



NFU Progress Report

2023/06/10

NFUIM

Outline

- Current progress (Finished)
- Method
- Results
- Explanation

Current progress (Finished)

1. Check if the US stock market is open (considering EST and EDT).
2. Calculate the threshold of volume.
3. Identify the days that meet the criteria for trading.
4. Calculate the profit ratio.

Method

Our Parameter:

$n_day = 90$

$n_percentile = 0.95$

$n_time = 0h\ 0m\ 0s$

$n\% = 5$

1. Preprocess the data using the information provided by CCU.
2. Address the issue of time zones.
3. Calculate the threshold of volume using n_day (90) as a parameter. Determine which days meet the condition of $n_percentile$ (95).
4. Within n_time (From market open to market close) after the market opens, evaluate the condition:

You can configure this parameter (ex: 15 min), but it is not currently set.

Formula = "[now_price > open_price * (1 + n%)] **or** [now_price < open_price * (1 - n%)]"

If the condition is met, initiate a reverse operation and conclude the trade at the market close (day trading).

Results

Data

Directory description:

all = Data merging and processing

bk = Backup records from the past (not important)

log = Trading logs, recording the dates of each stock transaction (.txt)

trading = Records of all stock transactions (.csv)

trading-strategy = Records of stocks with trading activity (.csv)

名稱 ↑	修改日期 ↓	檔案大小 ↓	共用
500_N_1	2 天前	825 MB	已共用
500_N_2	2 天前	857 MB	已共用
500_N_3	2 天前	821 MB	已共用
500_N_4	2 天前	778 MB	已共用
500_N_5	2 天前	797 MB	已共用
500_N_6	2 天前	841 MB	已共用
500_N_7	2 天前	665 MB	已共用
all	2 天前	10.4 GB	已共用
bk	2 天前	8.30 GB	已共用
log	2 天前	18.2 KB	已共用
trading	2 天前	419 MB	已共用
trading-strategy	2 天前	99.2 MB	已共用

Explanation - log

In the "log" folder, you can find two directories named "no_traded" and "traded"[1]. The "no_traded" directory contains stocks that were not traded, while the "traded" directory contains stocks that were traded.

Inside the "traded" folder, the stocks are organized based on the number of trades[2]. For example, if a stock has a total of 8 trades, it will be stored in the "8" directory[3].

[3]

<< School > Project > Trade_test > data > log > traded > 8				
名稱	修改日期	類型	大小	
GNRC.US.txt	2023/6/7 下午 09:03	文字文件	1 KB	
PENN.US.txt	2023/6/7 下午 09:16	文字文件	1 KB	
SBNY.US.txt	2023/6/7 下午 09:34	文字文件	1 KB	

[1]

