**Where the Data Goes**

1. Building permits, Property Assessment Data, Addresses (Sam database), and neighborhood data go into **data Folder**

* Cleaned bedroom data goes into **Cleaned Bedroom Data Folder**

1. Cleaned bedroom data Merged data goes into **Cleaned Bedroom Data Merged Folder**
2. Cleaned Res Unit Data goes into **Cleaned Res Units Data Folder**
3. Demographic Data goes into **Demographic Data Folder**
4. [ratio\_spent\_by\_city\_condensed.csv](https://drive.google.com/file/d/12eftbsysZPO0g5dzbf766ZwwsY_N4eoM/view?usp=sharing) goes into **Cleaned Zip Coding Data Folder**

**Primary Data Links**

1. [Building permits](https://data.boston.gov/dataset/approved-building-permits)

* Name: building\_permits\_data.csv

**Accessed By:**

* ApprovedBuildingPermit\_CS506.ipynb *(Early Insights Notebook)*
* DataCombinedProcessingSAM.ipynb *(Midsemester Insights Notebook)*
* Unit\_loss\_to\_remodels.ipynb *(Midsemester Insights Notebook)*

1. [Property Assessment Data](https://data.boston.gov/dataset/property-assessment)

**Accessed By:**

* Land\_use\_analysis.ipynb *(Early Insights Notebook)*
* Variables\_in\_Property\_Assesment-Yearly\_Analysis.ipynb *(Early Insights Notebook)*
* Zipcode\_&\_Evaluation-Analysis.ipynb *(Early Insights Notebook)*
* Renovations&Bedrooms\_Analysis.ipynb *(Mid Semester Insights Notebook)*
* Heatmap\_Renovations&ResidentialUnits.ipynb *(Mid Semester Insights Notebook)*
* Living Room Correlation.ipynb *(Final Insights Notebook)*
* Linear Regression on Bedrooms.ipynb *(Final Insights Notebook)*
* Property-loss-by-neighborhood.ipynb *(Final Insights Notebook)*

1. [Addresses (Sam database)](https://data.boston.gov/dataset/live-street-address-management-sam-addresses)

**Accessed By:**

* DataCombinedProcessingSAM.ipynb *(Midsemester Insights Notebook)*
* Heatmap\_Renovations&Bedrooms.ipynb *(Midsemester Insights Notebook)*
* Heatmap\_Renovations&ResidentialUnits.ipynb *(Midsemester Insights Notebook)*

**Neighborhood Data**

1. [2010 Neighborhood Data](https://data.boston.gov/dataset/bpda-neighborhood-boundaries/resource/e5849875-a6f6-4c9c-9d8a-5048b0fbd03e)

**Accessed By:**

* Heatmap\_Renovations&Bedrooms.ipynb *(Midsemester Insights Notebook)*
* Heatmap\_Renovations&ResidentialUnits.ipynb *(Midsemester Insights Notebook)*

1. [2020 Neighborhood Data](https://data.boston.gov/dataset/census-2020-block-group-neighborhoods)
   1. Specifically, the shapefile, which should be its own folder in the data directory

**Accessed By:**

* Updated\_Heatmap\_Renovations&Bedrooms.ipynb (Final Insights Notebook)

**Bedroom Cleaned Data**

**1)**

* [Increased Bedrooms](https://drive.google.com/file/d/1pQakhixIUoykG9gzUb3MM37eOXKdi83K/view?usp=sharing)
* [Decreased Bedrooms](https://drive.google.com/file/d/1cYpj9TwjelMAKjfHuf0dMx01aZX7pTny/view?usp=sharing)
* [No change Bedrooms](https://drive.google.com/file/d/1avOsv_SshwBi5dHB9oUUtAkbx_K38IbN/view)

**Created In:**

* *Renovations&Bedrooms\_Analysis.ipynb (Mid Semester Insights Notebook)*

**Accessed By:**

* Heatmap\_Renovations&Bedrooms.ipynb *(Midsemester Insights Notebook)*
* Updated\_Heatmap\_Renovations&Bedrooms.ipynb *(Final Insights Notebook)*

