Python Web Scraper

Want to pull the latest working production version (if current version is still under development)?

- ✓ Get Commit: **18d45a5**

Run landing_page.py to initialize the flask application and the web server. (See API Information Below)

To get the part numbers: The CSV file with the product number will be read by **read_csv()** to have an iter_ set of product numbers, *i_s_part_nums*.

To search the website: (in this case newegg.com) the iter_ set of part numbers, *i_s_part_nums*, is stepped through per each individual part number to create a custom url for that product search, *part_num*. This is passed into **get_custom_url()** to create a searchable page to scrape from.

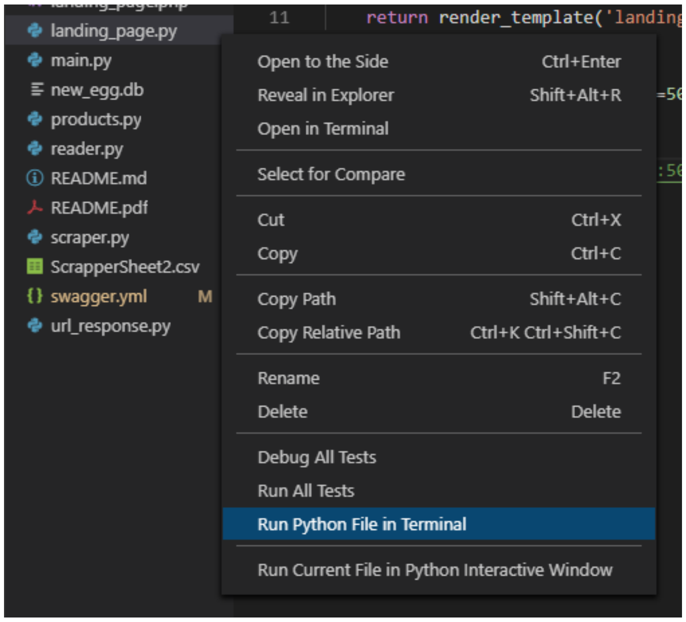
To get data off the site and store it into a Database:
get_product_details()- The custom url must be opened and essentially parsed using **BeautifulSoup** a Python library for pulling data out of HTML and XML files. This data is basically looped through to find the right div/section for the product list results. Then the appropriate Title, Price, Image, etc.. are pulled into the sqlite3 database.

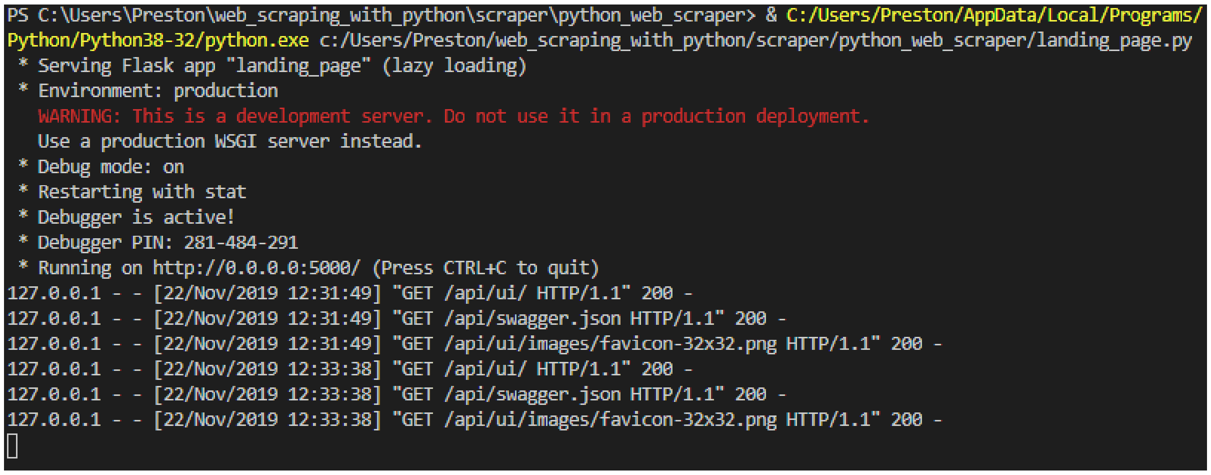
API Information: This web app has a built API to perform CRUD operations on it. Check out the functionality & test easily with swagger UI.

