

COMS W4115 (Programming Languages and Translators)

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COURSE COMS W4115
SEMESTER M11
LAST MONU
FIRST CHACKO
HW PONE

Traders Joe

Technical Analysis in Financial Markets

By Monu Chacko

Email: mc3574@columbia.edu

Introduction

Traders Joe is a compiler that focuses on technical analysis (TA) in the financial markets. It takes time series as input and allows users to write programs to perform tasks like finding moving averages, Fibonacci ratios, support and resistance lines etc. The combinations of various TA will aid traders to place trades that have profit potentials. The scope of the project is Technical Analysis and not trade execution.

The Language

Traders Joe takes the time series as inputs and does a pattern matching for most of the technical analysis needs in the financial markets. The pattern matching includes finding out the type of candle stick pattern, support and resistance lines etc. This compilation engine takes the heavy burden from the traders and finds opportunity in trading. This compiler is built with resource efficiency in mind because trading is done round the clock especially in a forex markets.

Data Types

Integer	int
Floating Point	double
String	string

Boolean	bool
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Operators

Greater Than	>
Greater Than or Equal To	>=
Lesser Than	<
Lesser Than or Equal To	<=
Equal To	=
Not Equal To	!=
And	&&
Or	

Control System

If (<i>expression</i>) then <i>statement</i> else <i>statement</i>	
While	

Functions

Fibonacci ratios	Fib(int period)
Simple Moving Average (SMA)	SMA(int period)
Exponential Moving Average (EMA)	EMA(int period)
Resistance	Resistance(int period)
Support	Support(int period)
Candlestick (Patterns) - Eg. Doji, Hammer etc	Candle()
Alert	Alert(string)

Example

```

TimeSeries = "/EURUSD.txt";

if ((EMA(20) > 1.5004) && (Candle() == "DOJI"))
{
    Alert("Strong Buy");
}

```

Sample Time Series input data

Symbol	DateTime	Open	Close	High	Low
EURUSD	1/5/2011	1.5095	1.5105	1.5109	1.5085
EURUSD	1/4/2011	1.5031	1.5095	1.5095	1.5021

EURUSD	1/3/2011	1.5085	1.5031	1.5085	1.5031
EURUSD	1/2/2011	1.5021	1.5085	1.5021	1.5031
EURUSD	1/1/2011	1.5001	1.5021	1.5021	1.5001