Git/GitHub and CDNs

Submit Homework

Make sure you submitted your Invision URL on Canvas



Last Week Review

- Working with Invision
- Advanced CSS
 - o Rounded Corners
 - o Box Shadows
 - Transitions

This week overview

- CDNS
 - What are they
 - How to use them
- Git and GitHub
 - Create New Final Directory
 - Use GitHub Desktop
 - Start Using GitHub

CDNs

CDN: What & Why

CDN stands for "content delivery network" or "content distribution network"

- A CDN allows for the quick transfer of assets needed for loading Internet content including HTML pages, JavaScript Files, Stylesheets, images, and videos
- "CDN nodes are usually deployed in multiple locations, often over multiple backbones, Benefits include reducing bandwidth costs, improving page load times, or increasing global availability of content".

CDN: When will we use them?

CDN are vastly important and one way you can implement them is within your own projects.

For example let's take a look at <u>Twitter</u> <u>Bootstrap</u>

Twitter Bootstrap is/was an extremely popular framework for building Responsive Frontend websites and application.

Let's build a page that brings in Twitter
Bootstrap to demonstrate how you might do
this without the assistance of a CDN

CDN: Demonstrate Twitter Bootstrap (TWBS)

- 1. Open class-directory
- 2. Create bootstrap.html file
- 3. Download <u>Twitter Bootstrap</u>
- 4. Unzip bootstrap-3.3.7-dist
 - a. The reason we aren't using Bootstrap 4 for this is because it doesn't come bundled with fonts by default
- 5. Place the assets
 - a. bootstrap-3.3.7-dist/css/bootstrap.min.css >>> class-directory/assets/css
 - b. Don't worry about JavaScript files
 - c. bootstrap-3.3.7-dist/fonts/* >>> class-directory/assets/fonts
 - i. The * means all the files
- 6. On Twitter Bootstrap site visit <u>Components</u> and paste in some examples

CDN: Manual file placement

With that example we had to manually go out to

- 1. Go to the website
- 2. Download the files
- 3. Unpack the files
- 4. Place the asset files
- 5. Code

That isn't a ton of work in this example but what if

- You had to do this for 30 different tools, plugins, etc.?
- You are serving files from your server say in the US. What if your user is in China?



CDN: How do we implement?

- 1. Staying in class-directory
- 2. Create a new file bootstrap-cdn.html
- 3. Navigate to <u>Twitter Boostrap "Getting Started"</u>
- 4. Copy the first CDN link for CSS
- 5. Paste that link inside your HTML file in the <head>
- 6. Now in the <body> copy all the elements you had from bootstrap.html

CDN: FTW

As you can see with a single line of html and the power of CDN you

- 1. Go to the website
- 2. Download the files
- 3. Unpack the files
- 4. Place the asset files
- 5. Code



CDN: Loading Fonts

Custom fonts are a popular and fun way to make your website unique and give your site a bunch of personality

Many popular sites like

- DaFont
- FontSpace

Are great places to download and use custom fonts

For this demonstration we are going to load in a custom <u>Google Fonts</u>

Google Fonts is a great site to get amazing professional looking fonts simply and easily for any project

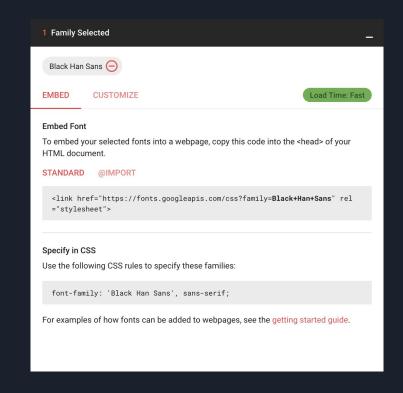
CDN: Manual loading of fonts

- 1. Open class-directory
- 2. Create a new html file called fonts.html
- 3. Go to Google Fonts and download a font
- 4. Unzip the file of the font you selected
- 5. Take that font file and place inside of class-directory/assets/fonts
- 6. Create a fonts.css file inside of class-directory/assets/stylesheets
- 7. Inside the CSS file link up @font-face rule for your downloaded font
- 8. Back to fonts.html link up fonts.css
- 9. Test



CDN: Load fonts by CDN

- 1. Create a file called fonts-cdn.html
- 2. Go back go Google Fonts
- 3. Select the font you had prior
- 4. Highlight the k .../>
- 5. Paste link in <head> of your HTML file
- 6. Create a new CSS file
 - a. assets/stylesheets/fonts-cdn.css
 - b. Create a CSS rule and paste in the font family
- 7. View your code in the browser



