```
In [1]: # import libraries
   import requests
   import json
   from dataclasses import dataclass, asdict
   from typing import List
   import pandas as pd
```

```
In [2]: # Define models
        @dataclass
        class Order:
            symbol: str
            qty: int
            side: str
            type: str
            price: float
            time_in_force: str
        @dataclass
        class Trade:
            symbol: str
            qty: int
            price: float
            side: str
            timestamp: str
            order_id: str
            instmt: str
            trade_price: str
            trade_qty: str
            trade side: str
            trade id: int
            @classmethod
            def from_dict(cls, data: dict) -> 'Trade':
                return cls(**data)
        @dataclass
        class StockDetails:
            symbol: str
            name: str
            exchange: str
            currency: str
            country: str
            sector: str
            industry: str
            market_cap: float
            beta: float
            pe ratio: float
            eps: float
            dividend yield: float
            dividend_per_share: float
            dividend_pay_date: str
            dividend_ex_date: str
            last_split_factor: str
            last_split_date: str
            @classmethod
```

3/11/23, 3:10 PM

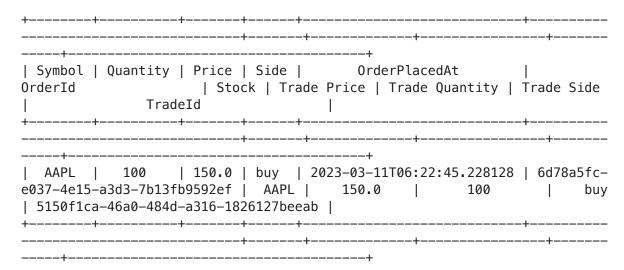
```
def from_dict(cls, data: dict) -> 'StockDetails':
    return cls(**data)

@dataclass
class TopStock:
    symbol: str
    name: str
    change_pct: float
    price: float
```

```
In [8]: # Define the base URL of the dummy stock exchange API
        base_url = 'http://localhost:5000/api/'
        # services
        def get_stock_detail(symbol)-> StockDetails:
            endpoint = 'v1/stock/'+symbol
            response = requests.get(base url+ endpoint)
            if response.status_code == 200:
                stock_dict = response.json()
                stock = StockDetails.from dict(stock dict)
                return stock
            else:
                raise Exception("Internal server error")
        def place_order(order) -> Trade:
            endpoint = 'v1/orders/place'
            response = requests.post(base_url + endpoint, json=asdict(order))
            if response.status code == 200:
                print("Order Placed Successfully")
                respdict = response.json()
                trade = Trade.from dict(respdict)
                return trade
            else:
                raise Exception("Order was not executed")
        def cancel_order(order):
            # Define the endpoint for placing an order
            endpoint = 'v1/orders/cancel'
            # Send the request to place the order
            response = requests.delete(base_url + endpoint, json=asdict(order))
            # Print the response
            print(response.status_code)
            # Print the trade response
            if response.status code == 200:
                trade_dict = response.json()['trade']
                print("Order deleted")
            else:
                raise Exception("Order was not cancelled")
```

```
In [9]: tradersTop10Stocks = ['AAPL','MSFT','G00G','AMZN','PCAR','TSLA','META']
```

```
In [10]: # Program should first read the list of instruments (with relevant details)
      stocks = [get stock detail(tradersTop10Stocks[0])]
In [11]: from prettytable import PrettyTable
      # Assuming you have a list of StockDetails objects called 'stocks'
      table = PrettyTable()
      table.field_names = ["Symbol", "Name", "Exchange", "Currency", "Country", "S
      for stock in stocks:
         table.add_row([stock.symbol, stock.name, stock.exchange, stock.currency,
      print(table)
      | Symbol |
                Name
                      | Exchange | Currency | Country | Sector
               | Market Cap | Beta | P/E Ratio | EPS | Dividend Yield | Di
      vidend/Share | Dividend Pay Date | Dividend Ex Date | Last Split Factor | L
      ast Split Date |
      ____+
      | AAPL | Apple Inc. | NASDAQ | USD | USA | Technology | Consum
      er Electronics | 2234926.77 | 1.22 | 30.92
                                        | 5.19 |
                                                  0.61
      0.88
                  2021-11-11
                          I
                               2021-11-04
                                                7:1
                                                           2
      014-06-09
      In [12]: order = Order(symbol='AAPL', qty=100, side='buy', type='limit', price=150.0,
      trade = place order(order)
      Order Placed Successfully
In [13]: # Assuming you have a list of StockDetails objects called 'stocks'
      table = PrettyTable()
      table.field_names = ["Symbol", "Quantity", "Price", "Side", "OrderPlacedAt",
                     "OrderId", "Stock", "Trade Price", "Trade Quantity", "Trac
      table.add_row([trade.symbol, trade.qty, trade.price, trade.side, trade.times
                 trade.trade_price, trade.trade_qty,trade.trade_side,trade.tr
      print(table)
```



