Stock Price Prediction and Forecast of Apple, Boeing, and Ford

**Purpose:**

The purpose of this study is to predict and forecast the stock price of three top companies of the New York stock exchange index by using the Time Series Analysis. The data was extracted from the Yahoo Finance website, and prediction and forecasting will be made based on the historical data. The objective is to predict the future stock price of Apple, Boeing, and Ford to help investors to guide on their investment strategies.

**Description:**

The data collection method was broadly grouped into two main categories: dollar values and time as a compare group and the volume indicates movement by the investors. First, the cause was listed as the dollar value of each stock which includes the open – price of the stock at market open, close – the price of the stock at market close, high – highest price reached on that month, and low – lowest price of the stock of the month. Second, time observes and records the movement of the dollar value of each stock and it was recorded in the format: yy:mm:dd: dd. Similarly, Volume indicates the density of the movement. The prediction and forecast will be mode on the closing price of each stock. The time series model ARIMA will be used to predict the stock price. The ARIMA model is predominantly used on the non-seasonal, and stationary data set. However, the trend is a general direction encountered in the stock data set. The uptrend is an overall increase in price while a downtrend is marked as a decrease in the price. Thus, the differencing feature will be used to convert non-stationary data into stationary data

**Audience:**

**The investors can take direct benefits from this time series analysis. The prediction and forecasting will be made based on the historical trend. Thus, investors will have the confidence to invest based on this prediction. On the other hand, companies can change their policies and strategies to attract investors to invest in their company.**

**Reference:**

<https://finance.yahoo.com/>