

# *Git'n Pro with HTML/CSS*

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The Coding Bootcamp

# It's Okay!

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Flickr: welcometolearn

# *Admin Items*

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# Where to Get Help

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- **Practice, Practice, Practice:** Work Individually or in Groups
- **Review In Class Material (Exercises and Slides):**  
<<<<PROVIDE LINK HERE>>>>
- **Re-Watch Class Videos:**  
<<<<PROVIDE LINK HERE>>>>
- **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

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

<<<< LINK HERE>>>

- Homework Assignment #1 is due next week
  - MW Class: Next Wednesday (<<<DATE HERE>>>)
  - TTH Class: Next Thursday (<<<DATE HERE>>>)

# *Today's Class!*

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# Today's Objectives

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- 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

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## 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?*

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# Collaborative Coding

## Git Version Control to the Rescue

Final



Originals

Change Requests

Developers

- 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

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Task: Make a list of creative works you've written in the past

Programming Team:



Maya Angelou



Anne Sexton



Gil Scott Heron

# Maya & Gil make their edits

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Programming Away...

**Maya's Version**



Programming Away...

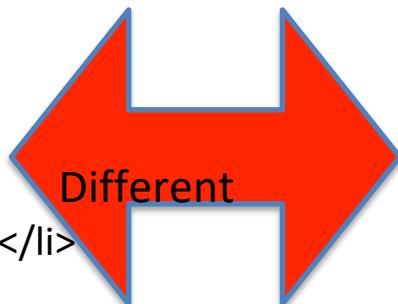
**Gil's Version**



# 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>
```



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



# Resolution



```
<ul>
  <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>
```

“Let’s settle on this...”

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

# Anne writes her own stuff...

---



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

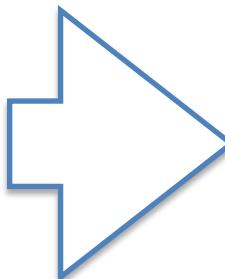
# Anne overwrites work of her teammates...

---



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

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



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

# The Group Project

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## 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

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## Git Version Control:

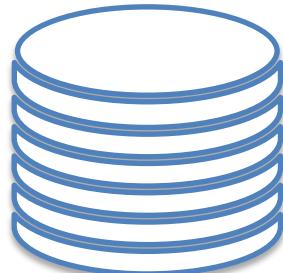
Provides an organized system for managing code for when multiple developers work on a project at the same time.

## The Benefits of Git:

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

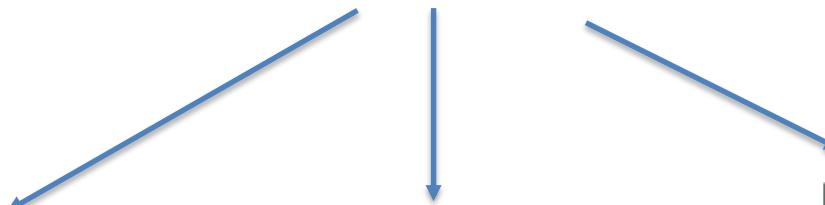
# The Group Project

Master Branch



*'Branch' = personal copy*

Personal branch



Maya's branch



Anne's branch



Gil's branch

# The team goes to work

---



```
<ul>
  <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 **pushes (uploads)** her code changes into the main branch.

**No code conflicts.**



## Maya's Branch

**Gil's edits are ready**

---

Rule: pull first, then push your changes



Ok

# Gil pulls latest changes

---

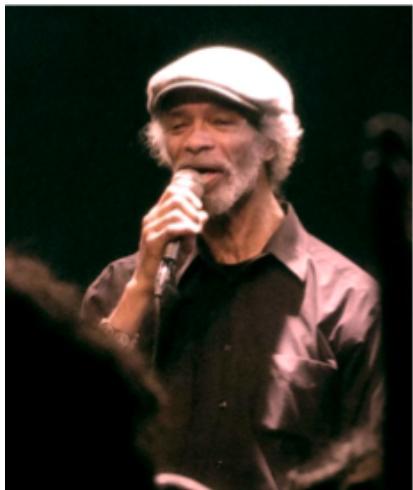
**Master Copy**



1



**Gil's Branch**



# Gil conflicts with master branch

## Master Branch



1

A black and white photograph of Gil Scott-Heron, an African American poet and activist, singing into a microphone. He is wearing a light-colored cap and a dark t-shirt.

