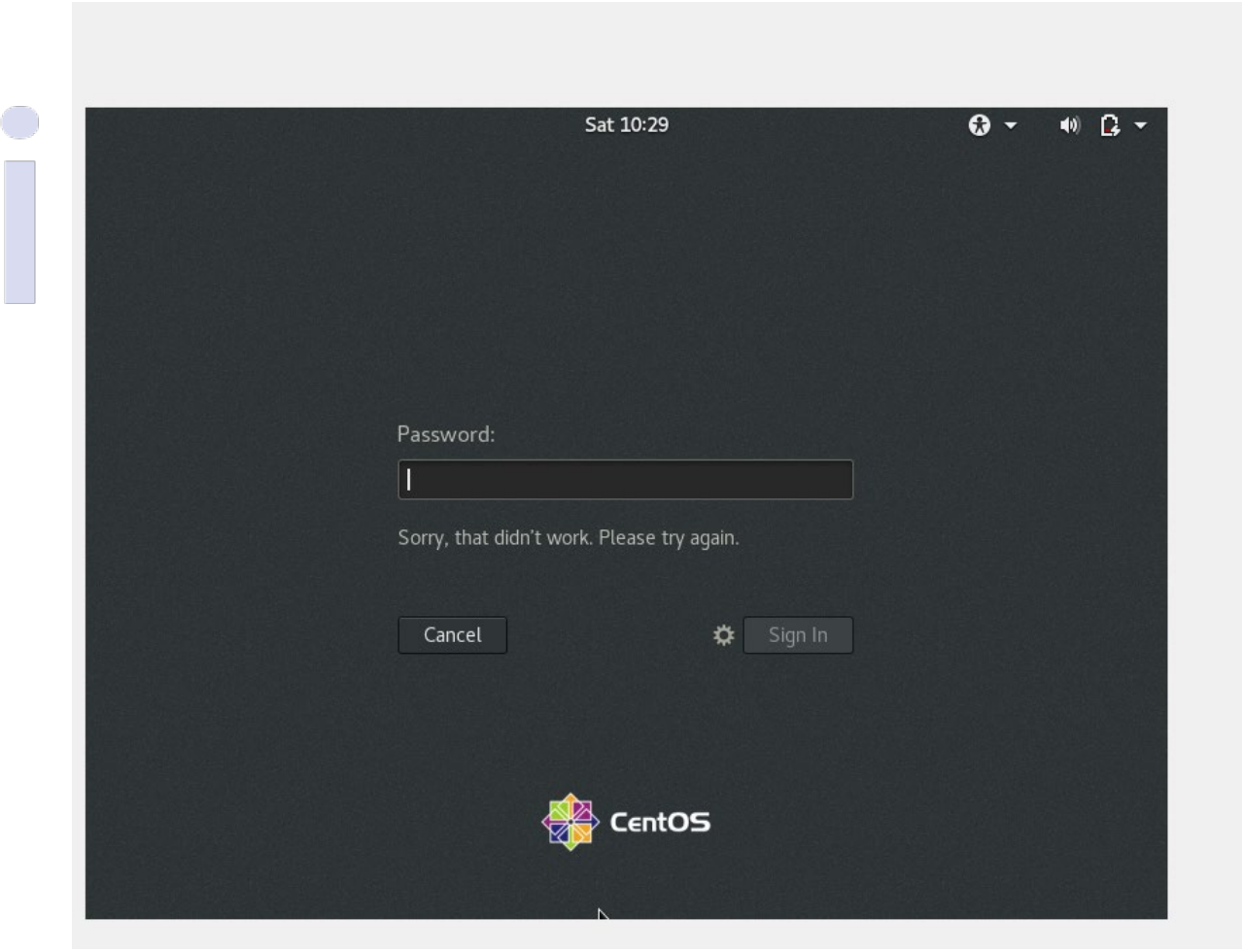
Basic Linux Commands Assignments

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 ***: When we try to login using a non-existent username , it accepts that and proceeds to the password screen. But once you enter the password , we get the Error as "Sorry that didn't work.Please try again". From this we understand , on entering a username it doesn't validate whether the user exist or not , it only validates after entering password***.



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?

