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# Welcome to GIT

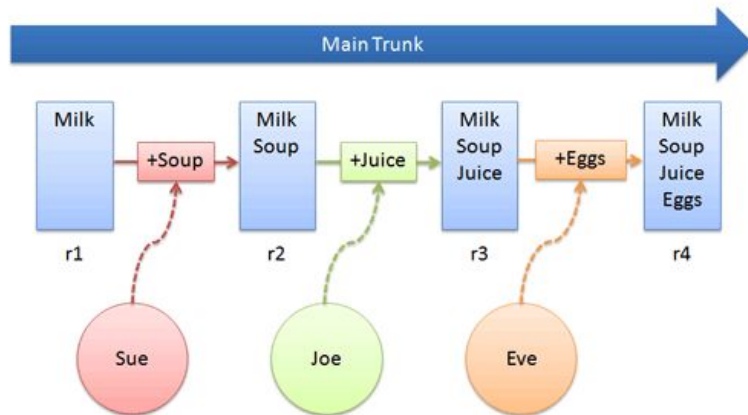
— Understanding Git, Github, and —  
how we will use it.

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# Version Control

Traditional version control helps you backup, track and synchronize files. Distributed version control makes it easy to share changes. Done right, you can get the best of both worlds: simple merging and centralized releases.

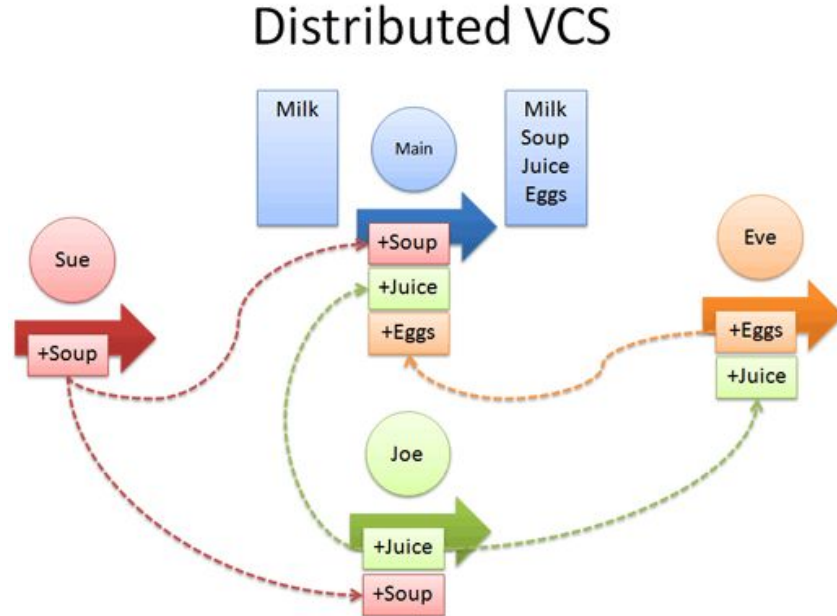
## Centralized VCS



**Centralized is simple**, and what you'd first invent: a single place everyone can check in and check out. It's like a library where you get to scribble in the books.

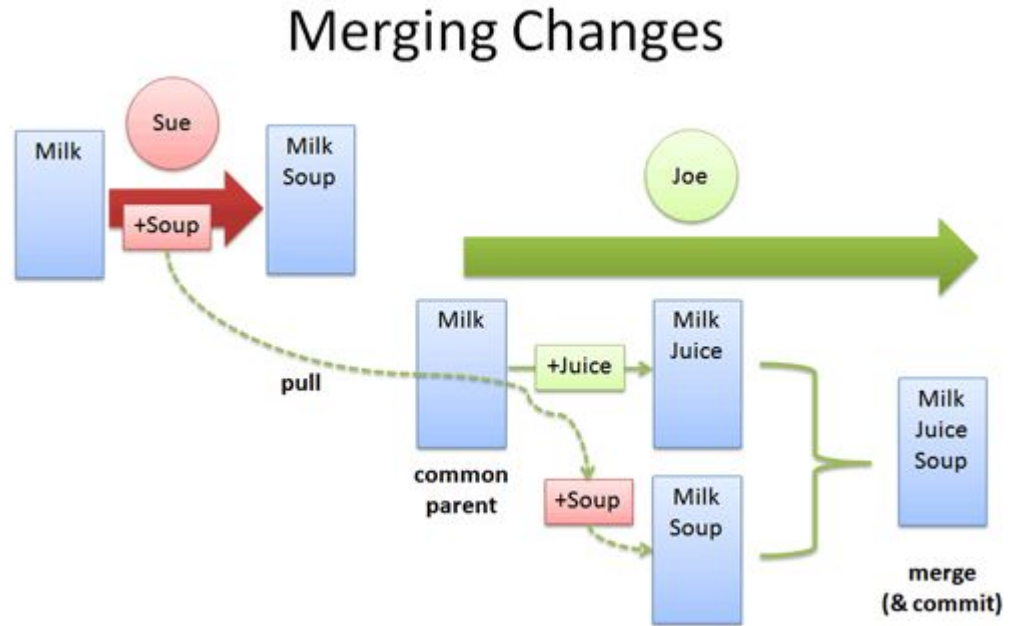
# Version Control

In a **distributed model**, every developer has their own repo. If desired, everyone can push changes into a common repo.



