**Each person to add graphs and describe trends, correlation, statistical analysis, etc. about their code and part of the project.**

**Analysis and Conclusion (20 points)**

* Write-up summarizes major findings and implications at a professional level (5 points)
* Each question in the project proposal is answered with precise descriptions and findings (5 points)
* Findings are strongly supported with numbers and visualizations (5 points)
* Each question response is supported with a well-discerned statistical analysis from lessons (e.g., aggregation, correlation, comparison, summary statistics, sentiment analysis, and time series analysis) (5 points)

**Household Income + Inflation (Amy):**

**Interest Rates (Eduardo):**

The major findings and implications I have gathered from the data, is that today is a great time to buy a home. Based on the data gathered, homes have been climbing in prices since 1971 to 2024. Comparing the average home interest rate date with the average median home price data, interest rates began to play a pivotal role in about the year 2000. Based on my observation every time the interest rate would lower the housing prices would respond by rising and when the interest rates would rise the home prices would respond by lowering the next year. For example, in 2000 to 2003 the interest rates drop from an average of 8.05% to 5.8% and held for 3 years at that rate and the rates rose to 6.4% in 2006. Home prices increase from an average of $165k in 2000 to $244k in 2007. And responded to drop again with the increase of interest rate in 2006 from $244k to $215k in 2009. This trend repeated in 2019 but in a more aggressive manner. From 2017 to 2020 the average median home price was set between $322k to $328k. In 2018 the average home interest rate was at 4.54% which had increase from 3.98% from 2017. From 2018 the rates drop to an all time low to 2.95% in 2021. The housing market then responded, and the average median home prices climbed from $328k in 2020 to $432K in 2022. After the rates drop to an all time low in 2021 the rates increase to 5.34% in 2022 and continue to increase to 6.71% in 2024. Now with the interest rate increase the home priced did have a decrease in pricing going from an all time high $432k in 2022 to $420K in 2024. This helps me prove that home prices are effect by home interest rates.

I think this current home market is a great time to buy a home because median home prices are trending downwards and are slowly trending downwards as well.

**Population Growth (Seth):**

**Unemployment Rate (Rafa):**