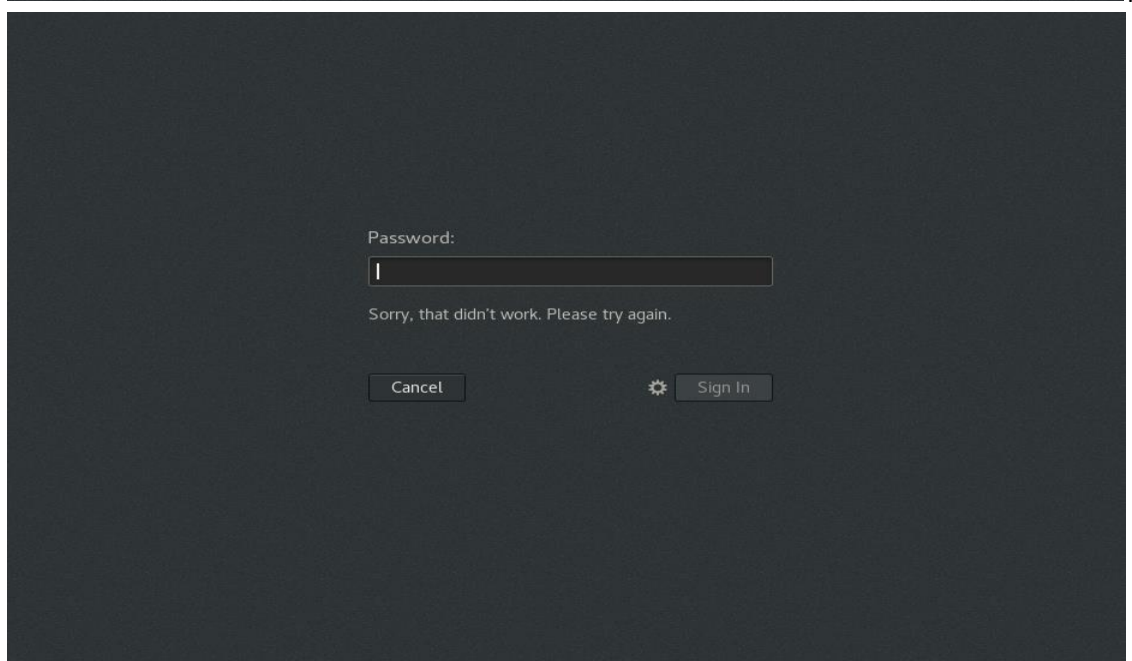
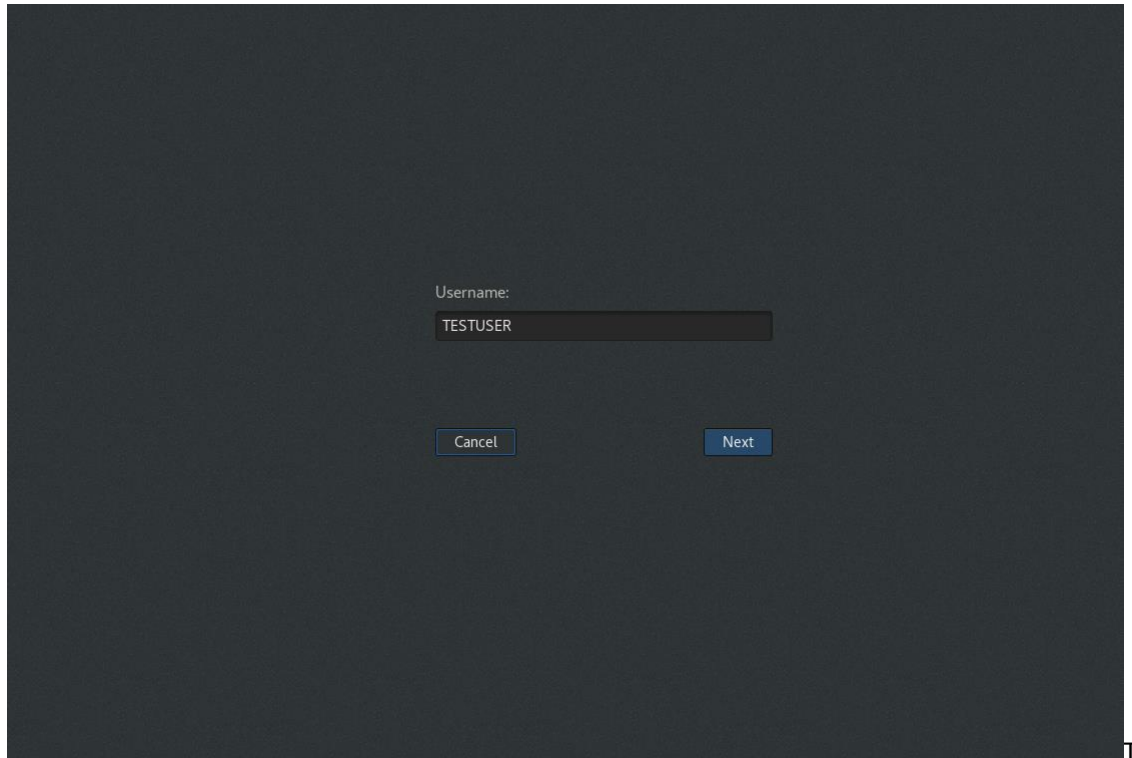