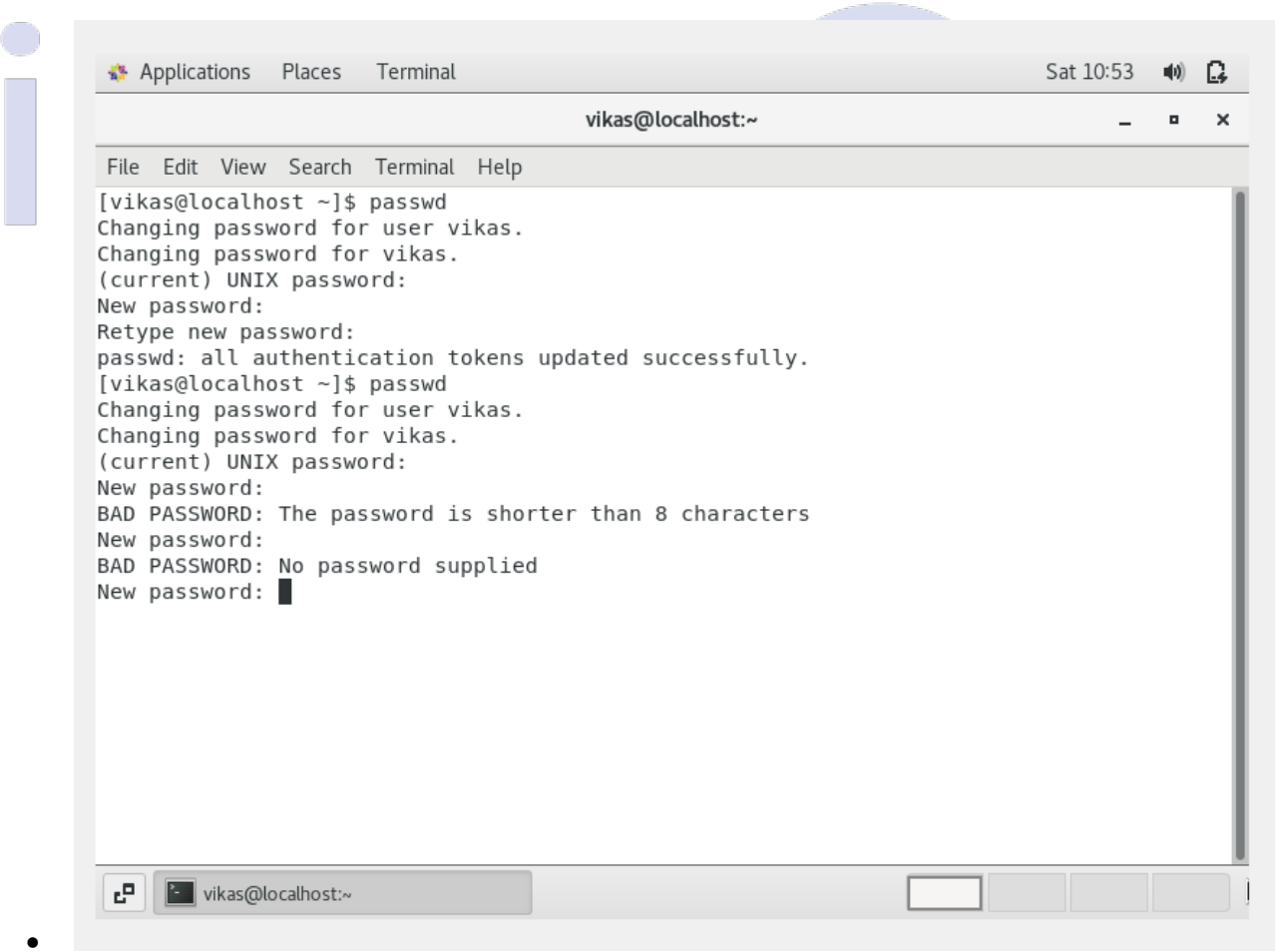
Answer : ***Once you give keyword passwd , it asks us to enter the current password. On entering the current password it asks to enter the new password and then confirm it again. Once the two passwords (new and confirm) match , it gives the comment saying all authentication tokens updated successfully.***

    - Try again to change password but use like password ***1234*** or ***abcd***
        - Explain what happen and give screenshot?

Answer : ***When you try to change the password as 1234 , it prompts the error saying "BAD PASSWORD :The password is shorter than 8 charaters"***

    - Try again to change password but now don't use any password just hit **Enter** key
        - Explain what happen and give screenshot?

