

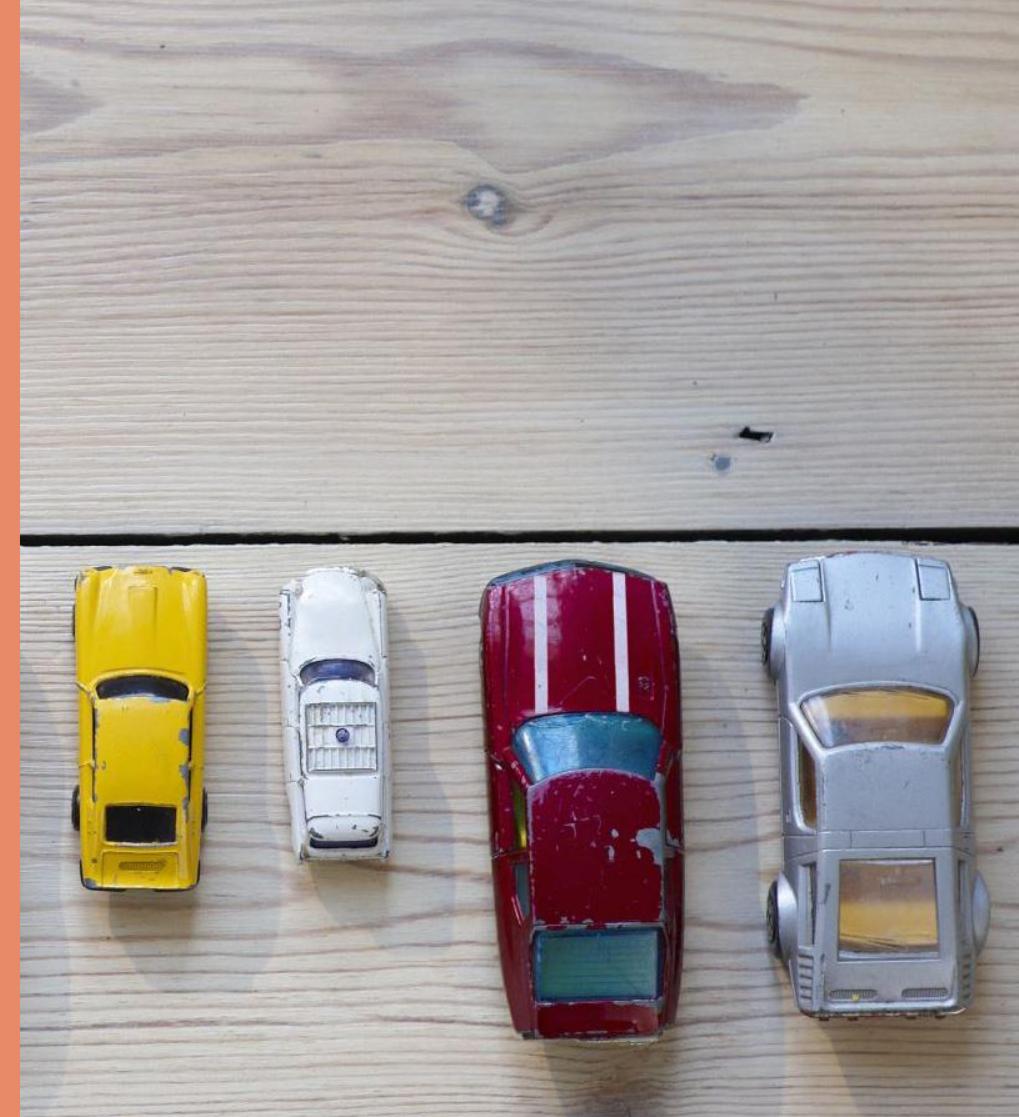
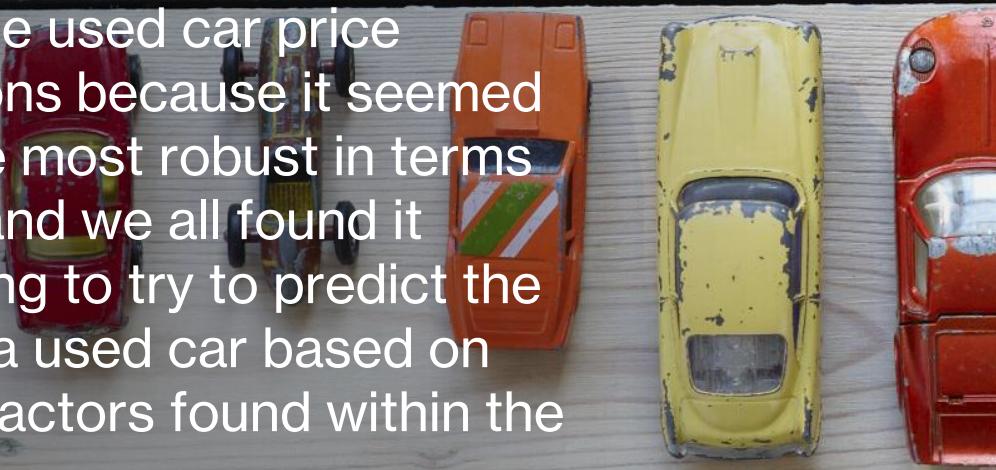
Project 4: Used Car Pricing

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TOPIC: USED CAR PRICE PREDICTIONS

We chose used car price predictions because it seemed to be the most robust in terms of data and we all found it interesting to try to predict the price of a used car based on various factors found within the dataset.





