Advanced Car Price Forecasting with Deep Learning (ANN)

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Introduction

- This presentation provides an overview of using advanced data science techniques and artificial neural networks (ANN) to predict car prices based on features such as mileage, fuel type, brand, and year.

Dataset Overview

- The dataset includes various car attributes such as the year of manufacture, selling price, current price, kilometers driven, and other features like fuel type, seller type, and transmission.

Correlation Heatmap of Car Features

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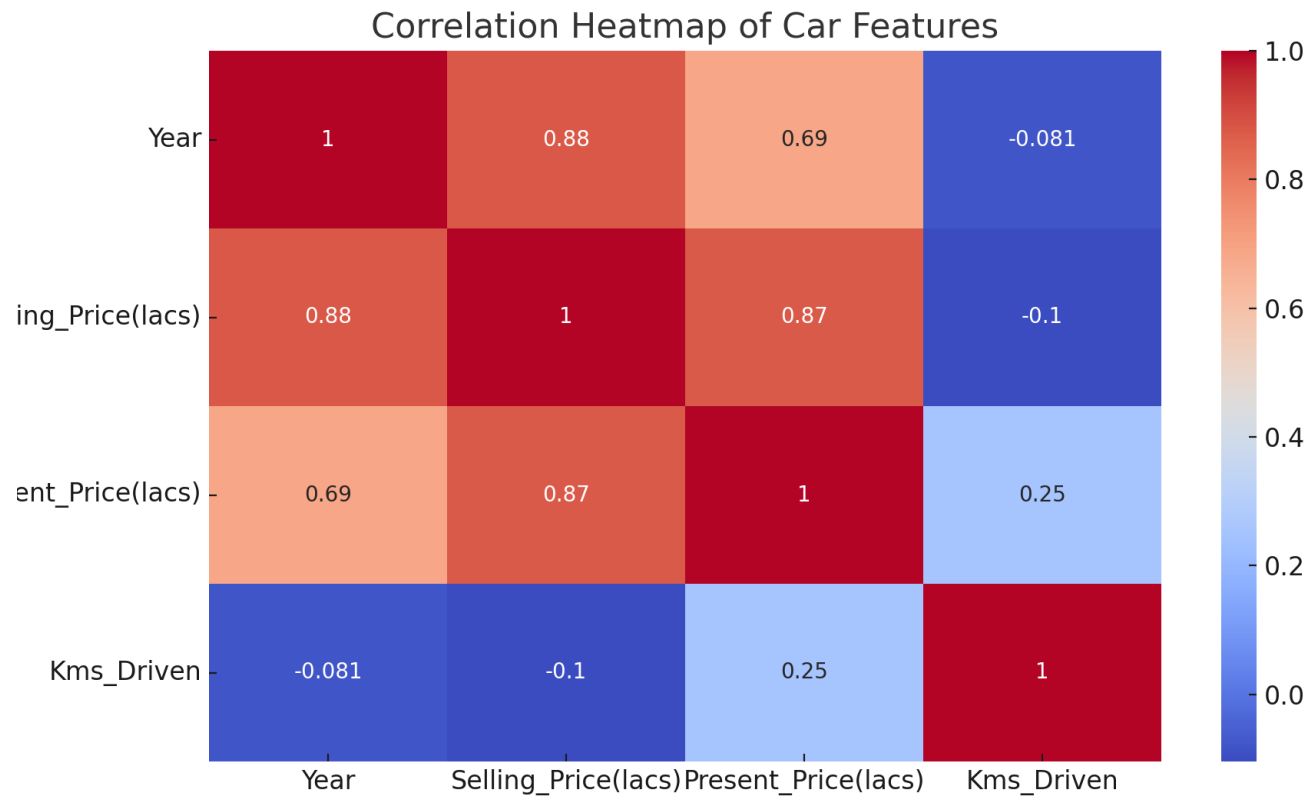
Explanation: Correlation Heatmap

- The heatmap visualizes the correlation between different car features. For example, the selling price has a strong positive correlation with the present price, indicating that cars with higher current prices tend to have higher selling prices. This insight is crucial for building an accurate prediction model.

Distribution of Selling Prices

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Explanation: Distribution of Selling Prices

- The distribution of selling prices shows that the majority of cars are sold in the lower price range. However, there are some high-priced cars which could be outliers or luxury vehicles. Understanding the distribution helps in identifying pricing trends in the dataset.

Conclusion

- This project demonstrates the use of Artificial Neural Networks (ANN) to predict car prices. The model was trained on various car attributes and successfully provided accurate price predictions.

Conclusion

- The Car Price Forecasting project utilizes Artificial Neural Networks to accurately predict car prices. By analyzing features such as present price, kilometers driven, and fuel type, the model provides reliable insights into pricing trends.

Future Scope

- 1. Model Improvement: Advanced hyperparameter tuning and deeper neural networks could improve prediction accuracy.

- 2. External Factors: Incorporating external factors such as market demand, brand reputation, and economic conditions could enhance model performance.

- 3. Real-Time Predictions: The model could be deployed to provide real-time price predictions for car listings online.