REAL ESTATE

US REAL PROPERTY PROJECT

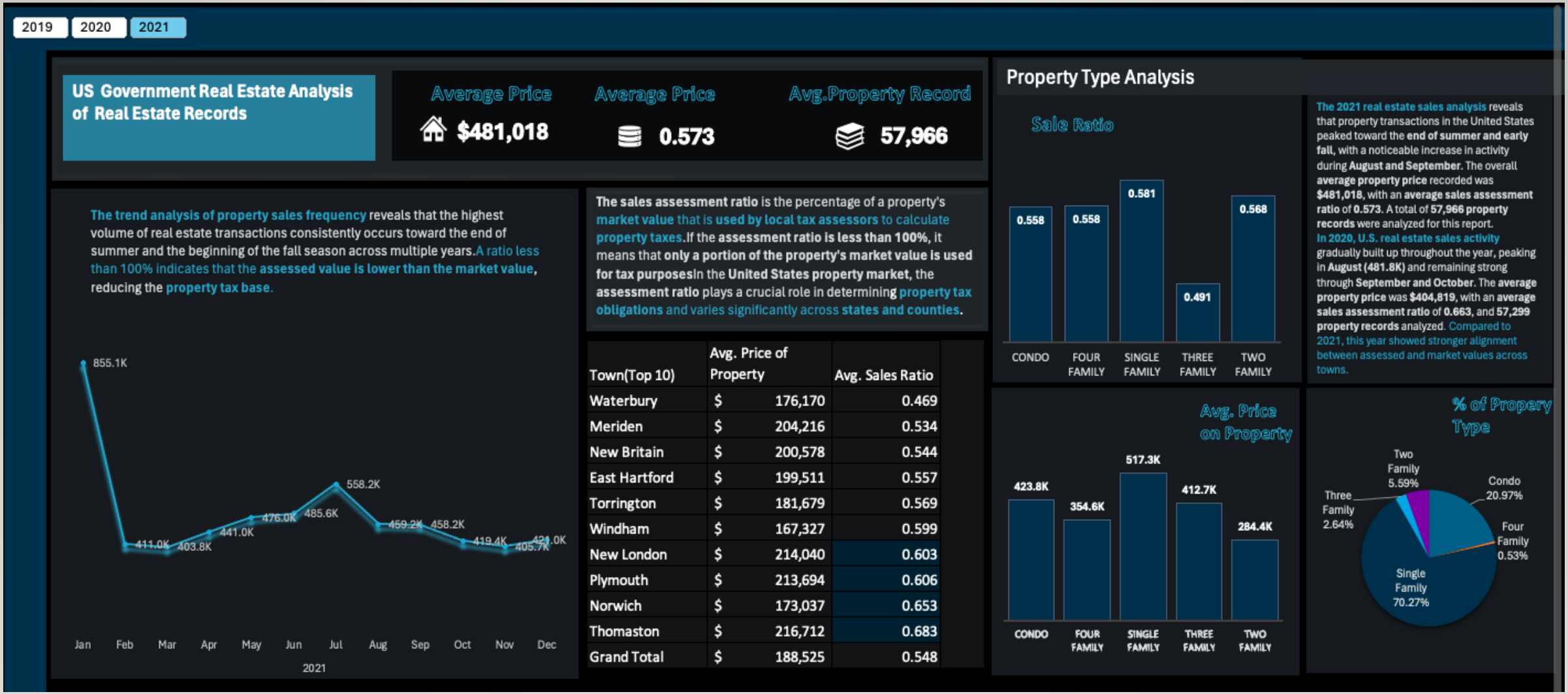
BY OLADEBO AYANNIYI

HTTPS://GITHUB.COM/OLADEBO?TAB=REPOSITORIES

E-mail Address: oladebo_ayanniyi@yahoo.com

GITHUB: https://github.com/oladebo/USRealEstateProject

❑ US REAL ESTATE PROPERTY RECORDS DASHBOARD IN EXCEL



Town(Top 10)	Avg. Price of Property	Avg. Sales Ratio
Waterbury	$ 176,170	0.469
Meriden	$ 204,216	0.534
New Britain	$ 200,578	0.544
East Hartford	$ 199,511	0.557
Torrington	$ 181,679	0.569
Windham	$ 167,327	0.599
New London	$ 214,040	0.603
Plymouth	$ 213,694	0.606
Norwich	$ 173,037	0.653
Thomaston	$ 216,712	0.683
Grand Total	$ 188,525	0.548

❑ CONTENT

Content:

- Project Overview
- Situation and background purpose

Objective

- Identify problem(s) or opportunity

Business Question for Analysis

- State hypothesis

Answer

- Propose solution and discuss impact
- Recommendations

Executive Summary

- Conclusion

❑ PROJECT REVIEW

❖Situation and background purpose

- This project analyzes U.S. real estate property records to uncover trends in sales volume, average property prices, and assessment ratios. By comparing assessed values to market values, it highlights how tax obligations vary across regions and property types. The findings support informed decisions in real estate investment, tax policy, and property valuation.