Generate orders in bulk

```
In [26]: import random
         import datetime
         # Define a list of stocks and their historical prices
         stock prices = {
             'AAPL': [150, 152, 151, 149, 153, 155, 156, 157, 159, 160],
             'GOOG': [1200, 1210, 1220, 1205, 1195, 1185, 1190, 1180, 1175, 1165],
             'TSLA': [700, 710, 720, 730, 735, 740, 745, 750, 755, 760],
              'AMZN': [3000, 3010, 3020, 3015, 3012, 3014, 3018, 3016, 3013, 3011],
             'FB': [350, 355, 360, 365, 370, 375, 380, 385, 390, 395]
         # Define a list of possible sides
         sides = ['BUY', 'SELL']
         # Define a list of possible quantities
         quantities = list(range(1, 11))
         # Define a function to generate a random order
         def generate order():
             # Generate a random stock symbol from the list
             stock = random.choice(list(stock prices.keys()))
             # Get the last price of the stock
             last_price = stock_prices[stock][-1]
             # Generate a random quantity between 1 and 10
             quantity = random.choice(quantities)
             # Generate a random buy or sell side
             side = random.choice(sides)
             # Generate a realistic price based on the last price of the stock
             if side == 'BUY':
                 # Add a random percentage to the last price
                 price = round(last\_price * (1 + random.uniform(0, 0.05)), 2)
             else:
```

```
# Subtract a random percentage from the last price
    price = round(last_price * (1 - random.uniform(0, 0.05)), 2)

# Get the current time
    timestamp = datetime.datetime.now().strftime('%Y-%m-%d %H:%M:%S')

# Create the order dictionary using the randomly generated values
    order = Order(symbol=f'{stock}', qty=quantity, side=f'{side}', type='lim
    return order

# Generate 100 random orders
for i in range(100):
    # Generate a random order
    order = generate_order()
    # Print the order statement
    print(f"Randomly generated order statement {i+1}: {order}")
    trade = place_order(order)
    print(trade)
```

```
Randomly generated order statement 1: Order(symbol='FB', qty=5, side='BUY',
type='limit', price=395.48, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=5, price=395.48, side='BUY', timestamp='2023-03-11T1
9:10:22.614726', order_id='b90c4081-4b8c-4659-9e68-d24fe9c8d434', instmt='F
B', trade_price=395.48, trade_qty=5, trade_side='BUY', trade_id='6e6e608a-7
de9-4fdc-9262-d188d71afd20')
Randomly generated order statement 2: Order(symbol='GOOG', gty=6, side='BU
Y', type='limit', price=1215.95, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=6, price=1215.95, side='BUY', timestamp='2023-03-1
1T19:10:22.621930', order id='9be520e5-663e-4f33-a8c0-bbe05b11cdf5', instmt
='G00G', trade_price=1215.95, trade_qty=6, trade_side='BUY', trade_id='3fc6
1fb1-20ae-470d-9d31-d798b60cf72a')
Randomly generated order statement 3: Order(symbol='TSLA', gty=9, side='SEL
L', type='limit', price=753.77, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='TSLA', qty=9, price=753.77, side='SELL', timestamp='2023-03-1
1T19:10:22.627025', order id='44b73323-c9f2-418e-8d4e-b2de16ab466b', instmt
='TSLA', trade_price=753.77, trade_qty=9, trade_side='SELL', trade_id='5f5a
d8df-0c49-4d35-8f32-fe111da6002a')
Randomly generated order statement 4: Order(symbol='G00G', gty=2, side='BU
Y', type='limit', price=1178.1, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=2, price=1178.1, side='BUY', timestamp='2023-03-11
T19:10:22.631485', order id='f9dc7ea5-52cf-4eea-8b36-6f3ba5f3e4d4', instmt
='GOOG', trade_price=1178.1, trade_qty=2, trade_side='BUY', trade_id='590f9
912-119b-452c-8413-0f3ecf9979bd')
Randomly generated order statement 5: Order(symbol='AAPL', gty=3, side='SEL
L', type='limit', price=155.26, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=3, price=155.26, side='SELL', timestamp='2023-03-1
1T19:10:22.636751', order_id='ed324d6a-7bb9-46a6-93a2-57b85f262010', instmt
='AAPL', trade price=155.26, trade qty=3, trade side='SELL', trade id='d5e9
3b18-a348-4133-b6dc-dd404c98d236')
Randomly generated order statement 6: Order(symbol='G00G', qty=6, side='SEL
L', type='limit', price=1115.71, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=6, price=1115.71, side='SELL', timestamp='2023-03-
11T19:10:22.641285', order_id='58f20047-21f8-4ea0-9850-1d951e22ded4', instm
t='G00G', trade_price=1115.71, trade_qty=6, trade_side='SELL', trade_id='03
6c4339-f2c3-4f8a-8556-6d45f093220b')
Randomly generated order statement 7: Order(symbol='TSLA', qty=7, side='SEL
L', type='limit', price=758.25, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='TSLA', qty=7, price=758.25, side='SELL', timestamp='2023-03-1
1T19:10:22.646277', order_id='452a5af7-cf7c-41e4-bb2a-c2a914b7bdc0', instmt
='TSLA', trade_price=758.25, trade_qty=7, trade_side='SELL', trade_id='1ab0
8560-4a9c-4887-838f-601d492b8814')
Randomly generated order statement 8: Order(symbol='AAPL', gty=8, side='SEL
L', type='limit', price=153.05, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=8, price=153.05, side='SELL', timestamp='2023-03-1
1T19:10:22.651575', order_id='5562ca2e-098c-476c-b685-4f8330cd5a17', instmt
='AAPL', trade_price=153.05, trade_qty=8, trade_side='SELL', trade_id='cf57
64a4-4842-4f38-9003-95e12696efbc')
```

```
Randomly generated order statement 9: Order(symbol='GOOG', qty=7, side='SEL
L', type='limit', price=1125.7, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=7, price=1125.7, side='SELL', timestamp='2023-03-1
1T19:10:22.656298', order_id='11ed138f-b9a1-4e7f-bc14-9a990c993370', instmt
='GOOG', trade_price=1125.7, trade_qty=7, trade_side='SELL', trade_id='1c65
e103-b82d-4bde-85f6-93193218f627')
Randomly generated order statement 10: Order(symbol='AAPL', gty=4, side='SE
LL', type='limit', price=155.19, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=4, price=155.19, side='SELL', timestamp='2023-03-1
1T19:10:22.661476', order id='6308a25e-02e4-420a-a3b3-c88db84ad33a', instmt
='AAPL', trade_price=155.19, trade_qty=4, trade_side='SELL', trade_id='a2d9
91fd-5381-424b-b902-603394116c5e')
Randomly generated order statement 11: Order(symbol='FB', gty=1, side='SEL
L', type='limit', price=380.31, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=1, price=380.31, side='SELL', timestamp='2023-03-11T
19:10:22.666284', order id='27090ec9-e6b8-4b1a-8f59-8b2e0ef6d3ae', instmt
='FB', trade_price=380.31, trade_qty=1, trade_side='SELL', trade_id='59dc88
3c-47d1-423e-af3e-e34a4dc3d4ce')
Randomly generated order statement 12: Order(symbol='G00G', gty=10, side='S
ELL', type='limit', price=1163.25, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=10, price=1163.25, side='SELL', timestamp='2023-03
-11T19:10:22.670846', order id='8a10734c-9d04-4e59-bb23-5d538847007a', inst
mt='G00G', trade_price=1163.25, trade_qty=10, trade_side='SELL', trade_id
='a8d78c31-1065-44a5-a5a9-f0ad5f1d7f37')
Randomly generated order statement 13: Order(symbol='FB', gty=8, side='BU
Y', type='limit', price=398.27, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=8, price=398.27, side='BUY', timestamp='2023-03-11T1
9:10:22.675099', order_id='84dcf678-7a11-4cbf-970d-91415bf68ab5', instmt='F
B', trade price=398.27, trade qty=8, trade side='BUY', trade id='d6bf3389-8
3d7-4a1f-b2a5-818947f9635c')
Randomly generated order statement 14: Order(symbol='AAPL', gty=8, side='BU
Y', type='limit', price=165.48, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=8, price=165.48, side='BUY', timestamp='2023-03-11
T19:10:22.679473', order_id='39d400a0-c4d0-4bae-95fb-c1877173a5a6', instmt
='AAPL', trade_price=165.48, trade_qty=8, trade_side='BUY', trade_id='a852a
17f-b3dd-4ade-bff1-f38f071df272')
Randomly generated order statement 15: Order(symbol='AAPL', gty=5, side='BU
Y', type='limit', price=167.68, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=5, price=167.68, side='BUY', timestamp='2023-03-11
T19:10:22.684112', order_id='40c17f58-b2e3-432b-b58b-4ae611ede313', instmt
='AAPL', trade_price=167.68, trade_qty=5, trade_side='BUY', trade_id='51922
e93-a93a-4c23-9547-d0f0ab2c926e')
Randomly generated order statement 16: Order(symbol='AMZN', gty=4, side='BU
Y', type='limit', price=3043.85, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=4, price=3043.85, side='BUY', timestamp='2023-03-1
1T19:10:22.688528', order_id='46a51d6e-c498-4d84-a7fa-7a8df67bfe16', instmt
='AMZN', trade_price=3043.85, trade_qty=4, trade_side='BUY', trade_id='3978
2a16-b3d5-41b8-aac9-b624ad247628')
```

