RODOLFO MONTES GARZA

Git & Github Crash Course

04-FEB-2018

AGENDA

01 Tree Model

02 Installation

03 Workflow

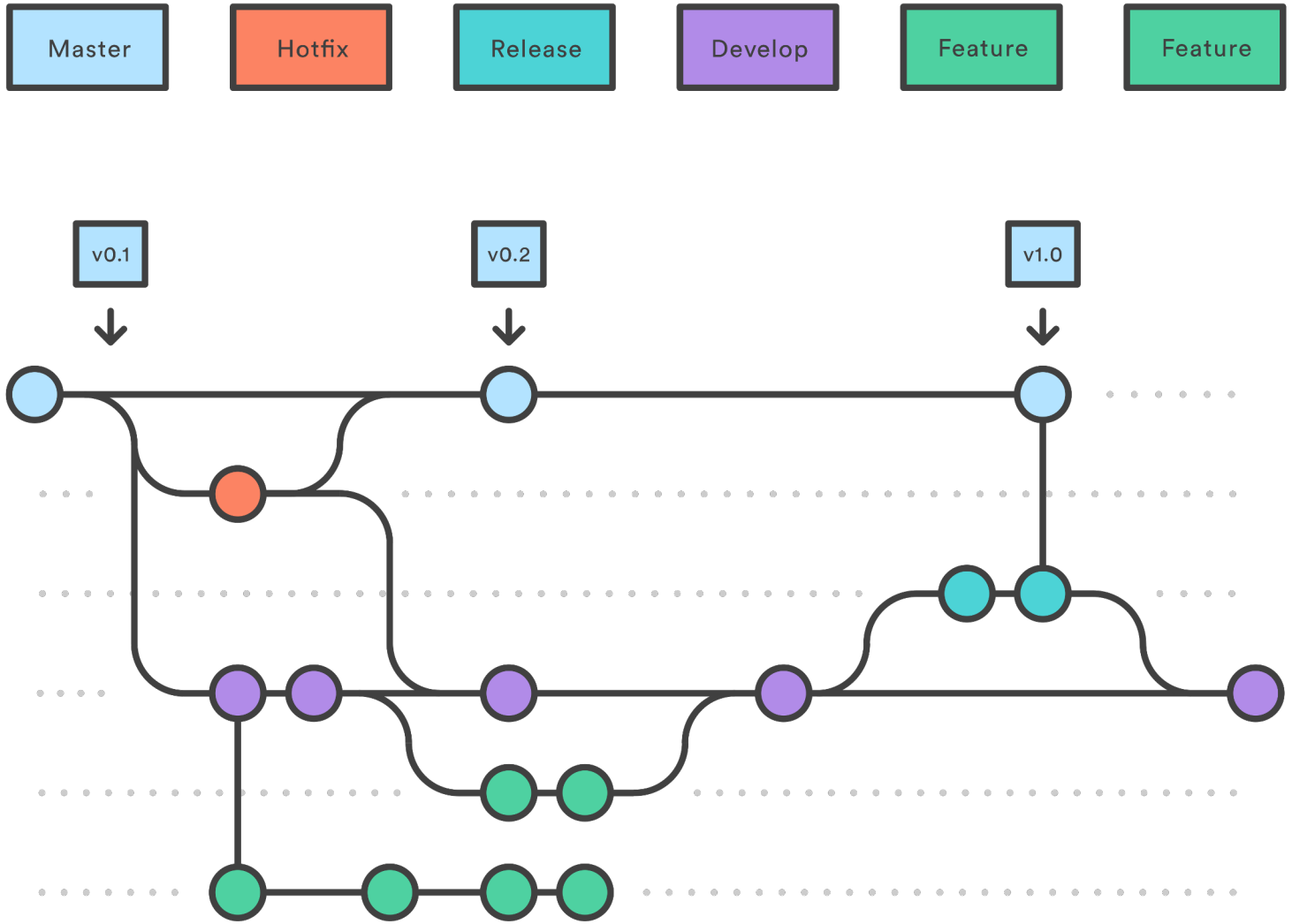
04 Branches

05 Reset

06 Remote Repository

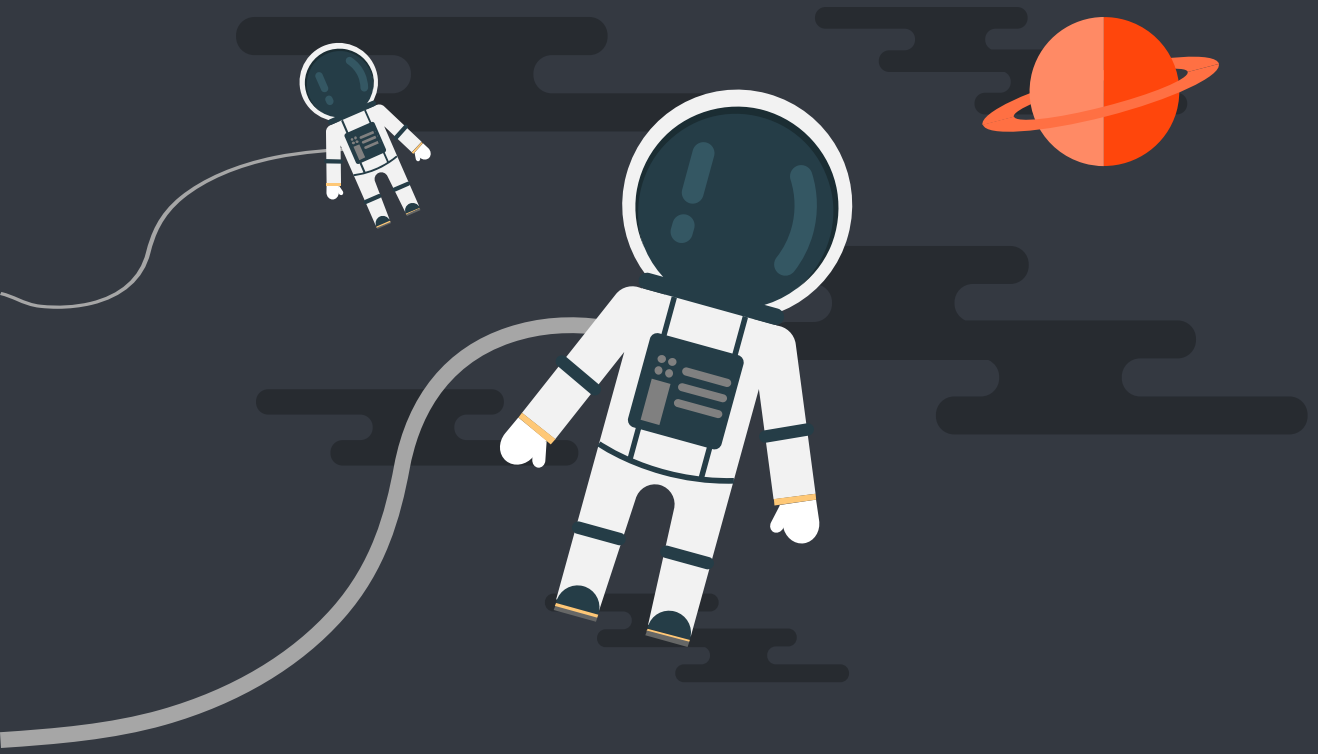
How does it work?

GIT & GITHUB CRASH COURSE




git --distributed-even-if-your-workflow-isnt
Search entire site...
Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency.
Git is easy to learn and has a tiny footprint with lightning fast performance. It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with features like cheap local branching, convenient staging areas, and multiple workflows.
Learn Git in your browser for free with Try Git.
About
The advantages of Git compared to other source control systems.
Documentation
Command reference pages, Pro Git book content, videos and other material.
Downloads
GUI clients and binary releases for all major platforms.
Community
Get involved! Bug reporting, mailing list, chat, development and more.
Latest source Release
2.16.1
Release Notes (2018-01-22)
Download 2.15.1 for Mac
Mac GUIs
Tarballs
Pro Git by Scott Chacon and Ben Straub is available to read online for free. Dead

Configuration



1

SET YOUR USERNAME

Your full name to be recorded in any newly created commits

```
git config —global user.name “name”
```

2

SET YOUR EMAIL

Your email to be recorded in any newly created commits

```
git config —global user.email “email”
```

