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SDAIA Academy



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Saudi Data & AI Authority

T5 Data Science Bootcamp

Exploratory Data Analysis (EDA) Proposal For Cars Price Prediction



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Date: 11/11/2021

Introduction :

Car price prediction is somehow interesting and popular problem. As per information that was gotten from the Agency for Statistics of BiH, 921.456 vehicles were registered in 2014 from which 84% of them are cars for personal usage. This number is increased by 2.7% since 2013 and it is likely that this trend will continue, and the number of cars will.

Dataset :

The dataset contains **11,000 cars** and **16 columns**: Make, Model, Year, Engine Fuel Type, Engine HP, Engine Cylinders, Transmission Type, Driven Wheels, Number of Doors, Market Category, Vehicle Size, Vehicle Style, Highway MPG, City MPG, Popularity and MSRP. For this project, we are using the dataset on used Cars Price Prediction.

Source :

Data provided by Kaggle has been used in this project website: (
<https://www.kaggle.com/hashroot97/carpriceprediction>)

Features :

Rows of cars : (11,000)

Columns : (16)

Make: A car's make is the brand of the vehicle.

Model: The model of a car is the name used by a manufacturer to market a range of similar cars.

Year: the year it was manufactured.

Engine Fuel Type: The type and details of the fuel used for the vehicle.

Engine HP: Horsepower refers to the power an engine produces.

Engine Cylinders: The cylinder is the power unit of the engine.

Transmission Type: automatic or manual.

Driven Wheels: is a wheel of a motor vehicle that transmits force.

Number of Doors: Passenger cars will typically have two-doors (*such as coupes*) or four-doors (*such as Sedans*).

Market Category: vehicle categories are essential for the competitiveness of the automotive industry.

Vehicle Size: The distance between two vertical planes perpendicular to the longitudinal median plane of the vehicle.

Vehicle Style: The easiest way to define a vehicle is by how it looks. For example, sedan or coupe.

Highway MPG: MPG is the average mile per gallon of the fuel for your car on the highway.

City MPG: The score to which the car will get on average fuel expenditure in city conditions.

Popularity: The car that state of being liked, enjoyed, accepted, or done by many people.

MSRP: Manufacturer's Suggested Retail Price, is the price that a manufacturer recommends for stores to sell their product.

Tools :

1- Jupyter Notebook.

2- Python.

3- Word.

4- NumPy Library.

5- Matplotlib Library.

6- Pandas Library.

Questions :

Which type of car is more popular?

What is more selling of car style?

Which cars that has the 300 of engine horsepower?

How many cars that has 4 engine cylinders and cars that has 6 engine cylinders?