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SPAAssignment2
Randomly generated order statement 17: Order(symbol='AAPL', qty=6, side='SE
LL', type='limit', price=158.68, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=6, price=158.68, side='SELL', timestamp='2023-03-1
1T19:10:22.693270', order_id='b525505b-5a9c-46b7-ad36-b2a79e2e5c3a', instmt
='AAPL', trade_price=158.68, trade_qty=6, trade_side='SELL', trade_id='9280
4c86-c8b8-4da7-829d-3e865d150ab1')
Randomly generated order statement 18: Order(symbol='G00G', gty=6, side='SE
LL', type='limit', price=1145.4, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=6, price=1145.4, side='SELL', timestamp='2023-03-1
1T19:10:22.697548', order id='28fbbe54-15d0-4511-a69b-74de5aac57bc', instmt
='G00G', trade_price=1145.4, trade_qty=6, trade_side='SELL', trade_id='7646
528c-c27d-421d-9c02-885f7a4e7a01')
Randomly generated order statement 19: Order(symbol='AAPL', gty=5, side='SE
LL', type='limit', price=153.29, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=5, price=153.29, side='SELL', timestamp='2023-03-1
1T19:10:22.702273', order id='c8aadf2c-f87c-44ff-bd72-5ed6b383d23f', instmt
='AAPL', trade_price=153.29, trade_qty=5, trade_side='SELL', trade_id='2240
a6b4-9098-486c-870b-ed6864ad3a99')
Randomly generated order statement 20: Order(symbol='AMZN', gty=5, side='BU
Y', type='limit', price=3108.61, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=5, price=3108.61, side='BUY', timestamp='2023-03-1
1T19:10:22.707036', order id='5e47fc2a-b4b2-4f8e-b59b-5965a8375f59', instmt
='AMZN', trade_price=3108.61, trade_qty=5, trade_side='BUY', trade_id='2343
b021-19ea-4c48-9b14-2258f5b09363')
Randomly generated order statement 21: Order(symbol='AAPL', gty=3, side='BU
Y', type='limit', price=166.76, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=3, price=166.76, side='BUY', timestamp='2023-03-11
T19:10:22.711212', order_id='1947ef77-50e8-4837-b6f2-e727da3d983e', instmt
='AAPL', trade price=166.76, trade qty=3, trade side='BUY', trade id='681f7
de0-fec4-4f7d-a7ad-e9e564ae9ec3')
Randomly generated order statement 22: Order(symbol='AMZN', gty=3, side='SE
LL', type='limit', price=2891.89, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=3, price=2891.89, side='SELL', timestamp='2023-03-
11T19:10:22.716635', order_id='a469634b-067c-4d44-84e1-645fa14d36cf', instm
t='AMZN', trade_price=2891.89, trade_qty=3, trade_side='SELL', trade_id='ba
4632bc-e069-4c96-97ac-bc95752dd7eb')
Randomly generated order statement 23: Order(symbol='TSLA', qty=3, side='SE
LL', type='limit', price=748.86, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='TSLA', qty=3, price=748.86, side='SELL', timestamp='2023-03-1
1T19:10:22.721741', order_id='51b87047-7a2c-405e-9a13-b021714c7e2a', instmt
='TSLA', trade_price=748.86, trade_qty=3, trade_side='SELL', trade_id='7e74
55cc-41e9-41dd-835e-b7d14f1ceaf3')
Randomly generated order statement 24: Order(symbol='FB', gty=6, side='BU
Y', type='limit', price=412.83, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=6, price=412.83, side='BUY', timestamp='2023-03-11T1
```

9:10:22.726342', order_id='f896cf34-2dd8-43f1-bffe-3f7b4688207e', instmt='F B', trade_price=412.83, trade_qty=6, trade_side='BUY', trade_id='39e7cc24-1

c92-4da8-9942-dd32dfdefd9f')

```
Randomly generated order statement 25: Order(symbol='AMZN', qty=6, side='BU
Y', type='limit', price=3074.2, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=6, price=3074.2, side='BUY', timestamp='2023-03-11
T19:10:22.730904', order_id='5dc5ca6e-7eaa-49d6-9959-374cb18163a3', instmt
='AMZN', trade_price=3074.2, trade_qty=6, trade_side='BUY', trade_id='88be3
358-1100-433e-a529-82c899c7f92a')
Randomly generated order statement 26: Order(symbol='G00G', gty=5, side='SE
LL', type='limit', price=1118.02, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=5, price=1118.02, side='SELL', timestamp='2023-03-
11T19:10:22.736146', order id='e095e7e2-b7af-47a6-9a5e-9d5ebd6f3985', instm
t='G00G', trade_price=1118.02, trade_qty=5, trade_side='SELL', trade_id='5f
44a38c-cca7-4326-a07a-60673c7b4ec6')
Randomly generated order statement 27: Order(symbol='AAPL', gty=9, side='SE
LL', type='limit', price=153.83, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=9, price=153.83, side='SELL', timestamp='2023-03-1
1T19:10:22.742601', order id='b6593557-81b4-4766-a35d-ad718450040f', instmt
='AAPL', trade_price=153.83, trade_qty=9, trade_side='SELL', trade_id='7640
2a6b-a61e-4237-8184-bf0038ff6f1b')
Randomly generated order statement 28: Order(symbol='G00G', gty=9, side='BU
Y', type='limit', price=1217.18, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=9, price=1217.18, side='BUY', timestamp='2023-03-1
1T19:10:22.747778', order id='ac163fa3-bf60-4569-94cf-f0e7966b42b3', instmt
='GOOG', trade_price=1217.18, trade_qty=9, trade_side='BUY', trade_id='4230
e168-4565-4f5c-9854-0fbeeaccb011')
Randomly generated order statement 29: Order(symbol='TSLA', gty=4, side='SE
LL', type='limit', price=728.31, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='TSLA', qty=4, price=728.31, side='SELL', timestamp='2023-03-1
1T19:10:22.752865', order_id='54983dff-96fa-4e56-b5ce-dd253ff377cf', instmt
='TSLA', trade price=728.31, trade qty=4, trade side='SELL', trade id='7053
9941-608b-4fdf-9b46-d52699258961')
Randomly generated order statement 30: Order(symbol='AAPL', gty=1, side='BU
Y', type='limit', price=167.61, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=1, price=167.61, side='BUY', timestamp='2023-03-11
T19:10:22.756970', order_id='241e358a-0fdf-4b20-9f9f-577e1a3df2d0', instmt
='AAPL', trade_price=167.61, trade_qty=1, trade_side='BUY', trade_id='d565e
c34-3d2e-42f7-9061-906e72d4c9d0')
Randomly generated order statement 31: Order(symbol='G00G', qty=8, side='BU
Y', type='limit', price=1195.99, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=8, price=1195.99, side='BUY', timestamp='2023-03-1
1T19:10:22.761501', order_id='4ebfda0c-d447-40dd-ad4c-643dd52caaed', instmt
='G00G', trade_price=1195.99, trade_qty=8, trade_side='BUY', trade_id='ee76
18ea-c7f0-447e-ba02-f7c71a4f0dfe')
Randomly generated order statement 32: Order(symbol='AAPL', gty=3, side='SE
LL', type='limit', price=159.12, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=3, price=159.12, side='SELL', timestamp='2023-03-1
1T19:10:22.765645', order_id='4159d0a5-a135-486f-aa43-eb453843beac', instmt
='AAPL', trade_price=159.12, trade_qty=3, trade_side='SELL', trade_id='1671
```

2fd3-8f84-4c36-bc47-2a4e3625886f')

