



# Introduction to Git and other version control

- What is version control?
- Local version control systems
- Centralized version control systems
- Distributed version control systems
- What is Git?
- Git installation
- Git visualization

#### What is version control?



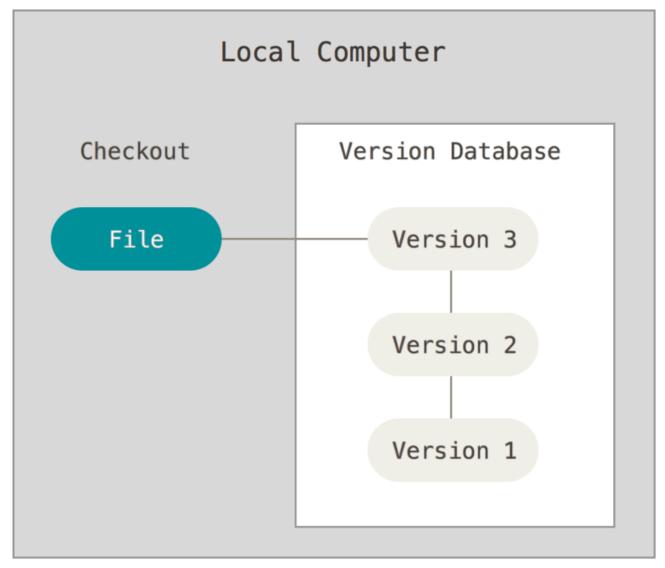
- Version Control Systems (VCS)
- keeps records changes to a file or set of files
- keeps records changes to a file or set of files
- Git, Subversion, Mercurial, CVS



TOP VERSION CONTROL SYSTEMS

#### Local version control systems

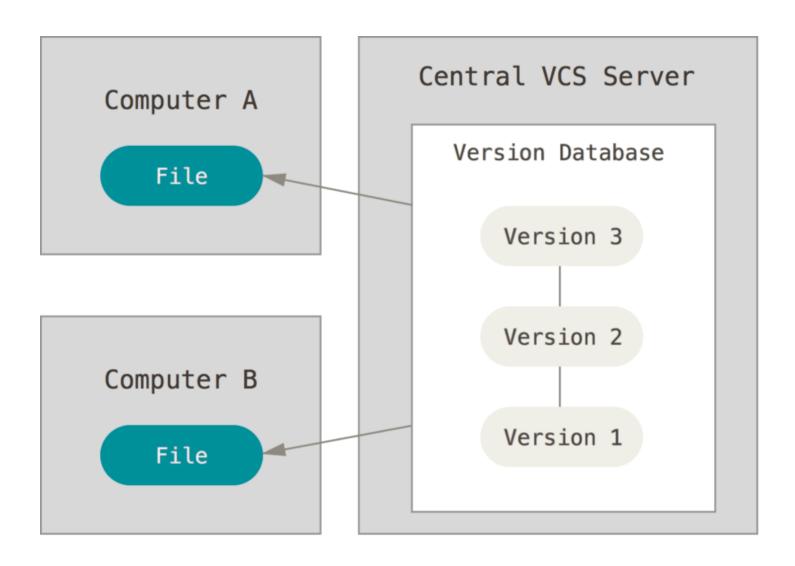




https://git-scm.com/book/en/v2/Getting-Started-About-Version-Control

#### Centralized version control systems

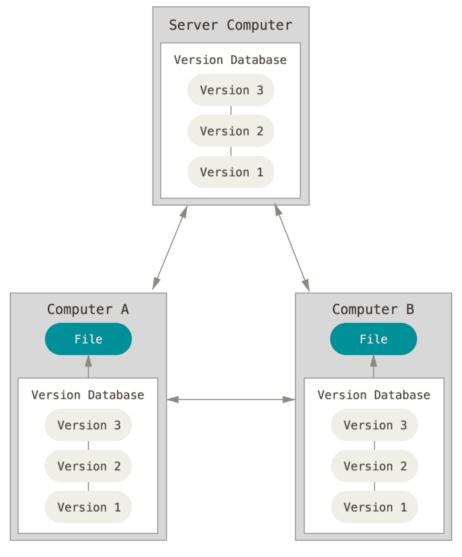




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#### Distributed version control



