

```
1 Using Spark's default log4j profile: org/apache/spark/log4j-defaults.properties
2 19/11/11 13:06:54 INFO SparkContext: Running Spark version 2.2.0
3 19/11/11 13:06:54 WARN NativeCodeLoader: Unable to load native-hadoop library for your
platform... using builtin-java classes where applicable
4 19/11/11 13:06:56 INFO Utils: Successfully started service 'sparkDriver' on port 61421.
5 19/11/11 13:06:56 INFO SparkEnv: Registering MapOutputTracker
6 19/11/11 13:06:56 INFO SparkEnv: Registering BlockManagerMaster
7 19/11/11 13:06:56 INFO BlockManagerMasterEndpoint: Using
org.apache.spark.storage.DefaultTopologyMapper for getting topology information
8 19/11/11 13:06:56 INFO BlockManagerMasterEndpoint: BlockManagerMasterEndpoint up
9 19/11/11 13:06:56 INFO DiskBlockManager: Created local directory at
C:\Users\jaiswgir\AppData\Local\Temp\blockmgr-b292d1eb-a215-48dc-8902-0f49454b6b87
10 19/11/11 13:06:56 INFO MemoryStore: MemoryStore started with capacity 1989.6 MB
11 19/11/11 13:06:57 INFO SparkEnv: Registering OutputCommitCoordinator
12 19/11/11 13:06:57 INFO Utils: Successfully started service 'SparkUI' on port 4040.
13 19/11/11 13:06:57 INFO SparkUI: Bound SparkUI to 0.0.0.0, and started at
http://192.168.1.8:4040
14 19/11/11 13:06:57 INFO Executor: Starting executor ID driver on host localhost
15 19/11/11 13:06:57 INFO Utils: Successfully started service
'org.apache.spark.network.netty.NettyBlockTransferService' on port 61462.
16 19/11/11 13:06:57 INFO NettyBlockTransferService: Server created on 192.168.1.8:61462
17 19/11/11 13:06:57 INFO BlockManager: Using
org.apache.spark.storage.RandomBlockReplicationPolicy for block replication policy
18 19/11/11 13:06:57 INFO BlockManagerMaster: Registering BlockManager
BlockManagerId(driver, 192.168.1.8, 61462, None)
19 19/11/11 13:06:57 INFO BlockManagerMasterEndpoint: Registering block manager
192.168.1.8:61462 with 1989.6 MB RAM, BlockManagerId(driver, 192.168.1.8, 61462, None)
20 19/11/11 13:06:57 INFO BlockManagerMaster: Registered BlockManager
BlockManagerId(driver, 192.168.1.8, 61462, None)
21 19/11/11 13:06:57 INFO BlockManager: Initialized BlockManager: BlockManagerId(driver,
192.168.1.8, 61462, None)
22 19/11/11 13:06:58 WARN KafkaUtils: overriding enable.auto.commit to false for executor
23 19/11/11 13:06:58 WARN KafkaUtils: overriding auto.offset.reset to none for executor
24 19/11/11 13:06:58 WARN KafkaUtils: overriding executor group.id to
spark-executor-test-group
25 19/11/11 13:06:58 WARN KafkaUtils: overriding receive.buffer.bytes to 65536 see
KAFKA-3135
26 -----
27 Time: 1573457820000 ms
28 -----
29 Stock [symbol=BTC, timestamp=2019-11-11 12:14:00, priceData=PriceData [open=8824.19,
close=8792.77, high=8824.3, low=8792.09, volume=-2168465.31]]
30 Stock [symbol=ETH, timestamp=2019-11-11 12:14:00, priceData=PriceData [open=186.85,
close=186.54, high=186.86, low=186.53, volume=-45664.939999999995]]
31 Stock [symbol=LTC, timestamp=2019-11-11 12:14:00, priceData=PriceData [open=61.91,
close=61.7, high=61.91, low=61.7, volume=-25154.25]]
32 Stock [symbol=XRP, timestamp=2019-11-11 12:14:00, priceData=PriceData [open=0.2746,
close=0.274, high=0.2746, low=0.2739, volume=83974.06999999999]]
33 Stock [symbol=BTC, timestamp=2019-11-11 12:15:00, priceData=PriceData [open=8788.91,
close=8762.74, high=8798.12, low=8760.39, volume=-1724053.54]]
34 Stock [symbol=ETH, timestamp=2019-11-11 12:15:00, priceData=PriceData [open=186.55,
close=185.86, high=186.63, low=185.86, volume=-112560.32]]
35 Stock [symbol=LTC, timestamp=2019-11-11 12:15:00, priceData=PriceData [open=61.69,
close=61.44, high=61.74, low=61.44, volume=-120828.48]]
36 Stock [symbol=XRP, timestamp=2019-11-11 12:15:00, priceData=PriceData [open=0.274,
close=0.273, high=0.2741, low=0.273, volume=482000.12000000005]]
37 Stock [symbol=BTC, timestamp=2019-11-11 12:16:00, priceData=PriceData [open=8758.87,
close=8764.69, high=8765.97, low=8747.25, volume=-6664797.68]]
38 Stock [symbol=ETH, timestamp=2019-11-11 12:16:00, priceData=PriceData [open=185.87,
close=186.01, high=186.04, low=185.8, volume=-150918.73]]
39 ...
