Git Cheat Sheet

Attribution for Images

https://www.manning.com/books/learn-git-in-a-month-of-lunches

Concepts

Working, Staging & Commit

These are three distinct locations on your local workstation (not the Remote Repo).

Figure 6.2   Three stages in the commit

https://www.manning.com/books/learn-git-in-a-month-of-lunches

"The Git **staging area** contains the version of the Git working directory that you want to **commit**"
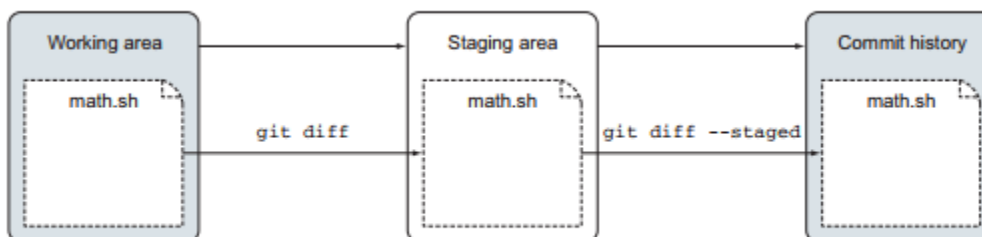
Example for a file "math.sh"

Figure 6.5   Understanding the confusing `git status` output

Time Machine

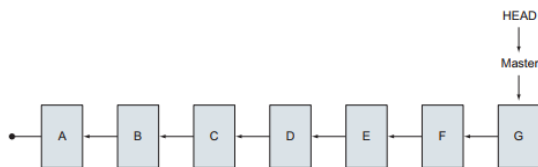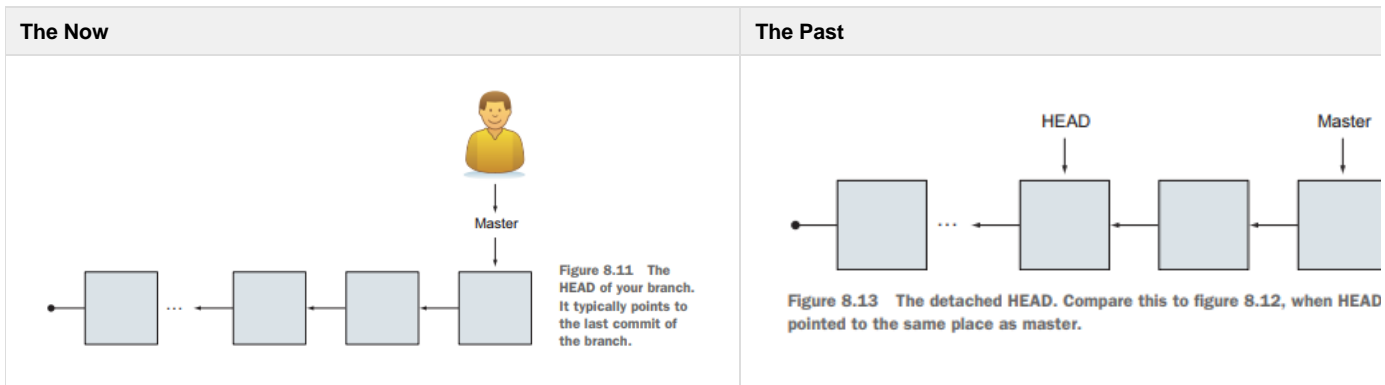| The Now	The Past
Master Figure 8.11 The HEAD of your branch. It typically points to the last commit of the branch.	HEAD Master Figure 8.13 The detached HEAD. Compare this to figure 8.12, when HEAD pointed to the same place as master.

HEAD
|
Master

Figure 8.15   HEAD pointing to master: this is your present.

If you ran git checkout D (to move HEAD to the commit labeled D), git log would show you only commits A, B, C, and D. Your HEAD would be detached as well, as shown in figure 8.16.

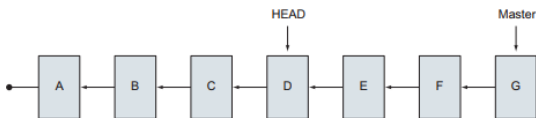

HEAD   Master

Figure 8.16   Checking out an earlier version

Actions

Client Configuration

See: git client configuration

Add a file to local Repository

```
$ git add README.md
```

Commit a file (to local Repo)

send **staging area files** (you **git add**'d**)** to Commit History

```
$ git commit -m "some message that is useful, about the files I'm commiting"
[master (root-commit) 0522b3d] first commit
 1 file changed, 3 insertions(+)
 create mode 100644 README.md
```

Grap latest files from remote Repo

Assumes you have attached your local repo to remote!

```
$ git pull
```

Push a file to the Remote Repository from local Repository

https://git-scm.com/docs/git-push

```
$ git push origin master
Username for 'https://github.comcast.com': youruser000
Password for 'https://youruser000@github.comcast.com':
```

Rename a file already in your Staging area

```
$ git add badName.yaml
$ git mv badName.yaml goodName.yaml
```

Link your local repo to a remote repo

Assuming you have already ...

1. Created a local git repo

   ```
   dslp@ubuntu:/depot/git/dslp$ git init
   ```

2. Then you can do the following
```

```
$ git remote add origin
https://github.comcast.com/SomeGitProject/MoreSpecifcDirectory.git
```

See history of your current repo

```
$ git log --oneline
27dd290 Even more stuff happened
6c3cba5 more stuff happened
0522b3d first commit
```

Check what your repo-status is like

```
$ git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)
nothing to commit, working directory clean
```

DIff between local commits and remote

This assumes your local repo is ahead of remote master by some number of commits

```
git diff origin/master...HEAD
```

Reset a single file in your Working area

```
alfreds@ubuntu:/depot/DFH/git$ git diff
index dcc2389..3ab46d9 100644
--- a/lab-main-t-aor-fhc-tfh1/Deployment.yaml
+++ b/lab-main-t-aor-fhc-tfh1/Deployment.yaml
@@ -1,15 +1,16 @@
...
alfreds@ubuntu:/depot/DFH/git$ git checkout -- lab-main-t-aor-fhc-tfh1/Deployment.yaml
alfreds@ubuntu:/depot/DFH/git$ git diff
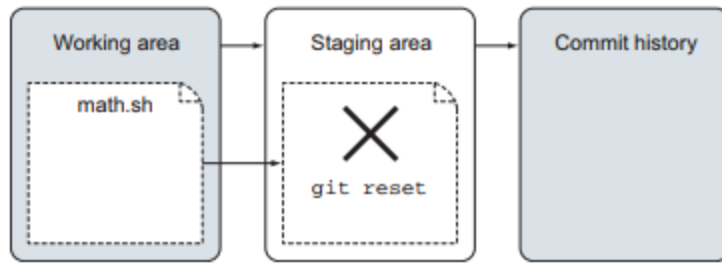... nothing ...
```

Reset Staging Area

Figure 7.24   Resetting the staging area

Reset Working Area

git checkout