Github Project Scaffolding with Google Sheets and Zenhub

Delaware Innovation Week
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Hi. I'm Mark.

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@dirtystylus

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Let's talk about workflow. Beginnings, and endings.

Clues from cooking

- Recipes—what is the base set of things you repeat for success?
- Tasks for setting up a project
- Tasks for launching a project
- Manual entry = time

Interlude: Bench Time @ Bluecadet

- List of pre-approved internal agency projects
- Folks can chip away at things they're excited about
- Some examples: Electron for web-based apps. Unity 3D in Oculus Rift.

Addressing the pain points at the start and end.

Ingredients

- Listening
- Empathy
- Github API
- Python
- PyGithub (https://github.com/PyGithub/PyGithub)

Automation to reduce friction.

Step One: Create an Issue

```python
#!/usr/bin/python

import sys

sys.path.append("./PyGithub");

from github import Github

import getpass
```

```python
# Authenticate to github.com and create PyGithub "Github" object

username = raw_input("Github username: ")

pw = getpass.getpass()

g = Github(username, pw)

repository = "dirtystylus/pygithub-sandbox"

repo = g.get_repo(repository)

issue = repo.create_issue("Test issue", "This is a test issue.")
```

Step Two: Labels and Milestones

Prerequisites

- Create Labels and Milestones first
- Label is String
- Milestone is Integer
- ¯_(ツ)_/¯

```python
username = raw_input("Github username: ")

pw = getpass.getpass()

g = Github(username, pw)

user = g.get_user(username)

repository = "dirtystylus/pygithub-sandbox"

repo = g.get_repo(repository)

milestone = repo.get_milestone(1)

labels = ["Launch Checklist"]

issue = repo.create_issue("Test issue", "This is a test issue.", user, milestone, labels)
```

Step Three: CSV

Prerequisites

- CSV file with a column of Issue names
- csv, time libraries

```python
username = raw_input("Github username: ")

pw = getpass.getpass()

g = Github(username, pw)

user = g.get_user(username)

repository = "dirtystylus/pygithub-sandbox"

repo = g.get_repo(repository)

milestone = repo.get_milestone(1)

labels = ["Launch Checklist"]

csv_file = "launch-checklist.csv"
```

```python
with open(csv_file, 'rb') as f:

    reader = csv.reader(f)

    for row in reader:

        issue = repo.create_issue("Launch Checklist: " + row[0], row[0], user, milestone, labels)

        print "Created issue Launch Checklist: " + row[0]

        time.sleep(2)
```

Step Four: Google Sheet

Living Documents

- Launch Checklist Template item examples:
    - Enable caching
    - Performance Tests (Webpagetest)
    - Test 404 page
    - Test 301 redirects

Prerequisites

- Google Quick Start:
  https://developers.google.com/sheets/quickstart/python
- client_secret.json
- google-api-python-client library

Google APIs

Register your application for Google Sheets API in Google API Console

Google API Console allows you to manage your application and monitor API usage.

Select a project where your application will be registered
You can use one project to manage all of your applications, or you can create a different project for each application.

Create a project ▾

Please email me updates regarding feature announcements, performance suggestions, feedback surveys and special offers.

○ Yes ● No

I agree that my use of any services and related APIs is subject to my compliance with the applicable Terms of Service.

● Yes ○ No

Agree and continue

```python
def get_credentials():

    # Google OAuth stuff here

def main():

    # Pretty much the same as before, except now we're pulling in the spreadsheet from Google's
    Sheets API and then looping through it
```

