**PREDICTION ENGINE FOR STOCK MARKET**

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**Abstract**

Stock market is a promising financial investment that can generate great wealth. However, the volatile nature of the stock market makes it a very high-risk investment. Thus, a lot of researchers have contributed their efforts to forecast the stock market pricing and average movement. Researchers have used various methods in computer science and economics in their quest to gain a piece of this volatile information and to make great fortune out of the stock market investment.

Our prediction engine (PE) will predict near real values of the stocks based on market behaviour using artificial intelligence and predictive analysis. The sources for our data will be ‘moneycontrol’ which shows the stock values of Indian companies and ‘Nation stock exchange’(NSE). Our PE uses certain concepts and algorithms such as correlation, Time series/trend data, analysis of variance, Multi Correlation of data, saturation, and the probable cause analysis to validate and predict the market values. The forecasts are predicted using the R software with RCssandra. This will enable the investors to make decisions accordingly prior to investing in the firm. Thereby the PE will be a great tool for the share buyers as this implies a clear picture of how the firm’s stock market will be in the next coming years.

**Key functionalities:**

Predicting the future stock values for each commodity, Plotting trend lines, Correlating the stock values.

**Methodologies:**

Time series of trend data, Multi correlation of data, Headroom Analysis, Market saturation, Probable cause analysis.