### 1. chmod

`chmod` is used to change the permissions of a file or directory.

```sh

chmod [permissions] [file/directory]

```

Example:

```sh

chmod 755 filename

```

### 2. chown

`chown` is used to change the owner of a file or directory.

```sh

chown [owner]:[group] [file/directory]

```

Example:

```sh

chown username:groupname filename

```

### 3. chgrp

`chgrp` is used to change the group ownership of a file or directory.

```sh

chgrp [group] [file/directory]

```

Example:

```sh

chgrp groupname filename

```

### 4. sudo

`sudo` is used to execute a command with superuser privileges.

Example:

```sh

sudo ls /root

```

### 5. su

`su` is used to switch user accounts.

```sh

su [username]

```

Example:

```sh

su username

```

### 6. group

`group` is often used to refer to a collection of users in Unix/Linux. Groups are defined in `/etc/group`.

### 7. useradd/adduser

`useradd` or `adduser` is used to add a new user to the system.

```sh

useradd [options] username

```

or

```sh

adduser [options] username

```

Example:

```sh

useradd -m username # -m option to create user home directory

```

### 8. addgroup

`addgroup` is used to add a new group to the system.

```sh

addgroup [options] groupname

```

Example:

```sh

addgroup groupname

```

### Important Points

- `sudo`, `su`, `useradd`, `adduser`, and `addgroup` commands can affect the system configuration, and therefore, should be used with caution and typically by a superuser or a user with the necessary privileges.

- `adduser` is more user-friendly and interactive than `useradd`, which is more low-level and suitable for scripts.

- To add a user to a group, you can use the `usermod -aG [groupname] [username]` command.

- For altering group memberships, `gpasswd`, `vigr`, or editing `/etc/group` directly can also be used. The `usermod` command can also be used to modify the user’s information, including adding the user to new groups.

All options for each command can be extensive and can be referenced via the man pages (`man [command]`) or help command (`[command] --help`). Here is a brief overview of some common options for these commands:

### 1. chmod:

- `-R` recursively change permissions of directories and their contents.

- `+x`, `-x`, `+r`, `-r`, `+w`, `-w` to add or remove read, write, execute permissions respectively.

### 2. chown:

- `-R` operate on files and directories recursively.

- `--from=CURRENT\_OWNER:CURRENT\_GROUP` change the owner and/or group of each file only if its current owner and/or group match those specified here.

### 3. chgrp:

- `-R` operate on files and directories recursively.

- `--reference=RFILE` use RFILE's group rather than specifying a GROUP value.

### 4. sudo:

- `-u` allows you to specify the username to run the command as.

- `-i` login as the specified user (or the root user if no user is specified).

- `-k` invalidate the user's cached credentials.

### 5. su:

- `-` or `-l` or `--login` provide an environment similar to what the user would expect had the user logged in directly.

- `-c` or `--command=COMMAND` pass a single COMMAND to the shell with `-c`.

### 6. useradd:

- `-m` or `--create-home` create the user's home directory.

- `-g` or `--gid GROUP` define the user's initial login group.

- `-G` or `--groups GROUPS` define additional groups the user will be added to.

- `-s` or `--shell SHELL` specify the user's login shell.

### 7. adduser:

- `--home DIR` define the new user's home directory.

- `--gid GROUP` set the name or number of the user's initial login group.

- `--groups GROUPS` list of groups to which the user is added.

- `--shell SHELL` define the user's login shell.

### 8. addgroup:

- `--gid GID` set the group identifier for the new group.

- `--system` create a system group.

### Note:

Remember, these are just common options, and the complete list can be quite extensive. Please refer to the man pages or the help command for comprehensive and detailed options and usage information for each command. The specific available options can also vary depending on the Unix/Linux distribution and the installed version of the command tools.