

#Managing US

Linux File permissions | File Ownership

A file can be owned only one user

Commands

- The chmod command

- Symbolic Notation

Managing user accounts involves adding, modifying and deleting user accounts and account's information. To add user accounts we use the `useradd` or `adduser` command.

In Ubuntu, the `adduser` program is recommended over `useradd` due to `useradd` being a low-level utility. To modify user's information we use the `usermod` program. To delete a user we use the `userdel` program. The following files are involved in the user creation process:

`/etc/login.defs`

`/etc/default/useradd`

`/etc/skel/`

`/etc/passwd`

`/etc/shadow`

`/etc/group`

How to add user?

`adduser` followed by username

To delete

`userdel -r username`

The `/etc/login.defs` file

It contains directives for use in various shadow password suite commands. Shadow password suite is an umbrella term for commands dealing with account credentials, such as the `useradd`, `userdel`, and `passwd`. The directives (entries or configuration variables) in this configuration file control an array of settings from password length all the way to whether or not a home directory is created when a user is created. The file is typically filled with comments and commented-out directives (which make the directives inactive). Here is an example of how the `/etc/login.defs` file looks like:

<https://robertalberto.com/cis106/login.defs-file-example.txt>

Here is how the `/etc/login.defs` file looks like in your system without any comments:

```
grep -ve ^$/etc/login.defs | grep -V A#
```

`PASS_MIN_LENGTH` Minimum number of characters required in password.

`PASS_WARN_AGE` Number of days a warning is issued to the user prior to a password expiration.

`CREATE_HOME` Default is no. If set to yes, a user account home directory is created.

`ENCRYPT_METHOD` The method used to hash account passwords.

This file stores the system default configuration for creating new users with the `useradd` utility.

To view the default parameters in the `/etc/default/useradd` file use either of these

commands:

```
useradd
```

```
-D
```

```
cat /etc/default/useradd
```

If the `/etc/login.defs` has the directive `CREATE_HOME` not set or set to no, then the users created with the `useradd` utility will not get a home directory unless the `-m` option is given.

You can view all the directives as well as what each directive mean in by examining the content of the `/etc/default/useradd` file.

```
cat /etc/default/useradd grep -ve ^$  
/etc/default/useradd | grep -VAt
```

HOME Base directory for user account directories.

INACTIVE Number of days after a password has expired and has not been changed until the account will be deactivated.

SHELL User account default shell program. In Ubuntu, this variable is set to `/bin/sh` which means that after using the `useradd` command, unless `bash` is specified, `sh` will be the default login shell for any user.

The `/etc/skel` directory The `/etc/skel` directory stores files that are copied to each user's homedirectory