



Basic Linux Commands Assignments

"(BOLD SENTENCES WITH ITALICS ARE ANSWERS)"

Assignment-1

Connect and disconnect with login Access

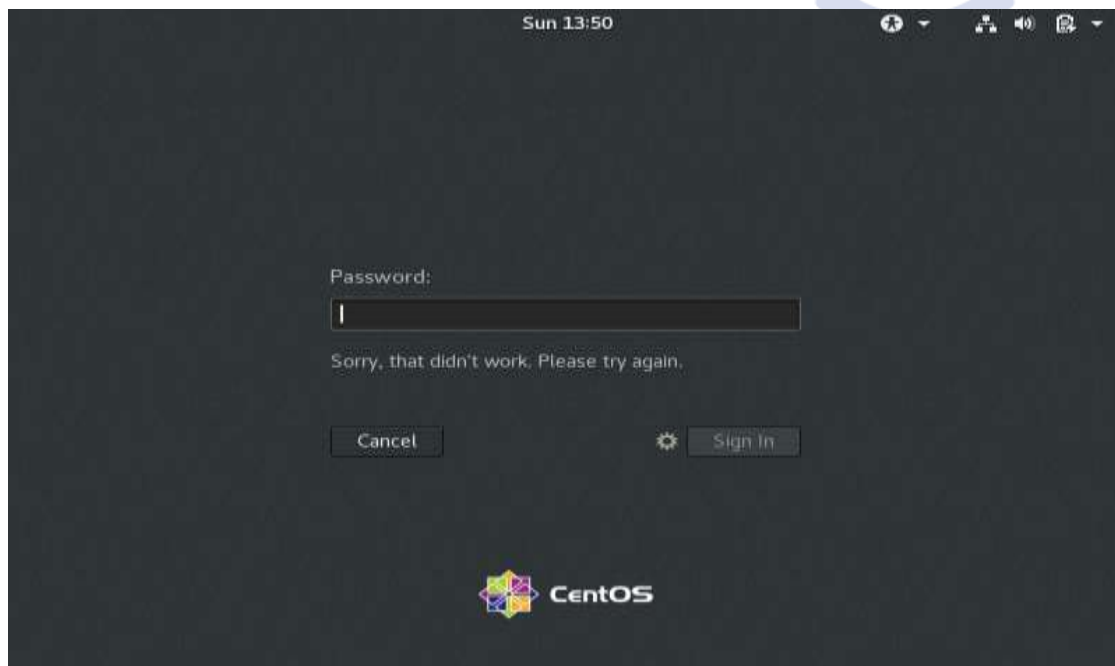
- What happens when you login a non-existent users or username?
 - Provide Screenshot and What you understand, explain in short brief?
- ***If the user is present then this screen appears first after system starts and if we select it further and enter user password it will login successful***



➔ *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.*



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**



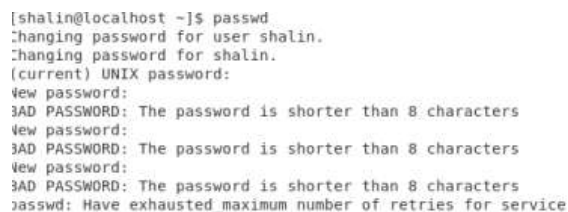
```
shalin@localhost:~$ passwd
Changing password for user shalin.
Changing password for shalin.
(current) UNIX password:
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[shalin@localhost ~]$
```

- 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**



```
[shalin@localhost ~]$ passwd
Changing password for user shalin.
Changing password for shalin.
(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: The password is shorter than 8 characters
passwd: Have exhausted maximum number of retries for service
```

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

```
[shalin@localhost ~]$ cd /
bash: cd: /: No such file or directory
[shalin@localhost ~]$ cd /
[shalin@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?

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

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

- 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

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

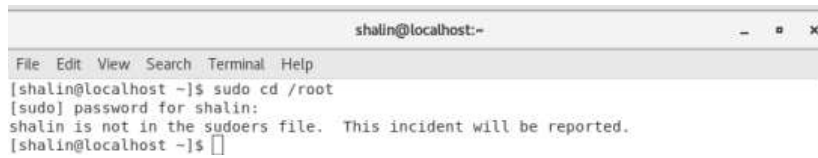
- Now enter **cd /var/www/html** and then type **cd** and hit **Enter** key
 - Explain what happen and give screenshot?
 -

➔ **/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

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

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

A terminal window titled 'shalin@localhost:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the command '[shalin@localhost ~]\$ sudo cd /root'. The output is '[sudo] password for shalin:', followed by 'shalin is not in the sudoers file. This incident will be reported.', and finally '[shalin@localhost ~]\$' with a cursor.

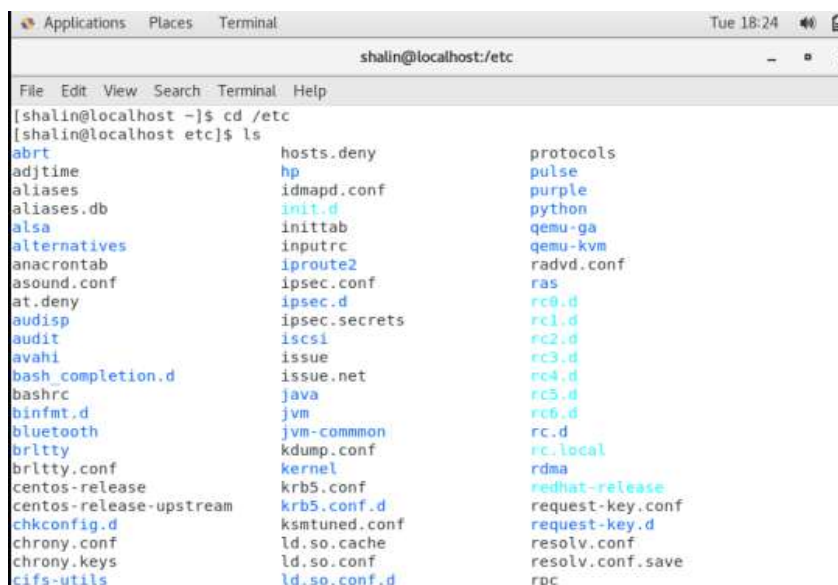
```
shalin@localhost:~  
File Edit View Search Terminal Help  
[shalin@localhost ~]$ sudo cd /root  
[sudo] password for shalin:  
shalin is not in the sudoers file. This incident will be reported.  
[shalin@localhost ~]$
```



Assignment-4

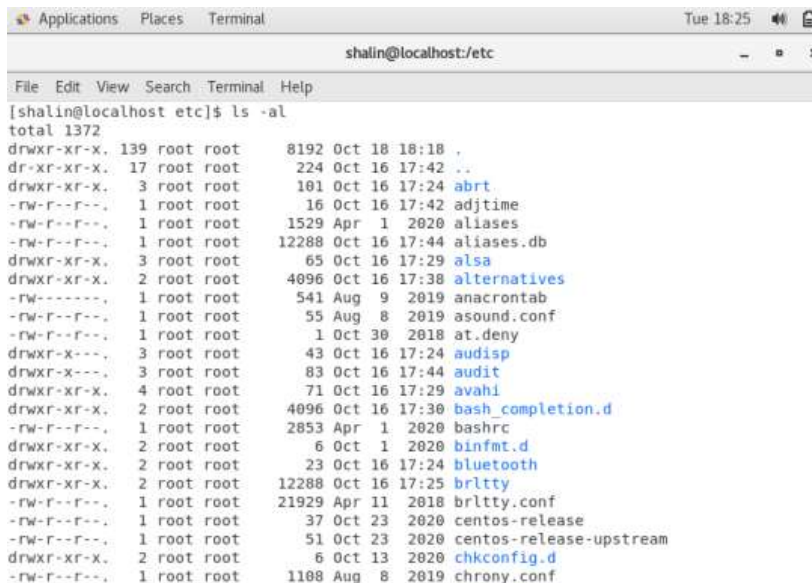
Working with File Listing

- 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**



The screenshot shows a terminal window titled 'shalin@localhost: /etc'. The user has entered the command 'cd /etc' and then 'ls'. The output lists various configuration files and directories in the /etc directory, including: abrt, adjtime, aliases, aliases.db, alsa, alternatives, anacrontab, asound.conf, at.deny, audisp, audit, avahi, bash_completion.d, bashrc, binfmt.d, bluetooth, brltty, brltty.conf, centos-release, centos-release-upstream, chkconfig.d, chrony.conf, chrony.keys, cifs-utils, hosts.deny, hp, idmapd.conf, init.d, inittab, inputrc, iproute2, ipsec.conf, ipsec.d, ipsec.secrets, iscsi, issue, issue.net, java, jvm, jvm-common, kdump.conf, kernel, krb5.conf, krb5.conf.d, ksmtd.conf, ld.so.cache, ld.so.conf, ld.so.conf.d, protocols, pulse, purple, python, qemu-ga, qemu-kvm, radvd.conf, ras, rc0.d, rc1.d, rc2.d, rc3.d, rc4.d, rc5.d, rc6.d, rc.d, rc.local, rdma, redhat-release, request-key.conf, request-key.d, resolv.conf, resolv.conf.save, and rpc.

- 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.**



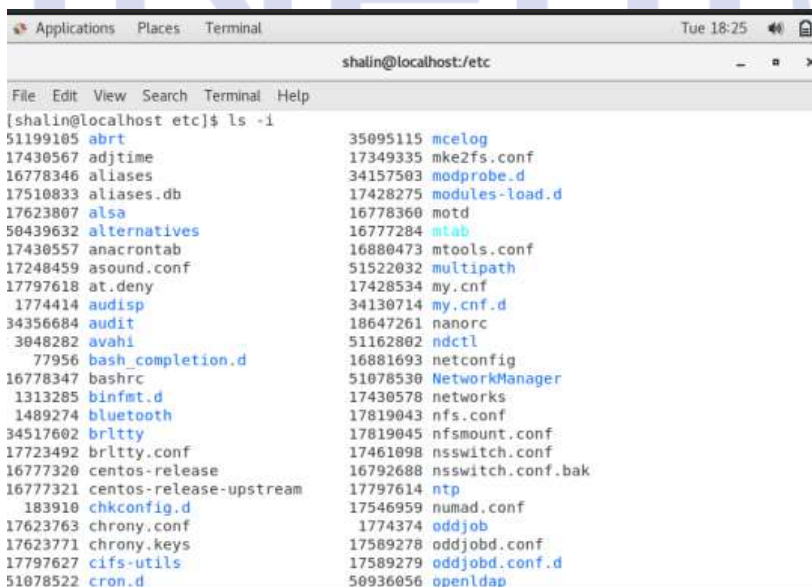
```

