ADS Assignment 3

Problem Statement: House Price Prediction

Description:- House price prediction is a common problem in the real estate industry and involves predicting the selling price of a house based on various features and attributes. The problem is typically approached as a regression problem, where the target variable is the price of the house, and the features are various attributes of the house

The features used in house price prediction can include both quantitative and categorical variables, such as the number of bedrooms, house area, bedrooms, furnished, nearness to main road, and various amenities such as a garage and other factors that may influence the value of the property.

Accurate predictions can help agents and appraisers price homes correctly, while homeowners can use the predictions to set a reasonable asking price for their properties. Accurate house price prediction can also be useful for buyers who are looking to make informed decisions about purchasing a property and obtaining a fair price for their investment.

Attribute Information:

Name - Description

1- Price-Prices of the houses

2- Area- Area of the houses

3- Bedrooms- No of house bedrooms

4- Bathrooms- No of bathrooms

5- Stories- No of house stories

6- Main Road- Weather connected to Main road

7- Guestroom-Weather has a guest room

8- Basement-Weather has a basement

9- Hot water heating- Weather has a hot water heater

10-Airconditioning-Weather has a air conditioner

11-Parking- No of house parking

12-Furnishing Status-Furnishing status of house
Building a Regression Model

1. Download the dataset: Dataset

2. Load the dataset into the tool.

3. Perform Below Visualizations.

    · Univariate Analysis
    · Bi-Variate Analysis
    · Multi-Variate Analysis

4. Perform descriptive statistics on the dataset.

5. Check for Missing values and deal with them.

6. Find the outliers and replace them outliers

7. Check for Categorical columns and perform encoding.

8. Split the data into dependent and independent

variables.

9. Scale the independent variables

10. Split the data into training and testing

11. Build the Model

12. Train the Model

13. Test the Model

14. Measure the performance using Metrics.