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House_Price__Prediction Using Machine Learning and Neural Networks

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ABSTRACT:

Machine learning has played a major role over the years in image acquisition, spam editing, general speech command, product recommendation and medical analysis. The current machine learning algorithm helps us to improve safety alerts, ensure public safety and improve medical devices. The machine learning program also provides better customer service and safer car systems. In the current paper we talk about predicting future house prices generated by a machine learning algorithm. With the selection of predictive methods we examine and investigate the various predictive methods. We use regression as our model because of its flexible and flexible approach to model selection. Our result shows that our case approach needs to be successful, and has the potential to process forecasts that can be compared to other home-cost cost models. In addition, on the other hand the indicators of housing value, the development of a real estate cost forecast that is often the development of real estate policy plans for sale. This study uses machine learning algorithms as a research method that develops housing value estimation models. We create a housing cost forecasting model By looking at the models of the machine learning algorithm. At that point we recommend a real estate forecasting model to support a real estate agent or real estate agent for better information based on real estate calculations. Those tests show that the lasso regression algorithm, in terms of accuracy, reliably surpasses other models in the use of housing cost forecasting.

Keywords: Neural Networking, Machine Learning, Prediction, house price.

INTRODUCTION:

Data is in the air of new technologies, achieving any result is now possible using speculative models. Machine learning is widely used in this approach. Machine learning means providing a valid

and continuous database based on that, the machine itself learns how important an event can be to the whole system based on its pre-loaded data and appropriately predicts various outcomes. The modern variants used in the current process include stock market price forecasting, seismic prediction, company total sales forecast and the list goes on. In our research project, we have considered Bengaluru as our main destination and predict real-time housing prices in various locations in and around Bengaluru. We have compared our database with standardized variables in order to provide the right result for all of our given terms. We have used various algorithms described below for various combinations and the weight of each algorithm is given based on the percentage of accuracy. After testing various test runs we conclude that instead of an individual algorithm a series of algorithms produce better results.

I.   LITERATURE SURVEY:

Adair, J. VBerry, W. Mc Greal proposed a plan in which, the housing market is not the same; rather it can be regarded as a set of different sub-markets from architectural and spatial factors, as well as an unwavering demand for housing and short-term supply over a given period of time. Although there is a general consensus among researchers on the existence of substandard stores there are few consensus on a solid foundation on which to market small businesses, How knowledge of how the housing market is built in the area of deep research power as housing and financing has had positive results. from now on it is proposed on various issues such as the use of industrial and commercial land, the welfare of social and racial groups, and the revitalization of neighboring areas. However the theme is complex and complex housing situations regarding real estate, resilience and diversity and shared use - investment behavior of homeowners, external outcomes, changes between real estate properties, and active participation in the market for a small number of buyers and sellers at any given time they have the effects of modeling the housing market.

O. Bin. Proposed research that estimates hedonic price function using semi-parametric regression and compares pricing prediction performance with standard parameter models. This study uses a large data set representing the sale of 2595 single-family homes between July 2000 and June 2002 from Pitt County, North Carolina. Data from Geographic Information Systems (GIS) has been compiled to account for local housing properties. The results show that the semi-parametric regression is much better than the parameter partners in both the sample and non-sample price forecasts, indicating that the semi-parametric model can be useful in estimating and forecasting real estate prices.

Advantages: The results show that semi-parametric models can have great potential in estimating and predicting residential prices.

Disadvantages: This model is not suitable for real-time use

J. Schmidhuber proposed a system in which, the traditional methods of computer vision and

machine learning can be likened to human performance in tasks such as the recognition of digital handwriting or road signs. Our artificial neural network structures make sense, broad and deep can. The small (usually small) receptor-winning receptors-take-all neurons produce greater network depth, leading to almost as many interconnected nerve endings as are found in mammals between the retina and the visual cortex. Only the winning neurons are trained. Several deep neural columns become specialists in pre-processed input in different ways; their predictions are limited. Photo cards allow for quick training. In the highly competitive MNIST handwriting benchmark, our approach is the first to achieve close human interaction. The road sign recognition bench works very well.

II.   PROPOSED SYSTEM:

Our main focus here is to develop a model that predicts the cost of customer space in accordance with its interests. Our model analyzes a set of customer's selected parameters to determine the appropriate value according to its needs and interests. It uses an old method called linear regression, deforestation and Boosted regression to predict and attempt to provide an analysis of the results obtained.

Our data set contains various important parameters and data mining has been the root of our system. We first cleaned up our entire database and reduced foreign prices. In addition, we rated each parameter based on its importance in determining the price of the system and this led to an increase in the amount of each parameter on the system. We have listed a learning algorithms for 3 different machines and tested our system with different combinations that can ensure the best reliability of our results. Even after that, we followed a unique approach to increasing accuracy, our survey led to the conclusion that the actual number of homes for sale also depends on nearby local features such as train station, supermarket, school, hospital, temple, parks etc. And now we propose our own unique approach that can withstand this need. We are using the Google Maps API and based on location searches we are reducing to an area of 0.5 km. Now when we find any such public places in a circle we increase the value of the property accordingly. We have done this with handmade examples and this has given us excellent results in terms of forecasting accuracy.