<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>
```

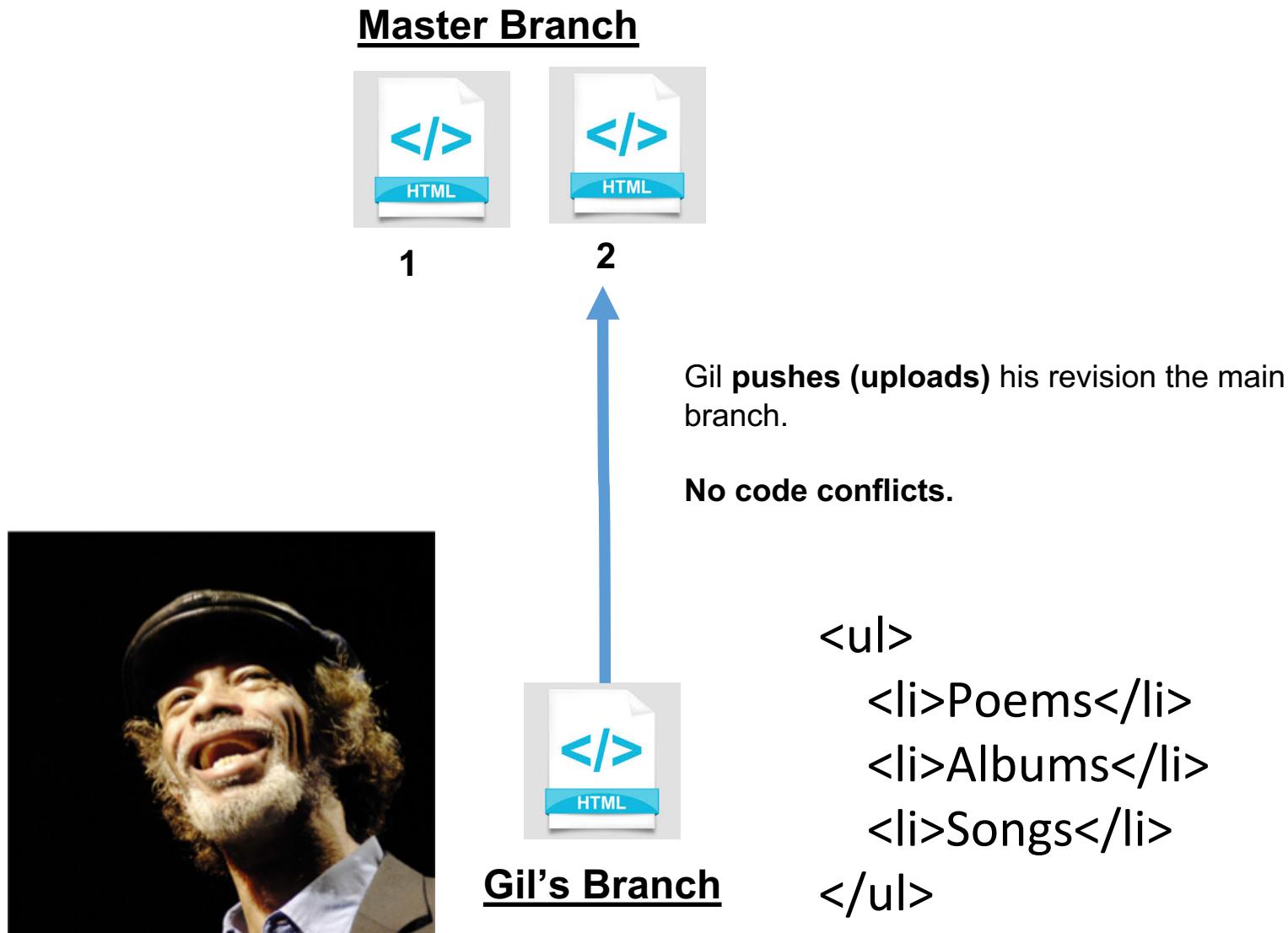


