

Name : M K KARTHIKEYAN

NM ID : au513521106010

College: AMCET

Predicting house prices using Machine Learning typically involves the following steps:

1. **Data Collection**: Gather a dataset containing information about houses, including features like square footage, number of bedrooms, location, etc., and their corresponding sale prices.
2. **Data Preprocessing**: Clean and preprocess the data by handling missing values, encoding categorical variables, and scaling features if needed.
3. **Feature Selection/Engineering**: Select relevant features or create new ones that might have a strong impact on the house prices.
4. **Splitting the Data**: Divide the dataset into training and testing sets to evaluate the model's performance.

5. **Model Selection**: Choose a regression algorithm suitable for predicting continuous values like house prices. Common choices include Linear Regression, Decision Trees, Random Forest, or Gradient Boosting.
6. **Model Training**: Train the selected model using the training data.
7. **Model Evaluation**: Evaluate the model's performance using metrics like Mean Absolute Error (MAE), Mean Squared Error (MSE), or Root Mean Squared Error (RMSE) on the testing data.
8. **Hyperparameter Tuning**: Fine-tune the model by adjusting hyperparameters to improve its performance.
9. **Prediction**: Once the model is trained and evaluated, use it to make predictions on new, unseen data.
10. **Deployment**: If the model performs well, you can deploy it in a real-world application for predicting house prices.

Remember that the success of your prediction model depends on the quality of your data, the choice of features, and the selection of an appropriate machine learning algorithm. It's also essential to keep your model updated as new data becomes available to maintain its accuracy over time.