CDN: Recap

- Content delivery networks are the transparent backbone of the Internet in charge of content delivery
- No matter what you do or what type of content you consume chances are it is being powered by some type of CDN
- CDNs minimize the distance between users locations and the web servers allow for better performance
- Spreads out your content so it is not in a single location

Git & GitHub

Git & GitHub

Git & GitHub have been brought up on multiple occasions and it may not have sunk in yet what is being talked about

Git = Version Control

GitHub = Platform that uses Git



What is 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

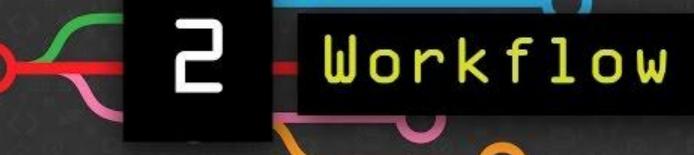
Git is a Version Control System

Version control is a system that records changes to a file or set of files over time so you can recall specific version later

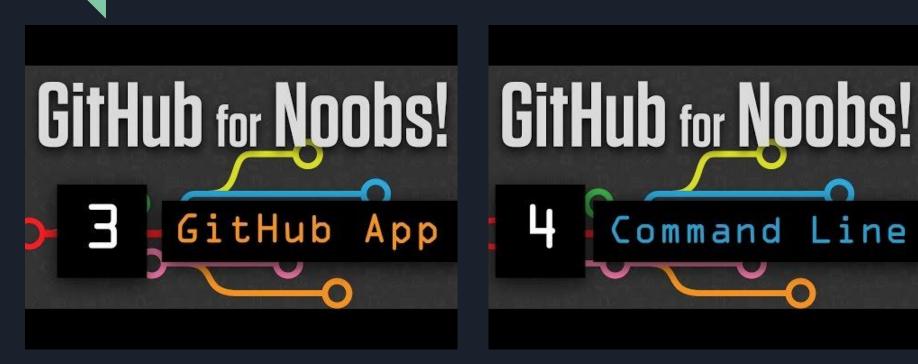


GitHub for Noobs! History

GitHub for Noobs!



Furthering Git and GitHub knowledge





Deploy Site Using GitHub Desktop

Preface

My workflow is a bit different than what will be demonstrated in this lecture. I do not use GitHub desktop professionally. However, that doesn't mean it is not an acceptable tool to use in professional or personal environment. Tools are meant to get a job done and at the end of the day that's all that matters is the job gets done.

Because of this you may find differing material and resources online. All that is completely acceptable to follow if it works for you or others.

Good YouTube Series:

- Getting Started With GitHub Part 1
- 2. Getting Started With GitHub Part 2
- 3. Getting Started With GitHub Part 3

What is GitHub Desktop?

GitHub Desktop is a Graphical User Interface for interacting with GitHub

Available on MacOS and Windows

Designed by the folks at GitHub

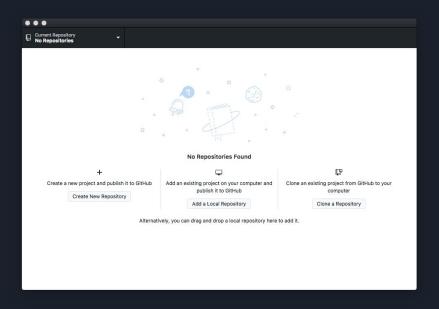
Free



Installing GitHub Desktop

- 1. <u>Download GitHub Desktop</u>
- 2. Install GitHub Desktop (locate GitHubDesktop.zip on your file system)
- 3. Once installed you will be prompted to enter your GitHub.com credentials
- 4. Step through the rest of the steps, you may receive an e-mail a 3rd party app has authorized your account

Setting up your first Repo

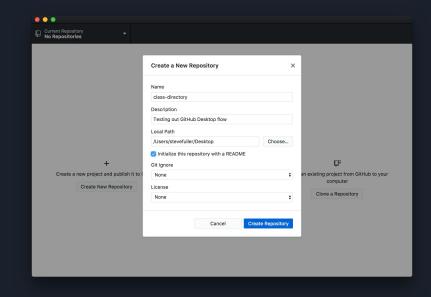


- Create a new project and publish?
 - You don't have Git files in your project
- Add an existing project and publish?
 - You have Git files in your project
- Clone an existing project from GitHub?
 - There's code already on GitHub you want to download and work on