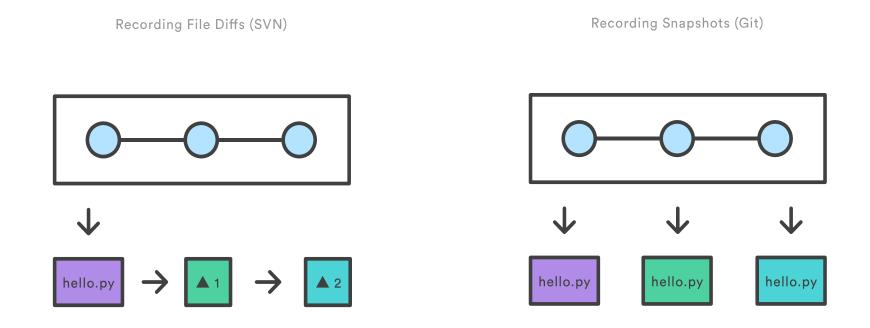


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### Subversion(SVN) to Git



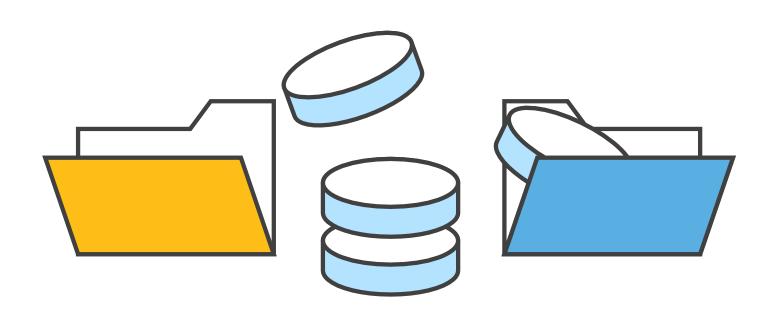
#### Snapshots, not differences



#### Why Git for your organization

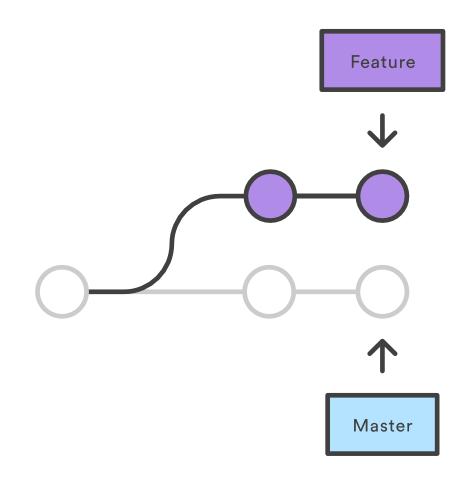


- Developers
- Marketing
- Product Management
- Designers
- Customer Support
- Human Resources
- Anyone managing a budget





