

# House Price Prediction

Predicting housing prices using machine learning models

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# Introduction

This project uses **machine learning** to predict house prices based on features like area, bedrooms, and location, enabling accurate and automated price estimates.



# Machine Learning Model Development

# Data Preprocessing Techniques

We handle missing values and encode categorical variables to prepare data for effective model training.

# Model Training with Linear Regression

The model is trained using **Scikit-Learn's Linear Regression**, optimizing predictions for housing prices.

# Model Evaluation Metrics

Model performance is assessed using the **R-squared score** and **Mean Squared Error (MSE)** to ensure accurate price predictions.



# Real-Time Price Prediction

# User Input Handling

The system processes new user inputs in real time, ensuring seamless integration for immediate price estimation.

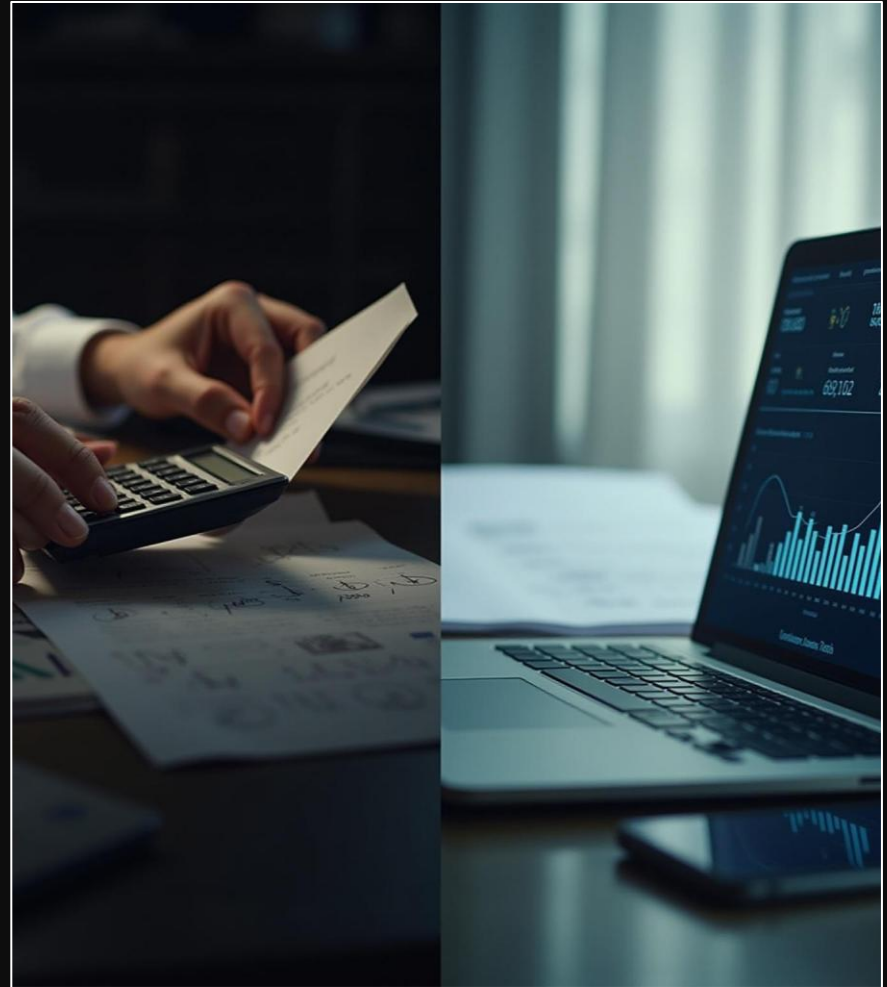


# Automated Price Estimation

Our model provides automated house price predictions, increasing efficiency and reliability compared to manual methods.

# Comparison with Manual Calculations

Automated predictions significantly reduce errors and time compared to **manual price calculations**, improving decision-making.



# Conclusions

This machine learning model offers precise, real-time house price predictions, streamlining the valuation process with validated accuracy.

