



git

GitHub





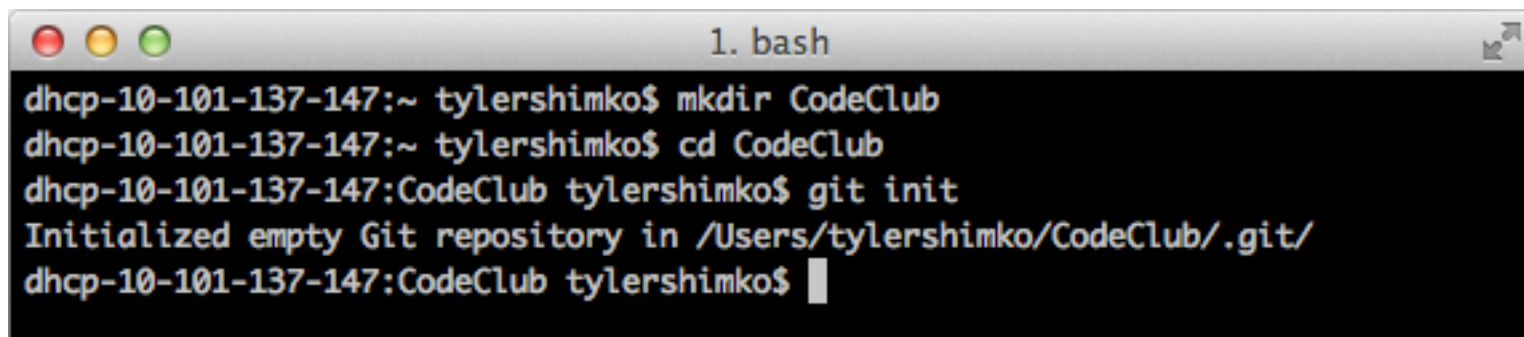
- A distributed version control system
- Allows users to work on same project simultaneously
- Allows user to “save” work in versions
- NOT the same as GitHub
 - GitHub utilizes Git



- Web-based hosting for software projects utilizing git
- Soft repository (repo) limit of 1 GB
- Hard file size limit of 100 MB

Creating a git repo

- Make a new folder
- cd into that folder
- `$git init`

A terminal window titled "1. bash" with standard macOS window controls (red, yellow, green buttons) in the top-left corner. The terminal text shows the following sequence of commands and output:

```
dhcp-10-101-137-147:~ tylershimko$ mkdir CodeClub
dhcp-10-101-137-147:~ tylershimko$ cd CodeClub
dhcp-10-101-137-147:CodeClub tylershimko$ git init
Initialized empty Git repository in /Users/tylershimko/CodeClub/.git/
dhcp-10-101-137-147:CodeClub tylershimko$
```






Congratulations, you just made your first git repository!


Linking with GitHub

- Login and create a new repository in your account (or AndersenLab account)




Linking with GitHub


 [Explore](#) [Gist](#) [Blog](#) [Help](#)  TShimko126   

PUBLIC 

Owner


 AndersenLab


Repository name

CodeClub 

Great repository names are short and memorable. Need inspiration? How about **drunken-nemesis**.


Description (optional)

☒  **Public**
Anyone can see this repository. You choose who can commit.

☐  **Private**
You choose who can see and commit to this repository.


☐ **Initialize this repository with a README**
This will allow you to `git clone` the repository immediately. Skip this step if you have already run `git init` locally.




Add .gitignore: **None**


Add a license: **None** 

Create repository

Linking with GitHub

 This repository Explore Gist Blog Help

 TShimko126 + -  

PUBLIC  AndersenLab / CodeClub Unwatch 5 Star 0

Quick setup — if you've done this kind of thing before



Set up In Desktop

or

HTTP

SSH

<https://github.com/AndersenLab/CodeClub.git>



We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

Create a new repository on the command line

```
touch README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin https://github.com/AndersenLab/CodeClub.git
git push -u origin master
```

Push an existing repository from the command line

```
git remote add origin https://github.com/AndersenLab/CodeClub.git
```

