# User Manual

for

# Stock Analyser

Version 1

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April 13th, 2016

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# Revision History

| Author | Reviewer | Date | Reason for Change | Version |
|---|---|---|---|---|
| Anurag, Kuldeep, Akshar | Samarth | April 13th, 2016 | Initial Version | 1.0 |

# Introduction

This user manual is meant for the application Stock Analyser which provides charting and indicator facilities for stock prices that the user selects. The user manual consists of basic help related to using the application, information about the indicators provided, and information about the development team and bug reporting guidelines.

## Project Overview

The aim of this project is to provide select indicators for stock traders to better analyse the markets and to help them with decisions pertaining to buying and selling of stocks. This application provides the Elliott Wave Count indicator which acts as the primary indicator. This is further supported by other indicators like moving averages, exponential moving averages, RSI, MACD, etc. These all combined provide a very good understanding of the trends in the stock market and allow traders to make better decisions.

## Project Motivation

The main motivation for making this product was to fill the gap in the stock trading tools market with regards to the cost of the products as well as the bloatware that

always accompanied these products. The tools provided so many features that it became cumbersome to use and these products came at very high costs.

## Reference Documents

- Software Requirements Specifications
- High and Low level design documents

## Software Dependencies.

The following softwares are necessary for the application to run:

- mongoDB C++ drivers
- Linux OS
- Qt
- mongoDB server
- Qt Webengine

# Account management

## Registration

A person can create a new account by clicking on Signup button on login page.

## View/update profile

We have also provided option for changing username and password for the account holder.

## Customize

An account holder can add companies whose shares he has or wants to buy to check on their current prices.

## Pop-Up Conditions

He can select when he wants a pop-up by giving the high/low point and indicator along with the company name.

# Charting and Indicators

### Charting

The charting window shows chart for the given stock for a given amount of time. The window contains multiple charts in different tabs with the tab name being the stock name. The chart for new stock can be added by clicking on the ‘Add tab’. After clicking on the ‘Add tab’, it

given a list of stocks from which one of the stock is to be selected after which the chart for stock is shown. In ease tab, then is a dropdown menu, which included the list of the indicator type. After selecting a particular indicator, some other options are also required to choose which then produce the chart according to the selected options. Also, the user can zoom in or zoom out using the scroll on the mouse. Also, there is a ‘Reset’ button which reset the zoom of the charting to 1x.

## Elliott Wave count

In Elliott's model, market prices have impulsive phases and corrective phases. Impulsive phases makes prices to go high in bull market and corrective phases tries to absorbs the effects of the impulsive phase. Impulses are always subdivided into a set of 5 lower-degree waves, alternating again between impulsive and corrective character, so that waves 1, 3, and 5 are impulses, and waves 2 and 4 are smaller retraces of waves 1 and 3. Corrective waves subdivide into 3 smaller-degree waves starting with a five-wave counter-trend impulse, a retrace, and another impulse. In a bear market the dominant trend is downward, so the pattern is reversed—five waves down and three up. Motive waves always move with the trend, while corrective waves move against it.

## Indicators

Other than elliott wave count,We provide several indicators in our product. The indicators helps user to understand the market’s trend. These indicators will be calculated automatically as new data arrives.User can specify some conditions that if satisfied a popup will be shown in GUI.Here are some indicators that will be provided.

## Relative Strength Index

The relative strength index (RSI) is a technical momentum indicator that compares the magnitude of recent gains to recent losses in an attempt to determine overbought and oversold conditions of an asset.RSI ranges from 0 to 100.An asset is deemed to be overbought once the RSI approaches the 70 level, meaning that it may be getting overvalued and is a good candidate for a pullback. Likewise, if the RSI approaches 30, it is an indication that the asset may be getting oversold and therefore likely to become undervalued.

## Commodity Channel Index

The Commodity Channel Index (CCI) is a versatile indicator that can be used to identify a new trend or warn of extreme conditions.CCI measures the current price level relative to an average price level over a given period of time. CCI is relatively high when prices are far above their average. CCI is relatively low when prices are far below their average. In this manner, CCI can be used to identify overbought and oversold levels.

### Moving Average

Moving average is a widely used indicator in technical analysis that helps smooth out price action by filtering out the “noise” from random price fluctuations. A moving average (MA) is a trend-following or lagging indicator because it is based on past prices. We use past 14 data to calculate moving average.A rising MA indicates that the security is in an uptrend, while a declining MA indicates that it is in a downtrend.

### Stochastic Oscillator

The Stochastic Oscillator is a momentum indicator that shows the location of the close relative to the high-low range over a set number of periods.The Stochastic Oscillator doesn't follow price, it doesn't follow volume or anything like that. It follows the speed or the momentum of price. As a rule, the momentum changes direction before price.As such, bullish and bearish divergences in the Stochastic Oscillator can be used to foreshadow reversals.

# Development Team

This software was developed by members of Team 26 as part of the course Software Engineering (IT314) offered to B.Tech students at DA-IICT.

**Team Members:**

| S.No | Name | ID |
|---|---|---|
| 1. | Anurag Gupta | 201301028 |
| 2. | Sai Sruthi Talluri | 201201143 |
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## Bug Reporting

Design related bugs would require inputs from the user but bugs related to the algorithms that are used to compute the indicator values and other such backend related bugs would be handled solely by the development team.

Any new feature requests would require significant inputs from the user in terms of the exact requirements. The development team would decide upon the feasibility of the feature, in terms of what kind of changes would need to be introduced into the design to incorporate the changes into the system. Only then would such features be added to the system.

Any kinds of bugs that are found can be directly reported to:
group26sen+bugs@gmail.com.
Feature requests can be directed to:
group26sen+features@gmail.com.