Manarat International University

Department of Computer Science and Engineering

Artificial Intelligence (CSE – 411)

**Assignment Milestone report**

Problem Tile: House Prices: Advanced Regression Techniques

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Kaggle Account: [https://www.kaggle.com/rdnasim](https://www.kaggle.com/rdnasim/)/

Git Repository link: <https://github.com/rdnasim/House-Prices-Advanced-Regression-Techniques>

**Problem statement:**

The problem will be addressed if we build predictive models using Advanced Regression Techniques and train the model and pick the best model using validators so that it can accurately predict the value of House price.

The data set is obtained from Kaggle and it is a Competition Data set which contains 79 features which influences the price of Homes at Ames, Iowa. The competition organizer also boasts about the advantages of not just estimating house price using number of bedrooms or the fence around the house usually done by the brokers. Yeah, he is right, when you can accurately predict the house price using Advanced Regression techniques then why bother about a House Broker’s price estimate?

We need a variety of per-processing steps before dealing with the Big Picture (i.e) Finding the Best Model. The below steps make sure that we are on track to achieve the prime target i.e Predicting the Sale Price

1. Data Cleaning, Outlier Analysis and Exploratory Data Analysis
2. Use Heatmap and Correlation to find the Correlation among features
3. Analyze all the features and perform log transform for the skewed features
4. Data Visualization
5. Dummy Categories and Finding Most Important Features
6. Model building including Lasso and Ridge Regression
7. Model Validation using plenty of good validators
8. Conclusion by publishing the research, findings and result

Describe your problem precisely specifying the dataset to be used

Technical Approach: Describe the methods you intend to apply to solve the given problem

Expected Submission: times, approach, result