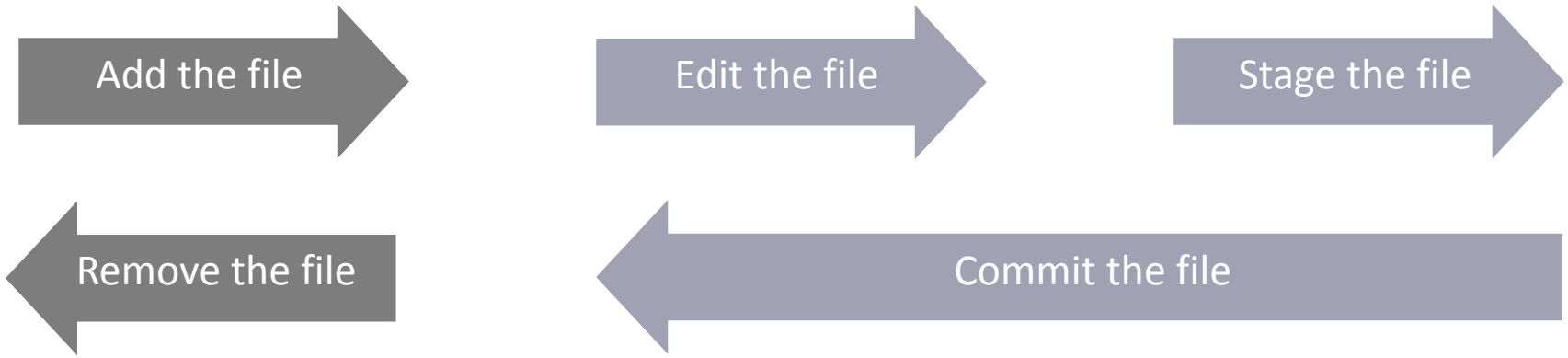
Git Workflow

Untracked
Doesn't appear in the project

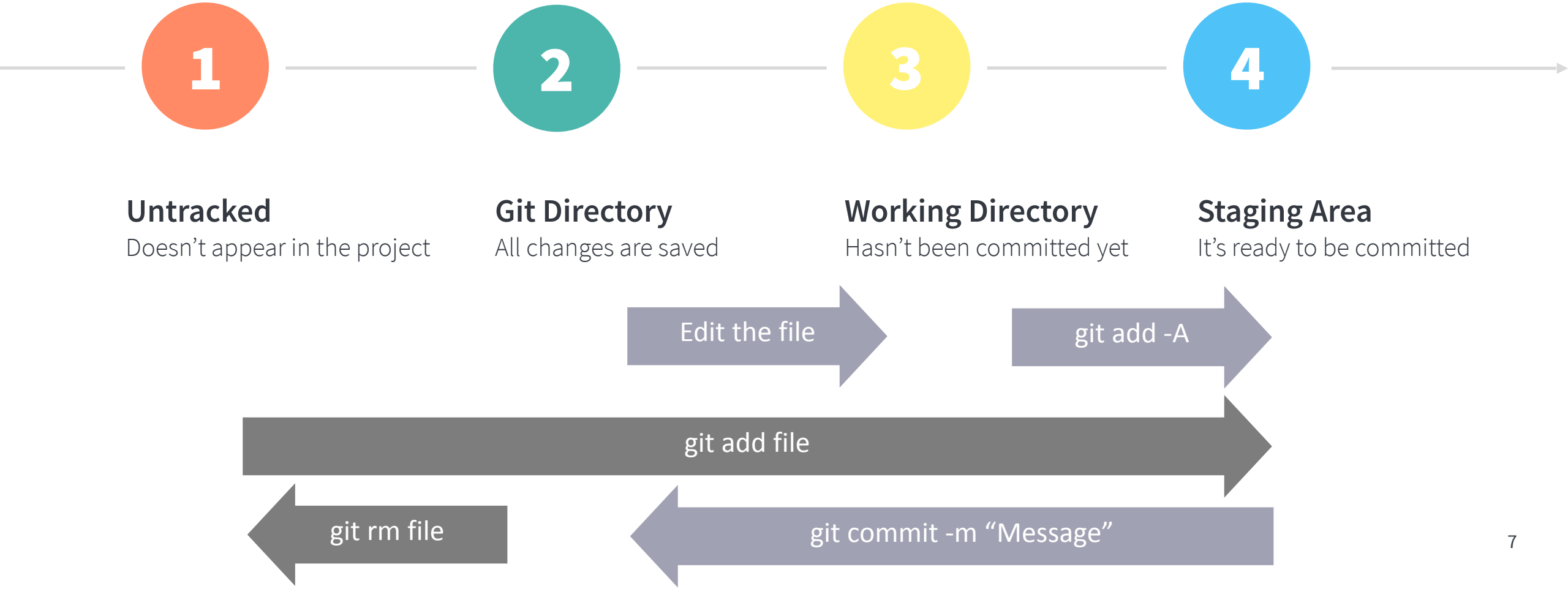
Unmodified
All changes are saved

Modified
Hasn't been committed yet

Staged
It's ready to be committed



Git Workflow



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Git Workflow

