PROJECT PROPOSAL

CAR PRICE PREDICTION

ABSTRACT:

Car price prediction especially when the car is used and not coming directly from the showroom, is both critical and important task. With increase in demand for used cars more and more car buyers are finding alternatives of buying cars.

➤ There is a need of accurate price prediction mechanism for used cars. Prediction techniques of machine learning can be helpful in this regard.

➤ So, we used the car dataset from kaggle website and built a model for predicting the price of used cars using Random Forest Regressor algorithm.

➤ Many companies are making ads for such kind of things and we are using the dataset provided by the KAGGLE website for our prediction.

Datasets Used:

https://www.kaggle.com/adityadesai13/used-car-dataset-ford-and-mercedes

More About Data:

- **Model:** Model type.
- **Year:** Registration Year.
- **Price:** Price in euros.
- **Transmission:** Type of Gearbos.
- **Mileage:** Distance Used.
- **Fuel Type:** Engine Fuel.
- **Tax:** Road Tax.
- **mpg:** Miles per Gallon.
- **Engine Size:** Size in litres.
- **Brand:** Name of the car brand.

We are basically combining the following car brands (Audi, BMW, Ford, Hyundi, Merc, Skoda, Toyota, Vauxhall, vw) into a single dataset.

Shape of resultant dataset: (99187,11)

We have some categorical features like transmission type and fuel type. We need treat them as well and perform One hot encoding to convert them into categorical features.

TOOLS USED:

➤Numpy and Pandas for data manipulation.

➤Matplotlib and seaborn for Data Visualization and Plotting .

➤Scikitlearn for Modelling.

➤Random Forest Regression algorithm for prediction.

What are we going to predict?

Target of our model: Predicting the price of the car based on input features like (year of purchase, transmission type, mileage, fuel type, tax, mpg, engine-size).

What is the use of doing this Prediction?

In many developed countries, it is more common to buy an used car for many common people. So they have the possibility to buy the car at its expected resale value. Thus, it is of commercial interest to brokers/financers to be able to predict the salvage value of cars with accuracy.