Charts in this analysis provide an overview of the property market, highlighting differences in agent performance, regional price trends, and the relationship between property values and distance from the city centre.

**1. High Volume Sellers (Top 5 Agents) – Bar Chart**

* The chart shows the top 5 property agents in terms of **total sales (AUD)**.
* **Jellis** leads with the highest sales volume, followed closely by **Nelson**, indicating their dominance in the market.
* This suggests that Jellis and Nelson may have access to higher-priced properties or a more active market reach compared to others.

**2. Top 5 Agents by Total House Sold – Bar Chart**

* The agents are ranked by the **number of houses sold**.
* **Nelson** tops this chart, which is consistent with the earlier chart on sales volume.
* **Jellis** follows, but there is a shift here—**hockingstuart** appears third by the number of properties sold.
* This difference may suggest that hockingstuart sells a large number of properties at lower prices.

**3. Bottom 5 Agents by Total Sales – Bar Chart**

* The chart highlights the **agents with the lowest sales volumes**.
* **Rosin** and **hockingstuart/Advantage** are at the bottom.
* This chart helps identify agents that might have lower-value properties or smaller market presence.

**4. Highest Average Sale Price (Top 5 Agents) - Bar Chart**

* **Weast** has the highest **average sales price** per property, suggesting a focus on higher-end or luxury properties.
* **Darras**, **VicProp**, **Sotheby’s, and Lucas** are close behind, which aligns with the expectation of these agents targeting premium markets.

**5. House Sold per Year (Percentage) – Pie Chart**

* A pie chart showing the percentage of houses sold in **2016** and **2017**.
* **53.4%** of houses were sold in 2017, while **46.6%** were sold in 2016.
* This indicates a slightly more active housing market in 2017.

**6. House Sold per Year with Subcategories (Type) – Pie Chart with sub charts**

* A detailed pie chart with a breakdown of **property types** sold in 2016 and 2017.
* In both years, **houses (h)** make up the majority of sales, followed by **units (u)** and **townhouses (t)**.
* **2017** shows a higher percentage of house sales than in 2016, which might suggest increased demand for traditional housing over other types.

**7. Properties Sold by Type per Year – Bar Chart**

* A bar chart comparing the number of **houses, units, and townhouses** sold in 2016 and 2017.
* **Houses (h)** dominate in both years, but there’s a significant increase in 2017 compared to 2016.

**8. House Distribution by Region - Boxplot**

* This boxplot shows the **distribution of properties by distance from the Central Business District (CBD)** for all 8 regions.
* Properties in the **Western Metropolitan** and **Eastern Metropolitan** regions are, on average, closer to the city center.
* **Eastern Victoria** and **Northern Victoria** regions have properties farther from the CBD.

**9. House Price Distribution by Region - Boxplot**

* The boxplot shows the **distribution of house prices by region**.
* **Southern Metropolitan** region has the highest median house prices, with many outliers in higher price ranges.
* **Northern Metropolitan** and **Western Metropolitan** also have higher price ranges compared to regions like **Eastern Victoria** and **Western Victoria**, where house prices are generally lower.
* This suggests that regions closer to the CBD tend to have higher property values.

**10. Price vs Distance from the CBD – Scatter Plot**

* A scatter plot showing the **relationship between house prices and distance from the CBD**.
* There is a clear trend: **houses closer to the CBD** tend to have **higher prices**, with a significant number of high-priced properties within a 10km radius.
* As the distance from the CBD increases, house prices generally decrease.

**Summary of Key Insights:**

* **Agent Performance**: Jellis and Nelson are the leading agents in terms of total sales and houses sold.
* **Luxury Market**: Agents like Weast and Darras dominate the luxury market, with the highest average property prices.
* **Property Type**: Houses remain the most popular property type, with increasing demand in 2017 compared to 2016.
* **Regional Differences**: There is a clear difference in property values by region, with Southern Metropolitan being the most expensive and regions farther from the city center, like Northern and Eastern Victoria, having lower prices.
* **Distance and Price Correlation**: Properties closer to the CBD command higher prices.

Limitations of the data :

* The data was collected in 2016-2017, which is over five years old. While it’s still acceptable to analyze today’s housing market based on this data, it may not be as effective for understanding current trends or predicting the future of the market.