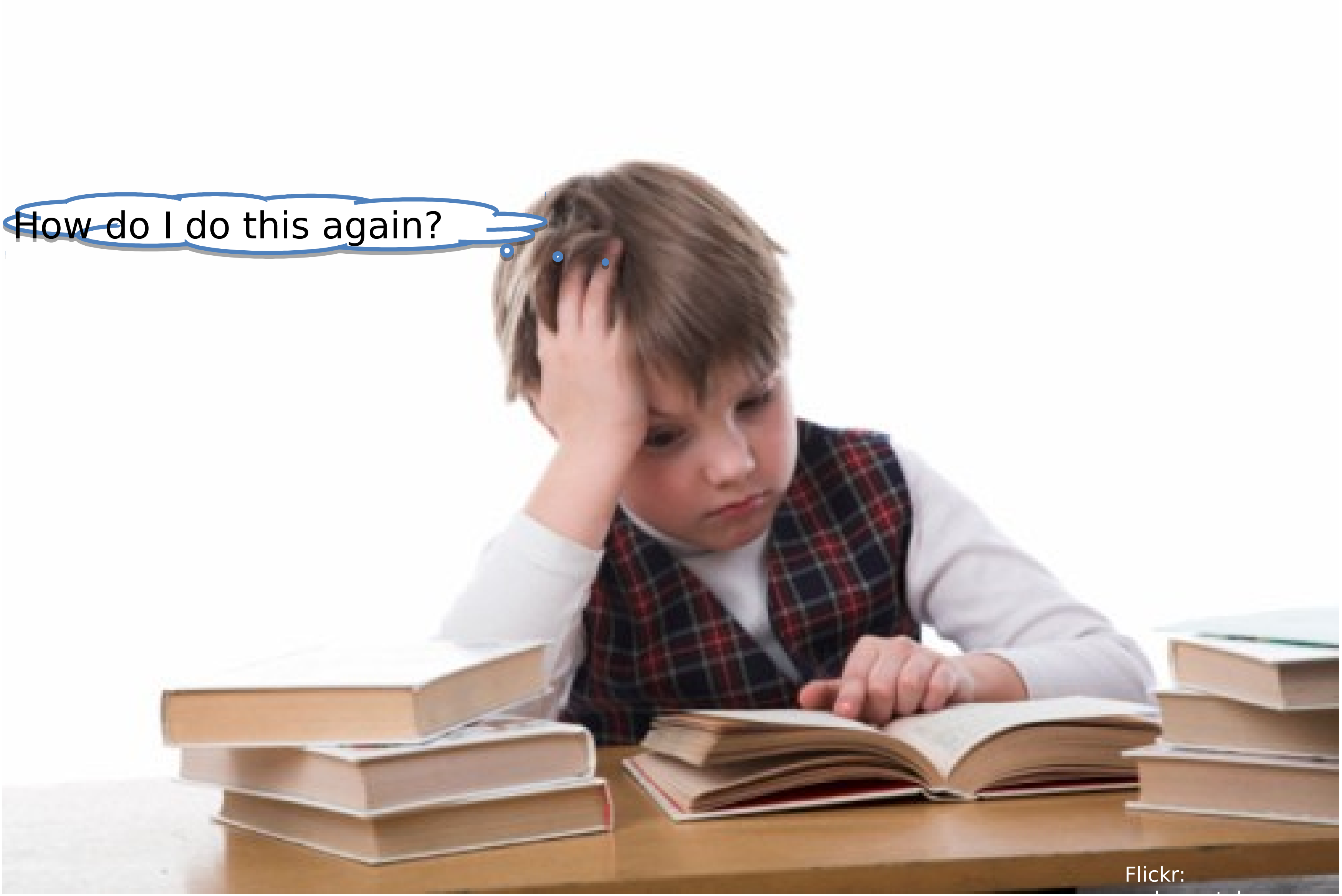
# *Git’n Pro with HTML/CSS*

**The Coding Bootcamp**

# It’s Okay!



How do I do this again?

Flickr:

# Admin Items

# Where to Get Help

- **Practice, Practice, Practice:** Work Individually or in Groups
- **Review In Class Material (Exercises and Slides) at GitLab**
- **Re-Watch Class Videos at Panopto (links on Bootcampspot)**
- **In Class Office Hours:** 45 minutes before class, 30 minutes after
- **One-on-One Sessions:** By Announcement through SSM
- **Contact Student Success:** Anytime!

# Homework #1 - Assignment

- **Also, at this point everyone should have access to the homework repository in GitLab.**

- **Homework Assignment #1 is due in two weeks**

# *Today’s Class!*

# Today’s Objectives

- Students will understand the importance of Git Version Control and of how to use it.
- Students will create GitHub Repositories, push code into them, and share with class.
- Students will make more HTML documents.
- Students will learn to properly use basic HTML tags.
- Students will implement basic CSS styling to HTML documents.

# Know Thyself

**If you are a *complete* beginner to HTML/CSS and Coding:**

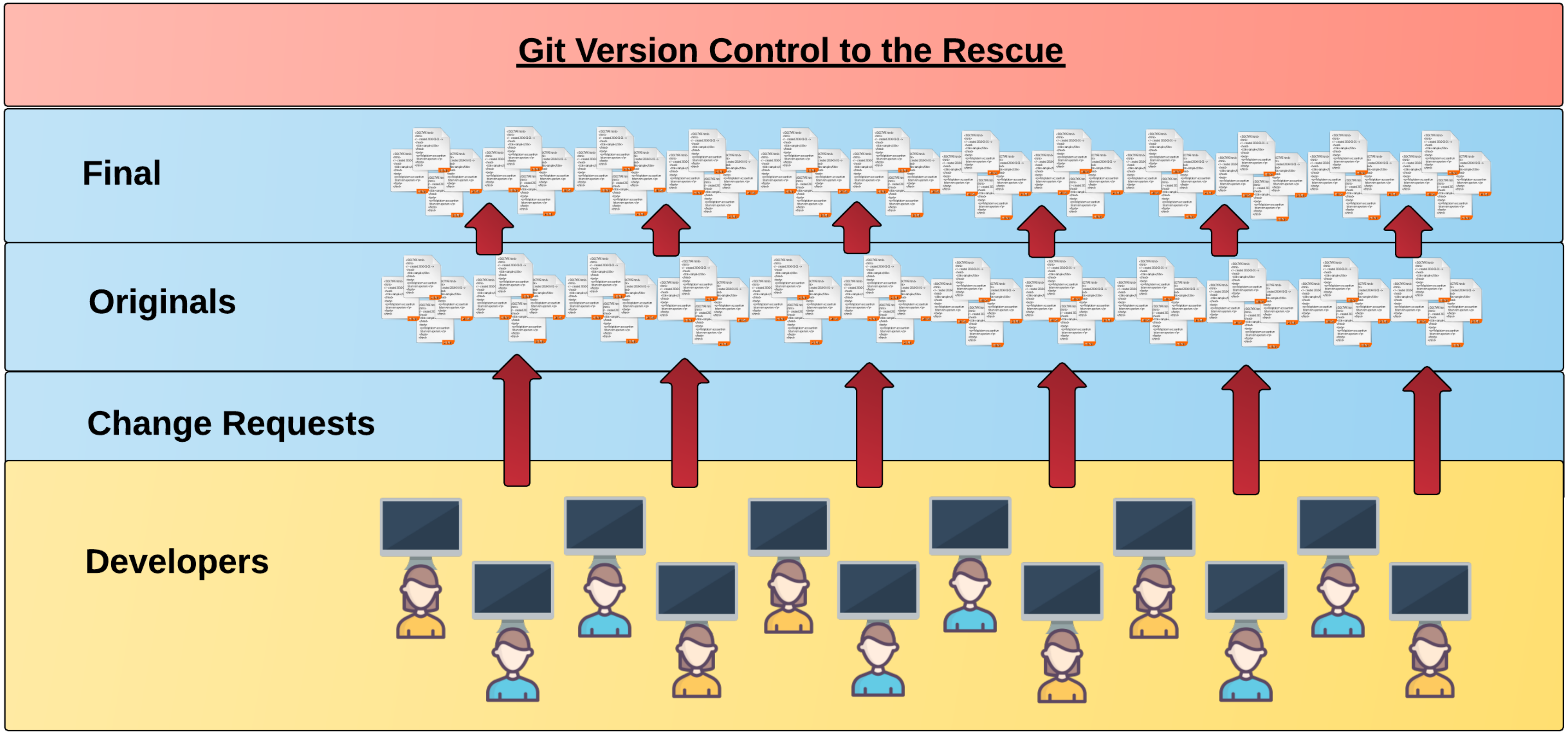
- Continue getting comfortable with HTML.
- Be able to completely write a basic HTML document (like in last class).
- Understand what CSS is, what it’s for, and how it works with HTML.
- *Be able to use Git and GitHub to upload code.*

**If you’ve had past exposure and felt comfortable with the last lesson:**

- Aim to build up your skills. Clear up any questions or confusions about HTML.
- Become knowledgeable about a wider range of HTML and CSS tags.
- Be able to selectively apply CSS to specific HTML elements.
- *Be able to use Git and GitHub to upload code.*

# *What / Why Git?*

# Collaborative Coding



- Modern web development is *highly* collaborative.
- Teams are often extremely large and separated across the country — or planet.
- Apps sometimes comprise hundreds or even thousands of files.

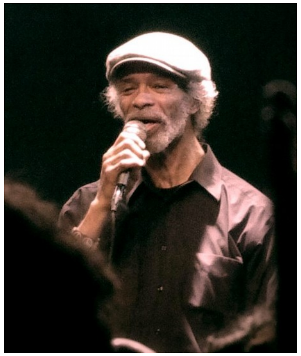
# The Team’s Task

Task:  Make a list of creative works we all have written in the past

Programming Team:
These Poets

Maya Angelou

Anne Sexton

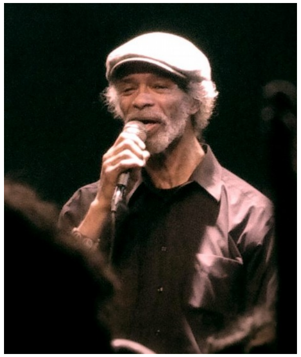


Gil Scott Heron

# Maya & Gil make their edits

Programming Away…

Maya’s Version

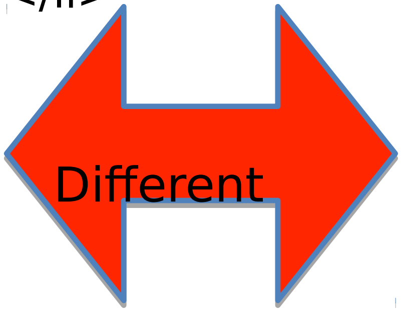


Programming Away…

Gil’s Version

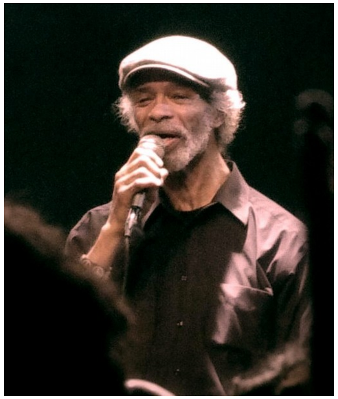
# Different Solutions

```
<ul>
    <li>On the Pulse of Morning</li>
    <li>I Know Why the Caged
            Bird Sings</li>
    <li>And Still I Rise</li>
</ul>
```



Different

```
<ul>
    <li>Free Will</li>
    <li>Pieces of a Man</li>
    <li>The Revolution will not
          be Televised</li>
</ul>
```

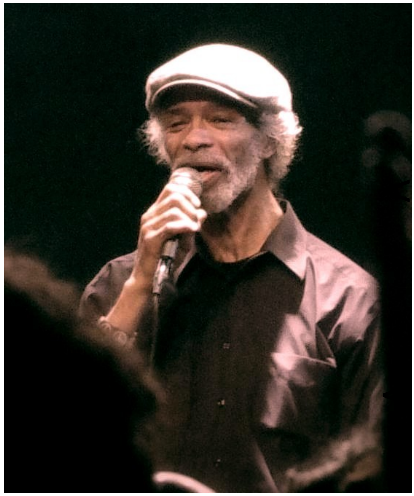


# Resolution

```
l>
<li>On the Pulse of Morning</li>
<li>I Know Why the Caged Bird Sings</li>
<li>And Still I Rise</li>
</ul>
```

“Let’s settle on this…”

```
<ul>
  <li>Poems</li>
  <li>Albums</li>
  <li>Songs</li>
</ul>
```



```
ul>
  <li>Free Will</li>
  <li>Pieces of a Man</li>
  <li>The Revolution will not be Televised</li>
/ul>
```

# Anne writes her own stuff…

```
<ul>
    <li>The Double Image</li>
    <li>Heart’s Needle</li>
    <li>Baby Picture</li>
</ul>
```

# Anne overwrites work of her teammates…

**Delete. Delete.**
**Delete. Delete.**
**Delete. Delete**

```
~~<ul>~~
   ~~<li>Poems</li>~~
   ~~<li>Albums</li>~~
   ~~<li>Songs</li>~~
~~</ul>~~
```

```
<ul>
   <li>The Double Image</
   <li>45 Mercy Street</li>
   <li>The Road Back</li>
</ul>
```

# The Group Project

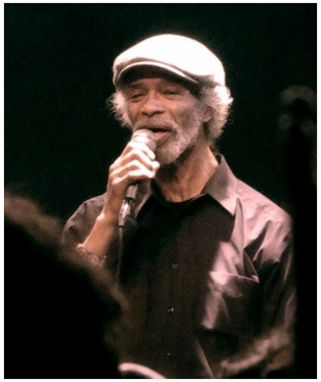
## Lesson:

**You should use Version Control.**

**….and watch your teammates' work**

Today we fret and pull
on wheels, ignore our regular
loss
of time…

…or maybe we should just use
git



# Version Control

## **Git Version Control:**

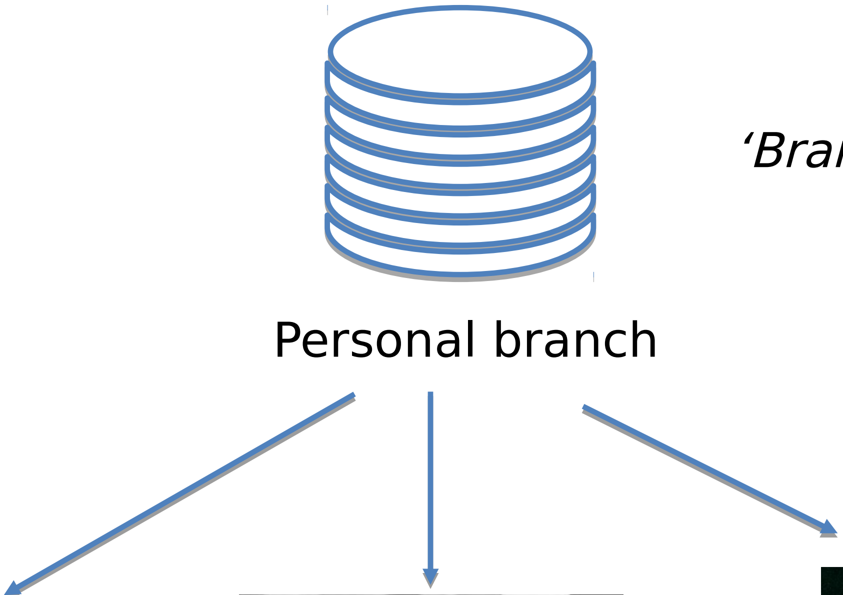
Provides a organized system for managing code for when multiple developers work on a project at the same time.