40 -----
41 -----
42 Time: 1573457820000 ms
```

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43 -----
44 (BTC,MaxTradingVolume ---> 8789.233529411764)
45 (ETH,MaxTradingVolume ---> 186.55058823529413)
46 (LTC,MaxTradingVolume ---> 61.83235294117645)
47 (XRP,MaxTradingVolume ---> 0.27453921568627465)
48
49 -----
50 Time: 1573457820000 ms
51 -----
52 (XRP,MaxProfit ---> 5.99999999999894E-4)
53
54 -----
55 Time: 1573457820000 ms
56 -----
57 (BTC,MaxTradingVolume ---> 2.0506328584000003E7)
58
59 -----
60 Time: 1573457880000 ms
61 -----
62 Stock [symbol=BTC, timestamp=2019-11-11 13:06:00, priceData=PriceData [open=8795.37,
63 close=8801.0, high=8802.02, low=8794.59, volume=-30167.342]]
64 Stock [symbol=ETH, timestamp=2019-11-11 13:06:00, priceData=PriceData [open=186.72,
65 close=186.63, high=186.81, low=186.63, volume=-5528.53]]
66 Stock [symbol=LTC, timestamp=2019-11-11 13:06:00, priceData=PriceData [open=61.71,
67 close=61.73, high=61.74, low=61.71, volume=-2487.4300000000003]]
68 Stock [symbol=XRP, timestamp=2019-11-11 13:06:00, priceData=PriceData [open=0.2749,
69 close=0.2749, high=0.2749, low=0.2749, volume=1881.5]]
70
71 -----
72 Time: 1573457880000 ms
73 -----
74 (BTC,MaxTradingVolume ---> 8789.459807692307)
75 (ETH,MaxTradingVolume ---> 186.55211538461538)
76 (LTC,MaxTradingVolume ---> 61.830384615384595)
77 (XRP,MaxTradingVolume ---> 0.274546153846154)
78
79 -----
80 Time: 1573457880000 ms
81 -----
82 (XRP,MaxProfit ---> 5.99999999999894E-4)
83
84 -----
85 Time: 1573457880000 ms
86 -----
87 (BTC,MaxTradingVolume ---> 2.0536495926000003E7)
88
89 -----
90 Time: 1573457940000 ms
91 -----
92 Stock [symbol=BTC, timestamp=2019-11-11 13:07:00, priceData=PriceData [open=8800.93,
93 close=8800.48, high=8801.83, low=8797.89, volume=-18830.142]]
94 Stock [symbol=ETH, timestamp=2019-11-11 13:07:00, priceData=PriceData [open=186.61,
95 close=186.7, high=186.7, low=186.6, volume=-5971.68]]
96 Stock [symbol=LTC, timestamp=2019-11-11 13:07:00, priceData=PriceData [open=61.73,
97 close=61.74, high=61.74, low=61.72, volume=-3100.08]]
98 Stock [symbol=XRP, timestamp=2019-11-11 13:07:00, priceData=PriceData [open=0.2749,
close=0.2748, high=0.2749, low=0.2748, volume=2134.5499999999997]]
99
100 -----
101 Time: 1573457940000 ms
102 -----
103 (BTC,MaxTradingVolume ---> 8789.667735849054)
104 (ETH,MaxTradingVolume ---> 186.55490566037736)
105 (LTC,MaxTradingVolume ---> 61.82867924528299)
```

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99 (XRP,MaxTradingVolume ---> 0.2745509433962266)
100
101 -----
102 Time: 1573457940000 ms
103 -----
104 (XRP,MaxProfit ---> 5.000000000000004E-4)
105
106 -----
107 Time: 1573457940000 ms
108 -----
109 (BTC,MaxTradingVolume ---> 2.0555326068000004E7)
110
111 -----
112 Time: 1573458000000 ms
113 -----
114 Stock [symbol=BTC, timestamp=2019-11-11 13:08:00, priceData=PriceData [open=8800.48,
115 close=8800.83, high=8802.26, low=8797.74, volume=-96113.01]]
116 Stock [symbol=ETH, timestamp=2019-11-11 13:08:00, priceData=PriceData [open=186.7,
117 close=186.64, high=186.7, low=186.64, volume=-686.721]]
118 Stock [symbol=LTC, timestamp=2019-11-11 13:08:00, priceData=PriceData [open=61.74,
119 close=61.74, high=61.74, low=61.73, volume=-1266.49]]
120 Stock [symbol=XRP, timestamp=2019-11-11 13:08:00, priceData=PriceData [open=0.2748,
121 close=0.2749, high=0.275, low=0.2748, volume=6046.41]]
122
123 -----
124 Time: 1573458000000 ms
125 -----
126 (BTC,MaxTradingVolume ---> 8789.874444444444)
127 (ETH,MaxTradingVolume ---> 186.55648148148146)
128 (LTC,MaxTradingVolume ---> 61.82703703703701)
129 (XRP,MaxTradingVolume ---> 0.2745574074074076)
130
131 -----
132 Time: 1573458000000 ms
133 -----
134 (XRP,MaxProfit ---> 5.999999999999894E-4)
135
136 -----
137 Time: 1573458000000 ms
138 -----
139 (BTC,MaxTradingVolume ---> 2.0651439078000005E7)
140
141 -----
142 Time: 1573458060000 ms
143 -----
144 Stock [symbol=BTC, timestamp=2019-11-11 13:09:00, priceData=PriceData [open=8800.8,
145 close=8798.94, high=8800.8, low=8796.55, volume=-16242.569]]
146 Stock [symbol=ETH, timestamp=2019-11-11 13:09:00, priceData=PriceData [open=186.64,
147 close=186.66, high=186.67, low=186.64, volume=-6553.04]]
148 Stock [symbol=LTC, timestamp=2019-11-11 13:09:00, priceData=PriceData [open=61.74,
149 close=61.74, high=61.74, low=61.73, volume=-681.38]]
150 Stock [symbol=XRP, timestamp=2019-11-11 13:09:00, priceData=PriceData [open=0.2749,
151 close=0.2748, high=0.2749, low=0.2748, volume=9993.01]]
152
153 -----
154 Time: 1573458060000 ms
155 -----
156 (BTC,MaxTradingVolume ---> 8790.039272727272)
157 (ETH,MaxTradingVolume ---> 186.55836363636362)
158 (LTC,MaxTradingVolume ---> 61.82545454545451)
