

Group Project 2 Elevator Pitch:

Analyzing Car Sales Trends and Performances

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THE WHY: Our objective is to capture the view of a business owner's perspective. We have acquired data that contains over 2.5 million entries of data, with the following information:

- Date: The date of the car sale
- Salesperson: The name of the salesperson who made the sale
- Customer Name: The name of the customer who purchased the car
- Car Make: The make of the car that was purchased
- Car Model: The model of the car that was purchased
- Car Year: The year of the car that was purchased
- Sale Price: The sale price of the car in USD
- Commission Rate: The commission rate paid to the salesperson on the sale
- Commission Earned: The amount of commission earned by the salesperson on the sale

Our goal is to understand and identify trends/patterns and correlations through means of graphing visuals in dashboard perspective, data model implementation and optimization via either a Python or Javascript model and incorporating machine learning integration.

The results will be visually displayed to raise awareness and promote informed decision-making on not only in car sales profits alone, but also evaluating the performance of individual salespeople in the dealership, and predicting sales performance. This is valuable information to any business owner as it can help them forecast the direction of company in short and long term and plan more effectively in terms of financial management, marketing and sales, operational efficiency, risk management, and adaptability and innovation to the market/industry.

Sample questions to guide our research:

- 1) What are the most popular models and makes?
- 2) Which season (or months) are the most cars sold?
- 3) Does day of the month affect car sales? (Do people tend to buy cars earlier/mid/late in the month, helps in business model making for bringing in new inventory and planning processes.
- 4) Which model and make bring the greatest profit to the company?
- 5) What is the efficiency of our salespeople?
- 6) How can we expand our market within our industry?

Initial Data Sets used:

<https://www.kaggle.com/datasets/suraj520/car-sales-data?resource=download>

Napkin Drawing/ Ideas for Dashboard: