1 root root 15139226 grubenv
-rw-r--r-- 1 root root 17349083 GRUB.conf
-rw-r--r-- 1 root root 17697328 ghostscript
-rw-r--r-- 1 root root 164370975 glibc
-rw-r--r-- 1 root root 34536684 gnuage
-rw-r--r-- 1 root root 16891973 GREP COLORS
-rw-r--r-- 1 root root 50375310 grub
-rw-r--r-- 1 root root 17592600 group
-rw-r--r-- 1 root root 17381195 group.conf
-rw-r--r-- 1 root root 17492256 grub2.cfg
-rw-r--r-- 1 root root 16778343 grubenv
-rw-r--r-- 1 root root 16873593 gshadow
-rw-r--r-- 1 root root 17381174 gshadow.d
-rw-r--r-- 1 root root 17439373 machine-id
-rw-r--r-- 1 root root 5074121 gpg
-rw-r--r-- 1 root root 17555492 nssprng
-rw-r--r-- 1 root root 16778353 host.conf
-rw-r--r-- 1 root root 16777294 hostname
-rw-r--r-- 1 root root 16778356 hosts
-rw-r--r-- 1 root root 16778357 hosts.allow
-rw-r--r-- 1 root root 173408075 k2fs.conf
-rw-r--r-- 1 root root 17381937 mdmconf.d
-rw-r--r-- 1 root root 1038472 modules-load.d
-rw-r--r-- 1 root root 16778360 motd
-rw-r--r-- 1 root root 16777234 ntfs
-rw-r--r-- 1 root root 17140281 nttools.conf
-rw-r--r-- 1 root root 17492114 multipath
-rw-r--r-- 1 root root 17306033 my.conf
-rw-r--r-- 1 root root 17400401 my.conf.d
-rw-r--r-- 1 root root 18051008 nanorc
-rw-r--r-- 1 root root 34603012 nasm
-rw-r--r-- 1 root root 17777321 nconf
-rw-r--r-- 1 root root 34582738 NetworkManager
-rw-r--r-- 1 root root 17400647 networks
-rw-r--r-- 1 root root 17591571 nfs.conf
-rw-r--r-- 1 root root 17591572 nfsmount.conf
-rw-r--r-- 1 root root 17343980 nsswitch.conf
-rw-r--r-- 1 root root 16800761 nsswitch.conf.bak
-rw-r--r-- 1 root root 51835677 ntp
-rw-r--r-- 1 root root 17519354 numad.conf
-rw-r--r-- 1 root root 15126666 odjod.conf
-rw-r--r-- 1 root root 17550742 odjod.conf
-rw-r--r-- 1 root root 1512032 odjod.conf.d
-rw-r--r-- 1 root root 17399966 openldap
-rw-r--r-- 1 root root 16800722 libaudit.conf
-rw-r--r-- 1 root root 16777327 opt
-rw-r--r-- 1 root root 1164388 PackageKit
-rw-r--r-- 1 root root 33229602 rpm.d
-rw-r--r-- 1 root root 17291734 paperize
-rw-r--r-- 1 root root 18135663 passwd
-rw-r--r-- 1 root root 1738061 passwd
-rw-r--r-- 1 root root 13800477 pbzip2.conf
-rw-r--r-- 1 root root 17718296 pinforc
-rw-r--r-- 1 root root 33928346 pccall
-rw-r--r-- 1 root root 17381646 login.defs
-rw-r--r-- 1 root root 17472752 plymouth
-rw-r--r-- 1 root root 33758246 rpm
-rw-r--r-- 1 root root 17400319 pbzip2.conf
-rw-r--r-- 1 root root 50985405 polkit-1
-rw-r--r-- 1 root root 123695 rpm.d
-rw-r--r-- 1 root root 16902196 postfix
-rw-r--r-- 1 root root 34582730 rpm
-rw-r--r-- 1 root root 51615 prelink.conf.d
-rw-r--r-- 1 root root 16778362 printcap
-rw-r--r-- 1 root root 34327871 profile
-rw-r--r-- 1 root root 50331737 profile.d
-rw-r--r-- 1 root root 16778364 protocols
-rw-r--r-- 1 root root 34560842 pulse
-rw-r--r-- 1 root root 2143189 purple
-rw-r--r-- 1 root root 17380075 python
-rw-r--r-- 1 root root 281119 qemu-ga
-rw-r--r-- 1 root root 51499569 qemu-kvm
-rw-r--r-- 1 root root 17572226 rdevd.conf
-rw-r--r-- 1 root root 17385596 redhat
-rw-r--r-- 1 root root 17400051 rc.d
-rw-r--r-- 1 root root 16808790 rc1.d
-rw-r--r-- 1 root root 16808791 rc2.d
-rw-r--r-- 1 root root 16808792 rc3.d
-rw-r--r-- 1 root root 16808793 rc4.d
-rw-r--r-- 1 root root 16808794 rc5.d
-rw-r--r-- 1 root root 17380862 sudo-ldap.conf
-rw-r--r-- 1 root root 16808795 sudo.conf
-rw-r--r-- 1 root root 123787 rc.d
-rw-r--r-- 1 root root 16778367 rc.local
-rw-r--r-- 1 root root 12416171 rpm
-rw-r--r-- 1 root root 16777324 redhat-release
-rw-r--r-- 1 root root 17141272 request-key.conf
-rw-r--r-- 1 root root 33297690 request-key.d
-rw-r--r-- 1 root root 18016983 resolv.conf
-rw-r--r-- 1 root root 18176985 rpmlib
-rw-r--r-- 1 root root 33718105 rpm
-rw-r--r-- 1 root root 17380993 rsysmd.conf
-rw-r--r-- 1 root root 16777323 s-release
-rw-r--r-- 1 root root 3738105 rpm
-rw-r--r-- 1 root root 17380993 rsyslog.conf
-rw-r--r-- 1 root root 16938289 trusted-key.key
-rw-r--r-- 1 root root 35250884 tux
-rw-r--r-- 1 root root 51495105 udev
-rw-r--r-- 1 root root 2159369 hdisk2
-rw-r--r-- 1 root root 33797324 udev
-rw-r--r-- 1 root root 18016690 updatedb.conf
-rw-r--r-- 1 root root 34797318 uPowershell
-rw-r--r-- 1 root root 17555323 udevswitch.conf
-rw-r--r-- 1 root root 16777286 udevswitch.conf
-rw-r--r-- 1 root root 17591576 vimrc
-rw-r--r-- 1 root root 17142176 virsh
-rw-r--r-- 1 root root 15136269 virtio-tools
-rw-r--r-- 1 root root 18017634 wgetrc
-rw-r--r-- 1 root root 1241703 yum-supplement
-rw-r--r-- 1 root root 17645200 yum.conf
-rw-r--r-- 1 root root 16778371 x11
-rw-r--r-- 1 root root 77926 xkb
-rw-r--r-- 1 root root 3375624 xinetd.d
-rw-r--r-- 1 root root 33529695 xorg
-rw-r--r-- 1 root root 89 yum
-rw-r--r-- 1 root root 17381568 yum.conf
-rw-r--r-- 1 root root 50331734 yum.repos.d

```

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