```
Randomly generated order statement 33: Order(symbol='AMZN', qty=4, side='SE
LL', type='limit', price=2884.99, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=4, price=2884.99, side='SELL', timestamp='2023-03-
11T19:10:22.770515', order_id='b3decd35-e58e-4dc0-9c90-021df276aa55', instm
t='AMZN', trade price=2884.99, trade qty=4, trade side='SELL', trade id='14
4be7d3-623e-4da4-9b5f-1ae3209c9f0f')
Randomly generated order statement 34: Order(symbol='FB', gty=3, side='SEL
L', type='limit', price=383.57, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=3, price=383.57, side='SELL', timestamp='2023-03-11T
19:10:22.775283', order id='d19157e5-a93e-4180-ac0d-9845b696f4f6', instmt
='FB', trade_price=383.57, trade_qty=3, trade_side='SELL', trade_id='6a8fb4
79-2030-477b-8c77-89589e70b5a2')
Randomly generated order statement 35: Order(symbol='AAPL', gty=5, side='BU
Y', type='limit', price=164.52, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=5, price=164.52, side='BUY', timestamp='2023-03-11
T19:10:22.780288', order id='4b7406dc-6354-4b4b-968b-ee752be846b2', instmt
='AAPL', trade_price=164.52, trade_qty=5, trade_side='BUY', trade_id='a3477
402-c03a-4dce-9003-4da100726afe')
Randomly generated order statement 36: Order(symbol='FB', gty=4, side='SEL
L', type='limit', price=389.94, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=4, price=389.94, side='SELL', timestamp='2023-03-11T
19:10:22.784123', order id='17921647-d53d-4bb8-aee4-05142bc391da', instmt
='FB', trade_price=389.94, trade_qty=4, trade_side='SELL', trade_id='f57177
2d-fb40-4c7c-9427-fd85b5288f59')
Randomly generated order statement 37: Order(symbol='FB', gty=9, side='SEL
L', type='limit', price=375.73, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=9, price=375.73, side='SELL', timestamp='2023-03-11T
19:10:22.788649', order_id='d02c04e7-a388-4640-bf6b-d61bfa4b8878', instmt
='FB', trade price=375.73, trade qty=9, trade side='SELL', trade id='1b31bf
79-9eb1-4d5a-a693-b58fac6342dc')
Randomly generated order statement 38: Order(symbol='AMZN', gty=1, side='BU
Y', type='limit', price=3088.19, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=1, price=3088.19, side='BUY', timestamp='2023-03-1
1T19:10:22.792667', order_id='b8c58d0a-eba4-4124-a39e-e00461e3502f', instmt
='AMZN', trade_price=3088.19, trade_qty=1, trade_side='BUY', trade_id='9e35
6c41-624b-403e-88b2-ae1a3245fb78')
Randomly generated order statement 39: Order(symbol='G00G', gty=3, side='BU
Y', type='limit', price=1166.82, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=3, price=1166.82, side='BUY', timestamp='2023-03-1
1T19:10:22.797445', order_id='08da8779-01f9-4d10-97d4-18fa7b9d7eca', instmt
='G00G', trade_price=1166.82, trade_qty=3, trade_side='BUY', trade_id='db1c
6824-1ed3-4e34-98d0-d63176ceb8a2')
Randomly generated order statement 40: Order(symbol='AMZN', gty=7, side='BU
Y', type='limit', price=3133.57, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=7, price=3133.57, side='BUY', timestamp='2023-03-1
1T19:10:22.802079', order_id='b777b853-55cf-4c16-b2a0-17f128846c28', instmt
='AMZN', trade_price=3133.57, trade_qty=7, trade_side='BUY', trade_id='95bc
d2f1-0d8a-434b-b4b3-df767509945e')
```

```
SPAAssignment2
Randomly generated order statement 41: Order(symbol='G00G', qty=5, side='BU
Y', type='limit', price=1208.32, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=5, price=1208.32, side='BUY', timestamp='2023-03-1
1T19:10:22.806534', order_id='601c03a1-6411-470f-8898-d2119dcbf2c9', instmt
='G00G', trade_price=1208.32, trade_qty=5, trade_side='BUY', trade_id='002c
9a51-4419-4dc8-b491-962fdaeb2482')
Randomly generated order statement 42: Order(symbol='AAPL', gty=2, side='SE
LL', type='limit', price=155.65, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=2, price=155.65, side='SELL', timestamp='2023-03-1
1T19:10:22.810985', order id='a52ca920-b9f8-4a7e-8d08-7b0b1be9cb1f', instmt
='AAPL', trade_price=155.65, trade_qty=2, trade_side='SELL', trade_id='0920
27c9-c249-4b63-8df2-df063f470678')
Randomly generated order statement 43: Order(symbol='FB', gty=2, side='BU
Y', type='limit', price=398.53, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=2, price=398.53, side='BUY', timestamp='2023-03-11T1
9:10:22.815077', order id='5e3c0e2b-2abb-4601-b414-d138683d4061', instmt='F
B', trade_price=398.53, trade_qty=2, trade_side='BUY', trade_id='06a4e2ec-4
551-435c-9313-7c356a2893dd')
Randomly generated order statement 44: Order(symbol='G00G', gty=4, side='SE
LL', type='limit', price=1151.28, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=4, price=1151.28, side='SELL', timestamp='2023-03-
11T19:10:22.819634', order id='0985c104-4a03-4eb5-a187-11a219fbf0ed', instm
t='G00G', trade_price=1151.28, trade_qty=4, trade_side='SELL', trade_id='f9
949ef7-842b-4ca4-84aa-fc404ad36814')
Randomly generated order statement 45: Order(symbol='FB', gty=1, side='BU
Y', type='limit', price=414.75, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=1, price=414.75, side='BUY', timestamp='2023-03-11T1
9:10:22.824798', order_id='fd37b4bd-da94-47e2-9218-ee894b005559', instmt='F
B', trade price=414.75, trade gty=1, trade side='BUY', trade id='391453c5-0
b72-4491-bbbd-aa41dfede0cb')
Randomly generated order statement 46: Order(symbol='AMZN', gty=7, side='SE
LL', type='limit', price=3003.09, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=7, price=3003.09, side='SELL', timestamp='2023-03-
11T19:10:22.832763', order_id='e38c4bce-801c-4526-9757-758381136ecf', instm
t='AMZN', trade_price=3003.09, trade_qty=7, trade_side='SELL', trade_id='cb
5876a3-f237-41a3-a033-75cd395f2f22')
Randomly generated order statement 47: Order(symbol='AAPL', qty=10, side='B
UY', type='limit', price=160.56, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=10, price=160.56, side='BUY', timestamp='2023-03-1
1T19:10:22.843613', order_id='c2c6b116-e912-43de-a85a-f3e35f14a840', instmt
='AAPL', trade_price=160.56, trade_qty=10, trade_side='BUY', trade_id='9a19
c0e1-37cd-4b5c-bf7a-c59c6f527903')
Randomly generated order statement 48: Order(symbol='TSLA', gty=1, side='SE
LL', type='limit', price=751.21, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='TSLA', qty=1, price=751.21, side='SELL', timestamp='2023-03-1
```

1T19:10:22.855377', order_id='ab1a0aad-d272-4729-910a-c6e0b227dc4f', instmt ='TSLA', trade_price=751.21, trade_qty=1, trade_side='SELL', trade_id='ed80

1278-0b29-4a47-a123-30fbb7687831')

```
Randomly generated order statement 49: Order(symbol='GOOG', qty=4, side='SE
LL', type='limit', price=1127.49, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=4, price=1127.49, side='SELL', timestamp='2023-03-
11T19:10:22.863169', order_id='fd10175b-3aca-43ee-bf82-34e4d2e636c4', instm
t='G00G', trade price=1127.49, trade qty=4, trade side='SELL', trade id='28
6bd025-8625-43b8-baeb-be543bb7eaab')
Randomly generated order statement 50: Order(symbol='G00G', gty=5, side='BU
Y', type='limit', price=1181.71, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=5, price=1181.71, side='BUY', timestamp='2023-03-1
1T19:10:22.868350', order id='28805ba9-bf9d-42f0-b9b6-81c44a0f6fc0', instmt
='GOOG', trade_price=1181.71, trade_qty=5, trade_side='BUY', trade_id='3e54
5b45-2c2b-486b-b49d-03d9f6aebc97')
Randomly generated order statement 51: Order(symbol='FB', gty=9, side='BU
Y', type='limit', price=413.13, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=9, price=413.13, side='BUY', timestamp='2023-03-11T1
9:10:22.872748', order id='03eeee40-9059-49fa-a048-ec6819f43f7d', instmt='F
B', trade_price=413.13, trade_qty=9, trade_side='BUY', trade_id='c7fa39d9-b
3a7-4950-9fe7-4e3721bfca47')
Randomly generated order statement 52: Order(symbol='TSLA', gty=5, side='BU
Y', type='limit', price=774.22, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='TSLA', qty=5, price=774.22, side='BUY', timestamp='2023-03-11
T19:10:22.878109', order id='d672b55d-954c-486f-a76b-4f62b88182e0', instmt
='TSLA', trade_price=774.22, trade_qty=5, trade_side='BUY', trade_id='92dbb
25d-ed9c-426e-b9d7-eded047154d7')
Randomly generated order statement 53: Order(symbol='FB', gty=1, side='SEL
L', type='limit', price=394.54, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=1, price=394.54, side='SELL', timestamp='2023-03-11T
19:10:22.883382', order_id='4952ee26-fb40-43b7-bf45-0707d63f6e6e', instmt
='FB', trade price=394.54, trade qty=1, trade side='SELL', trade id='e5d477
f7-260b-4a41-9e3f-814bb2e62d9d')
Randomly generated order statement 54: Order(symbol='FB', gty=10, side='BU
Y', type='limit', price=408.09, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=10, price=408.09, side='BUY', timestamp='2023-03-11T
19:10:22.889844', order_id='874c1885-57d2-4606-b9ca-7705947e20c5', instmt
='FB', trade_price=408.09, trade_qty=10, trade_side='BUY', trade_id='044443
8a-57ff-421c-99eb-4ae4374eadd1')
Randomly generated order statement 55: Order(symbol='FB', gty=3, side='SEL
L', type='limit', price=378.98, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=3, price=378.98, side='SELL', timestamp='2023-03-11T
19:10:22.894984', order_id='d213f667-617c-4c4f-8307-9f7ea40710f2', instmt
='FB', trade_price=378.98, trade_qty=3, trade_side='SELL', trade_id='d991df
18-6cb9-43cc-8f5a-439b35300030')
Randomly generated order statement 56: Order(symbol='TSLA', gty=3, side='BU
Y', type='limit', price=796.61, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='TSLA', qty=3, price=796.61, side='BUY', timestamp='2023-03-11
T19:10:22.898674', order_id='5b254974-9040-4e9b-9249-ab55f0980a8c', instmt
='TSLA', trade_price=796.61, trade_qty=3, trade_side='BUY', trade_id='c331e
8a9-ab48-4250-b3ce-0a0a326fbadb')
```

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SPAAssignment2
Randomly generated order statement 57: Order(symbol='FB', qty=8, side='SEL
L', type='limit', price=379.14, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=8, price=379.14, side='SELL', timestamp='2023-03-11T
19:10:22.902600', order_id='2e7627df-8914-4d0d-9b42-3fb898878ad9', instmt
='FB', trade_price=379.14, trade_qty=8, trade_side='SELL', trade_id='eaeb82
a4-fc98-45a7-85ad-657277817063')
Randomly generated order statement 58: Order(symbol='AMZN', gty=4, side='SE
LL', type='limit', price=2862.57, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=4, price=2862.57, side='SELL', timestamp='2023-03-
11T19:10:22.906847', order id='dca14bb4-3cb5-4f14-a237-63c901211812', instm
t='AMZN', trade_price=2862.57, trade_qty=4, trade_side='SELL', trade_id='eb
9c8f3c-7ffd-45f9-a6b4-ae363a62572e')
Randomly generated order statement 59: Order(symbol='AMZN', gty=10, side='S
ELL', type='limit', price=2938.65, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=10, price=2938.65, side='SELL', timestamp='2023-03
-11T19:10:22.911351', order id='810ad759-9b71-44d9-8364-8f7907edba68', inst
mt='AMZN', trade_price=2938.65, trade_qty=10, trade_side='SELL', trade_id
='4bbf03bc-e09e-4fd5-b1a2-dc0ffeb3b8f1')
Randomly generated order statement 60: Order(symbol='FB', gty=4, side='BU
Y', type='limit', price=414.38, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=4, price=414.38, side='BUY', timestamp='2023-03-11T1
9:10:22.917135', order id='002b6d0c-b143-47a5-90af-6aecc6903682', instmt='F
B', trade_price=414.38, trade_qty=4, trade_side='BUY', trade_id='ffc9298e-7
481-4735-83da-68f86f657349')
Randomly generated order statement 61: Order(symbol='G00G', gty=2, side='SE
LL', type='limit', price=1146.09, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=2, price=1146.09, side='SELL', timestamp='2023-03-
11T19:10:22.921305', order_id='b9d9ed03-e678-4f69-862f-ebeb05374779', instm
t='G00G', trade price=1146.09, trade qty=2, trade side='SELL', trade id='59
473abc-257d-4613-814f-7a7adf1f89be')
Randomly generated order statement 62: Order(symbol='AMZN', qty=9, side='BU
Y', type='limit', price=3053.07, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=9, price=3053.07, side='BUY', timestamp='2023-03-1
1T19:10:22.925420', order_id='e47318fc-5a4a-4a81-b017-d86c72b34309', instmt
='AMZN', trade_price=3053.07, trade_qty=9, trade_side='BUY', trade_id='8961
bf86-b2ff-48b7-9b75-302383915c74')
Randomly generated order statement 63: Order(symbol='AMZN', gty=6, side='SE
LL', type='limit', price=2954.28, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=6, price=2954.28, side='SELL', timestamp='2023-03-
11T19:10:22.930273', order_id='ba6d6c71-5a6f-428c-8bda-e04a34cdb456', instm
t='AMZN', trade_price=2954.28, trade_qty=6, trade_side='SELL', trade_id='dd
3afb7a-2271-4950-bbab-d01da405d83f')
Randomly generated order statement 64: Order(symbol='AAPL', gty=5, side='SE
LL', type='limit', price=159.73, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=5, price=159.73, side='SELL', timestamp='2023-03-1
```

