**Price Trends by Year – Analysis**

**Objective**  
The goal of this project is to analyze whether newer sports cars are generally more expensive, or if older models, perhaps due to rarity or classic status, retain or even exceed modern prices.

**Data Overview**  
The dataset contains detailed information on various sports cars, including their make, model, year of production, and price in USD. Prices were cleaned and converted into numeric format for analysis.

**Key Findings**

* **1965**: Cars from this year have an exceptionally high average price (~$1,000,000), suggesting the presence of a rare or classic collector's model. This significantly skews the perception of older cars being cheaper.
* **Modern Trend (2014–2023)**:
  + Prices fluctuate year to year, with peaks observed in **2015** and **2022**, both exceeding $380,000 on average.
  + Surprisingly, **2023** shows a drop in average price (~$108,000), potentially due to the inclusion of more affordable models or fewer high-end entries.
  + Overall, **newer models (2020–2022)** maintain high average prices, indicating that modern performance and brand prestige drive current market value.

**Combined Price Analysis: Individual vs. Average Trends**

The combined plot illustrates both the individual prices of sports cars and the average price trend across different production years.

A graph with a green line

AI-generated content may be incorrect.

Key observations:

1. Price Variability Over Time

Individual car prices show significant variation within the same year, especially from 2015 onward.

This suggests a diverse range of models being released in recent years—from relatively affordable sports cars to ultra-luxury models.

2. Average Prices: Fluctuations with Peaks

The red line (average price) shows a general increase in average prices from 2014 to 2022, with notable peaks in 2015 and 2022.

However, a sharp drop in 2023 indicates either more mid-range models in that year or a lack of high-end releases in the data.

3. Classic Outliers

The 1965 data point stands far above others (over $1 million), likely reflecting a rare collector’s model.

This supports the notion that older does not always mean cheaper—rarity and brand heritage can drive up value significantly.

4. Market Trends

While newer cars tend to carry high average prices, the overlap between expensive and mid-range vehicles in most years shows that price alone doesn’t correlate strictly with age.

This mix emphasizes the importance of other factors: brand, engine specs, and exclusivity.

The combined plot reveals that price trends in the sports car market are influenced by more than just the year. Averages provide a general direction, but individual models can vary dramatically in value. Rare classics can surpass new models, and market diversity is greater in recent years.

**Conclusion**  
Newer sports cars are not *always* more expensive than older ones. While recent models often come with a hefty price tag due to advanced features and brand premiums, select older models (e.g., from 1965) retain or exceed those prices, likely due to collector value. Therefore, age alone does not dictate price—rarity, brand heritage, and performance all contribute to valuation.