

Concept I know but never used

- Backing out changes

```
1 // unstage file
2 git reset HEAD file-name
3 // discard change in working directory
4 git checkout file-name
```

- renaming and moving files

```
1 // simple mv doesn't stage the file but git mv does
2 git mv
```

- history

```
1 // abbrve
2 git log --abbrev-commit
3 // graph
4 git log --oneline --graph --decorate
5 // can also specify commit range
6
7 // show detail infor about commit
8 git show commit-id
```

- git alias

```
1 // setting git alias without going into bashrc or bash_profile
2 // for example, setting "git hits" as an alias
3 git config --global alias.hist "log --all --graph --decorate --oneline"
4
5 // check all git config
6 vim ~/.gitconfig
```

- branch and conflict

```
1 // rename branch
2 git branch -m old_branch new_branch
3 // fast forward merge and non-fastforward merge, if we use fast forward merge, git will treat the
4 // merge as we never created a new branch
5 // non fast forward merge:
6 git merge --no-ff
7
8 // automatic merge
9 // if both master and another branch are committed, then no need to use non fast forward merge it wi
10 // branch will be preserve by graph
```

- rebasing

```
1 // pull with rebase
2 git pull --rebase origin master
```

- stashing

```
1 // stash untracked file
2 git stash -u
3
4 // difference between apply and pop
5 // stash pop = stash apply + stash drop
6
7 // manage stash
8 git stash save "msg" // save a stash with msg
9 git stash show stash@{index} // show specific stash based on index
10 git stash apply stash@{index} // apply specific stash based on index
```

```
11 git stash clear // remove all stash
12 git stash branch new_changes // stash to a new branch
```

- taggin

```
1 // light weight tag, tag a commit
2 git tag tag_name
3 //tag list
4 git tag --list
5 // show tag
6 git show tag_name
7 // delete a tag
8 git tag --delete tag_name
9
10 // annotated Tags, when show the tag, it will come with annotation
11 git tag -a annotation
12
13 // tag with msg
14 git tag tag_name msg
15 //compare tag
16 git diff tag1 tag2
17
18 // assign tag to a specific commit
19 git tag -a v-0.9-beta commit_id
20
21 // move tag on a commit to another commit
22 git tag -a v-0.8-alpha -f commit_id
23
24 // tag with github
25 // pushing tag will also push associated commit
26 git push origin tag_name
27 // push all tags from local to repo
28 git push origin master --tags
29 // rm tag in repo
30 git push origin :tag_name
```