Requirement Document for Eric Arambula Project
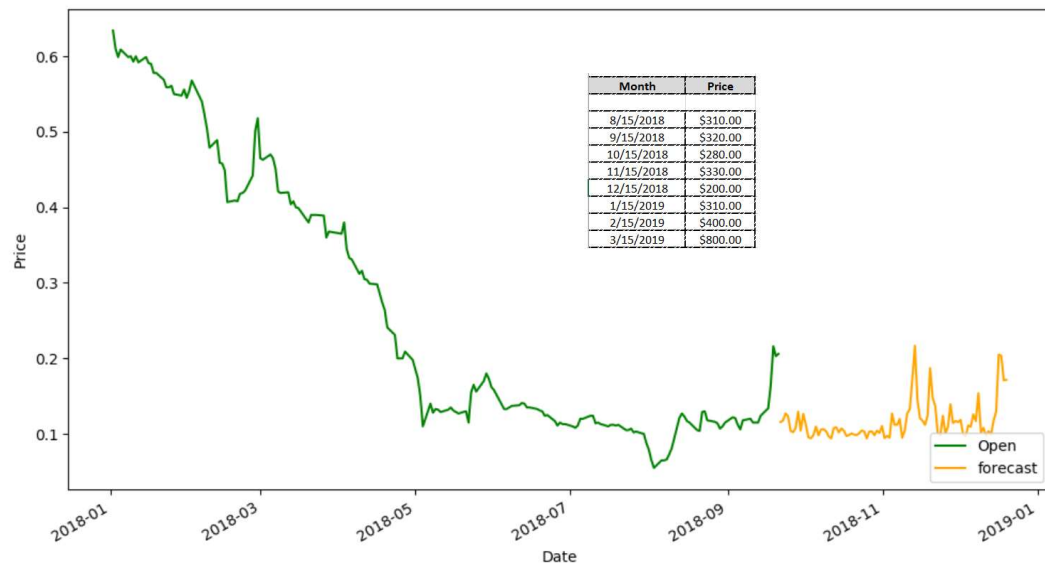
Data.

1. Download Real Data from Yahoo Financial for all Stock Tickers to CSV + PCT_CHG + Volatility (**Real_Data.csv**)
2. Populate a Second CSV and Predict Daily OHLC for all Stocks (**Predictions.csv**)
3. Calculate Fibonacci Pivot Points

Ex.

Date	Open	High	Low	Close	Confidence Level	Recommendation		Fibonacci Pivot Points						
								R3	R2	R1	PP	S1	S2	S3
8/31/2018	14.5989599	14.885301	14.317425	14.7504	0.085876543	Hold		13	8	5	3	2	1	1

4. Even not reliable, but we can have an idea how the price might look like in the next couple months. If predicting price in future date, say, 1 week, 1 Month, 1 year. Use implied volatility and PLT.

Month	Price
8/15/2018	$310.00
9/15/2018	$320.00
10/15/2018	$280.00
11/15/2018	$330.00
12/15/2018	$200.00
1/15/2019	$310.00
2/15/2019	$400.00
3/15/2019	$800.00

5. For each Stock Recommend an action (Buy / Sell / Hold) based on the following Conditions.

Trading Strategies.

Swing / Intraday

Swing

To make a better decision, we will be using three indicators: Bollinger Bands (upper line, middle line, and bottom line), MACD, and Relative Strength Index as shown from top to bottom of the below figure.

Buy Decision must satisfy three conditions:

- The signal is below the bottom line of Bollinger Bands,
- The MACD in uptrend and has a cross intersection,
- The Relative Strength Index is in uptrend

Sell Decision must satisfy three conditions:

- The signal is above the upper line of Bollinger Bands,
- The MACD in downtrend and has a cross intersection,
- The Relative Strength Index is in downtrend

Hold Decision

No signal if neither of the above conditions are satisfied.

Intraday Trading Strategy

If stock lost the day before >= 2 % then, go Intraday.

For Intraday,

- Buy on Lowest of next day, and Sell on Highest based on prediction.

Or

- Use Supertrend Trading Strategy.

5. In the first tab of Prediction CSV, Summary Tab, print stocks to Buy and to Sell.

Date	Stock	Open	High	Low	Close	Signal(Buy / Hold / Sell)	Type of Trade (Intraday / Swing)
9/24/2018	Volaris	14.96	15.21	14.02	14.46	Buy	Swing
9/24/2018	Azteca	2.29	2.32	2.26	2.30	Buy	Intraday
9/24/2018	Elektra	835.12	848.22	814.77	819.85	Buy	Intraday
9/24/2018	Frisco	7.30	7.41	7.23	7.33	Sell	Swing

Backtest.

Backtest will be done against 3 years of data under the following Conditions :

Amount to start $10,000

Stop Loss 3% of Trade

Total Trading Profit / Loss :

How many trades were executed per week ?
How many were Swing Trades ?
% of Swing Trades Won and % of gain
% of Swing Trades Lost and % of lost
How many were Intraday ?
% of Intraday Trades Won and % of gain
% of Intraday Trades Lost and % of lost per trade