

ABSTRACT

The automobile industry has witnessed a significant surge in the use of online platforms for buying and selling vehicles. With the increasing volume of transactions and the vast variety of car models, predicting the price of a used car based on various attributes is crucial for both sellers and buyers. This project focuses on the development of a car price prediction model using machine learning techniques. The model is trained to predict the price of a used car based on several key features such as the car's name, age, kilometres driven, mileage, engine capacity, maximum power, fuel type, transmission type, seller type, and the number of seats.

The dataset used for training the model consists of historical data on used cars, where each record includes these features along with the corresponding price. The project utilizes the Gradient Boosting Regressor algorithm, which is known for its efficiency in regression tasks, to predict the price of a car based on the input features. The model is then deployed on a Streamlit web application, enabling users to input the required data and obtain an estimated price for a used car.

This web application serves as a practical tool for individuals looking to buy or sell used cars, providing a reliable price estimation based on the car's attributes. The interface ensures ease of use with input fields for car details, and the prediction result is displayed dynamically once the user submits their inputs. This solution addresses the need for quick and accurate price estimations in the used car market and leverages machine learning to optimize decision-making for both buyers and sellers.