## **The Benefits of Git:**

1. A process for resolving conflicts in code.
2. Version History.

# The Group Project

Master Branch

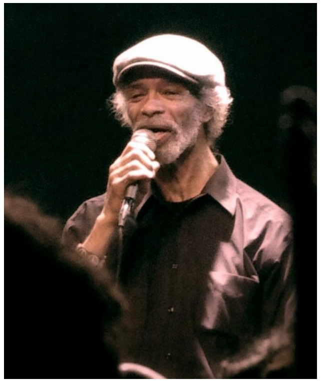


*'Branch' = personal copy*

Personal branch

Maya's branch

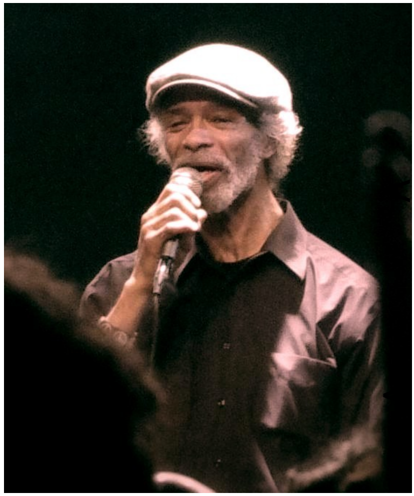
Anne's branch



Gil's branch

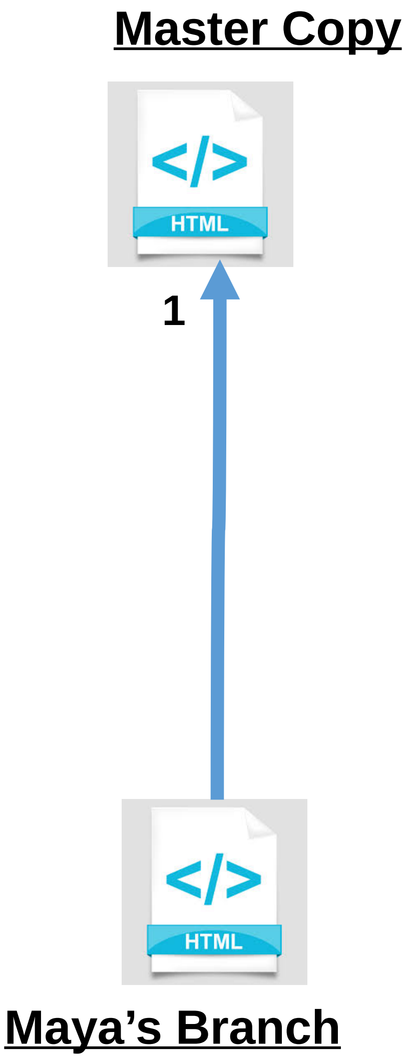
# The team goes to work

```
  l>
  <li>On the Pulse of Morning</li>
  <li>I Know Why the Caged Bird Sings</li>
  <li>And Still I Rise</li>
</ul>
```



```
ul>
  <li>Free Will</li>
  <li>Pieces of a Man</li>
  <li>The Revolution will not be Televised</li>
/ul>
```

# Maya pushes first



**Master Copy**

**1**

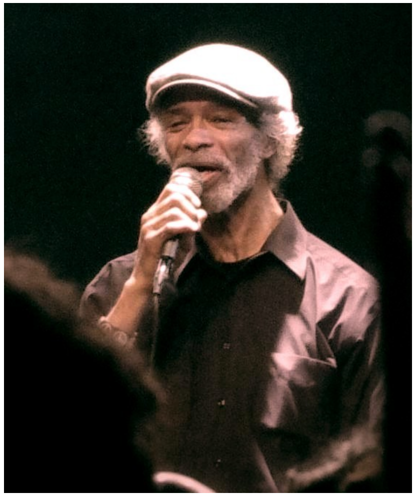
**Maya’s Branch**

Maya **pushes (uploads)** her code changes into the main branch.

**No code conflicts.**

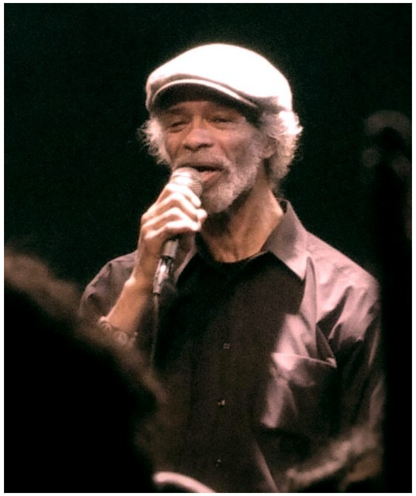
# Gil’s edits are ready

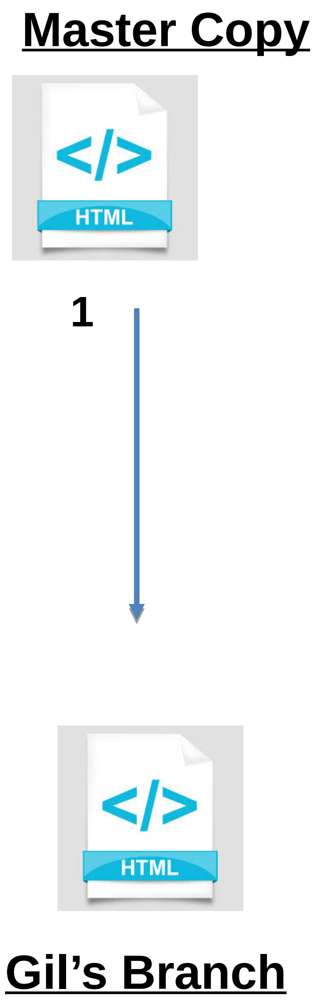
Rule: pull first, then push your change



Ok

# Gil pulls latest changes





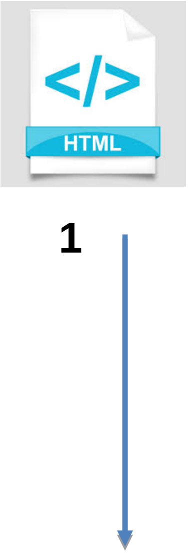
**Master Copy**

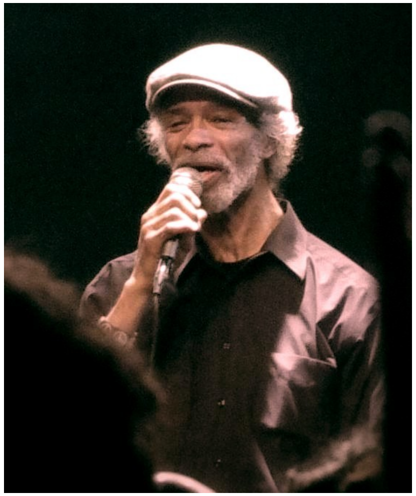
**1**

**Gil’s Branch**

# Gil conflicts with master branch

**Master Branch**





```
 <li>On the Pulse of Morning</li>
 <li>I Know Why the Caged Bird
Sings</li>
 <li>And Still I Rise</li>
<li>On the Pulse of Morning</li>
 <li>I Know Why the Caged Bird
Sings</li>
 <li>And Still I Rise</li>
```

Git sees a conflict.

# Kobe resolves

```
 <li>On the Pulse of Morning</li>
 <li>I Know Why the Caged Bird
Sings</li>
 <li>And Still I Rise</li>
<li>On the Pulse of Morning</li>
 <li>I Know Why the Caged Bird
Sings</li>
 <li>And Still I Rise</li>
```

```
<ul>
    <li>Poems</li>
    <li>Albums</li>
    <li>Songs</li>
</ul>
```

**Gil’s Branch**

# Gil fixes and pushes

**Master Branch**

1

2

Gil **pushes (uploads)** his revision the main branch.

**No code conflicts.**

**Gil’s Branch**

```
<ul>
    <li>Poems</li>
    <li>Albums</li>
    <li>Songs</li>
</ul>
```

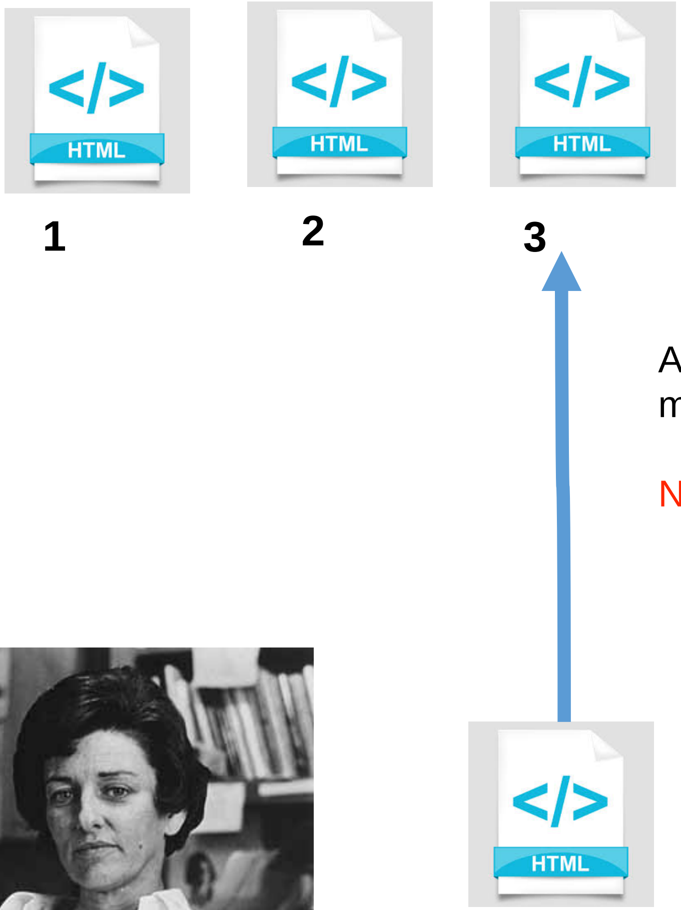
# Anne starts her work

Rule:  pull first, then push your change

*look into my face*
*and you will know that crimes*
*dropped upon me*
*as from a high building…*

…by which I mean, I broke the rules.

# Anne pushes



Master Branch

1

2

3

Anne’s Branch

Anne dude **pushes (uploads)** her revision the main branch.  No code conflicts.

Not what we want.