Create a new project

- Name your project
- Write Description
- Where do you want your Repo to reside on your filesystem?
- Initialize with README?
 - A README is information about your project like installation instruction(s), how to use, FAQs, etc.
- Git Ignore
 - Files you don't want in GitHub
- License
 - Copyright protections

Creating this will create a new folder with your essential Git files



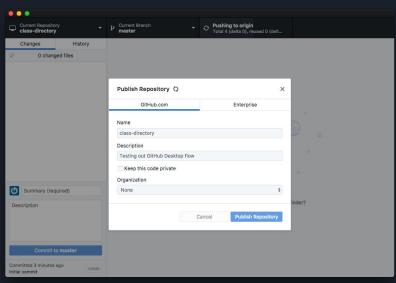
Publish Repository

In the top right corner press "Publish Repository"

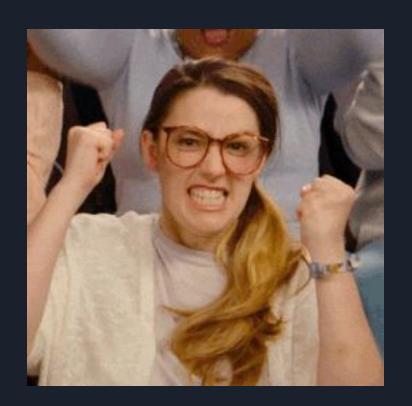
Now go to: github.com/:username/:repo-name

And you should see something like:

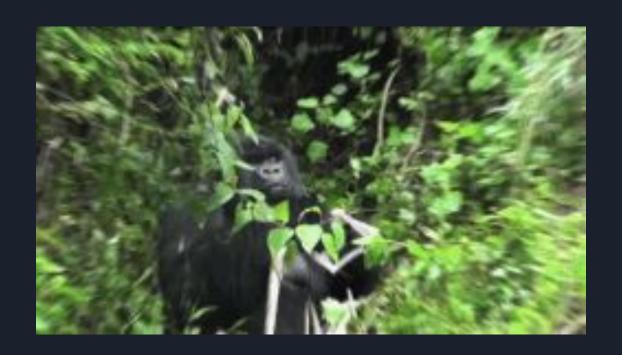




Congratulations you've just published to GitHub!!!



But like, where's my code and stuff?!?!



One more thing... the .gitignore file

.gitignore is a file we use to omit certain files from being submitted to GitHub

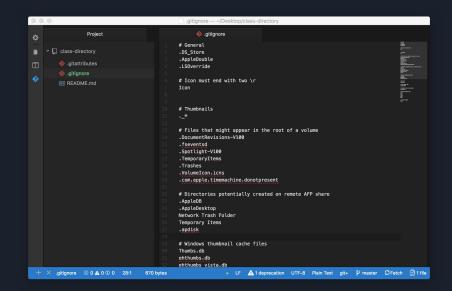
macOS gitignore

Windows gitignore

Here are a couple basic files that should cover our needs. For example though you don't want to be committing things like .psd, .sketch, etc files into GitHub. The .gitignore should always be updated before for code commits to avoid any unnecessary files from accidentally being committed.

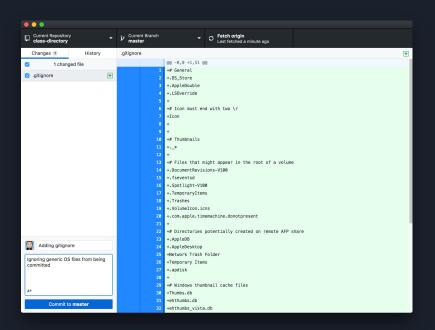
Adding your .gitignore

- Open up your GitHub folder that was created in Atom
- 2. Make a new file called ".gitignore"
- Paste in the sample code from the previous slide links
- 4. Commit this new file to your GitHub repo



Commit your .gitignore

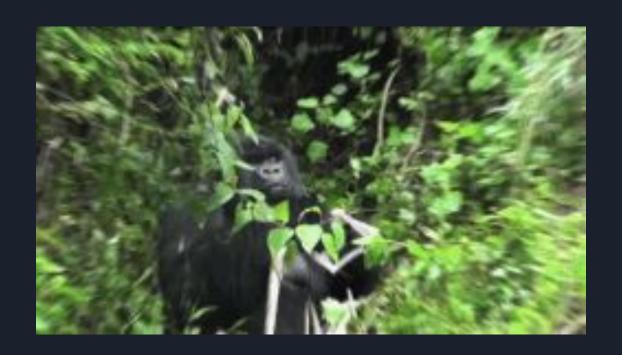
- 1. Open GitHub desktop
- 2. Fill out Summary
- 3. Fill out Desktoption (optional)
- 4. Commit to master
- 5. Click Push origin
- 6. Visit your repo



You've just updated your repo!!!