名稱	修改日期	類型
no_traded	2023/6/7 下午 08:43	檔案資料夾
traded	2023/6/7 下午 09:22	檔案資料夾

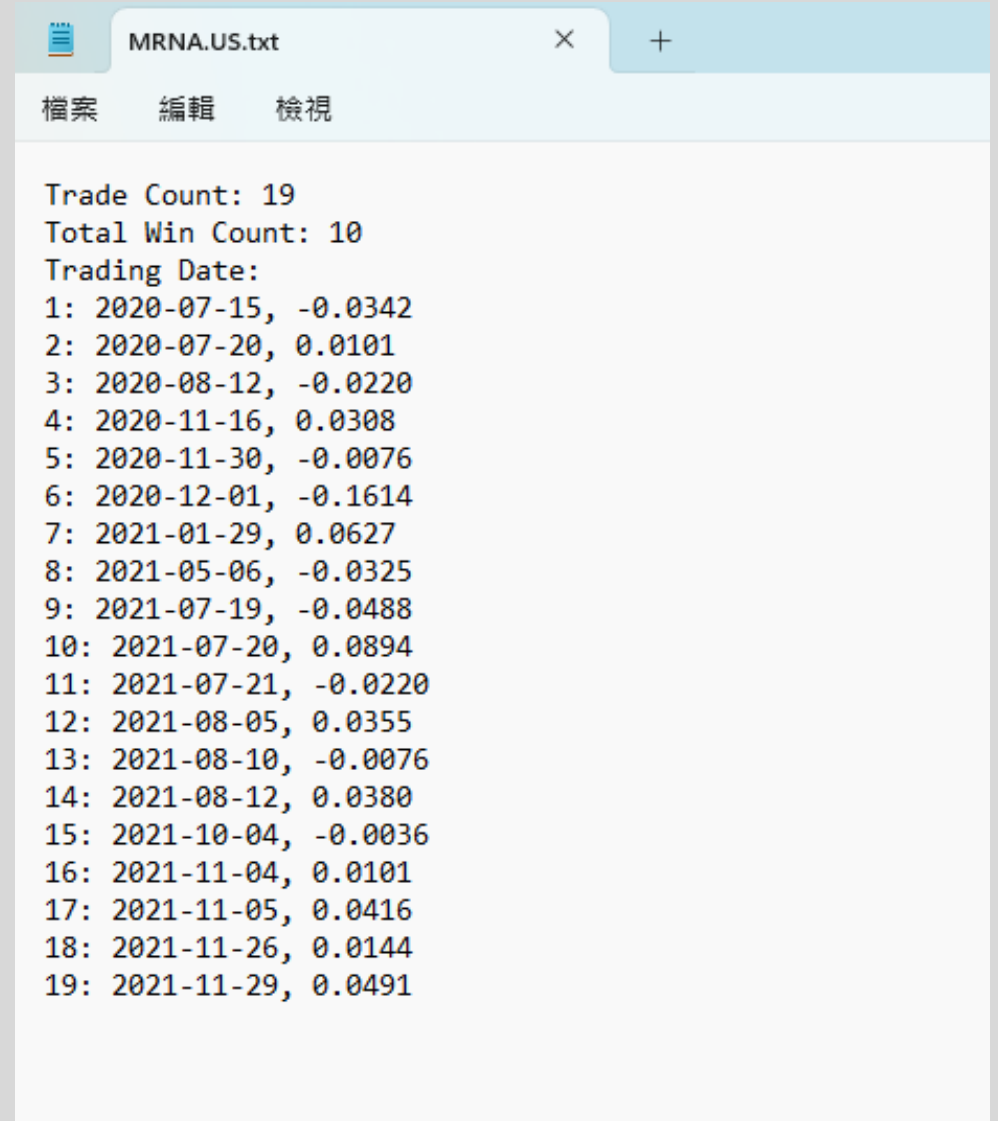
[2]

< School > Project > Trade_test > data > log > traded >				
名稱	修改日期	類型	大小	
1	2023/6/7 下午 09:39	檔案資料夾		
2	2023/6/7 下午 09:39	檔案資料夾		
3	2023/6/7 下午 09:40	檔案資料夾		
4	2023/6/7 下午 09:35	檔案資料夾		
5	2023/6/7 下午 09:31	檔案資料夾		
6	2023/6/7 下午 09:29	檔案資料夾		
7	2023/6/7 下午 09:26	檔案資料夾		
8	2023/6/7 下午 09:34	檔案資料夾		
10	2023/6/7 下午 08:52	檔案資料夾		
11	2023/6/7 下午 09:36	檔案資料夾		
13	2023/6/7 下午 09:13	檔案資料夾		
14	2023/6/7 下午 09:39	檔案資料夾		
16	2023/6/7 下午 08:57	檔案資料夾		
19	2023/6/7 下午 09:22	檔案資料夾		

Explanation - log

When you open the document, it will appear as shown in the image on the right.

The document will display the number of trades, the number of profitable trades, the trading dates, and the returns.

