

Narrative of Methods by Denis Prokhoda

While completing this project, I undertook a series of specific steps: acquainting myself with the data, performing data cleaning and preparation using Python, and conducting analysis to construct a dashboard to narrate a cohesive story through Power BI.

To embark on this journey, I began by delving into the data dictionary accessible on the data.cms.gov website. This valuable resource played a pivotal role in aiding my comprehension of the terminology and abbreviations employed within the datasets.

Moving forward, I proceeded to examine samples of the data. This endeavor proved instrumental in pinpointing the locations and methods through which I could extract the necessary information, thereby allowing me to formulate a comprehensive plan for the subsequent phases of the project.

After this, I acquired the data sets spanning the years 2013 to 2020 from the data.cms.gov website.

After acquiring the necessary data, I developed a Python script. Notably, I discerned that the available datasets solely featured ZIP Codes, neglecting the vital aspect of county information. In light of this, I sought out a compilation of ZIP Codes corresponding to each county through the Zillow website. I successfully obtained ZIP code listings for counties such as Volusia, Flagler, Seminole, Brevard, St. Johns, Marion, and Putnam. I systematically eliminated extraneous ZIP code data within my script, retaining only the essential information relevant to my analysis. Furthermore, it became imperative to integrate the year and county name within each dataset to facilitate an all-encompassing analysis and effective comparison within Power BI. Skillfully utilizing Python, I introduced two new columns to the existing datasets, thereby enhancing their utility. After this augmentation, I seamlessly amalgamated all the distinct datasets into a unified whole. This strategic approach was undertaken to streamline the subsequent process, preempting the necessity of establishing intricate inter-dataset relationships within Power BI. The cumulative result of this effort was a comprehensive dataset, which I judiciously saved in CSV format on my local machine.

Finally, this endeavor's last phase involved importing this CSV file into Power BI. This step facilitated an in-depth analysis and the creation of visual representations of the data, allowing for a narrative that conveys the intended story clearly and coherently.