## Assignment 1-(Mohan Sahani, mohansahani.92@gmail.com)

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:** Throwing error “**Sorry, that didn’t work. Please try again.**”

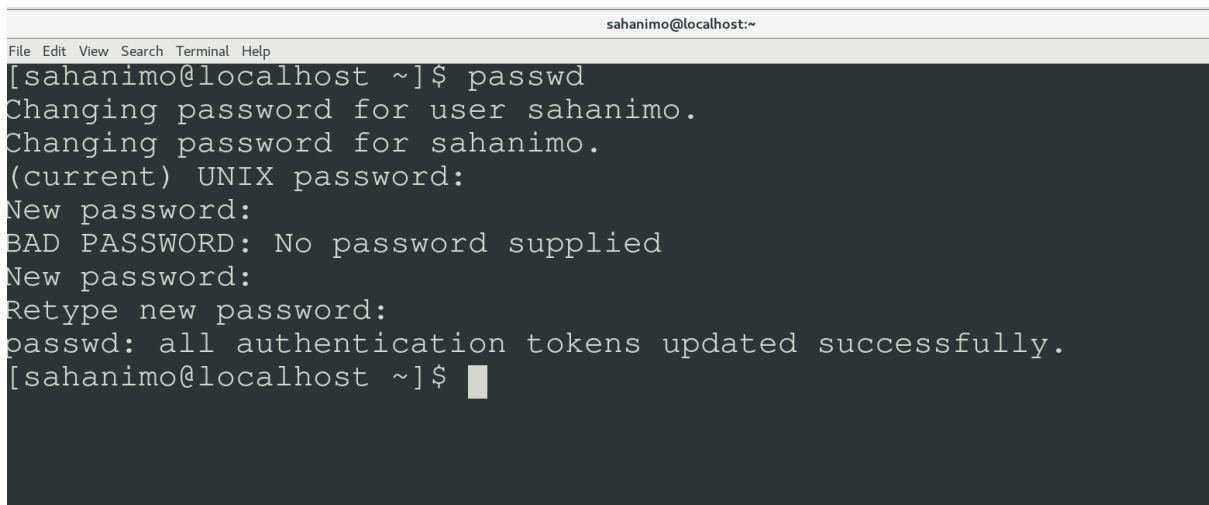
It means that the user which I am trying to login does not exist in the system and hence the system is not allowing me to login, so first I will have to create user account in the machine and then only I will be able to login with valid credentials.

