

Chapter VII

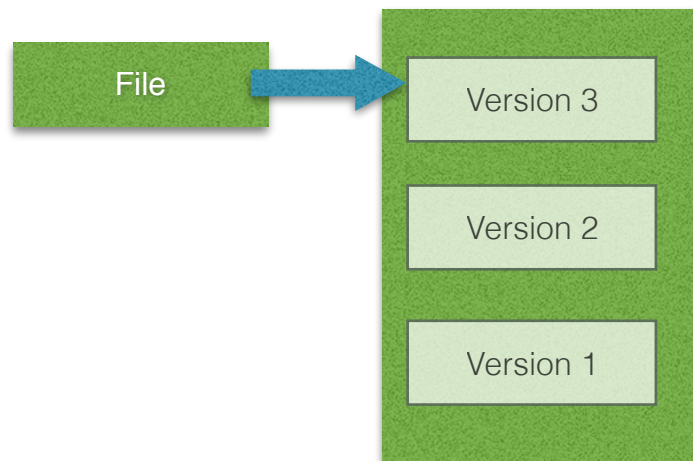
Team Collaboration with Git



1. What is Git

Git is version control system and. Git suites to the following applications:

1. Serve as backup method (Fig: 2.1)
2. Allow historic revision of the project
3. Allow collaboration of between project members



(Fig 2.1)

2. Type of Version Control Systems:

Local

Centralized (CVS)

Distributed (Git, DVCS)

3. Installation Git

<http://git-scm.com/download/mac>

User editor tools Sublime Text

4. File Status Life Cycle:

Untracked

Tracked

Modified

Staged

Snapshot

5. Operations

● Initialising Git for project

Got to Terminal Application/Utilities/Terminal and type the following command.

```
> git help -a
pwd
ls
mkdir gittest
ls
cd gittest
ls
pwd
ls -a
git init    <- Initialise git in the current directory
ls -a
ls -a .git <- set Git Header & files under .git directory
git init    <-Initialise Git ,
git status
git config user.name "yourname" <-Define Author &
git config user.email "youremailaddress"
```

● Create some files. Add to repository and check

```
git add <filename> or git add .    <-track
git status
```

```

git log
git commit -m "Beta"          <-Commit
git log
git config --global core.pager cat <-removing less pause
git log -1                    <- only one last commit ,
git log --oneline <- Neatly show
git log -p -1                 <-last commit diff
git log --graph
git log --since=2.weeks <-since , after , until , before
git log --since="2014-09-12" <-after the date
git log --author = "min"
git log --author = "min" --oneline -1
git help log

```

● Checking out backward & forward

```

git log --oneline
git checkout 2d3d238 <- go back to that commit
git checkout master <-go back to end of master
git branch newbranch <-create new branch at that point
git checkout newbranch
git mv oldfilename    newfilename    <-file rename & added
git rm oldfilename    newfilename    <-file deleted & added
git checkout --yourfile <- reset to prev committed stage

```

● Ignoring some files type

```

vi .gitignore
type in vi *.swp to ignore file ending with .swp extension
save the .gitignore file with :wq

```

git add .gitignore

touch test.swp <-create new file with swp extension

git status <-now swp file is ignored

- **Ammending commit error**

git commit —amend <- apply to previously committed

git config —global core.editor Atom

git commit —amend <-now using newly add Editor Atom

- **Resetting staged file (undoing add) one file or All**

touch bar.txt <-file still need to edit

git add bar.txt <-Wrongly added

git status

git reset HEAD bar.txt <- Undo Adding bar.txt only

git status

git reset HEAD —hard <-All file reset to last commit

git reset —hard <-Remove all added file until last commit

- **Generating SSH Key for automatic login to Github**

ssh-keygen -t rsa -C "minaunghein@gmail.com"

Ssh keys will generate under /Users/username/.ssh folder as

id_rsa , private key and id_rsa.pub public key together

cat id_rsa.pub <- copy the key & create SSH key in GitHub

6. Operations with Remote Repository

● Create remote address with a name origin and

Uploading to Repository

git **remote add origin** [git@github.com:minaunghein/test.git](https://github.com/minaunghein/test.git)

git **push origin master** <-push master branch to origin

git **push origin** <- push active branch to origin

git **remote rename origin newone** <-rename association

Downloading to folder

git **clone <URL of repo> theFolder** <-first time download

git **pull** [branchname] <-Laterupdate

● Checking remote address associated to current git

git remote -v <-Show repo origin and associated address

git remote show origin

git remote rm prod <-remove associated prod repo

7. XCode Project With Git Control

1. For new project , Select 'Create Project Repository ' at the time of project creation
2. For old project, using terminal, browse to project root folder and setup git as -> git init & git add .

1. Inside XCode, we can manage git from SourceControl Menu so that Xcode know the username and email, run the following command inside project.

xcrun git **config user.name** "yourname"

xcrun git **config user.email** "youremailaddress"

<See Demo>

8. Other DVCS & Apps using Git

Bitbucket

Apps