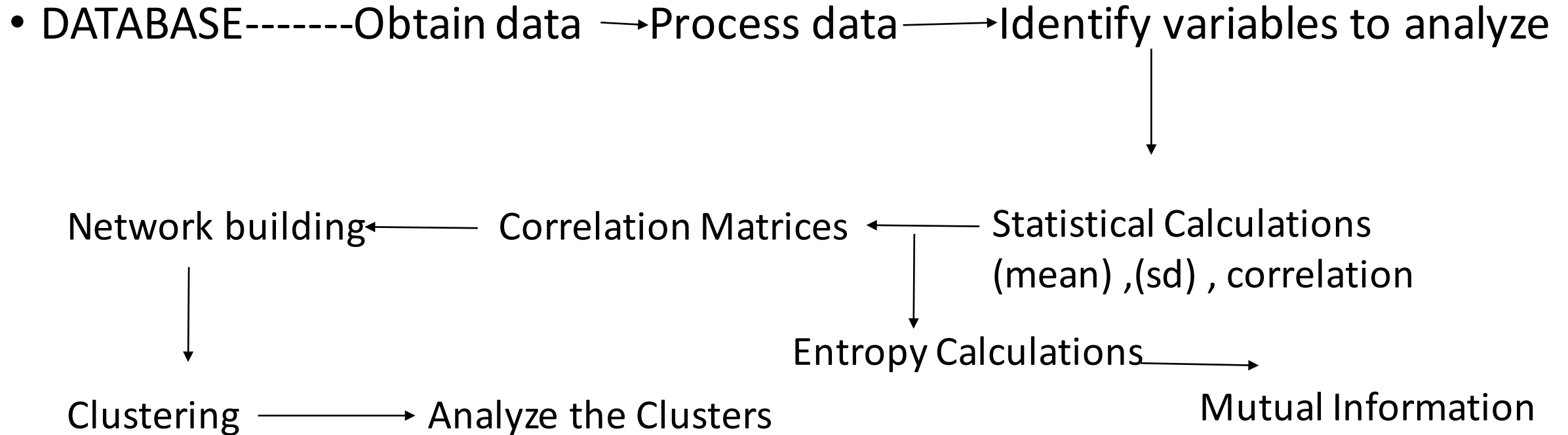


# Model Dynamics of Financial Market and Network Analysis of Financial data

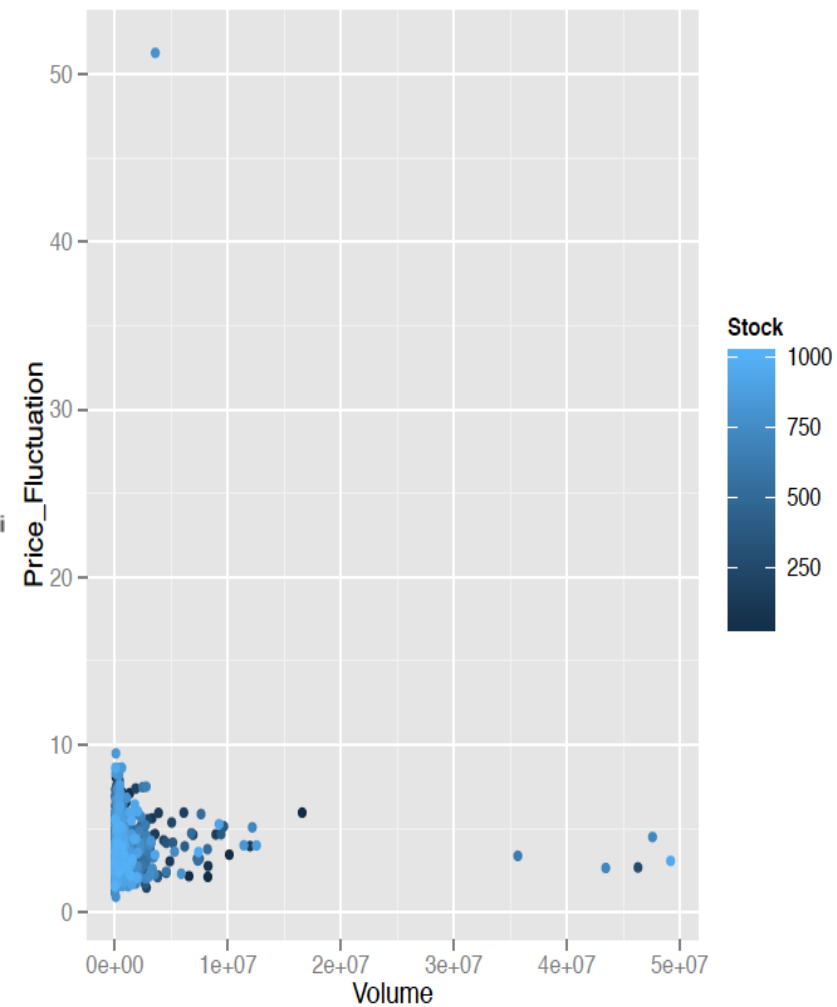
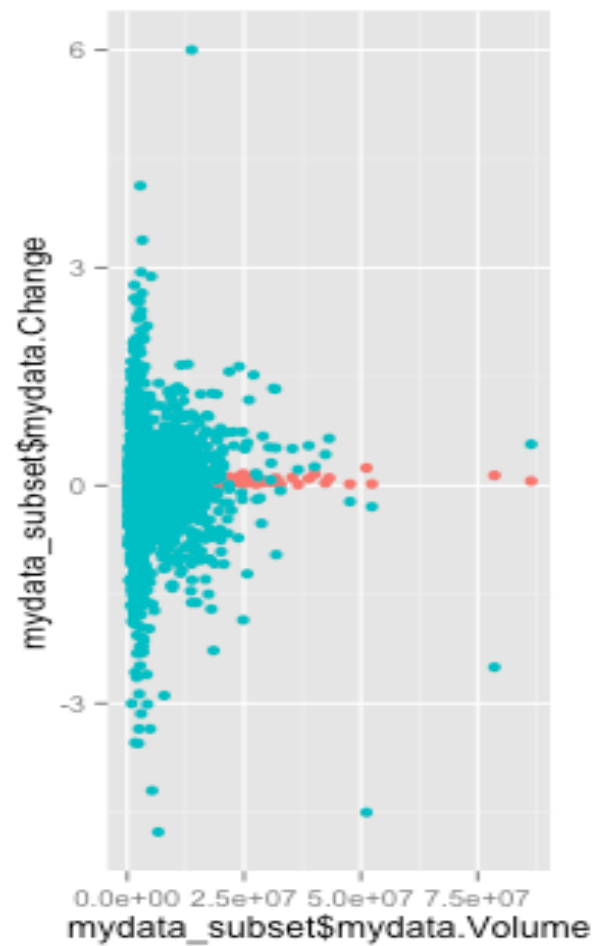
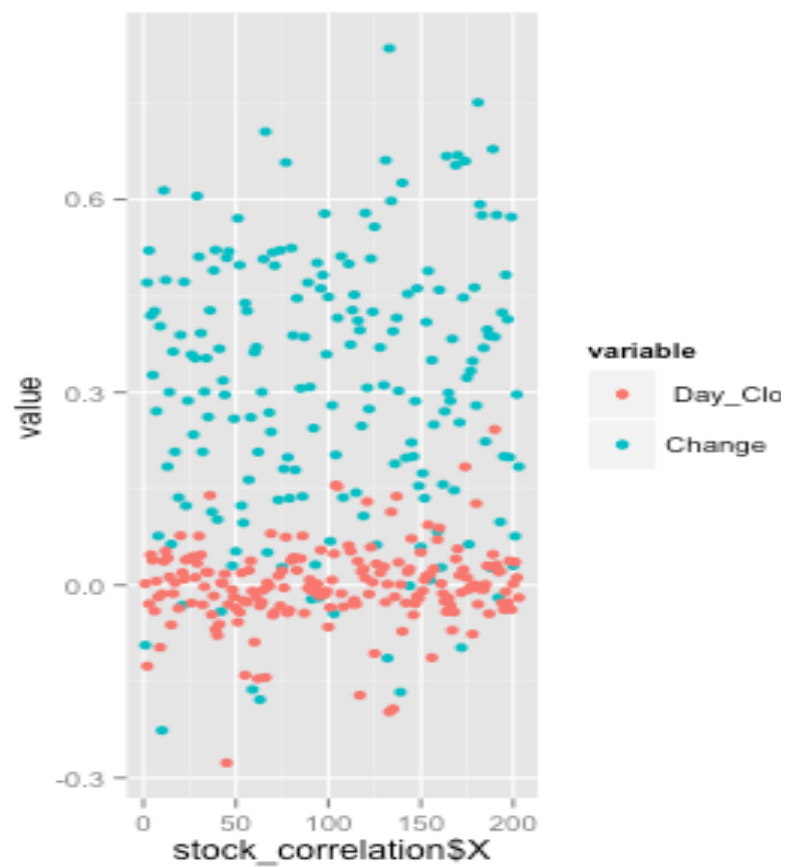
- Aim : Project focuses on analyzing inter and Intraday stock trading to understand the correlation motion of stock prices/Volume and better ways to estimate volatility
- Short term : Estimate the stock movement and how it influences the market
- Broader Impact:

# Work-Pipeline



# Preliminary-Work

- Initially 200 stocks were downloaded using API in R (Quandl database was used)
- Data was Subset to Get Change in the price ,Date, Change in Closing and Opening price as well as Volume traded
- Correlation plots between the Volume traded and Fluctuations and correlation between
- Entropy Calculation of the Fluctuation were computed using shannon entropy formula and came out to be 5.438636 for (one digit after decimal
- )



# Future works

- Construction of network on Correlation data
- Clustering Girvan–Newman algorithm ,k-mean clustering
- Compute multivariate entropy.
- Sector based approach to link Twitter Financial Sentiment data and clustering of Fluctuations