Code To Connect

Thinking Process

Object-Oriented Programming

Use classes to represent important elements in problem statement

Architecture

Classes

- Order
- Client
- Instrument

Comparators

- SellOrderComparator
- BuyOrderComaparator

Comparators are used to decide priority in priority queue

Matching Engine

findOpenPrice()

- method to find open price

continuous()

- method to perform matching during continuous trading

match()

- matching algorithm uses priorityQueue based on price, rating and time of the orders

Algorithm Complexity

findOpenPrice()

- sorting: O(n^2logn), where n = numOfOrders

Unit Testing

We conducted unit testing and integration testing for the core components in our programme

Tested csv reading

Tested findOpenPrice()

Challenges

Algorithm to find open price

Matching algorithm was difficult to come up with and implement