INTRO TO GIT/GITHUB
AN OXY OPEN SOURCE WORKSHOP

Welcome!
Today's Agenda

What's the point?

Git vs. Github

Version Control and its terminology

Using Git/Github

Git ready ...

What's the point?

~25,000,000

People use git or github

"According to web traffic monitor Alexa, **GitHub is now among the top 100** most popular sites on earth." -Wired

What's the point? (cont.)

Internships, jobs, projects (tech resume)

It is **free** for students

Have your code reviewed by the open source community

Collaborate projects with the local/global community

Track changes of code

What is Git?

Git is a **version-control system** that holds the entire (saved) history of your code.

Git allows you to **create save points** in your code to go back to later if need be.

Git gives you the freedom to **pursue new features & ideas** without ruining your code.

Why Use Git?

Git lets you manage your code, which makes messing up **ALMOST IMPOSSIBLE**

What is Github?

Github is a **Git repository hosting system**

Github is a **web-based graphical interface**

Note: You do not need to use Github

Command Line

Git uses command line, which can be intimidating for many people. Github makes interacting with the Git technology more easy.

Basic Command Line

cd [directory name] - change directory

cd .. - go one directory up

ls - list files of current directory

mkdir [dirName] - makes a new directory (file)

touch [fileName.fileType] - creates a file

rm [fileName] - removes a file

Review: Git vs. Github

Git	Github
The **version control technology** that uses command line	**Web application** that uses Git and interacts with users
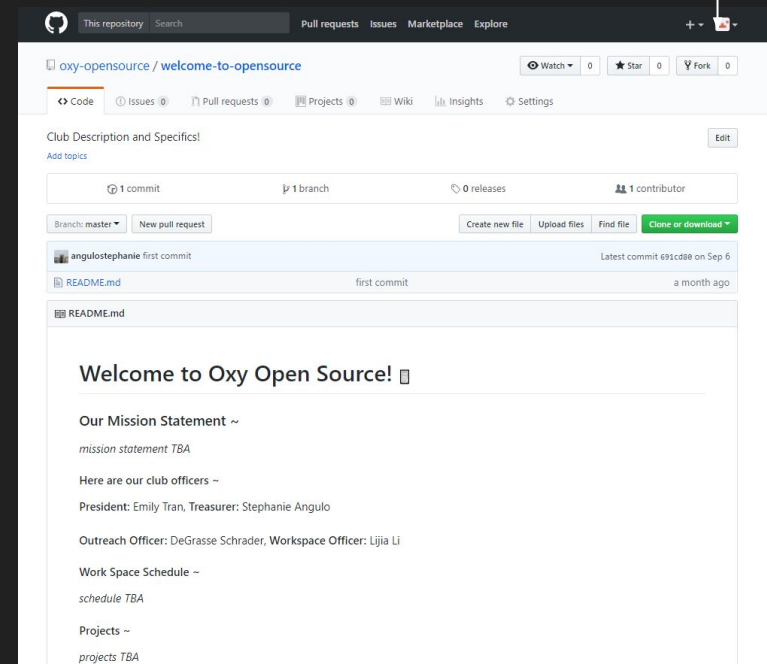
Some Git Terminology

Directory - folder

Repository ("repo") - collection, project

Commit - getting files "ready" to upload

Local vs. Remote -

Local	Remote
Refers to your **computer server**	Refers to an **external server** (e.g. Github)

Getting Started

First you will need to create a Github account (use your
oxy email for the free perks!!) : https://github.com/

Getting Started

MAC OS
You're good

WINDOWS
Visit https://git-scm.com/ And download Git

Getting Started

Now you will need to connect Git to your Github account.

Open your terminal (MAC/Linux) or **Open Git** (Windows)

Type git config --global user.name "First Last" + ENTER

Type git config --global user.email [YOUR EMAIL] + ENTER

Check to see if this was done correctly!
    Type git config --list

Workflow (Demo)

Let's say you have started on an app project. Let's create an about txt file that theoretically describes your app.