Answer : ***When you press enter without entering anything, it prompts the msg saying "BAD PASSWORD : No password supplied"***



Assignment-3

Working with Directories (All screenshots attached below)

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

Answer : Once you give cd / , it goes into the root directory and once you give ls , all the folders present in the root directory is displayed.

```
[vikas@localhost ~]$ cd /
[vikas@localhost /]$ ls
bin   dev  home  lib64  mnt  proc  run   srv  tmp  var
boot  etc  lib   media  opt  root  sbin  sys  usr
```

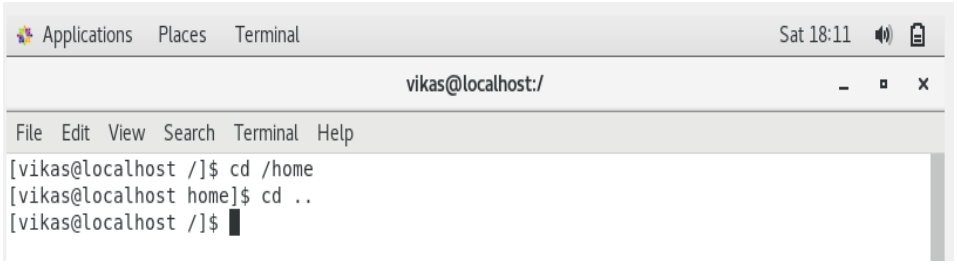
- Enter the command now **cd /home** and then hit **Enter** key
  - Do **ls,** provide screenshot and explain what is **/home** directory used for?

Answer : /home directory is one's individual directory in the linux system. This directory is automatically created once you login and also called as login directory. The user can store his individual files in this directory

```
[vikas@localhost /]$ cd /home
[vikas@localhost home]$ ls
vikas
```

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

Answer : cd .. takes us to one directory level up



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

Answer : We get an error as no such file or directory since the var folder doesn't have a file called www inside it.

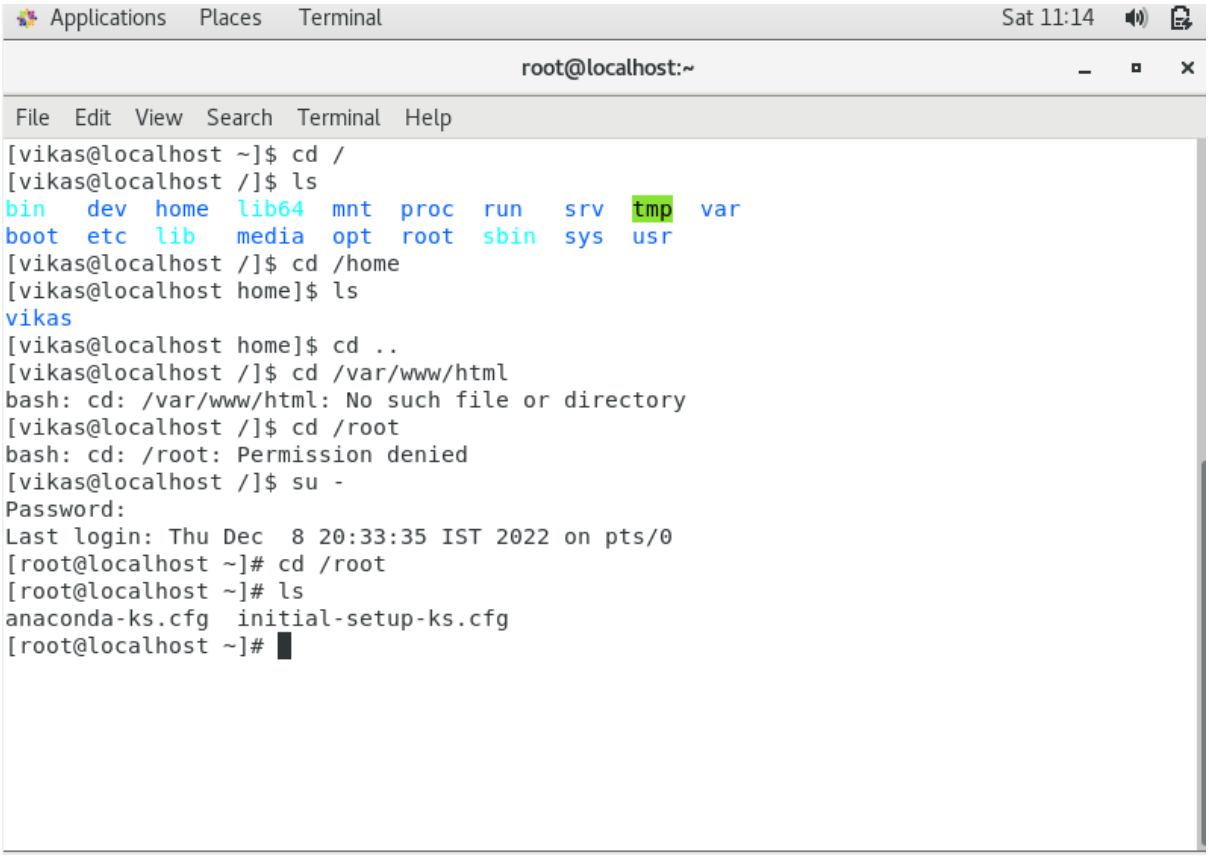
```
[vikas@localhost home]$ cd ..
[vikas@localhost /]$ cd /var/www/html
bash: cd: /var/www/html: No such file or directory
```

