

Command Usage & Users in Linux

ls --> Lists directory contents of files and directories.

pwd --> Stands for "Print working directory" and prints the path of the working directory.

cd --> Used to change the current working directory to a new one -- ex -- \$ cd [directory]

man --> Used to display the user manual of any command that we run on the terminal -- ex -- \$ man [OPTION] ... [COMMAND NAME] ...

- Commands in Linux are case sensitive, so they all tend to be in lower case, and are all single-word commands.
- You can even locate the commands since they're stored somewhere in the local machine, and when it gets executed, they get called from that location -- ex -- \$ type Command_name
- The **echo** command in Linux is used to display the line of text/string that is passed as an argument.

```
user@ubuntu:~$ echo "geeks"
> geeks
geeks
geeks
user@ubuntu:~$ echo "geeksgeeks"
geeksgeeks
user@ubuntu:~$
```

- The unix system is command based. They're grouped in two categories:
- **Internal Commands:** Are built into the shell. The shell doesn't have to search the given path for them in the path variable, no process needs to be spawned for executing it. -- ex -- \$ type cd ---> cd is a shell builtin
- **External Commands:** These aren't built into the shell, when one has to be executed, the shell looks for its path given in the PATH variable, and a new process has to be spawned and then it gets executed. (Usually located in /bin or /usr/bin).

Linux Users

Root User: Also called as Super User and has access to run all types of commands and files since it can act as a system administrator and can perform various system actions.

-- ex -- it can create files, change passwords, examine log files and install softwares, etc ---

System User: Is needed to handle the system accounts, so they take care of system-specific components -- ex -- when installing apache, a system user apache is created.

Normal User: They're created by root users, so they provide access to other users - have limited access to critical system files and directories.

Implementation

Creating User(s): The *useradd* is used to add user accounts to the system --->

```
useradd [options] name_of_the_user
```

Assigning Password to Users: The *passwd* command in Linux is used to change the user account passwords. (The root user has the privilege to change the password for any user on the system). -->

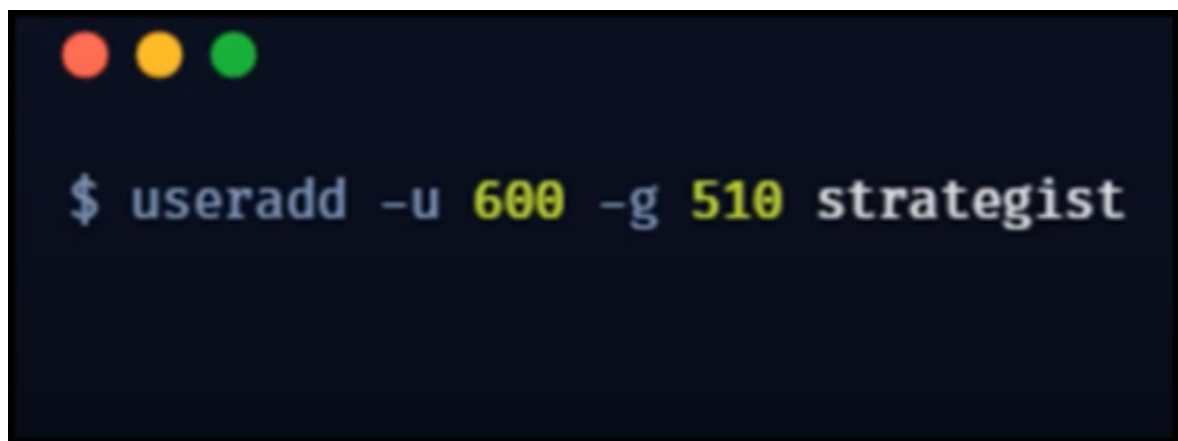
```
passwd [options] name_of_the_user
```

Creating User(s) with specific UserId: To create a user with specific user-id, we provide -u as the [options] and the user id and name of the user.

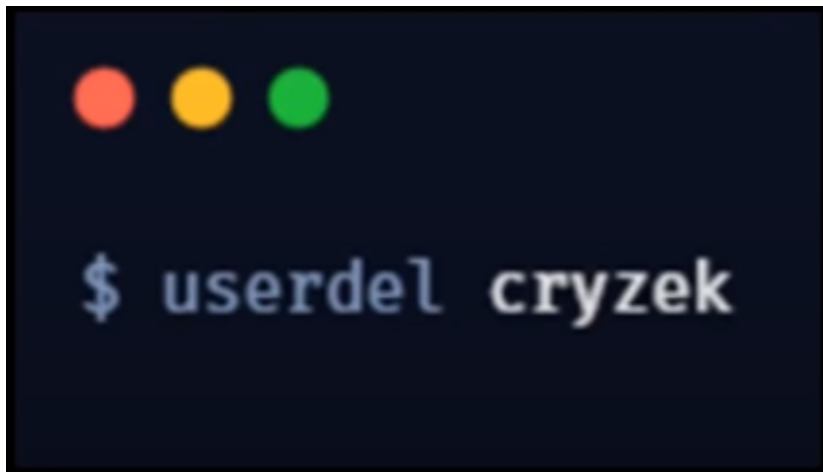
```
useradd -u user_id name_of_the_user
```

Creating User(s) with specific UserId and GroupId: We need to provide -u as the [options] followed by the user_id followed by -g as the [options] followed by group_id and name_of_the_user.