QUESTIONS WE TRIED TO ANSWER

Based on the dataset, we tried to answer the question which make, model, model year and fuel type would be the best price?

We also tried to predict the price of a used car based on make, mileage, accidents and fuel type.

USED CAR PRICE ANALYSIS

We used the dataset `used_cars.csv` from a Used Car Price Prediction analysis from Kaggle.com(https://www.kaggle.com/code/satyaprakashshukl/used-car-price-prediction/input?select=extended_data.csv, accessed: April 2025).



We cleaned the used_car.csv data by dropping columns.

- Interior Color
- Exterior Color
- Model
- Engine



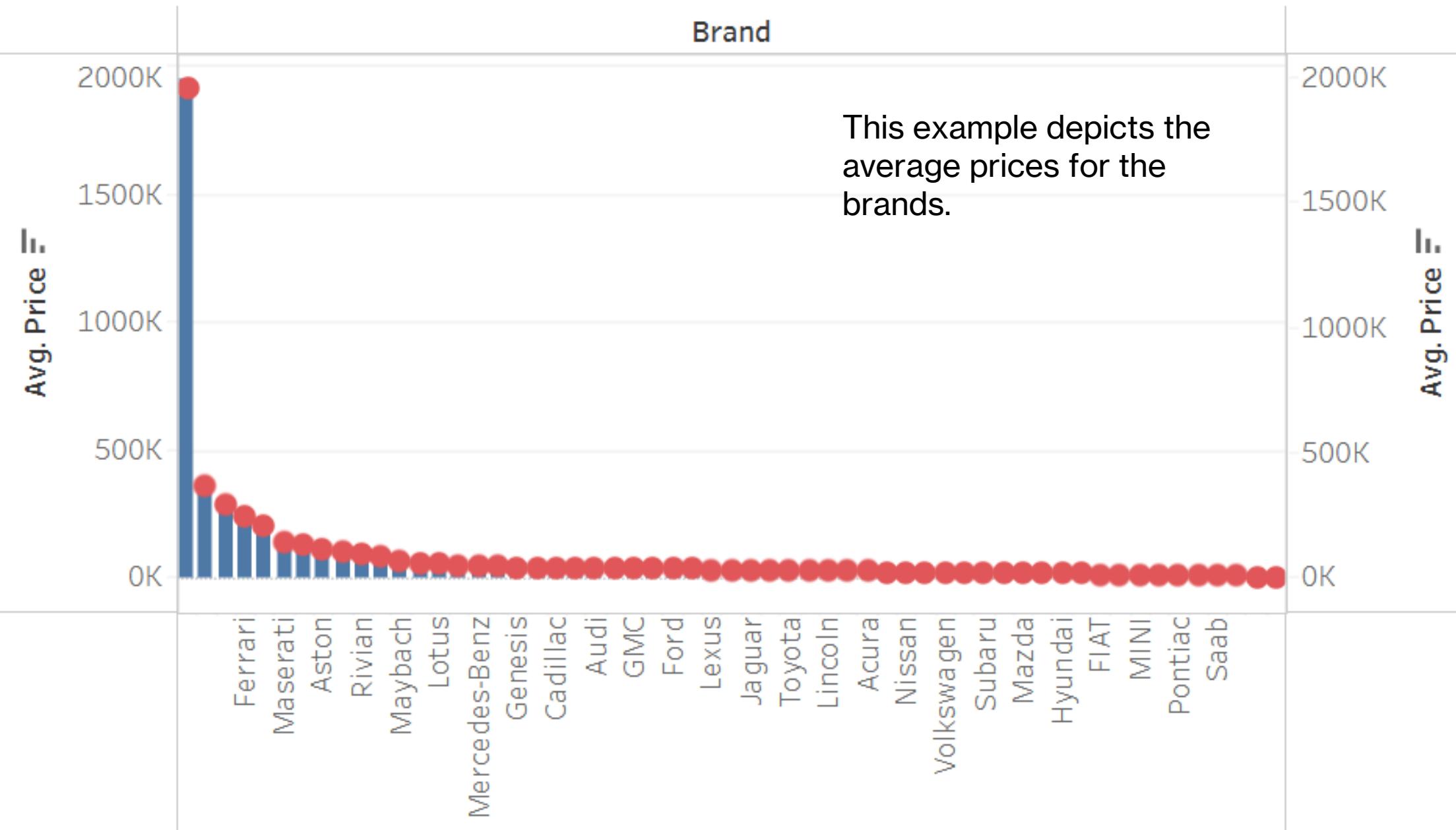
We also did a Flask app.