159 (XRP,MaxTradingVolume ---> 0.27456181818181835)
160
161 -----
162 Time: 1573458060000 ms
```

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155 -----
156 (XRP,MaxProfit ---> 5.0000000000000004E-4)
157
158 -----
159 Time: 1573458060000 ms
160 -----
161 (BTC,MaxTradingVolume ---> 2.0667681647000004E7)
162
163 -----
164 Time: 1573458120000 ms
165 -----
166 Stock [symbol=BTC, timestamp=2019-11-11 13:10:00, priceData=PriceData [open=8798.94,
167 close=8799.7, high=8799.7, low=8796.03, volume=-62166.9860000000004]]
168 Stock [symbol=ETH, timestamp=2019-11-11 13:10:00, priceData=PriceData [open=186.66,
169 close=186.68, high=186.69, low=186.65, volume=-3974.41]]
170 Stock [symbol=LTC, timestamp=2019-11-11 13:10:00, priceData=PriceData [open=61.74,
171 close=61.74, high=61.74, low=61.74, volume=-189.295]]
172 Stock [symbol=XRP, timestamp=2019-11-11 13:10:00, priceData=PriceData [open=0.2748,
173 close=0.2748, high=0.2749, low=0.2748, volume=5943.9600000000001]]
174
175 -----
176 Time: 1573458120000 ms
177 -----
178 (BTC,MaxTradingVolume ---> 8800.189999999999)
179 (ETH,MaxTradingVolume ---> 186.66199999999998)
180 (LTC,MaxTradingVolume ---> 61.738)
181 (XRP,MaxTradingVolume ---> 0.27484)
182
183 -----
184 Time: 1573458120000 ms
185 -----
186 (BTC,MaxProfit ---> 4.4300000000000291)
187
188 -----
189 Time: 1573458120000 ms
190 -----
191 (BTC,MaxTradingVolume ---> 223520.049)
192
193 -----
194 Time: 1573458180000 ms
195 -----
196 Stock [symbol=BTC, timestamp=2019-11-11 13:11:00, priceData=PriceData [open=8799.7,
197 close=8799.3, high=8800.33, low=8799.16, volume=-5887.5202]]
198 Stock [symbol=ETH, timestamp=2019-11-11 13:11:00, priceData=PriceData [open=186.67,
199 close=186.63, high=186.67, low=186.63, volume=-561.65600000000001]]
200 Stock [symbol=LTC, timestamp=2019-11-11 13:11:00, priceData=PriceData [open=61.74,
201 close=61.74, high=61.75, low=61.72, volume=-1199.52000000000002]]
202 Stock [symbol=XRP, timestamp=2019-11-11 13:11:00, priceData=PriceData [open=0.2748,
203 close=0.2749, high=0.2749, low=0.2748, volume=1022.3499999999999]]
204
205 -----
206 Time: 1573458180000 ms
207 -----
208 (ETH,MaxProfit ---> 0.0300000000000001137)
209
210 -----
```

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211 Time: 1573458180000 ms
212 -----
213 (BTC,MaxTradingVolume ---> 199240.2272)
214
215 -----
216 Time: 1573458240000 ms
217 -----
218 Stock [symbol=BTC, timestamp=2019-11-11 13:12:00, priceData=PriceData [open=8799.3,
219 close=8797.46, high=8799.3, low=8797.4, volume=-15705.071]]
219 Stock [symbol=ETH, timestamp=2019-11-11 13:12:00, priceData=PriceData [open=186.63,
220 close=186.61, high=186.63, low=186.58, volume=-380.97799999999995]]
220 Stock [symbol=LTC, timestamp=2019-11-11 13:12:00, priceData=PriceData [open=61.74,
221 close=61.74, high=61.75, low=61.74, volume=-296.676]]
221 Stock [symbol=XRP, timestamp=2019-11-11 13:12:00, priceData=PriceData [open=0.2749,
222 close=0.2749, high=0.275, low=0.2749, volume=3674.48]]
222
223 -----
224 Time: 1573458240000 ms
225 -----
226 (BTC,MaxTradingVolume ---> 8799.2460000000001)
227 (ETH,MaxTradingVolume ---> 186.644)
228 (LTC,MaxTradingVolume ---> 61.739999999999995)
229 (XRP,MaxTradingVolume ---> 0.27486)
230
231 -----
232 Time: 1573458240000 ms
233 -----
234 (XRP,MaxProfit ---> 9.99999999998899E-5)
235
236 -----
237 Time: 1573458240000 ms
238 -----
239 (BTC,MaxTradingVolume ---> 196115.1562)
240
241 -----
242 Time: 1573458300000 ms
243 -----
244 Stock [symbol=BTC, timestamp=2019-11-11 13:13:00, priceData=PriceData [open=8797.07,
245 close=8797.59, high=8799.06, low=8797.05, volume=-41573.138]]
245 Stock [symbol=ETH, timestamp=2019-11-11 13:13:00, priceData=PriceData [open=186.61,
246 close=186.61, high=186.63, low=186.6, volume=-42934.71]]
246 Stock [symbol=LTC, timestamp=2019-11-11 13:13:00, priceData=PriceData [open=61.74,
247 close=61.75, high=61.75, low=61.74, volume=-419.77299999999997]]
247 Stock [symbol=XRP, timestamp=2019-11-11 13:13:00, priceData=PriceData [open=0.2749,
248 close=0.275, high=0.275, low=0.2749, volume=73372.480000000001]]
248
249 -----
250 Time: 1573458300000 ms
251 -----
252 (BTC,MaxTradingVolume ---> 8798.597999999998)
253 (ETH,MaxTradingVolume ---> 186.638)
254 (LTC,MaxTradingVolume ---> 61.742000000000004)
255 (XRP,MaxTradingVolume ---> 0.27488)
256
257 -----
258 Time: 1573458300000 ms
259 -----
260 (LTC,MaxProfit ---> 0.00999999999999801)
261
262 -----
263 Time: 1573458300000 ms
264 -----
265 (BTC,MaxTradingVolume ---> 141575.2842)
266
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267 -----
268 Time: 1573458360000 ms
269 -----
270 Stock [symbol=BTC, timestamp=2019-11-11 13:14:00, priceData=PriceData [open=8797.59,