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

Answer : ***When we give cd /root , we get error as "Permission denied" since we are not logged in as a root user. So use su – to login as root user and then give cd /root followed by ls to get the files in the home directory of root user***

```
[vikas@localhost /]$ cd /root
bash: cd: /root: Permission denied
[vikas@localhost /]$ su -
Password:
Last login: Thu Dec  8 20:33:35 IST 2022 on pts/0
[root@localhost ~]# cd /root
[root@localhost ~]# ls
anaconda-ks.cfg  initial-setup-ks.cfg
[root@localhost ~]#
```

Assignment 3 full screenshot :

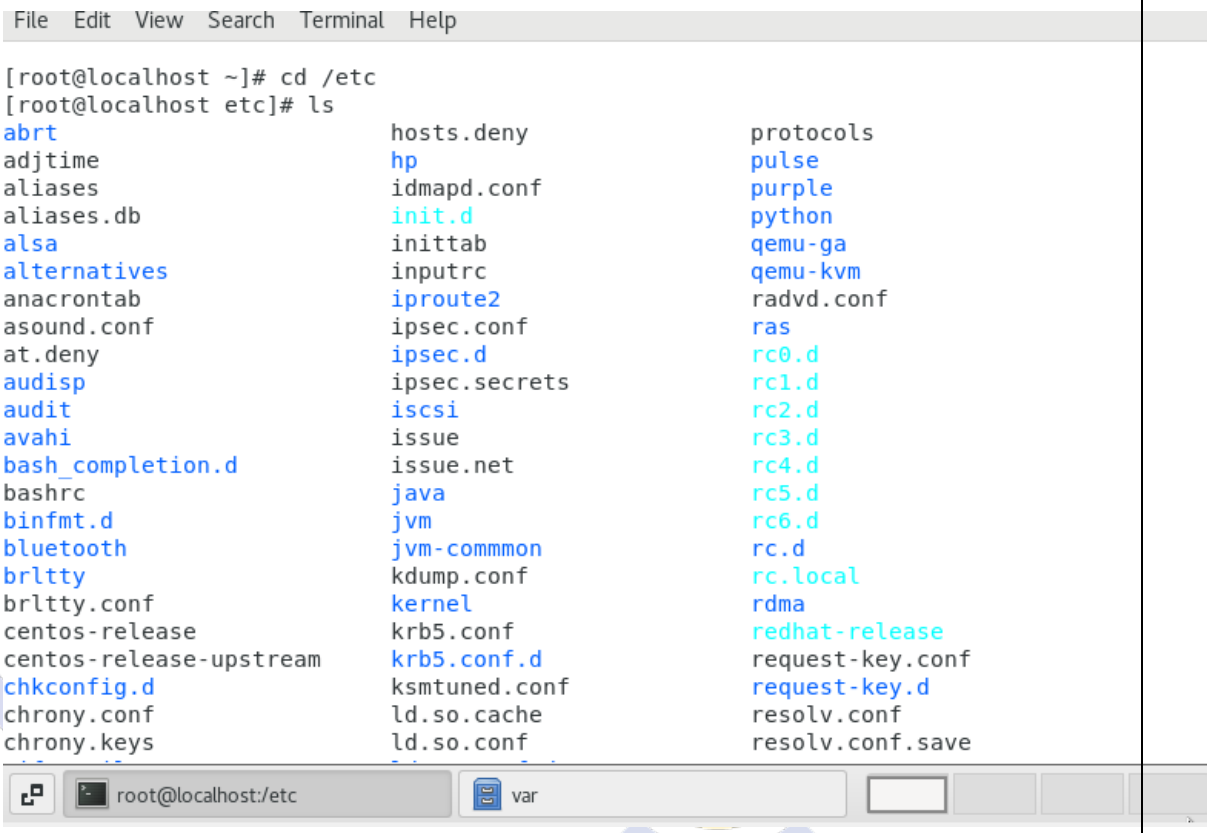


Assignment-4

Working with File Listing

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

Answer : ***On giving cd /etc followed by ls , we see all the files present in the etc directory (It has all the config files)***



