John the Ripper

1. Single crack mode.

 It uses the login names together with other fields from the passwd file, also with a large set of mangling rules applied. This is the fastest cracking mode and is applicable to very simple passwords.

2. Dictionary Attack

 In this mode you need to supply a dictionary file that contains one word per line and a password file. You can enable word mangling rules which are used to modify or "mangle" words producing other likely passwords.

3. "Incremental" mode.

This is the most powerful cracking mode because it will try all possible character combinations
as passwords. If you supply a random password with length of more than 12-14 chars will never
terminate and you'll have to interrupt it manually.