



AUCTION CAR SALES

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Data Analytics

Executive Summary

This dataset represents the sales of vehicles during auction from a car auction company. The company allows customers to glance through their used cars which are up for sale. This allows prospective buyers to have an impression about the cars, its manufacturing details, present condition as well as its current auction price. The marketing team has requested for sales analysis in preparation of a weekly newsletter. This is to help customers by giving them insights on how they could prepare and know which cars to place a bid on.

Data Source

The data for this project is an open-source data downloaded from <https://www.kaggle.com/datasets/doaaalsenani/usa-cers-dataset>

Limitations and Ethics

- ✓ The mileage is the number of miles that a car can travel using one gallon or liter of fuel but the data excluded the engine size of the vehicles.

Data Cleaning and Data Consistency Checks

- ✓ Check for duplicate data
- ✓ Check for mixed data type
- ✓ Check for missing data
- ✓ Change the days to Minutes left
- ✓ Adjust the data type

Data Profile

- ✓ Number of rows and columns in the dataset: 2498 * 11

Column Details

Column	Column description	Data type	Time Variant
Mileage	Number of miles a car can travel with fuel	Quantitative Continuous	No
Model	Model of the vehicle	Qualitative Nominal	Yes
Color	Color of the vehicle	Quantitative Continuous	Yes
Title status	This includes clean title and salvage insurance	Qualitative Ordinal	No
Price	The current auction price	Quantitative Continuous	No
Lot	This is an identification assigned to a particular car	Quantitative Continuous	No
Year	This is the manufacturing year	Quantitative Discrete	No
Brand	The brand car	Qualitative Nominal	Yes
Vin	The Vehicle identification number	Quantitative Continuous	No
State	The location of the car before auction	Qualitative Nominal	Yes

Condition	Time duration before auction	Quantitative Continuous	No
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Questions to Explore

- ✓ Correlation between days before auction and current auction price?
- ✓ Are there common features for the cars with higher price?
- ✓ Are cars with current year a determinant of high bid pricing?
- ✓ Do states determine the pricing of cars?