Predicting House Prices using Machine Learning

Abstract

Predicting house prices is a fundamental task in the real estate industry and has garnered significant attention in the field of machine learning. This project explores the application of various machine learning algorithms and techniques to predict house prices accurately. The dataset used comprises a wide range of features such as location, size, amenities, and historical sales data. Our study investigates the effectiveness of regression models, including linear regression, decision trees, random forests, and gradient boosting, in modeling the complex relationship between these features and house prices. Feature engineering, data preprocessing, and model evaluation are essential components of this research. We assess model performance using metrics like Mean Absolute Error (MAE), Mean Squared Error (MSE), and R-squared to determine the most suitable algorithm for the task. Additionally, we delve into the impact of feature importance and explore strategies for improving prediction accuracy. The findings of this study contribute to the understanding of house price prediction using machine learning and offer insights into optimizing models for real-world applications in the real estate market.

Software Requirements.

- Programming : Python

- IDE   : Visual Studio

- Libraries and Framework: Python Libraries And Machines learning libraries

- Database : SQLite

TEAM MEMBERS

Sangara sequvar M

Saravana kumar J

Santhosh K

Mohan C

JP college of engineering