Display Your Map on a Website Using Geopandas, Folium, Django, and Heroku ... + git & github

Gregory Wallace - GeoPython 2022













#### Whoami

I work in an energy distribution company in Paris (admin rights & internet acces issues)



(use this for for proof of concepts - not production)

Switched from finance to data science & GIS 5 years ago

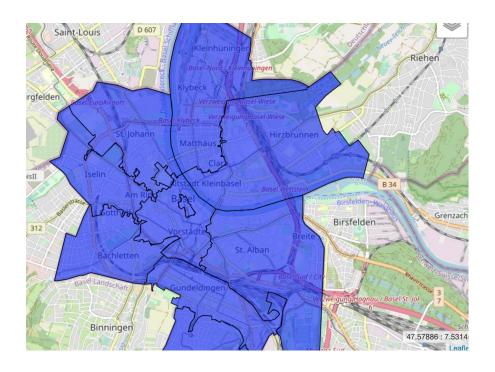
(no expert in web dev)

Live in la Rochelle, western coast of France & like swimming

(in case the weather is good in Basel for open air swimming)



#### Demo



Url should look like:

https://anyuniquename.herokuapp.com/ + extension

## Agenda



- We describe the the tools needed
- 2. We use Geopandas to prepare a Folium map.
- 3. We prepare a Django application to render the map
- 4. We see how to deploy to Heroku
- 5. A recap of pros and cons

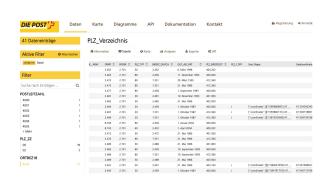
Current presentation and detailed steps are in a public github repo so no need to take notes <a href="https://github.com/gregwalla/geopythonBasel">https://github.com/gregwalla/geopythonBasel</a>

# Ingredients and purpose

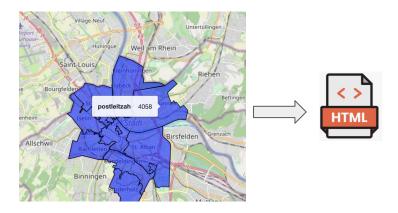
An OS, with python >3.6 & internet access	Install libraries & push code to Heroku
IDE of your choice	data & html file preparation
Build-in python venv	manage dependencies
Command line	navigate, start venv , push codes
Geopandas & Folium libraries	data & html file preparation
Django library	prepare the website
Git	deploy the app to Heroku
Gunicorn library - WSGI & a procfile	deploy the app to Heroku
option1 - Heroku Client (if admin rights)	manage & deploy the app on Heroku
option2 (preferred) - Github	deploy the app on Heroku & backup the documentation

## Geopandas to prepare a Folium map

#### From data, to a map in html format



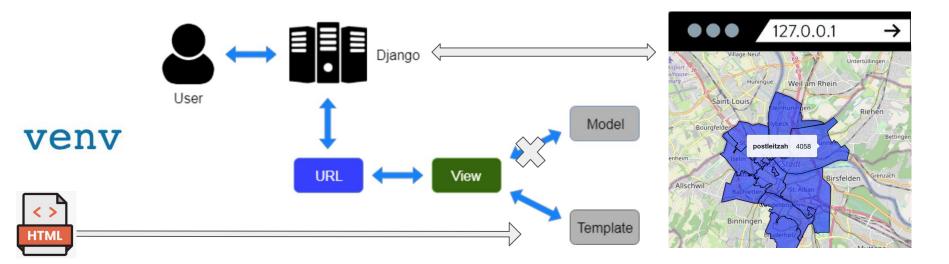






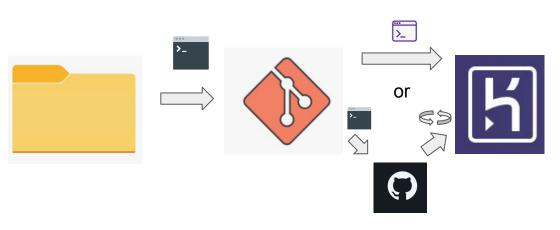
## Serve our map in a Django app

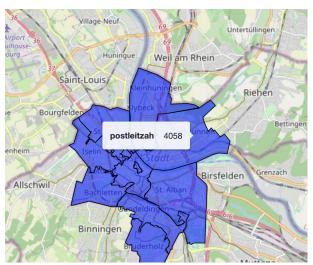
From html file to local website



#### Deploy the app to Heroku

From local website to web app





With thanks to Corey Schafer
925 k abonnés







Free & no admin rights	No governance
Web app can be embedded in a conversation as a link	An html file stored in a shared folder or sent via email could be fine
Easy to iterate	Except if it breaks