



Case Study 1 : Sports Car Prices

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Problem Statement:

Sports Car Prices dataset contains information about the prices of different sports cars from various manufacturers. You have to perform statistical analysis to drive useful insights from the dataset.

Dataset Description -

This dataset contains around 1000 records with 8 attributes.

Attributes	Description
Car Make	brand or company that produced the car
Car Model	model of the sports car
Year	year of production of the sports car
Engine Size (L)	size of the sports car's engine in liters
Horsepower	power output of the car's engine
Torque (lb-ft)	rotational force generated by the engine
0-60 MPH Time (seconds)	time it takes for the sports car to accelerate from 0 to 60 miles per hour
Price (in USD)	price of the sports car in US dollars

Tasks to be performed -

Clean the data and remove the null values from the dataset.(**Note** - For engine size replace the word starting with **electric** as **2** and **hybrid** with **4**)

- 1) What is the price of the most expensive car and which brand makes it ?
- 2) Which brand gives the lowest power output from the engine ?
- 3) Is Horsepower dependent on Torque ?
- 4) Is the mean price of sports cars that take time to accelerate from 2 to 4 seconds is same as that for those cars that accelerate for 4 to 6 seconds?
- 5) Given that the standard deviation of the populations is known. Perform the best suitable test for the previous problem statement.