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

Answer : ***For all the commands used before we didn't see any config related files. But in etc directory we see those***

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

Answer ***This command gives us the hidden files in the directory in a long list. We can view files starting with "." displayed here. We can see the first two lines have file with "." and ".."***

```
File  Edit  View  Search  Terminal  Help
hosts.allow                 profile.d
[root@localhost etc]# ls -al
total 1372
drwxr-xr-x. 139 root root     8192 Dec 10 10:52 .
dr-xr-xr-x.  17 root root      224 Dec  1 12:47 ..
drwxr-xr-x.   3 root root      101 Dec  1 12:38 abrt
-rw-r--r--.   1 root root       16 Dec  1 12:47 adjtime
-rw-r--r--.   1 root root     1529 Apr  1  2020 aliases
-rw-r--r--.   1 root root    12288 Dec  1 12:49 aliases.db
drwxr-xr-x.   3 root root       65 Dec  1 12:40 alsa
drwxr-xr-x.   2 root root     4096 Dec  1 12:45 alternatives
-rw-------.   1 root root      541 Aug  9  2019 anacrontab
-rw-r--r--.   1 root root       55 Aug  8  2019 asound.conf
-rw-r--r--.   1 root root        1 Oct 30  2018 at.deny
drwxr-x---.   3 root root       43 Dec  1 12:38 audisp
drwxr-x---.   3 root root       83 Dec  1 12:49 audit
drwxr-xr-x.   4 root root       71 Dec  1 12:40 avahi
drwxr-xr-x.   2 root root     4096 Dec  1 12:41 bash_completion.d
-rw-r--r--.   1 root root     2853 Apr  1  2020 bashrc
drwxr-xr-x.   2 root root        6 Oct  1  2020 binfmt.d
drwxr-xr-x.   2 root root       23 Dec  1 12:38 bluetooth
drwxr-xr-x.   2 root root    12288 Dec  1 12:39 brltty
-rw-r--r--.   1 root root    21929 Apr 11  2018 brltty.conf
-rw-r--r--.   1 root root       37 Oct 23  2020 centos-release
-rw-r--r--.   1 root root       51 Oct 23  2020 centos-release-upstream
drwxr-xr-x.   2 root root        6 Oct 13  2020 chkconfig.d
```

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

Answer : This gives us the Index number (inode) of each file in the directory.

```
[root@localhost etc]# ls -i
34542840 abrt                       2992966 mcelog
17445510 adjtime                   17226377 mke2fs.conf
16777834 aliases                   17378801 modprobe.d
17933946 aliases.db                 1228840 modules-load.d
 1689682 alsa                      16777848 motd
33927954 alternatives              16777284 mtab
17445482 anacrontab                17048473 mtools.conf
17192591 asound.conf               17574002 multipath
17926600 at.deny                   17349872 my.cnf
51146806 audisp                    17349873 my.cnf.d
17523893 audit                     17960032 nanorc
35176763 avahi                     34590756 ndctl
   74276 bash_completion.d         17226398 netconfig
16777835 bashrc                    34493618 NetworkManager
51001706 binfmt.d                  17445512 networks
51094977 bluetooth                 17625521 nfs.conf
17573565 brltty                    17625522 nfsmount.conf
17573566 brltty.conf               17379036 nsswitch.conf
16777320 centos-release            16884143 nsswitch.conf.bak
16777321 centos-release-upstream   51967933 ntp
50363127 chkconfig.d               17490233 numad.conf
17545046 chrony.conf               51146794 oddjob
17545048 chrony.keys               17523873 oddjobd.conf
51967965 cifs-utils                 1552480 oddjobd.conf.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

```
vikas@localhost etc]$ ls --help
sage: ls [OPTION]... [FILE]...
ist information about the FILEs (the current directory by default).
ort entries alphabetically if none of -cftuvSUX nor --sort is specified.