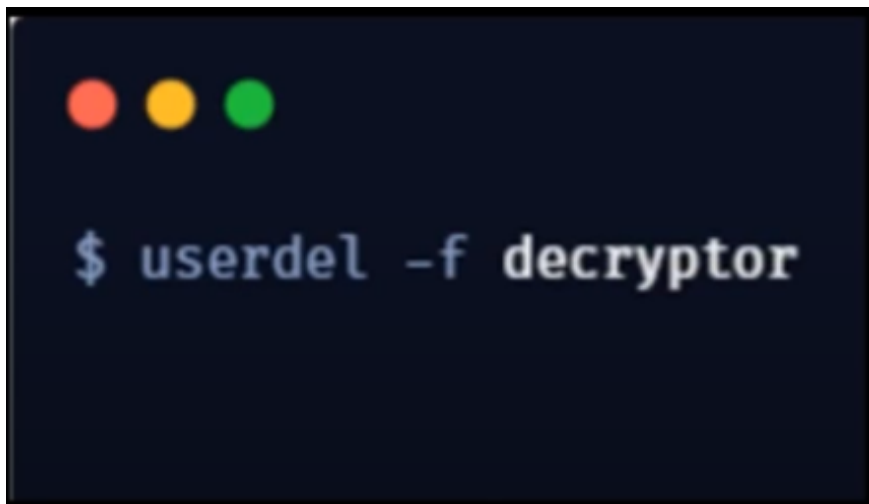
```
useradd -u user_id -g group_id name_of_the_user
```



Deleting a Existing user: Use the *userdel* name_of_the_user.



Deleting a Existing user that is still logged in or active: Use the userdel -f name_of_the_logged_in_user.



The user attributes:

Super User	Normal User	System User
UserName – root	User Name – apache , ftp	User Name – decryptor, cryzek
User ID – 0	User ID – 1 - 499	User ID – 500 - 60000
Group ID – 0	Group ID – 1 - 499	Group ID – 500 - 60000
Home Dir. - /root	Home Directory - /var/etc , /var/ftp	Home Directory - /home/username

Linux Groups

The Linux groups refer to the user groups, can be many users of a single system.

Creating Groups: We use the groupadd command.

```
groupadd [option] group_name
```



```
$ groupadd developers
```

Creating Groups with custom GroupId: The groupadd command followed by "-g" as [options] can be used to create a new user group with a custom group_id.



```
$ groupadd -g 5000 managers
```

Deleting an existing group: The "groupdel" command can be used to delete an existing group



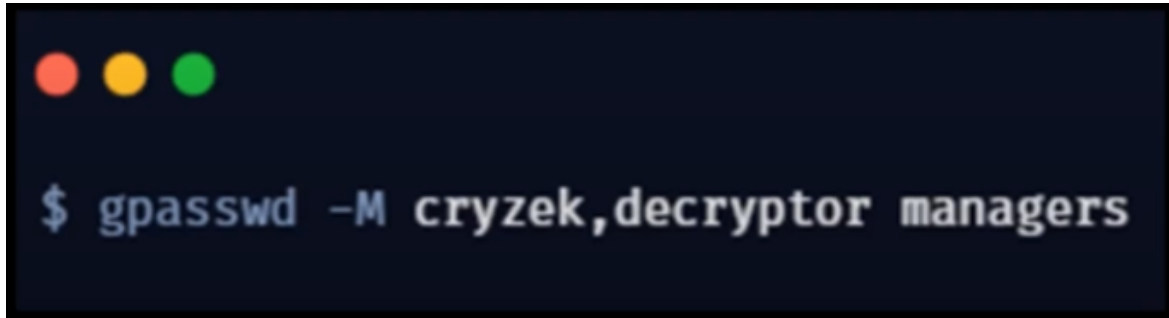
```
$ groupdel managers
```

Changing the name of the group:



```
$ groupmod -n newname oldname
```

Adding multiple users to the group:

A terminal window with a dark blue background and three colored window control buttons (red, yellow, green) in the top left corner. The command '\$ gpasswd -M cryzek,decryptor managers' is entered in a light blue monospace font.

```
$ gpasswd -M cryzek,decryptor managers
```

IMPORTANT FILES IN LINUX

1. **/etc/group** : This File contains the group information for each account.
2. **/etc/gshadow** : This File contains secure group account information.