REQUIREMENTS:

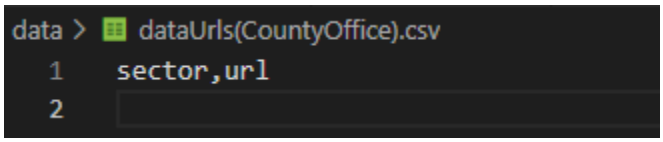
- Python 3.10.5 +
- Dash (deck, cytoscape,html,core)
- Pydeck
- Pandas
- Os
- Numpy
- Requests
- beautifulSoup
- Csv/json

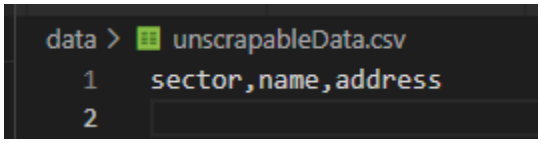
FILE MAP:

- **Assets** - external data
    - Simu - unity simulation exported as webgl
    - PNGs - picture files
- **Data**
    - dataUrls - csv that holds urls of sectors
    - sectorGeoData - geolocated data from dataUrls
    - sectorInfo - json file that sets connections
    - unscrapableData - manual data entry
- **App.py** - main method/app
- **dataMap.py** - creates the arc, heat, and cytomap
- **sectorData.py** - takes csv data and geolocates

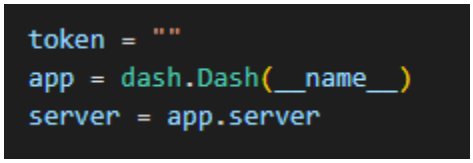
Before Use:

1. Make sure all requirements are properly installed.
2. Make sure all csv files are cleared except for the first lines of dataUrls and unscrapableData.

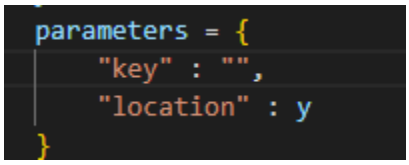




3. Under app.py line 37, enter a mapbox token from www.mapbox.com (this is required)



4. Under sectordata.py line 69, enter a mapquest key from www.mapquest.com (this is required)



5. Program should now function.

USAGE:

1. Enter data urls in the csv files
2. Run via CTRL + F5 or command line
3. Look for ip link in terminal and open on a web browser
4. If everything is working it should look like this:
    a. https://i.imgur.com/4a8e5rt.mp4
    b. https://i.imgur.com/Qu2rnsM.mp4

FUTURE ADDITIONS AND WORK IN PROGRESS:

- **Unity**
    - Machine Learning
    - Connection between real world and unity simulation
- **Web App**
    - Machine learning with data set
    - Change connections via web
    - Change data via web
    - Do something with subsections, status, strain, and health
    - General rewrite

QUESTIONS/INQUIRIES:

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