Git Basics

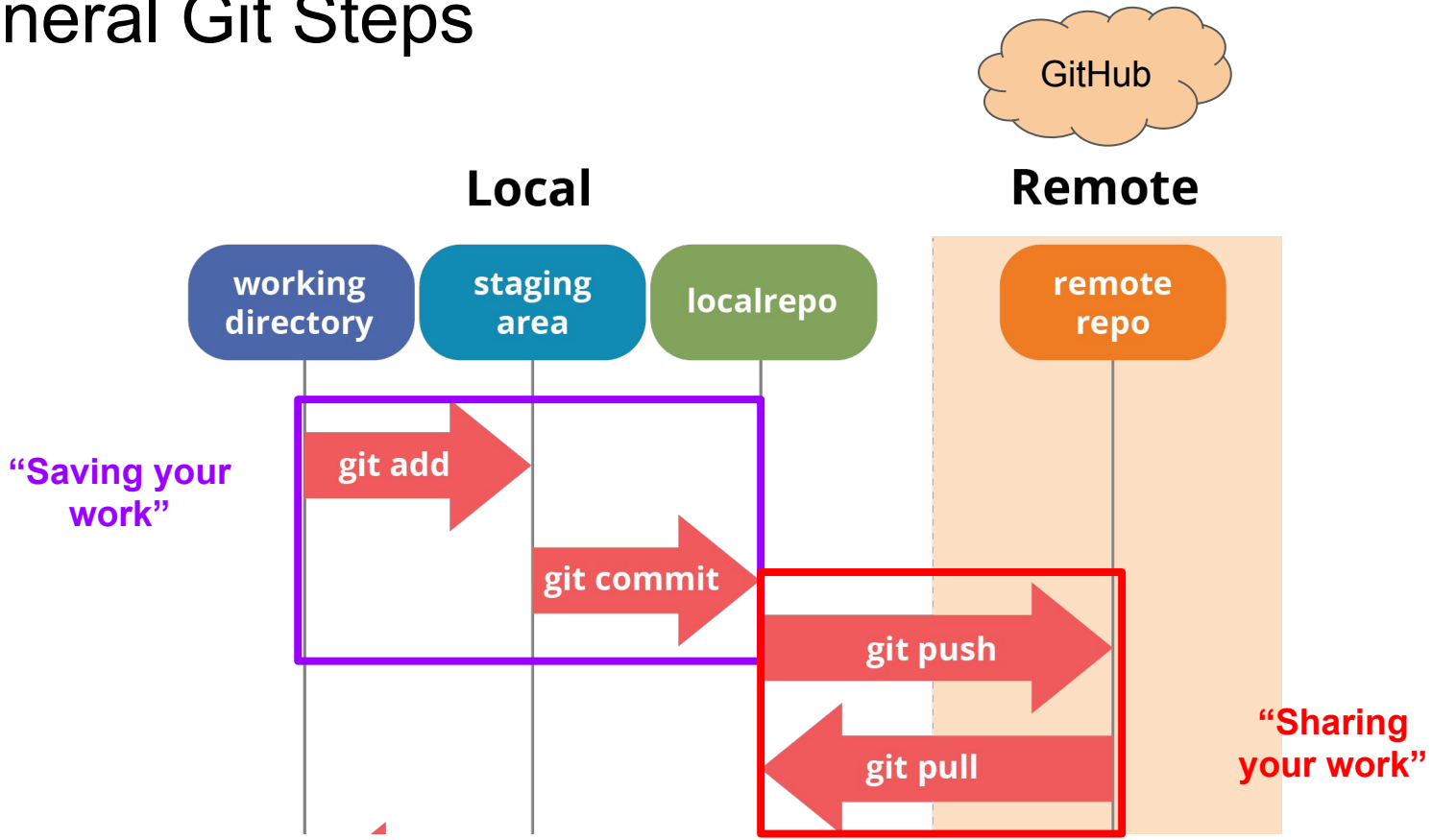
Coach Lab

What is the difference between Git and Github?

Lets break this down

Git pull upstream master

General Git Steps



A Different Approach

In an attempt to break through the jargon, lets try incorporating it into an analogy.

Git Status

What is the status of our local working directory?