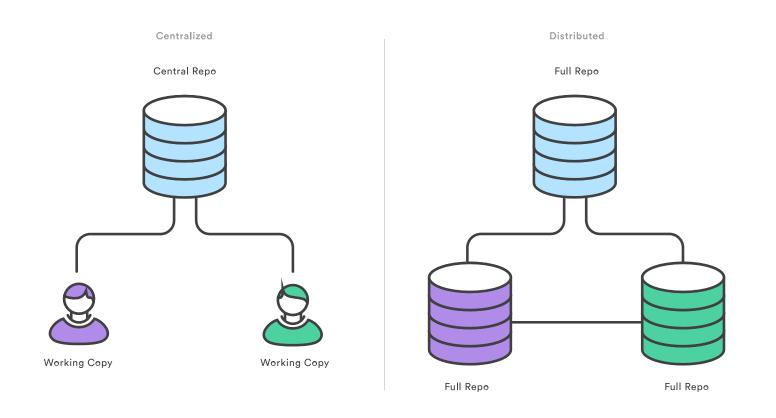
Feature Branch Workflow



https://www.atlassian.com/git/tutorials/why-git



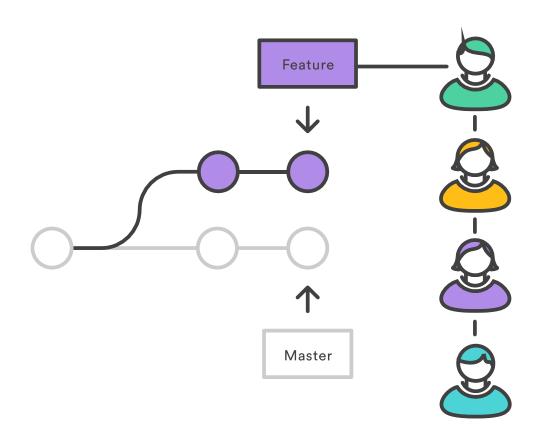
Distributed Development



https://www.atlassian.com/git/tutorials/why-git

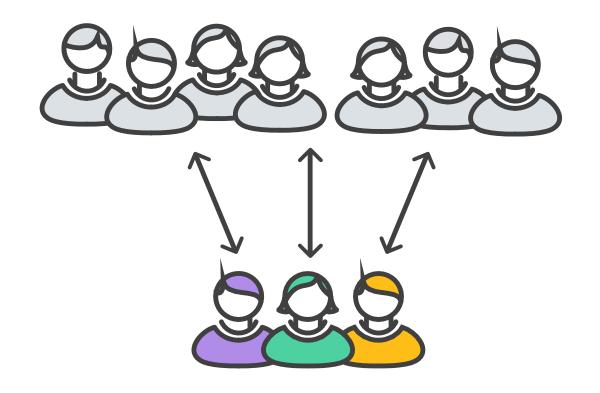


Pull Requests



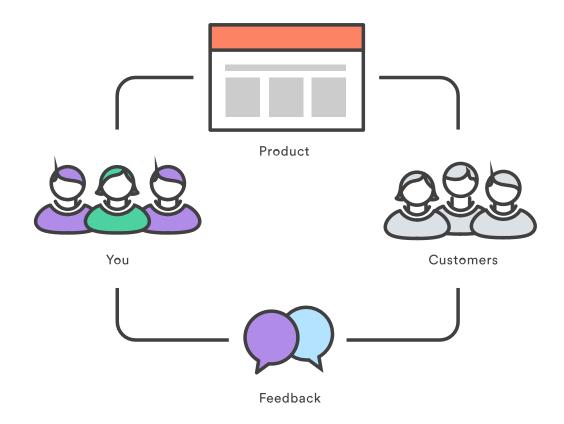


Community





Faster Release Cycle



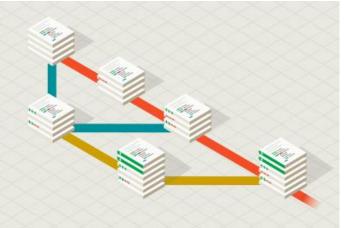
https://www.atlassian.com/git/tutorials/why-git

#### Install Git



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.





#### 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.



**Pro Git** by Scott Chacon and Ben Straub is available to read online for free. Dead tree versions are available on Amazon.com.