shalin@localhost:/etc
File Edit View Search Terminal Help
[shalin@localhost etc]$ ls -al
total 1372
drwxr-xr-x. 139 root root    8192 Oct 18 18:18 .
dr-xr-xr-x.  17 root root    224 Oct 16 17:42 ..
drwxr-xr-x.   3 root root    101 Oct 16 17:24 abrt
-rw-r--r--.   1 root root     16 Oct 16 17:42 adjtime
-rw-r--r--.   1 root root   1529 Apr  1 2020 aliases
-rw-r--r--.   1 root root  12288 Oct 16 17:44 aliases.db
drwxr-xr-x.   3 root root     65 Oct 16 17:29 alsa
drwxr-xr-x.   2 root root   4096 Oct 16 17:38 alternatives
-rw-r--r--.   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-xr-x.   3 root root    43 Oct 16 17:24 audisp
drwxr-xr-x.   3 root root    83 Oct 16 17:44 audit
drwxr-xr-x.   4 root root    71 Oct 16 17:29 avahi
drwxr-xr-x.   2 root root   4096 Oct 16 17:30 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 Oct 16 17:24 bluetooth
drwxr-xr-x.   2 root root  12288 Oct 16 17:25 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
-rw-r--r--.   1 root root   1108 Aug  8 2019 chrony.conf

```

- Then use **ls -i** and hit **Enter** key
 - Now see what different output its 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.*



```

shalin@localhost:/etc
File Edit View Search Terminal Help
[shalin@localhost etc]$ ls -li
51199105 abrt
17430567 adjtime
16778346 aliases
17510833 aliases.db
17623807 alsa
50439632 alternatives
17430557 anacrontab
17248459 asound.conf
17797618 at.deny
1774414 audisp
34356684 audit
3048282 avahi
77956 bash_completion.d
16778347 bashrc
1313285 binfmt.d
1489274 bluetooth
34517602 brltty
17723492 brltty.conf
16777320 centos-release
16777321 centos-release-upstream
183910 chkconfig.d
17623763 chrony.conf
17623771 chrony.keys
17797627 cifs-utils
51078522 cron.d
35095115 mcelog
17349335 mke2fs.conf
34157503 modprobe.d
17428275 modules-load.d
16778360 motd
16777284 mtab
16880473 mtools.conf
51522032 multipath
17428534 my.cnf
34130714 my.cnf.d
18647261 nanorc
51162802 ndctl
16881693 netconfig
51078530 NetworkManager
17430578 networks
17819043 nfs.conf
17819045 nfsmount.conf
17461098 nsswitch.conf
16792688 nsswitch.conf.bak
17797614 ntp
17546959 numad.conf
1774374 oddjob
17589278 oddjobd.conf
17589279 oddjobd.conf.d
50936056 openldap

```

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

```
Applications  Places  Terminal  Tue 18:26  [lock icon]
shalin@localhost:/etc

File Edit View Search Terminal Help
[shalin@localhost etc]$ ls --help
Usage: ls [OPTION]... [FILE]...
List information about the FILES (the current directory by default).
Sort entries alphabetically if none of -cftuvSUX 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 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
-d, --directory          list directories themselves, not their contents
-D, --dired              generate output designed for Emacs' dired mode
-f                       do not sort, enable -aU, disable -ls --color
-F, --classify           append indicator (one of */=>@|) to entries
--file-type             likewise, except do not append '*'
```



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

```
[shalin@localhost etc]$ pwd
/etc
[shalin@localhost etc]$
```

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

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