## 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?

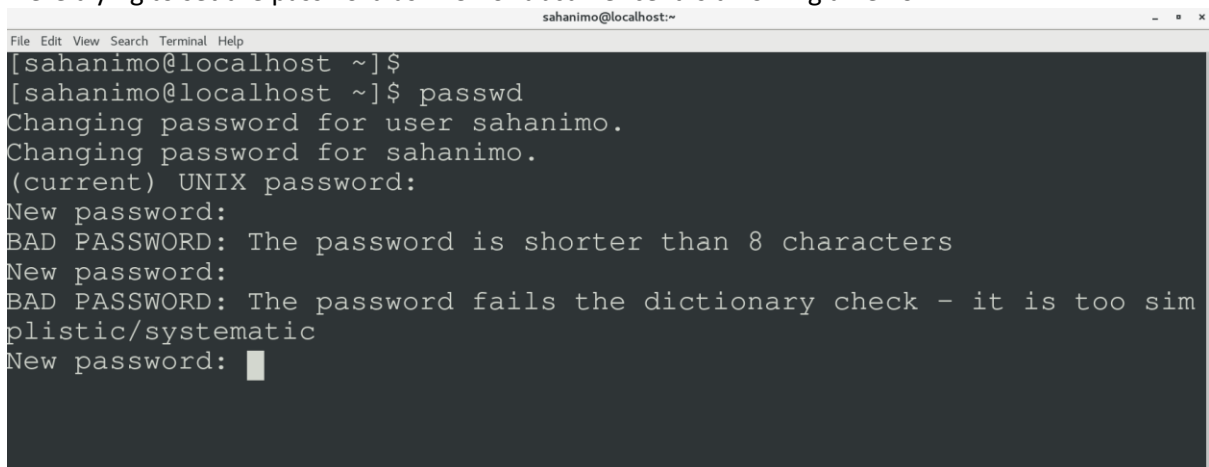
**Answer:** To change the password, we have type **passwd** command and then it will ask us to enter the current password and then we have to type the new password. Make sure the password should match in both the section such as **new password** and **retype new password** and then hit enter and that's it. Now the password will be change.

A terminal window titled 'sahanimo@localhost:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The user enters 'passwd' at the prompt. The terminal shows: 'Changing password for user sahanimo.', 'Changing password for sahanimo.', '(current) UNIX password:', 'New password:', 'BAD PASSWORD: No password supplied', 'New password:', 'Retype new password:', 'passwd: all authentication tokens updated successfully.', and '[sahanimo@localhost ~]\$' with a cursor.

```
sahanimo@localhost:~  
File Edit View Search Terminal Help  
[sahanimo@localhost ~]$ passwd  
Changing password for user sahanimo.  
Changing password for sahanimo.  
(current) UNIX password:  
New password:  
BAD PASSWORD: No password supplied  
New password:  
Retype new password:  
passwd: all authentication tokens updated successfully.  
[sahanimo@localhost ~]$
```

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

**Answer:** So, there is a policy in Linux and not only in Linux, in every Operating system that the password length should be at least of 8 character including number, symbol and alphabate. Here we were trying to set the password as 1234 or abcd hence it is throwing an error.

A terminal window titled 'sahanimo@localhost:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The user enters 'passwd' at the prompt. The terminal shows: 'Changing password for user sahanimo.', 'Changing password for sahanimo.', '(current) UNIX password:', 'New password:', 'BAD PASSWORD: The password is shorter than 8 characters', 'New password:', 'BAD PASSWORD: The password fails the dictionary check - it is too simplistic/systematic', and 'New password:' with a cursor.

```
sahanimo@localhost:~  
File Edit View Search Terminal Help  
[sahanimo@localhost ~]$  
[sahanimo@localhost ~]$ passwd  
Changing password for user sahanimo.  
Changing password for sahanimo.  
(current) UNIX password:  
New password:  
BAD PASSWORD: The password is shorter than 8 characters  
New password:  
BAD PASSWORD: The password fails the dictionary check - it is too simplistic/systematic  
New password:
```

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

So, as you can see in the below snap that we can't keep blank password as per the security policy.

```
sahanimo@localhost:~$ passwd
Changing password for user sahanimo.
Changing password for sahanimo.
(current) UNIX password:
New password:
BAD PASSWORD: No password supplied
New password:
```

## 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?

**Answer:** When we use **/** it indicate to root directory so when I use **cd /** and then it is showing me all the files/directory available in **root** directory.

```
sahanimo@localhost:~$ cd /
sahanimo@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 used for standard user not for root user.

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

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

**Answer:** When we use **cd ..** then it takes us to one step back.

```
sahanimo@localhost:home$ cd ..
sahanimo@localhost:/$
```

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

**Answer:** First will have to install **apache (httpd)** service to get the directory of **www/html**, now when I typed **cd /var/www/html** it takes me to **html** directory but when I did **cd** only it took me to my user profile in which I am logged in and here you can see all the available directory of my profile.

