

# Ubuntu Linux Fundamentals

## Ubuntu Server - The Super Special root User

In this lesson, we'll look at what the root user is, why the root user is so special, and how to work with root permissions.

### The root user

All Linux systems, and for that matter, Unix, and BSD systems, have a root user. The root has god-like power over your system. It can do ANYTHING!

If you're doing good things, and not making any mistakes, that's fine.

If, however, you make a critical error when you're working as root, the consequences can be devastating to your server.

We'll look at a simple command to illustrate the potential problems that can ensue if you make a mistake as root.

The `rm` command removes a file, or set of files, or set of files, and directories you specify.

`rm` removes files. With the `-r` option, it will remove the present directory and all sub-directories. With the `-f` option, it will force the deletion, even if it would otherwise have resulted in an error.

If you wanted to remove something from your home directory, and you were logged in as a regular user, you could have a situation like the following:

```
rm -rf /home/theo/somefile
```

due to a typo becomes

```
rm -rf / home/theo/somefile
```

You were in a hurry, and you somehow added a space after the `/` or root directory.

The shell understands `rm -rf` but it then sees `/` which it also understands and `home/theo/somefile`, which it sees as an argument it can't interpret.

bash does exactly what it's supposed to do, and starts deleting everything it can from `/`.

Since my privileges aren't elevated, it will only be able to delete files I have the access to remove.

Not pleasant, but not catastrophic for the system as a whole.

What do you think happens if this is done as root?

Please watch the lesson to see.

The moral of the story is to make sure you work as a non-root user unless you have to elevate your privileges for some reason.

When you do have to, use the `sudo` command if it will get the job done.

Only on rare occasions work as root, and do it by typing `sudo su -`, not by enabling login for the root account.

Also, be sure any critical systems are backed up!

## More Information

A thread about enabling root on askubuntu.com

<https://askubuntu.com/questions/44418/how-to-enable-root-login>