❑ OBJECTIVES

❖ Identify problem(s) or opportunity

- This project is to analyze and evaluate property sales and assessment ratios across various property types, towns, and time periods within the United States real estate market. The objective is to uncover trends in property valuation, identify discrepancies between market value and assessed value, and understand the impact of assessment ratios on property tax obligations. This analysis aims to support data driven decision-making for investors, policymakers, and real estate professionals by highlighting seasonal sales patterns, regional valuation differences, and tax implications of property assessments.

❖ DATASET DESCRIPTIONS

The dataset contains the following fields:

- **Serial Number** : Unique identifier for each property record
- **List Year :** The calendar year which property was listed or sold
- **Date Recorded** : The date of when the sale was officially recorded
- **Town**: The name of the town or municipality where the property is located
- **Address** : Ful Street address of the property.
- **Assessed Value:** The Value assigned to the property for tax purpose by the local tax assessor
- **Sale Amount** : The actual price at which the property was sold
- **Sales Ratio**: The ratio of the assessed value to the sale amount (Used to evaluate if Properties are under or over-assessed)
- **Property Type**: The Classification of the Property (e.g., Single Family, Condo, Two Family)

❑ BUSINESS QUESTION FOR ANALYSIS

❖ State hypothesis question for the analysis

- **Which towns or regions have the highest and lowest property assessment ratios?**

Why might these differences exist, and what are their tax implications?

- **How do property sales and prices vary by property type (e.g., single-family, condo, multi-family)?**
- **What seasonal trends can be observed in real estate sales volume over the years?**
- **Is there a correlation between average property price and assessment ratio across towns?**
- **Which property types are consistently over- or under-assessed relative to their market values?**
- **How does the distribution of property types impact the overall property tax base?**
- **What is the effective property tax burden across different states or counties based on assessment ratios?**
- **Which months or seasons consistently show the highest sales activity, and what factors contribute to this pattern?**

❑ ANSWER

❖Propose solution and discuss impact

•Top 10 Towns by Sales Ratio and Price:

Insight:

Town	Avg. Price ($)	Avg. Sales Ratio
Windham	142,024	0.728
Norwich	156,249	0.727
New London	187,264	0.694
Vernon	186,964	0.694
East Hartford	168,645	0.671
Meriden	169,574	0.658
Torrington	167,362	0.640
New Britain	175,929	0.634
Waterbury	139,458	0.613
Hartford	177,404	0.347 (lowest)

❑ ANSWER

❖Propose solution and discuss impact

•Top 10 Towns by Sales Ratio and Price:
Insight:

- **Hartford** had the **lowest assessment ratio** (0.347), possibly indicating under-assessment or delayed property revaluation.
- **Windham and Norwich** were among the best-aligned towns between assessed and market values.

