

House Price Prediction GUI Documentation

1. Libraries:

Pandas: Data manipulation.

scikit-learn: Machine learning tools.

tkinter: GUI development.

matplotlib: Plotting.

2. Preprocessing Functions:

preprocess_input: Converts user input to model input.

predict_price: Predicts house price.

on_predict_button_click: Event handler for prediction button.

plot_model: Plots actual vs. predicted values.

3. Data Processing:

Loads housing data, drops unnecessary columns.

Converts categorical columns to numerical values.

Splits data into training and testing sets.

Trains a linear regression model.

4. GUI Setup:

Initializes tkinter window.

Creates labels, entry widgets, and prediction button.

Defines a result label.

5. GUI Styling:

Uses ttk (themed tkinter) for styling.

6. Binding and Execution:

Binds "Return" key to prediction function.

Initiates the GUI event loop.

This script provides a simple GUI for predicting house prices using a linear regression model. It takes user input, predicts the price, and displays the result along with a plot of actual vs. predicted values.