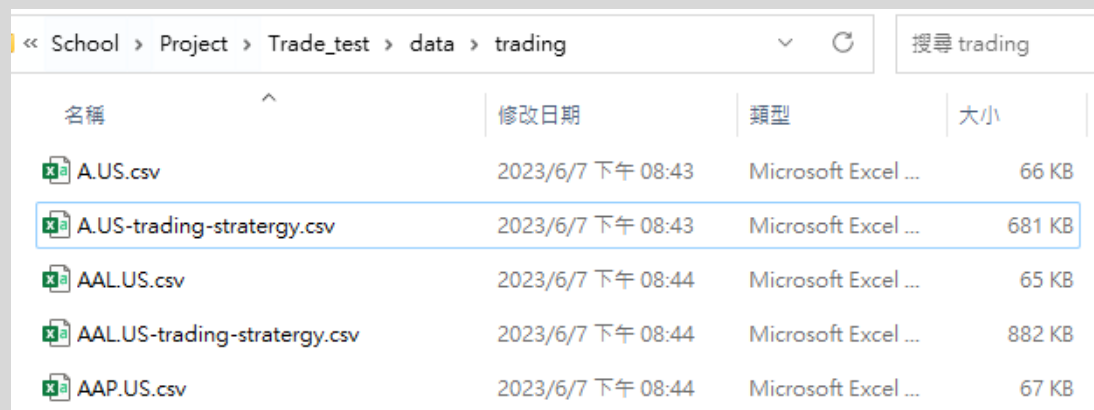
A screenshot of a text editor window titled 'MRNA.US.txt'. The window has a light blue header bar with a close button (X) and a new file button (+). Below the header is a menu bar with three options: '檔案' (File), '編輯' (Edit), and '檢視' (View). The main text area displays the following content:

```
Trade Count: 19
Total Win Count: 10
Trading Date:
1: 2020-07-15, -0.0342
2: 2020-07-20, 0.0101
3: 2020-08-12, -0.0220
4: 2020-11-16, 0.0308
5: 2020-11-30, -0.0076
6: 2020-12-01, -0.1614
7: 2021-01-29, 0.0627
8: 2021-05-06, -0.0325
9: 2021-07-19, -0.0488
10: 2021-07-20, 0.0894
11: 2021-07-21, -0.0220
12: 2021-08-05, 0.0355
13: 2021-08-10, -0.0076
14: 2021-08-12, 0.0380
15: 2021-10-04, -0.0036
16: 2021-11-04, 0.0101
17: 2021-11-05, 0.0416
18: 2021-11-26, 0.0144
19: 2021-11-29, 0.0491
```






Explanation - trading

The "trading" folder contains the calculation process for all stocks[1]. If the file name is "stock name" (ex: AAL.US.csv), it represents the calculation for the first condition[2]. If the file name is "stock name-trading-strategy" (ex: AAL.US-trading-strategy.csv), it represents the simulation process for trading[3].

[1]

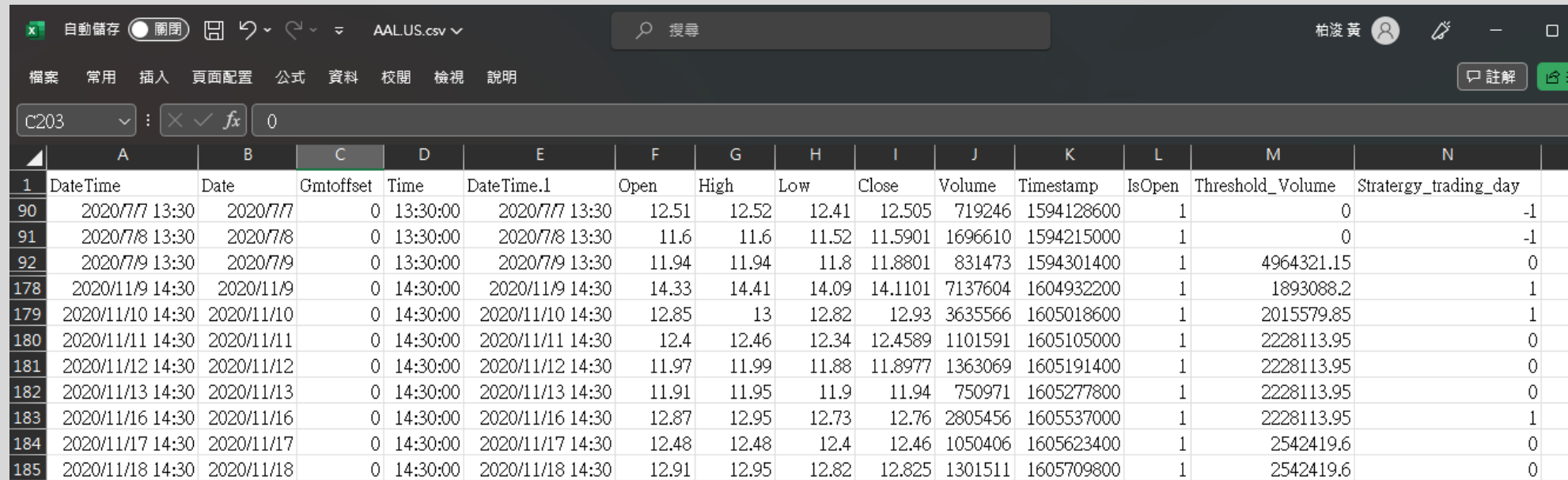


The screenshot shows a file explorer window with the path < School > Project > Trade_test > data > trading. The search bar contains '搜尋 trading'. The table below lists the files in the folder.