andatory 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 nongraphic 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                         with -lt: sort by, 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                         list entries by columns
     --color[=WHEN]         colorize the output; WHEN can be 'never', 'auto',
                              or 'always' (the default); more info below
```

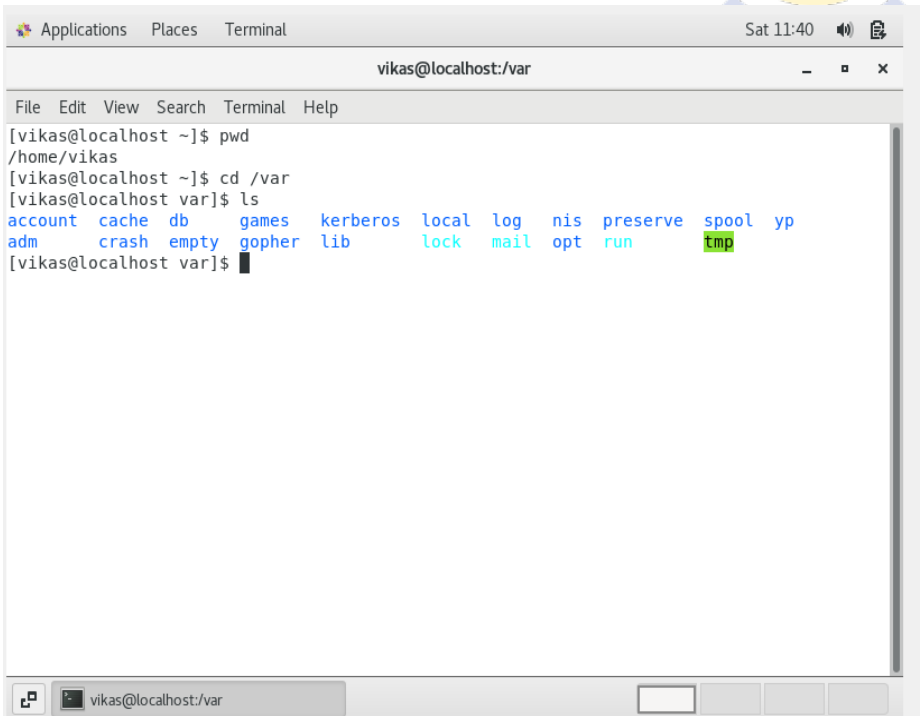
Assignment-5

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.*

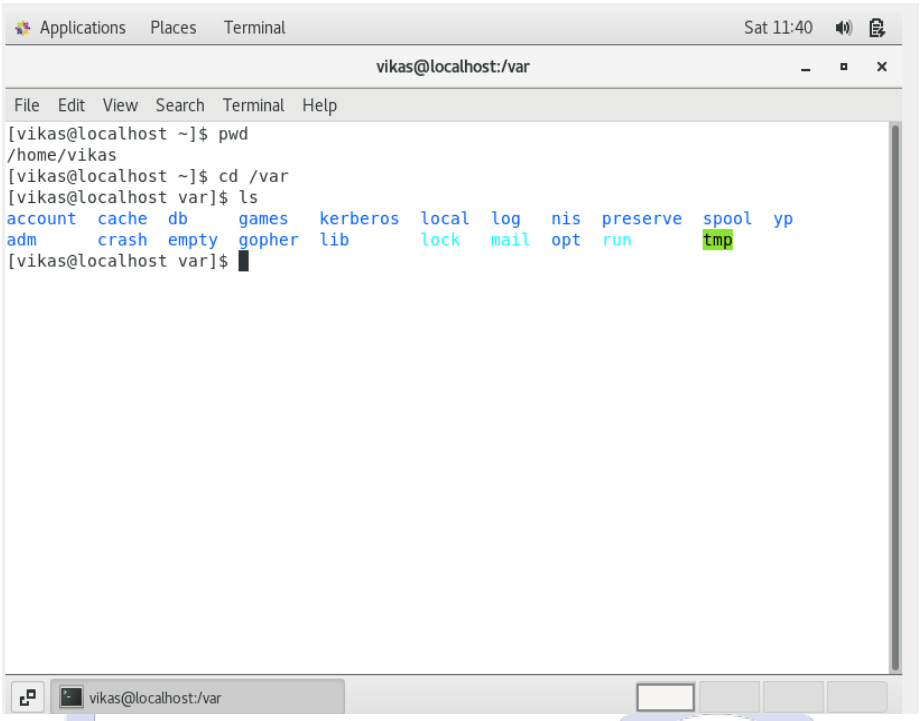
- Open terminal after restart the linux
  - Check which location you working, type **pwd** and take screenshot

Answer : ***This tells us the present working directory (/home/vikas)***



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

Answer : ***This lists the files present in var directory***



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