```

File Edit View Search Terminal Help
sheel@localhost/etc
ls --help
Usage: ls [OPTION]... [FILE]...
List information about the FILES (the current directory by default).
Sort entries alphabetically if none of -ctuvSUx nor --sort is specified.

Mandatory arguments to long options are mandatory for short options too.
-a, --all                do not ignore entries starting with .
-A, --almost-all        do not list implied . and ..
--author                 with -l, print the author of each file
-b, --escape             print C-style escapes for nongraphical characters
--block-size=SIZE        scale sizes by SIZE before printing them; e.g.,
                        '--block-size=M' prints sizes in units of
                        1,048,576 bytes; see SIZE format below
-B, --ignore-backups     do not list implied entries ending with ~
-c, --sort=WORD           sort by WORD, and show, ctime (time of last
                        modification of file status information);
                        with -l: show ctime and sort by name;
                        otherwise: sort by ctime, newest first
-C, --color[=WHEN]       list entries by columns
                        colorize the output; WHEN can be 'never', 'auto',
                        or 'always' (the default); more info below
-d, --directory          list directories themselves, not their contents
-D, --dired              generate output designed for Emacs' dired mode
-f, --full-time           do not sort, enable -su, disable -le --color
                        append indicator (one of /*=d) to entries
-F, --classify           likewise, except do not append '*'
--file-type              across -x, commas -m, horizontal -x, long -l,
                        single column -l, verbose -l, vertical -C
--full-time             like -l --time-style=full-iso
-g, --group-directories-first
                        like -l, but do not list owner
--group-directories-first
                        group directories before files;
                        can be augmented with a --sort option, but any
                        use of --sort=name [-U] disables grouping
-G, --no-group           in a long listing, don't print group names
-h, --human-readable     with -l, print sizes in human readable format
                        (e.g., 1K 234M 2G)
--si                    likewise, but use powers of 1000 not 1024
-H, --dereference-command-line
                        follow symbolic links listed on the command line
--dereference-command-line-symlink-to-dir
                        follow each command line symbolic link
                        that points to a directory
--hide=PATTERN           do not list implied entries matching shell PATTERN
                        (overridden by -a or -A)
--indicator-style=WORD  append indicator with style WORD to entry names:
                        none (default), slash (-p),
                        file-type (--file-type), classify (-F)
-l, --inode             print the index number of each file
-L, --ignore=PATTERN    do not list implied entries matching shell PATTERN
-k, --kibibytes          default to 1024-byte blocks for disk usage
-l, --long              use a long listing format
--dereference           when showing file information for a symbolic
                        link, show the file it points to, not the link
--sort=WORD             sort by WORD instead of name: none (-U), size (-S),
                        time (-t), version (-v), extension (-X)
--time=WORD             with -l, show time as WORD instead of default
                        modification time: atime or access or use (-u)
                        ctime or status (-c); also use specified time
                        as sort key if --sort=time
--time-style=STYLE      with -l, show times using style STYLE:
                        full-iso, long-iso, iso, locale, or +FORMAT;
                        FORMAT is interpreted like in 'date'; if FORMAT
                        is FORMAT1=delimiter=FORMAT2, then FORMAT1 applies
                        to non-recent files and FORMAT2 to recent files;
                        if STYLE is prefixed with 'posix-', STYLE
                        takes effect only outside the POSIX locale
-t, --sort=time         sort by modification time, newest first
-T, --tabsize=COLS     assume tab stops at each COLS instead of 8
-u, --sort=access        with -lt: sort by, and show, access time;
                        with -l: show access time and sort by name;
                        otherwise: sort by access time
-U, --sort=name         do not sort; list entries in directory order
                        natural sort of (version) numbers within text
-v, --width=COLS       assume screen width instead of current value
-x, --sort=name         list entries by lines instead of by columns
-X, --sort=extension    sort alphabetically by entry extension
-l, --sort=none         list one file per line

SELinux options:
--lcontext              Display security context. Enable -l. Lines
                        will probably be too wide for most displays.
-Z, --context           Display security context so it fits on most
                        displays. Displays only mode, user, group,
                        security context and file name.
--scontext             Display only security context and file name.
-l, --help             display this help and exit
--version              output version information and exit

SIZE is an integer and optional unit (example: 10M is 10*1024*1024). Units
are K, M, G, T, P, E, Z, Y (powers of 1024) or KB, MB, ... (powers of 1000).

Using color to distinguish file types is disabled both by default and
with --color=never. With --color=auto, ls emits color codes only when
standard output is connected to a terminal. The LS_COLORS environment
variable can change the settings. Use the dircolors command to set it.

Exit status:
0 if OK,
1 if minor problems (e.g., cannot access subdirectory),
2 if serious trouble (e.g., cannot access command-line argument).