271 close=8804.74, high=8804.9, low=8797.59, volume=-176792.83]]
272 Stock [symbol=ETH, timestamp=2019-11-11 13:14:00, priceData=PriceData [open=186.61,
273 close=186.74, high=186.74, low=186.61, volume=-12188.06]]
274 Stock [symbol=LTC, timestamp=2019-11-11 13:14:00, priceData=PriceData [open=61.75,
275 close=61.92, high=61.92, low=61.75, volume=-9385.61]]
276 Stock [symbol=XRP, timestamp=2019-11-11 13:14:00, priceData=PriceData [open=0.275,
277 close=0.2752, high=0.2752, low=0.2749, volume=174968.32]]
278 -----
279 Time: 1573458360000 ms
280 -----
281 (BTC,MaxTradingVolume ---> 8799.758)
282 (ETH,MaxTradingVolume ---> 186.654000000000002)
283 (LTC,MaxTradingVolume ---> 61.778)
284 (XRP,MaxTradingVolume ---> 0.27496)
285 -----
286 Time: 1573458360000 ms
287 -----
288 (BTC,MaxProfit ---> 6.18999999999869)
289 -----
290 Time: 1573458360000 ms
291 -----
292 (BTC,MaxTradingVolume ---> 302125.5452)
293 -----
294 Time: 1573458420000 ms
295 -----
296 Stock [symbol=BTC, timestamp=2019-11-11 13:15:00, priceData=PriceData [open=8804.74,
297 close=8819.56, high=8819.56, low=8804.47, volume=-21441.999]]
298 Stock [symbol=ETH, timestamp=2019-11-11 13:15:00, priceData=PriceData [open=186.74,
299 close=186.91, high=186.91, low=186.74, volume=-1242.289]]
300 Stock [symbol=LTC, timestamp=2019-11-11 13:15:00, priceData=PriceData [open=61.92,
301 close=61.9, high=61.92, low=61.88, volume=-10476.56]]
302 Stock [symbol=XRP, timestamp=2019-11-11 13:15:00, priceData=PriceData [open=0.2752,
303 close=0.2755, high=0.2755, low=0.2752, volume=9697.4]]
304 -----
305 Time: 1573458420000 ms
306 -----
307 (BTC,MaxTradingVolume ---> 8803.73)
308 (ETH,MaxTradingVolume ---> 186.7)
309 (LTC,MaxTradingVolume ---> 61.81)
310 (XRP,MaxTradingVolume ---> 0.2751)
311 -----
312 Time: 1573458420000 ms
313 -----
314 (BTC,MaxProfit ---> 20.24999999999818)
315 -----
316 Time: 1573458420000 ms
317 -----
318 (XRP,MaxTradingVolume ---> 262735.03)
319 -----
320 Time: 1573458480000 ms
321 -----
322 Stock [symbol=BTC, timestamp=2019-11-11 13:16:00, priceData=PriceData [open=8819.56,
```

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close=8819.87, high=8821.17, low=8818.98, volume=-52678.816000000006]]
323 Stock [symbol=ETH, timestamp=2019-11-11 13:16:00, priceData=PriceData [open=186.91,
close=186.92, high=186.92, low=186.9, volume=-3125.46]]
324 Stock [symbol=LTC, timestamp=2019-11-11 13:16:00, priceData=PriceData [open=61.9,
close=61.94, high=61.94, low=61.9, volume=-7031.610000000001]]
325 Stock [symbol=XRP, timestamp=2019-11-11 13:16:00, priceData=PriceData [open=0.2755,
close=0.2755, high=0.2756, low=0.2755, volume=16679.89]]
326
327 -----
328 Time: 1573458480000 ms
329 -----
330 (BTC,MaxTradingVolume ---> 8807.8440000000001)
331 (ETH,MaxTradingVolume ---> 186.75799999999998)
332 (LTC,MaxTradingVolume ---> 61.85)
333 (XRP,MaxTradingVolume ---> 0.27522)
334
335 -----
336 Time: 1573458480000 ms
337 -----
338 (BTC,MaxProfit ---> 20.9600000000000946)
339
340 -----
341 Time: 1573458480000 ms
342 -----
343 (BTC,MaxTradingVolume ---> 308191.854)
344
345 -----
346 Time: 1573458540000 ms
347 -----
348 Stock [symbol=BTC, timestamp=2019-11-11 13:17:00, priceData=PriceData [open=8819.87,
close=8821.7, high=8822.45, low=8819.87, volume=-18970.408000000003]]
349 Stock [symbol=ETH, timestamp=2019-11-11 13:17:00, priceData=PriceData [open=186.92,
close=186.96, high=186.96, low=186.92, volume=-981.82]]
350 Stock [symbol=LTC, timestamp=2019-11-11 13:17:00, priceData=PriceData [open=61.94,
close=61.96, high=61.96, low=61.94, volume=-3844.56]]
351 Stock [symbol=XRP, timestamp=2019-11-11 13:17:00, priceData=PriceData [open=0.2755,
close=0.2755, high=0.2755, low=0.2753, volume=4787.15]]
352
353 -----
354 Time: 1573458540000 ms
355 -----
356 (BTC,MaxTradingVolume ---> 8812.6920000000001)
357 (ETH,MaxTradingVolume ---> 186.828)
358 (LTC,MaxTradingVolume ---> 61.89399999999999)
359 (XRP,MaxTradingVolume ---> 0.27534000000000003)
360
361 -----
362 Time: 1573458540000 ms
363 -----
364 (BTC,MaxProfit ---> 24.630000000000102)
365
366 -----
367 Time: 1573458540000 ms
368 -----
369 (BTC,MaxTradingVolume ---> 311457.191)
370
371 -----
372 Time: 1573458600000 ms
373 -----
374 Stock [symbol=BTC, timestamp=2019-11-11 13:18:00, priceData=PriceData [open=8821.7,
close=8820.32, high=8821.92, low=8819.34, volume=-94969.51]]
375 Stock [symbol=ETH, timestamp=2019-11-11 13:18:00, priceData=PriceData [open=186.96,
close=187.01, high=187.01, low=186.96, volume=-3801.7799999999997]]
376 Stock [symbol=LTC, timestamp=2019-11-11 13:18:00, priceData=PriceData [open=61.96,
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close=61.93, high=61.96, low=61.93, volume=-1761.53]]
377 Stock [symbol=XRP, timestamp=2019-11-11 13:18:00, priceData=PriceData [open=0.2755,
