

Stock Analysis Dashboard Documentation

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1. Introduction

The Stock Analysis Dashboard is a comprehensive technical analysis tool designed for real-time stock market analysis. This application combines multiple technical indicators to provide traders and investors with actionable insights.

2. Features

Core Capabilities

- Real-time stock data visualization
- Multiple technical indicators
- Automated buy/sell signals
- Interactive charting
- Data export functionality

Technical Indicators

- Price Charts with Candlesticks
- Moving Averages (9 & 20 EMA)
- MACD (Moving Average Convergence Divergence)
- RSI (Relative Strength Index)
- VWAP (Volume Weighted Average Price)

3. Installation Guide

System Requirements

- Python 3.7 or higher
- 4GB RAM minimum
- Stable internet connection
- Modern web browser

Installation Steps

1. ****Install Required Packages****

```
```bash
pip install streamlit pandas yfinance plotly numpy
```
```

2. ****Verify Installation****

```
```bash
python --version
pip list
```
```

4. User Guide

Getting Started

1. ****Launch Application****

```
```bash
streamlit run dt.py
```
```

2. ****Basic Navigation****

- Enter stock symbol
- Select date range
- View analysis

Using Technical Indicators

Price Chart

- Green candles: Price increase
- Red candles: Price decrease
- EMA lines: Trend confirmation
- VWAP: Institutional interest

MACD

- Blue line: MACD
- Orange line: Signal
- Histogram: Momentum
- Crossovers: Trading signals

RSI

- Overbought level: 70
- Oversold level: 30
- Trend confirmation

5. Technical Details

Data Processing

- Real-time data fetching
- Technical indicator calculation
- Signal generation
- Visualization rendering

Signal Generation Logic

1. MACD Crossover
2. RSI Confirmation
3. Trend Validation
4. Buy/Sell Signal Display

6. Troubleshooting

Common Issues and Solutions

1. **Installation Problems**

- Use alternative pip commands
- Check Python version
- Verify internet connection

2. **Data Loading Issues**

- Verify stock symbol
- Check internet connection
- Confirm date range

3. **Performance Issues**

- Close other applications
- Clear browser cache
- Restart application

7. Maintenance

Regular Updates

```
```bash
pip install --upgrade streamlit pandas yfinance plotly numpy
```
```

Data Management

- Regular cache clearing
- Database optimization
- System updates

8. Support

Documentation Resources

- Streamlit: <https://docs.streamlit.io>
- YFinance: <https://pypi.org/project/yfinance/>
- Plotly: <https://plotly.com/python/>

Technical Support

- GitHub Issues
- Email Support
- Community Forums

****Disclaimer****: This tool is for educational purposes only. Always conduct thorough research before making investment decisions.

Document Version: 1.0

*Last Updated: 2/4/2025