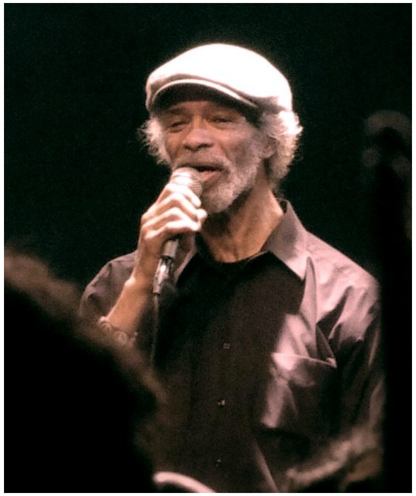
```
<ul>
    <li>The Double Image</li
    <li>Heart’s Needle</li>
    <li>Baby Picture</li>
</ul>
```

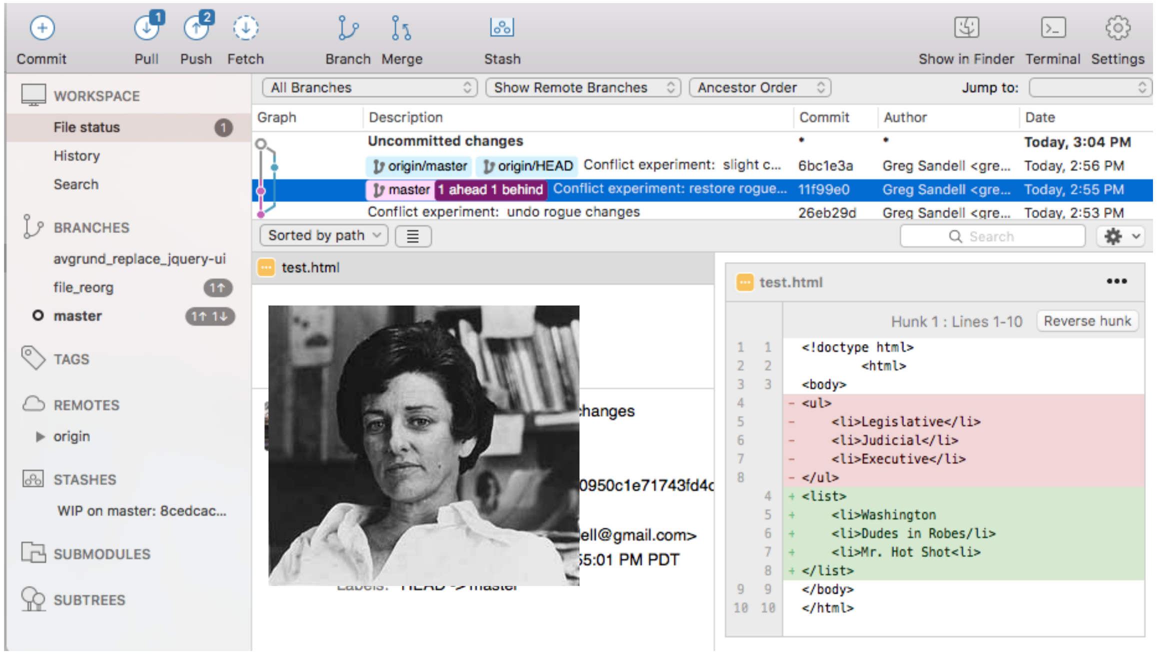
# If Annehad made a pull first…

## Conflict!

```
<ul>
    <li>The Double Image</li>
    <li>Heart’s Needle</li>
    <li>Baby Picture</li>
</ul>
<ul>
    <li>Poems</li>
    <li>Albums</li>
    <li>Songs</li>
</ul>
```

# The overwritten work is discovered





| Graph | Description | Commit | Author | Date |
|---|---|---|---|---|
| | **Uncommitted changes** | * | * | **Today, 3:04 PM** |
| | origin/master origin/HEAD Conflict experiment: slight c... | 6bc1e3a | Greg Sandell <gre... | Today, 2:56 PM |
| | master 1 ahead 1 behind Conflict experiment: restore rogue... | 11f99e0 | Greg Sandell <gre... | Today, 2:55 PM |
| | Conflict experiment: undo rogue changes | 26eb29d | Greg Sandell <gre... | Today, 2:53 PM |

hanges

0950c1e71743fd4c

ell@gmail.com>

5:01 PM PDT

Labels: HEAD -> master

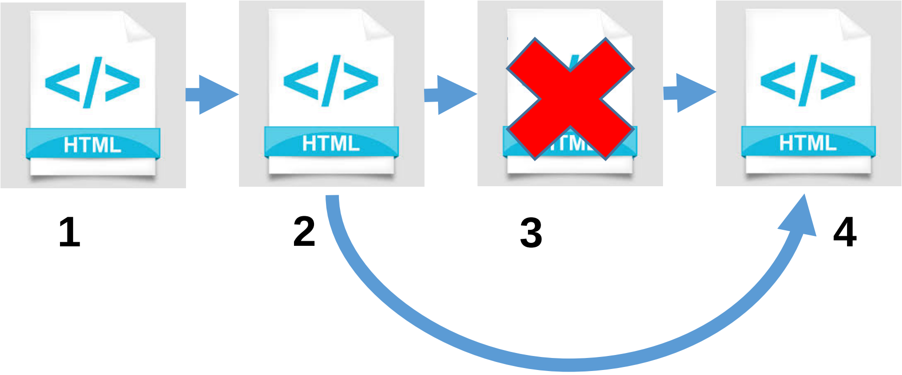
test.html

Hunk 1 : Lines 1-10

```
 <!doctype html>
         <html>
 <body>
- <ul>
-     <li>Legislative</li>
-     <li>Judicial</li>
-     <li>Executive</li>
- </ul>
+ <list>
+     <li>Washington
+     <li>Dudes in Robes/li>
+     <li>Mr. Hot Shot<li>
+ </list>
 </body>
 </html>
```

# Roll Back

**<u>Main Branch</u>**



Maya **<u>rolls back</u>** the code to an earlier version.

**<u>Anne's Branch</u>**

# The Group Project

**Lesson:**

**You should use Version Control!**

# Quick Activity!

**Suggested Time:** 3 min

**Turn to your neighbor, and have one of you explain to the other:**

- **The concept of version control.**

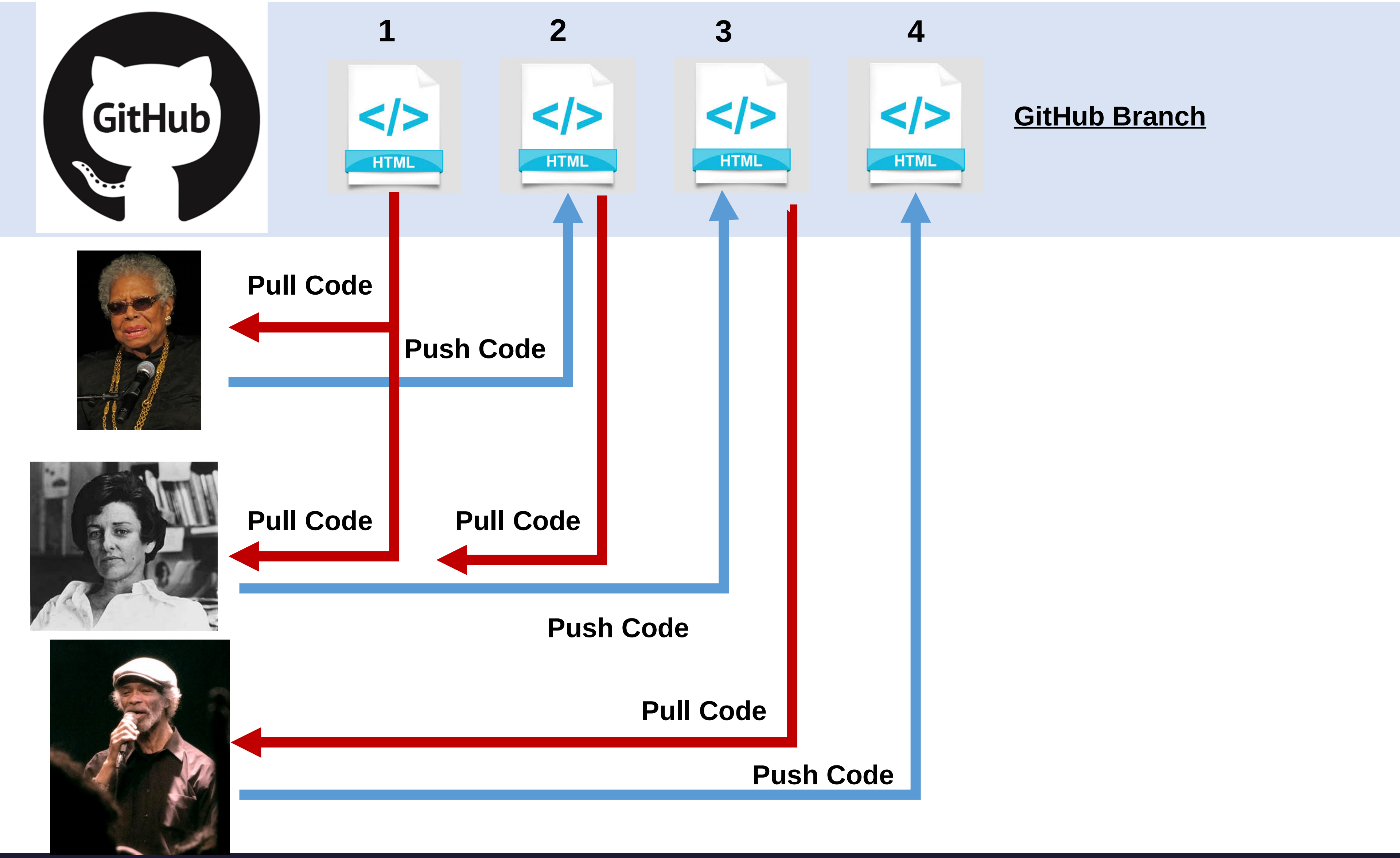
**Then the other should explain:**

- **Two of the key advantages to using a version control system.**

# So… What's this GitHub?

- GitHub is a Web-Based hosting service to store code online.
- It allows developers to **pull** (download) code or **push** (upload) code to the same **repository** (directory).
- It also allows developers to **view histories** of code changes and to **track issues**.

# Pushing and Pulling to GitHub



1

2

3

4

GitHub Branch

Pull Code

Push Code

Pull Code

Pull Code

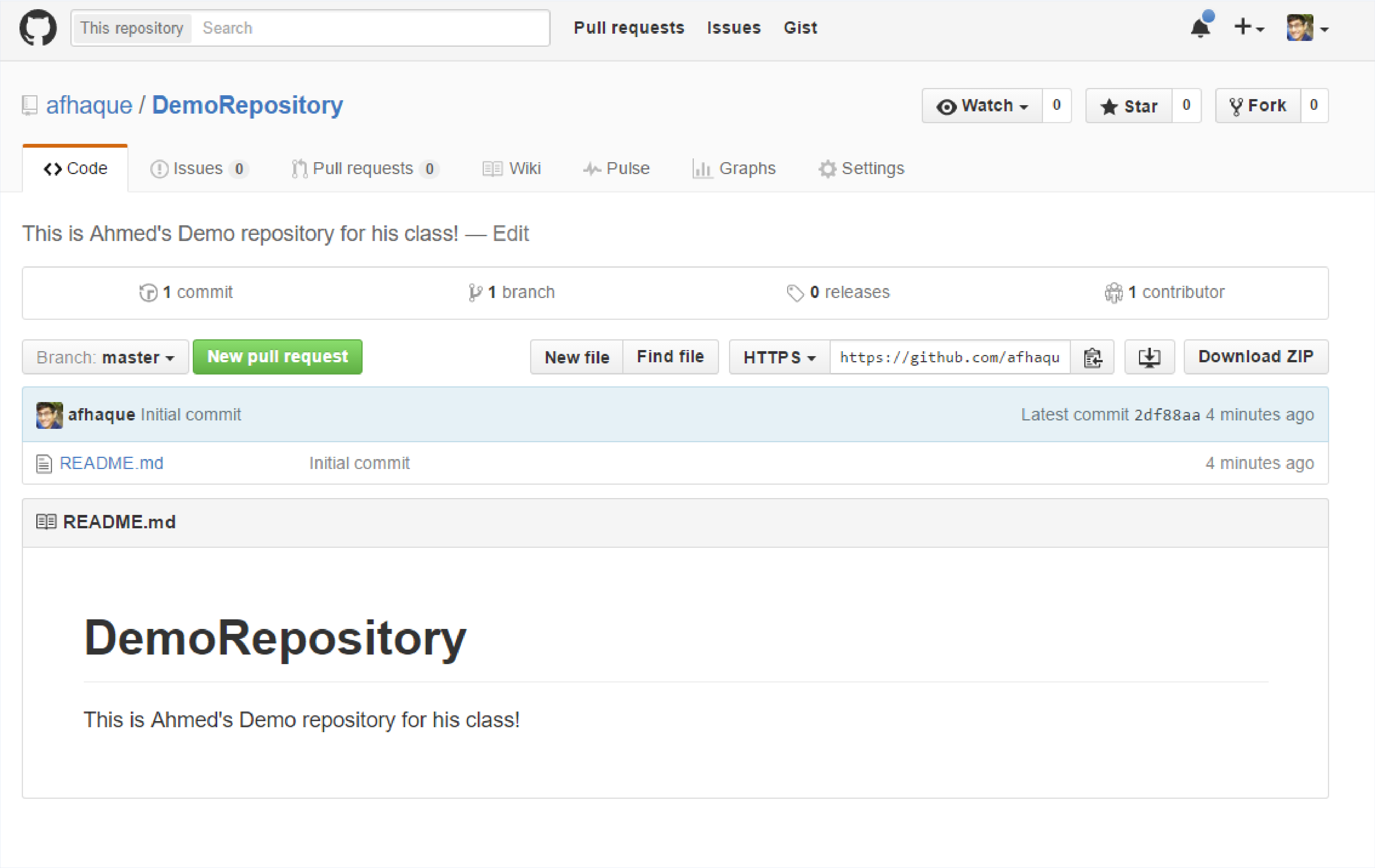
Push Code

Pull Code

Push Code

# ***Get Started with Git***

# Instructor Git Demo!



afhaque / DemoRepository

This is Ahmed's Demo repository for his class! — Edit

afhaque Initial commit — Latest commit 2df88aa 4 minutes ago

README.md — Initial commit — 4 minutes ago

README.md

# DemoRepository

This is Ahmed's Demo repository for his class!

# Basic Git Commands

**At its most basic, these are the five git commands to get started:**

1. **git clone**
2. **git add**
3. **git commit**
4. **git push**
5. **git pull**

# Basic Git Commands

**At its most basic, these are the five git commands to get started:**

1. **git clone** – copies an entire repo (to begin).

2. **git add** – adds a file for inclusion in Git.

3. **git commit** – notes a change to the local repo.

4. **git push** – sends changes to hosting service.

5. **git pull** – downloads freshest version of repo.