```
<ul>
  <li>Poems</li>
  <li>Albums</li>
  <li>Songs</li>
</ul>
```



Gil's Branch

# Gil fixes and pushes



# Anne starts her work

---

Rule: pull first, then push your changes



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

Not what we want.



## Anne's Branch



<ul>

- <li>The Double Image</li>
  - <li>Heart's Needle</li>
  - <li>Baby Picture</li>
- </ul>

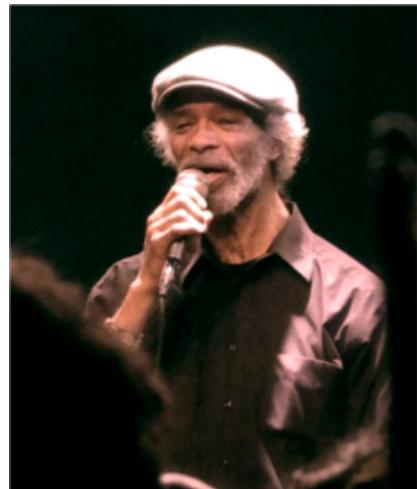
If Annehad made a pull first...

---

## 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

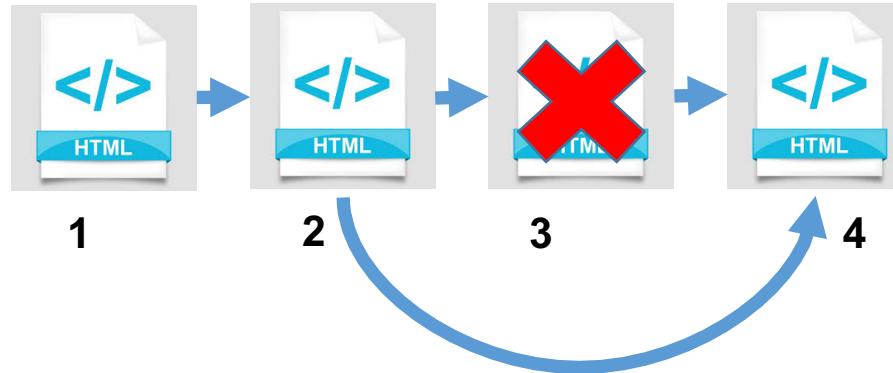
A screenshot of a Git interface, likely Sourcetree, showing a conflict resolution process. The interface includes a toolbar at the top with Commit, Pull, Push, Fetch, Branch, Merge, and Stash buttons. Below the toolbar is a navigation bar with 'All Branches' and other options like 'Show Remote Branches' and 'Ancestor Order'. A main pane displays a commit history table with columns for Graph, Description, Commit, Author, and Date. The table shows three commits: one uncommitted change and two master branch commits. The commit history is sorted by path. To the right of the table is a preview window for a file named 'test.html'. The preview shows a black and white photo of a woman's face. Below the preview is a code editor showing the contents of 'test.html'. The code editor highlights a conflict in the middle of the file. The conflict is shown in three parts: a red background for deleted code, a green background for added code, and a white background for common code. The code editor has a status bar at the bottom with file information and a timestamp of '5:01 PM PDT'.