名稱	修改日期	類型	大小
 A.US.csv	2023/6/7 下午 08:43	Microsoft Excel ...	66 KB
 A.US-trading-strategy.csv	2023/6/7 下午 08:43	Microsoft Excel ...	681 KB
 AAL.US.csv	2023/6/7 下午 08:44	Microsoft Excel ...	65 KB
 AAL.US-trading-strategy.csv	2023/6/7 下午 08:44	Microsoft Excel ...	882 KB
 AAP.US.csv	2023/6/7 下午 08:44	Microsoft Excel ...	67 KB

Explanation - trading

[2]

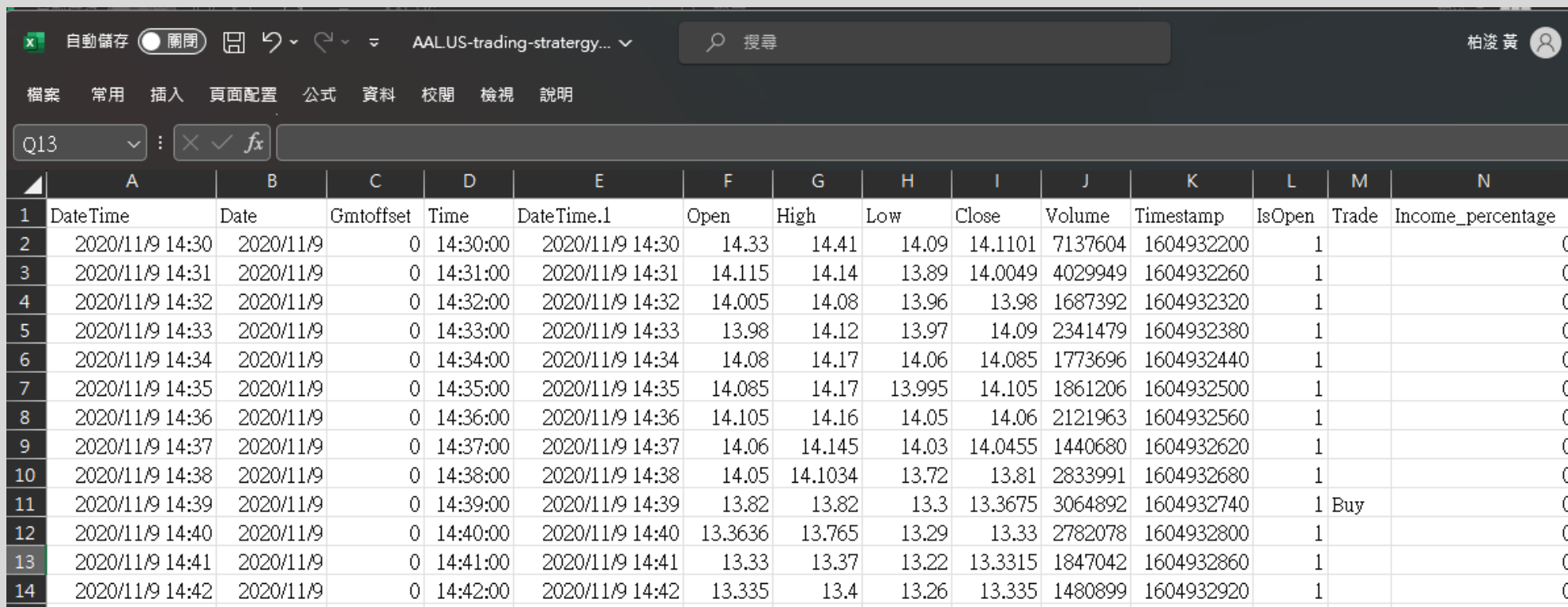


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	
1	DateTime	Date	Gmtoffset	Time	DateTime.1	Open	High	Low	Close	Volume	Timestamp	IsOpen	Threshold_Volume	Stratergy_trading_day	
90	2020/7/7 13:30	2020/7/7	0	13:30:00	2020/7/7 13:30	12.51	12.52	12.41	12.505	719246	1594128600	1	0	-1	
91	2020/7/8 13:30	2020/7/8	0	13:30:00	2020/7/8 13:30	11.6	11.6	11.52	11.5901	1696610	1594215000	1	0	-1	
92	2020/7/9 13:30	2020/7/9	0	13:30:00	2020/7/9 13:30	11.94	11.94	11.8	11.8801	831473	1594301400	1	4964321.15	0	
178	2020/11/9 14:30	2020/11/9	0	14:30:00	2020/11/9 14:30	14.33	14.41	14.09	14.1101	7137604	1604932200	1	1893088.2	1	
179	2020/11/10 14:30	2020/11/10	0	14:30:00	2020/11/10 14:30	12.85	13	12.82	12.93	3635566	1605018600	1	2015579.85	1	
180	2020/11/11 14:30	2020/11/11	0	14:30:00	2020/11/11 14:30	12.4	12.46	12.34	12.4589	1101591	1605105000	1	2228113.95	0	
181	2020/11/12 14:30	2020/11/12	0	14:30:00	2020/11/12 14:30	11.97	11.99	11.88	11.8977	1363069	1605191400	1	2228113.95	0	
182	2020/11/13 14:30	2020/11/13	0	14:30:00	2020/11/13 14:30	11.91	11.95	11.9	11.94	750971	1605277800	1	2228113.95	0	
183	2020/11/16 14:30	2020/11/16	0	14:30:00	2020/11/16 14:30	12.87	12.95	12.73	12.76	2805456	1605537000	1	2228113.95	1	
184	2020/11/17 14:30	2020/11/17	0	14:30:00	2020/11/17 14:30	12.48	12.48	12.4	12.46	1050406	1605623400	1	2542419.6	0	
185	2020/11/18 14:30	2020/11/18	0	14:30:00	2020/11/18 14:30	12.91	12.95	12.82	12.825	1301511	1605709800	1	2542419.6	0	

Condition Calculation Process

Explanation - trading

[3]