<> Code

Issues 0

Pull Requests 0

Wiki

Pulse

Graphs

Network

Settings

Building a repository

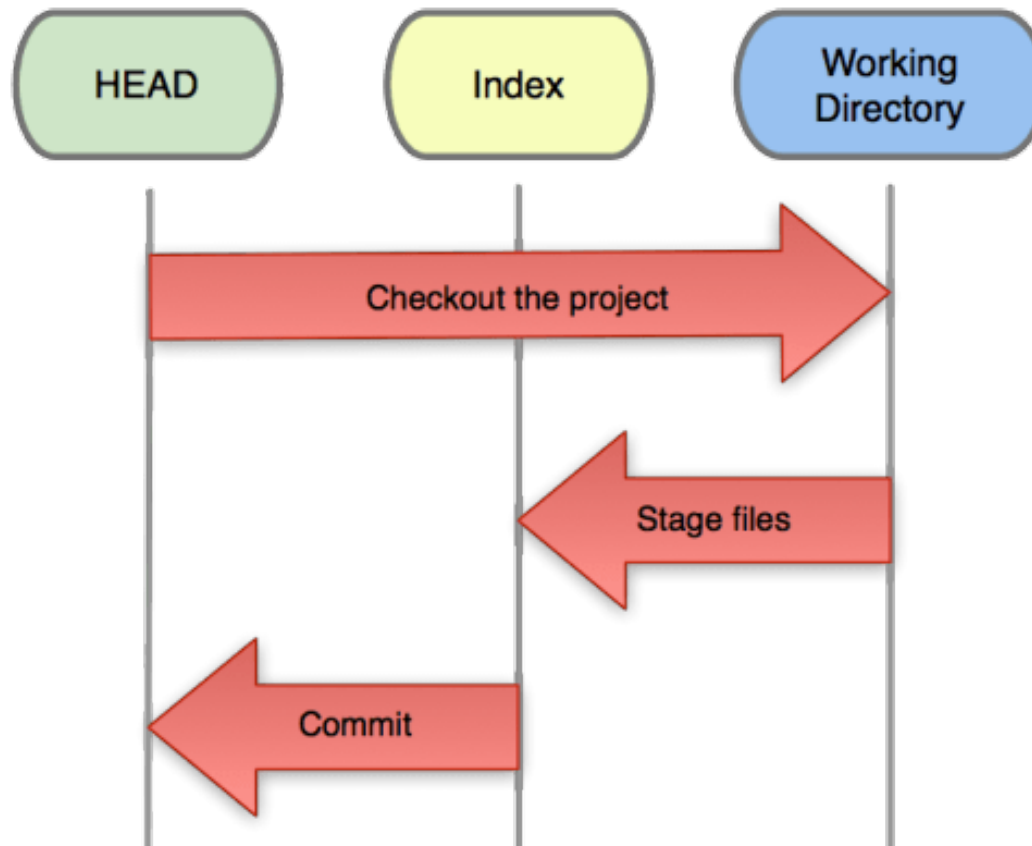
- `$git clone https://github.com/AndersenLab/CodeClub.git`

Building a repository

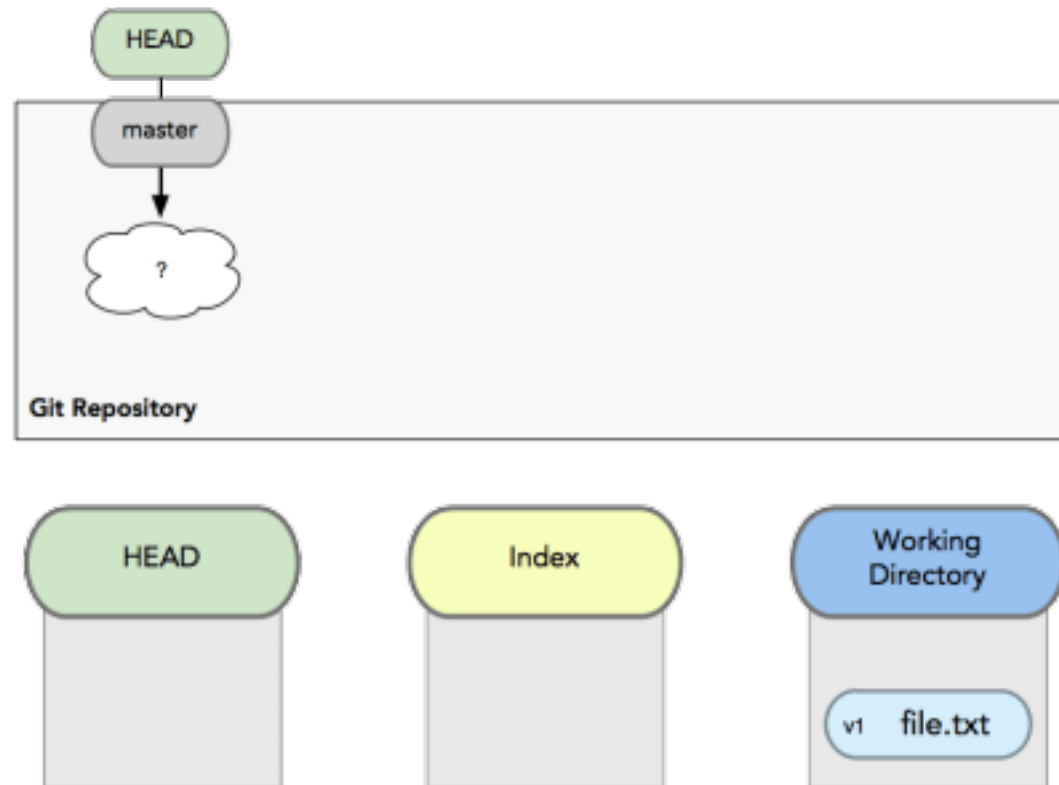
Basic workflow:

- `$git init` and link with GitHub or `$git clone *url*`
 - Edit your scripts/documents
 - `$git status` to see what files have changed
 - `$git diff --cached *file*` to see what has changed in the files
 - `$git add *file*` to the file to the staging area for later commit
 - `$git commit -m "Some message here"` to commit the latest changes
 - `$git push *destination* *branch*` to push the changes to GitHub
 - `$git pull` to pull changes down from github
-
- `$git reset`
 - `$git log`

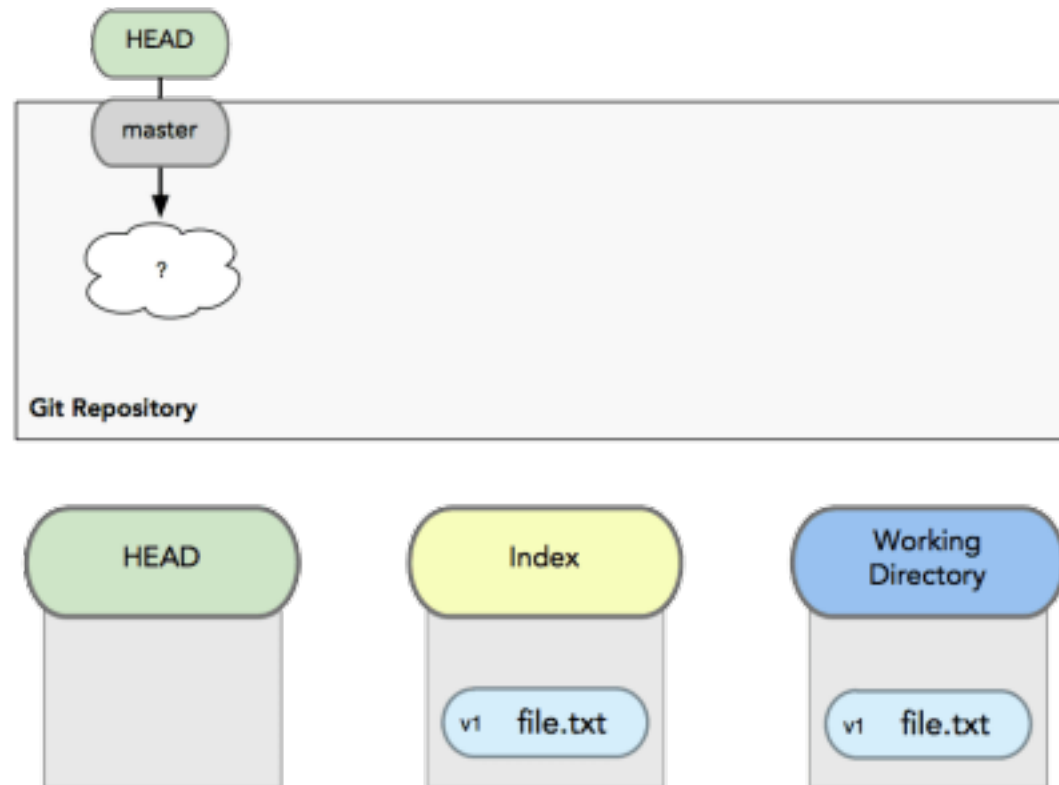
git workflow



git workflow

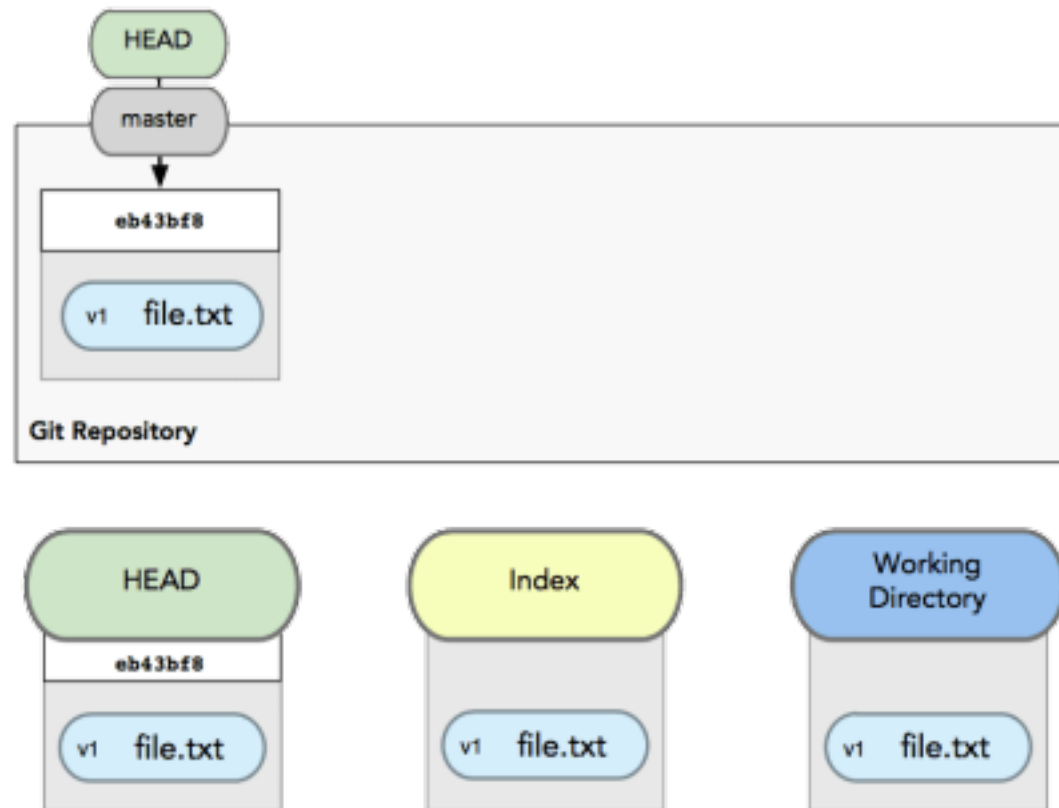


git workflow



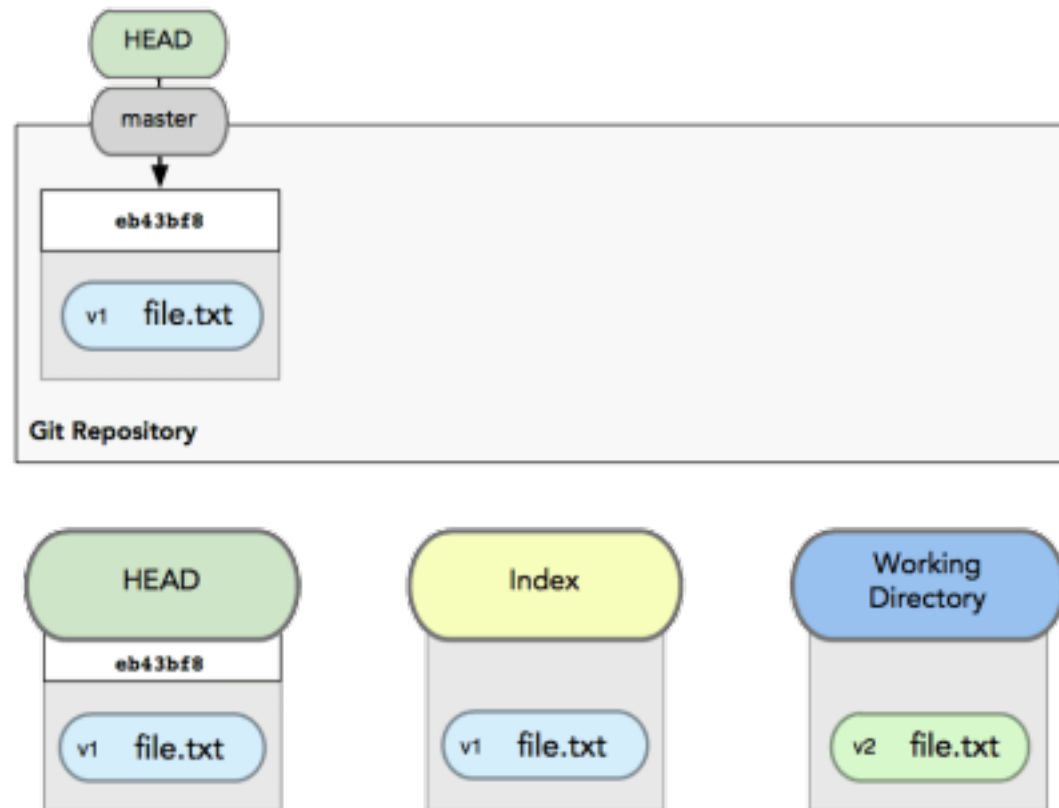
