



Pune House Price Prediction Using Machine Learning

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Abstract: Machine Learning plays a virtual role from past years in normal speech command, product recommendation as well as in medical field also. Instead of this it provides better customer services and safer automobile system. This all of things shows that ML is trending technology in almost all fields so we are trying to coined up ML in our project. Nowadays the real estate market is a standout amongst the most focused regarding pricing and keep fluctuating. People are looking to buy a new home with their budgets and by analysing market strategies. But main disadvantage of current system is to calculate a price of house without necessary prediction about future market trends and result is price increase

Keywords: Machine learning, Data Preprocessing, Linear Regression, Jupiter Notebook, Pycharm

I. INTRODUCTION

People are careful when they are trying to buy a house with their budgets and market strategy. The price of house may depend on a wide variety of factors ranging from the house's location, its features as well as the property demand and supply in the real estate market the housing market is also one crucial element of the national economy. There forecasting housing values in not only beneficial for Buyers but also real estate agents. Idea behind this project is to help buyers and sellers to estimate real estate price for there future planning according their budget and requirements it'll help the seller to estimate the selling cost of a house perfectly and to help people to predict the exact price to accumulate a house.

II. LITERATURE SURVEY

1 house price prediction using linear regression ML Umang Agarwal, Smriti Kumari Gupta, Madhav Goyal

2 House price prediction using machine learning Anand G. Rawool, Dattatray v. Rogye, Sainath G. Rane, Dr. Vinayak A. Bharadi

3 House price forecasting using Data Mining techniques Atharva chogle , priyanka khaire , Akshata gaud , Jinal Jain

4 House price prediction using machine learning Robart Konwar, Angshuman Kakati , Bhagyashree Das , Divyansh Borah Shah , Dr. Monoj Kumar Muchahari

III. PROPOSED SYSTEM

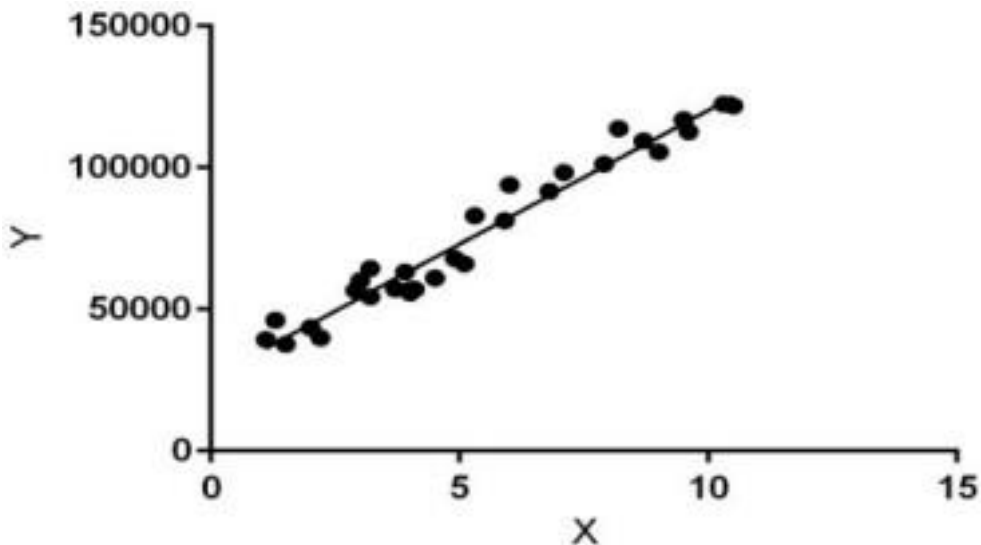
In this proposed system, we focus on predicting house price using machine learning algorithms like Leaner Regression, random forest. We proposed the system "House Price Prediction Using Machine Learning" we have predict the house price using multiple features.

In this proposed system, we are able to train model from various features like area, bhk, location, availability etc. the previous data taken and out of this 80 percent of data is used for training purpose and remaining 20 percent of data used for testing purpose

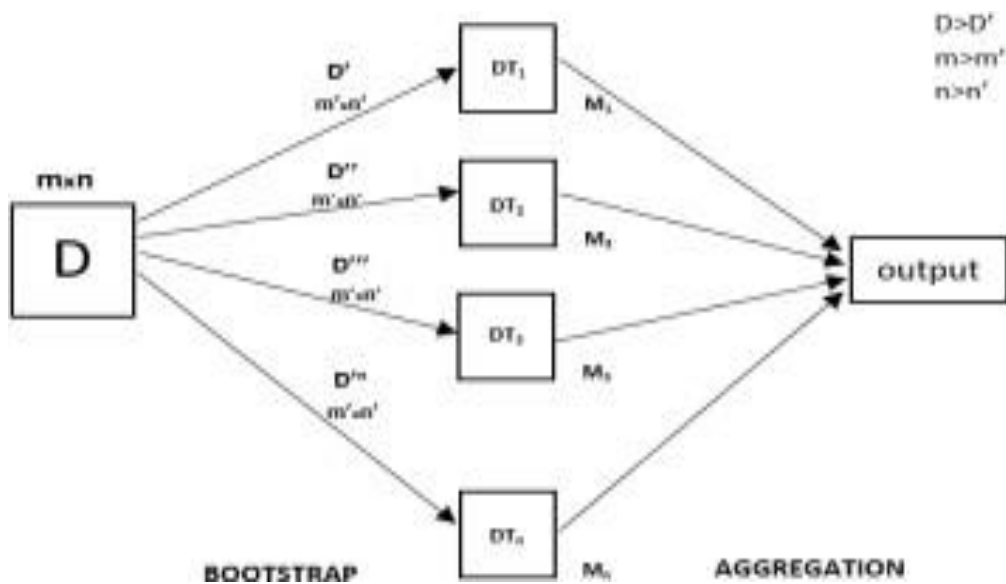


IV.ALGORITHM

Linear Regression- is a machine learning algorithm based on **supervised learning**. It performs a **regression task**. Regression models a target prediction value based on independent variables. It is mostly used for finding out the relationship between variables and forecasting. Different regression models differ based on – the kind of relationship between dependent and independent variables they are considering, and the number of independent variables getting used.



random forest - is an ensemble technique capable of performing both regression and classification tasks with the use of multiple decision trees and a technique called bootstrap and aggregation, commonly known as **bagging**. the basic idea behind this is to combine multiple decision trees in determining the final output rather than relying on individual decision trees. random forest has multiple decision trees as base learning models. we randomly perform row sampling and feature sampling from the dataset forming sample datasets for every model.



**V.CONCLUSION**

In this paper, I have used the Linear retreat model to predict the price of different homes. It comes under the supervision of a supervised learning environment which is another form of machine learning. All the steps required to successfully complete the housing pricing system have been completed. It is evident that the listing of the regression mode is appropriate for the purpose of forecasting housing prices. Our goal is achievable as we have successfully implemented all our boundaries as stated in our Goals column.

REFERENCES

- [1] house price prediction using linear regression ML Umang Agarwal, Smriti Kumari Gupta, Madhav Goyal
- [2] House price prediction using machine learning Anand G. Rawool, Dattatray v. Rogye, Sainath G. Rane, Dr. Vinayak A. Bharadi
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