**TECHNICAL ANALYSIS STOCK SCREENER-1**

**HIGH LEVEL DESIGN**

**Document Control:**

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| **TA SCREENER-1(MOVING ANALYSIS)** | | | | | | | | |
| Guided by- **Mr Sankar** |  |  | |  |  |  |  |  |
| **Date** | **Version** | **Author** | **Brief Description of Changes** | | | | **Approver Signature** | |
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# Introduction

## 1. Purpose:

The main purpose of Simple moving average chart is to show the trend of a stock/security in a smoothed manner with a single line with less apparent volatility. It’s gives recommendations to the Stock Holders like Buy, Sell or Hold the stock by the past moving averages.

Moving Averages chart are some of the oldest technical indicators and still remain some of the most useful indicators for market analysis using the [technical analysis](https://www.samco.in/knowledge-center/article-categories/technical-analysis/) approach. In simple terms moving average is the average price of the security at a specified point in time. This project is to create for Time Saving, Easily Accessible for customer while doing Technical Analysis Stock Screener and moving average tries to exhibit a trend in the prices.

### 1.1 Intended Audience:

There document is intended to be read by investor.

### 1.2 Acronyms/Abbreviations:

|  |  |
| --- | --- |
| CLIENT | USER |
| Stock Holder | It gives clear view and recommendations based on the Simple Averages calculated between the latest 20 or 50 days data. |

**1.3 Project Purpose:**

Technical Analysis Stock Screener mainly displays the list of stocks to gives choices of stock User can choses and project display all past data and calculated averages on the basis of data display. It gives recommendations based on the averages calculated between the latest 10 days Stock records average to the latest 50 days average Stock record Based on this difference between averages It provides recommendations like Buy, Sell or Hold. Moving averages can be calculated on alternative prices i.e. closing price/open high/ low/

adjusted close but in most case the closing price for the day considered.

### 1.4 Key Project Objectives:

* A moving average is a stock indicator commonly used in technical analysis.
* The moving average helps to level the price data over a specified period by creating a constantly updated average price.
* A moving average is a calculation that takes the arithmetic mean of a given set of prices over a specific number of days in the past.
* To calculate simple moving average data needed of whether it is 20 days or 50days
* Moving averages can be calculated on alternative prices i.e. closing price/open/high/low/adjusted close but in most case the closing price for the day is considered.
* Display the result according to the calculations we have to Buy, Sell or Hold the stock.

### 1.5 Project Scope and Limitation:

Scope of Technical Analysis Technical Analysis is commonly and widely used by Equity traders, Forex traders, Commodity traders around the globe to**predict the market for short term as well as long term.** The charts, indicators are the main tools of technical analysis, and these help the traders to understand the price movement pattern, the trend in the market.

In this project we have analyzed static data but in real time stock market the price changes in every millisecond hence the decision made at current situation may not valid at next instant So it can be solved by analyzing the algorithm with real time data We are using one year data for all sticks but when new data is used in this model its accuracy may vary.

Technical analysis is not applicable for all the stocks in the same manner. As every stock is different, you need to understand which indicator, oscillator, charts, and time-frame will be right for the kind of stock you want to trade which is a difficult process.

### 1.6 Functional Overview:

### Stock Holder

* + 1. **TA SCREENER-1\_01->: void selectChoice()**:- This function is gives choices to the user.
    2. **TA SCRNEER-1\_02-> void loadStockData()** :- This function will load the files of stocks in the application.
    3. **TA SCRNEER-1\_03-> void showMovingAverage()**:-This function calculate averages of the past stocks show recommendation of what to buy ,sell or hold.
    4. **TA SCRNEER-1\_04->void freeLinkedList():-**This function deallocated all the allocated memory.
    5. **TA SCRNEER-1\_05->void PrintStockList():-**This function print the data of stock.

### 2. Design Overview:

Instant Chatters comprises of the following modules:

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| Name of the Module | **void selectchoice()** |
| Handled by | Gorige Kavya |
| Description | This function is gives choices to the user. |

|  |  |
| --- | --- |
| Name of the Module | **void loadStockData()** |
| Handled by | Badagouni Laxmi Prasanna |
| Description | This function will load the files of stocks in the application. |

|  |  |
| --- | --- |
| Name of the Module | **void showMovingAverage()** |
| Handled by | Jillellamudi Meghana |
| Description | This function calculate averages of the past stocks show recommendation of what to buy ,sell or hold. |

|  |  |
| --- | --- |
| Name of the Module | **void freeLinkedList()** |
| Handled by | Sri Pooja Hruthi |
| Description | This function deallocated all the allocated memory. |

|  |  |
| --- | --- |
| Name of the Module | **void PrintStockList()** |
| Handled by | Bothsa Snehitha |
| Description | This function print the data of stocks |

#### 2.1 Design Objectives:

* The project aims to create and develop the Technical Analysis Screener Simple Average Moving Sprint Project.
* A moving average is a stock indicator commonly used in technical analysis. and displays the list of stocks and give choice to user select stock of they want to analysis.
* A moving average is a calculation that takes the arithmetic mean of a given set of prices over a specific number of days in the past. It gives recommendations like Buy, Sell or Hold.

#### 2.2.1 Performance:

The system will work on the admin terminal. The performance depends on the hardware component of the admin’s system.

#### 2.2.2 Maintenance:

The main benefit of using technical stock screeners is that you can use multiple technical indicators while filtering the stocks. Two or three indicators pointing in the same direction of price movement are always a better option than using a single indicator. So, in the end, you get a list of more promising and potentially profitable stocks for making valuable investments.

It is very important to understand what a particular indicator hints at and how it can be interpreted before adding it to your technical stock screener. The reason is simple, misinterpreting the technical indicators can cause a lot of uncertainty and confusion that will lead to poor decision making.The technical analysis takes mainly three factors into consideration while forecasting the price movement — Price, Volume, and Moving Averages. With the help of these factors, you can determine the direction in which your stock or fund is prevailing.

### 3. Environment Description:

**3.1 Time Zone Support:** IST- Kolkata

**3.2 Language Support:** English

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#### 3.3 User Desktop Requirements:

a.   64-bit processor, 1 GHz or faster

     b.   At least 2 GB free hard drive space

     c.   At least 2 GB RAM

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#### 3.4 Integration Requirements:

1. Language: C
2. Tools: Ctags, Makefile
3. Complier: gcc
4. Data: csv

#### 3.5 Configuration:

#### 3.5.1 Operating System: Ubuntu 64bits Linux environment.

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