Green City Energy Prediction – Approach

# Aim:

To predict the power consumption of Green City based on historical data of the past years from Mar-2008 till Dec-2021.

# Procedure:

Since the data had only two features ‘Datetime’ and ‘energy’ which don’t help much in predicting the values. So features such as ‘date’, ‘hour’, ‘month’, ‘year’, ‘day of week’ were extracted from the Datetime column.

* The train data had less than 5% of null values. These were dopped as their contribution is very low.
* Features were plotted against each other to get a general idea about the trend.
* All the selected features for the model are of a similar scale and applying scaling did not have any impact on the trained model.
* Initially Linear Regression, Lasso, Ridge, KNN Regression were used to train the model along with hyper parameter tuning but Linear Regression with 7th degree polynomial had a lesser RMSE value compared to the others.
* The degree and test size with the least RMSE were found by trial and error.