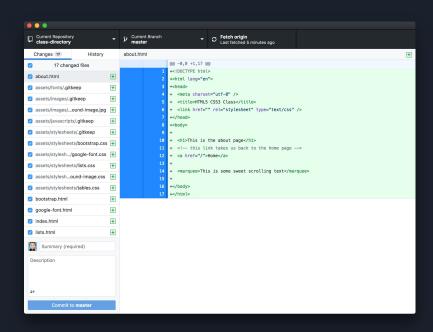
But like, where's my code and stuff?!?!



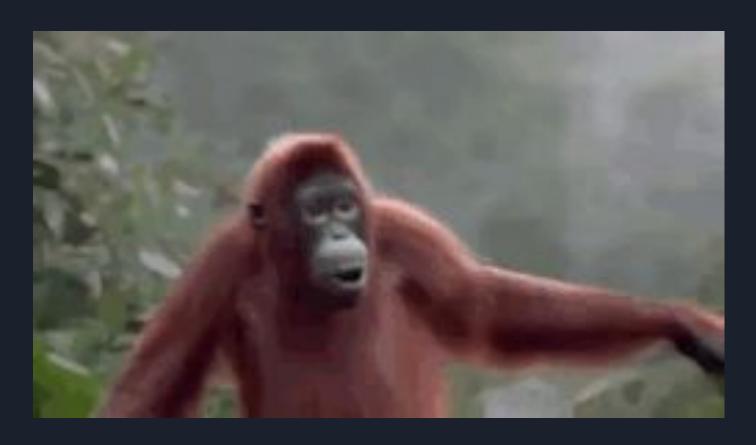
Let's get our actual code up

All we've done is prepare a folder that's linked to GitHub, there's a couple more steps to get this all working

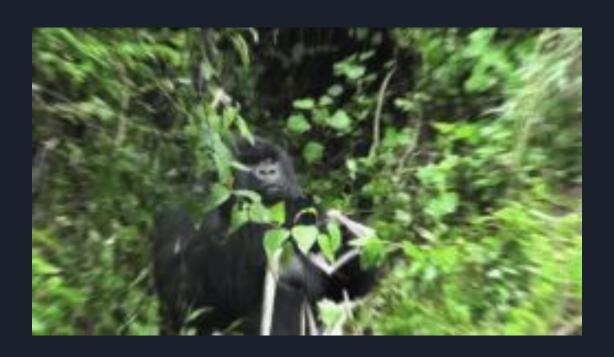
- 1. Copy your working code into the one you just created for GitHub
- Now you should see your files showing up
- 3. Summary
- 4. Description
- 5. Commit to master
- 6. Push to origin
- 7. Visit your GitHub Repo
- 8. Pat self on back



Oh yeah



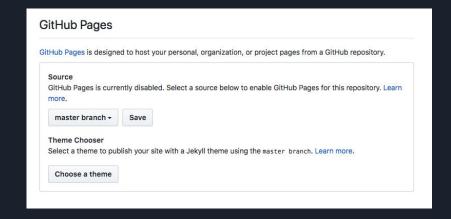
But we aren't quite done yet...



Publish to GitHub Pages

GitHub pages will allow GitHub to take our code and publish a working website for everyone to view

- 1. Go to your GitHub Repo page
- 2. Click the Settings tab
- Scroll down till you see "GitHub Pages"
- 4. Source should be your master branch
- 5. Click save
- 6. You should see a link: "Your site is ready to be published at :URL
- 7. Go grab a coffee and should be live in ~30 minutes



Congrats on using GitHub and Deploying your site!!!



Homework

- Submit: GitHub URLs (omit this till next week)
 - o URL to your Repo
 - URL to your GitHub Page
- Read
 - o Ch 17 & 18
- Code
 - About Page
 - Tour Dates