git add

git workflow



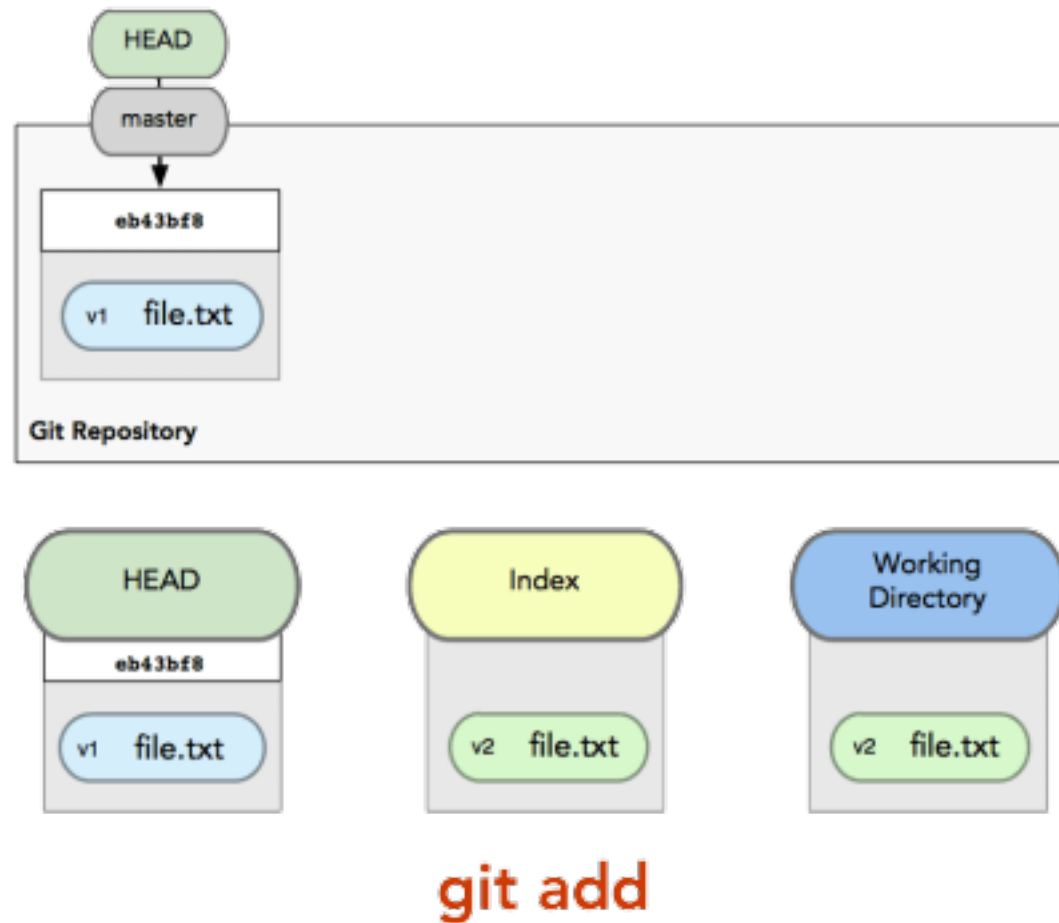
git commit

git workflow

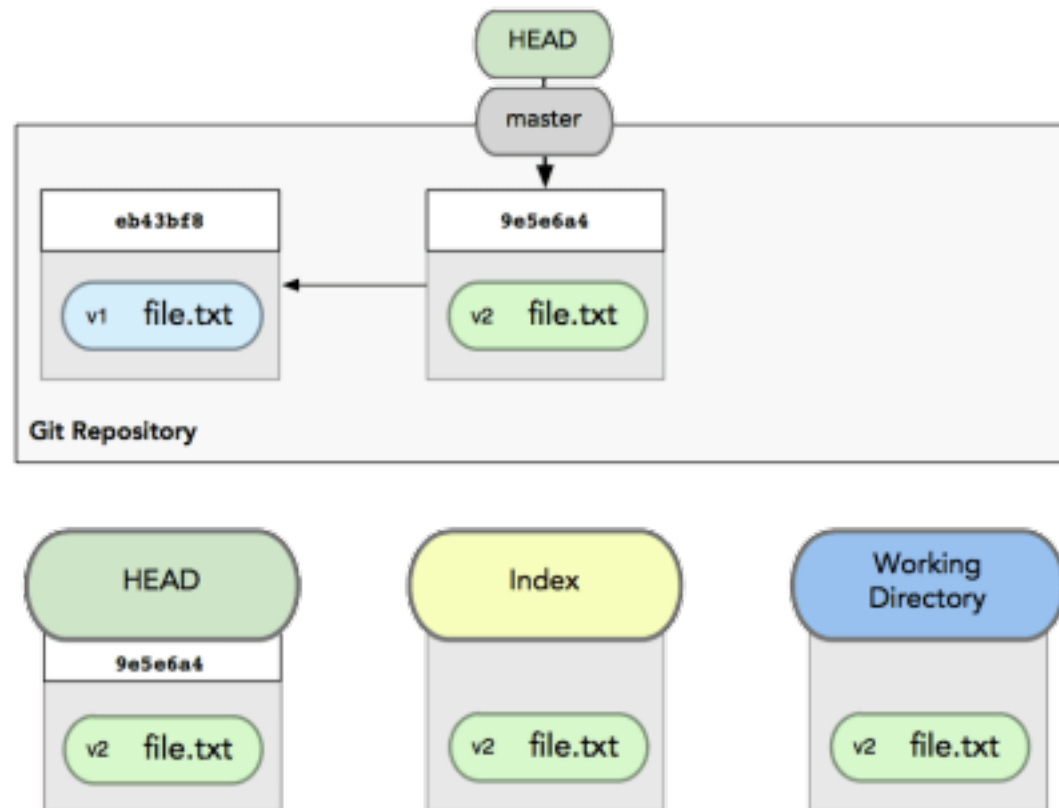


edit file

git workflow



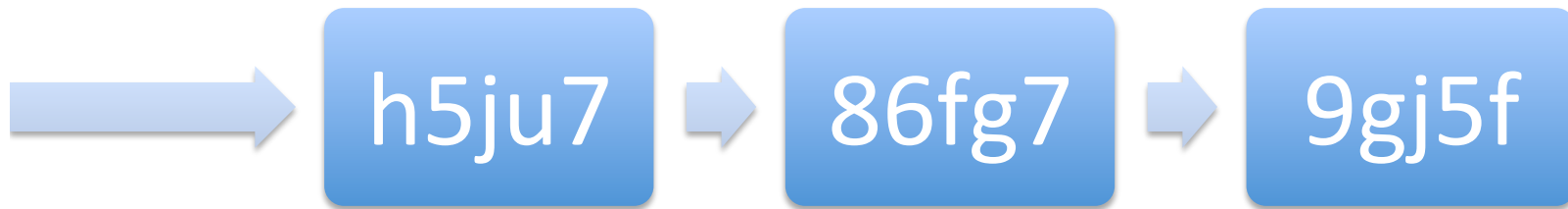
git workflow



git commit

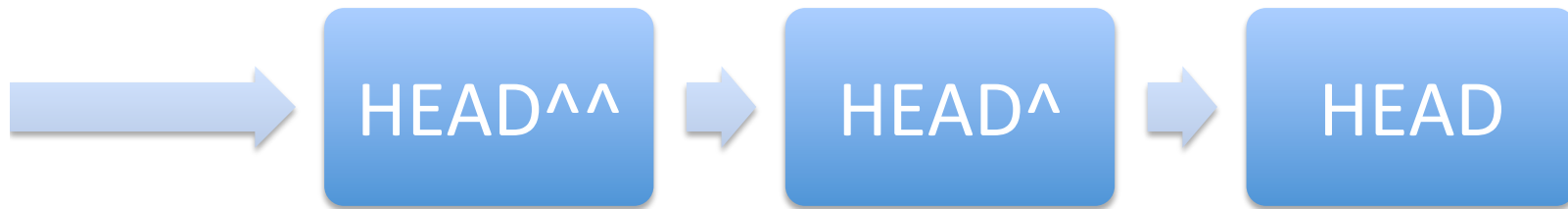
git workflow

