

CSCI 274 - Intro to Linux OS

Week 15 - Identity, Ownership, and Permissions
Part 2

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Common Pipeline Utilities

sudo - (superuser do) allows a user with proper permissions to execute a command as another user, such as the superuser.

Only users in the `/etc/sudoers` file may run this command (so again, not us!)

Common Commands

groupadd - creates a new group

For this command to work you must have superuser rights or be logged in as root.

Every new group created is registered in the file “/etc/group”

groupdel - is used by a superuser or root to remove a group

gpasswd - change password for a group

Common Commands

newgrp - allows a user to log in to a new group (change the current group ID)

Only the file's owner or root can change permissions for a file.

If the user is root, he or she will not be prompted for a password.

If the user is not root, he or she will be prompted for a group password if:

- the user does not have a password, but the group does, or if
- the user is not listed as a group member, and the group has a password.

If there is no group password set, and the user is not listed as a member of the group, the user will be denied access.

Common Commands

chgrp - changes group ownership of a file or files

An unprivileged user may only change the group of a file to a group they themselves belong to.

Common Pipeline Utilities

useradd - creates a new user account using the options specified on the command line plus the default values specified in the `/etc/default/useradd` file.

To be able to use the `useradd` command and create new users you need to be logged in as root or a user with `sudo` access.

userdel - delete user account

passwd - change password of a user

Common Pipeline Utilities

su - (substitute user) changes the current user ID to that of the superuser or another user.

most commonly employed to change the ownership from an ordinary user to the root (i.e., administrative) user

Common Pipeline Utilities

sg - executes commands as a different group ID.

The sg command works similar to newgrp. upon exit from a sg command you are returned to your previous group ID.