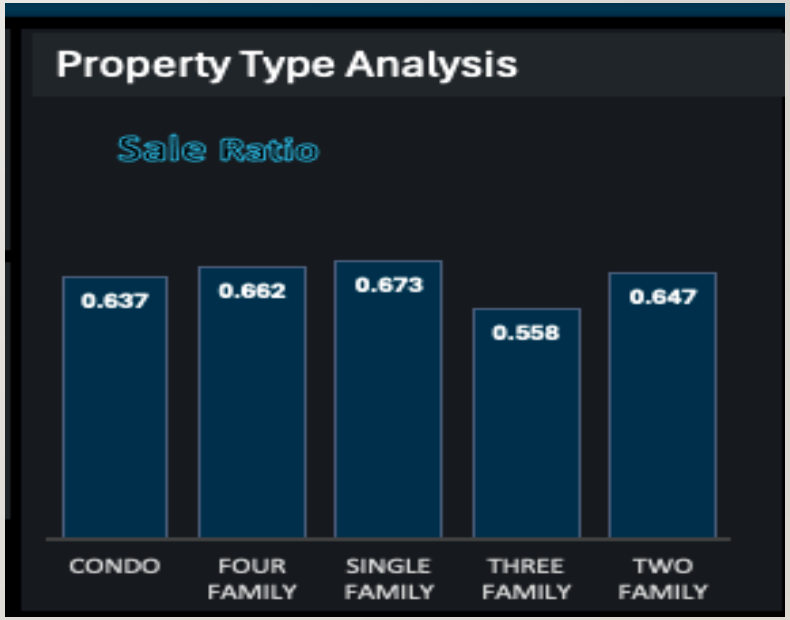
❑ ANSWER

❖Propose solution and discuss impact

•Top 10 Towns by Sales Ratio and Property type:
Insight:

Property Type Analysis:
Sales Ratio by Property Type:

Property Type	Sales Ratio
Single Family	0.673
Four Family	0.662
Condo	0.637
Two Family	0.647
Three Family	0.558

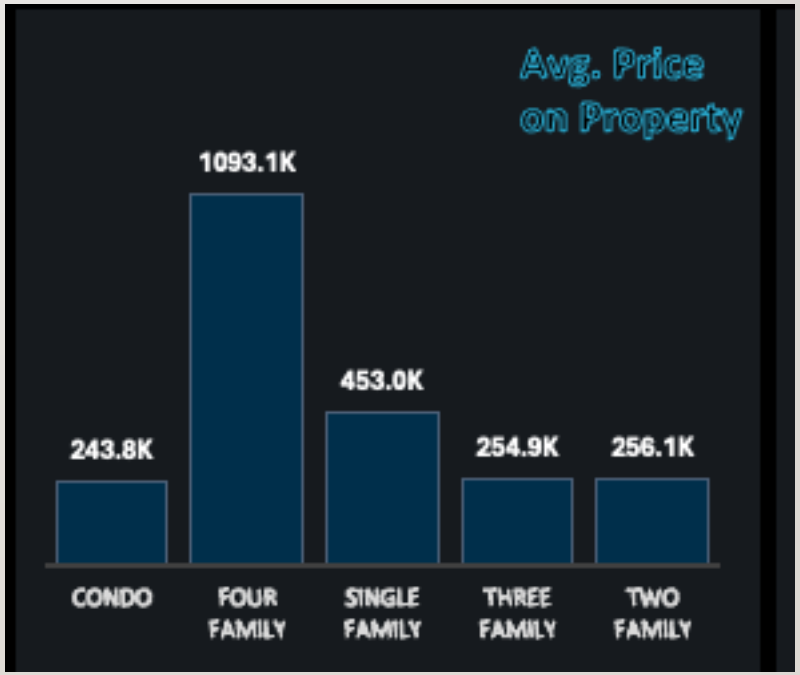


❑ RECOMMENDATIONS

HOWEVER, BELOW IS A SNAPSHOT OF EXPLORATORY DATA ANALYSIS, USING PYTHON FOR FURTHER INFORMATION YOU COULD VISIT MY GITHUB ACCOUNT : HTTPS://GITHUB.COM/OLADEBO/USREALESTATEPROJECT

Average Price by Property Type:

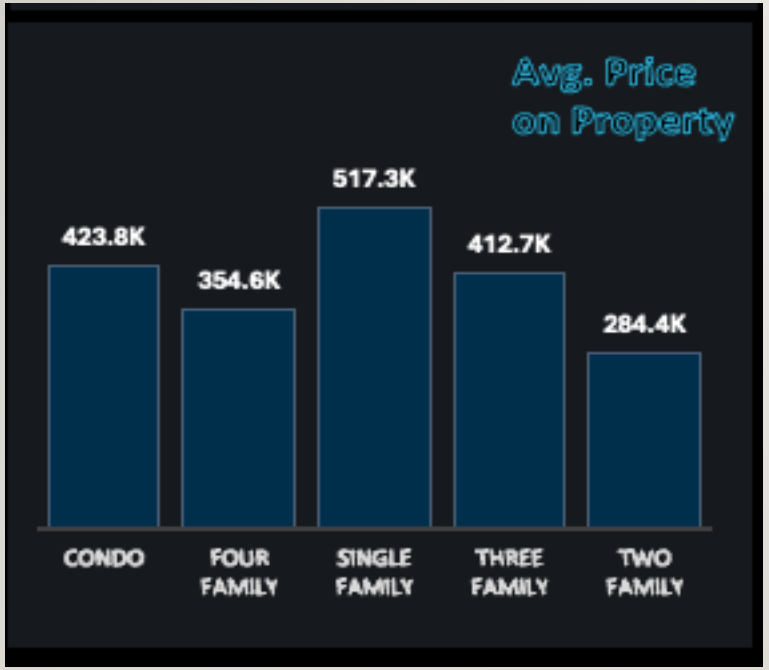
Property Type	Avg. Price ($)
Four Family	1,093.1K
Single Family	453.0K
Two Family	256.1K
Three Family	254.9K
Condo	243.8K



