Femmehacks Intermediate Web Dev

Let's Build your Website!

Set up a repo

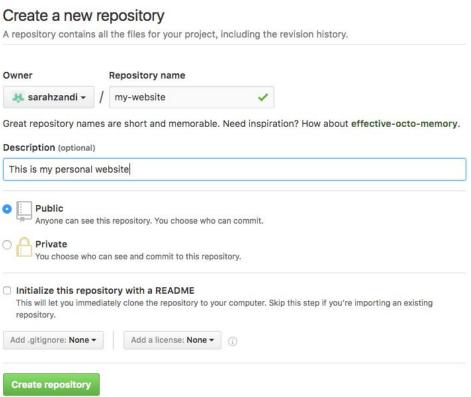
Click "Start a Project" and create your repository

A repository is where all of your code gets stored.

https://github.com/

Instead of "my-website," name it your own name, like "adalovelace" or "ameliaearheart"

(this is what will show in the URL when you publish it later)



Open up Terminal

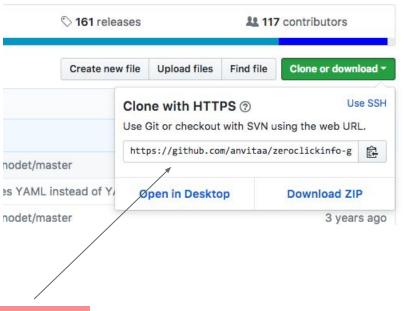
Go to your Desktop or folder of choice in Terminal using "cd"

```
cd ~/Desktop
mkdir FemmehacksDemo
cd FemmehacksDemo
ls
```

```
femmehacks2017 — -bash — 80×24
|Amelias-MacBook-Pro:~ ameliagoodman$ cd Dev/femmehacks2017/
Amelias-MacBook-Pro:femmehacks2017 ameliagoodman$ ls
CNAME
                        CSS
                                                 index.html
README.md
                        faq.html
                                                 15
about.html
                         fh16
                                                 register.html
animsition
                        fonts
                                                 schedule.html
code of conduct.pdf
                        gallery.html
                                                 sponsors.html
                                                 sponsorship.pdf
conduct.html
                        img
Amelias-MacBook-Pro:femmehacks2017 ameliagoodman$
```

Tell Github where your code is

Copy the url mentioned in your repo



git clone https://github.com/blahblah

Pick a text editor

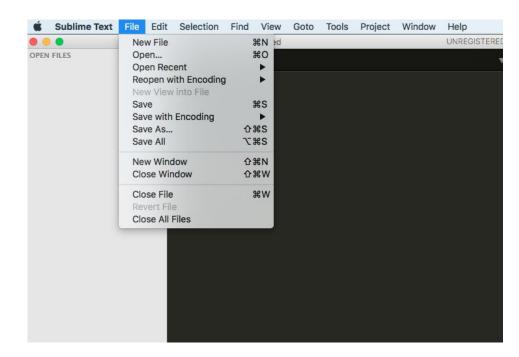
I like Sublime. You can download it at https://www.sublimetext.com/3

Open the application once it downloads

Open the folder where the github repo is saved

Create a new file using CTRL+N

http://bit.ly/2DXg0M9



Boilerplate HTML

- Start with this every time
- <head> = metadata
- <body> = actual content

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title>TITLE HERE</title>
    <meta name="description"</pre>
content="DESCRIBE YOUR WEBSITE">
    <meta name="keywords"</pre>
content="KEY, WORDS, HERE">
  </head>
  <body>
  </body>
</html>
```

Headers and Paragraphs

- <h1>... <h6> Text! </h1> etc.
 - Headers
- Text here
 - Paragraph tags
 - Enclose text in a formatted paragraph
-

 - Line break
 - Like hitting "enter"
 - Doesn't have a closing tag