1T19:10:22.934451', order_id='8833f358-2b89-44f6-a37e-a287d28441bd', instmt ='AAPL', trade_price=159.73, trade_qty=5, trade_side='SELL', trade_id='fb5d

5234-397e-4d7c-b2a3-9d863874462a')

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SPAAssignment2
Randomly generated order statement 65: Order(symbol='G00G', qty=1, side='SE
LL', type='limit', price=1157.97, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=1, price=1157.97, side='SELL', timestamp='2023-03-
11T19:10:22.937967', order_id='82e4e3a1-e98a-4991-8f3a-48209f1edf4c', instm
t='G00G', trade price=1157.97, trade qty=1, trade side='SELL', trade id='d5
77faee-b4c6-480e-9cf0-633b9aec2553')
Randomly generated order statement 66: Order(symbol='AMZN', gty=4, side='SE
LL', type='limit', price=2938.52, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=4, price=2938.52, side='SELL', timestamp='2023-03-
11T19:10:22.941833', order_id='b0679f34-ca73-457e-a43a-20a7a9470c69', instm
t='AMZN', trade_price=2938.52, trade_qty=4, trade_side='SELL', trade_id='cd
260cc1-6cd2-4274-bfc5-d67b60da5140')
Randomly generated order statement 67: Order(symbol='TSLA', gty=2, side='SE
LL', type='limit', price=754.16, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='TSLA', qty=2, price=754.16, side='SELL', timestamp='2023-03-1
1T19:10:22.946106', order id='bab4d937-33ea-4c1f-acd4-5072418fc651', instmt
='TSLA', trade_price=754.16, trade_qty=2, trade_side='SELL', trade_id='ce74
98f3-af30-4961-9deb-0c6d3ec7ef39')
Randomly generated order statement 68: Order(symbol='AAPL', gty=6, side='SE
LL', type='limit', price=153.43, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=6, price=153.43, side='SELL', timestamp='2023-03-1
1T19:10:22.950906', order id='cf0ef9a6-ce7a-42b1-80d9-9cdf9cf41169', instmt
='AAPL', trade_price=153.43, trade_qty=6, trade_side='SELL', trade_id='41de
1019-0883-4a62-b353-2faa4c7f58d4')
Randomly generated order statement 69: Order(symbol='TSLA', gty=3, side='SE
LL', type='limit', price=726.55, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='TSLA', qty=3, price=726.55, side='SELL', timestamp='2023-03-1
1T19:10:22.955607', order_id='42d21fd6-8b43-49b6-87ea-2e89e5a432a7', instmt
='TSLA', trade price=726.55, trade qty=3, trade side='SELL', trade id='c84a
c6a7-1441-4041-b639-6d1dbbfaeea2')
Randomly generated order statement 70: Order(symbol='FB', gty=2, side='SEL
L', type='limit', price=376.13, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=2, price=376.13, side='SELL', timestamp='2023-03-11T
19:10:22.959109', order_id='bd402471-d966-4943-bada-eafd890b4de3', instmt
='FB', trade_price=376.13, trade_qty=2, trade_side='SELL', trade_id='ba0812
f9-9861-4f9f-9e72-b63306a6a26e')
Randomly generated order statement 71: Order(symbol='TSLA', gty=6, side='BU
Y', type='limit', price=791.67, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='TSLA', qty=6, price=791.67, side='BUY', timestamp='2023-03-11
T19:10:22.963474', order_id='c0ca747c-5df4-4d1e-9622-671f87873970', instmt
='TSLA', trade_price=791.67, trade_qty=6, trade_side='BUY', trade_id='cc706
7c7-a29b-4992-8c79-94b732cddf3b')
Randomly generated order statement 72: Order(symbol='AAPL', gty=2, side='SE
LL', type='limit', price=155.08, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=2, price=155.08, side='SELL', timestamp='2023-03-1
```

1T19:10:22.967107', order_id='fc33e725-19c1-4804-aadd-af123e1fb17a', instmt ='AAPL', trade_price=155.08, trade_qty=2, trade_side='SELL', trade_id='ba71

ece3-6731-4f13-bb63-2f7f71ba5475')