The screenshot shows a software interface for a trading strategy named "AALUS-trading-strategy...". The interface includes a menu bar with options like "檔案", "常用", "插入", "頁面配置", "公式", "資料", "校閱", "檢視", and "說明". Below the menu is a toolbar with icons for saving, undo, redo, and a search bar. The main area displays a table with 15 columns: DateTime, Date, Gmtoffset, Time, DateTime.1, Open, High, Low, Close, Volume, Timestamp, IsOpen, Trade, and Income_percentage. The table contains 14 rows of data, with the 11th row highlighted in green. The 11th row shows a "Buy" trade at 14:39:00.


	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	DateTime	Date	Gmtoffset	Time	DateTime.1	Open	High	Low	Close	Volume	Timestamp	IsOpen	Trade	Income_percentage
2	2020/11/9 14:30	2020/11/9	0	14:30:00	2020/11/9 14:30	14.33	14.41	14.09	14.1101	7137604	1604932200	1		0
3	2020/11/9 14:31	2020/11/9	0	14:31:00	2020/11/9 14:31	14.115	14.14	13.89	14.0049	4029949	1604932260	1		0
4	2020/11/9 14:32	2020/11/9	0	14:32:00	2020/11/9 14:32	14.005	14.08	13.96	13.98	1687392	1604932320	1		0
5	2020/11/9 14:33	2020/11/9	0	14:33:00	2020/11/9 14:33	13.98	14.12	13.97	14.09	2341479	1604932380	1		0
6	2020/11/9 14:34	2020/11/9	0	14:34:00	2020/11/9 14:34	14.08	14.17	14.06	14.085	1773696	1604932440	1		0
7	2020/11/9 14:35	2020/11/9	0	14:35:00	2020/11/9 14:35	14.085	14.17	13.995	14.105	1861206	1604932500	1		0
8	2020/11/9 14:36	2020/11/9	0	14:36:00	2020/11/9 14:36	14.105	14.16	14.05	14.06	2121963	1604932560	1		0
9	2020/11/9 14:37	2020/11/9	0	14:37:00	2020/11/9 14:37	14.06	14.145	14.03	14.0455	1440680	1604932620	1		0
10	2020/11/9 14:38	2020/11/9	0	14:38:00	2020/11/9 14:38	14.05	14.1034	13.72	13.81	2833991	1604932680	1		0
11	2020/11/9 14:39	2020/11/9	0	14:39:00	2020/11/9 14:39	13.82	13.82	13.3	13.3675	3064892	1604932740	1	Buy	0
12	2020/11/9 14:40	2020/11/9	0	14:40:00	2020/11/9 14:40	13.3636	13.765	13.29	13.33	2782078	1604932800	1		0
13	2020/11/9 14:41	2020/11/9	0	14:41:00	2020/11/9 14:41	13.33	13.37	13.22	13.3315	1847042	1604932860	1		0
14	2020/11/9 14:42	2020/11/9	0	14:42:00	2020/11/9 14:42	13.335	13.4	13.26	13.335	1480899	1604932920	1		0