#### Git Visualization









https://www.gitkraken.com/git-client

https://desktop.github.com/

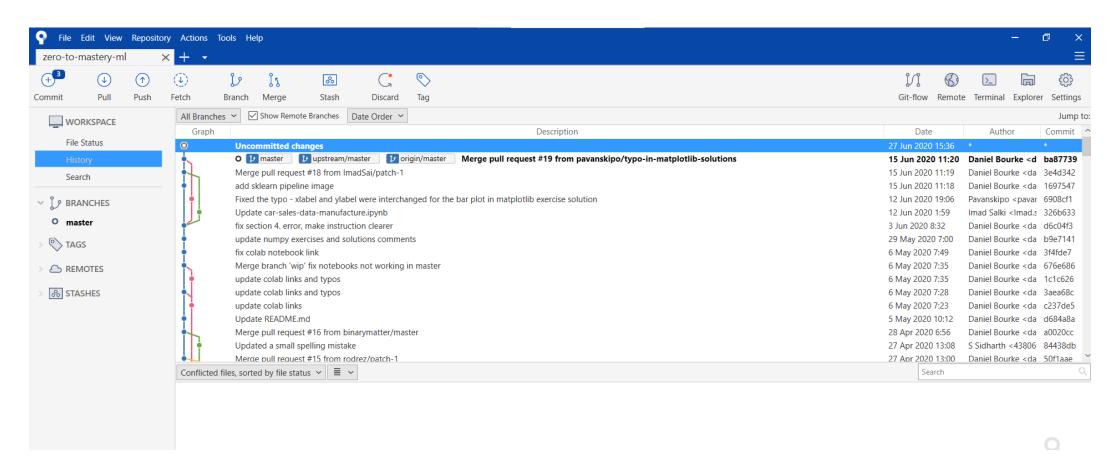
https://www.sourcetreeapp.com/

#### GitHub Desktop





### Sourcetree



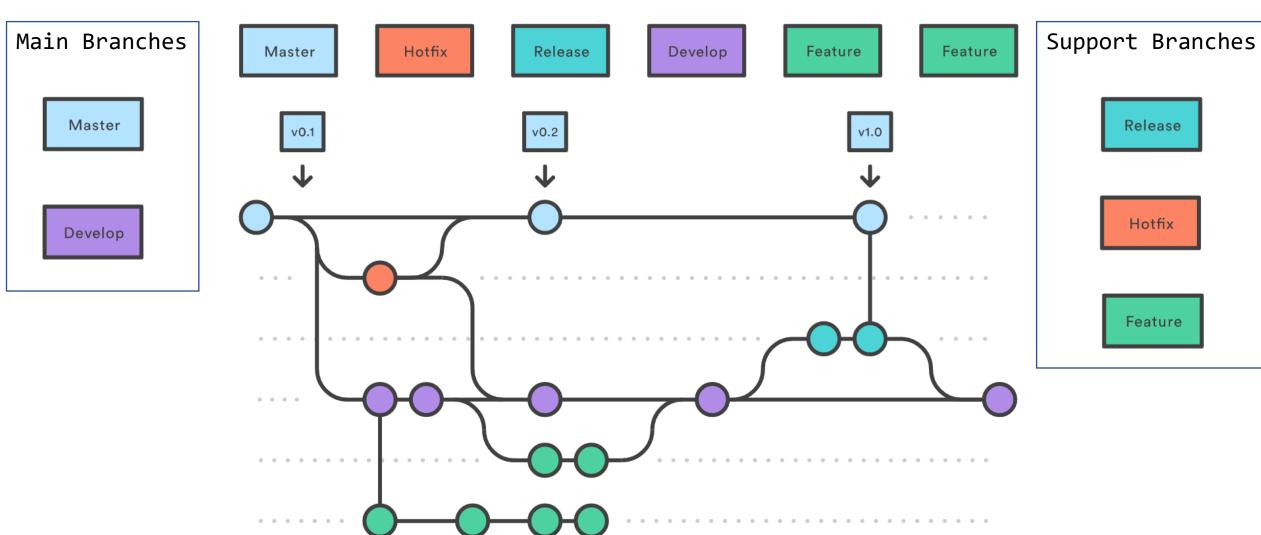


#### Git Basics 101

- Git Workflow
- Git Terminology
- The Staging Area
- Git Environment Setup
- Git command line

