**Text Sentiment Analysis**

*(Mcdonal’s Store Review)*

**Introduction**:

In this project, we perform sentiment analysis on McDonald's store reviews using machine learning techniques. The goal is to classify reviews as positive, negative, or neutral based on their content. We utilize Python's pandas, numpy, matplotlib, seaborn, and scikit-learn libraries for data processing, analysis, and model building.

**Data Gathering:**

As in the instructions i have to perform the Sentiment Analysis of the data set of text data which i obtained from the Kaggle

Link: <https://www.kaggle.com/datasets/nelgiriyewithana/mcdonalds-store-reviews>

**Data Preprocessing Steps:**

There are total 10 columns in that data set Most of these are useless 2 Columns Review and rating are are use full. I preprocess the data by creating a 'Labels' column based on the ratings. Reviews with ratings above 3 stars are labeled as 'Positive', those below as 'Negative', and the rest as 'Neutral'. We also clean the reviews by removing special characters and converting text to

Secondly in this process the Removing the Special character, lowercasing of text is also include

**Model Building and Evaluation:**

I first use a Logistic Regression model for sentiment classification.I split the dataset into training and testing sets, fit the model, and evaluate its performance using classification report and confusion matrix.

But, I can't evaluate the second Model, Because the code will stuck for 2.5Hours and i used different Methods to solve it

**Summary and Conclusion*:***

In this project, we performed sentiment analysis on McDonald's store reviews using both Logistic Regression and Support Vector Machine models. We preprocessed the data, converted text to numerical format using TF-IDF, and built and evaluated the models. The classification reports and confusion matrices provided insights into the models' performance.