close=0.2753, high=0.2755, low=0.2753, volume=2284.43]]
378
379 -----
380 Time: 1573458600000 ms
381 -----
382 (BTC,MaxTradingVolume ---> 8817.238)
383 (ETH,MaxTradingVolume ---> 186.908)
384 (LTC,MaxTradingVolume ---> 61.92999999999999)
385 (XRP,MaxTradingVolume ---> 0.27540000000000003)
386
387 -----
388 Time: 1573458600000 ms
389 -----
390 (BTC,MaxProfit ---> 22.7299999999999563)
391
392 -----
393 Time: 1573458600000 ms
394 -----
395 (BTC,MaxTradingVolume ---> 364853.563)
396
397 -----
398 Time: 1573458600000 ms
399 -----
400 Stock [symbol=BTC, timestamp=2019-11-11 13:19:00, priceData=PriceData [open=8820.32,
close=8818.2, high=8820.32, low=8817.96, volume=-25340.185]]
401 Stock [symbol=ETH, timestamp=2019-11-11 13:19:00, priceData=PriceData [open=187.01,
close=187.02, high=187.02, low=187.01, volume=-3303.73]]
402 Stock [symbol=LTC, timestamp=2019-11-11 13:19:00, priceData=PriceData [open=61.93,
close=61.94, high=61.94, low=61.93, volume=-2981.39]]
403 Stock [symbol=XRP, timestamp=2019-11-11 13:19:00, priceData=PriceData [open=0.2753,
close=0.2753, high=0.2753, low=0.2753, volume=1676.35]]
404
405 -----
406 Time: 1573458600000 ms
407 -----
408 (BTC,MaxTradingVolume ---> 8819.929999999998)
409 (ETH,MaxTradingVolume ---> 186.964)
410 (LTC,MaxTradingVolume ---> 61.9340000000000005)
411 (XRP,MaxTradingVolume ---> 0.27542)
412
413 -----
414 Time: 1573458600000 ms
415 -----
416 (BTC,MaxProfit ---> 13.4600000000000946)
417
418 -----
419 Time: 1573458600000 ms
420 -----
421 (BTC,MaxTradingVolume ---> 213400.918)
422
423 -----
424 Time: 1573458720000 ms
425 -----
426 Stock [symbol=BTC, timestamp=2019-11-11 13:20:00, priceData=PriceData [open=8818.2,
close=8818.19, high=8818.93, low=8818.01, volume=-114672.41]]
427 Stock [symbol=ETH, timestamp=2019-11-11 13:20:00, priceData=PriceData [open=187.02,
close=187.03, high=187.03, low=187.02, volume=-975.0680000000001]]
428 Stock [symbol=LTC, timestamp=2019-11-11 13:20:00, priceData=PriceData [open=61.94,
close=61.94, high=61.94, low=61.94, volume=-1101.2]]
429 Stock [symbol=XRP, timestamp=2019-11-11 13:20:00, priceData=PriceData [open=0.2753,
close=0.2753, high=0.2753, low=0.2753, volume=2852.8999999999996]]
430
```



```
431 -----
432 Time: 1573458720000 ms
433 -----
434 (BTC,MaxTradingVolume ---> 8819.655999999999)
435 (ETH,MaxTradingVolume ---> 186.988)
436 (LTC,MaxTradingVolume ---> 61.94200000000001)
437 (XRP,MaxTradingVolume ---> 0.27538)
438
439 -----
440 Time: 1573458720000 ms
441 -----
442 (ETH,MaxProfit ---> 0.12000000000000455)
443
444 -----
445 Time: 1573458720000 ms
446 -----
447 (BTC,MaxTradingVolume ---> 306631.329)
448
449 -----
450 Time: 1573458780000 ms
451 -----
452 Stock [symbol=BTC, timestamp=2019-11-11 13:21:00, priceData=PriceData [open=8818.19,
453 close=8815.34, high=8818.45, low=8815.31, volume=-72687.059000000001]]
454 Stock [symbol=ETH, timestamp=2019-11-11 13:21:00, priceData=PriceData [open=187.03,
455 close=186.99, high=187.03, low=186.99, volume=-4093.82]]
456 Stock [symbol=LTC, timestamp=2019-11-11 13:21:00, priceData=PriceData [open=61.94,
457 close=61.91, high=61.94, low=61.9, volume=-3475.95]]
458 Stock [symbol=XRP, timestamp=2019-11-11 13:21:00, priceData=PriceData [open=0.2753,
459 close=0.2751, high=0.2753, low=0.2751, volume=1556.4900000000002]]
460
461 -----
462 Time: 1573458780000 ms
463 -----
464 (BTC,MaxTradingVolume ---> 8818.75)
465 (ETH,MaxTradingVolume ---> 187.002)
466 (LTC,MaxTradingVolume ---> 61.93599999999999)
467 (XRP,MaxTradingVolume ---> 0.2753)
468
469 -----
470 Time: 1573458780000 ms
471 -----
472 (ETH,MaxProfit ---> 0.07000000000000216)
473
474 -----
475 Time: 1573458780000 ms
476 -----
477 (BTC,MaxTradingVolume ---> 326639.572000000004)
478
479 -----
480 Time: 1573458840000 ms
481 -----
482 Stock [symbol=BTC, timestamp=2019-11-11 13:22:00, priceData=PriceData [open=8815.34,
483 close=8812.11, high=8815.73, low=8812.11, volume=-110501.04000000001]]
484 Stock [symbol=ETH, timestamp=2019-11-11 13:22:00, priceData=PriceData [open=186.99,
485 close=186.99, high=187.0, low=186.99, volume=-204.19]]
486 Stock [symbol=LTC, timestamp=2019-11-11 13:22:00, priceData=PriceData [open=61.91,
487 close=61.87, high=61.91, low=61.87, volume=-2137.87]]
488 Stock [symbol=XRP, timestamp=2019-11-11 13:22:00, priceData=PriceData [open=0.2751,
489 close=0.2752, high=0.2752, low=0.2749, volume=24021.43]]
490
491 -----
492 Time: 1573458840000 ms
493 -----
494 (BTC,MaxTradingVolume ---> 8816.832)
```

```
487 (ETH,MaxTradingVolume ---> 187.00799999999998)
488 (LTC,MaxTradingVolume ---> 61.91799999999999)
489 (XRP,MaxTradingVolume ---> 0.27524)
490
491 -----
492 Time: 1573458840000 ms
493 -----