If the development server is not running:

To Run The Development Server:

- → *Right Click landing_page.py*
- → *Run Python File in Terminal*

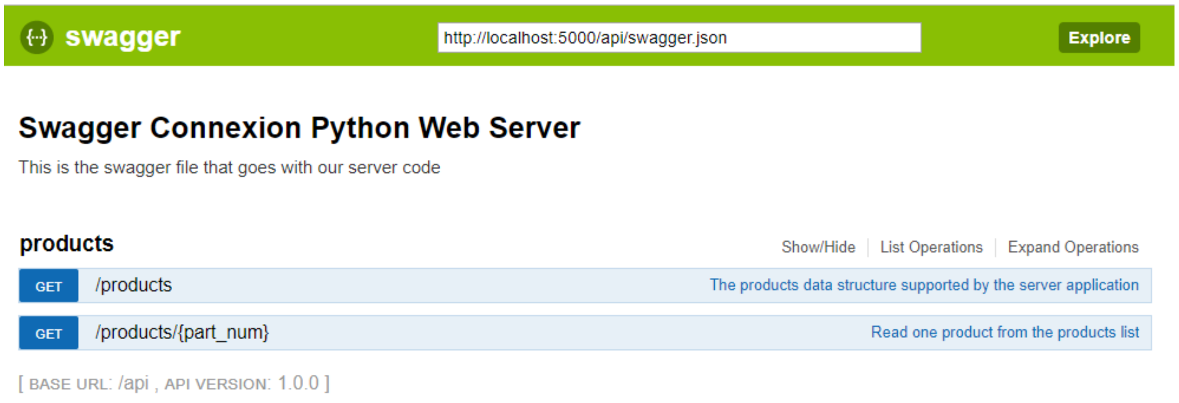




```
PS C:\Users\Preston\web_scraping_with_python\scraper\python_web_scraper> & C:/Users/Preston/AppData/Local/Programs/
Python/Python38-32/python.exe c:/Users/Preston/web_scraping_with_python/scraper/python_web_scraper/landing_page.py
 * Serving Flask app "landing_page" (lazy loading)
 * Environment: production
   WARNING: This is a development server. Do not use it in a production deployment.
   Use a production WSGI server instead.
 * Debug mode: on
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 281-484-291
 * Running on http://0.0.0.0:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [22/Nov/2019 12:31:49] "GET /api/ui/ HTTP/1.1" 200 -
127.0.0.1 - - [22/Nov/2019 12:31:49] "GET /api/swagger.json HTTP/1.1" 200 -
127.0.0.1 - - [22/Nov/2019 12:31:49] "GET /api/ui/images/favicon-32x32.png HTTP/1.1" 200 -
127.0.0.1 - - [22/Nov/2019 12:33:38] "GET /api/ui/ HTTP/1.1" 200 -
127.0.0.1 - - [22/Nov/2019 12:33:38] "GET /api/swagger.json HTTP/1.1" 200 -
127.0.0.1 - - [22/Nov/2019 12:33:38] "GET /api/ui/images/favicon-32x32.png HTTP/1.1" 200 -
```

Then navigate to the swagger user interface.

http://localhost:5000/api/ui/#/products - For the expansion


swagger
http://localhost:5000/api/swagger.json
Explore

Swagger Connexion Python Web Server

This is the swagger file that goes with our server code

products

Show/Hide | List Operations | Expand Operations

GET /products The products data structure supported by the server application

GET /products/{part_num} Read one product from the products list

[BASE URL: /api , API VERSION: 1.0.0]

http://localhost:5000/api/ui/ - For Home Page

Here we can see all the operations

Troubleshooting steps:

VIRTUALENV

How to run virtualenv (env/scripts/activate.ps1) on windows powershell:

1) Navigate to dir

2) RUN: PS C:\Users\Preston\web_scraping_with_python\scraper\python_web_scraper>

set-executionpolicy remotesigned

3) [Y] Yes ... : y [enter]

4) RUN: PS C:\Users\Preston\web_scraping_with_python\scraper\python_web_scraper>

.\env\scripts\activate.ps1

5) (env) PS C:\Users\Preston\web_scraping_with_python\scraper\python_web_scraper>

^^^ env should appear before your path.

python_web_scraper

1. Take in .csv files as searchable product data
2. Create custom url handler to search newegg.com/PRODUCT_PART_NUMBER
3. Searching newegg's results and seperating out whether products are found or not found
4. Selecting the best result-> pulling the Title, Price, and Product Image
5. Returning the found data for each .csv entry into a seperate .csv style DB- sqlite3
6. Returning data to program and printing to screen products information