**Dataset Source :** Kaggle

**Dataset Link :** https://www.kaggle.com/datasets/deepcontractor/car-price-prediction-challenge/data

**Composition:**

* 19,238 rows (individual car data points)
* 18 columns (features)

**Predictor Variables:**

# ID

# Levy

# Manufacturer

# Model

# Prod. year

# Category

# Leather Interior

# Fuel Type

# Engine Volume

# Mileage

# Cylinders

# Gearbox Type

# Drive Wheels

# Doors

# Wheel

# Color

# Airbags

**Target Variable:**

* Price

# Technologies and Libraries used :

# This project was developed within the Jupyter Notebook environment. Jupyter Notebooks provide an interactive web-based platform that combines code cells, explanatory text, and visualizations – making them ideal for data exploration, analysis, and machine learning experimentation. The project was implemented using the Python programming language, a versatile and widely adopted choice for data science tasks. Key libraries employed include:

# NumPy: NumPy forms the foundation for numerical computations in Python, providing powerful tools for working with arrays and matrices.

# Pandas: Pandas offers high-performance data structures and analysis tools, making it indispensable for data loading, manipulation, and preparation.

# Matplotlib & Seaborn: Matplotlib provides the basis for creating a wide range of static and interactive visualizations. Seaborn builds upon Matplotlib, offering a high-level interface for creating informative and aesthetically pleasing statistical plots.

# scikit-learn (sklearn): This library provides implementations of various machine learning algorithms, including those used in this project (such as linear regression, decision trees, and more). It also includes tools for data splitting, hyperparameter tuning, and model evaluation.