House Price Prediction Challenge

You are given a data set of housing sale data. Using this data, prepare a statistical model to predict the house sale prices from the given features.

You may use any programming language you like for this task. You should submit the code used along with any instructions to run it.

Explain the results and provide any information you believe is relevant such as:

- The suitability of the model chosen
- A general overview / visualisation of the data set
- Any feature selection or feature engineering performed and why
- The statistical significance of the results
- The mean square error and r square of the models predictions

The task will be judged not only on the predictive power of the model, but also the reasoning behind your choices, and the practicality of the solution. You should aim to spend no more than a 2 to 3 hours on this task. The main aim is to present your knowledge / suitability of the model in the context of the task.

Submission:

- Report including description of the results and other requirements as listed above
- A csv file of your predictions for the test.csv set, with one column for the propertyID, and one column for the predicted sale prices.
- Estimate of the time spent on the task (you will not be judged on this. This is not part of the assessment – it is to understand how long the task tends to take).

Data Set Explanation

train.csv

This file contains a number of measures plus the house sale prices. Use this to train your model.

test.csv

This file contains your test set. You need to run your code and output the predicted house sale prices for this data set.

Features:

PropertyID: Identifier for the property

Town: Town of property sale

Bedrooms: number of bedrooms

Bathroom: number of bathrooms

PropertyType: house, flat or terrace

DistanceFromCBD: Distance to the main business district

CarSpaces: Number of parking spots

Landsqm: Land in square metres

Floorsqm: Floor space in square metres

YearBuilt: Year the property was built

Region: Zone property is located in

TownDensity: Number of properties in the town of the property

SalePrice: Price in USD of the property