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Creating a Sudo-Enabled User

By default, the **root user** is set up during the installation of Linux. This user has all the rights to administer the operating system. The other users initially do not have administrator privileges.

The sudo command allows authorized users to run programs with root privileges. This article explains how to create a sudo-enabled user.



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LOGIN

- 1 Log in as the root user on the desired server.
- 2 To create a new user, enter the following command:

```
[root@localhost ~]# adduser USERNAME
```

Example:

```
[root@localhost ~]# adduser johnsmith
```

- 3 To set the password of the new user, enter the following command:

```
[root@localhost ~]# passwd USERNAME
```

Example:

```
[root@localhost ~]# passwd johnsmith
```

- 4 Enter the desired password and repeat it.

Ubuntu 18.04, Ubuntu 20.04, Ubuntu 22.04, Debian 10, and Debian 11

- 1 Log in as the root user on the desired server.
- 2 To create a new user, enter the following command:

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```
[root@localhost ~]# adduser USERNAME
```

Example:

```
[root@localhost ~]# adduser johnsmith
```

- 3 Enter the desired password and repeat it.
- 4 Optional: Enter additional user information. To skip entering this information, press Enter.

```
Changing the user information for maxmustermann
Enter the new value, or press ENTER for the default
Full Name [ ]:
Room Number [ ]:
Work Phone [ ]:
Home Phone [ ]:
Other [ ]:
Is the information correct? [Y/n]
```

- 5 Type **Y** and press Enter.

Suse Linux

- 1 Log in as the root user on the desired server.
- 2 To create a new user, enter the following command:

```
localhost: ~ # useradd USERNAME
```

Example:

```
localhost: ~ # useradd jsmith
```

- 3 To set the password of the new user, enter the following command:

```
localhost: ~ # passwd USERNAME
```

Example:

```
localhost: ~ # passwd jsmith
```

- 4 Enter the desired password and repeat it.

Test Sudo and Install (If Necessary)

- 1 Test to see if sudo is installed. To do this, type the following command:

```
sudo ls -la /root
```

If you see the message **bash: sudo: command not found**, sudo is not installed.

- 2 If sudo is already installed, you can skip this step. To install sudo, enter the following command:

CentOS 7, CentOS Stream 8, and CentOS Stream 9

```
yum install sudo -y
```

Debian and Ubuntu

```
apt install sudo
```

Suse Linux

```
zypper in sudo
```

Installing Vim

If the Vim editor is not installed, enter the following command(s) to install the program:

CentOS 7, CentOS Stream 8, and CentOS Stream 9.

```
sudo yum install vim
```

Ubuntu

```
sudo apt-get install vim
```

Suse Linux

```
sudo zypper search vim  
sudo zypper install vim
```

Assigning Sudo Rights to a User

CentOS 7, CentOS Stream 8, and CentOS Stream 9

To assign sudo privileges to a user in CentOS 7, CentOS Stream 8, and CentOS Stream 9, you must add the user to the wheel group. To add the user to this group, enter the following command:

```
[root@localhost ~]# usermod -aG wheel USERNAME
```

Example:

```
[root@localhost ~]# usermod -aG wheel jsmith
```

To check if the change was successful, enter the following command:

```
localhost:~ # groups USERNAME
```

Example:

```
localhost:~ # groups jsmith
```

Debian and Ubuntu

To assign sudo privileges to a user in Debian and Ubuntu, you must add the user to the sudo group. To add the user to this group, enter the following command:

```
[root@localhost ~]# usermod -aG sudo USERNAME
```

Example:

```
[root@localhost ~]# usermod -aG sudo jsmith
```

To check if the change was successful, enter the following command :

```
localhost:~ # groups USERNAME
```

Example:

```
localhost:~ # groups jsmith
```

Suse Linux

To assign sudo privileges to a user in Suse Linux, do the following:

- 1 Locate the system-group-wheel and system-user-mail packages. To do this, enter the following command:

```
localhost:~ # zypper se wheel mail
```

- 2 To install the packages, enter the following commands:

```
localhost:~ # sudo zypper install system-group-wheel
localhost:~ # sudo zypper install system-user-mail
```

- 3 Open the **/etc/sudoers** file using the vim editor. Enter the following command:

```
localhost:~ # visudo
```

- 4 Make sure that the commenting has been removed in the following lines. If necessary, remove the # character at the beginning of the line:

```
# Defaults targetpw # ask for the password of the target
user i.e. root
```

And also this line:

```
# ALL ALL=(ALL) ALL # WARNING! Only use this together with
'Defaults targetpw'!
```

Note

The vim editor has an insert mode and a command mode. You can enter the insert mode by pressing the **i** key. In this mode, the entered characters are immediately inserted into the text. To enter the command mode, press the **ESC key** afterwards. When you use the command mode, your keyboard inputs are interpreted as a command.

Caution

If you only uncomment the line **"Defaults targetpw"** and leave the line **ALL ALL=(ALL) ALL # WARNING!** commented, all users will have access to the

root level of the utilities by entering their own password.

- 5 Look for the **User privilege specification** entry.
- 6 To grant all members of the wheel group the privileges to execute all commands, you must remove the # character at the beginning of the following line to uncomment it:

```
# %wheel ALL=(ALL) ALL
```

- 7 To save the changes, press the escape key and then type the following command:

```
:wq
```

- 8 To assign sudo privileges to a user, you must add the user to the wheel group. To add the user to this group, type the following command:

```
localhost:~ # usermod -a -G wheel USERNAME
```

Example:

```
localhost:~ # usermod -a -G wheel jsmith
```

- 9 To check if the change was successful, enter the following command:

```
localhost:~ # groups USERNAME
```

Example:

```
localhost:~ # groups jsmith
```

- 10 Create the **/etc/sudoers.d/userpw** file using vi. Enter the following command:

```
localhost:~ # vi /etc/sudoers.d/userpw
```

- 11 Add the following entry:

```
Defaults !targetpw
```

- To save the changes, press the escape key and then type the following command:

```
:wq
```

Testing Sudo-Enabled Users

To test whether the sudo permissions work, do the following:

- To change the user, enter the following command:

```
[root@localhost ~]# su USERNAME
```

Example:

```
[root@localhost ~]# su jsmith
```

- List the contents of the **/root** directory. To do this, type the following command:

```
[maxmustermann@localhost root]$ sudo ls -la /root
```

- The first time you use sudo in a session, you are prompted for the user's password.
- Enter the user's password.

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