494 (ETH,MaxProfit ---> 0.030000000000001137)
495
496 -----
497 Time: 1573458840000 ms
498 -----
499 (BTC,MaxTradingVolume ---> 418170.204)
500
501 -----
502 Time: 1573458900000 ms
503 -----
504 Stock [symbol=BTC, timestamp=2019-11-11 13:23:00, priceData=PriceData [open=8812.11,
close=8810.69, high=8812.42, low=8809.68, volume=-76107.807]]
505 Stock [symbol=ETH, timestamp=2019-11-11 13:23:00, priceData=PriceData [open=186.99,
close=186.99, high=186.99, low=186.98, volume=-1640.75]]
506 Stock [symbol=LTC, timestamp=2019-11-11 13:23:00, priceData=PriceData [open=61.87,
close=61.87, high=61.89, low=61.86, volume=-2075.87]]
507 Stock [symbol=XRP, timestamp=2019-11-11 13:23:00, priceData=PriceData [open=0.2752,
close=0.2751, high=0.2752, low=0.2751, volume=60500.09]]
508
509 -----
510 Time: 1573458900000 ms
511 -----
512 (BTC,MaxTradingVolume ---> 8814.905999999999)
513 (ETH,MaxTradingVolume ---> 187.004)
514 (LTC,MaxTradingVolume ---> 61.90599999999999)
515 (XRP,MaxTradingVolume ---> 0.2752)
516
517 -----
518 Time: 1573458900000 ms
519 -----
520 (XRP,MaxProfit ---> -1.9999999999997797E-4)
521
522 -----
523 Time: 1573458900000 ms
524 -----
525 (BTC,MaxTradingVolume ---> 399308.501000000005)
526
527 -----
528 Time: 1573458960000 ms
529 -----
530 Stock [symbol=BTC, timestamp=2019-11-11 13:24:00, priceData=PriceData [open=8810.54,
close=8808.8, high=8810.62, low=8808.52, volume=-13857.324]]
531 Stock [symbol=ETH, timestamp=2019-11-11 13:24:00, priceData=PriceData [open=186.99,
close=187.04, high=187.04, low=186.99, volume=-469.20300000000003]]
532 Stock [symbol=LTC, timestamp=2019-11-11 13:24:00, priceData=PriceData [open=61.87,
close=61.88, high=61.89, low=61.87, volume=-430.859]]
533 Stock [symbol=XRP, timestamp=2019-11-11 13:24:00, priceData=PriceData [open=0.2751,
close=0.2751, high=0.2752, low=0.2751, volume=19257.61]]
534
535 -----
536 Time: 1573458960000 ms
537 -----
538 (BTC,MaxTradingVolume ---> 8813.0260000000002)
539 (ETH,MaxTradingVolume ---> 187.00799999999998)
540 (LTC,MaxTradingVolume ---> 61.894000000000005)
541 (XRP,MaxTradingVolume ---> 0.27515999999999996)
542
```

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543 -----
544 Time: 1573458960000 ms
545 -----
546 (ETH,MaxProfit ---> 0.01999999999998181)
547 -----
548 -----
549 Time: 1573458960000 ms
550 -----
551 (BTC,MaxTradingVolume ---> 387825.64)
552 -----
553 -----
554 Time: 1573459020000 ms
555 -----
556 Stock [symbol=BTC, timestamp=2019-11-11 13:25:00, priceData=PriceData [open=8808.8,
557 close=8808.87, high=8808.95, low=8808.52, volume=-43516.443999999996]]
558 Stock [symbol=ETH, timestamp=2019-11-11 13:25:00, priceData=PriceData [open=187.04,
559 close=187.02, high=187.04, low=187.02, volume=-803.8349999999999]]
560 Stock [symbol=LTC, timestamp=2019-11-11 13:25:00, priceData=PriceData [open=61.88,
561 close=61.89, high=61.91, low=61.88, volume=-31881.49]]
562 Stock [symbol=XRP, timestamp=2019-11-11 13:25:00, priceData=PriceData [open=0.2751,
563 close=0.2746, high=0.2752, low=0.2745, volume=357777.3]]
564 -----
565 Time: 1573459020000 ms
566 -----
567 (BTC,MaxTradingVolume ---> 8811.162)
568 (ETH,MaxTradingVolume ---> 187.006)
569 (LTC,MaxTradingVolume ---> 61.884)
570 (XRP,MaxTradingVolume ---> 0.27502)
571 -----
572 Time: 1573459020000 ms
573 -----
574 (XRP,MaxProfit ---> -6.999999999999784E-4)
575 -----
576 -----
577 Time: 1573459020000 ms
578 -----
579 (XRP,MaxTradingVolume ---> 463112.92)
580 -----
581 -----
582 Time: 1573459080000 ms
583 -----
584 Stock [symbol=BTC, timestamp=2019-11-11 13:26:00, priceData=PriceData [open=8808.87,
585 close=8810.24, high=8810.53, low=8808.87, volume=-10980.182]]
586 Stock [symbol=ETH, timestamp=2019-11-11 13:26:00, priceData=PriceData [open=187.02,
587 close=187.03, high=187.03, low=187.02, volume=-4860.219999999999]]
588 Stock [symbol=LTC, timestamp=2019-11-11 13:26:00, priceData=PriceData [open=61.89,
589 close=61.89, high=61.91, low=61.88, volume=-69911.20999999999]]
590 Stock [symbol=XRP, timestamp=2019-11-11 13:26:00, priceData=PriceData [open=0.2746,
591 close=0.2741, high=0.2746, low=0.2741, volume=58698.66]]
592 -----
593 Time: 1573459080000 ms
594 -----
595 (BTC,MaxTradingVolume ---> 8810.142)
596 (ETH,MaxTradingVolume ---> 187.01399999999998)
597 (LTC,MaxTradingVolume ---> 61.87999999999995)
598 (XRP,MaxTradingVolume ---> 0.27482)
599 -----
600 Time: 1573459080000 ms
601 -----
602 (ETH,MaxProfit ---> 0.03999999999999204)
```

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599
600 -----
601 Time: 1573459080000 ms
602 -----
603 (XRP,MaxTradingVolume ---> 520255.08999999997)
604
605 -----
606 Time: 1573459140000 ms
607 -----
608 Stock [symbol=BTC, timestamp=2019-11-11 13:27:00, priceData=PriceData [open=8810.24,