```
<body>
 <h1>Puppies for Philly</h1>
 <h3>Bow wow wow wow</h3>
 Puppies are PAWsitively
 cool!
 <br>
 Life would be RUFF,
without
 puppies.
</body>
```

id and class in HTML

- Many
 but one special list
 - ex: navigation bar
- Solution: use id attribute
 - Single, unique element
- A whole section of your website
 - o ex: about me all blue
- Solution: use class attribute
 - Multiple elements with shared properties

```
<div id="unique-section">
   <u1>
     Poodle
     Golden Retreiver
   </div>
<span class="regular-section">
   Words words words words
   words.
   More words.
</span>
<div class="regular-section">
   LALALALALLAL
   More LALALALAL.
</div>
```

Make it pretty

http://materializecss.com/get
ting-started.html

Include the right code on your html page, so that it knows where to find the css

HTML Setup

Next you just have to make sure you link the files properly in your webpage. Generally it is wise to import javascript files at the end of the body to reduce page load time. Follow the example below on how to import Materialize into your webpage.

One last thing to note is that you have to import jQuery before importing materialize.js!

```
language-markup
  <!DOCTYPE html>
  <html>
    <head>
      <!--Import Google Icon Font-->
      <link href="https://fonts.googleapis.com/icon?family=Material+Icons" rel="st</pre>
      <!--Import materialize.css-->
      <link type="text/css" rel="stylesheet" href="css/materialize.min.css"</pre>
      <!--Let browser know website is optimized for mobile-->
      <meta name="viewport" content="width=device-width, initial-scale=1.0"/>
    </head>
    <body>
      <!--Import jQuery before materialize.js-->
      <script type="text/javascript" src="https://code.jquery.com/jquery-3.2.1.min</pre>
      <script type="text/javascript" src="js/materialize.min.js"></script>
    </body>
  </html>
```

Downlo

Setup Templa

Third-pa

Let's get a navbar

http://materializecss.com/navbar.html

```
Logo
                                         Components
                                                   JavaScript
  <nav>
   <div class="nav-wrapper">
     <a href="#" class="brand-logo">Logo</a>
     <a href="sass.html">Sass</a>
      <a href="badges.html">Components</a>
      <a href="collapsible.html">JavaScript</a>
     </div>
  </nav>
```

Image card

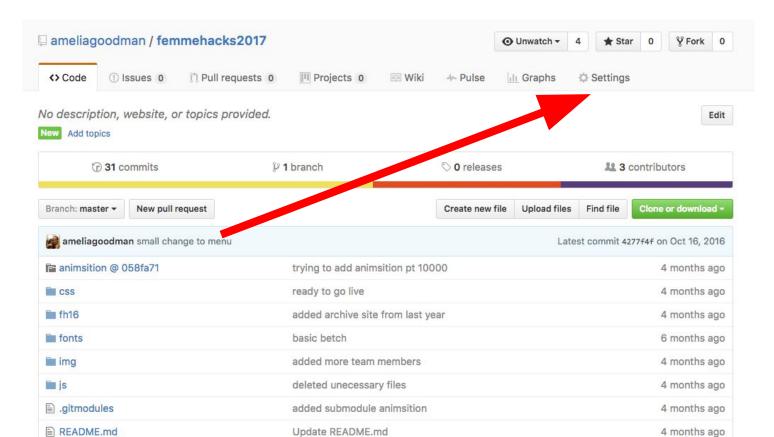
```
<div class="row">
     <div class="col s12 m7">
       <div class="card">
         <div class="card-image">
           <img src="images/sample-1.jpg">
           <span class="card-title">Card Title</span>
         </div>
         <div class="card-content">
           I am a very simple card. I am good at containing small bits of information.
           I am convenient because I require little markup to use effectively.
         </div>
         <div class="card-action">
           <a href="#">This is a link</a>
         </div>
       </div>
     </div>
   </div>
```

Adding files and committing

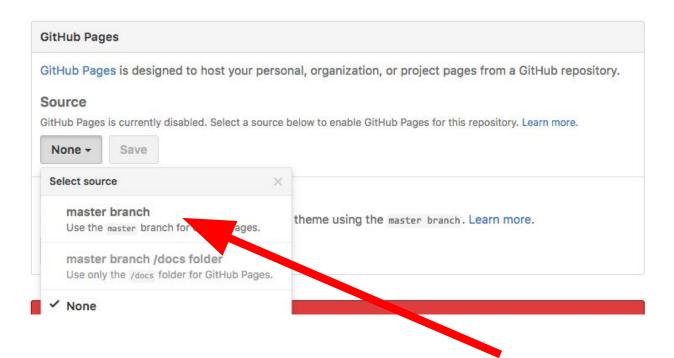
```
Tell github which files you want to update and track
git add .
OR
git add file.html file2.txt ...
Tell github you are ready to commit the changes
git commit -m "changed the readme"
Send your changes to the online folder
git pull origin master
```

git push origin master

Go to settings



Enable Github Pages



By clicking "Master branch" and saving

Your username here

Now go to ______.github.io

Freestyle time! Use the mentors to help improve your website

Welcome to Flask

Overview

Flask is a microframework for created a web app in Python.

Flask depends on Jinja, a template language that renders the pages your application serves, allowing you to dynamically generate HTML pages.

Reference Code: https://github.com/saniyah-shaikh/fh20-intermediate

<u>WARNING</u>

if you copy/paste code from this presentation, you will likely need to *delete and retype* any quotation marks so they use the right characters.

Installation

Follow the instructions at

https://flask.palletsprojects.com/en/1.1.x/installation/#install-flask

- 1. Install virtualenv
- 2. Activate the environment
- 3. Run pip install Flask to install Flask in the activated environment

If you get pip not found, Google Anaconda, and download and install the right version for your computer, then try again.

Making an app

Here's the code in app.py for the most minimal app:

```
from flask import Flask
app = Flask (__name__)

@app.route('/')
def hello_world():
    return 'Hello, World!'

if __name__ == "__main__":
    app.run()
```

Additional Considerations

Jinja templates cannot perform calculations or call APIs. Jinja templates should only have simple if statements and loops that access already existing information in the data structures you have passed through from Python.

Make sure to wrap code statements like so: $\{\% \text{ for } x \text{ in } [``a", ``b"]: \%\}$ and variables like $\{\{\text{var}\}\}$

Running

Run using python [file], where file is the name of your python file (including .py extension).

It will print out a URL to view the app - you can paste this into your browser.

If you see <a href="python: can't open file '[file]': [Errno 2] No such file or directory , you might be in the wrong directory. Use the cd and 1s commands to move directories until 1s shows you the file you are trying to run.

Alternatively, make [file] the complete file path - you can look this up in your file explorer, or by dragging the file into a terminal window.

Passing in data

In your template file (ex: index.html), you should have something like:

```
<!DOCTYPE html>
<html>
<head>
<title>My Website</title>
</head>
<body>
My name is {{name}} and my
favorite hackathon is
{ {hackathon} } .
</body
</html>
```

Passing in data

Change the import statement to import the render_template function, like so:

from flask import Flask, render template

Now, change the return statement to return rendered HTML based on your template (index.html), and some data (a name and a hackathon)

return render template('index.html', name="Saniyah", hackathon="Femmehacks")

After running the code, you should see the HTML appear in localhost. You can do this with any kind of data - strings, ints, lists, dictionaries, objects...

Handling POST requests

- 1. Import request: from flask import request
- 2. Create a new route which will only respond to POST requests:

```
@app.route('/receiver', methods = ["POST"])
```

- 3. Define a function (you can pick what to name it)
- 4. Get data from the POST

```
username = request.form.get("username")
```

5. Do whatever you want with the data! You can use render_template as before to return an HTML file, but will need to add "GET" to the methods.

Sending POST requests

This will be done entirely from your html - here is an example, which should go within the body of your html file:

```
<form method="post" action="/receiver">
    <input type="text" name="username">
     <button type="submit">Upload</button>
     </form>
```

Relevant Links

https://galaxydatatech.com/2018/03/31/passing-data-html-page/

https://stackoverflow.com/questions/22947905/flask-example-with-post

https://teamtreehouse.com/library/using-forms-for-post-requests