# The discrete auction program

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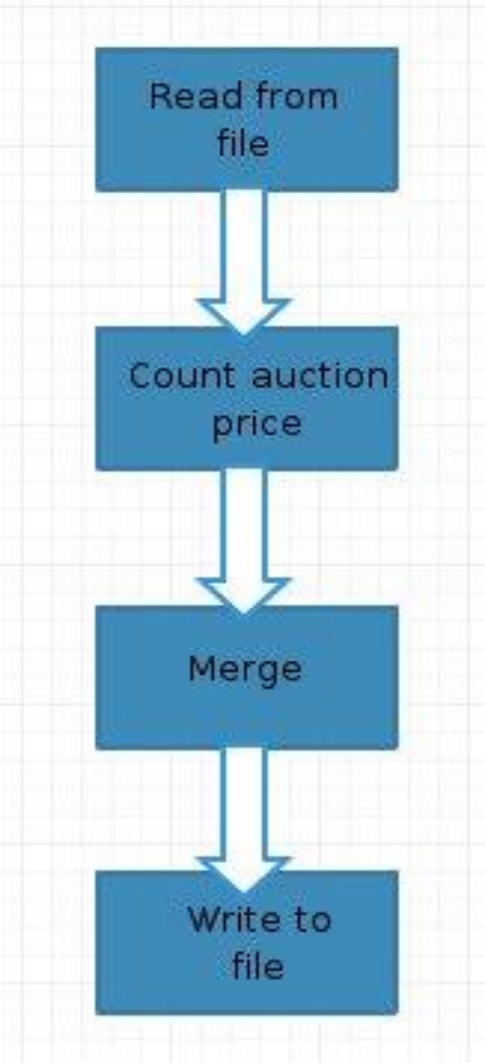
# Algorithm structure



# Data Structures

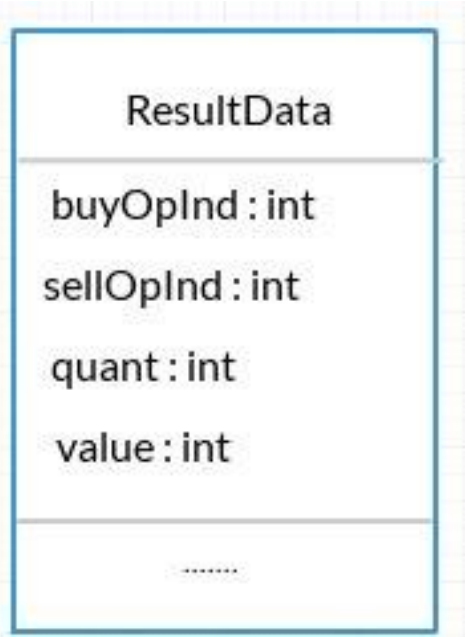
- ArrayList is more useful for asccess by index than LinkedList

- buyAuctionList is ArrayList<AuctionData>() for storing «buy element»
- sellAuctionList is ArrayList<AuctionData>() for storing «sell element»

# Data classes

Data class for input data


Data class for output data



# Sorting input

- I used two inner classes, which implemented Comparator interface
- AuctionBuyDataComparator for sorting «buy elements»
- AuctionSellDataComparator for sorting «sell elements»

# Usage

- For usage :
- 1) read data from file
- 2) Initialize ArrayList<ResultData> structure with the return method of countResultWithMaxPrice()
- 3) write result to file

# Algorithm alalysis

- Working time is 8-9 second for input data, which contains approximately 1 million elements

# CV

- That is program for modelling the discrete auction. First, program calculates the auction price. Second, program merge input data using auction price and after that it would be result of auction.
- For more detailed information It's recommended to learn with code.