In cryptography, SHA-1 is a cryptographic hash function designed by the United States National Security Agency and is a U.S. Federal Information Processing Standard published by the United States NIST.

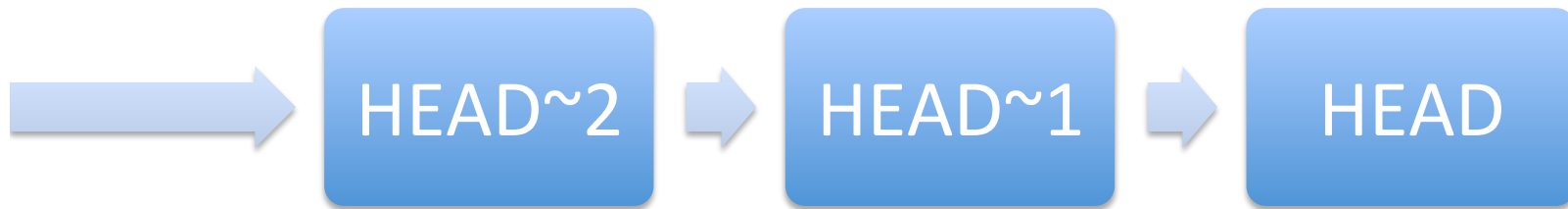


SHA-1 produces a 160-bit (20-byte) hash value. A SHA-1 hash value is typically rendered as a hexadecimal number, 40 digits long.

git workflow



git workflow



git log

```
dhcp-10-101-137-147:CodeClub tylershimko$ git log
commit 8c73fa11a850ec0f653ba7ed24904331ce4e48b3
Author: Tyler Shimko <TShimko126@gmail.com>
Date:   Fri Jun 13 12:49:23 2014 -0500

    Update stylesheet for cheat sheet

commit f01bf14f0abb4c7ba43f146f47b63d5d03fd1bf9
Author: Daniel Cook <danielecook@gmail.com>
Date:   Fri Jun 13 10:59:44 2014 -0500

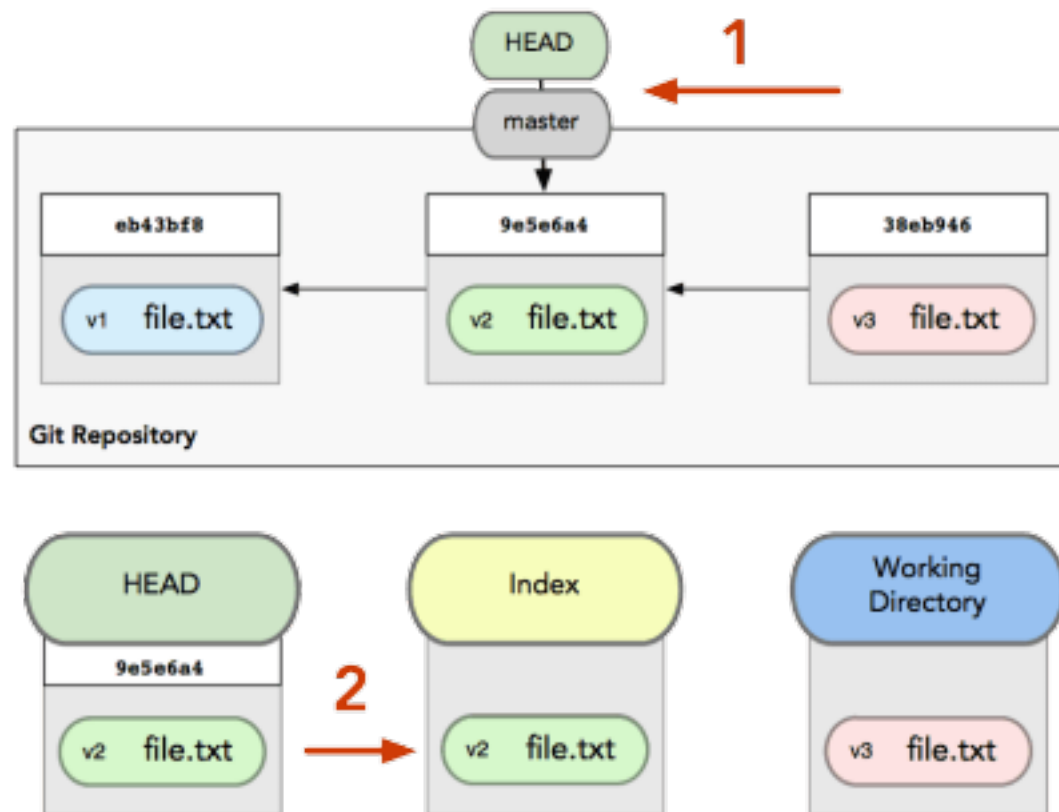
    Adding example bash profile

commit 9ceb9d4a9728f10b24678b3a9b51c2fc479c1898
Author: Tyler Shimko <TShimko126@gmail.com>
Date:   Thu Jun 12 11:47:20 2014 -0500

    Initial commit
```

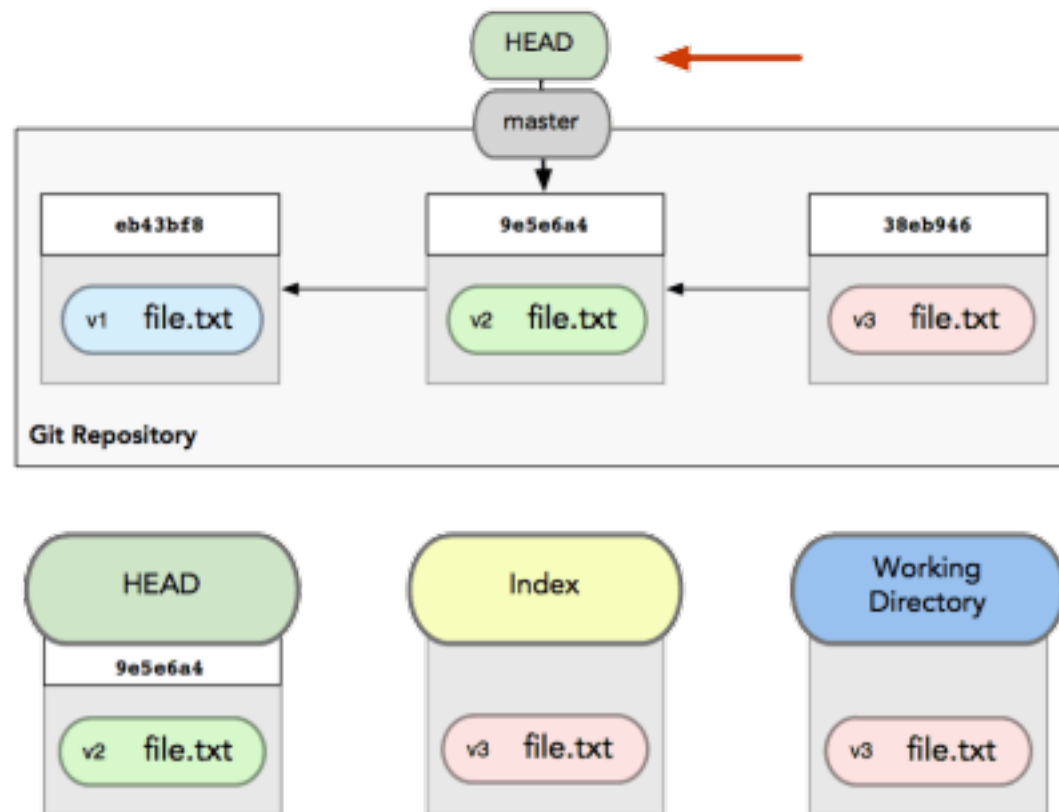
```
dhcp-10-101-137-147:CodeClub tylershimko$ git log --oneline
8c73fa1 Update stylesheet for cheat sheet
f01bf14 Adding example bash profile
9ceb9d4 Initial commit
```

git reset



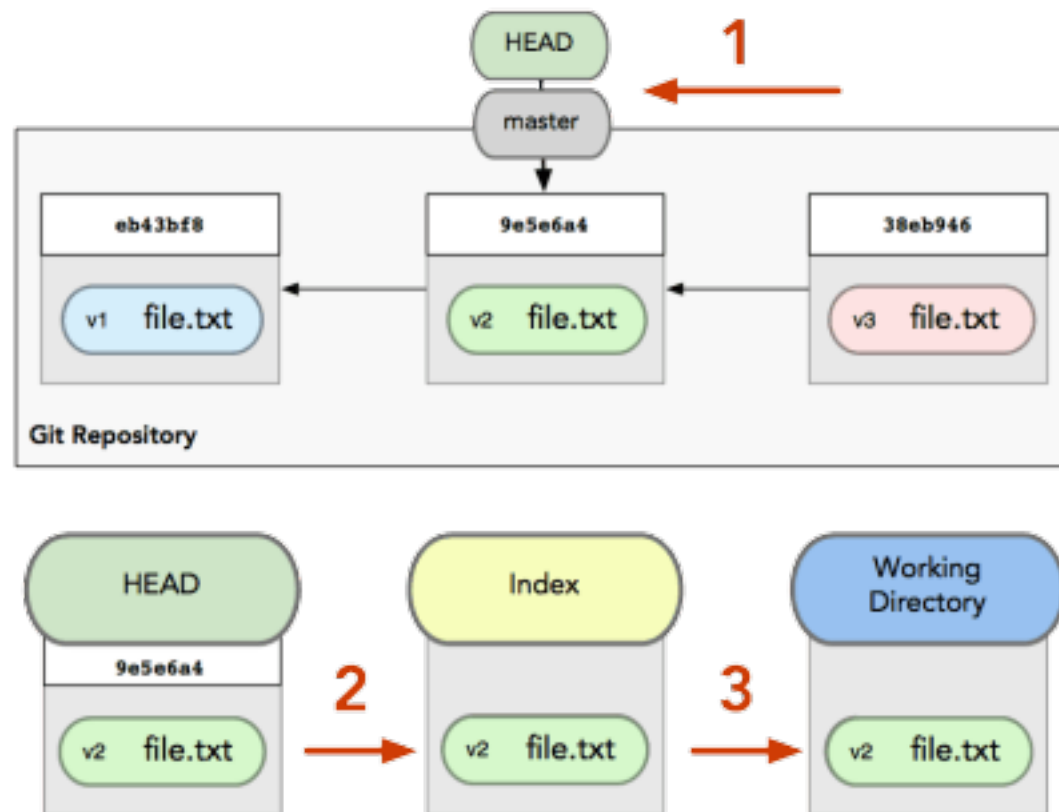
`git reset [--mixed] HEAD~`

git reset



git reset --soft HEAD~

git reset



git reset --hard HEAD~