

Users and groups management. Configuration files



Ana Cifuentes Romero

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We have to start a root session to do the exercises.

Take into account that user and group names are CASE SENSITIVE (differentiating between capital and lower-case letters).

Root session: Sudo: **SUBSTITUTE USER DO** AND **SU = SUBSTITUTE USER**.

Sudo is a computer program that allows the user of a system to access the security privileges of another user, who is usually the administrator (or root user).

With **[sudo]** only one command or function is allowed in the console. Once executed, if you want to run another command or function you have to enter the password again.

With **[su]** that limitation problem disappears. Once executed you remain as administrator until you decide to stop being one. You can, therefore, run everything you need between setting the password and deciding to quit root. To quit root, run the exit command.

On the console, we can tell which user we have by seeing the following symbols:

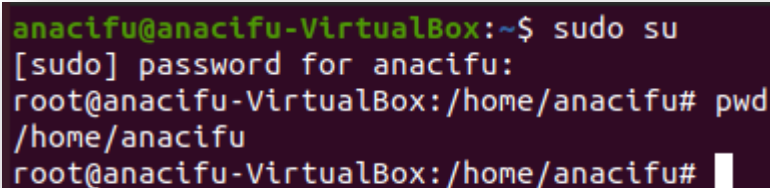
= you are as **root or administrator**. We had to enter the command **[su]** and the password to stay in that mode.

\$ = you're like your **user** and you can't run things like root.

Pwd: current directory.

\$ sudo su

pwd



```
anacifu@anacifu-VirtualBox:~$ sudo su
[sudo] password for anacifu:
root@anacifu-VirtualBox:/home/anacifu# pwd
/home/anacifu
root@anacifu-VirtualBox:/home/anacifu#
```

/home: It is the directory of standard users, and therefore, intended to store all user files, such as documents, photos, videos, music, templates, etc. It also includes temporary files of applications run in user mode, that serve to save program settings, etc.

Inside /home are the personal directories of all users, named according to the username used.

1. Add two new groups named "daw" and "crey".

```
# groupadd daw; groupadd crey;
```

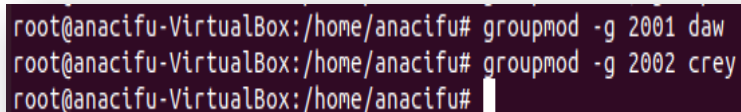
To create a group, you need the **"groupadd"** command followed by the **group name**.

You can execute multiple commands in a single command using **«;»** to separate them. For example, Command 1; Command 2; Command 3. Or use **&&** if you only want the following command to be executed when the first command is successful.

2. Change "daw" and "crey" GIDS to 2001 and 2002, respectively.

```
# groupmod -g 2001 daw
```

```
# groupmod -g 2002 crey
```

A terminal window with a dark background and light-colored text. It shows three lines of commands being executed at the root prompt of a virtual machine named 'anacifu'. The first two lines are 'groupmod -g 2001 daw' and 'groupmod -g 2002 crey', both of which have been successfully executed. The third line shows the prompt 'root@anacifu-VirtualBox:/home/anacifu#' with a cursor, indicating the next command is yet to be entered.

```
root@anacifu-VirtualBox:/home/anacifu# groupmod -g 2001 daw
root@anacifu-VirtualBox:/home/anacifu# groupmod -g 2002 crey
root@anacifu-VirtualBox:/home/anacifu#
```

The **"groupmod"** command allows you to modify the group information. With -g you change the group identifier to GID and followed by the **group name**.

3. Create a new group called "profesores" with GID of 2000. Then, modify the group name to teachers.

```
# groupadd -g 2000 profesores
```

```
# groupmod -n teachers profesores
```

```
root@anacifu-VirtualBox:/home/anacifu# groupadd -g 2000 profesores
```

```
root@anacifu-VirtualBox:/home/anacifu# groupmod -n teachers profesores
root@anacifu-VirtualBox:/home/anacifu#
```

GID of 2000 or Group ID is an identifier that allows to organize users by groups, is a unique data.

The "**groupmod**" command allows you to modify the group information. With -n change the name of the group to group new name.

4. Verify that you have correctly created the groups named "daw", "crey" and "teachers".

grep 2000 /etc/group; grep 2001 /etc/group; grep 2002 /etc/group

```
root@anacifu-VirtualBox:/home/anacifu# grep 2000 /etc/group; grep 2001 /etc/group; grep 2002 /etc/group
teachers:x:2000:
daw:x:2001:
crey:x:2002:
root@anacifu-VirtualBox:/home/anacifu#
```

Grep: is a command that is used to find text within the file you are prompted for, followed by the GID we want to see.

/etc: is in charge of storing the configuration files both at the level of components of the operating system itself, as well as of the programs and applications installed afterwards. It is a directory that should contain only configuration files and should not contain binaries.

The **/etc/group** is a text file which defines the groups to which users belong under Linux and UNIX operating system. Under Unix / Linux multiple users can be categorized into groups. Unix file system permissions are organized into three classes, user, group, and others. The use of groups allows additional abilities to be delegated in an organized fashion, such as access to disks, printers, and other

peripherals. This method, amongst others, also enables the Superuser to delegate some administrative tasks to normal users.

Teachers: Group name. Uniquely identifies a user account, and the group uses that username when logging in.

x: Group password. The password stored in the passwd file is encrypted (so an x will be displayed).

2000: group identification code (GID). The Linux system uses GID to identify groups, not group names.