Predicting house prices using machine learning :

PHASE 2

METHODOLOGY:

1.Data collection : Gather a dataset with information on houses .including features like square footage ,number of bedrooms ,location ,etc,.along with their corresponding sales prices.

2.Data processing: Clean and prepare the data by handling missing values ,encoding cateogorial variables ,and scalling features if necessary.

3.Feature selection /engineering: Identify revelant features that can influence house prices .you may need to create new features or select the most important ones.

4.Split the data: divide the dataset into a trainig set and a testing /validation set to evaluate the model's performance.

5.Choose a model: Select a machine learning model suitable for regression tasks.common choice include linear regression ,decision trees,random forests or more advanced model lilke gradient boosting or neural networks.

6.Model training: Train the selected model using the training data.

7.Model evaluation: Assess the model's performance on the validation /testing set using appropriate metrices like mean absolute error (MAE)mean squared error(MSE)or root mean squared error(RMSE).

8.Hyperparameter tuning: Optimize the model's hyperparameters to improve its performance.

9.Final model selection : Choose the best performing model based on evaluation results.

10.Deployment: Deploy the trained model in a production environment if you intend to use it for real-time predictions.

11.Continuous monitoring : Continously monitor the model's performance and retrain it periodically with new data to keep it up-to-date.

12.Interpretability: Depending on the model used, consider techniques for interpreting the model's predictions especially if transparency is important.