III.   RESULT:

A plan aimed at providing an accurate forecast of housing prices has been developed. The system fully utilizes Logistic Regression, collaborative filtering. The system will satisfy customers by providing accurate output and preventing the risk of investing in the wrong house. Additional customer benefit features can also be added to the system without compromising its critical performance.
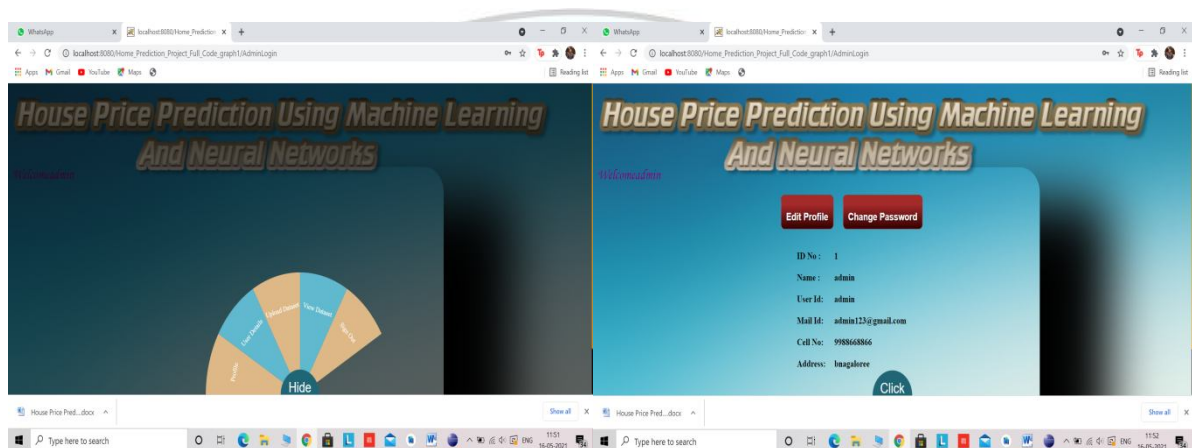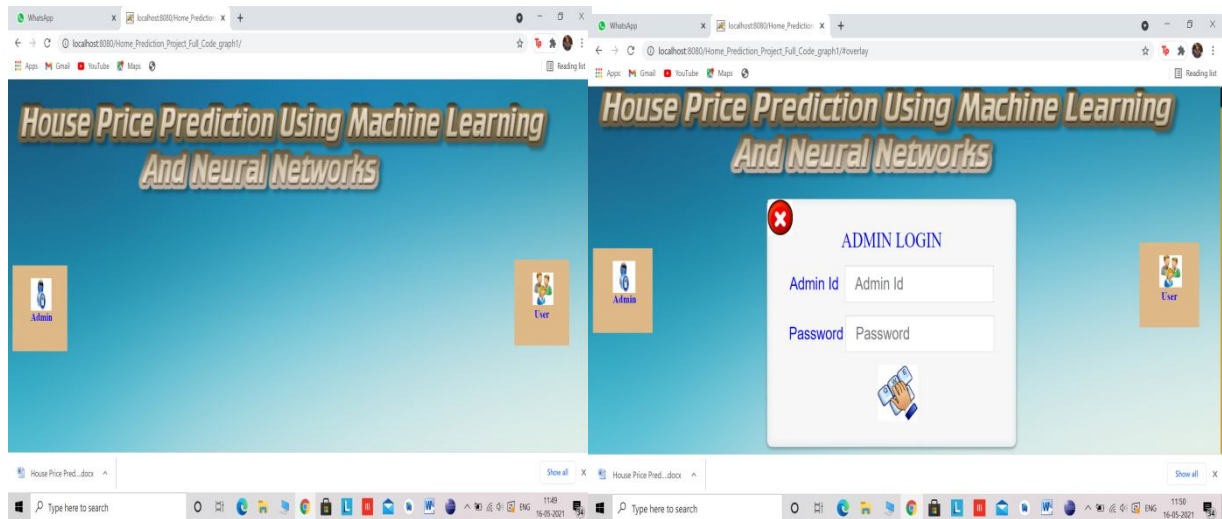
IV.   CONCLUSION:

Despite the fact that Hosting has produced all the experimental offerings that meet our introduction requirements, there are Alternative improvements that can be produced over time. This includes improvements that we did not experience as a result of time constraints. The real concern with the forecast framework may be the accumulation time. Additionally, our data set takes more than one day to process. Instead of doing the math in sequence, we can use a variety of processors and go along with the calculations involved, which may reduce the preparation time in addition to the time to guess. Include All additional functionality under the model, we can give the client a choice by selecting the region by area rotation that should produce those high temperature maps, as opposed to entering the list.

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