# > YOUR TURN!

**Activity***:* Git Add, Commit, Push **|** **Suggested Time:** 20 min

**Assignment:**

Using GitHub and the Command Line:

- Create a new **public GitHub repository** and name it whatever you like. Be sure to check the box for “initialize this repository with a README.”
- Next, **clone** the repo to your local directory.
- Then create an HTML file inside the local directory.
- **Add**, **Commit**, and **Push** the code to GitHub.

**Bonus:**

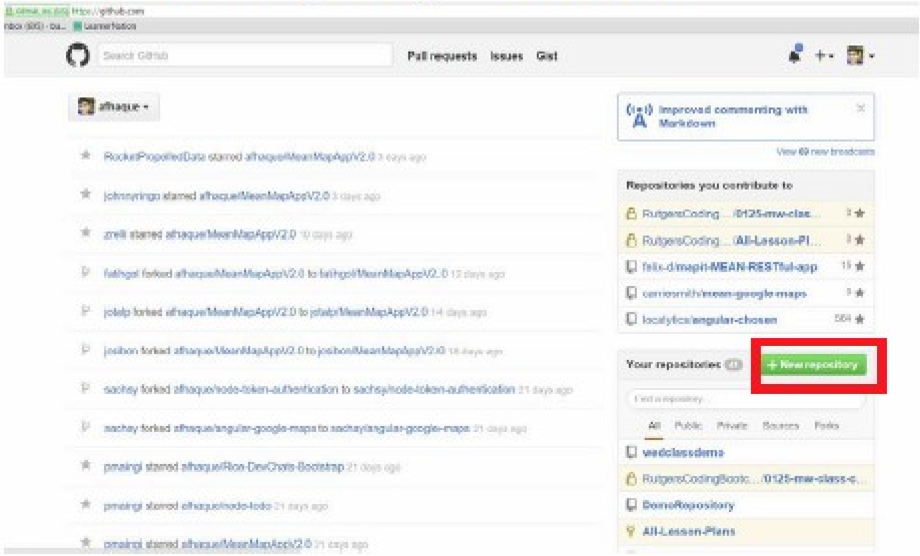
- Find a partner in class, and **fork** *their* repository to your own GitHub account. Clone this forked repository to your local directory.
- Add, Commit, and Push the code back to your forked copy.
- Finally, submit a **pull request** to send your changes to your partner’s repo.

# Still a Bit Lost? Never Worry!

## Steps to Uploading Your Code to GitHub

### Step 1

Create a New Repository in GitHub.com



RocketPropelledData starred afhaque/MeanMapAppV2.0 3 days ago

johnnyringo starred afhaque/MeanMapAppV2.0 3 days ago

zrelli starred afhaque/MeanMapAppV2.0 10 days ago

fathgol forked afhaque/MeanMapAppV2.0 to fathgol/MeanMapAppV2.0 12 days ago

jotalp forked afhaque/MeanMapAppV2.0 to jotalp/MeanMapAppV2.0 14 days ago

joshon forked afhaque/MeanMapAppV2.0 to joshon/MeanMapAppV2.0 18 days ago

sachay forked afhaque/node-token-authentication to sachay/node-token-authentication 21 days ago

sachay forked afhaque/angular-google-maps to sachay/angular-google-maps 21 days ago

pmaingi starred afhaque/Rca-DevChats-Bootstrap 21 days ago

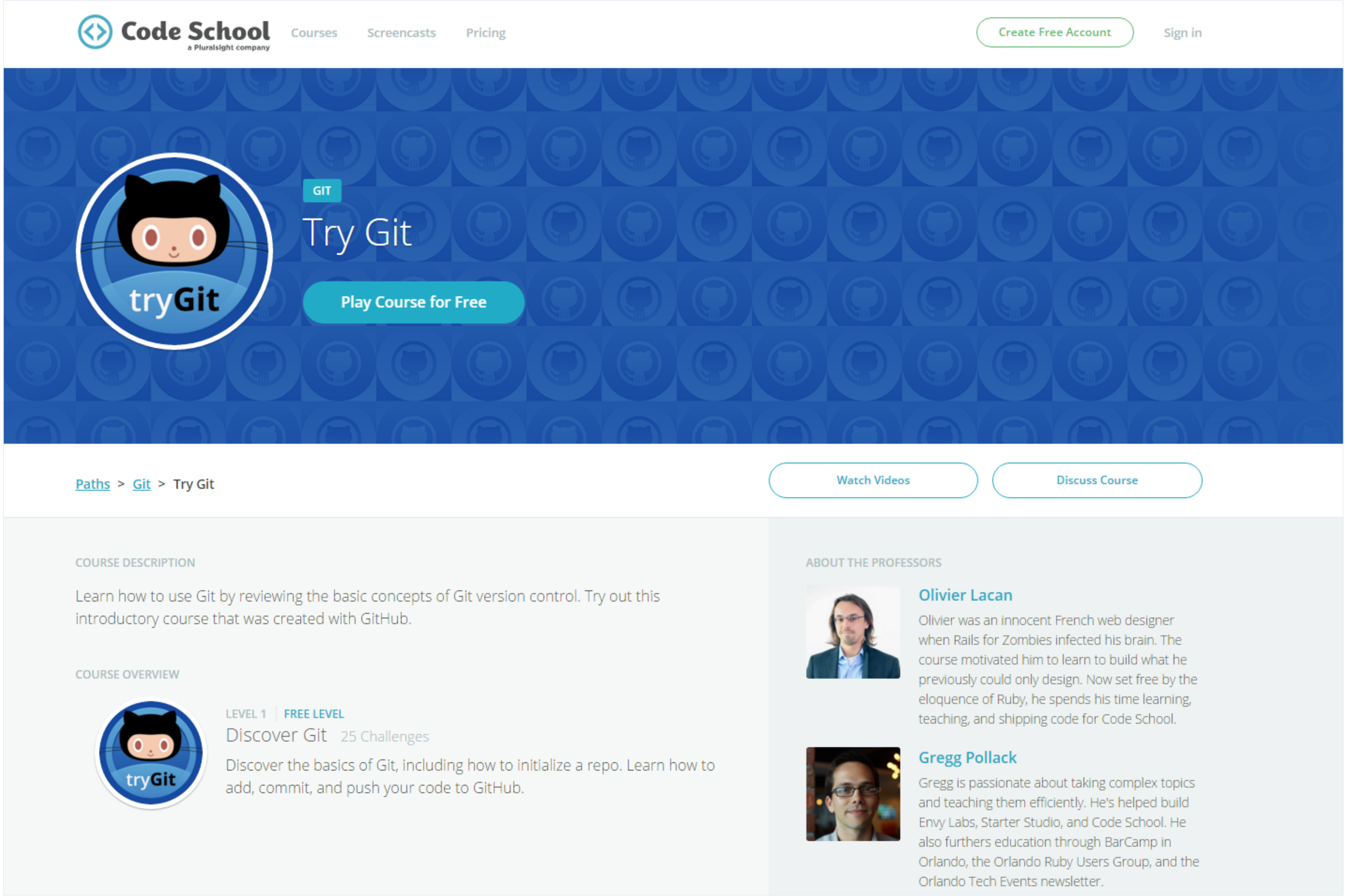
pmaingi starred afhaque/node-todo 21 days ago

pmaingi starred afhaque/MeanMapAppV2.0 21 days ago

https://github.com
Search GitHub
Pull requests
Issues
Gist
afhaque
Improved commenting with Markdown
View 69 new broadcasts
Repositories you contribute to
RutgersCoding.../0125-mw-clas...
RutgersCoding.../All-Lesson-Pl...
felix-d/mapit-MEAN-RESTful-app
carrasmith/mean-google-maps
localytics/angular-chosen
Your repositories
+ New repository
Find a repository...
All
Public
Private
Sources
Forks
wedclassdemo
RutgersCodingBootc.../0125-mw-class-c...
DemoRepository
All-Lesson-Plans

- **Follow this handy Guide!**
- Practice a few times on your own before our next class.

# If You’re Still Lost… Here’s a (Free) Course



Try Git

Paths > Git > Try Git

COURSE DESCRIPTION

Learn how to use Git by reviewing the basic concepts of Git version control. Try out this introductory course that was created with GitHub.

COURSE OVERVIEW

LEVEL 1 | FREE LEVEL

Discover Git 25 Challenges

Discover the basics of Git, including how to initialize a repo. Learn how to add, commit, and push your code to GitHub.

ABOUT THE PROFESSORS

Olivier Lacan

Olivier was an innocent French web designer when Rails for Zombies infected his brain. The course motivated him to learn to build what he previously could only design. Now set free by the eloquence of Ruby, he spends his time learning, teaching, and shipping code for Code School.

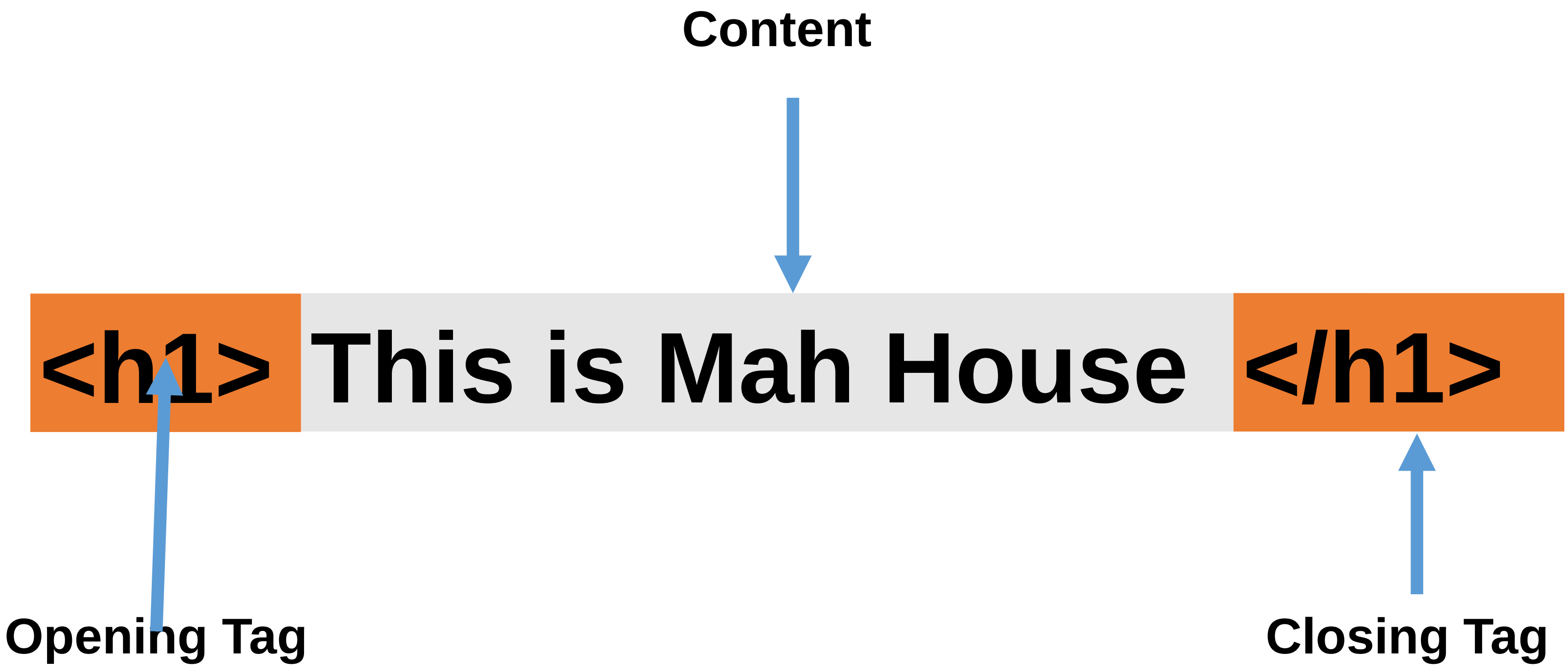
Gregg Pollack

Gregg is passionate about taking complex topics and teaching them efficiently. He's helped build Envy Labs, Starter Studio, and Code School. He also furthers education through BarCamp in Orlando, the Orlando Ruby Users Group, and the Orlando Tech Events newsletter.

