Intro to Working with Github
(and why you want to)

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Who am I? Who are you?

- Analyst at the Center for Government Excellence at Johns Hopkins University
- Code for America Fellow working with Miami-Dade County
- Developing for web in some capacity or another for 10+ years
- On Github as @phiden
Goals for Today

- Understand the difference between Git and Github
- Walk through the basic collaborative workflow
- Understand why version control can be helpful in an open data / open source context (and really, in any context where you have many people working on one document)
- A tour of the interface
What’s Git?

- Git is an open-source distributed version control system, first developed in 2005
  - Flexible
  - Secure
  - Performant
What’s Github?

- A service that sits on top of Git, which stores information and provides version control.
- Allows multiple people to work on the same documents concurrently without conflict.
- Can be accessed via the web, the command line, and a desktop app.
Github is not limited to code.
Ok. So What?

There are (at least) three broad use cases.
1: Collaborating on a team

Too many people editing a document quickly becomes a mess.
1: Collaborating with Git
1: Collaborating with Git
1: Collaborating with Git
1: Collaborating with Git

Local repo

master

C2

C1

C0

Public repo

master

C4

C3

C2

C1

C0

Local repo

master

C4

C3

C2

C1

C0

*git push*
1: Collaborating with Git
2: Personal version control

Keep a history of your changes to documents.
Tiny app to calculate ring shank sizes. — Edit

<table>
<thead>
<tr>
<th>Author</th>
<th>Description</th>
<th>Date</th>
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<tbody>
<tr>
<td>phiden</td>
<td>Added analytics</td>
<td>2 years ago</td>
</tr>
<tr>
<td></td>
<td>added grimpicon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.png</td>
<td>2 years ago</td>
</tr>
<tr>
<td></td>
<td>added mobile icons</td>
<td></td>
</tr>
<tr>
<td></td>
<td>apple-icon-114x114.png</td>
<td>2 years ago</td>
</tr>
<tr>
<td></td>
<td>added mobile icons</td>
<td></td>
</tr>
<tr>
<td></td>
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<td>2 years ago</td>
</tr>
<tr>
<td></td>
<td>added mobile icons</td>
<td></td>
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<td></td>
<td>apple-icon-57x57.png</td>
<td>2 years ago</td>
</tr>
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<td>apple-icon-72x72.png</td>
<td>2 years ago</td>
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<td></td>
<td>added mobile icons</td>
<td></td>
</tr>
<tr>
<td></td>
<td>diamond.png</td>
<td>2 years ago</td>
</tr>
<tr>
<td></td>
<td>first commit - html markup</td>
<td></td>
</tr>
<tr>
<td></td>
<td>icons.data.png</td>
<td>2 years ago</td>
</tr>
<tr>
<td></td>
<td>added grmpicon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>icons.data.svg</td>
<td>2 years ago</td>
</tr>
<tr>
<td></td>
<td>added grmpicon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>icons.fallback.png</td>
<td>2 years ago</td>
</tr>
<tr>
<td></td>
<td>added grmpicon</td>
<td></td>
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<tr>
<td></td>
<td>index.html</td>
<td>2 years ago</td>
</tr>
<tr>
<td></td>
<td>Added analytics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ring-sizer.js</td>
<td>2 years ago</td>
</tr>
<tr>
<td></td>
<td>CSS added</td>
<td></td>
</tr>
<tr>
<td></td>
<td>style.css</td>
<td>2 years ago</td>
</tr>
<tr>
<td></td>
<td>added grmpicon</td>
<td></td>
</tr>
</tbody>
</table>
The process is the same as with multiple collaborators.

...and so on....
3: Contributing to open source

Help build freely available tools for the better of everyone!
3: Contributing to open-source

- Many (but not all) open-source projects live on Github ...
- ...which makes it a great place to find your first open-source project!
3: Contributing to open-source

The workflow changes slightly: Instead of cloning a repo now, you’ll FORK it instead, then clone your fork and proceed.

Otherwise, the idea remains the same: make a local copy of a thing to contribute without adding conflicts.
A quick tour of Github
ls
Data-Science
GetGithub
govex.github.io
infrastructure
mouBuilder
performance-management-getting-started

cd GetGithub

On branch 160629_phi
Your branch is based on 'origin/160629_phi', but the upstream is gone.
(use "git branch --unset-upstream" to fixup)
nothing to commit, working directory clean

git checkout master
Switched to branch 'master'
Your branch is up-to-date with 'origin/master'.

On branch master
Your branch is up-to-date with 'origin/master'.
nothing to commit, working directory clean

git pull
Already up-to-date.
Dataset Inventory Guidelines [https://centerforgov.gitbooks.io/dataset-inventory-guidelines/content/](https://centerforgov.gitbooks.io/dataset-inventory-guidelines/content/) — Edit

<table>
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<tr>
<th>File</th>
<th>Action</th>
<th>Message</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTRIBUTING.md</td>
<td>Update CONTRIBUTING.md</td>
<td>nghadji committed on GitHub</td>
<td>5 months ago</td>
</tr>
<tr>
<td>LICENSE.md</td>
<td>Create LICENSE.md</td>
<td></td>
<td>5 months ago</td>
</tr>
<tr>
<td>README.md</td>
<td>Update README.md</td>
<td></td>
<td>25 days ago</td>
</tr>
<tr>
<td>SUMMARY.md</td>
<td>Update SUMMARY.md</td>
<td></td>
<td>11 months ago</td>
</tr>
<tr>
<td>appendix-a.md</td>
<td>Create appendix-a.md</td>
<td></td>
<td>a year ago</td>
</tr>
<tr>
<td>book.json</td>
<td>Update book.json</td>
<td></td>
<td>6 months ago</td>
</tr>
<tr>
<td>business.md</td>
<td>Update business.md</td>
<td></td>
<td>5 months ago</td>
</tr>
<tr>
<td>cover.jpg</td>
<td>update cover</td>
<td></td>
<td>11 months ago</td>
</tr>
<tr>
<td>datasets_index.md</td>
<td>Rename index.md to datasets_index.md</td>
<td></td>
<td>3 months ago</td>
</tr>
<tr>
<td>education.md</td>
<td>Update education.md</td>
<td></td>
<td>a year ago</td>
</tr>
<tr>
<td>elections.md</td>
<td>Update elections.md</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Merge pull request #21 from govex/20160712_phi

20160712_phi
lberagherly ◆ 6325c6c 7 days ago 👍

_ config.yml

```yaml
-30,5 +30,9 @@ defaults:
 30 30     values:
 31 31       layout: collaboration
 32 32    `- Make redcarpet behave like GitHub Flavored Markdown
 33 33     redcarpet:
 34 34       extensions: ["no_intra_emphasis", "fenced_code_blocks", "autolink", "strikethrough", "superscript", "with_toc_data"]
 35 35     `- Make redcarpet behave like GitHub Flavored Markdown
 36 36     redcarpet:
 37 37       extensions: ["no_intra_emphasis", "fenced_code_blocks", "autolink", "strikethrough", "superscript", "with_toc_data"]
 38 38     `- Make redcarpet behave like GitHub Flavored Markdown
```

- updated data sources terminology
 7 days ago by lberagherly

- updated read me
 7 days ago by lberagherly
Now let’s abandon slides and get our hands on Github!

Clone this repo: https://github.com/govex/basic-html-files
Resources

- Github’s guide to contributing to open source projects
- Github’s official explanation of their workflow
- Code for America’s Civic Tech Issue Finder
- GovEx’s Getting Started on Github
- Hello World for Github
- Github Desktop
- All of Github’s Octocats