

HOUSING: PRICE PREDICTION

Submitted by:

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**ACKNOWLEDGMENT**

Machine Learning Core Concepts has been implemented to complete the business problem of the project

**INTRODUCTION**

* Business Problem Framing

It required to model the price of houses with the available independent variables. This model will then be used by the management to understand how exactly the prices vary with the variables. They can accordingly manipulate the strategy of the firm and concentrate on areas that will yield high returns. Further, the model will be a good way for the management to understand the pricing dynamics of a new market.

* Conceptual Background of the Domain Problem

It required to build a regression model using regularisation in order to predict the actual value of the prospective properties and decide whether to invest in them or not .

* Motivation for the Problem Undertaken

Which variables are significant in predicting the price of a house, and How well those variables describe the price of a house. Also, determine the optimal value of lambda for ridge and lasso regression.

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**Analytical Problem Framing**

* Mathematical/ Analytical Modeling of the Problem

Can find the correlation of features and describe the statical analysis using core functions.

* Data Sources and their formats

Input/Source data in .csv format.

* Data Preprocessing Done

followings steps has been performed in the process of data cleasing

* data imported
* negative/null data verification/handling
* Hardware and Software Requirements and Tools Used

anacoda

python 3.8 and ML core libraries .

**Model/s Development and Evaluation**

* Identification of possible problem-solving approaches (methods)

Ridge and Lasso regression are powerful techniques generally used for creating parsimonious models in presence of a 'large' number of features .

**CONCLUSION**

### After creating model in both Ridge and Lasso we can see that the r2\_scores are almost same for both of them but as lasso will penalize more on the dataset and can also help in feature elemination to consider final model.