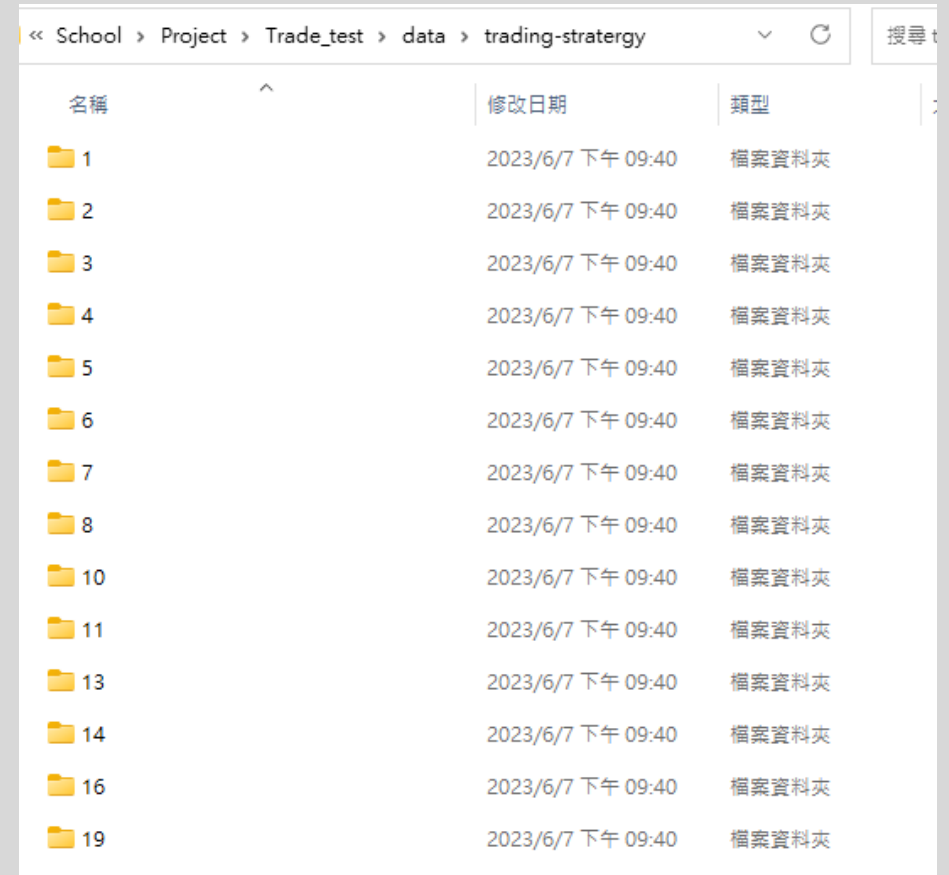
Trading Record

Explanation - trading-strategy

The "trading-strategy" folder stores all the stocks that have been traded and records the trading process. Similar to the "log/traded" folder, it is categorized based on the number of trades.



名稱	修改日期	類型	大小
 ALB.US-trading-strategy.csv	2023/6/7 下午 09:40	Microsoft Excel ...	856 KB
 FTNT.US-trading-strategy.csv	2023/6/7 下午 09:40	Microsoft Excel ...	930 KB
 MTCH.US-trading-strategy.csv	2023/6/7 下午 09:40	Microsoft Excel ...	1,118 KB
 PYPL.US-trading-strategy.csv	2023/6/7 下午 09:40	Microsoft Excel ...	1,138 KB



名稱	修改日期	類型
1	2023/6/7 下午 09:40	檔案資料夾
2	2023/6/7 下午 09:40	檔案資料夾
3	2023/6/7 下午 09:40	檔案資料夾
4	2023/6/7 下午 09:40	檔案資料夾
5	2023/6/7 下午 09:40	檔案資料夾
6	2023/6/7 下午 09:40	檔案資料夾
7	2023/6/7 下午 09:40	檔案資料夾
8	2023/6/7 下午 09:40	檔案資料夾
10	2023/6/7 下午 09:40	檔案資料夾
11	2023/6/7 下午 09:40	檔案資料夾
13	2023/6/7 下午 09:40	檔案資料夾
14	2023/6/7 下午 09:40	檔案資料夾
16	2023/6/7 下午 09:40	檔案資料夾
19	2023/6/7 下午 09:40	檔案資料夾