How many **files** have been added/deleted/edited in our working directory?

In other words

How many **kids** have been added to this house?

Git Add <file_name>

Indicates which of those edited files we want to **stage for a commit**.

In other words

Indicates which kid we want to **get in frame for the picture.**

Ex:

git add kid_1 kid_2 …. kid_9

git commit -m ‘descriptive message’

With the appropriate files staged for commit, lets **commit these changes and explain what they’re changing**

In other words

With the appropriate kids in frame lets **take the picture and caption it**.

Ex:

git commit -m “add 9 kids”

Git Push (& Pull)

Lets **upload these changes to the repository on Github.**

In other words

Lets **upload these photos to our shared online album**.

git pull simply downloads the latest changes from default remote

What are Remotes?

Remotes are **connections to repositories** outside of your local machine such as the class repository on Github

In other words

Remotes are **connections to photo albums** outside of your local phone's gallery such as a class album on Google Photos.

You can have more than one remote!

Not always do we want to upload/download code from a single cloud repository.

Cloning a cloud repository automatically makes it your **origin remote** because the code on your local repository *originally* came from the cloned repository.

If you want to start pulling code from a *different* cloud repository, you'll have to add a new remote:

git remote add <shortname> <url>

So what is a fork?

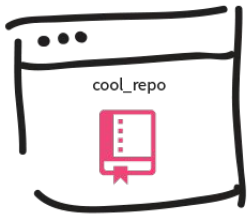
Simply put, a fork is *your* copy of a repository.

Forking a repository allows you to freely experiment with changes without affecting the original repository (like the Lead's repository). Most commonly, forks are used to use someone else's project as a starting point for your own idea.

First We Fork. Then We Clone. Then We Add 'Upstream' Remote

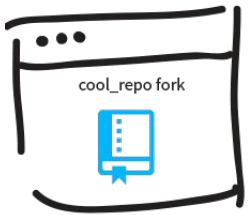
REMOTE

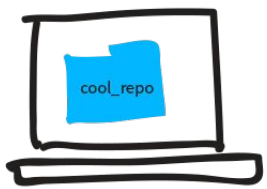
Someone else's repository.



REMOTE

Your fork of the repository.

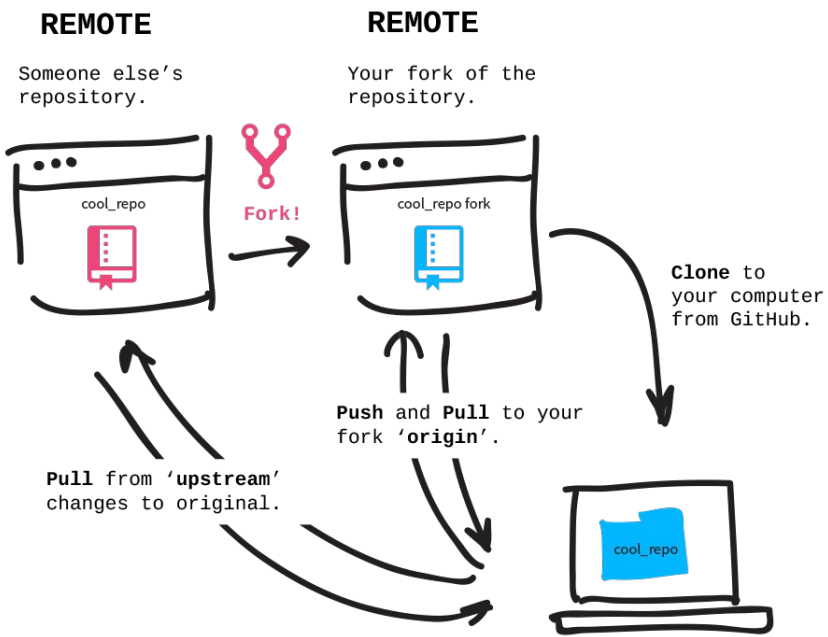




LOCAL

Use your computer's **terminal** to talk to two repositories via **two remotes** to the GitHub servers.

Git Workflow with A Fork



Let’s revisit this with new eyes

git pull upstream master

Vs.

git pull origin data_cleaning