https://www.codeschool.com/courses/try-git

# *HTML Round 2*

# HTML Syntax (Basic)



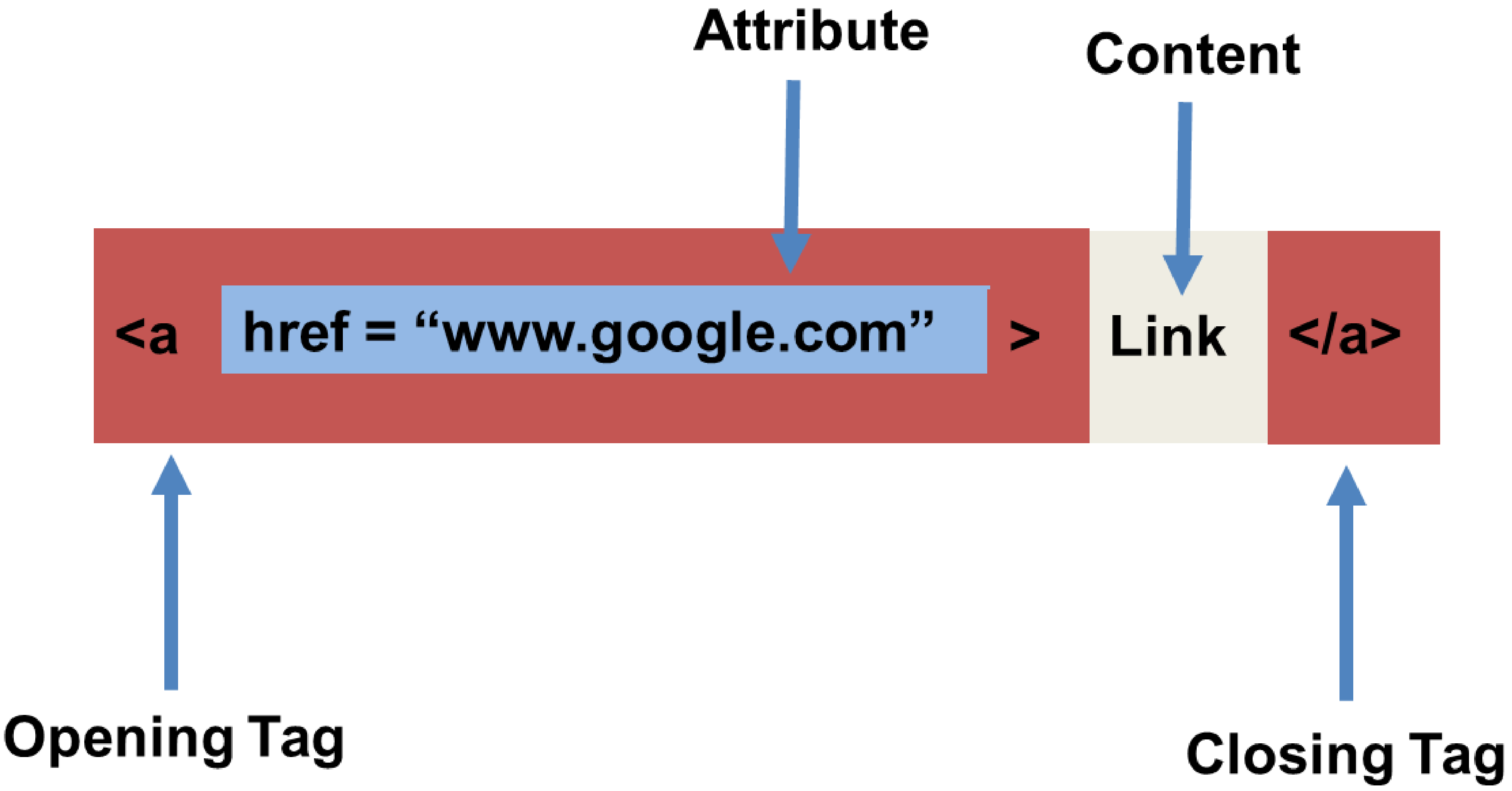
Content

```
<h1> This is Mah House </h1>
```

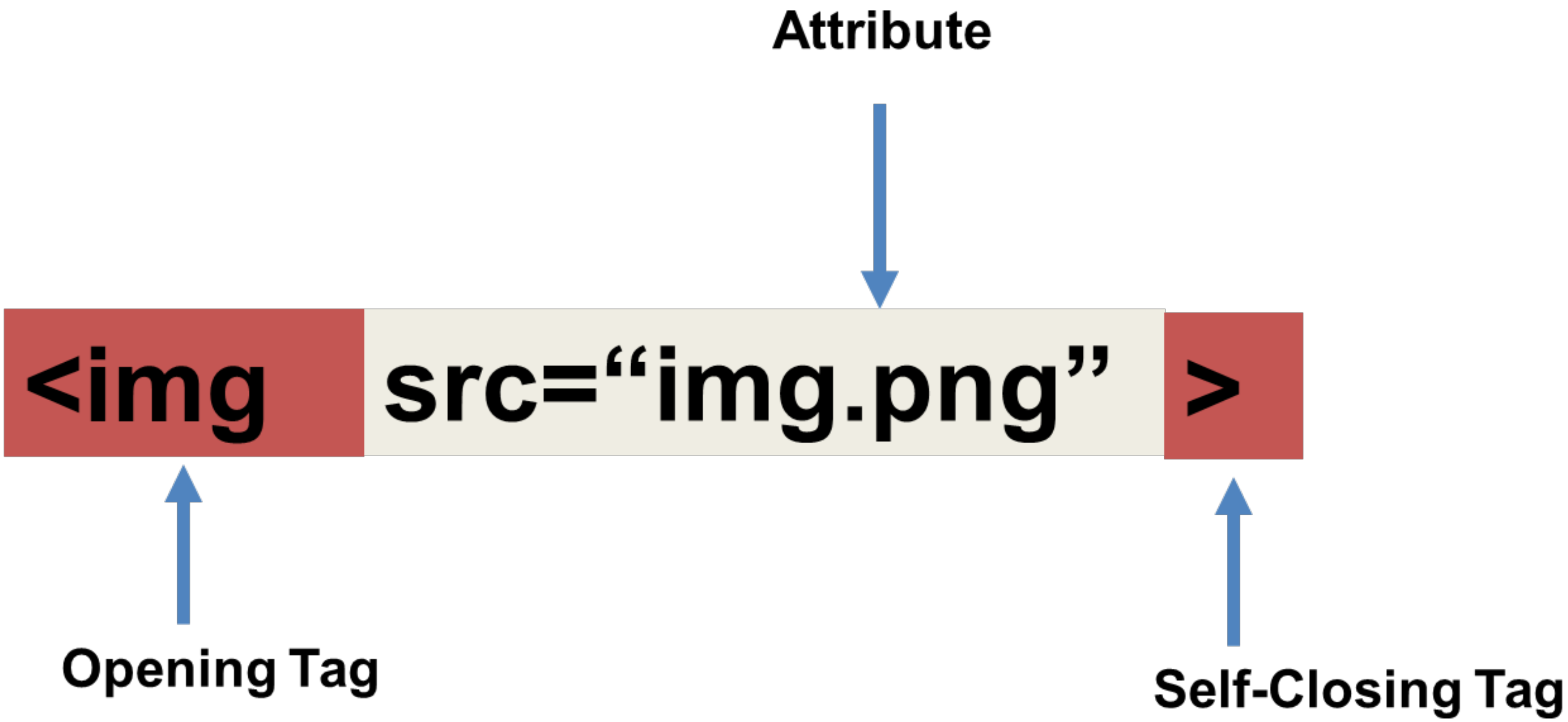
Opening Tag

Closing Tag

# HTML Syntax (with Attribute)



# Tricky Tags (Self-Closing)



Attribute

<img src=“img.png” >

Opening Tag

Self-Closing Tag

# Important Common Tags

**Headings:**

- **<h1> </h1>** - Heading 1 (Largest Heading)
- **<h2> </h2>** - Heading 2 (Next Largest Heading)
- **<h3> </h3>** - Heading 3
- **…**

**Containers:**

- **<html> </html>** - Wraps the entire page
- **<head> </head>** - Wraps the header of the page
- **<body> </body>** - Wraps the main content
- **<div> </div>** - Logical Container ***
- **<p> </p>** - Wraps individual Paragraphs

**Others:**

- **<strong>** (bold), **<em>** (emphasis)
- **<img>** (images)**, <a href>** (links)**, <li>** (list items) **, <title>** (title), **<br>** (line break), **<table>** (tables), **<!-- -->** (comments)

# Less Common Tags

- **All HTML Tags are listed here:** http://www.w3schools.com/tags/

- Don’t try to memorize them! Simply refer back to documentation as needed.

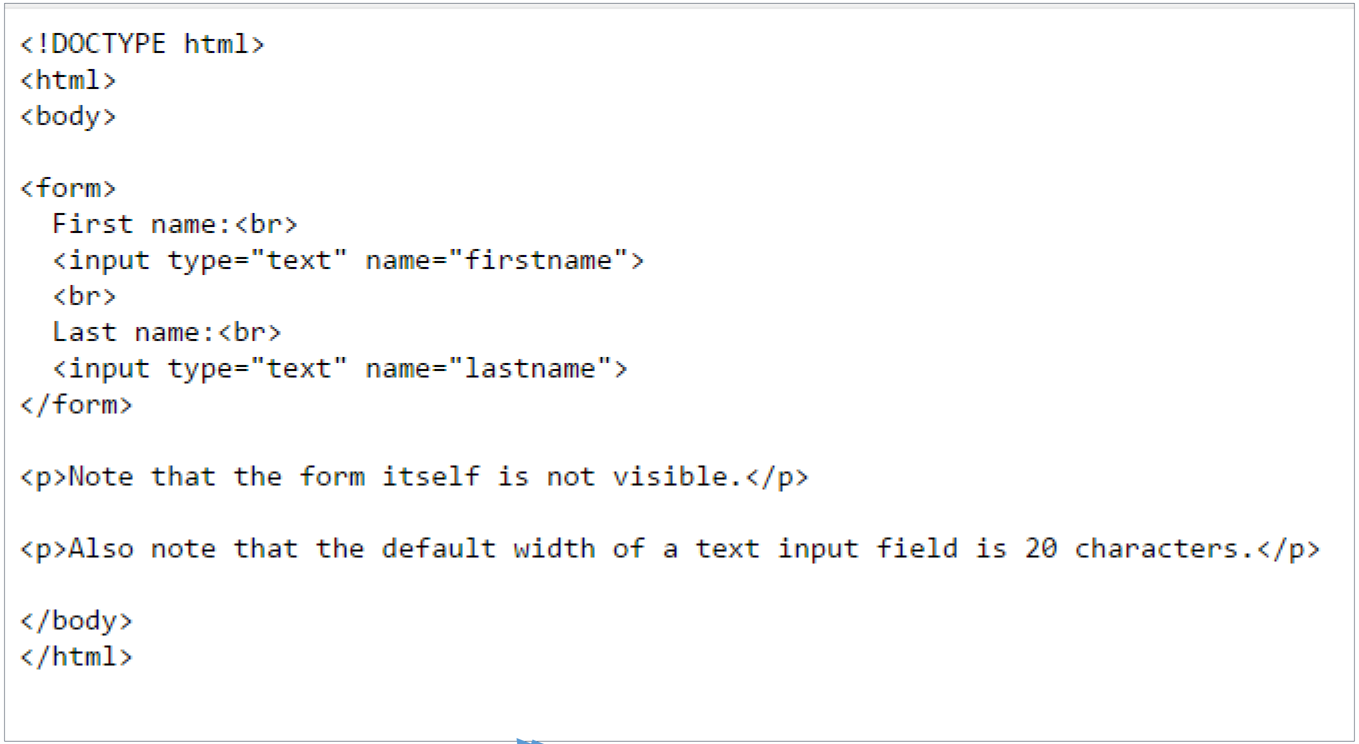
- Other tags:
  - <video> for Videos
  - <audio> for Audio files
  - <embed> for Embedded files
  - <code> for including computer code
  - <header> for headers
  - <nav> for navigation bars
  - <footer> for footers

# HTML for Forms

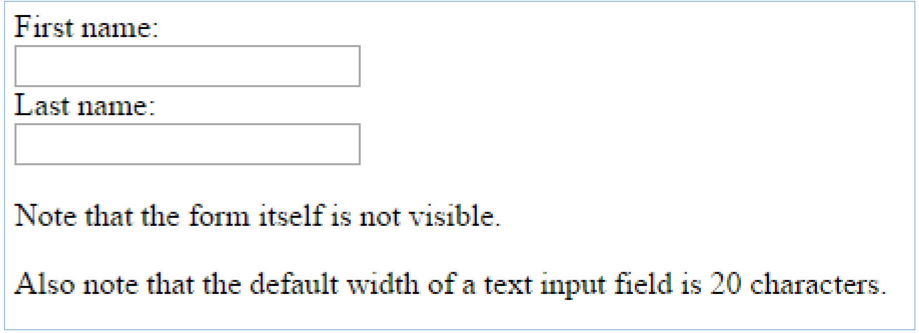
**Common UI (User Interface) Form Elements:**

- **<form>** - Creates a form section in HTML
- **<input>** - Input boxes
- **<label>** - Labels for boxes
- **<button>** - Button
- **<textarea>** - Large textbox

# HTML for Forms



```
<!DOCTYPE html>
<html>
<body>

<form>
  First name:<br>
  <input type="text" name="firstname">
  <br>
  Last name:<br>
  <input type="text" name="lastname">
</form>

<p>Note that the form itself is not visible.</p>

<p>Also note that the default width of a text input field is 20 characters.</p>

</body>
</html>
```



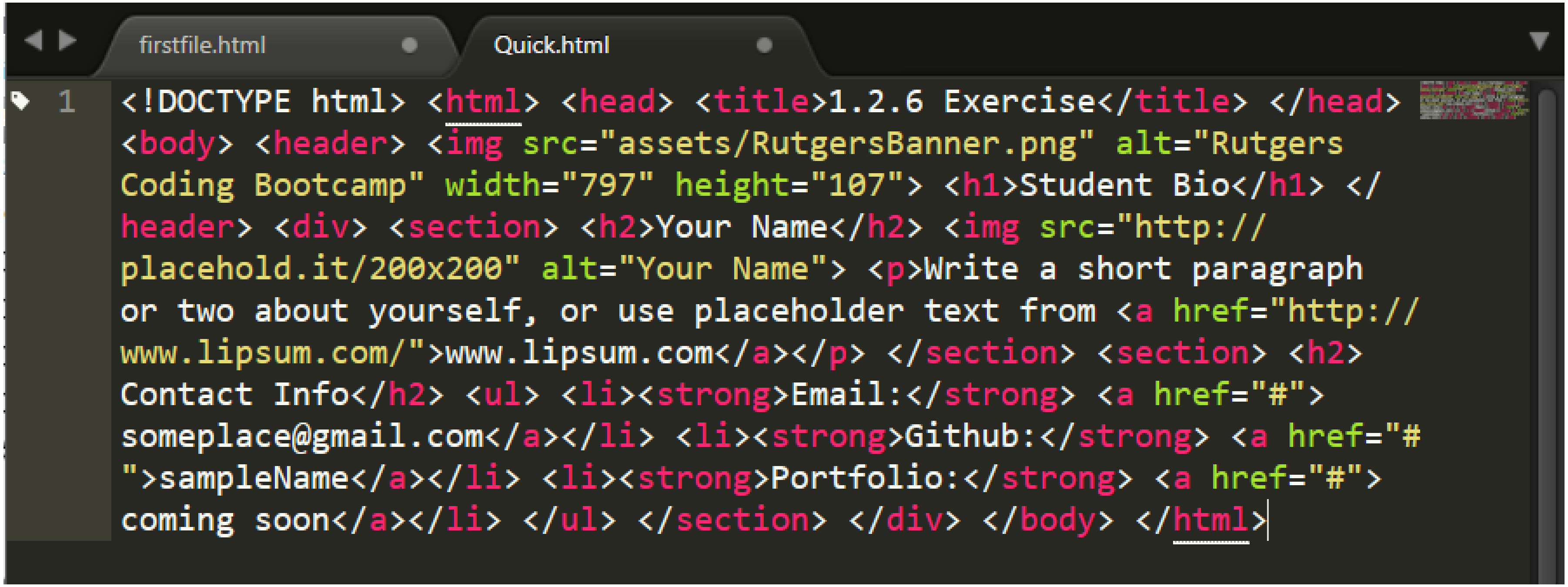
First name:

Last name:

Note that the form itself is not visible.