# Roll Back

---



## Main Branch



Maya rolls back the code to an earlier version.



## Anne's Branch

# 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.

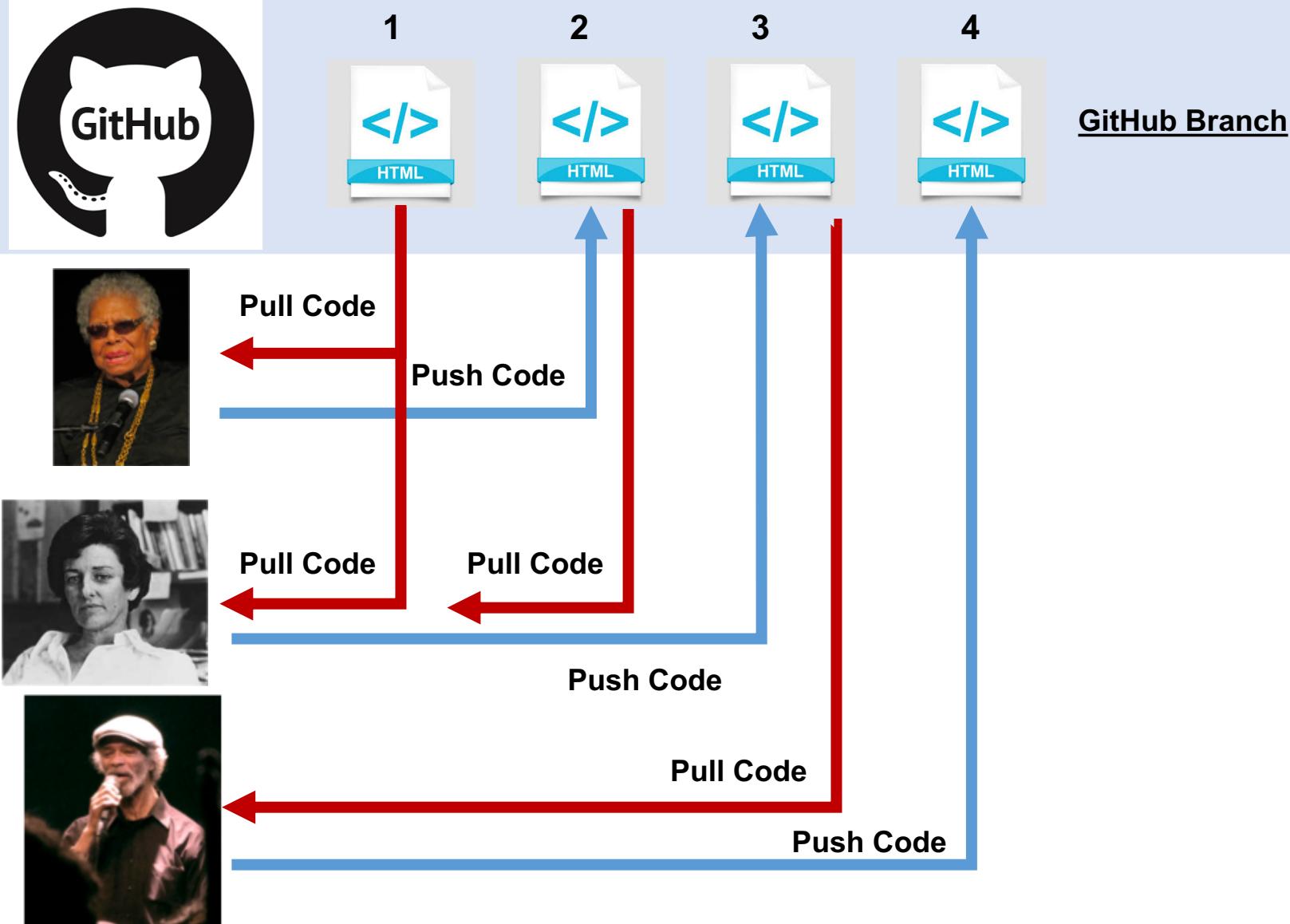
# So... What's this GitHub?

---

- 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



# *Get Started with Git*

---

# Instructor Git Demo!

This repository Search

Pull requests Issues Gist

afhaque / **DemoRepository**

Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Wiki Pulse Graphs Settings

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

1 commit 1 branch 0 releases 1 contributor

Branch: master New pull request New file Find file HTTPS https://github.com/afhaque Download ZIP

 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:

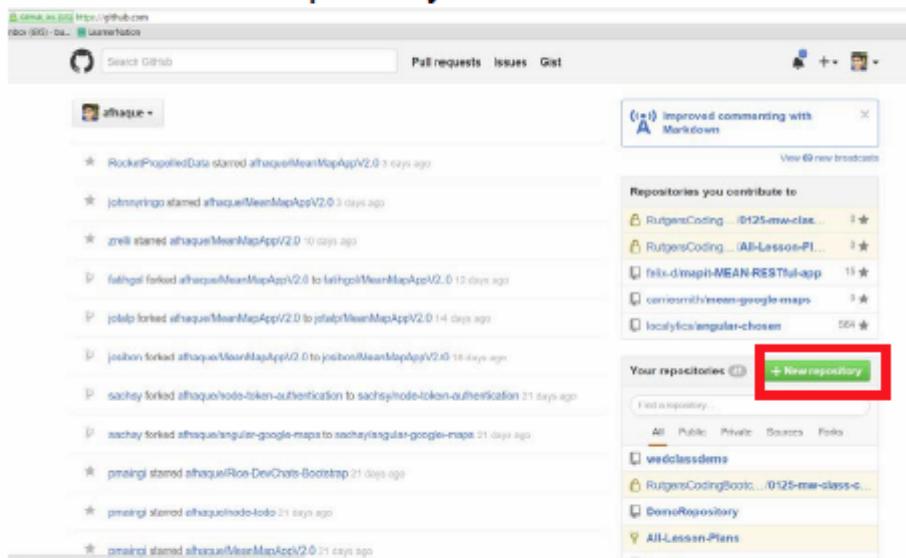
- Find a partner in class, and **fork** *their* repository to your own GitHub account. Clone this forked repository to your local directory.
- Add, Commit, and Push the code back to your forked copy.
- Finally, submit a **pull request** to send your changes to your partner’s repo.

# Still a Bit Lost? Never Worry!

## Steps to Uploading Your Code to GitHub

### Step 1

#### Create a New Repository in GitHub.com



- 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

The screenshot shows the landing page for the 'Try Git' course on Code School. The header features the Code School logo and navigation links for Courses, Screencasts, and Pricing. A 'Create Free Account' button and a 'Sign in' link are also present. The main visual is a blue background with a repeating GitHub logo pattern. In the center, there's a large