Used Car Price Prediction using Machine Learning

Introduction
The price of a used car depends on multiple factors such as brand value, age of the car, mileage, fuel type, transmission, and ownership. This project aims to predict the selling price of used cars using machine learning.

Dataset Description
The dataset contains information about used cars including year of manufacture, present price, kilometers driven, fuel type, seller type, transmission type, and owner details. The target variable is **Selling_Price**.

Data Preprocessing
Unnecessary columns such as car name were removed. The manufacturing year was converted into car age. Categorical variables were encoded using one-hot encoding to make the data suitable for machine learning models.

Model Building
Two regression models were trained: Linear Regression as a baseline model and Random Forest Regressor as the final model for better accuracy.

Model Performance
The Random Forest model achieved strong performance with an R2 score of **0.96** and a Mean Absolute Error (MAE) of **0.64**, indicating high prediction accuracy.

Conclusion
The model successfully predicts used car prices and can assist buyers and sellers in estimating a fair market value. This project demonstrates the effective application of machine learning techniques in real-world pricing problems.