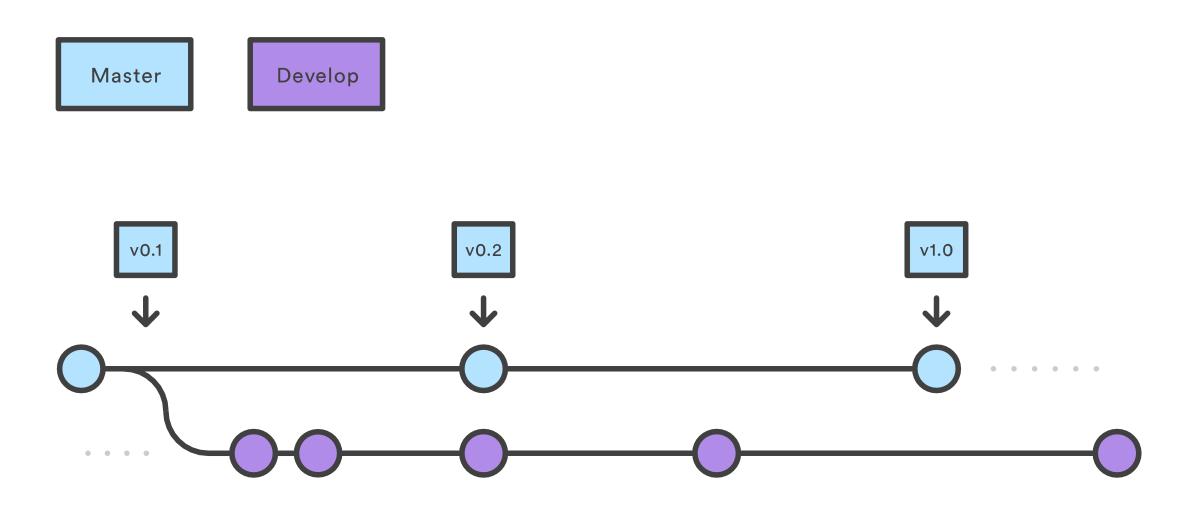
#### Git Branches: overview





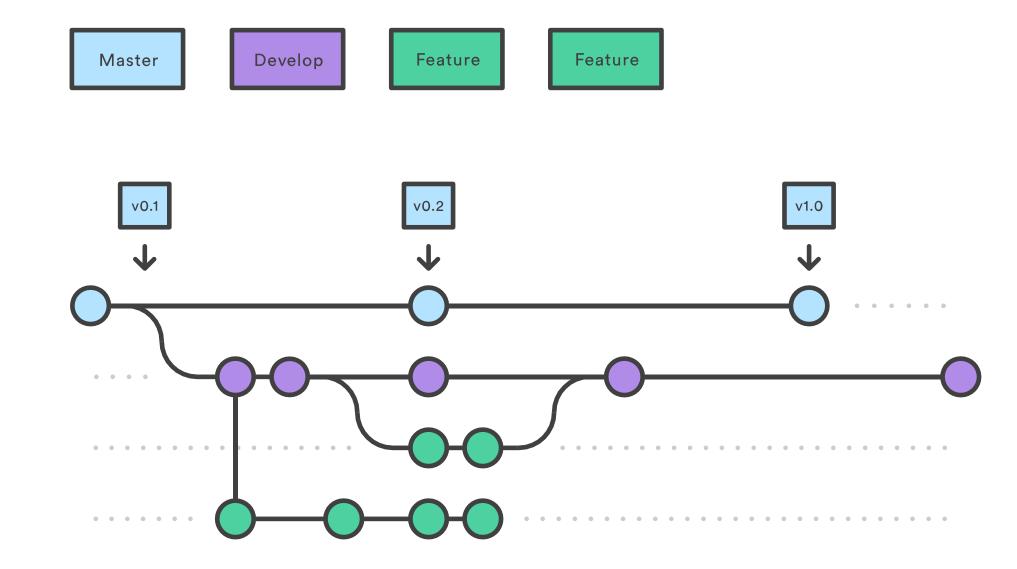
#### Git Branches: Develop and Master Branches





