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Project Plan

Research Question: What trends exist in housing prices and occupancy rates within the United States?

I plan to answer this question by using the census and real estate data. This will give me access to types of housing, pricing for rent/ mortgage payments, US region and more similar data.

Some questions i might answer along the way include:
- What region of the US has had the biggest shift in housing prices?
- What is the average rent price in the US over time?
- Has the rent/ own ratio changed over time?
- What is the percent breakdown of housing cost per month?
- Do different housing types have different trends?

Big picture code I expect to write includes data extraction and manipulation in pandas. This includes filtering data, sorting. I plan to make some line plots to explore price and occupancy trends over time as well as some bar charts/ histograms to compare categorical data or compare things at one point in time. Descriptive statistics are something I will probably find as well so writing a function to take the mean median and mode of a list or a data frame column is something I will also find. Specific code will come after I narrow down exactly which sources I want to use since there are a lot available on the topic.

I expect the major roadblock for this project to be finding different data sources that show different information, as well as finding different types of data. The US census website has a lot of housing data but it is mostly in csv format so finding another data type with different data on it is what I expect to be the hardest part. As for the code, I don't expect there to be anything that is overly challenging or new since I am using data types from class and I feel very comfortable with every data type we have covered in class.