```

sahanimo@localhost:~
File Edit View Search Terminal Help
[sahanimo@localhost ~]$
[sahanimo@localhost ~]$ cd /var/www/html/
[sahanimo@localhost html]$ cd
[sahanimo@localhost ~]$ ls
Desktop  Downloads  Pictures  Templates
Documents Music      Public    Videos
[sahanimo@localhost ~]$
  
```

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

**Answer:** As I am currently in standard user profile hence if I am doing **cd /root/** then it will not allow me to get the access hence I will have to use **sudo** to proceed. When I am doing **sudo ls /** then it is showing me all the directory available in root directory.

```

sahanimo@localhost:~
File Edit View Search Terminal Help
[sahanimo@localhost ~]$
[sahanimo@localhost ~]$ cd /root/
bash: cd: /root/: Permission denied
[sahanimo@localhost ~]$ sudo cd /root/
[sahanimo@localhost ~]$ ls
Desktop  Downloads  Pictures  Templates
Documents Music      Public    Videos
[sahanimo@localhost ~]$ sudo ls /
bin  dev  home  lib64  mnt  proc  run  srv  tmp  var
boot  etc  lib  media  opt  root  sbin  sys  usr
[sahanimo@localhost ~]$
  
```

## Assignment-4

### Working with File Listing

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

**Answer:** All this files under **/etc** directory are known as configuration files which contains all the system and OS configuration details.

```
[sahanimo@localhost ~]$ cd /etc/
[sahanimo@localhost etc]$ ls
abrt                                mcelog
adjtime                            mime.types
aliases                            mke2fs.conf
aliases.db                         modprobe.d
alsa                               modules-load.d
alternatives                       motd
anacrontab                         mtab
asound.conf                       mtools.conf
at.deny                            multipath
audisp                             my.cnf
audit                              my.cnf.d
avahi                              nanorc
bash_completion.d                 ndctl
bashrc                             netconfig
binfmt.d                           NetworkManager
bluetooth                         networks
brltty                             nfs.conf
brltty.conf                       nfsmount.conf
centos-release                     nsswitch.conf
centos-release-upstream            nsswitch.conf.bak
chkconfig.d                       ntp
chrony.conf                       numad.conf
chrony.keys                        oddjob
```

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

**Answer:** As here you can see passwd command which we used earlier to change the password of user.

```
crontab                            pam.d
cron.weekly                        papersize
crypttab                           passwd
csh.cshrc                          passwd-
```

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

**Answer:** This command shows us the full details including permission level and will also tell us that which is file and directory.

```
sahanimo@localhost:/etc
File Edit View Search Terminal Help
[sahanimo@localhost etc]$
[sahanimo@localhost etc]$
[sahanimo@localhost etc]$ ls -al
total 1428
drwxr-xr-x. 140 root root    8192 Oct 18 16:49 .
dr-xr-xr-x.  17 root root    224 Oct  9 23:40 ..
drwxr-xr-x.   3 root root    101 Oct  9 23:34 abrt
-rw-r--r--.   1 root root     16 Oct  9 23:40 adjtime
-rw-r--r--.   1 root root   1528 Apr  1 2020 aliases
```

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

**Answer:** This command shows the indexing number against each files or directory.

```
sahanimo@localhost/etc
File Edit View Search Terminal Help
[sahanimo@localhost etc]$
[sahanimo@localhost etc]$ ls -i
34442017 abrt 35277284 mcelog
17544920 adjtime 18566392 mime.types
16777841 aliases 17365548 mke2fs.conf
18139061 aliases.db 17519393 modprobe.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

```
sahanimo@localhost:~
File Edit View Search Terminal Help
[sahanimo@localhost ~]$
[sahanimo@localhost ~]$ 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 specif
ied.

Mandatory arguments to long options are mandatory for short options t
oo.
  -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 cha
```

## 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

```
sahanimo@localhost:~
File Edit View Search Terminal Help
[sahanimo@localhost ~]$
[sahanimo@localhost ~]$ pwd
/home/sahanimo
[sahanimo@localhost ~]$
```

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

```
sahanimo@localhost/var
File Edit View Search Terminal Help
[sahanimo@localhost ~]$
[sahanimo@localhost ~]$ cd /var/
[sahanimo@localhost var]$ ls
account  crash  games  lib    log    opt    spool  yp
adm      db     gopher local  mail   preserve tmp
cache   empty  kerberos lock   nis    run    www
```

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