**2)** Pretty much the same data, just merged with the SAM dataset to give long and lat values.

* [Increased Bedrooms Merged](https://drive.google.com/file/d/12xPKwaVKqq8cT4hF0MQV8Ty-bhVrMVw6/view?usp=sharing)
* [Decreased Bedrooms Merged](https://drive.google.com/drive/u/2/folders/13R_y1ktrekbTO-YJVjah7cah9cJY605m)
* [Unchanged Bedrooms Merged](https://drive.google.com/file/d/1KA1WTUvvxksMx0YVyCM4GWCkxNfOspTG/view?usp=sharing)

**Created In:**

* *Renovations&Bedrooms\_Analysis.ipynb (Mid Semester Insights Notebook)*

**Accessed By:**

* Heatmap\_Renovations&Bedrooms.ipynb *(Midsemester Insights Notebook)*
* Updated\_Heatmap\_Renovations&Bedrooms.ipynb *(Final Insights Notebook)*

**Res\_Unit Cleaned Data**

1. Shows if a property gained/lost/had no changes in res units after a renovation.

* [res\_units\_renovation\_comparison](https://drive.google.com/file/d/1mKg9ph44ERShz6qKEHSnyQlNse_nB5Ea/view?usp=sharing)

**Created In:**

* Heatmap\_Renovations&ResidentialUnits.ipynb *(Mid Semester Insights Notebook)*

**Accessed By:**

* Updated\_Heatmap\_Renovations&Res\_Units.ipynb *(Final Insights Notebook)*

**Demographic Data**

1. [Demographic data 205-2019](https://data.boston.gov/dataset/neighborhood-demographics/resource/d8c23c6a-b868-4ba4-8a3b-b9615a21be07?view_id=6c6b7c15-7798-429e-b54a-0af3f52334c5)
2. [Age\_Demographic Data](https://drive.google.com/file/d/1B83MDLdj8tuaw2qFLwvMygZPuGItyMLp/view?usp=sharing) (manually created)
3. [Race\_Demographic Data](https://drive.google.com/file/d/1CoLrOOnVbjI7Jo0SfSyJCguJ7VECaypA/view?usp=sharing) (manually created)
4. [Household\_Demographic Data](https://drive.google.com/file/d/1CeTINmKeLdRCa01nQfQGwUdMqFXM_FJr/view?usp=sharing) (manually created)

**Accessed By:**

* Updated\_Heatmaps\_by\_Demographic.ipynb *(Final Insights Notebook)*

**Zip Coding Data**

(all of this goes in the zip coding folder, but it was created by the notebook below, so you don’t need to manually put it in)

[avg\_building\_value\_zip\_2009.csv](https://drive.google.com/file/d/1PgtFpletxuF1HVj0mXXnU7xq4cjB3mRn/view?usp=sharing)

[avg\_building\_value\_zip\_2024.csv](https://drive.google.com/file/d/1X2j9U9dlANjutGfI8By629s2MyHJMW87/view?usp=sharing)

[avg\_total\_value\_zip\_2009.csv](https://drive.google.com/file/d/1rfmpq3JRAI_MENqGDGmLz_KKdhyfUqjG/view?usp=sharing)

[avg\_total\_value\_zip\_2024.csv](https://drive.google.com/file/d/1X2j9U9dlANjutGfI8By629s2MyHJMW87/view?usp=sharing)

[total\_valuation\_by\_zip.csv](https://drive.google.com/file/d/1j7dk8BacVB-1gMssTOimWHuK6D2RGWh5/view?usp=sharing)

[updated\_building\_change\_in\_value\_2009\_2024.csv](https://drive.google.com/file/d/1j7dk8BacVB-1gMssTOimWHuK6D2RGWh5/view?usp=sharing)

[updated\_building\_ratio\_spent\_by\_zip.csv](https://drive.google.com/file/d/1sigtuD8X52U4promEYDch_jKwPguRrhz/view?usp=sharing)

[updated\_change\_in\_value\_2009\_2024.csv](https://drive.google.com/file/d/1R-KSyE-mg6jvAPmWGCe79VdB4PGioro3/view?usp=sharing)

[updated\_ratio\_spent\_by\_zip.csv](https://drive.google.com/file/d/1TJhfLSJ7JYWt92a_BL_sc3HLfJLM3lDz/view?usp=sharing)

**Created In:**

* Final Analysis on Zip Codes.ipynb *(Final Insights Notebook)*

**Accessed By:**

* Final Analysis on Zip Codes.ipynb *(Final Insights Notebook)*