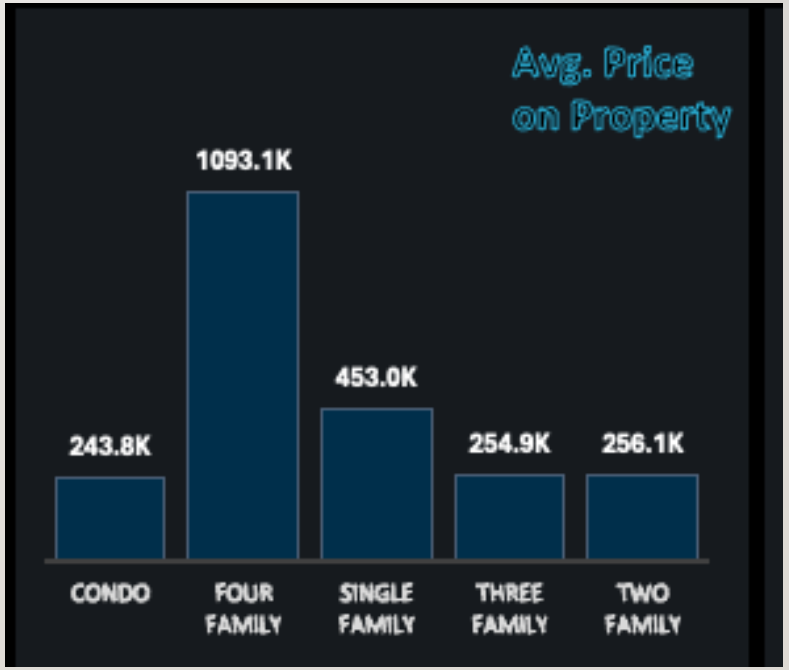
❑ RECOMMENDATIONS

HOWEVER, BELOW IS A SNAPSHOT OF EXPLORATORY DATA ANALYSIS, USING POSTGRESS SQL FOR FURTHER INFORMATION YOU COULD VISIT MY GITHUB ACCOUNT : HTTPS://GITHUB.COM/OLADEBO/USREALESTATEPROJECT