Also note that the default width of a text input field is 20 characters.

# On Ugly HTML



```
<!DOCTYPE html> <html> <head> <title>1.2.6 Exercise</title> </head>
<body> <header> <img src="assets/RutgersBanner.png" alt="Rutgers
Coding Bootcamp" width="797" height="107"> <h1>Student Bio</h1> </
header> <div> <section> <h2>Your Name</h2> <img src="http://
placehold.it/200x200" alt="Your Name"> <p>Write a short paragraph
or two about yourself, or use placeholder text from <a href="http://
www.lipsum.com/">www.lipsum.com</a></p> </section> <section> <h2>
Contact Info</h2> <ul> <li><strong>Email:</strong> <a href="#">
someplace@gmail.com</a></li> <li><strong>Github:</strong> <a href="#
">sampleName</a></li> <li><strong>Portfolio:</strong> <a href="#">
coming soon</a></li> </ul> </section> </div> </body> </html>
```

- Don’t do this… Use proper indentation and sectioning.
- Readable code is easier to maintain.
- Invest time to get better about this now. It will pay dividends!

# > YOUR TURN!

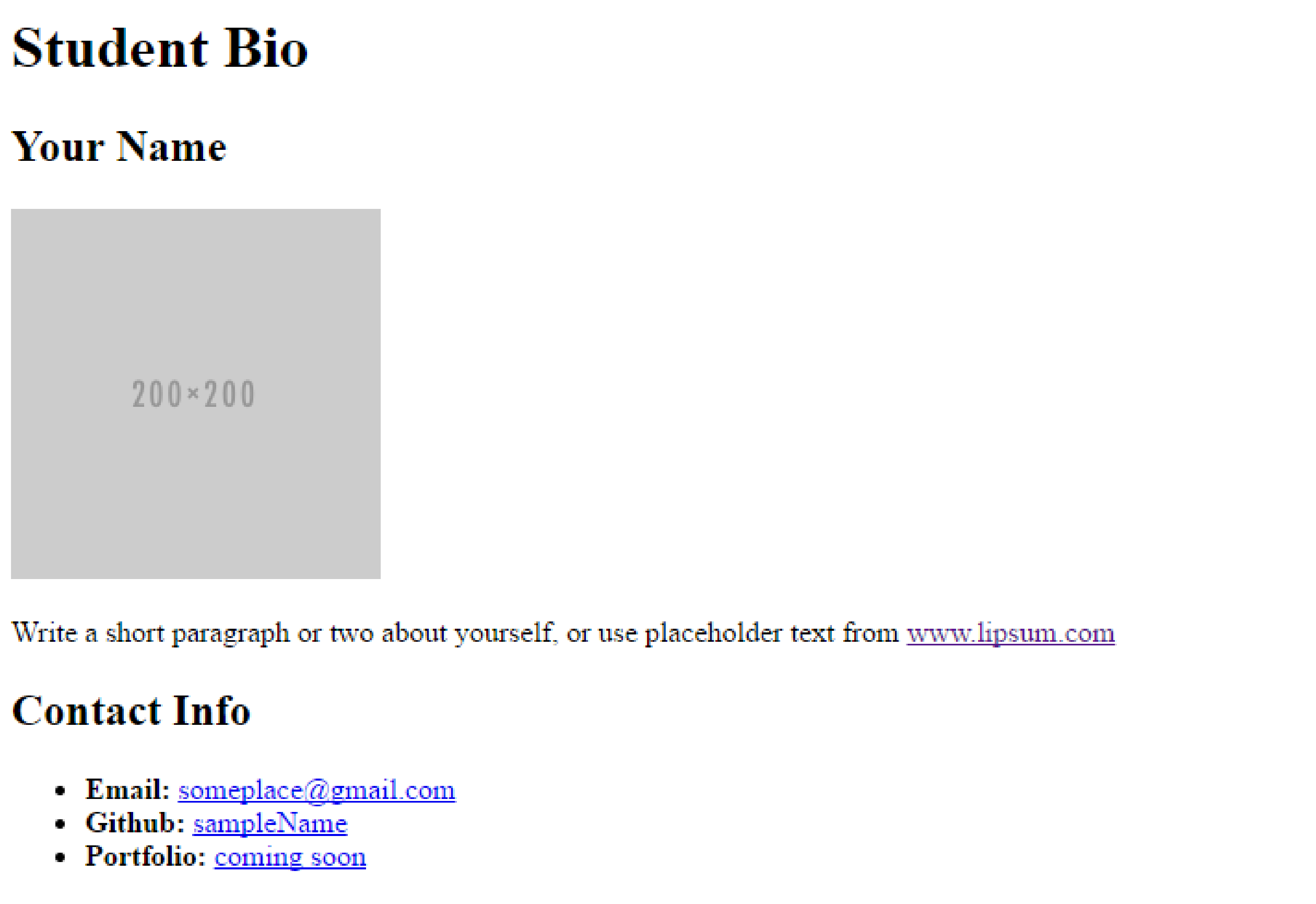
**Activity***:* 1-HTML_Git **|** **Suggested Time:** 20 min

## Assignment

In this activity, you’ll create a student bio using HTML. You will then add, commit, and push your completed HTML to GitHub for the world to see.

Additional instructions, sent via Slack.

# > YOUR TURN!



# Student Bio

## Your Name

Write a short paragraph or two about yourself, or use placeholder text from www.lipsum.com

## Contact Info

- **Email:** someplace@gmail.com
- **Github:** sampleName
- **Portfolio:** coming soon

# *CSS Stylin’*

# HTML / CSS Definitions (*yawn* unimportant)

- **HTML:** Hypertext Markup Language – (Content)

- **CSS:** Cascading Style Sheets – (Appearance)

- **HTML/CSS are the “languages of the web.”** Together they define both the content and the aesthetics of a webpage – handling everything from the layouts, colors, fonts and  content placement. (JavaScript is the third – handling logic, animation, etc.)

# HTML / CSS Analogy

## HTML Alone

- Like writing papers in "Notepad."

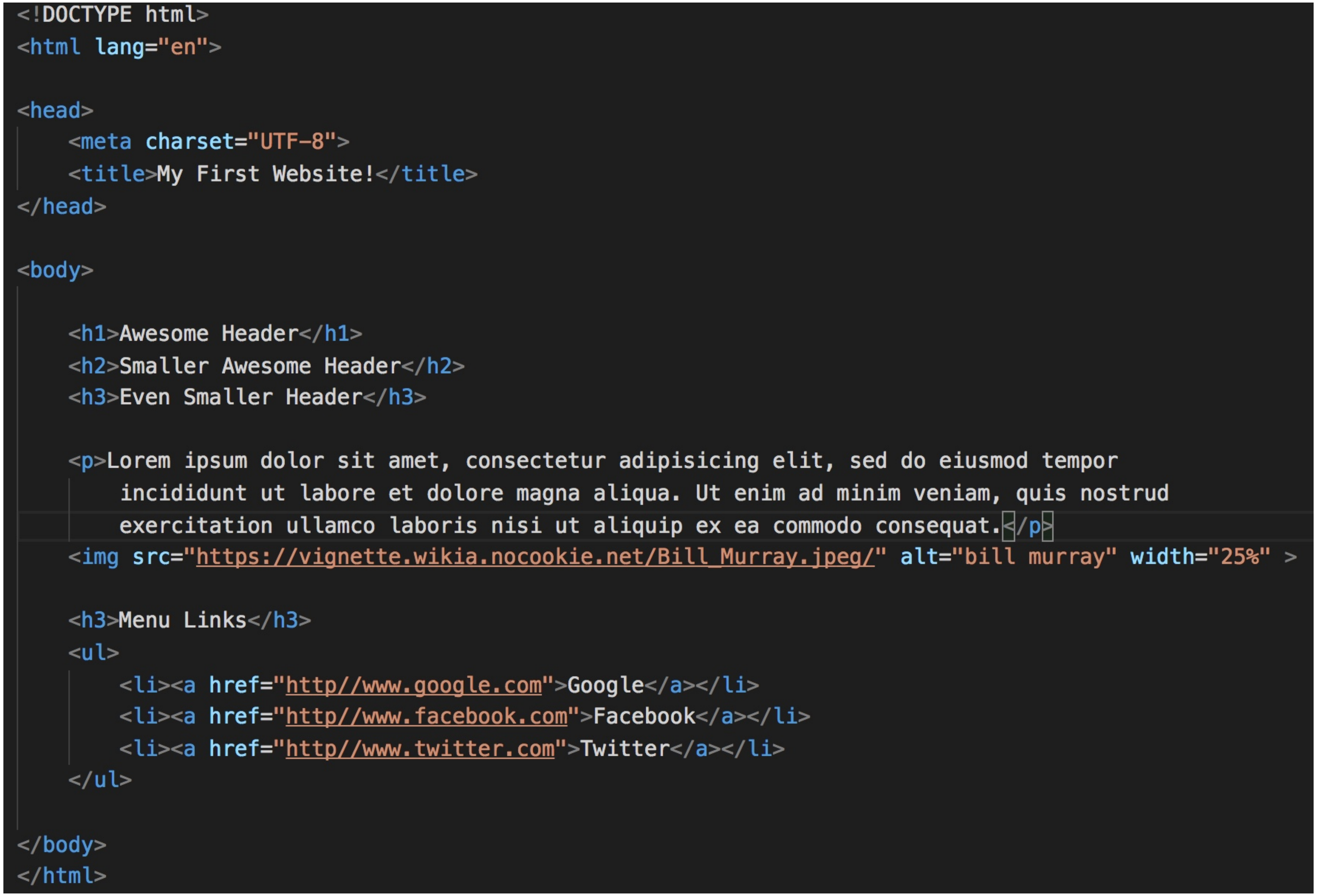
- Can only write unformatted text.

## HTML / CSS

- Like writing papers in Microsoft Word.

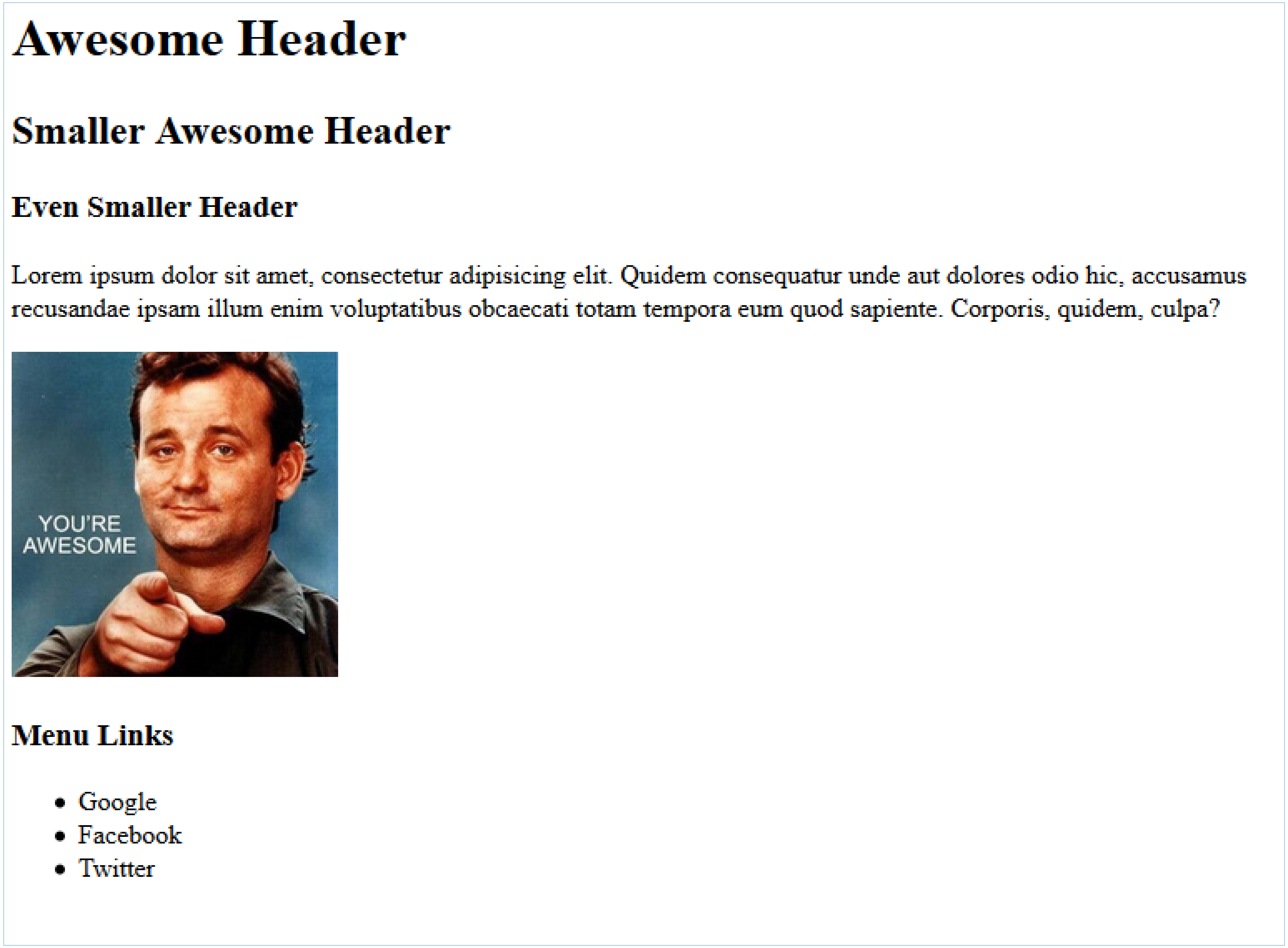
- Can format text, page settings, alignment, etc. based on "highlighting" and menu options.