Example Time

```
ImportError: No module named httplib2
✘ † ❯ ~/Documents/github/github-project-bootstrap ❯ ⑂ diw2016± ❯ source ~/.zshr
c
† ❯ ~/Documents/github/github-project-bootstrap ❯ ⑂ diw2016± ❯ python pull-shee
t-issues.py
/usr/local/lib/python2.7/site-packages/oauth2client/_helpers.py:255: UserWarning
: Cannot access /Users/mllobrera/.credentials/sheets.googleapis.com-python-quick
start.json: No such file or directory
  warnings.warn(_MISSING_FILE_MESSAGE.format(filename))

Your browser has been opened to visit:

    https://accounts.google.com/o/oauth2/auth?scope=https%3A%2F%2Fwww.googleapis
.com%2Fauth%2Fspreadsheets.readonly&redirect_uri=http%3A%2F%2Flocalhost%3A8080%2
F&response_type=code&client_id=50176073634-s5ch90i7rpanrd1qp3liosl64t1lmfq4.apps
.googleusercontent.com&access_type=offline

If your browser is on a different machine then exit and re-run this
application with the command-line parameter

  --noauth_local_webserver

▊
```

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DIW 2016 Demo

mark@dirtystylus.com

File   Edit   View   Insert   Format   Data   Tools   Add-ons   Help   All changes saved in Drive

Comments   Share

	A	B	C	D	E	F	G	H	I
1	Check performance through YSlow, Webpagetest, https://loadimpact.com	Launch Checklist							
2	Cache Pages, CSS, JS	Launch Checklist							
3	Minify CSS/JS	Launch Checklist							
4	Enable Object Cache/WP Redis	Launch Checklist							
5	Cache API Data (WordPress transients)	Launch Checklist							
6	Enable server side compression if applicable	Post Launch							
7	Preload site cache if possible	Post Launch							
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Sheet1

Filters ⌄   🔍 is:issue is:open   Labels   Milestones   New issue

☐   ⓘ **0 Open**   ✓ 24 Closed   Author ⌄   Labels ⌄   Milestones ⌄   Assignee ⌄   Sort ⌄
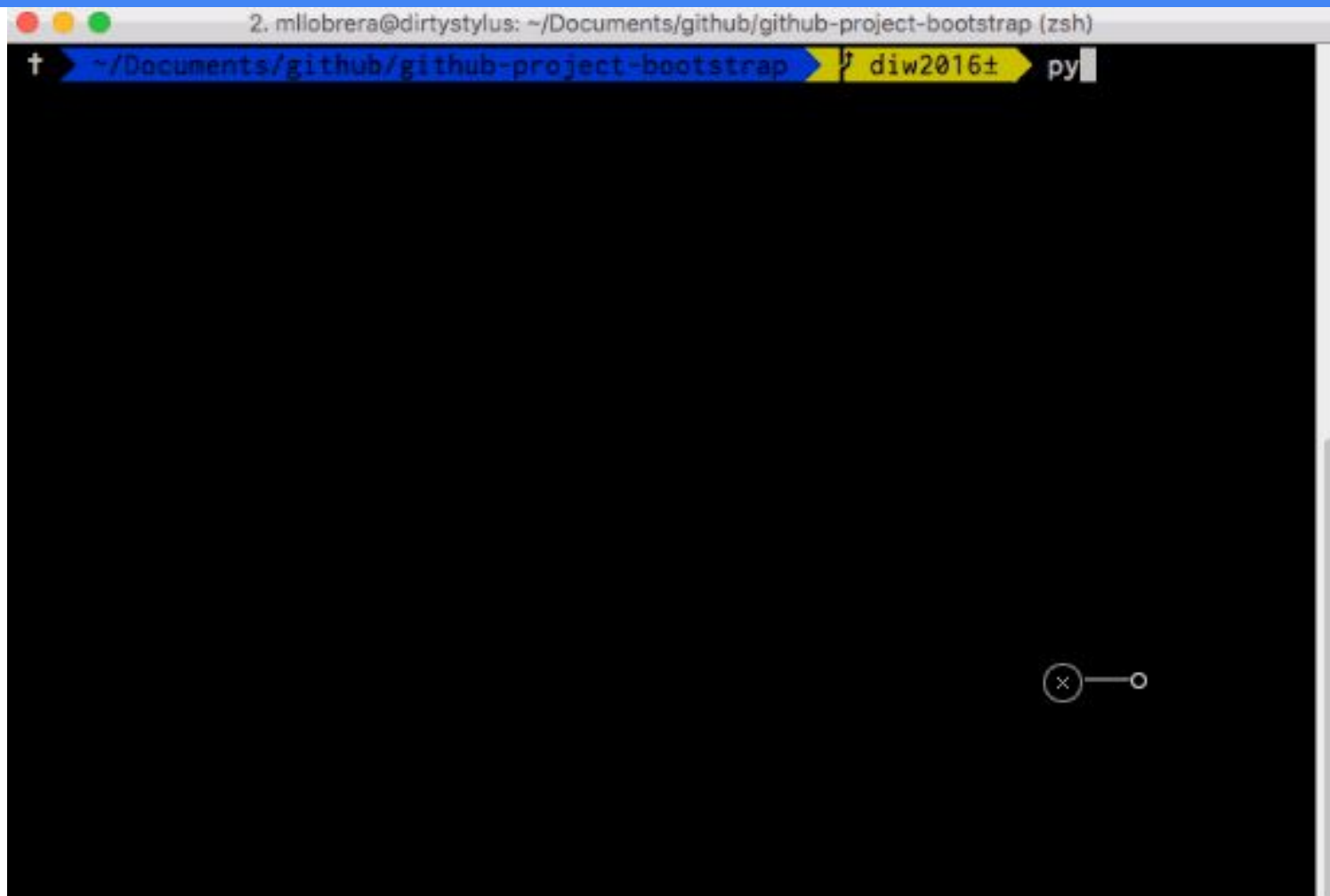
ⓘ