circular icon containing the GitHub Octocat, with the text 'tryGit' overlaid. To the right of the icon, the word 'GIT' is in a small blue box, followed by the text 'Try Git'. Below this is a blue button labeled 'Play Course for Free'. At the bottom of the main section, there are navigation links for 'Paths > Git > Try Git', and buttons for 'Watch Videos' and 'Discuss Course'. On the left side, under 'COURSE DESCRIPTION', it says: 'Learn how to use Git by reviewing the basic concepts of Git version control. Try out this introductory course that was created with GitHub.' Under 'COURSE OVERVIEW', it shows a circular icon of the GitHub Octocat with the text 'tryGit' and a 'LEVEL 1 | FREE LEVEL' badge. It lists a single challenge: 'Discover Git 25 Challenges'. Below this, a text snippet reads: 'Discover the basics of Git, including how to initialize a repo. Learn how to add, commit, and push your code to GitHub.' On the right side, under 'ABOUT THE PROFESSORS', there are two profiles: 'Olivier Lacan' and 'Gregg Pollack'. Each profile includes a small photo, the professor's name, and a brief bio.

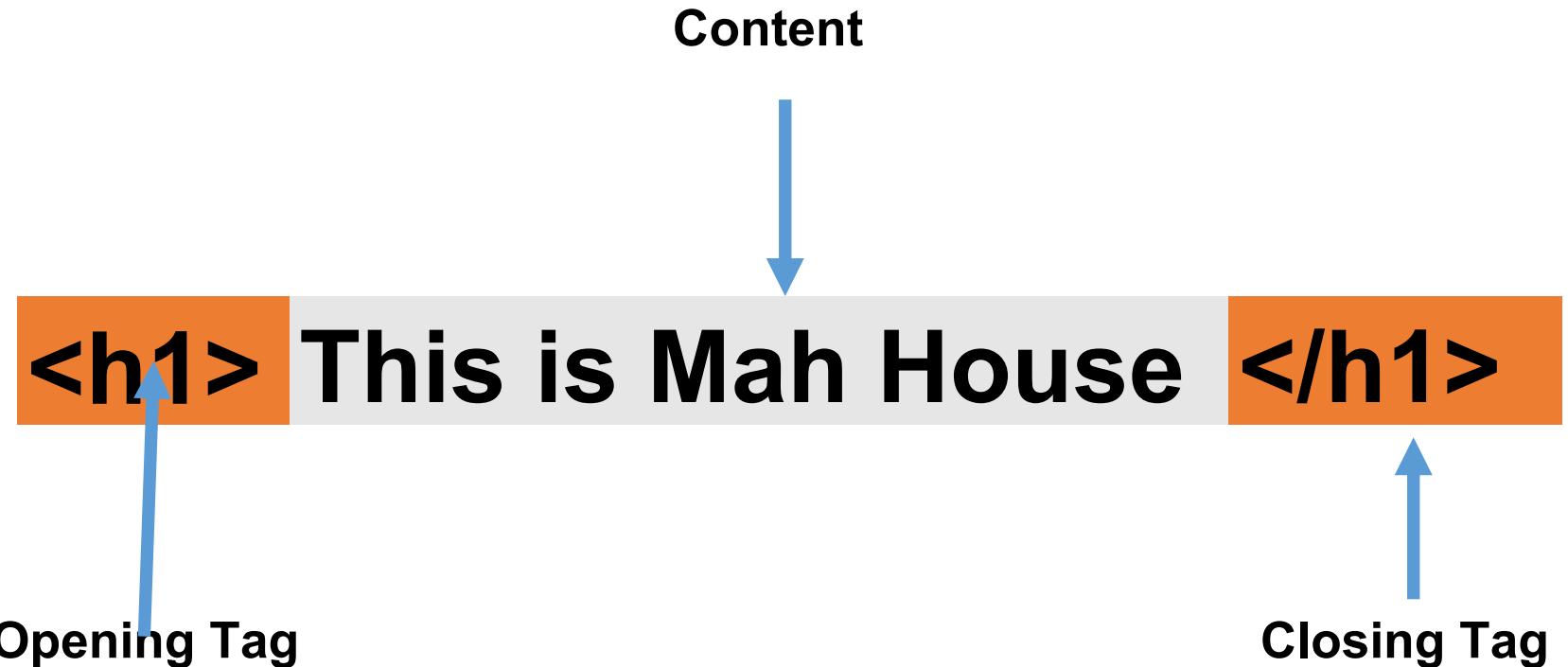
<https://www.codeschool.com/courses/try-git>

# *HTML Round 2*

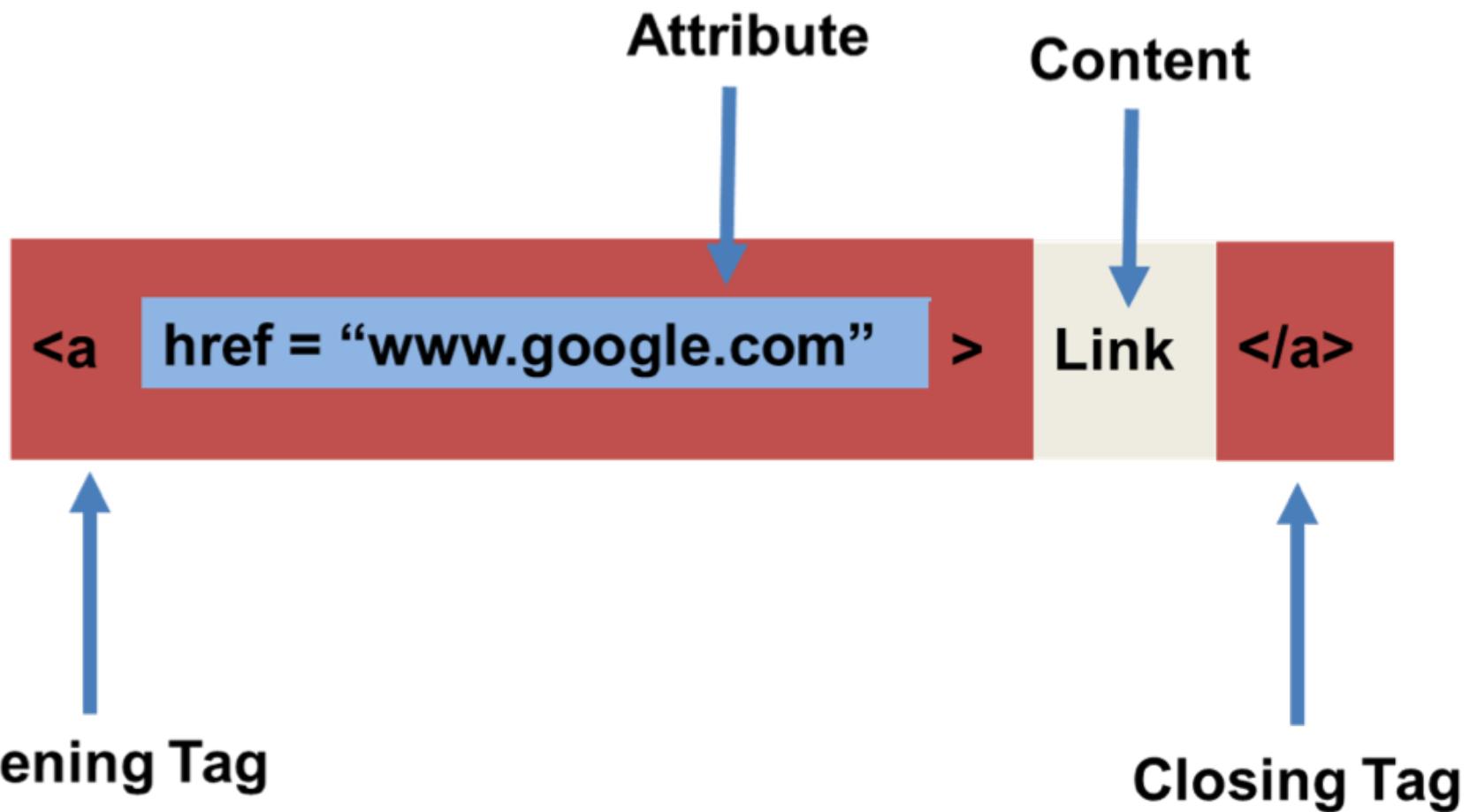
---

# HTML Syntax (Basic)

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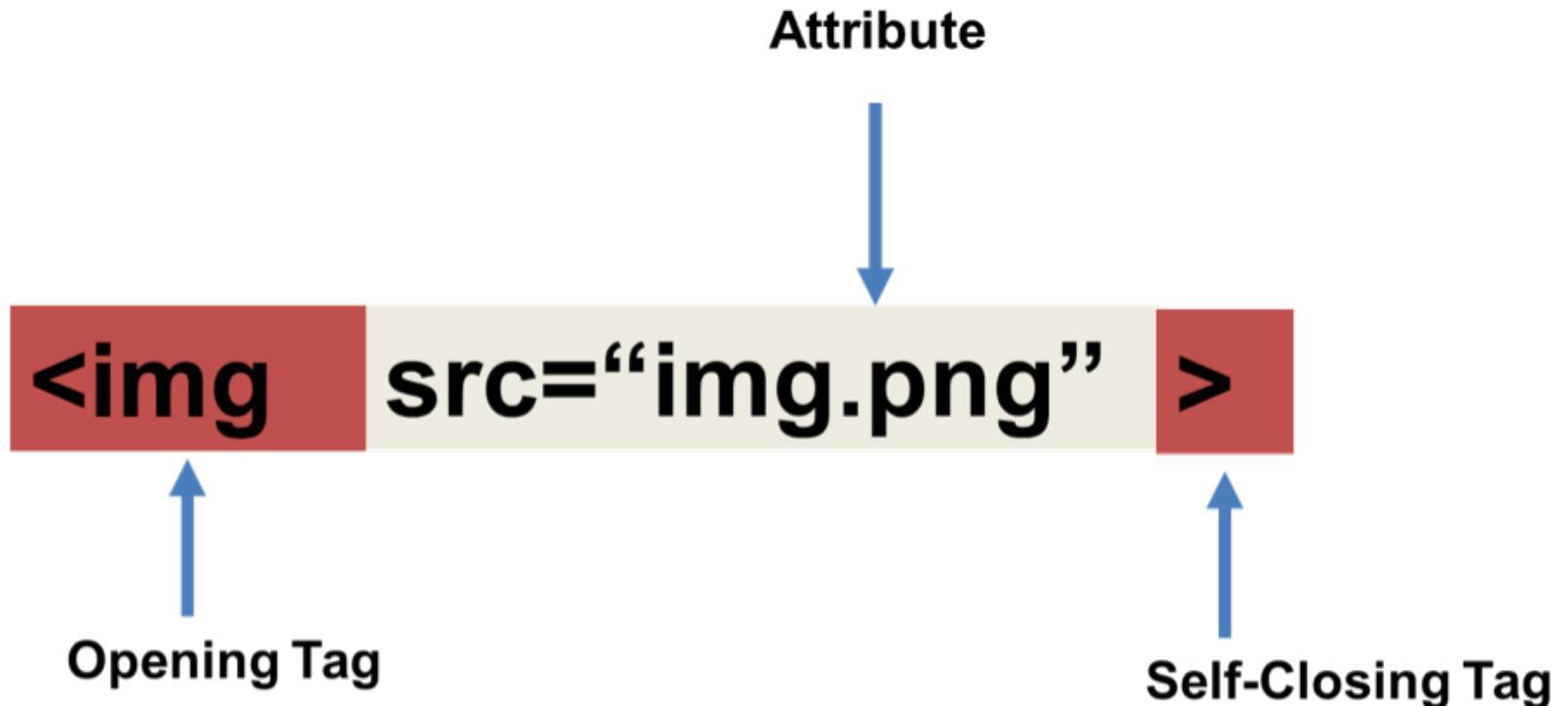


# HTML Syntax (with Attribute)



# Tricky Tags (Self-Closing)

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# Important Common Tags

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## 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>
```