- Year 2021



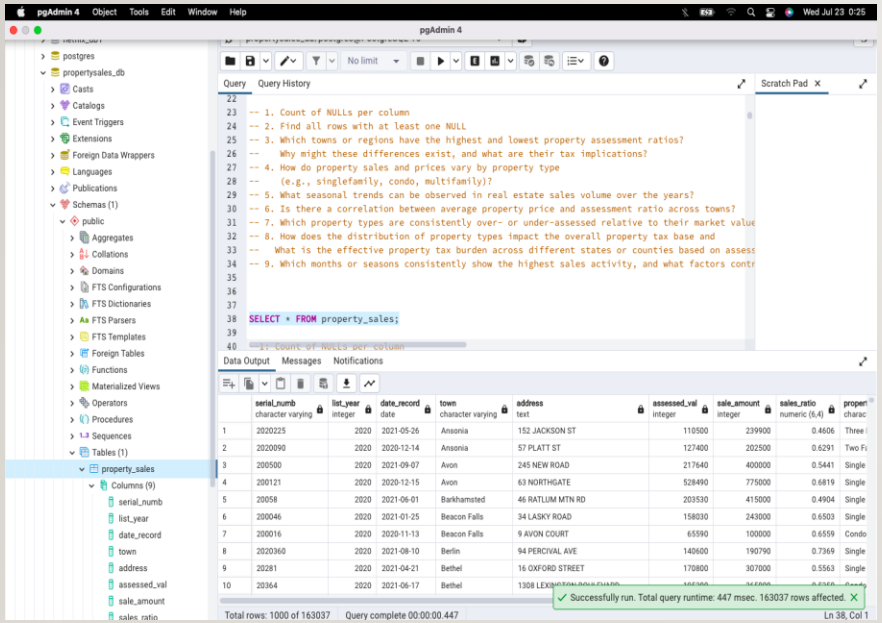
Year 2020

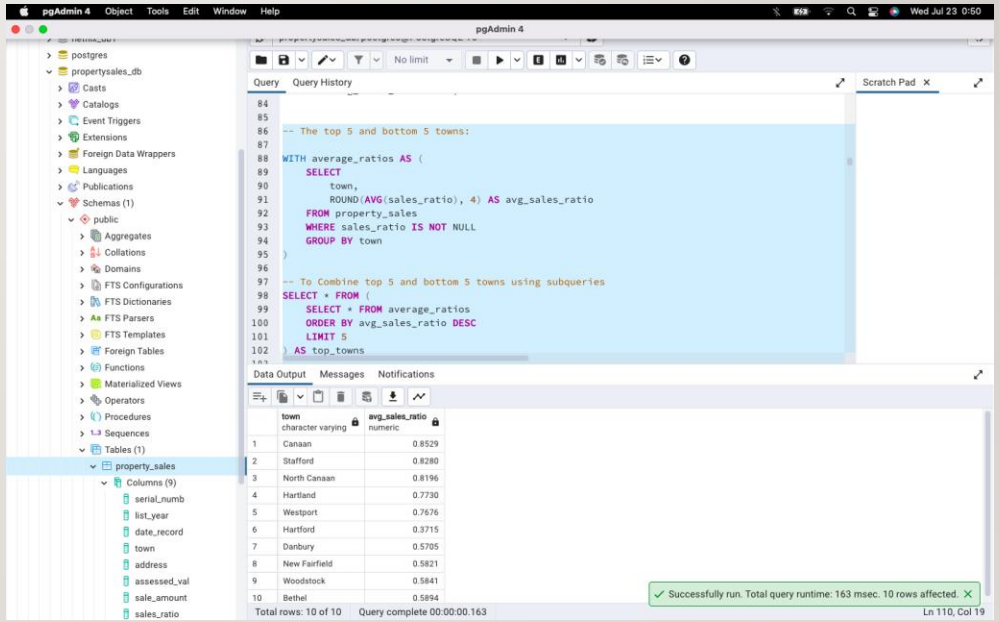


❑ RECOMMENDATIONS

HOWEVER, BELOW IS A SNAPSHOT OF EXPLORATORY DATA ANALYSIS, USING POSTGRESS SQL FOR FURTHER INFORMATION YOU COULD VISIT MY GITHUB ACCOUNT :HTTPS://GITHUB.COM/OLADEBO/USREALESTATEPROJECT

