COLLEGE CODE: 9133

COURSE:Artificial intelligence

PHASE I: Problem definition and design thinking

PROJECT TITLE: House price predictor

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Problem Definition: *The problem is to predict house prices using machine learning techniques. The objective is to develop a model that accurately predicts the prices of houses based on a set of features such as location, square footage, number of bedrooms and bathrooms, and other relevant factors. This project involves data preprocessing, feature engineering, model selection, training, and evaluation.*

DESIGN THINKING:

1.Data Source:

Insert dataset

DatasetLink: https://www.kaggle.com/datasets/vedavyasv/usa-housincontaining information about houses, including features like location, square footage, bedrooms, bathrooms, and price.

2.Data Preprocessing:

Clean and preprocess the data, handle missing values and convert categorical features into numerical representations.

3.Feature Selection:

Select the most relevant features for predicting house prices.

4.Model Selection:

Choose a suitable regression algorithm (e.g., Linear Regression, Random Forest Regressor) for predicting house prices.

5.Model Training:

Train the selected model using the preprocessed data.

6.Evaluation:*Evaluate the model's performance using metrics like Mean Absolute Error (MAE), Root Mean Squared Error (RMSE), and R-squared.*

Challenges and Limitations:

Acknowledge the challenges and limitations you encountered during the project. This could include issues with data quality, model overfitting, or any constraints that affected the project's scope.

Conclusion:

Summarize the overall success of your machine learning project and whether it achieved its intended goals. Provide a concise and clear conclusion.