**Public API Specifications**

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1. COVID-19 Hospitalizations Data
   1. Data sourced from Centers for Medicare and Medicaid Services public API website - <https://data.cms.gov/search>
   2. API URL - <https://data.cms.gov/data-api/v1/dataset/2684c3e2-3598-4997-a598-0991bad6fbf2/data>
   3. Data returned from CMS in JSON format. Only used COVID-19 Hospitalizations count from the Total\_Hosp column and the state information from the Bene\_Geo\_Desc column. State column from this data set had to be formatted into abbreviations using function since the other two APIs had abbreviations available.
   4. Python snippets with descriptions:

A computer screen with text

Description automatically generatedStorage of URLs in module to call on. This data comes from api\_url\_cov.

A screen shot of a computer program

Description automatically generatedFunction to call data from API based on the URL specified in the next screenshot.

A screen shot of a computer program

Description automatically generatedCode to call the function to pull data from API, parse the data, and pre-fill the database if there is already no data in the COVID-19 hospitalizations table within the database.

A screenshot of a computer program

Description automatically generatedFunction to transform full name states to abbreviations for this data. Only showing part of the code for this, please refer to GitHub Repository for the entirety of this code.

1. Medicare Enrollments Data
   1. Data sourced from Centers for Medicare and Medicaid Services public API website - <https://data.cms.gov/search>
   2. API URL - <https://data.cms.gov/data-api/v1/dataset/d7fabe1e-d19b-4333-9eff-e80e0643f2fd/data>
   3. Data returned from CMS in JSON format. Only used Total Medicare Enrollments count from column TOT\_BENES column and state abbreviations from BENE\_STATE\_ABRVTN column in the source data.
   4. Python snippets with descriptions:

A computer screen with text

Description automatically generatedStorage of URLs in module to call on. This data comes from api\_url\_med.

A screen shot of a computer program

Description automatically generatedFunction to call data from API based on the URL specified in the next screenshot.

A computer screen shot of text

Description automatically generatedCode to call the function to pull data from API, parse the data, and pre-fill the database if there is already no data in the Medicare enrollments table within the database.

1. US Zip Codes Data
   1. Data sourced from public API from GitHub user Brandon Miller - <https://github.com/millbj92/US-Zip-Codes-JSON>
   2. API URL - <https://raw.githubusercontent.com/millbj92/US-Zip-Codes-JSON/master/USCities.json>
   3. Data return from public API in JSON format. Only used data from the state and zip\_code columns. Some zip codes from this data set were being truncated due to leading zeros, which was an issue addressed when pre-filling the database step.
   4. Python snippets with descriptions:

A computer screen with text

Description automatically generatedStorage of URLs in module to call on. This data comes from api\_url\_zip.

A screen shot of a computer program

Description automatically generatedFunction to call data from API based on the URL specified in the next screenshot.

A computer screen shot of code

Description automatically generatedCode to call the function to pull data from API, parse the data, and pre-fill the database if there is already no data in the zip codes table within the database.