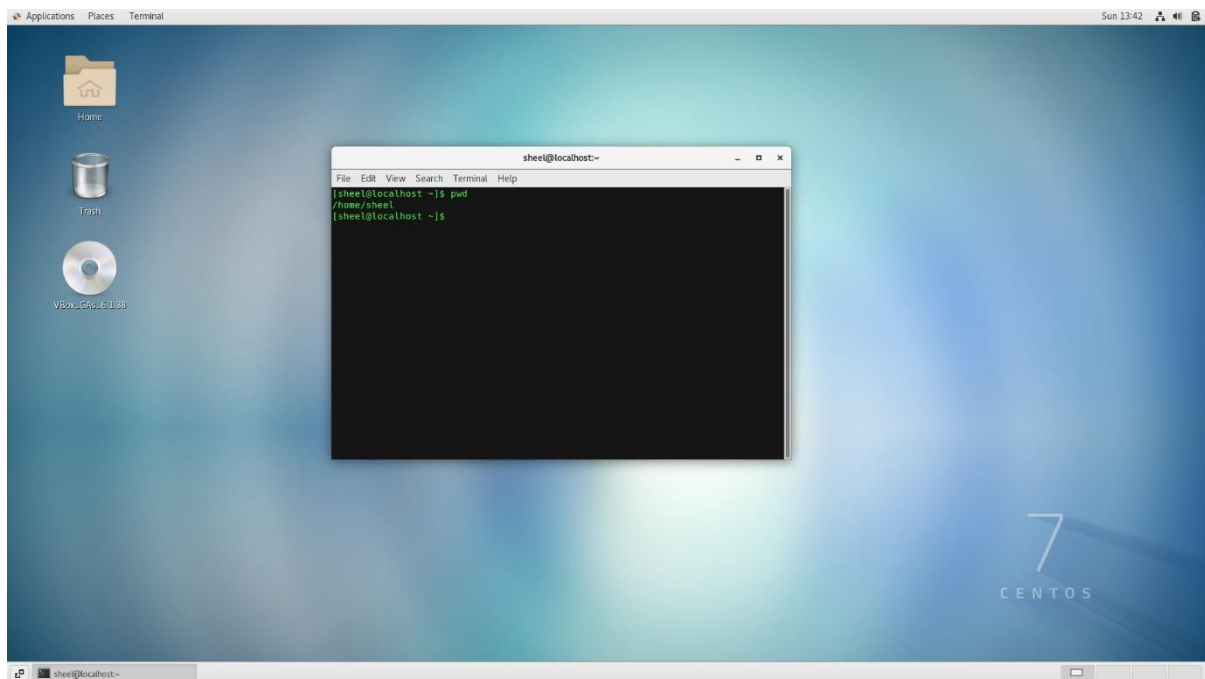
GNU coreutils online help: <http://www.gnu.org/software/coreutils/>
For complete documentation, run: info coreutils 'ls invocation'
sheel@localhost/etc
    
```

## Assignment-5

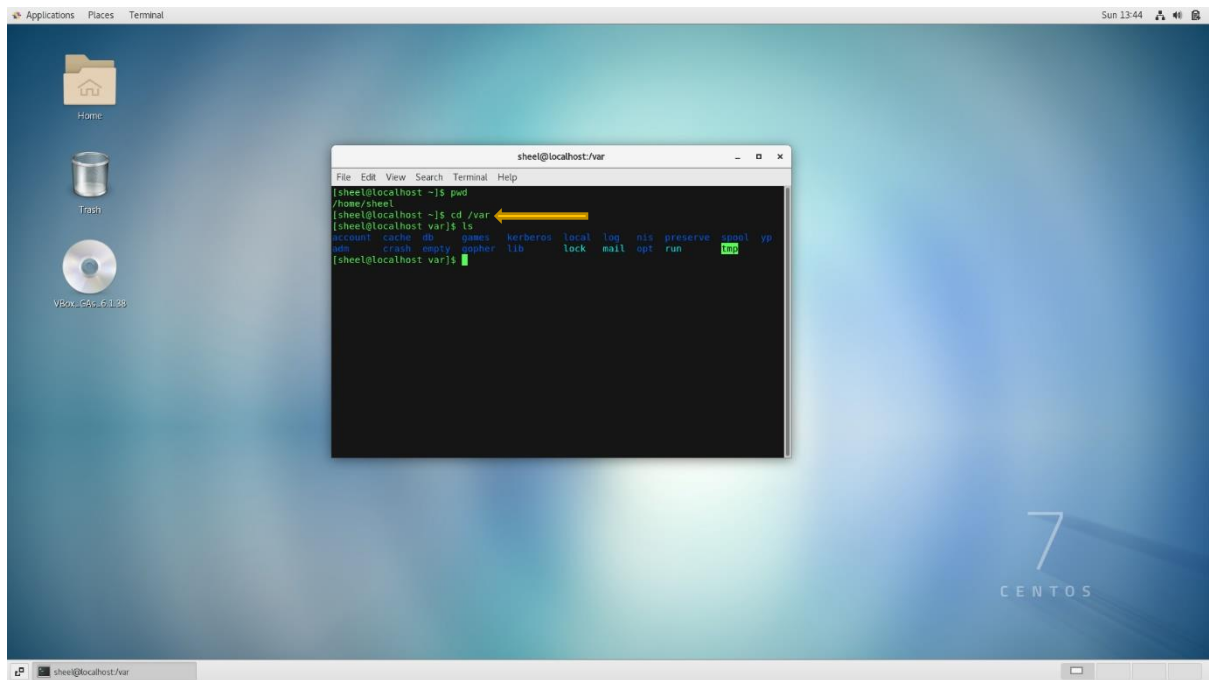
Know where you are and where you working

*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



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



iNeuron