# Basic HTML Page



```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <title>My First Website!</title>
</head>

<body>

    <h1>Awesome Header</h1>
    <h2>Smaller Awesome Header</h2>
    <h3>Even Smaller Header</h3>

    <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor
        incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud
        exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.</p>
    <img src="https://vignette.wikia.nocookie.net/Bill_Murray.jpeg/" alt="bill murray" width="25%" >

    <h3>Menu Links</h3>
    <ul>
        <li><a href="http//www.google.com">Google</a></li>
        <li><a href="http//www.facebook.com">Facebook</a></li>
        <li><a href="http//www.twitter.com">Twitter</a></li>
    </ul>

</body>
</html>
```

# Basic HTML Page - Result



# Awesome Header

## Smaller Awesome Header

### Even Smaller Header

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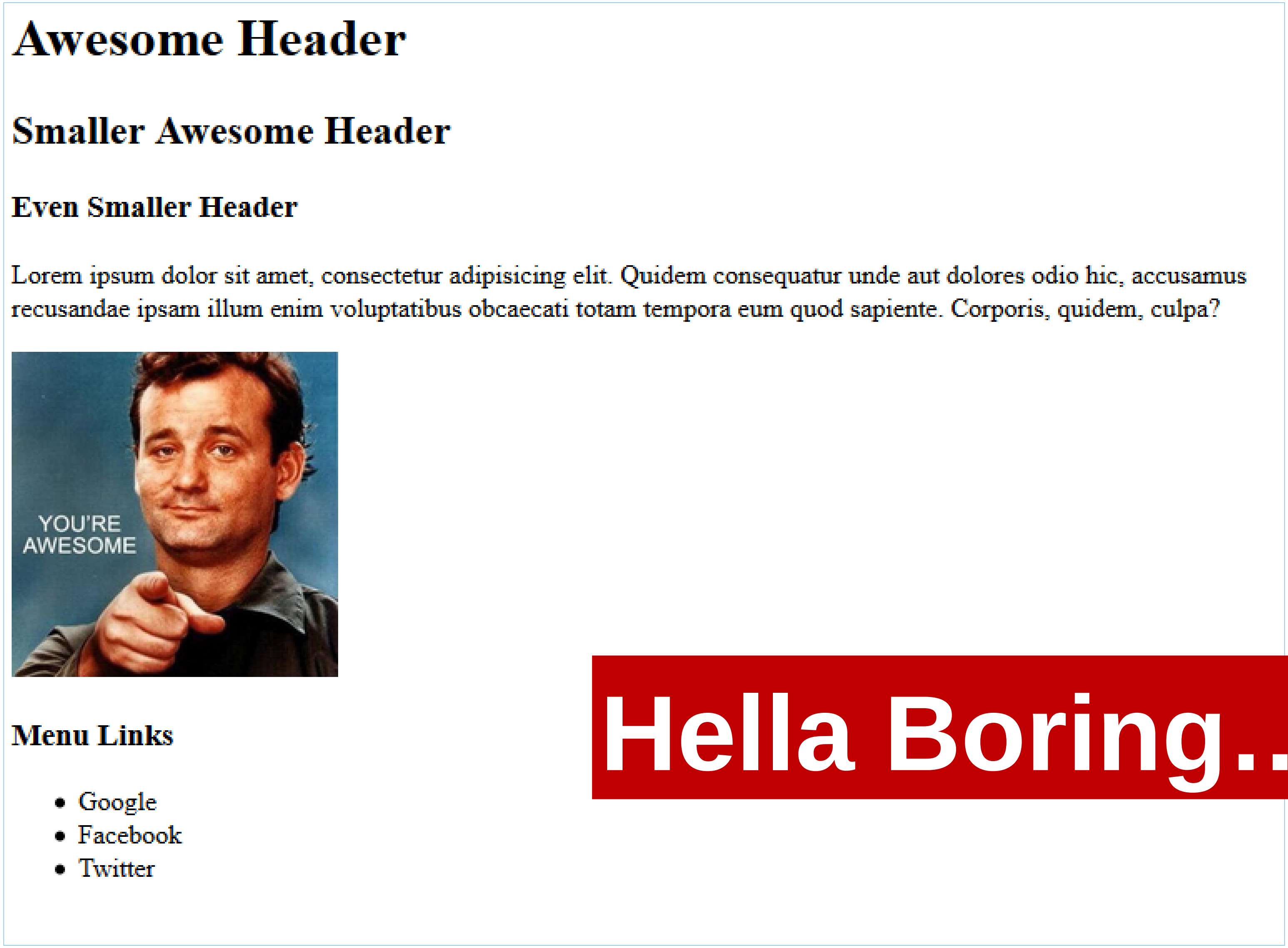
### Menu Links

- Google
- Facebook
- Twitter

# Basic HTML Page - Result



## Awesome Header

### Smaller Awesome Header

#### Even Smaller Header

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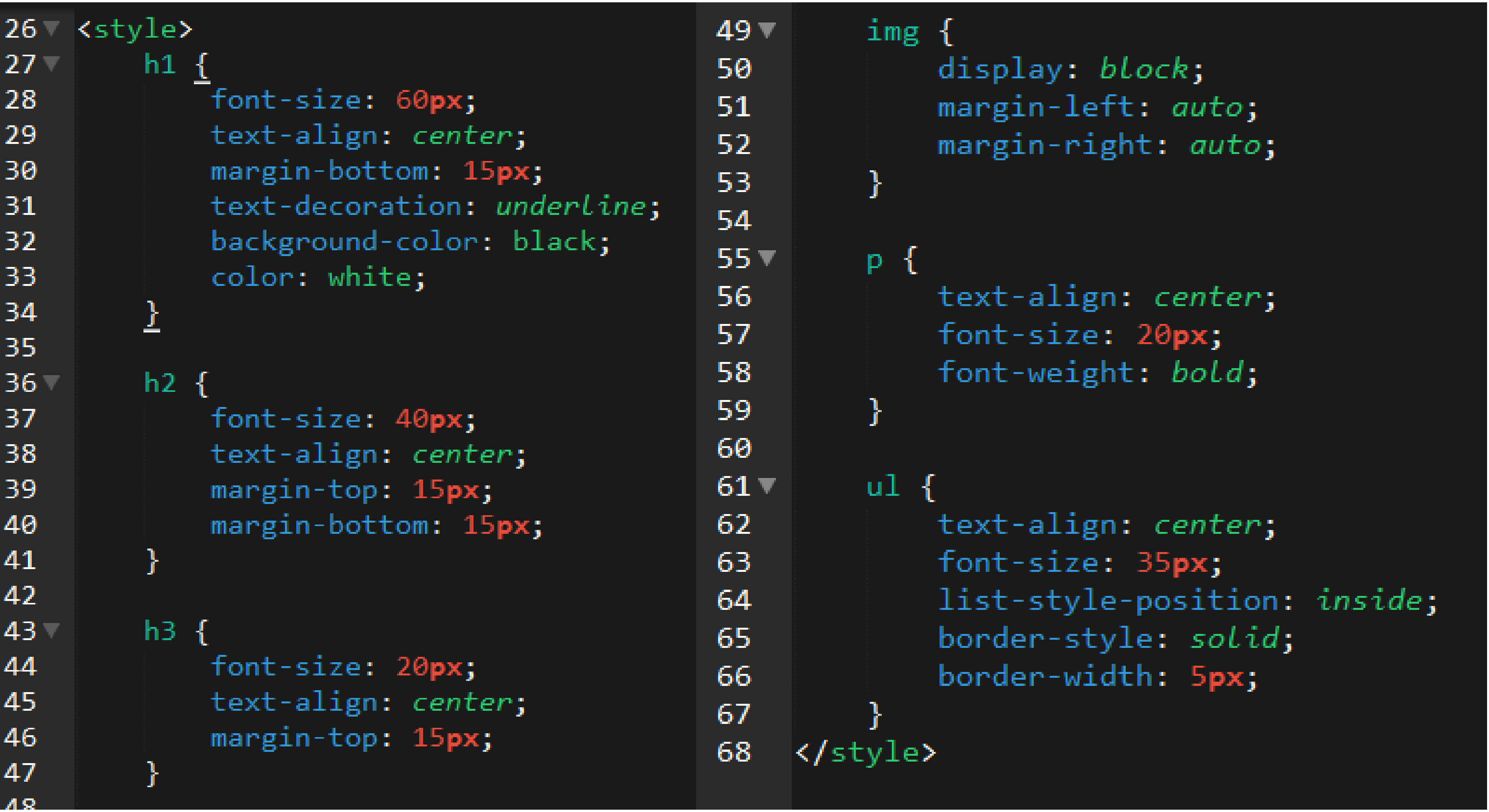
#### Menu Links

- Google
- Facebook
- Twitter

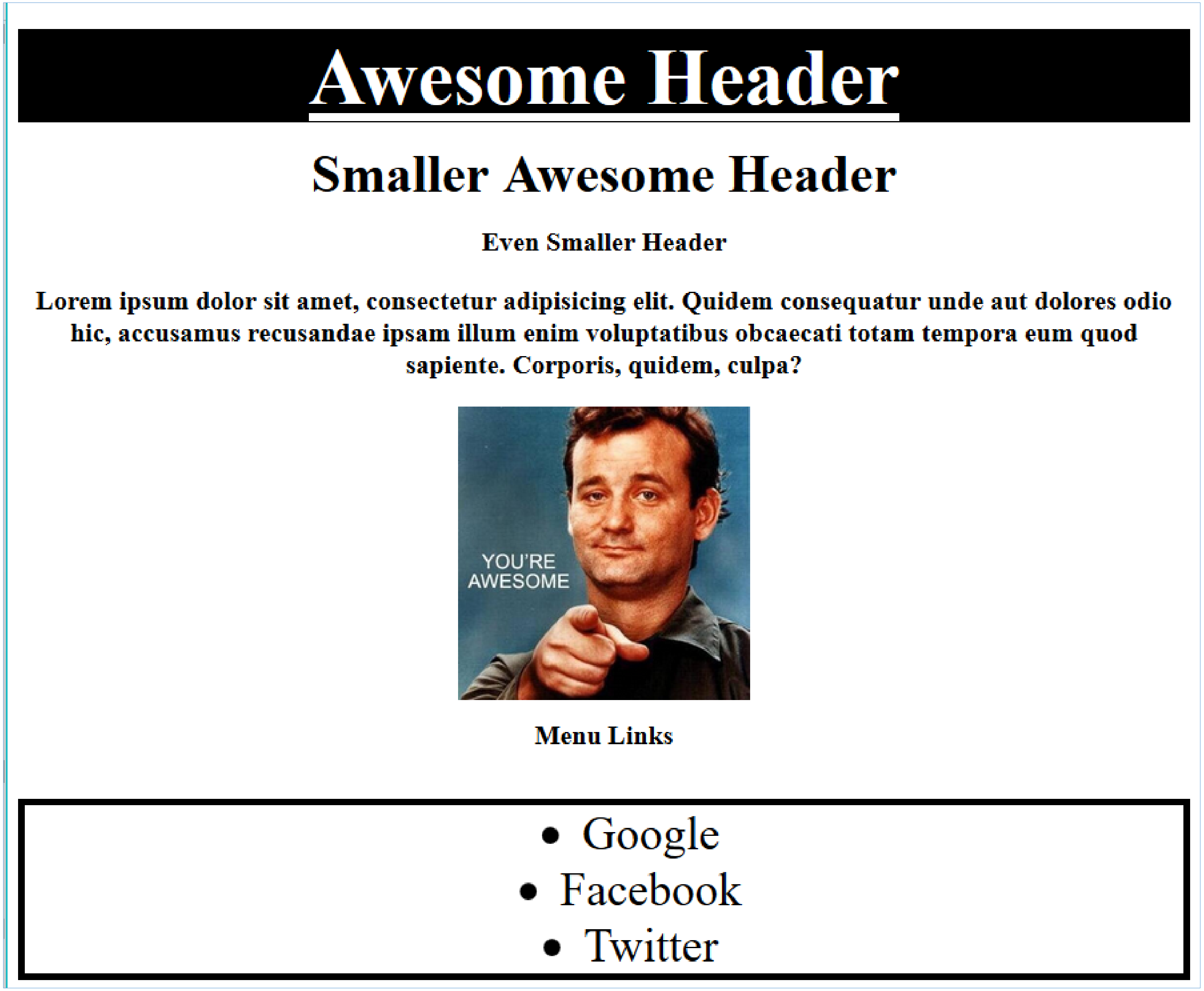
Hella Boring...