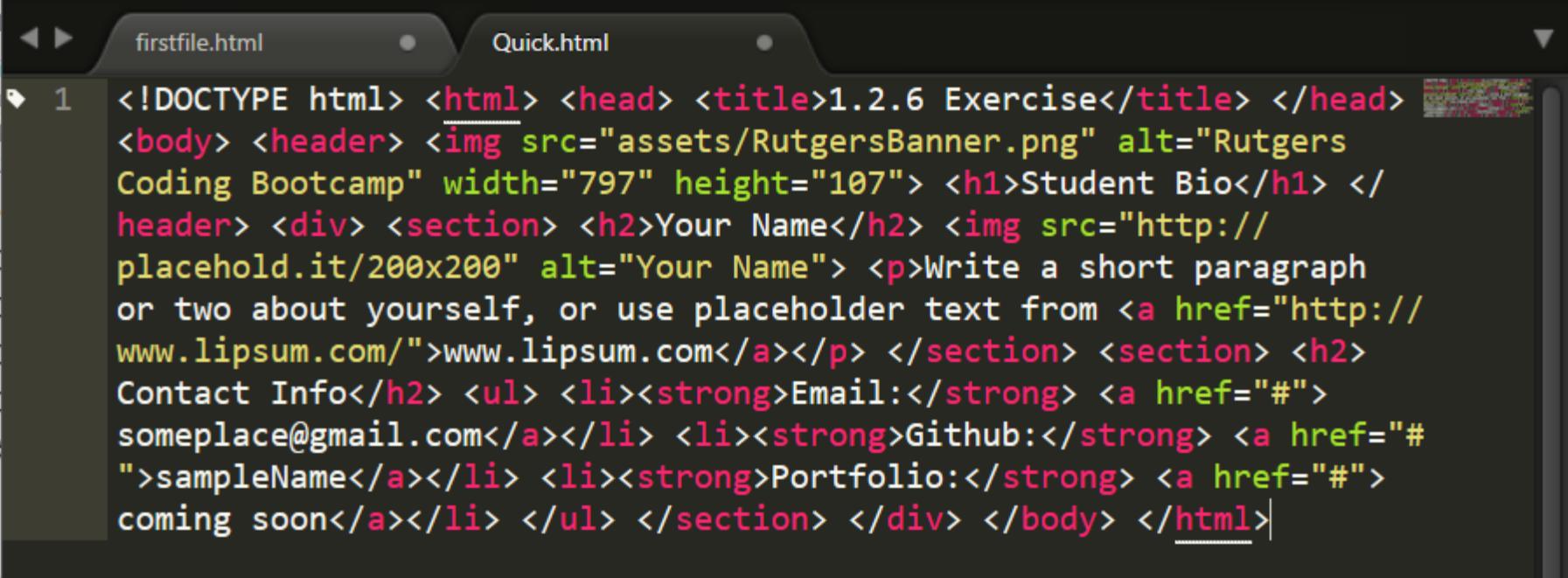
First name:

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>  <h1>Student Bio</h1> </header> <div> <section> <h2>Your Name</h2>  <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!

## 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](http://www.lipsum.com)

## Contact Info

- Email: [someplace@gmail.com](mailto: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

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## 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>
        

        <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>
```

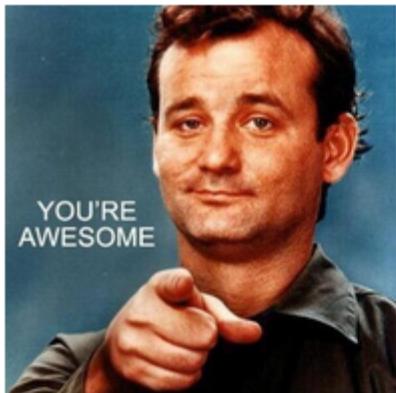
# Basic HTML Page - Result

## Awesome Header

### Smaller Awesome Header

#### Even Smaller Header

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

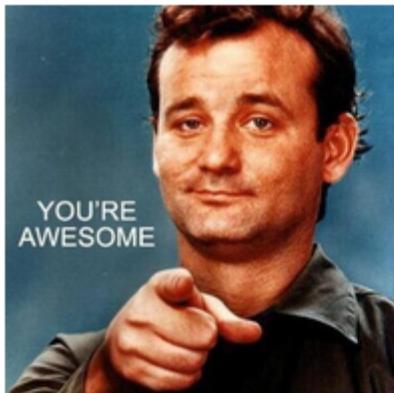
# Basic HTML Page - Result

## 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

# Hella Boring...

# Enter CSS

```
26▼ <style>
27▼   h1 {
28     font-size: 60px;
29     text-align: center;
30     margin-bottom: 15px;
31     text-decoration: underline;
32     background-color: black;
33     color: white;
34   }
35
36▼   h2 {
37     font-size: 40px;
38     text-align: center;
39     margin-top: 15px;
40     margin-bottom: 15px;
41   }
42
43▼   h3 {
44     font-size: 20px;
45     text-align: center;
46     margin-top: 15px;
47   }
48
49▼   img {
50     display: block;
51     margin-left: auto;
52     margin-right: auto;
53   }
54
55▼   p {
56     text-align: center;
57     font-size: 20px;
58     font-weight: bold;
59   }
60
61▼   ul {
62     text-align: center;
63     font-size: 35px;
64     list-style-position: inside;
65     border-style: solid;
66     border-width: 5px;
67   }
68   </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?**

