

Project Title: Enhancing House Price Prediction Using Modified Extreme Gradient Boosting

Overview:

In this project, I focused on predicting house prices more accurately using a Modified XGBoost model. The idea was to build a system that understands complex market patterns better than the usual models. Many traditional methods don't give stable results when the data changes, so I worked on a model that can adjust and learn from those changes.

Problem:

House prices keep changing because of many factors like location, nearby services, transport, crime rate, and overall market conditions. Most existing tools do not consider all these points, which leads to poor or misleading predictions. This motivated me to work on a more reliable and flexible solution.

Approach:

I used Python to clean the dataset, analyze the features, and train the Modified XGBoost model. This algorithm is good at understanding patterns and updating itself when new data is given. I tested it along with other models and found that the Modified XGBoost performed the best. I also built a simple web interface so users can enter house details and instantly get the predicted price.

Technologies Used:

Python, Django, HTML, CSS, JavaScript, SQLite, and machine learning libraries.

Outcome:

The model achieved an accuracy of about 82.9 percent, which is higher than the existing methods I compared it with. It gives more consistent predictions and helps users make better decisions when buying or selling properties.

Summary:

This project helped me understand how machine learning can be applied to real-life problems. It shows that with the right data and model, price prediction can be more accurate, faster, and useful for different types of users.