Make a directory (aka a folder) for your project!
    Type mkdir appProject

Go into your newly created directory
    Type cd appProject

Check to see if you successfully change directories
    Type pwd
    This should return the full path name, with your new directory at the end.
    Example: /Users/stephanieangulo/Desktop/appProject

Create a txt file in your repo/project folder
    Type touch about.txt

Check to see if file was successfully created
    Type ls

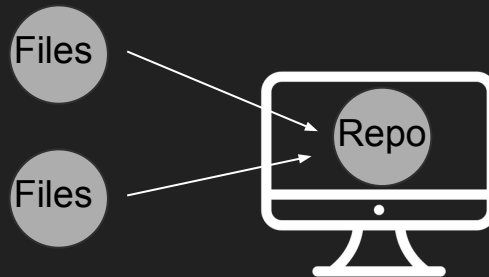Now add your git object to your directory
    Type git init

Check to see if the git object was successfully created
    Type ls -a

Workflow (Demo)

You will want to upload ("commit") your file(s) to your local git object

Add the file(s) for preparation
    Type git add about.txt

Check to see if git successfully added the file for preparation
    Type git status

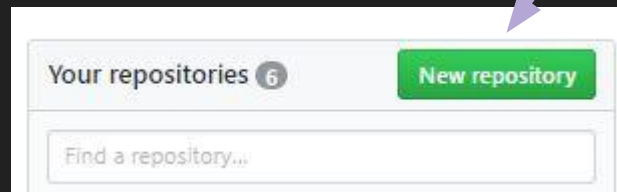**Commit the added files and include information about this upload**
    Type git commit -m "[information about this commit]"

Workflow (Demo)

Now, you will need to create a repo for your app project.
We will create it remotely using Github.

Repo

Login to your Github and create a "New Repository"

Workflow (Demo)

Since the repo is remotely on Github, you will need to connect the remote repo to your local server
(aka your computer)

Go on Github and copy the HTTPS URL for your repo

Connect the remote repo to your local repo
    Type git remote add origin [HTTPS URL] + ENTER

Check if connection was successful
    Type git remote -v

Workflow (Demo)