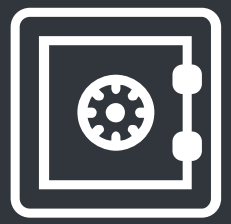
Working Directory

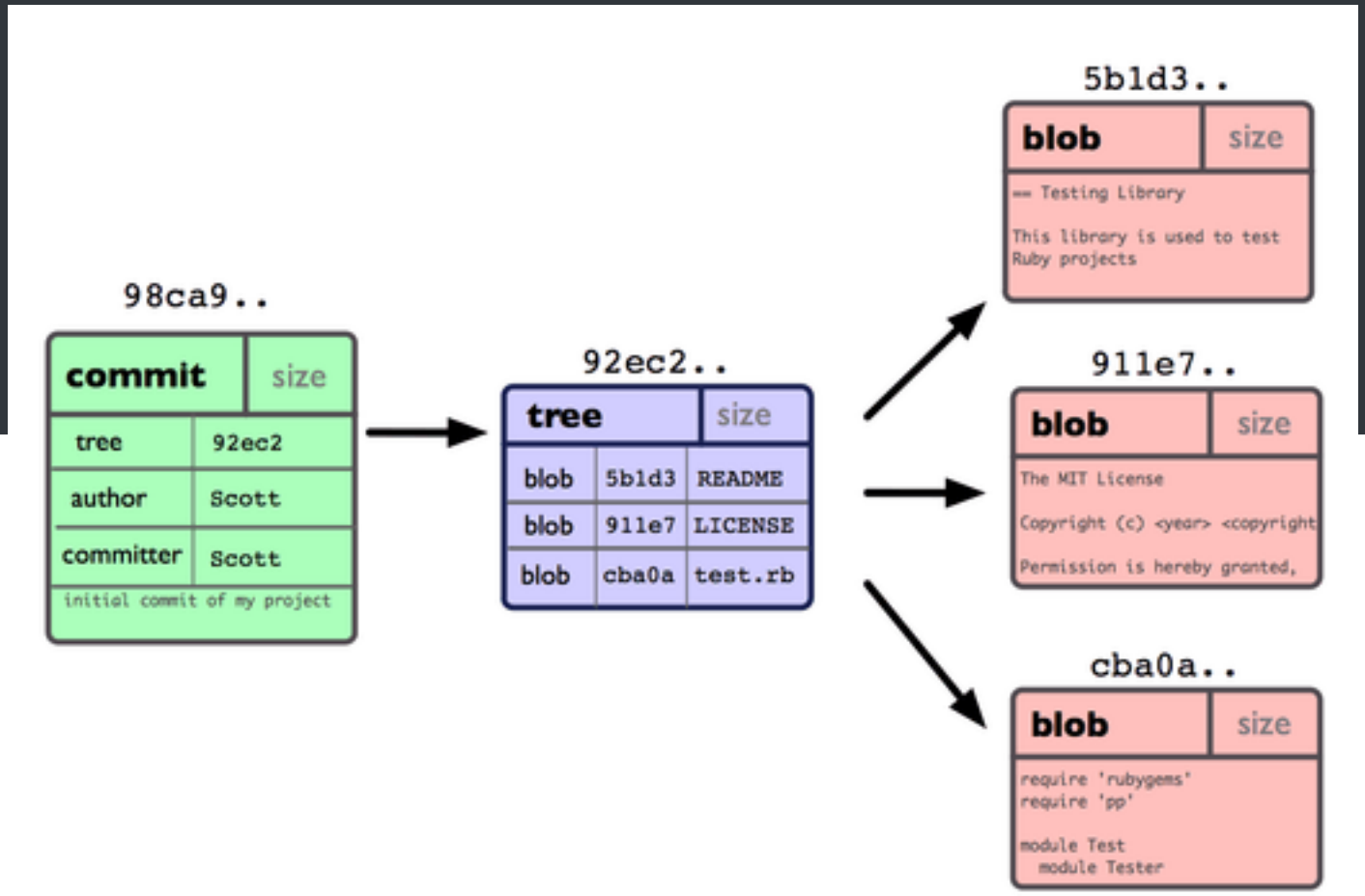
Check for the project status

git checkout

Branches

Commit Structure





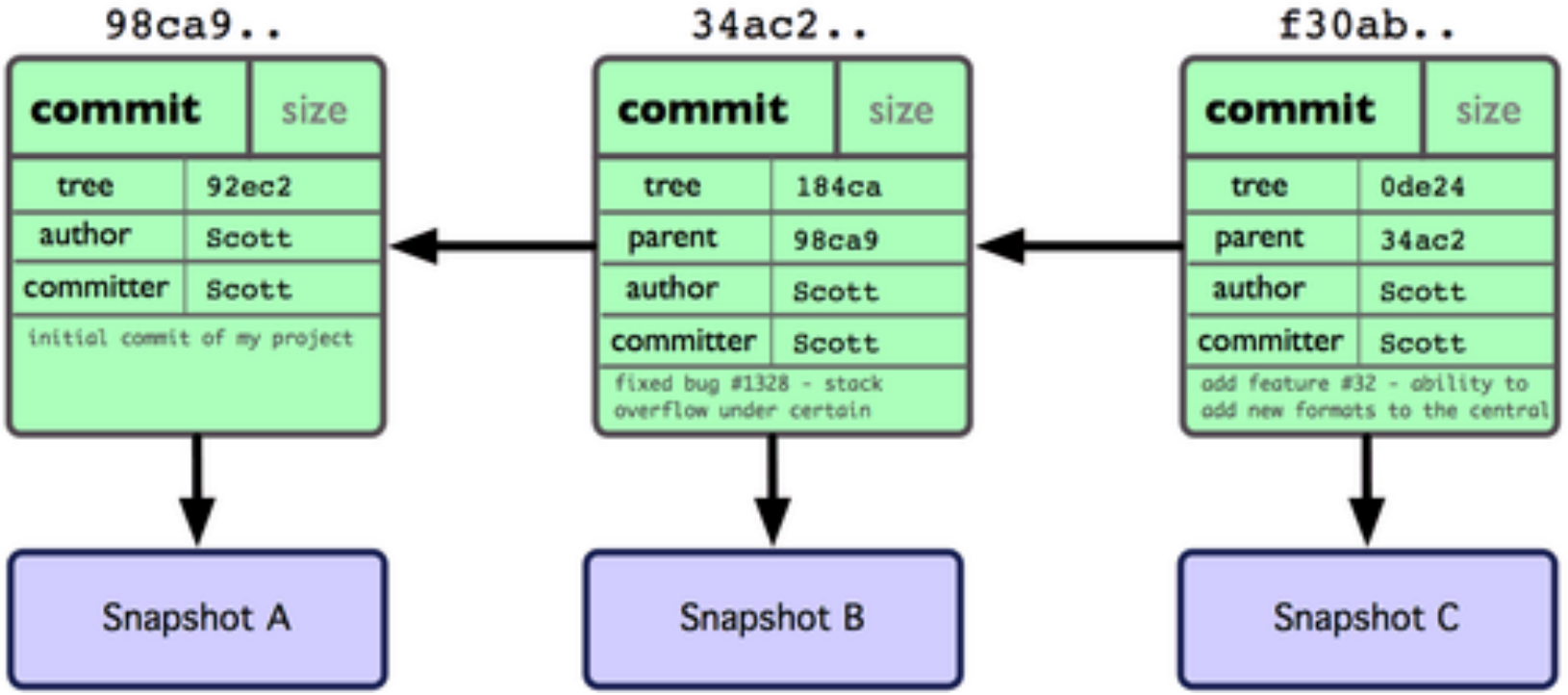
Commit

Contains a unique identifier, who created and committed, the message and the corresponding tree identifier

