**Property Price Estimation based on Housing Company dataset using Lasso Regression**

**Abstract**

Property prices are affected by several factors depending on the microenvironment of a property. Hence, it is a common practice for a company or an individual in real estate industry to estimate price of a given property based on several factors before making a move towards purchasing it. The goal of such company is to purchase a property and resell it for a profit. To achieve this goal, companies perform analysis to estimate the price. However, such manual analysis may not be optimal as importance of the attributes are determined manually. This project, aims at building and training a Machine Learning Model using Linear Regression Algorithm to help such companies to estimate an optimal price for a property based on factors that are of high importance. Since Lasso Algorithm does not need additional feature selection process to determine the features or attributes that most contribute to the price estimation process, we plan to build a Lasso Regression Model. We also aim to perform Exploratory Data Analysiss, test and evaluate the model trained.

**Key Words**: Machine Learning, Lasso Regression, Supervised Learning

**References**

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2. R. Muthukrishnan and R. Rohini, "LASSO: A feature selection technique in predictive modeling for machine learning," 2016 IEEE International Conference on Advances in Computer Applications (ICACA), Coimbatore, 2016, pp. 18-20, doi: 10.1109/ICACA.2016.7887916.

**Tools/Technologies:**

1. Python 3.x,

2. Python Libraries (numpy, pandas, scikit-learn, seaborn, matplotlib, etc),

3. Anaconda-Navigator,

4. Jupyter Notebook,

5. PyCharm