# Version Control

Merging changes will follow this flow.



# Quick Overview

## Core Concepts

- Centralized version control focuses on **synchronizing, tracking, and backing up files**.
- Distributed version control focuses on **sharing changes**; every change has a [guid or unique id](#).
- **Recording/Downloading** and **applying** a change are separate steps (in a centralized system, they happen together).
- **Distributed systems have no forced structure**. You can create “centrally administered” locations or keep everyone as peers.

## New Terminology

- **push**: send a change to another repository (may require permission)
- **pull**: grab a change from a repository

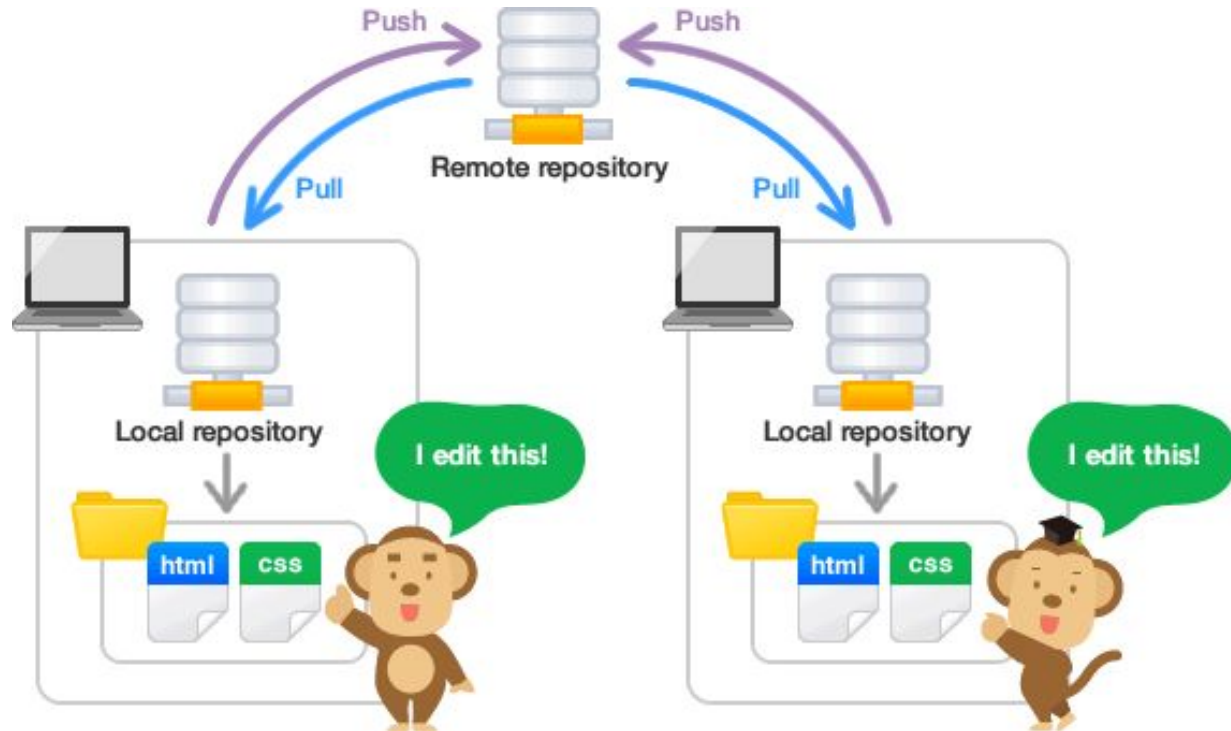
# What is Github

GitHub is a Git repository hosting service, but it adds many of its own features. While Git is a command line tool, GitHub provides a Web-based graphical interface. It also provides access control and several collaboration features, such as a wikis and basic task management tools for every project.

Three features – **fork**, **pull request**, and **merge** – are what make GitHub so powerful.

- The flagship functionality of GitHub is “forking” – copying a repository from one user’s account to another. This enables you to take a project that you don’t have write access to and modify it under your own account.
- If you make changes you’d like to share, you can send a notification called a “pull request” to the original owner.
- That user can then, with a click of a button, merge the changes found in your repo with the original repo.

# Visualizing Git and GitHub



# Accessing the GitHub Repo for Lecture Notes

Github address: <https://github.com/learn-co-students/nyc-ds-100719-lectures>

Follow the instructions listed in the readme for the repo



# Our workflow