609 close=8811.23, high=8811.23, low=8810.02, volume=-6739.7852]]
610 Stock [symbol=ETH, timestamp=2019-11-11 13:27:00, priceData=PriceData [open=187.03,
611 close=187.03, high=187.03, low=187.03, volume=-2979.55]]
612 Stock [symbol=LTC, timestamp=2019-11-11 13:27:00, priceData=PriceData [open=61.89,
613 close=61.89, high=61.89, low=61.88, volume=-3987.82]]
614 Stock [symbol=XRP, timestamp=2019-11-11 13:27:00, priceData=PriceData [open=0.2741,
615 close=0.2741, high=0.2742, low=0.274, volume=263276.91]]
616
617 -----
618 Time: 1573459140000 ms
619 -----
620 (BTC,MaxTradingVolume ---> 8809.966)
621 (ETH,MaxTradingVolume ---> 187.022)
622 (LTC,MaxTradingVolume ---> 61.883999999999999)
623 (XRP,MaxTradingVolume ---> 0.2746)
624
625 -----
626 Time: 1573459140000 ms
627 -----
628 (ETH,MaxProfit ---> 0.039999999999999204)
629
630 -----
631 Time: 1573459140000 ms
632 -----
633 (XRP,MaxTradingVolume ---> 759510.57000000001)
634
635 -----
636 Time: 1573459200000 ms
637 -----
638 Stock [symbol=BTC, timestamp=2019-11-11 13:28:00, priceData=PriceData [open=8811.23,
639 close=8813.09, high=8813.09, low=8810.7, volume=-72741.632]]
640 Stock [symbol=ETH, timestamp=2019-11-11 13:28:00, priceData=PriceData [open=187.03,
641 close=186.99, high=187.03, low=186.99, volume=-2969.4]]
642 Stock [symbol=LTC, timestamp=2019-11-11 13:28:00, priceData=PriceData [open=61.89,
643 close=61.88, high=61.89, low=61.88, volume=-918.92]]
644 Stock [symbol=XRP, timestamp=2019-11-11 13:28:00, priceData=PriceData [open=0.2741,
645 close=0.2741, high=0.2742, low=0.2741, volume=1779.95]]
646
647 -----
648 Time: 1573459200000 ms
649 -----
650 (BTC,MaxTradingVolume ---> 8810.446)
651 (ETH,MaxTradingVolume ---> 187.022)
652 (LTC,MaxTradingVolume ---> 61.886)
653 (XRP,MaxTradingVolume ---> 0.27440000000000003)
654
655 -----
656 Time: 1573459200000 ms
657 -----
658 (BTC,MaxProfit ---> 2.54999999999992724)
659
660 -----
661 Time: 1573459200000 ms
662 -----
```

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655 (XRP,MaxTradingVolume ---> 700790.4299999999)
656
657 -----
658 Time: 1573459260000 ms
659 -----
660 Stock [symbol=BTC, timestamp=2019-11-11 13:29:00, priceData=PriceData [open=8813.09,
661 close=8811.1, high=8813.57, low=8810.99, volume=-117155.79]]
662 Stock [symbol=ETH, timestamp=2019-11-11 13:29:00, priceData=PriceData [open=187.0,
663 close=187.02, high=187.07, low=186.99, volume=-4641.18]]
664 Stock [symbol=LTC, timestamp=2019-11-11 13:29:00, priceData=PriceData [open=61.88,
665 close=61.95, high=61.98, low=61.88, volume=-56266.030000000006]]
666 Stock [symbol=XRP, timestamp=2019-11-11 13:29:00, priceData=PriceData [open=0.2741,
667 close=0.2744, high=0.2744, low=0.2741, volume=3635.79]]
668
669 -----
670 Time: 1573459260000 ms
671 -----
672 (BTC,MaxTradingVolume ---> 8810.905999999999)
673 (ETH,MaxTradingVolume ---> 187.018)
674 (LTC,MaxTradingVolume ---> 61.9)
675 (XRP,MaxTradingVolume ---> 0.27426)
676
677 -----
678 Time: 1573459260000 ms
679 -----
680 (BTC,MaxProfit ---> 2.3000000000010914)
681
682 -----
683 Time: 1573459260000 ms
684 -----
685 (XRP,MaxTradingVolume ---> 685168.6099999999)
686
687 -----
688 Time: 1573459320000 ms
689 -----
690 Stock [symbol=BTC, timestamp=2019-11-11 13:30:00, priceData=PriceData [open=8811.1,
691 close=8804.82, high=8811.37, low=8804.01, volume=-119788.77]]
692 Stock [symbol=ETH, timestamp=2019-11-11 13:30:00, priceData=PriceData [open=187.01,
693 close=186.98, high=187.01, low=186.98, volume=-8255.779999999999]]
694 Stock [symbol=LTC, timestamp=2019-11-11 13:30:00, priceData=PriceData [open=61.94,
695 close=61.89, high=61.94, low=61.89, volume=-916.0]]
696 Stock [symbol=XRP, timestamp=2019-11-11 13:30:00, priceData=PriceData [open=0.2744,
697 close=0.2744, high=0.2744, low=0.2742, volume=2956.96]]
698
699 -----
700 Time: 1573459320000 ms
701 -----
702 (LTC,MaxProfit ---> 0.010000000000005116)
703
704 -----
705 Time: 1573459320000 ms
706 -----
707 (XRP,MaxTradingVolume ---> 330348.26999999996)
708
709 -----
710 Time: 1573459380000 ms
```

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711 -----
712 Stock [symbol=BTC, timestamp=2019-11-11 13:31:00, priceData=PriceData [open=8804.82,
713 close=8790.56, high=8805.03, low=8790.32, volume=-417264.83999999997]]
714 Stock [symbol=ETH, timestamp=2019-11-11 13:31:00, priceData=PriceData [open=186.98,
715 close=186.75, high=186.98, low=186.75, volume=-28476.8]]
716 Stock [symbol=LTC, timestamp=2019-11-11 13:31:00, priceData=PriceData [open=61.89,
717 close=61.83, high=61.89, low=61.82, volume=-10725.9]]
718 Stock [symbol=XRP, timestamp=2019-11-11 13:31:00, priceData=PriceData [open=0.2744,
719 close=0.2741, high=0.2744, low=0.274, volume=19340.57]]