```
Randomly generated order statement 73: Order(symbol='TSLA', qty=6, side='BU
Y', type='limit', price=795.21, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='TSLA', qty=6, price=795.21, side='BUY', timestamp='2023-03-11
T19:10:22.970458', order_id='3b399137-b092-43fe-b5ee-76c62e0e8a81', instmt
='TSLA', trade price=795.21, trade qty=6, trade side='BUY', trade id='9237a
6c3-94e8-4dc0-8a68-c712b9995ae7')
Randomly generated order statement 74: Order(symbol='TSLA', gty=9, side='BU
Y', type='limit', price=788.99, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='TSLA', qty=9, price=788.99, side='BUY', timestamp='2023-03-11
T19:10:22.975632', order id='95ea536c-5805-4119-b67d-3d15d8b1e3ca', instmt
='TSLA', trade_price=788.99, trade_qty=9, trade_side='BUY', trade_id='56c47
48b-c90c-4962-9556-41a9cb2f8f3a')
Randomly generated order statement 75: Order(symbol='AAPL', gty=6, side='BU
Y', type='limit', price=163.11, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=6, price=163.11, side='BUY', timestamp='2023-03-11
T19:10:22.978957', order id='59caf5fd-55b6-4c85-95fa-b313c3044988', instmt
='AAPL', trade_price=163.11, trade_qty=6, trade_side='BUY', trade_id='1f3a9
49f-8e3e-45cd-aad0-069539ed69a6')
Randomly generated order statement 76: Order(symbol='AAPL', gty=8, side='BU
Y', type='limit', price=162.18, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=8, price=162.18, side='BUY', timestamp='2023-03-11
T19:10:22.982382', order id='1167e389-699b-40fb-a356-86223e0dd270', instmt
='AAPL', trade_price=162.18, trade_qty=8, trade_side='BUY', trade_id='c24ba
59e-d610-4806-bcc3-efb32bd3a9c3')
Randomly generated order statement 77: Order(symbol='FB', gty=10, side='BU
Y', type='limit', price=413.78, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=10, price=413.78, side='BUY', timestamp='2023-03-11T
19:10:22.986399', order_id='e8f1d90f-9bae-45d9-a131-f5210e4ff094', instmt
='FB', trade price=413.78, trade qty=10, trade side='BUY', trade id='16d43e
d3-6419-428b-bd92-b13a7ec0edcc')
Randomly generated order statement 78: Order(symbol='G00G', gty=5, side='BU
Y', type='limit', price=1213.18, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='G00G', qty=5, price=1213.18, side='BUY', timestamp='2023-03-1
1T19:10:22.990837', order_id='2220efa4-c1f8-4420-b054-e96ce35d118b', instmt
='G00G', trade_price=1213.18, trade_qty=5, trade_side='BUY', trade_id='aa39
ebbf-d325-42dc-84eb-8f14af246eb8')
Randomly generated order statement 79: Order(symbol='FB', gty=1, side='BU
Y', type='limit', price=405.08, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='FB', qty=1, price=405.08, side='BUY', timestamp='2023-03-11T1
9:10:22.994624', order_id='d5bcb4a4-59a8-448d-9940-704dfd5291f2', instmt='F
B', trade_price=405.08, trade_qty=1, trade_side='BUY', trade_id='e36340af-d
066-4c12-8ed9-6b49db20a621')
Randomly generated order statement 80: Order(symbol='AAPL', gty=8, side='SE
LL', type='limit', price=157.9, time_in_force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AAPL', qty=8, price=157.9, side='SELL', timestamp='2023-03-11
T19:10:22.997906', order_id='97c0e1b6-032c-43c5-b71c-ba27649b4c84', instmt
='AAPL', trade_price=157.9, trade_qty=8, trade_side='SELL', trade_id='9d1b9
013-fbff-48fa-b916-8ecec25f882b')
```

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SPAAssignment2
Randomly generated order statement 81: Order(symbol='AMZN', qty=5, side='SE
LL', type='limit', price=2992.55, time in force='2023-03-11 14:10:22')
Order Placed Successfully
Trade(symbol='AMZN', qty=5, price=2992.55, side='SELL', timestamp='2023-03-
11T19:10:23.001272', order_id='e5bebb6e-6b7a-47ef-97c2-a2896e24e400', instm
t='AMZN', trade_price=2992.55, trade_qty=5, trade_side='SELL', trade_id='6d
d9a0f8-f974-4e3c-ad2c-c4c1156d9fd6')
Randomly generated order statement 82: Order(symbol='TSLA', gty=3, side='BU
Y', type='limit', price=766.66, time in force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='TSLA', qty=3, price=766.66, side='BUY', timestamp='2023-03-11
T19:10:23.004551', order id='eb405888-e28b-405c-8acc-fbe4867a34c1', instmt
='TSLA', trade_price=766.66, trade_qty=3, trade_side='BUY', trade_id='8cfc9
9da-3f7e-45c1-8b73-f4b82635cee2')
Randomly generated order statement 83: Order(symbol='G00G', gty=8, side='BU
Y', type='limit', price=1171.53, time in force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='G00G', qty=8, price=1171.53, side='BUY', timestamp='2023-03-1
1T19:10:23.009011', order id='dc83e812-68c1-492d-8532-ffd3bf817d19', instmt
='G00G', trade_price=1171.53, trade_qty=8, trade_side='BUY', trade_id='288b
70e4-e5ea-44b6-a78d-e51df0150694')
Randomly generated order statement 84: Order(symbol='G00G', gty=2, side='SE
LL', type='limit', price=1158.07, time_in_force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='G00G', qty=2, price=1158.07, side='SELL', timestamp='2023-03-
11T19:10:23.012916', order id='77020094-ffd9-4e9a-999c-d64460fdbd2d', instm
t='G00G', trade_price=1158.07, trade_qty=2, trade_side='SELL', trade_id='8b
178c00-cb2f-4413-bee6-f8c7995f2890')
Randomly generated order statement 85: Order(symbol='G00G', gty=4, side='SE
LL', type='limit', price=1143.77, time_in_force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='G00G', qty=4, price=1143.77, side='SELL', timestamp='2023-03-
11T19:10:23.017330', order_id='7f741120-9cd6-4ee4-a34e-400b2e1cbe92', instm
t='G00G', trade price=1143.77, trade qty=4, trade side='SELL', trade id='b1
5fd4ac-7bf1-4465-8237-bdd818489a69')
Randomly generated order statement 86: Order(symbol='TSLA', qty=8, side='BU
Y', type='limit', price=782.71, time in force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='TSLA', qty=8, price=782.71, side='BUY', timestamp='2023-03-11
T19:10:23.021559', order_id='a655bffd-744c-4673-a936-7c7182c378cb', instmt
='TSLA', trade_price=782.71, trade_qty=8, trade_side='BUY', trade_id='71e87
f12-9b93-4c8e-be40-8d70e9ac56f8')
Randomly generated order statement 87: Order(symbol='G00G', gty=1, side='BU
Y', type='limit', price=1169.55, time in force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='G00G', qty=1, price=1169.55, side='BUY', timestamp='2023-03-1
1T19:10:23.025304', order_id='194f9875-efc6-4dd5-ab05-6a8014197b3c', instmt
='G00G', trade_price=1169.55, trade_qty=1, trade_side='BUY', trade_id='b422
4c50-130c-4a2d-92f0-0abbc37d56ea')
Randomly generated order statement 88: Order(symbol='TSLA', gty=2, side='SE
LL', type='limit', price=727.29, time_in_force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='TSLA', qty=2, price=727.29, side='SELL', timestamp='2023-03-1
1T19:10:23.030132', order_id='ba99c95b-92cc-4f28-bf6d-cedae76ae62c', instmt
```

