

Instruction for Drug Information Dashboard Reproduction

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1. Purpose

This document will reiterate the process of production of the drug information dashboard based on the data source from cms.gov. The dashboard will contain information about the insurance plans, drug formulas, and geographic and disease-related information. The dashboard should be updated once a month when the new dataset for the most recent month is uploaded on cms.gov website.

2. Related Documents

- Github repository: <https://github.com/geyganlr/Cardinal-Health-Project>
- Data Source website: <https://www.cms.gov/research-statistics-data-systems/prescription-drug-plan-formulary-pharmacy-network-and-pricing-information-files-download>
- Database credentials:
db1.cl5uuoi3dsos.us-east-2.rds.amazonaws.com
port: 5432
Database: cads
user: postgres
pass: Cads=post1

3. General Process

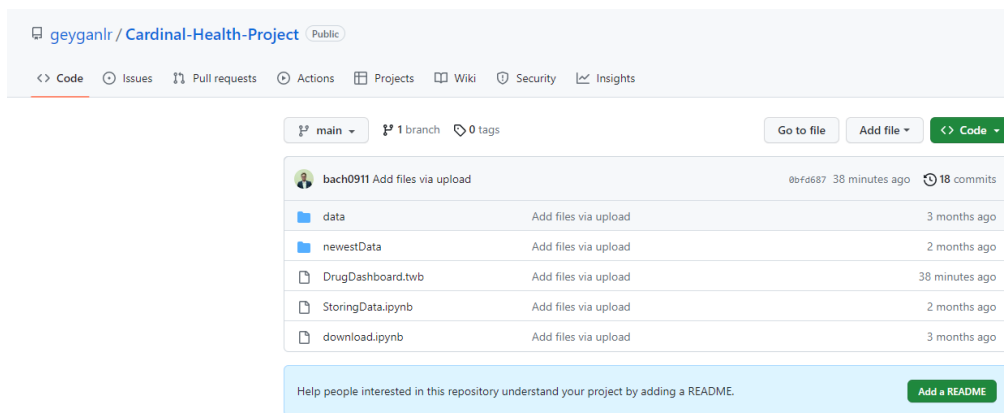


4. Specific Steps

4.1 Step 1: Download Documents

- Download DrugDashboard.twb and StoringData.ipynb

Access Github repository (section 2), download DrugDashboard.twb and StoringData.ipynb to local computer.



- Access Data Source website (section 2), download the newest drug information dataset to the same folder as file StoringData.ipynb (for example, it would be April 2023 in the below screenshot).

- **Notes or Special Instructions:** See record layouts below; they are also included in the downloadable files.

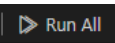
Monthly Files												
2023	January	February	March	April	5/17/23	6/14/23	7/12/23	8/23/23	TBD	TBD	TBD	TBD
2022	January	February	March	April	May	June	July	August	September	October	November	December
2021	January	February	March	April	May	June	July	August	September	October	November	December
2020	January	February	March	April	May	June	July	August	September	October	November	December
2019	January	February	March	April	May	June	July	August	September	October	November	December

- Extract the data zip file so that all the data files located in the same folder as file StoringData.ipynb

	pharmacy networks file 20220831 part 4....	1/19/2023 10:23 AM	Text Document	3,620,895 ...
	pharmacy networks file 20220831 part 5....	1/19/2023 10:23 AM	Text Document	3,579,052 ...
	pharmacy networks file 20220831 part 6....	1/19/2023 10:23 AM	Text Document	5,307,518 ...
	plan information 20220831.txt	1/19/2023 10:23 AM	Text Document	9,424 KB
	senior savings model file 20220831.txt	1/19/2023 10:23 AM	Text Document	1,428 KB
	StoringData.ipynb	3/14/2023 9:55 PM	Jupyter Source File	10 KB

4.2 Step 2: Update Database

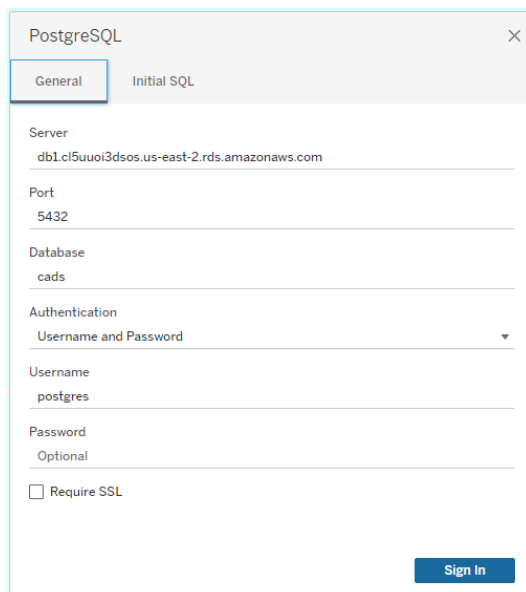
- Locate 2 pieces of information from the drug dataset including the date written on the data file and the number of parts of pharmacy networks files (for example from the above screenshot, the date is '20220831' and number of parts is 6).

- Access StoringData.ipynb file downloaded earlier. Change the parameters for the function massImpact() in the last code cell with the 2 pieces of information following the syntax in this example: massImpact("20220831", 6). And then run the whole file using the run all  button to update the database with the new drug information dataset.

```
▶ massImpact(["20220831", 6])  
[5]  
... Table plan_information imported  
Table senior_savings_model imported  
Table basic_drug_formulary imported  
Table excluded_drugs_formulary imported  
Table beneficiary_cost imported  
Table partial_gap_coverage imported  
Table indication_based_coverage_formulary imported  
Table geographic_locator imported  
Table pharmacy_networks imported  
Table pharmacy_networks imported  
Table pharmacy_networks imported  
Table pharmacy_networks imported  
Table pharmacy_networks imported
```

4.3 Step 3: Update Dashboard

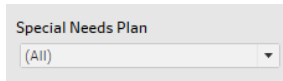
- Access DrugDashboard.twb downloaded earlier and then plug in the credentials for database (section 2) and click sign in. After that the dashboard will be automatically updated with the updated database.



The image shows a PostgreSQL connection configuration window. It has two tabs: 'General' and 'Initial SQL'. The 'General' tab is active. The fields are as follows: Server: db1cl5uuoi3dsos.us-east-2.rds.amazonaws.com; Port: 5432; Database: cads; Authentication: Username and Password (selected from a dropdown); Username: postgres; Password: Optional; and a checkbox for 'Require SSL' which is unchecked. A 'Sign in' button is at the bottom right.

- To interact with the dashboard, the users can click on any units in any graphs to show specific information about it. Bar graphs can also be sorted using the sort button in the graph. Map can be zoomed in or out as needed. Users can use the filter for different special types of need plans

in the menu in the upper bar



. The users can also access the database

link by clicking the text CMS.gov in the upper bar

