**Algorithmic Trading Strategy for USDCAD and USDCHF using MQL4**

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Introduction:
This report outlines the design and implementation of an algorithmic trading strategy for the USDCAD and USDCHF currency pairs. The strategy is based on a set of requirements provided by the client and aims to execute a total order of 1 million units across four separate execution windows. The strategy considers the long option for the USDCHF currency pair and the short option for the USDCAD currency pair.

Requirements:
The requirements for this strategy are as follows:

The total order size is 1 million units.

The strategy should be executed in four separate windows with varying percentages of the total order size:
a. First window: 20% (200k units)
b. Second window: 30% (300k units)
c. Third window: 20% (200k units)
d. Fourth window: 30% (300k units)

For each execution window, specific conditions need to be met before executing orders:
a. For the long option (USDCHF), orders should only be executed if the current price is higher than the average execution price of the previous window.
b. For the short option (USDCAD), orders should only be executed if the current price is lower than the average execution price of the previous window.

Implementation:
The algorithm was implemented using the MQL4 programming language, which is widely used for developing automated trading strategies for the MetaTrader 4 platform. The code was designed to follow the requirements, executing orders in four separate windows with the specified conditions.

For the long option (USDCHF), the average execution price was calculated after each trade, and orders were only executed if the current price was higher than the average execution price of the previous window. The same process was followed for the short option (USDCAD), with the only difference being that orders were executed if the current price was lower than the average execution price of the previous window.

The total executed amount for each currency pair was also calculated and printed in the output for analysis.

Results:
After running the algorithm, the following results were obtained:

Average execution price for USDCHF: 0.8936

Average execution price for USDCAD: 1.36038

Total profit for USDCHF: 1563

Total profit for USDCAD: 802.76

usdchf

| Interval | Executed amt | Non executed | % executed | % non-executed | Average price |
|---|---|---|---|---|---|
| 1 | 200000 | 0 | 100 | 0 | 0.8876 |
| 2 | 280000 | 20000 | 93 | 7 | 0.8901 |
| 3 | 170000 | 30000 | 85 | 15 | 0.8934 |
| 4 | 270000 | 30000 | 90 | 10 | 0.8936 |
| | | | | | |

Usdcad

| Interval | Executed amt | Non executed | % executed | % non-executed | Average price |
|---|---|---|---|---|---|
| 1 | 200000 | 0 | 100 | 0 | 1.35742 |
| 2 | 260000 | 40000 | 86 | 14 | 1.36152 |
| 3 | 180000 | 20000 | 90 | 10 | 1.35998 |
| 4 | 250000 | 50000 | 83 | 17 | 1.36038 |

Conclusion:
The implemented algorithmic trading strategy successfully executed orders for the USDCAD and USDCHF currency pairs according to the specified requirements. The average execution prices and total executed amounts were also calculated and provided for further analysis. This strategy demonstrates the potential for automating trading decisions based on predefined

conditions and requirements, potentially improving the efficiency and effectiveness of trading in the financial markets.