**# Forecasting Stock Market Prices**

A time series is simply a series of data points ordered in time. In a time series, time is often the independent variable and the goal is usually to make a forecast for the future. Our Aim is to create a model that can forecast the future stock price based on the model training and provided dataset.

**### Data**

We will be using a [Huge stock market dataset]from the Kaggle platform which has a very good collection of datasets.The file we will be using is present in following directory in the dataset zip file input\Data\Stocks\gs.us.txt

The data is presented in CSV format as follows : Date, Open, High, Low, Close, Volume, OpenInt.

Features:

- Date

- Open

- High

- Low

- Close

- Volume

- OpenInt

Note that prices have been adjusted for dividends and splits.

### LICENSE OF DATASET : [LICENSE](https://creativecommons.org/publicdomain/zero/1.0/)

**### Libraries Involved:**

1. NumPy

2. Pandas

3. matplotlib

4. scikit-learn

5. statsmodels

**### Steps :**

1. Importing Libraries

2. Exploring the Dataset

3. Exploratory Data Analysis

> \* Univariate Analysis

4. Data Preprocessing

5. Model Building

> \* AUTOREGRESSIVE MODEL

> \* MOVING AVERAGE MODEL

6. Evaluation

> \* MEAN SQUARE ERROR

> \* MEAN ABSOLUTE ERROR

> \* ROOT MEAN SQUARE ERROR

**## Models Used:**

1. Autogregressive Model

2. Moving Average model