# Exploratory Data Analysis

Exploratory Data Analysis (EDA) is a critical step in many data-driven projects, including machine learning and data analysis. EDA involves examining and visualizing the data to better understand its characteristics, patterns, and relationships. This involves techniques such as summary statistics, data visualization, and hypothesis testing. The goal of EDA is to uncover insights and anomalies in the data, identify potential issues or biases, and inform further data processing or modeling decisions. EDA can help you identify data quality issues, such as missing values or outliers, and assess the relevance of the data to your project goals. It also enables you to communicate your findings and insights to stakeholders in a clear and effective manner.

In the given cement dataset, previously I used data augmentation technique to create noise and add ten extra rows to the dataset. Afterwards used the augmented dataset to perform EDA. After analysation, I found that there is no specific relation among the columns. Therefore, I used Feature Engineering on it and applied polynomial features technique. After that my dataset now has 6040 rows and 44 columns, which I will be using for predictive modeling.