

**Cambridge Property Database Analysis V1**

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**Date : 03/15/2023**

**Introduction:**

This project is about the analysis of Cambridge Property Database which consists of the data of various properties that were assessed as during the FY 2016 - 2021 period. Some of the variables in this dataset are Building Value, Land Value, Sales Price, Assessed Price, Year of Assessment and Building details such as Land Area, flooring type, interior living area etc. This data is visualized in Tableau to find the statistical significance of each variable visually.

**Analysis:**

1. **What is the change in Building Value over the years?**



**Variables Used:**

* The variables used for the above graph are - Building Value and Year of Assessment

**Findings:**

* By observing the above graph, we can see there is a linear increase in the building value of all the buildings that were assessed from FY 2016 to 2021.
* During the period 2019 - 2020, the building values have increased a little higher than the other periods.

**Design Decision:**

* Since the building values are compared within a period of time, a line graph is optimal as it shows the rise or fall in the value over the period of time.

1. **What are the Top 10 Property Class with highest Sale Price:**

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**Variables Used:**

* The variables used for the above graph are - Sale Price and Property Class.

**Findings:**

* By observing the above graph, we can see the top property class with highest sale price is ‘CONDOMINIUM’ with a cumulative Sale Price of $ 25,552,262,332.

**Design Decisions:**

* Since the variable at comparison (Property Class) is discrete, a Bar graph would be a better choice as the sale price of different property class can be compared easily, visually.

1. **What are the top 10 Tax Districts with highest land value where the heat systems are Electric or Gas:**

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**Variables used:**

* The variables used for the above graph are - Tax District, Land Value and Systems HeatFuel.
* The graph is filtered with Systems HeatFuel types Electric and Gas

**Findings:**

* By observing the above graph, we can see the top tax district with highest land value and heat system Electric or Gas is C7.

**Design Decisions:**

* Since the variable at comparison (Tax District) us discrete, a Bar graph would be ideal in showing the difference in the land values.

1. **What are the Top Zones which have largest Interior Living Area and atleast 2 Full Baths:**

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**Variables Used:**

* The variables used for the above graph are - Zoning, Interior Living Area, Atleat 2 Full Baths
* We have created a new Variable - At least 2 Full Baths using the ‘New Calculated Field’ option in Tableau. This variable is used to identify if there are 2 or more than 2 Full baths available in the property.

**Findings:**

* By observing the above graph, we can see that zone B has the highest Land Value at $ 3,94,90,438. The second highest zone is zone C - 1 with a land value of 3,89,60,063.

**Design Decisions:**

* As there was a need to identify the condition of 2 full baths, we have created a new calculated field in Tableau. The Bar graph was used to display this data as the variable is a discrete variable.

**Conclusion:**

The above visualizations were used to solve the questions regarding the Cambridge Property Database. These visualizations help the stakeholders identify and understand the population trend when trying to come up with new strategies.

**References:**

*Tableau charts: Bar in bar chart*. (2021, May 17). Rigor Data Solutions. [https://www.rigordatasolutions.com/post/2018/02/15/tableau-charts-bar-in-bar-chartLinks to an external site.](https://www.rigordatasolutions.com/post/2018/02/15/tableau-charts-bar-in-bar-chart)

*Data Visualization Tips For More Effective And Engaging Design*. (n.d.). Tableau. <https://www.tableau.com/learn/articles/data-visualization-tips>

**[](https://www.rigordatasolutions.com/post/2018/02/15/tableau-charts-bar-in-bar-chart)**