

Process Management in linux

A Process means program in execution
It

1) Foreground Processes: Such kind of processes are also known as interactive processes. These are the processes which are to be executed or initiated by the user or the programmer. ~~They~~ They can not be executed by the system services.

2) Background processes: Such kind of processes are known as non-interactive processes. These are the processes which are to be executed by users or the system itself. These processes have a unique PID.

→ Example for foreground process

sleep 100

This command will be executed in the terminal and we would be able to execute another command after the above command.

2. To stop a process in between the execution, the user has to press $Ctrl + Z$ to force stop it.

sleep 100

$\wedge Z$

[1] + stopped

sleep 100

3. To get the list of jobs which are running or stopped.

synore : Jobs

[1] + stopped

sleep 100

4. To run all the pending and force stopped jobs in the background.

synore : bg.

Jobs

→ [1] + stopped ~~sleep~~ sleep 100

bg.

→ [1] + sleep 100 &

Jobs.

→ [1] + running sleep 100 &

⇒

User management

A user is an entity, that can manipulate files and ~~performs~~ perform several other operation. Each user is assigned a ID which is unique for each user in the operation system.

⇒

To list out all the users, we use the `awk` Command with `-F`.

```
awk -F ':' '{ print $1 }' /etc/passwd.
```

Here we are accessing a file and printing only first column with the help of `$1` and `awk`.

⇒

Using `ID` Command.

~~the~~ `id` username.

using "`id username`" we can the `id` of any username. Every user has an `id` assigned to it.

output. { `id test`

`uid = 1003(test)` `gid = 100(test)`
`groups = 1004(test)`

⇒ The Command to add on user

`sudo add "useradd " Name"`

output

`sudo useradd rohan`
Password for rohan: *x*x*x.

⇒ Using password to assign a password to the user

`sudo passwd rohan`

output.

`sudo passwd rohan`
Password for rohan:
Enter new password:
Re-enter new password

o. Group Creation

⇒ Syntax:

`groupadd group-name`

output

`groupadd Group1`

⇒ Setting password to group

gpasswd (group)
New password,
Re-Enter password!

⇒ To add an user to a existing group.
Syntax:

usermod -G group-name username

output

usermod -G Group1 rohan.

⇒ To delete a user from a group.

Syntax:

gpasswd -d username groupname

output

gpasswd -d rohan Group1

⇒ To delete the whole group

Syntax:

groupdel group-name

output

groupdel Group1.

o File Permission

Type ls to list out the file's

-rw-r--r-- 1 rohan rohan

r = read

w = write

x = execute.

-rw -r- -r-

User group other

User = U

group = g

other = other

To give permission to a specific file

rohan.txt

Syntax

chmod Ugo+rwx rohan.txt

The above command will give the User to give the permission to read write and execute the file

This is known as symbolic

Method.

absolute Method

Octal	binary	File mode
0	0000	---
1	0001	--X
2	0010	-W-
3	011	-WX'
4	100	r--
5	101	r-X
6	110	rw-
7	111	rwx.

Example:

chmod 777 rohan.txt

The above Command will give permissions to read, write and execute.

chmod 435 rohan.txt

4 = read only. | User

3 = write & execute | group

5 = read and execute | others

~~So, the user can read write and execute.~~

So the code gives read permission to the user, write and execute permission to group and read and execute to others.