

Linux/Unix --- User & File Management

User creation

`sudo useradd -m username -p PASSWORD`

User add with a home directory but do not allow it to login

`sudo useradd -M USERNAME`

`sudo usermod -L USERNAME`

User Deletion

`userdel -r username` —> remove user

`userdel -r -f username` —> remove user with its all files

Group Creation

`sudo groupadd testGroup`

Add a user to a group

`sudo usermod -a -G testGroup testUsers`

Check existing group

`cat /etc/group | grep username`

Remove Group

`groupdel groupname`

File Permissions and File Ownership

Ownership

`chown :username filename`

`chown :groupname filename`

Permissions

4—read 3—write 1— execute

`chmod 777 filename`

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(file owner user)	(file group)	(others)

File Types

The first mode field is the "special file" designator; regular files display as - (none). As for which possible letters could be there, on Linux the following exist:

d (directory)

c (character device)

l (symlink)

p (named pipe)

s (socket)

b (block device)

D (door, not common on Linux systems, but has been ported)

Kernel Space: device drivers, memory manager, process scheduler runs in privileged mode
User space : user applications, GUI etc unprivileged mode

Shell communicator between user space and kernel space

If you want to perform privileged mode operations from user-space, the only way for accomplishing that is using system calls.