House Price Prediction Made Simple

The goal is to predict the house price with considering the different parameters as entered by the customer and build a house recommendation system based on the search pattern.

Made with Gamma

Team Members

- Bhuvan H L
- Gireesh T P
- Manohar
- Manoj B
- Shivu S

Made with Gamma

Problem Statement

In a dynamic real estate market, predicting the price of a house is not straightforward. Property price prediction requires assessing multiple datasets to make informed decisions in seconds. Therefore, accuracy is key.

1 Developing Accurate Models

We aim to develop models that can predict house prices with high accuracy by adopting machine learning techniques.

2 Regression Analysis

We aim to map independent variables' relationships with the dependent variable to determine the property price accurately.

3 Real-time Architecture

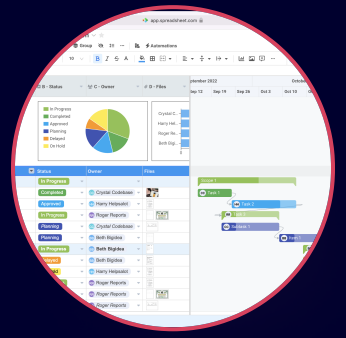
We aim to develop an effective architecture that can quickly process data to give accurate predictions in real-time.

Made with Gamma

Existing System

The Old Way

Existing systems manually evaluate features of a property, which is often subjective and can be time-consuming.



Tax Consideration

Existing system does not consider taxes but only considers location and other features which makes a huge difference in accurate prediction.

Issues and Problems

Existing system Uses other regression techniques gives comparatively low accuracy..

Made with Gamma

Proposed System

1 Machine Learning Techniques

We will use advanced machine learning techniques to analyze multiple datasets accurately, enabling us to predict house prices with high accuracy.

2 Ridge Regression

We will use Ridge regression to make predictions based on a set of independent variables and a dependent variable.

3 Tax Price Prediction

Proposed system mainly concentrates on tax price prediction in different localities.

Made with Gamma

Requirements

Language

We Used Python as a main Language and Flask as a web application framework

Libraries

Libraries like scikit-learn,pandas,numpy packages that provide ridge regression implementation.

DataSet

We Collected 10000+ Sufficient and high-quality data with information about houses and their sale prices.

User Interface

We used HTML for end-users, a user-friendly interface for inputting house features and displaying predicted prices.

Made with Gamma

Data Collection and Preprocessing

Data Cleaning

Raw data must be cleaned. Data cleaning removes any redundancies and deletes any irrelevant data points.

1

Data Collection

Data collection involves gathering data related to property, such as square footage, number of bedrooms and bathrooms, location, and other relevant information.

2

3

Data Pre-processing

Data pre-processing includes splitting data into training and testing datasets and applying normalization and standardization to the dataset.

Made with Gamma

Training and Evaluation of Model

The training dataset's data is inputted into the Ridge Regression algorithm for processing and calculation. The Ridge Regression algorithm attempts to determine the significance of each feature with the price set in the training dataset. Once the algorithm operates, the testing dataset is then used to evaluate the accuracy of the model produced.

1. **Training of the Model**

   Training involves assessing the dataset on specific algorithms to test the algorithm's effectiveness.

2. **Predicting the Price**

   The price prediction model takes a new house and sets new feature values to predict the house's price.

3. **Evaluation of Model**

   Evaluating the model involves comparing the predicted price with the actual Price.

Made with Gamma

Conclusion and Future Directions

Future Direction

Leverage deep learning and other machine learning techniques to enhance the model's efficiency and accuracy further.

1

Key Takeaways

Achieve reliable and cost-efficient house price predictions using machine learning models.

2

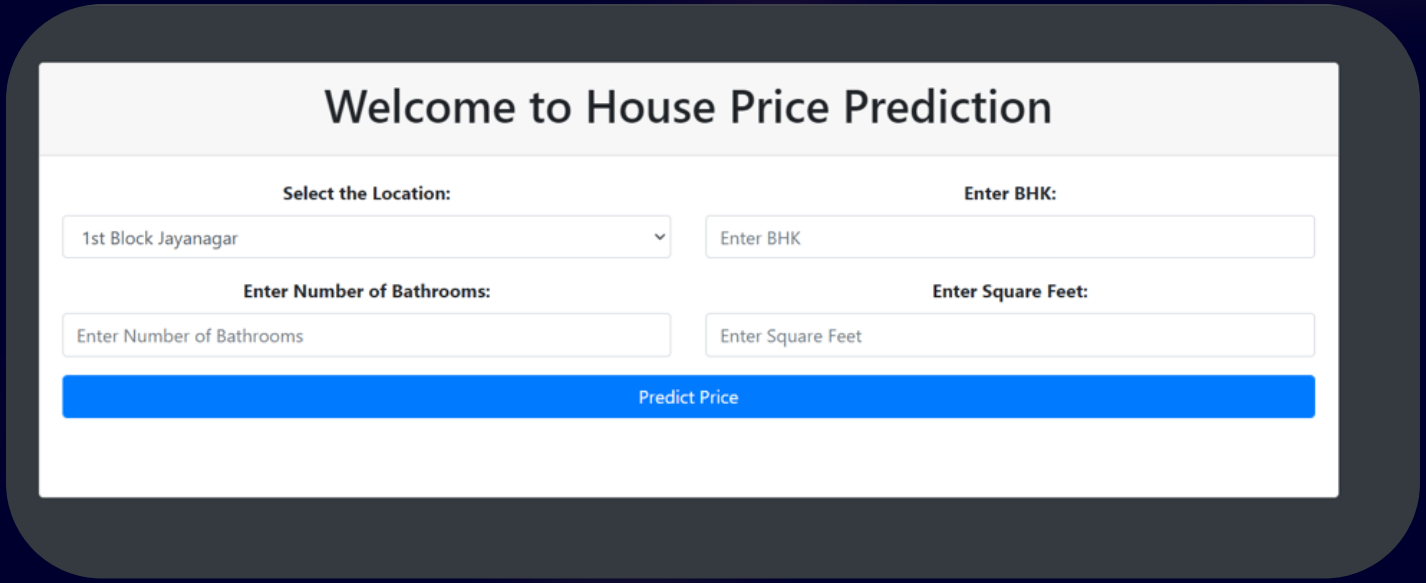
3

Opportunities

Exploit the model's potentials for other regression analytic processes that require accuracy and speed.

Made with Gamma

FRONT END



Made with Gamma

THANK YOU

Made with Gamma