You can continue committing with other files (e.g. actual code, more txt, images). Every commit is local. In order to update your repo remotely on Github so that the public can see your repo, you will need to push your commits.
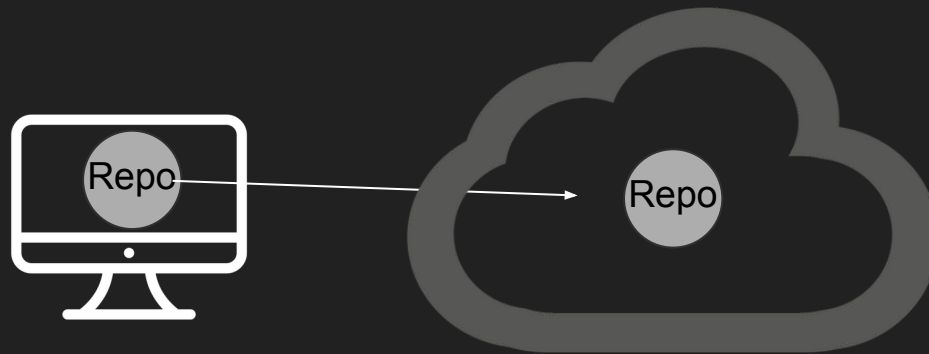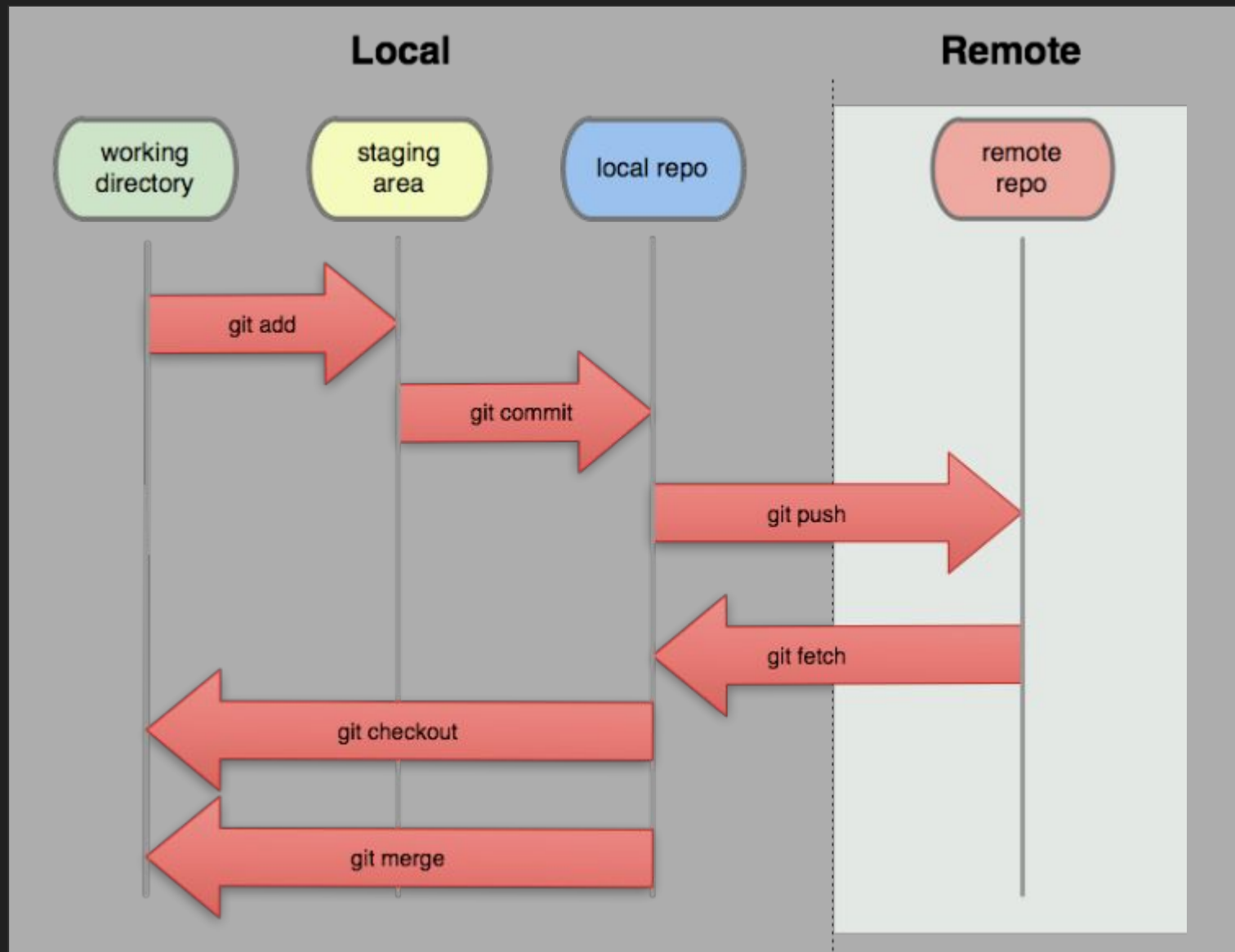

Push when your repo is ready for other people to use/see
    Type git push -u origin master

Workflow (Demo)

Now you can see your updated repo on your Github as well as all the commit messages. You can track your changes every time you push

Visual Workflow of Git/Github

Helpful Links

[Setting up Git user.name](#)

[Setting up Git user.email](#)

[Understanding Git: Repos](#)

[Learn the Command Line (codecademy)](#)

And of course, Google is your best friend! Most of this stuff is online <3

Thank you!

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