There aren't any open issues.

Use the links above to find what you're looking for, or try a new search query. The Filters menu is also super helpful for quickly finding issues most relevant to you.

💡 **ProTip!** no:milestone will show everything without a milestone.

✝ ~/Documents/github/github-project-bootstrap ♪ diw2016± py

Pinboard Twitter Advanced Search Instapaper mediaQuery Bookmarklet Readmill Instapaper Readability MTL ⌄ Fount

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Filters ⌄   🔍 is:issue is:open   Labels   Milestones   **New issue**

☐ ⓘ **7 Open**   ✓ **24 Closed**   Author ⌄ Labels ⌄ Milestones ⌄ Assignee ⌄ Sort ⌄

☐ ⓘ **Preload site cache if possible** `Post Launch`
  #31 opened just now by dirtystylus ⚐ Launch Checklist

☐ ⓘ **Enable server side compression if applicable** `Post Launch`
  #30 opened just now by dirtystylus ⚐ Launch Checklist

☐ ⓘ **Cache API Data (WordPress transients)** `Launch Checklist`
  #29 opened just now by dirtystylus ⚐ Launch Checklist

☐ ⓘ **Enable Object Cache/WP Redis** `Launch Checklist`
  #28 opened just now by dirtystylus ⚐ Launch Checklist

☐ ⓘ **Minify CSS/JS** `Launch Checklist`
  #27 opened just now by dirtystylus ⚐ Launch Checklist

☐ ⓘ **Cache Pages, CSS, JS** `Launch Checklist`
  #26 opened just now by dirtystylus ⚐ Launch Checklist

☐ ⓘ **Check performance through YSlow, Webpagetest, https://loadimpact.com** `Launch Checklist`
  #25 opened just now by dirtystylus ⚐ Launch Checklist

💡 **ProTip!** Follow long discussions with comments:>50.

Sudden-death overtime

Github + Zenhub

- Zenhub (https://www.zenhub.com)
- Lightweight kanban-style project boards
- Estimates, burndowns

Zenhub Board Setup

- Backlog (sometimes we set up future pipelines to reduce volume)
- Ready
- In Progress
- Blocked
- Done

Thank you.

Mark Llobrera (@dirtystylus)

Slides:
https://speakerdeck.com/mllobrera/diw-2016-github-project-scaffolding-with-google-sheets-and-zenhub

Repo: https://github.com/dirtystylus/diw-2016

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