Chapter 3 - Users and Groups

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Accounts

There are three primary types of Accounts:

- Root Accounts
  - Super User
  - Complete and unrestricted control of the system
  - No restrictions
- System Accounts
  - Needed for the operation of system-specific components
  - Mail, bin, adm, daemon, ...
- User Accounts
  - Limited Access

/etc/passwd

The /etc/passwd-File identifies the authorized accounts for the system.

```
21170004@comunix:~$ cat /etc/passwd | grep 21170004
21170004:x:1563:500:pmoritzer:/export/home/stud21/21170004:/usr/bin/bash
```

- 21170004 username
- x - not used
- 1563 - User ID
- 500 - Group ID
- pmoritzer - comments
- /export/home/stud21/21170004 - Home Directory
- /usr/bin/bash - Login shell

/etc/group

```
21170004@comunix:~$ cat /etc/group | grep 500
studs::500:
```

Last Field: members Primary group information is stored in /etc/passwd file

/etc/shadow

The /etc/shadow file stores actual password in encrypted format and other passwords related information such as user name, last password change date, password expiration values, etc,.

```
$ cat /etc/shadow # only available as super user
```

Output: `root:62rmkjdR3h5Pk:11944::::::: unix306:uAJSB7ZC0suPM:16503::::::: nobody:NP:6445::::::: listen:*LK*:::::::` etc.

NP - no password is valid LK - Account is locked until the Super-User sets a password

```
$ login-id:password:lastchg:min:max:warn:inactive:expire:flag
```

- login-id: Login name
- Password: 13 character encrypted password
- Lastchg: Number of days from Jan 1, 1970 to last password change
- Min: Minium number of days between password changes
- Max: Max Number of Days where the password is valid
- warn: Number of days until the user gets a warning that his password needs to be changed
- Inactive: Number of days the user is allowed to be inactive
- expire: After that date the login cannot longer be used
- flag: not used

su

Substitute User (or Switch User)

```
$ su [-] id # switches the current user to given id
$ su unix345 # example
$ su - unix345 # changed to unix345 environment, can be checked with pwd command
$ su # switching to root user
```