# Enter CSS



```
<style>
    h1 {
        font-size: 60px;
        text-align: center;
        margin-bottom: 15px;
        text-decoration: underline;
        background-color: black;
        color: white;
    }

    h2 {
        font-size: 40px;
        text-align: center;
        margin-top: 15px;
        margin-bottom: 15px;
    }

    h3 {
        font-size: 20px;
        text-align: center;
        margin-top: 15px;
    }

    img {
        display: block;
        margin-left: auto;
        margin-right: auto;
    }

    p {
        text-align: center;
        font-size: 20px;
        font-weight: bold;
    }

    ul {
        text-align: center;
        font-size: 35px;
        list-style-position: inside;
        border-style: solid;
        border-width: 5px;
    }
</style>
```

# Enter CSS - Result



Awesome Header

Smaller Awesome Header

Even Smaller Header

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Quidem consequatur unde aut dolores odio hic, accusamus recusandae ipsam illum enim voluptatibus obcaecati totam tempora eum quod sapiente. Corporis, quidem, culpa?

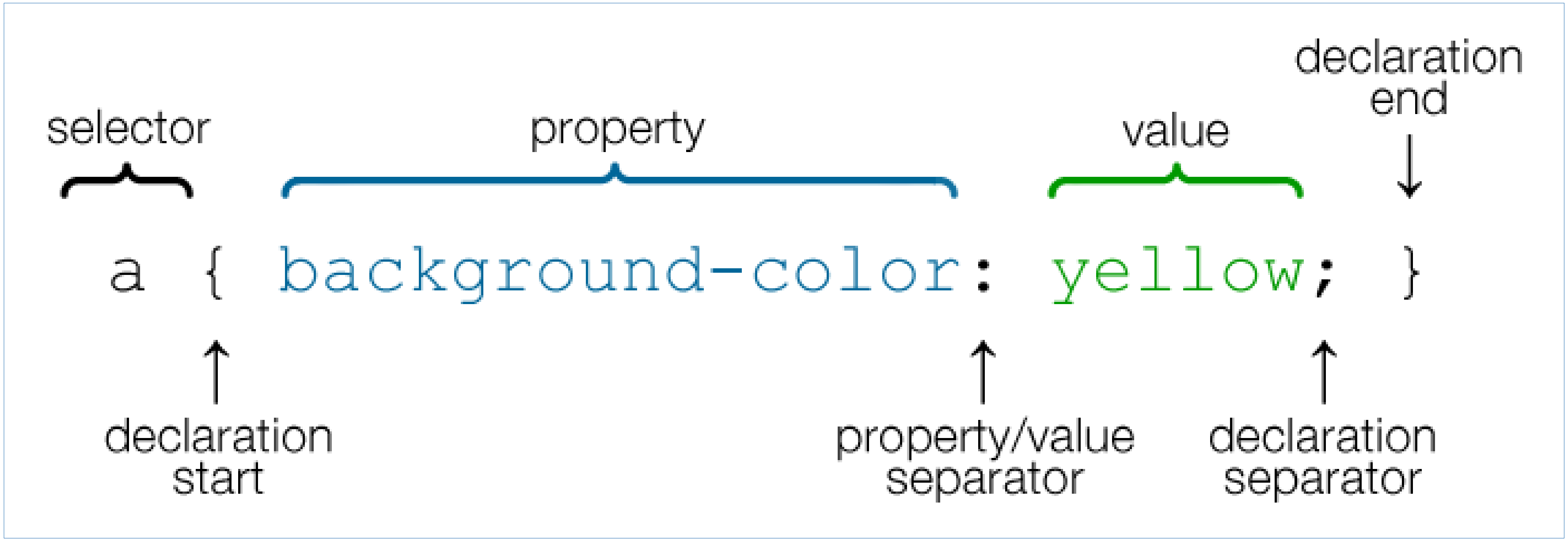
Menu Links

- Google
- Facebook
- Twitter

# CSS Syntax

- CSS works by hooking onto **selectors** added into HTML using **classes** and **identifiers.**

- Once hooked, we apply **styles** to those HTML elements using CSS.



```
a { background-color: yellow; }
```

# CSS Example

- In the below example the “Header” would be turned blue and MUCH larger because of the CSS.
- We can incorporate an element’s class or ID to apply a CSS style to a particular part of the document.
  - Just remember to include the necessary symbol before the CSS: “.” for class, “#” for ID.

**Example (HTML):**

```
<p class=“bigBlue”>Header</p>
```

**Example (CSS):**

```
.bigBlue
{
  font-size: 100px;
  color: blue;
}
```

# Key CSS Attributes

**Font / Color:**

- **color**: Sets color of text.
- **font-size**: Sets size of the font.
- **font-style**: Sets italics.
- **font-weight**: Sets bold.

**Alignment / Spacing:**

- **padding (top/right/bottom/left):** Adds space between element and its own border.

- **margin (top/right/bottom/left):** Adds space between element and surrounding elements.

- **float:** Forces elements to the sides, centers, or tops.

**Background:**

- **background-color:** sets background color.
- **background-image:** sets background image.

# Powerful Duo

Believe it or not, HTML / CSS is all you need to develop a vivid, full-blown website.

# INSTRUCTOR DEMO

***Instructor: Demo***

*(quickexample_internalcss.html* | *2-BasicCSS)*

# > YOUR TURN!

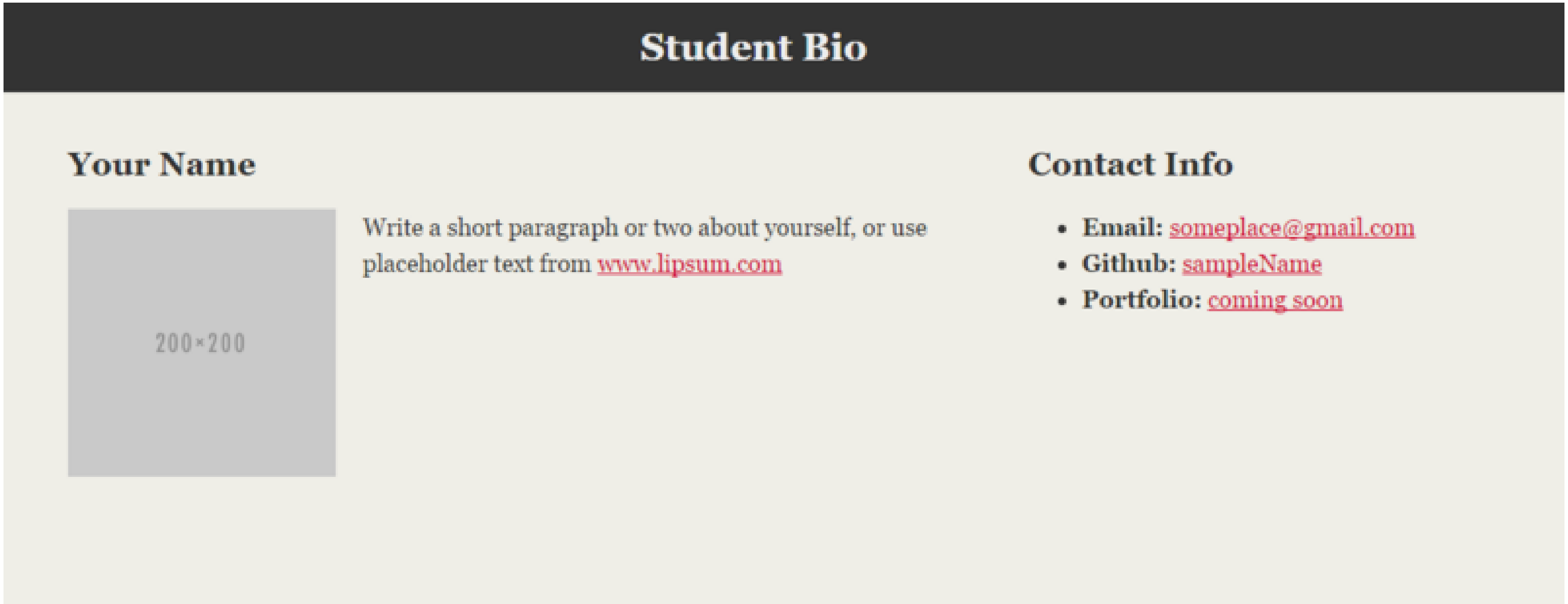
**Activity***:* 3-HTML_CSS_Layout **|** **Suggested Time:** 20 min

## Assignment

In this activity, you'll upgrade your previous HTML bio-page using CSS style rules. Once you're done, commit and push up your changes to GitHub.

We'll send you additional instructions via Slack.

# > YOUR TURN!



Student Bio

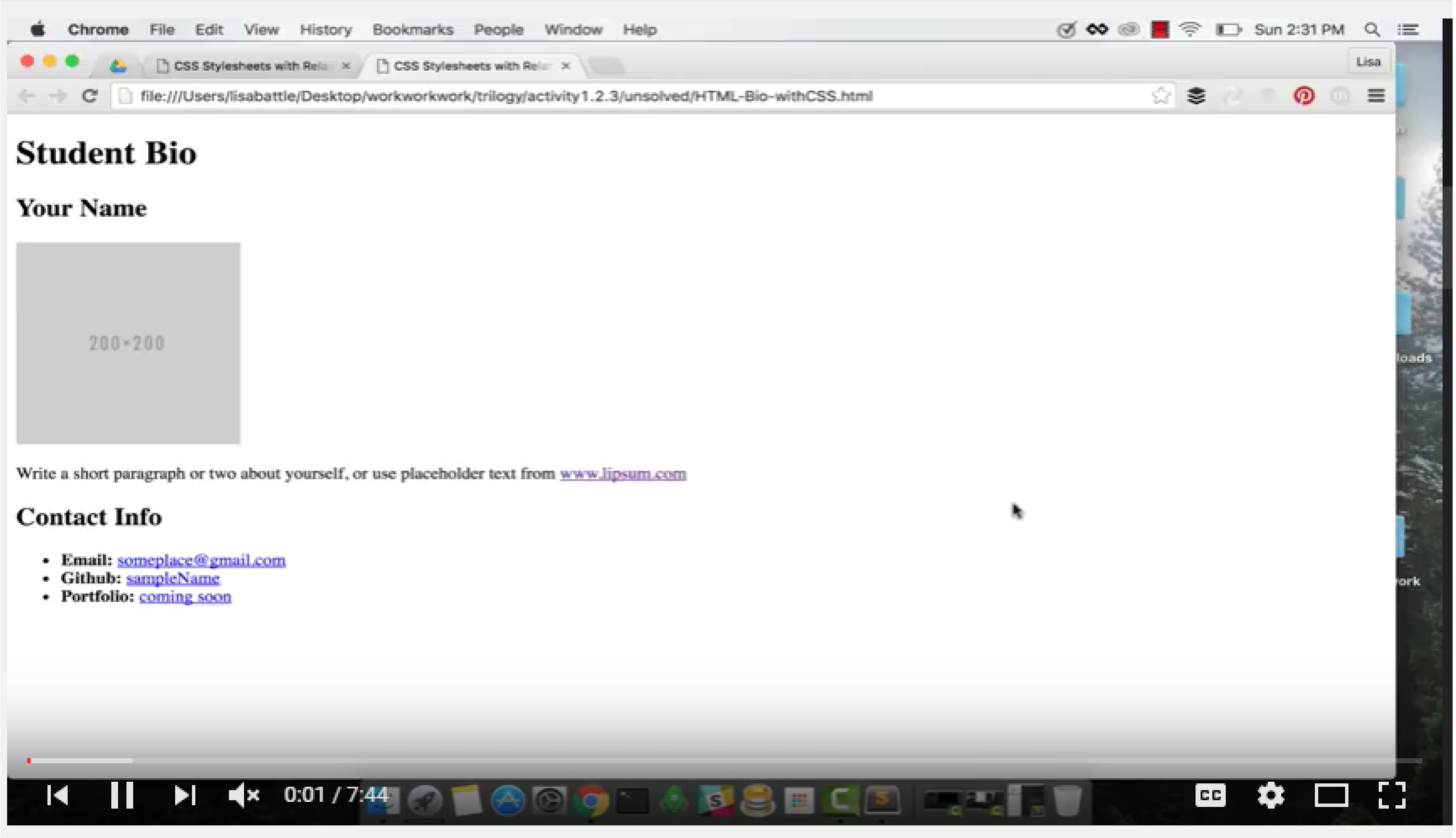
Your Name

Write a short paragraph or two about yourself, or use placeholder text from www.lipsum.com

Contact Info

- **Email:** someplace@gmail.com
- **Github:** sampleName
- **Portfolio:** coming soon

# Video Walkthrough!!


Chrome File Edit View History Bookmarks People Window Help
Sun 2:31 PM
CSS Stylesheets with Rela
CSS Stylesheets with Rela
Lisa
file:///Users/lisabattle/Desktop/workworkwork/trilogy/activity1.2.3/unsolved/HTML-Bio-withCSS.html
200×200
0:01 / 7:44

Student Bio

Your Name

Write a short paragraph or two about yourself, or use placeholder text from www.lipsum.com

Contact Info

- **Email:** someplace@gmail.com
- **Github:** sampleName
- **Portfolio:** coming soon

https://www.youtube.com/watch?v=kMBinXTCrXI&list=PLgJ8UgkiorCnMLsUevoQRxH8t9bt7ne14&index=2

# Still a Bit Confused?

Remember! We’ve got video guides for key activities like that last one.

If you feel like you are EVER falling behind, use those online walkthroughs to help catch back up. They are made to be easy to understand.

Still having trouble? Shoot your instructor or one of your TAs a message!
We are here to help you out in whatever way we can!

# *Recap + Questions*