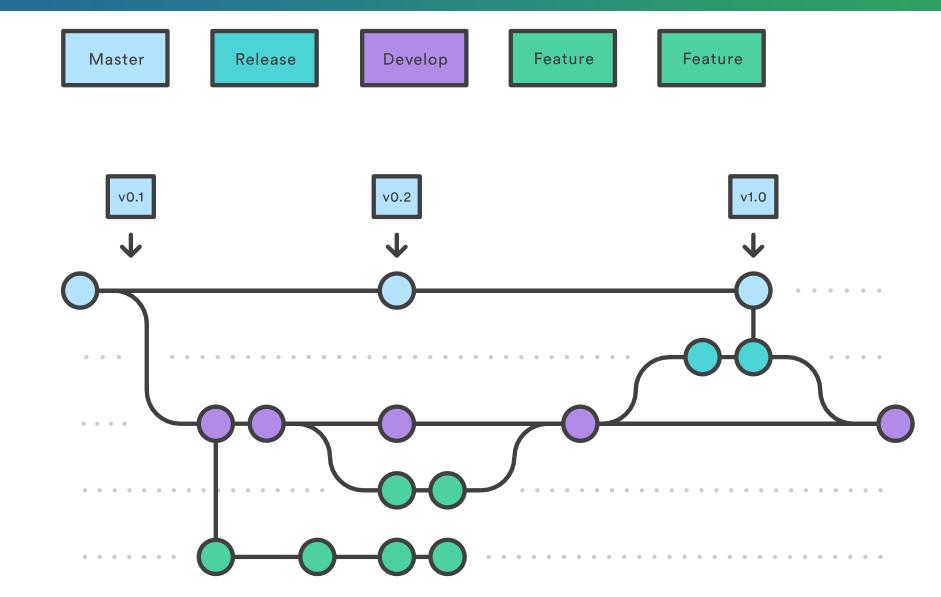
#### Git Branches: Feature Branches





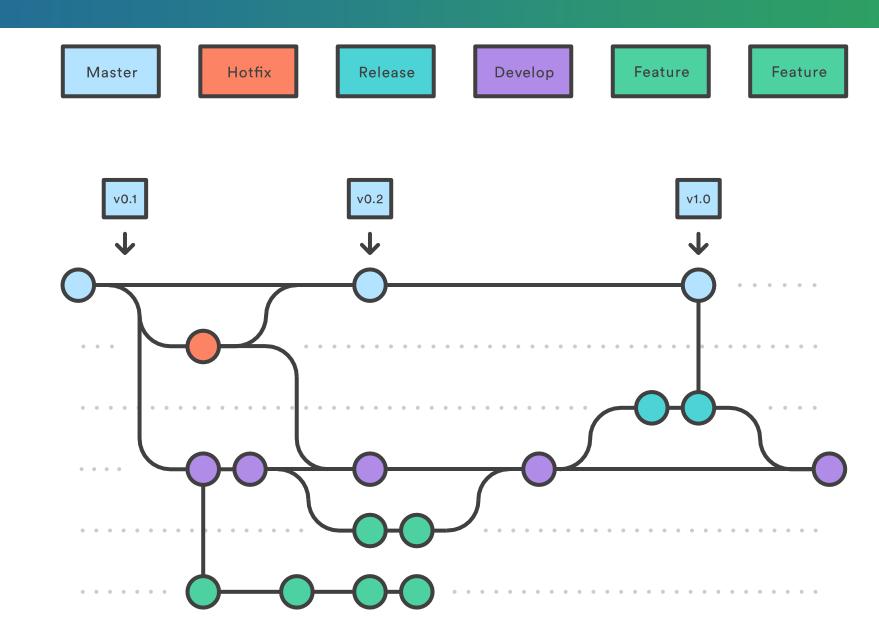
#### Git Branches: Release Branches





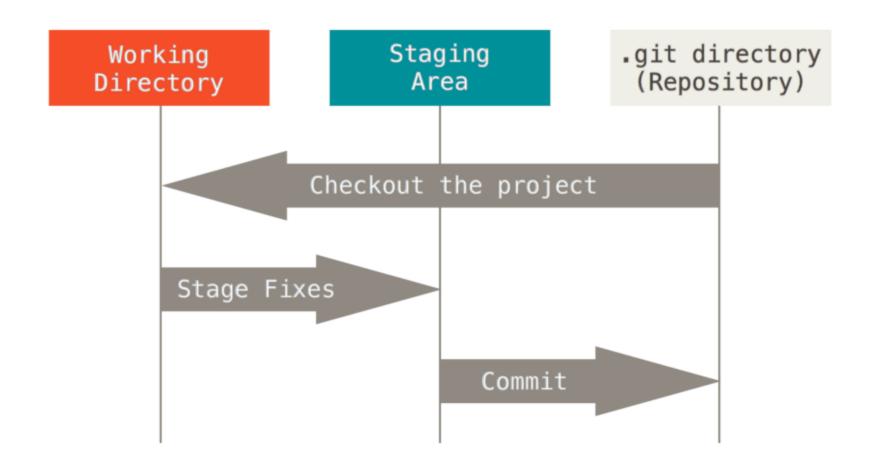
#### Git Branches: Hotfix Branches





#### The Staging Area





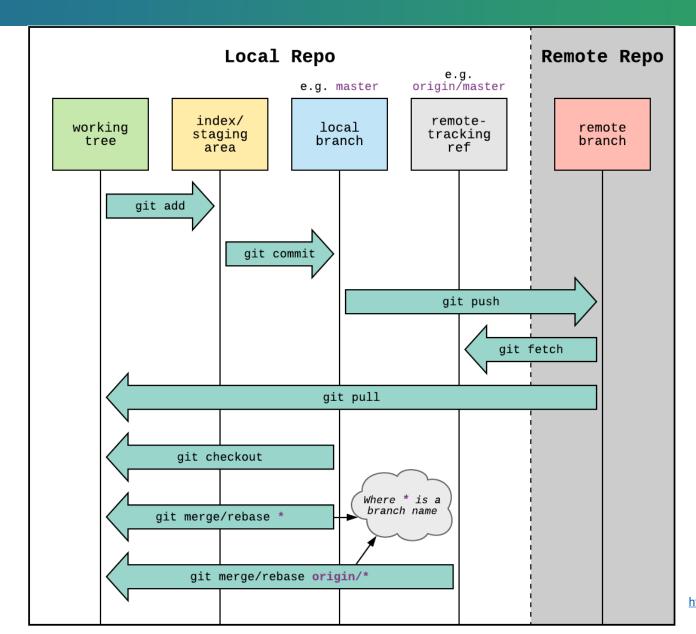
#### Git Terminology: the repo



- Project: the thing you are working on
- Repository or repo: folder/database containing all files/versions