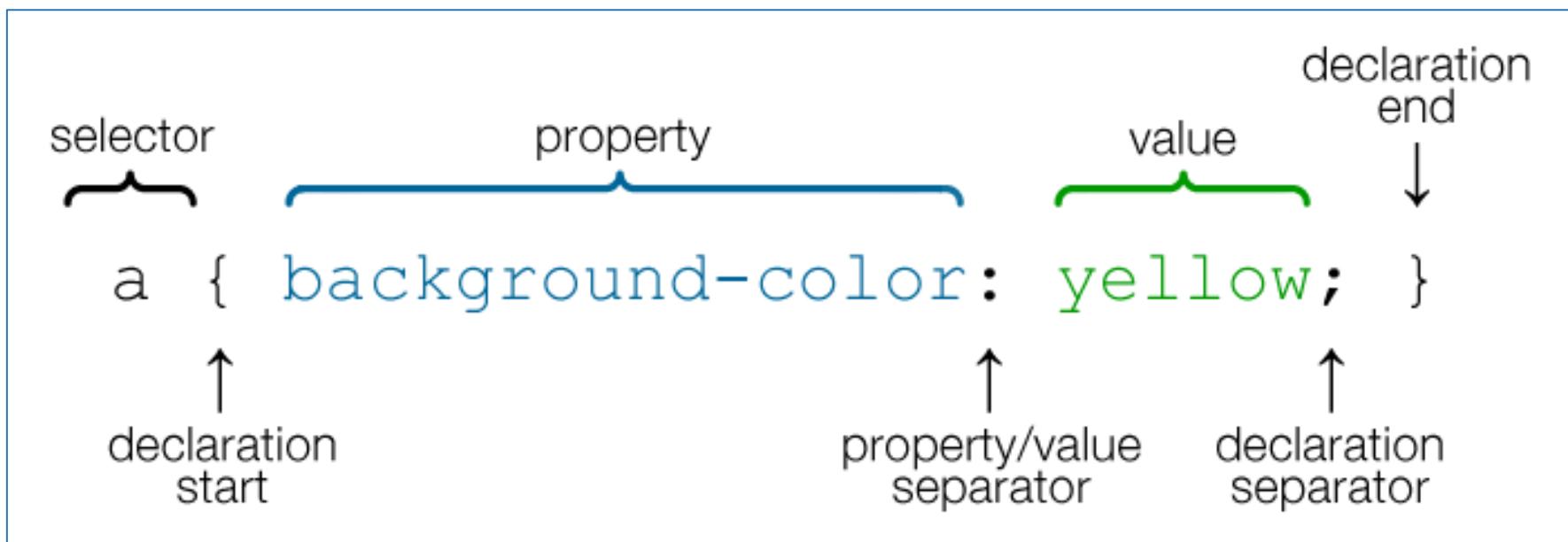


### Menu Links

- 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.



# 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)*

## 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

200×200



Write a short paragraph or two about yourself, or use placeholder text from [www.lipsum.com](http://www.lipsum.com)

### Contact Info

- Email: [someplace@gmail.com](mailto:someplace@gmail.com)
- Github: [sampleName](#)
- Portfolio: [coming soon](#)

# Video Walkthrough!!

A screenshot of a Google Chrome browser window. The title bar shows 'Chrome' and various menu options. The address bar displays the URL 'file:///Users/lisabattle/Desktop/workworkwork/trilogy/activity1.2.3/unsolved/HTML-Bio-withCSS.html'. The main content area contains the following:

**Student Bio**

**Your Name**

(Placeholder image: a gray square labeled '200x200')

Write a short paragraph or two about yourself, or use placeholder text from [www.lipsum.com](http://www.lipsum.com)

**Contact Info**

- Email: [someplace@gmail.com](mailto:someplace@gmail.com)
- Github: [sampleName](#)
- Portfolio: [coming soon](#)

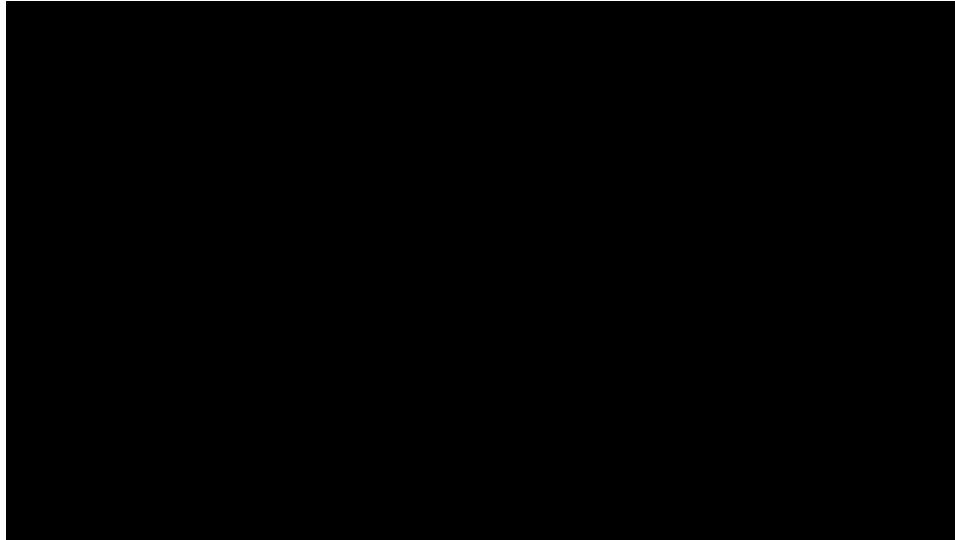
The browser's toolbar at the bottom includes standard controls like back, forward, search, and refresh, along with a progress bar showing '0:01 / 7:44'.

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

# Still a Bit Confused?

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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*

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