- Snapshot of Some SQL Query Business and Answer Objectives



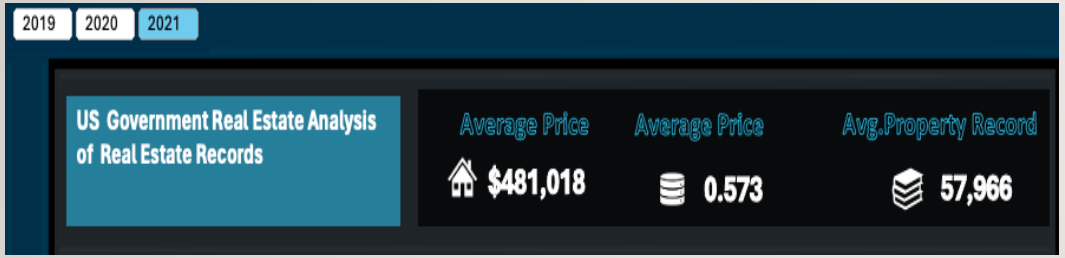


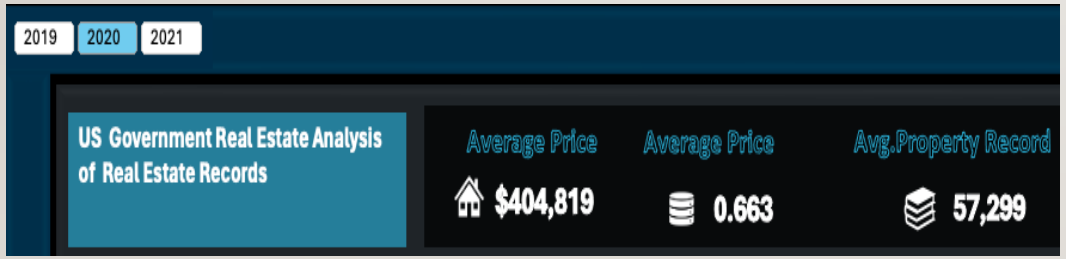
❑ RECOMMENDATIONS

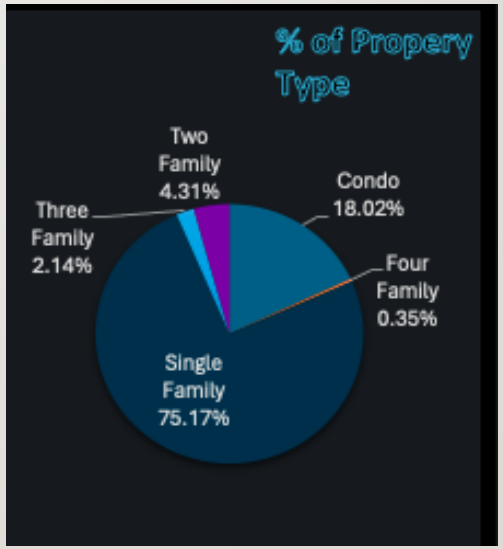
HOWEVER, BELOW IS A SNAPSHOT OF EXPLORATORY DATA ANALYSIS, USING POSTGRESS SQL FOR FURTHER INFORMATION YOU COULD VISIT MY GITHUB ACCOUNT :HTTPS://GITHUB.COM/OLADEBO/USREALESTATEPROJECT

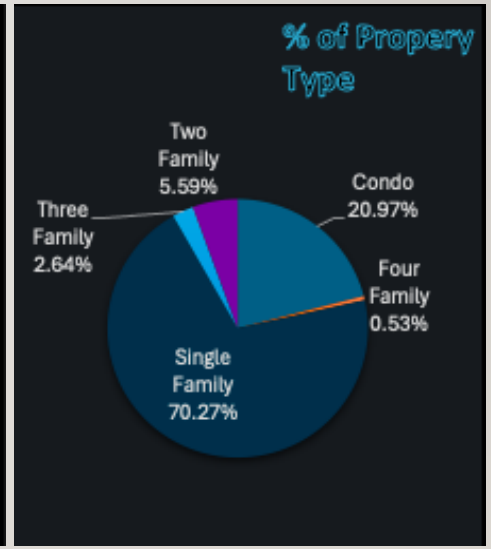
- Year 2021

Year 2020/2021









❑ EXECUTIVE SUMMARY

- **Executive Summary:**
- In 2020, U.S. real estate sales activity gradually built up throughout the year, peaking in **August (481.8K)** and remaining strong through **September and October**. The **average property price** was **$404,819**, with an **average sales assessment ratio** of **0.663**, and **57,299 property records** analyzed. Compared to 2021, this year showed stronger alignment between assessed and market values across towns.
- **Observation:**
- **Consistent monthly growth** in sales activity from Q1 to Q3.
- **August marked the highest sales month**, continuing the trend of peak real estate activity in late summer and early fall.

❑ EXECUTIVE SUMMARY

- **Executive Summary:**
- *. Assessment Ratio Analysis:*
- **Average Sales Assessment Ratio: 0.663**
- This is **higher than 2021 (0.573)**, suggesting properties in 2020 were more closely assessed to their actual market value.
- This likely resulted in a **higher taxable base**, particularly in towns with high ratios like **Windham (0.728)** and **Norwich (0.727)**.

❑ EXECUTIVE SUMMARY

- **Executive Summary:**
- *. Assessment Ratio Analysis:*

Interpretation:

- Assessment ratio > 1.0 Over-assessed (assessed value > market value)
- Assessment ratio < 1.0 Under-assessed (assessed value < market value)

Business Insights:

- If Multi-Family homes consistently have a lower ratio, they may be under-assessed (leading to lower taxes).

❑ RECOMMENDATION & CONCLUSION

Conclusion:

What the Correlation of the real market reflected is:

- Positive Correlation (near +1): High-priced towns also have high assessment ratios.
- Negative Correlation (near -1): High-priced towns tend to have low assessment ratios.
- Near 0: No consistent relationship.

Business Interpretation:

- A strong negative correlation might suggest undervaluation in high-value markets (tax under-assessment).
- A positive correlation might indicate fair assessments but could also result in higher property taxes in expensive areas.