We created html pages and used Tableau to create visualizations of our data that answered our questions concerning used car price predictions by fields fuel type, model, mileage, and price.

Visualizations created were bar, line, lollipop, and bubble charts.



Brand/Price

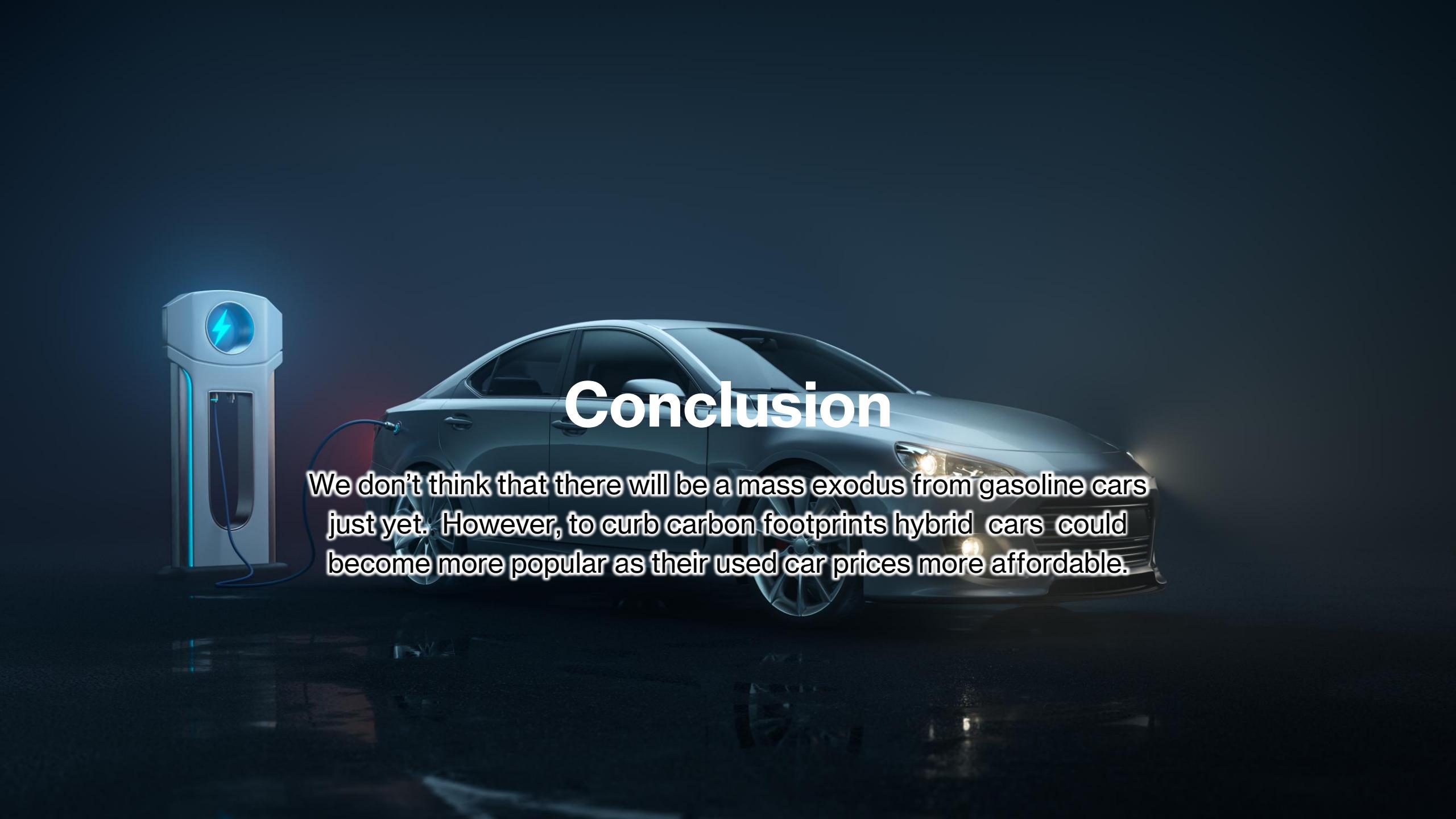


MACHINE LEARNING

We used linear regression and a tree model for our machine learning portion.

LIMITATIONS AND BIAS

- Years included in the dataset which were 1974 to 2023.
- The brands in the dataset where there were limited to brands in existence between 1974 and 2023.

A silver sedan is shown from a front three-quarter angle, connected by a blue cable to a tall, cylindrical electric vehicle charging station on the left. The station features a blue lightning bolt icon at the top. The background is dark with a subtle gradient.

Conclusion

We don't think that there will be a mass exodus from gasoline cars just yet. However, to curb carbon footprints hybrid cars could become more popular as their used car prices more affordable.



Bibliography

Used Car Price Prediction -

https://www.kaggle.com/code/satyaprakashshukl/used-car-price-prediction/input?select=extended_data.csv, accessed April 2025.

ChatGPT – www.chatgpt.com, accessed April 2025

Scikit-learn - <https://scikit-learn.org/stable/>, accessed April 2025



Q&A