='TSLA', trade_price=727.29, trade_qty=2, trade_side='SELL', trade_id='cdb5

6141-b529-477d-9798-465b2ecaacea')

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SPAAssignment2
Randomly generated order statement 89: Order(symbol='AMZN', qty=7, side='SE
LL', type='limit', price=2917.22, time in force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='AMZN', qty=7, price=2917.22, side='SELL', timestamp='2023-03-
11T19:10:23.034153', order_id='1da4f4b3-c99e-4f76-9146-91ba95665feb', instm
t='AMZN', trade price=2917.22, trade qty=7, trade side='SELL', trade id='ae
470a5e-2090-4b7f-b78d-487bf8dc1de6')
Randomly generated order statement 90: Order(symbol='AMZN', gty=7, side='SE
LL', type='limit', price=2882.77, time in force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='AMZN', qty=7, price=2882.77, side='SELL', timestamp='2023-03-
11T19:10:23.038021', order_id='ee86538b-54f7-409b-bff0-f21e668784c1', instm
t='AMZN', trade_price=2882.77, trade_qty=7, trade_side='SELL', trade_id='73
9d62b8-6b0f-4b80-bdc3-2c94ca79b3e4')
Randomly generated order statement 91: Order(symbol='G00G', qty=9, side='BU
Y', type='limit', price=1165.56, time in force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='G00G', qty=9, price=1165.56, side='BUY', timestamp='2023-03-1
1T19:10:23.041525', order id='c701de0b-e9ed-43e9-b5d0-d28e595f4cc1', instmt
='GOOG', trade_price=1165.56, trade_qty=9, trade_side='BUY', trade_id='8860
d907-6466-4d27-afc7-3f0f97c390a2')
Randomly generated order statement 92: Order(symbol='TSLA', gty=7, side='SE
LL', type='limit', price=758.85, time_in_force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='TSLA', qty=7, price=758.85, side='SELL', timestamp='2023-03-1
1T19:10:23.045698', order id='fc7cb8bf-17a6-4507-b8f0-5448d47ecfa6', instmt
='TSLA', trade_price=758.85, trade_qty=7, trade_side='SELL', trade_id='a50b
422c-c010-4a44-8863-9fd3752a5050')
Randomly generated order statement 93: Order(symbol='AAPL', gty=3, side='SE
LL', type='limit', price=155.14, time_in_force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='AAPL', qty=3, price=155.14, side='SELL', timestamp='2023-03-1
1T19:10:23.050019', order_id='d0c32815-b0fb-451c-b13c-d9824c7c0b39', instmt
='AAPL', trade price=155.14, trade qty=3, trade side='SELL', trade id='b4de
1b7d-1829-45e9-bc7f-26bc995d6f87')
Randomly generated order statement 94: Order(symbol='TSLA', gty=10, side='S
ELL', type='limit', price=740.46, time_in_force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='TSLA', qty=10, price=740.46, side='SELL', timestamp='2023-03-
11T19:10:23.055160', order_id='0406f467-92ca-49f0-899d-7120c3872a24', instm
t='TSLA', trade_price=740.46, trade_qty=10, trade_side='SELL', trade_id='1b
bf0764-3fac-4d5f-aa7b-da96d9e69f3f')
Randomly generated order statement 95: Order(symbol='AMZN', gty=3, side='SE
LL', type='limit', price=2925.57, time in force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='AMZN', qty=3, price=2925.57, side='SELL', timestamp='2023-03-
11T19:10:23.058645', order_id='05b37ad6-794b-4877-9268-55c3dbddf3a8', instm
t='AMZN', trade_price=2925.57, trade_qty=3, trade_side='SELL', trade_id='ba
104f1b-34e2-4a10-b48e-78783bed2e69')
Randomly generated order statement 96: Order(symbol='AAPL', gty=9, side='SE
LL', type='limit', price=157.04, time_in_force='2023-03-11 14:10:23')
Order Placed Successfully
Trade(symbol='AAPL', qty=9, price=157.04, side='SELL', timestamp='2023-03-1
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1T19:10:23.063006', order_id='d6288961-f9b1-450c-bbba-abc03b2d3639', instmt ='AAPL', trade_price=157.04, trade_qty=9, trade_side='SELL', trade_id='9483

74b9-4e05-43ee-ad0e-c669b525ac45')

Randomly generated order statement 97: Order(symbol='AMZN', qty=2, side='SE LL', type='limit', price=2887.35, time_in_force='2023-03-11 14:10:23')
Order Placed Successfully

Trade(symbol='AMZN', qty=2, price=2887.35, side='SELL', timestamp='2023-03-11T19:10:23.067237', order_id='983dd1a2-c4c5-4177-8b29-c2c672610ead', instm t='AMZN', trade_price=2887.35, trade_qty=2, trade_side='SELL', trade_id='1f1ed178-ab05-40b1-9147-c8fe02bac887')

Randomly generated order statement 98: Order(symbol='G00G', qty=7, side='BU Y', type='limit', price=1214.34, time_in_force='2023-03-11 14:10:23')
Order Placed Successfully

Trade(symbol='G00G', qty=7, price=1214.34, side='BUY', timestamp='2023-03-1 1T19:10:23.071861', order_id='1041f1ab-933e-464e-8545-2a7a6679c77b', instmt ='G00G', trade_price=1214.34, trade_qty=7, trade_side='BUY', trade_id='575c 55cb-f707-4a3d-880e-64bf169c508e')

Randomly generated order statement 99: Order(symbol='TSLA', qty=6, side='BU Y', type='limit', price=773.06, time_in_force='2023-03-11 14:10:23')
Order Placed Successfully

Trade(symbol='TSLA', qty=6, price=773.06, side='BUY', timestamp='2023-03-11 T19:10:23.075370', order_id='a6d6c73e-1349-4254-87b4-557b1b754d21', instmt ='TSLA', trade_price=773.06, trade_qty=6, trade_side='BUY', trade_id='4194e fda-3bf6-48a4-81f2-0b791f0f2a41')

Randomly generated order statement 100: Order(symbol='TSLA', qty=10, side ='BUY', type='limit', price=781.52, time_in_force='2023-03-11 14:10:23') Order Placed Successfully

Trade(symbol='TSLA', qty=10, price=781.52, side='BUY', timestamp='2023-03-1 1T19:10:23.079537', order_id='619c0c8e-b736-44e5-bd33-884206612ac1', instmt ='TSLA', trade_price=781.52, trade_qty=10, trade_side='BUY', trade_id='f34e c7e8-65ed-4bd1-927b-89f7f7bb783e')

In []: