

A Synopsis on

**HOUSE PRICING PREDICTION SYSTEM**

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Machine Learning - Python

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**INTRODUCTION**

Machine learning is a branch of Artificial Intelligence which is used to

analyse the data more smartly. It automates the process using certain

algorithms to minimize human intervention in the process.

In this machine learning project, we are going to predict the house price

using python. This project will help the sellers and buyers to have an

overview of the situation so that they can act accordingly. Estimating the

sale prices of houses is one of the basic projects. **Linear regression is**

**an algorithm used to predict values that are continuous in nature. It**

**became more popular because it is the best algorithm to start with if you are**

**a newbie to ML.**

**OBJECTIVE**

The main objective of “House pricing prediction systemsystem –

1. The aim is to predict the efficient house pricing for real estate customers with respect to their budgets and priorities.

2. By analyzing previous market trends and price ranges, and also upcoming developments future prices will be predicted.

3. Using two different models in terms of minimizing the difference between predicted and actual rating.

**BACKGROUND**

The model is performed to identify statistically significant factors which can be able to predict the house pricing.

Here the house pricing study is done by analyzing some data by giving some queries which is related to the study. And the steps involved are,

Phase 1: Collection of data Data:

Phase 2: Data pre-processing Data

Phase 3: Training the model

The language that will help us writing the program is Python.

Python contains library such as Numpy, Panda, Scikit-Lean, Scipy, from pandas.tools.plotting import scatter\_matrix, import matplotlib.pyplot as plt.

**HARDWARE AND SOFTWARE REQUIREMENTS**

**Hardware Requirements:**

|  |  |
| --- | --- |
| **Hardware Tools** | **Minimum Requirements** |
| Processors | i5 or above |
| Hard Disk | 10GB |
| RAM | 8GB |
| Monitor | 17’’ Coloured |
| Mouse | Optical |
| Keyboard | 122 Keys |

**Software Requirements:**

|  |  |
| --- | --- |
| **Software Tools** | **Minimum Requirements** |
| Platform | Windows, Linux or MacOS |
| Operating System | Windows, Linux or MacOS |
| Technology | Machine Learning-Python |
| Scripting Language | Python |
| IDE | Pycharm (and Sublime) |

**FUTURE SCOPE**

There are quite a few things that can be polished or add in the future work.

• Though, we were able to identify most of the residential areas. There may be some more places that have housing complexes or multi-storey apartments which are located in commercial areas. Such apartments were not included in this paper and can be counted in future to give a more accurate result. With more and more demand for housing in metropolitan cities, there is a definite increase in the number private builders that provide real estate with additional amenities to attract more customers.

• There are several other models available that can be implemented for prediction. Data given as input to such model should be compatible with the tool used and the operators involved in the process. Also, more number of data sets can be used to increase the accuracy of the model. The main objective of using a different model should be to reduce the calculation time and carry out the whole process in ease.

**CONCLUSION**

In today’s real estate world, it has become tough to store such huge data and extract them for one’s own requirement. Also, the extracted data should be useful. The system makes optimal use of the Linear Regression Algorithm. The system makes use of such data in the most efficient way. The linear regression algorithm helps to fulfill customers by increasing the accuracy of estate choice and reducing the risk of investing in an estate. A lot’s of features that could be added to make the system more widely acceptable. One of the major future scopes is adding estate database of more cities which will provide the user to explore more estates and reach an accurate decision. More factors like recession that affect the house prices shall be added. In-depth details of every property will be added to provide ample details of a desired estate. This will help the system to run on a larger level.

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