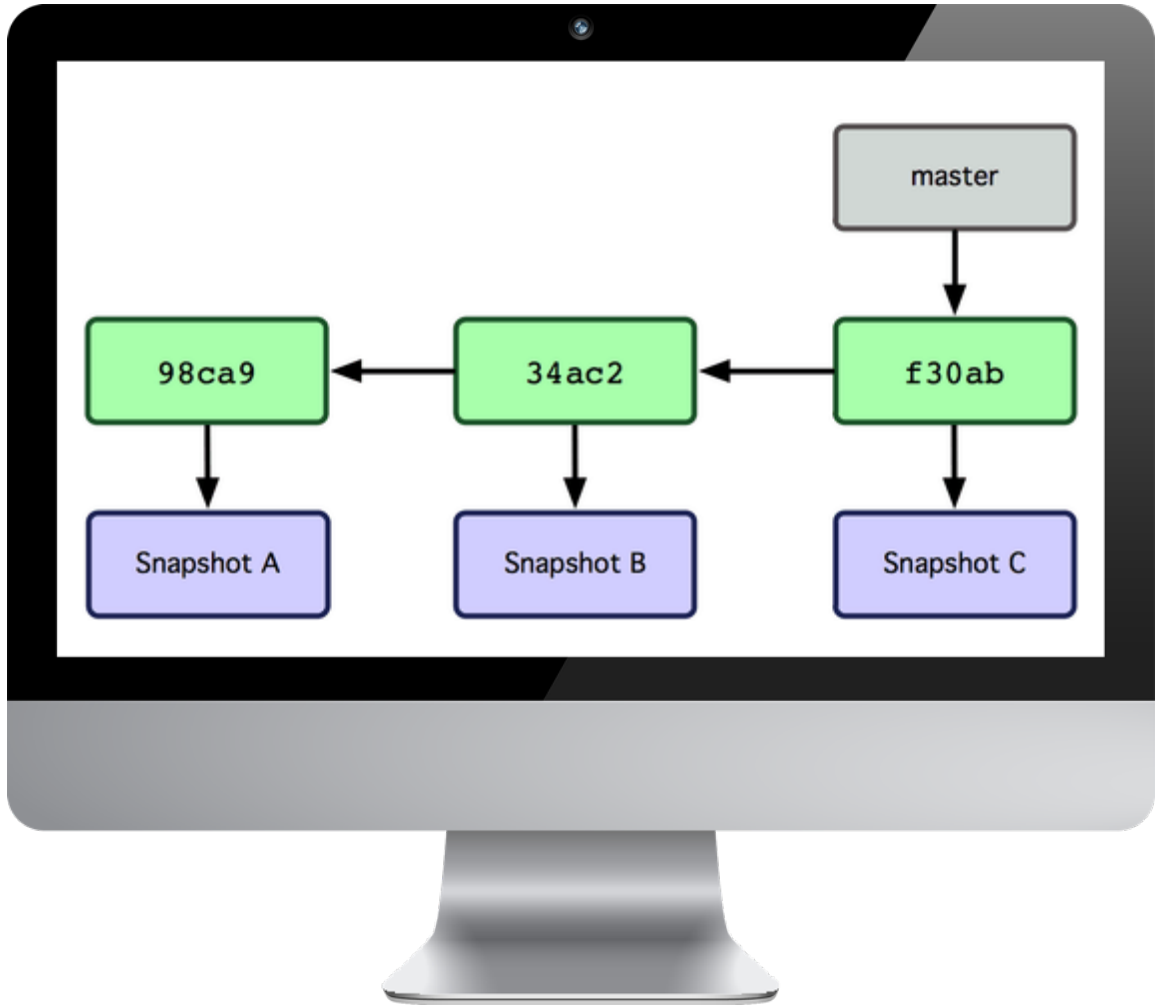
Tree and Blobs

Git stores information about the tree/directory and every single file on it as blobs, both of them has a unique id

Adding Commits



Master



Branch: Master

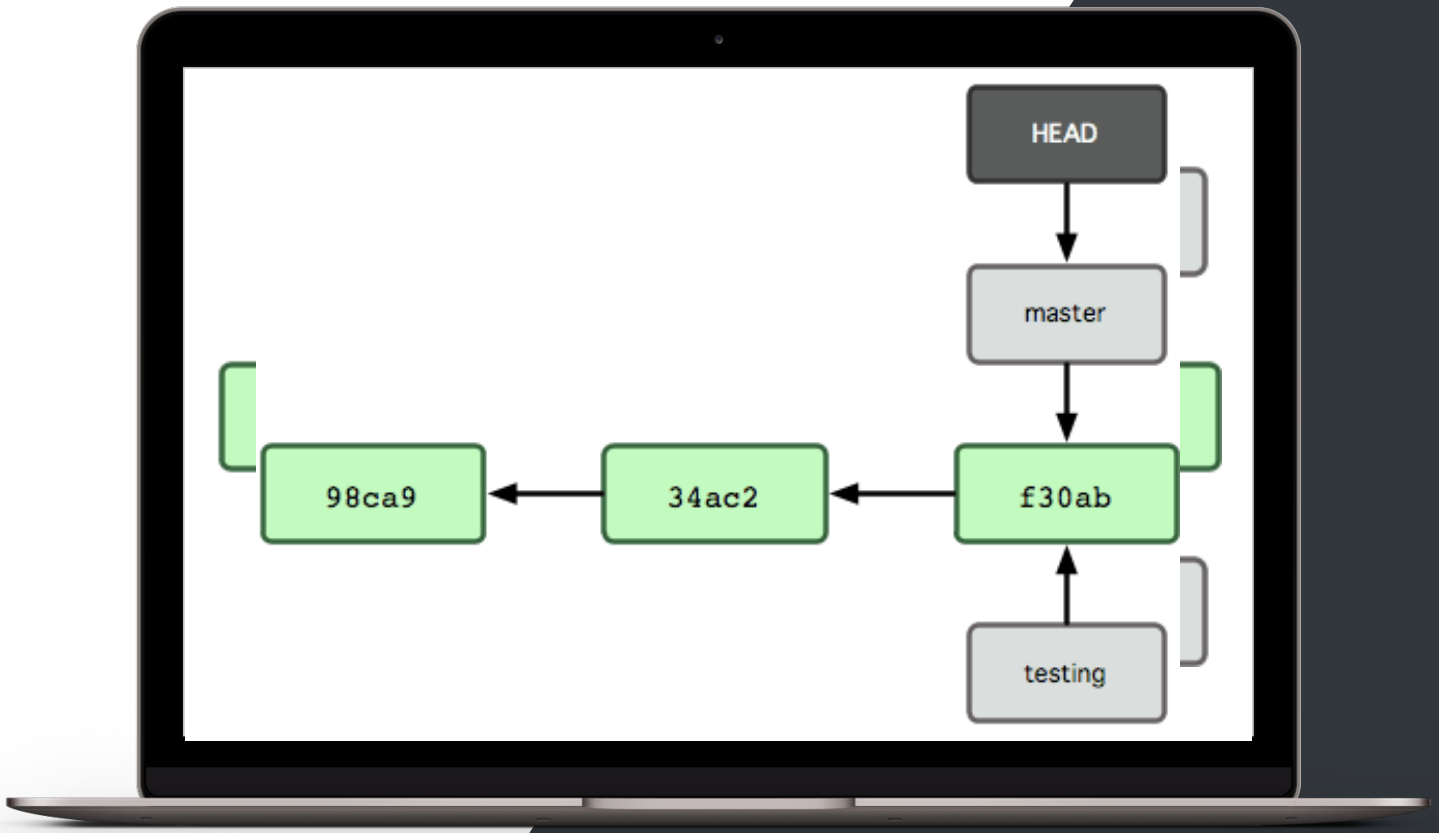
The main branch of the project is call master, and it is created when git init is used.

Position

Master always point to the last commit done to the main branch.

Commits

Every commit stores a pointer to the commit that came immediately before it.



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Creating a new Branch

git branch development

When we create a new branch, automatically a new pointer is created at the same commit you're currently on

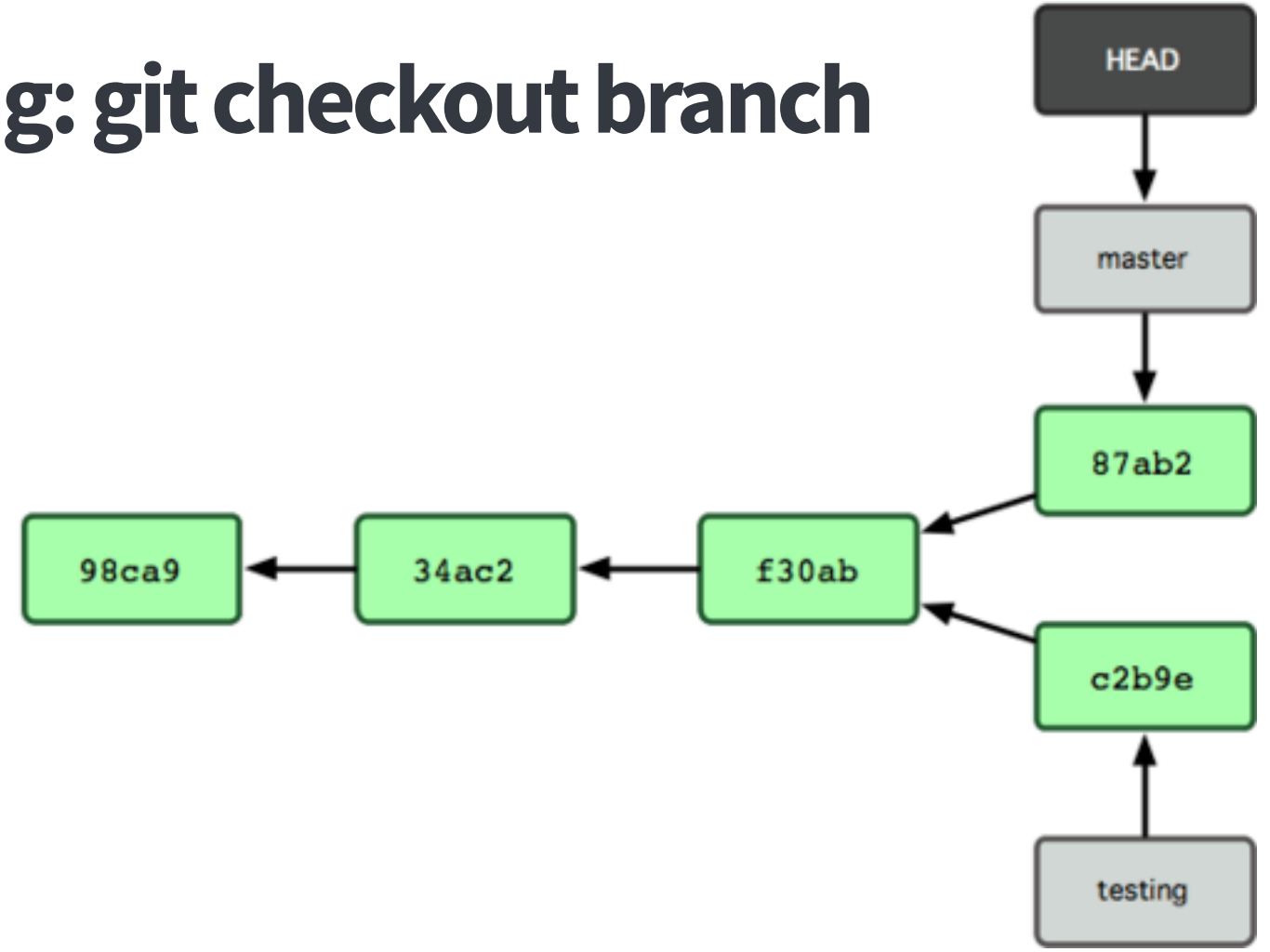
Using: git checkout branch

We can use the checkout command to see a branch or an specific commit

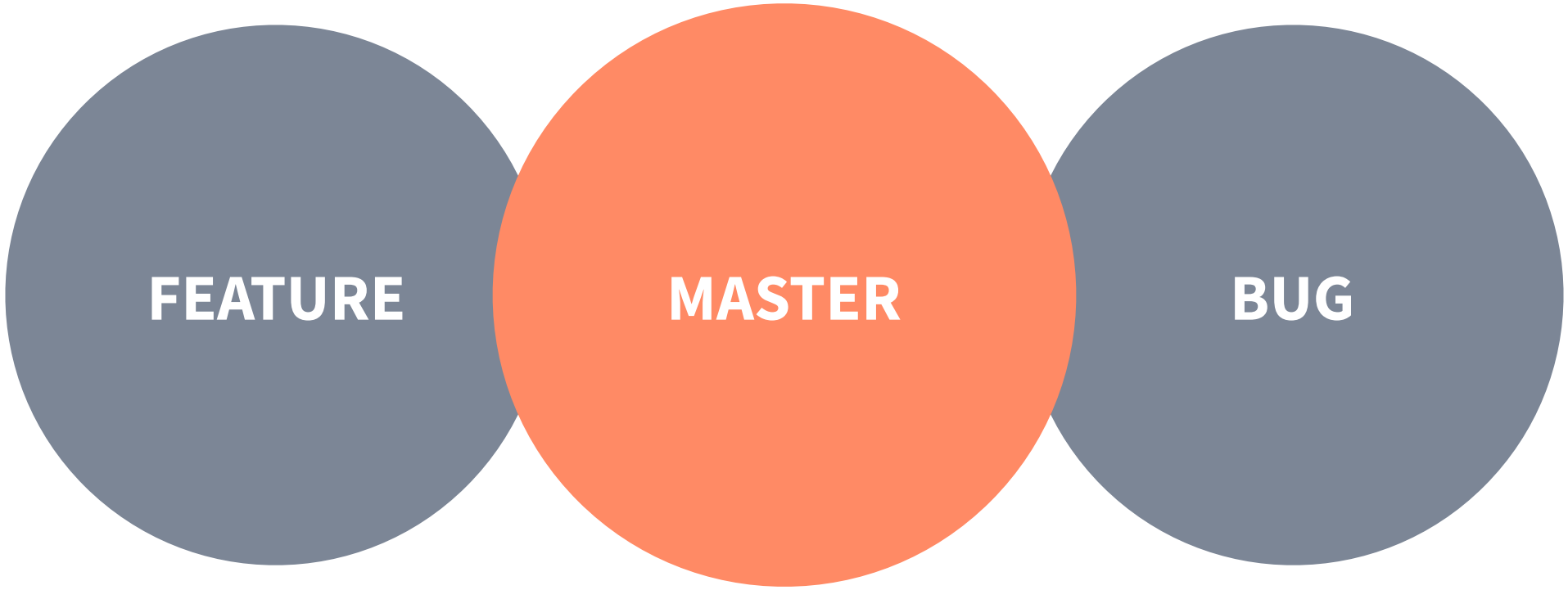
MASTER
git checkout master

TESTING
git checkout testing

COMMIT
git checkout 34ac2



Work with Branches

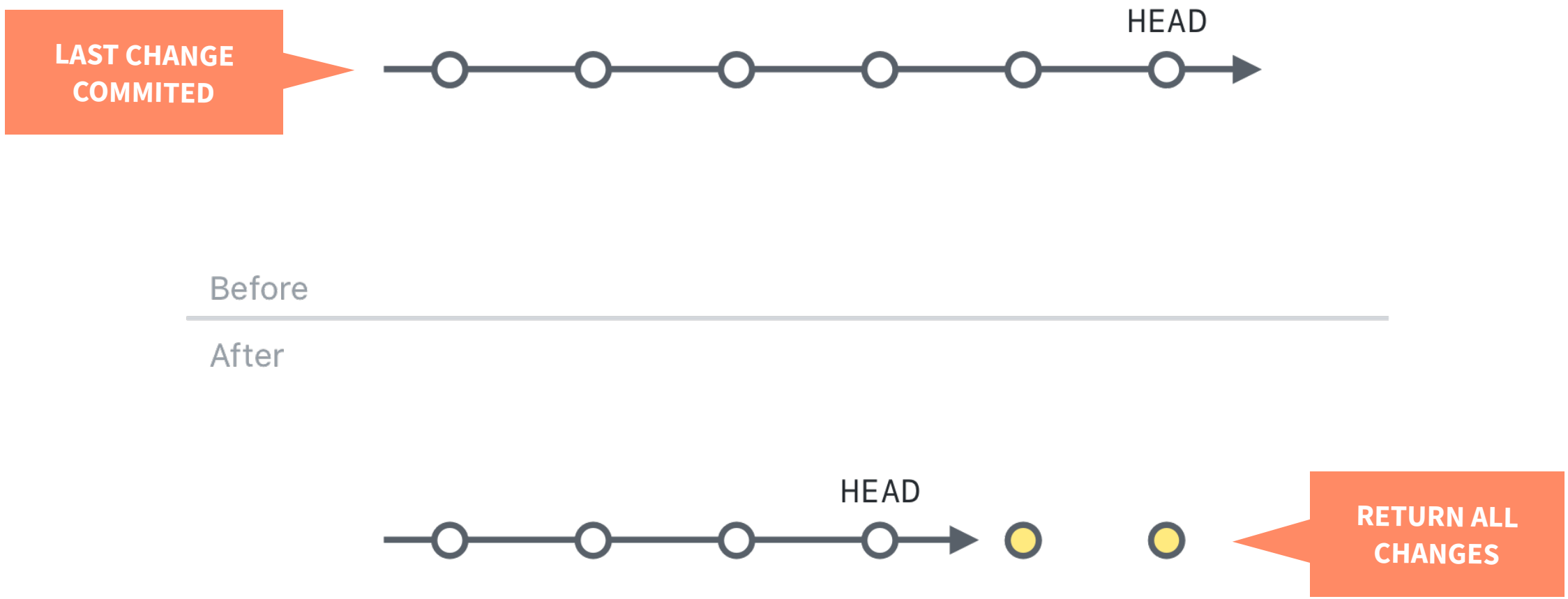


git checkout -b feature

git checkout master

git branch bug

Git Reset


LAST CHANGE COMMITED
HEAD
Before
After
HEAD
RETURN ALL CHANGES

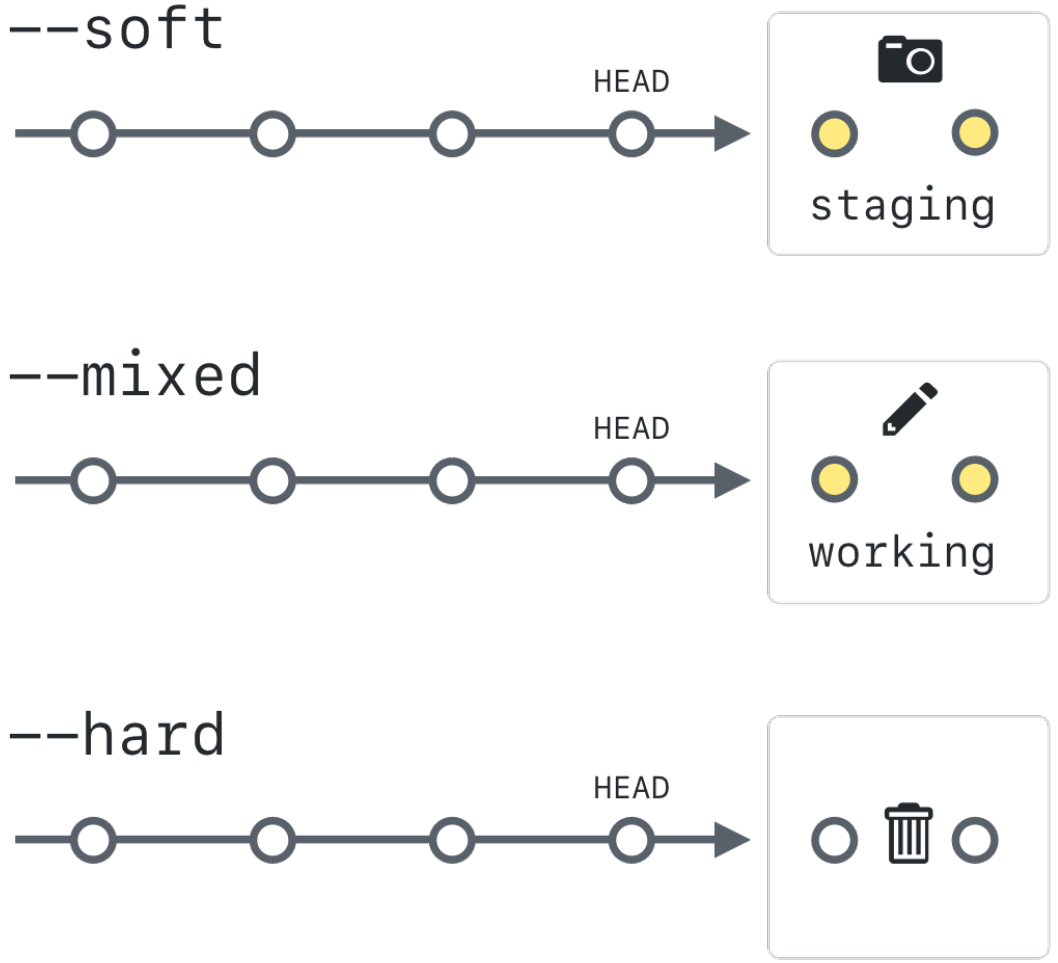
MULTIPURPOSE

Types of Reset

Soft Reset
Take the last changes committed and put them in the staging area.

Mixed Reset
Take the last changes committed and put them in the working directory.

Hard Reset
Take the last changes committed and delete them.



REMOTE REPOSITORY

YOUR CODE EVERYWHERE

You can always download a fresh copy of your repo.

CODE TOGETHER

Let others contribute on your project.

KEEP IT SAFE

You will always have a backup of your project.

Git is not Github

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STEP 01

SET SSH KEY

SSH Key allows you to connect to remote servers/ repositories without using user and password method.

ssh-keygen & cat ~/.ssh/id_rsa.pub

STEP 02

GO ONLINE

Create your remote repository in Bitbucket, GitHub, Gitlab, etc., to share your code with your partners.

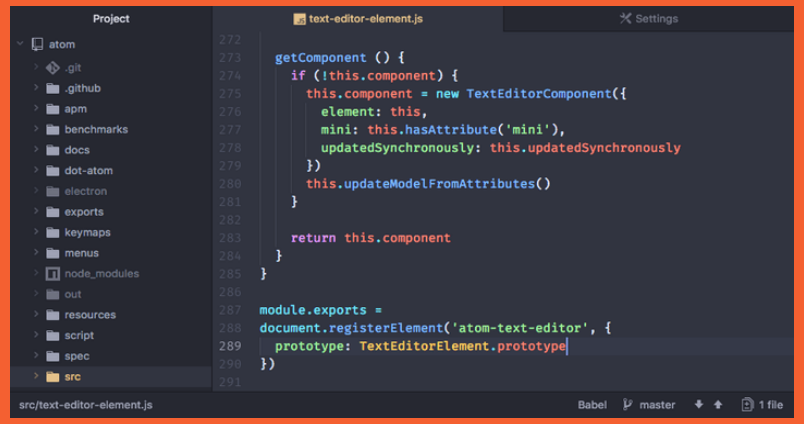
git remote add repository_name url_to_repository

STEP 03

UPLOAD YOUR CHANGES

Use the command git push to merge changes in your local repository to remote one, to make it available.

git push repository_name branch_name

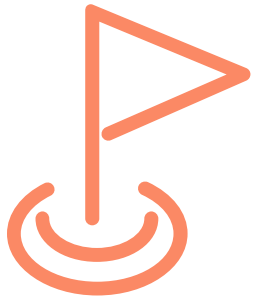


STEP 04

GET THE LAST CHANGES

Use the command git pull to get the last changes/ updates from any branch in the remote repository.

git pull repository_name branch_name



QUESTIONS?

THANK YOU!

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