- Remote: server hosting a repo of the same project
- Cloning: creating a local copy of a remote repository
- Forking: creating a remote copy of a remote repository

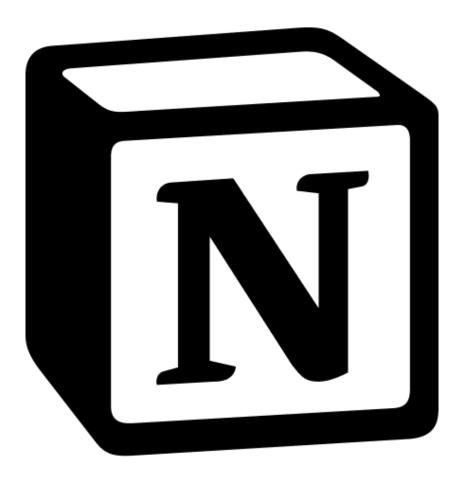
#### Git Terminology: overview





#### Git command line



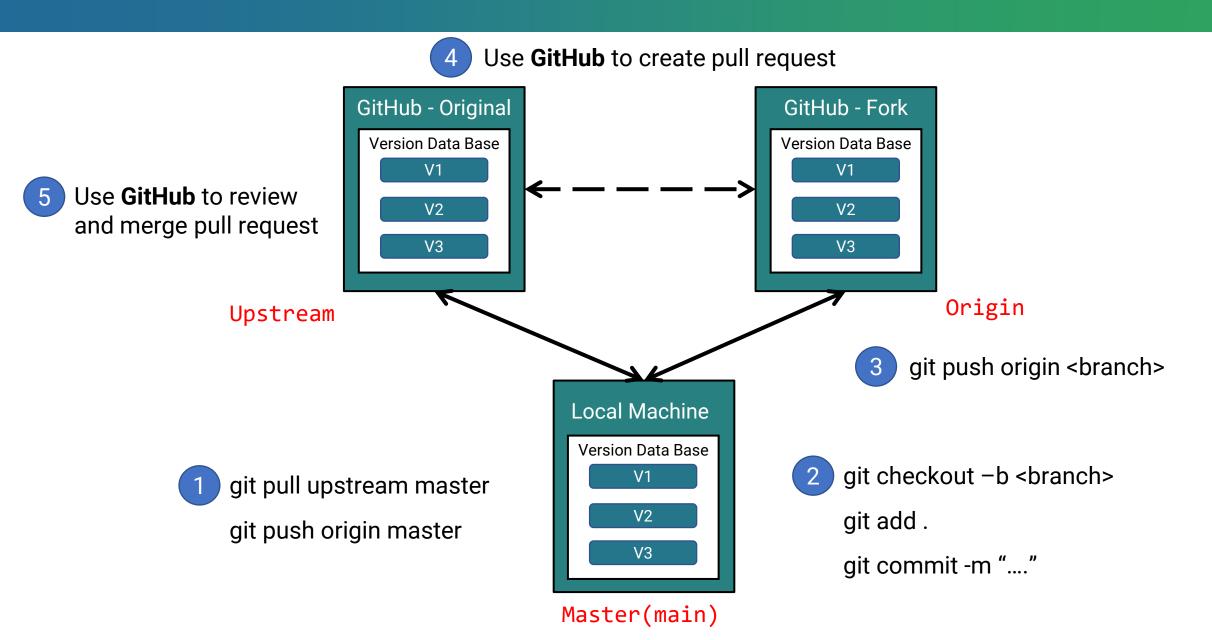




## Introduction to GitHub

Git workflow for team collaboration

#### Git workflow for team collaboration



#### Git Workshop



#### KBTGxMeowCode Git-KBTGxMeowCode