720 -----
721 Time: 1573459380000 ms
722 -----
723 (BTC,MaxTradingVolume ---> 8806.16)
724 (ETH,MaxTradingVolume ---> 186.954)
725 (LTC,MaxTradingVolume ---> 61.888)
726 (XRP,MaxTradingVolume ---> 0.27422)
727 -----
728 Time: 1573459380000 ms
729 -----
730 (XRP,MaxProfit ---> 0.0)
731 -----
732 Time: 1573459380000 ms
733 -----
734 (BTC,MaxTradingVolume ---> 733690.8171999999)
735 -----
736 Time: 1573459440000 ms
737 -----
738 Stock [symbol=BTC, timestamp=2019-11-11 13:32:00, priceData=PriceData [open=8790.64,
739 close=8788.22, high=8790.76, low=8787.59, volume=-14145.084]]
740 Stock [symbol=ETH, timestamp=2019-11-11 13:32:00, priceData=PriceData [open=186.75,
741 close=186.61, high=186.75, low=186.61, volume=-9512.25]]
742 Stock [symbol=LTC, timestamp=2019-11-11 13:32:00, priceData=PriceData [open=61.83,
743 close=61.81, high=61.84, low=61.81, volume=-2220.4]]
744 Stock [symbol=XRP, timestamp=2019-11-11 13:32:00, priceData=PriceData [open=0.2741,
745 close=0.2741, high=0.2741, low=0.2741, volume=3441.17]]
746 -----
747 Time: 1573459440000 ms
748 -----
749 (BTC,MaxTradingVolume ---> 8801.558)
750 (ETH,MaxTradingVolume ---> 186.87)
751 (LTC,MaxTradingVolume ---> 61.872)
752 (XRP,MaxTradingVolume ---> 0.27422)
753 -----
754 Time: 1573459440000 ms
755 -----
756 (XRP,MaxProfit ---> 0.0)
757 -----
758 Time: 1573459440000 ms
759 -----
760 (BTC,MaxTradingVolume ---> 741096.1159999999)
761 -----
762 Time: 1573459500000 ms
763 -----
764 Stock [symbol=BTC, timestamp=2019-11-11 13:33:00, priceData=PriceData [open=8788.22,
765 close=8788.79, high=8793.31, low=8787.8, volume=-53505.576]]
766 Stock [symbol=ETH, timestamp=2019-11-11 13:33:00, priceData=PriceData [open=186.61,
```

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close=186.54, high=186.61, low=186.54, volume=-1573.87]]
766 Stock [symbol=LTC, timestamp=2019-11-11 13:33:00, priceData=PriceData [open=61.81,
close=61.73, high=61.81, low=61.73, volume=-3391.21]]
767 Stock [symbol=XRP, timestamp=2019-11-11 13:33:00, priceData=PriceData [open=0.2741,
close=0.2747, high=0.2747, low=0.274, volume=59786.0]]
768
769 -----
770 Time: 1573459500000 ms
771 -----
772 (BTC,MaxTradingVolume ---> 8796.698)
773 (ETH,MaxTradingVolume ---> 186.78)
774 (LTC,MaxTradingVolume ---> 61.842000000000006)
775 (XRP,MaxTradingVolume ---> 0.27434)
776
777 -----
778 Time: 1573459500000 ms
779 -----
780 (XRP,MaxProfit ---> 5.999999999999894E-4)
781
782 -----
783 Time: 1573459500000 ms
784 -----
785 (BTC,MaxTradingVolume ---> 721860.0599999999)
786
787 -----
788 Time: 1573459560000 ms
789 -----
790 Stock [symbol=BTC, timestamp=2019-11-11 13:34:00, priceData=PriceData [open=8788.79,
close=8788.07, high=8789.01, low=8788.07, volume=-49415.28400000001]]
791 Stock [symbol=ETH, timestamp=2019-11-11 13:34:00, priceData=PriceData [open=186.52,
close=186.5, high=186.54, low=186.49, volume=-1945.4299999999998]]
792 Stock [symbol=LTC, timestamp=2019-11-11 13:34:00, priceData=PriceData [open=61.72,
close=61.67, high=61.72, low=61.67, volume=-5110.59]]
793 Stock [symbol=XRP, timestamp=2019-11-11 13:34:00, priceData=PriceData [open=0.2747,
close=0.2746, high=0.2748, low=0.2746, volume=22115.43]]
794
795 -----
796 Time: 1573459560000 ms
797 -----
798 (BTC,MaxTradingVolume ---> 8792.092)
799 (ETH,MaxTradingVolume ---> 186.676)
800 (LTC,MaxTradingVolume ---> 61.786)
801 (XRP,MaxTradingVolume ---> 0.27437999999999996)
802
803 -----
804 Time: 1573459560000 ms
805 -----
806 (XRP,MaxProfit ---> 2.00000000000003348E-4)
807
808 -----
809 Time: 1573459560000 ms
810 -----
811 (BTC,MaxTradingVolume ---> 654119.554)
812
813 -----
814 Time: 1573459620000 ms
815 -----
816 Stock [symbol=BTC, timestamp=2019-11-11 13:35:00, priceData=PriceData [open=8788.07,
close=8785.73, high=8788.92, low=8785.6, volume=-70274.084]]
817 Stock [symbol=ETH, timestamp=2019-11-11 13:35:00, priceData=PriceData [open=186.5,
close=186.47, high=186.5, low=186.45, volume=-3391.9]]
818 Stock [symbol=LTC, timestamp=2019-11-11 13:35:00, priceData=PriceData [open=61.67,
close=61.65, high=61.69, low=61.65, volume=-4577.0599999999995]]
819 Stock [symbol=XRP, timestamp=2019-11-11 13:35:00, priceData=PriceData [open=0.2746,
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close=0.275, high=0.2753, low=0.2746, volume=340428.29]]
820
821 -----
822 Time: 1573459620000 ms
823 -----
824 (BTC,MaxTradingVolume ---> 8788.274)
825 (ETH,MaxTradingVolume ---> 186.574)
826 (LTC,MaxTradingVolume ---> 61.738)
827 (XRP,MaxTradingVolume ---> 0.2745)
828
829 -----
830 Time: 1573459620000 ms
831 -----
832 (XRP,MaxProfit ---> 6.0000000000000449E-4)
833
834 -----
835 Time: 1573459620000 ms
836 -----
837 (BTC,MaxTradingVolume ---> 604604.868)
838
839
```