Introduction to Multi-Agent-Programming

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Exercise Sheet 5
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Look at the bookTrading example in the jade/src/examples/bookTrading sub-directories.

Exercise 5.1 (Contract Net (1 pt))

In JADE, there is a "bookTrading" example. Use a contract net **(with the agent's concrete messages)** to describe the behaviors of the buyer and the seller.

Exercise 5.2 (Steal the highest price (2 pt))

From now on assume, the buyer will only buy up to a maximum price for a book (see reasonable buyer in programming sheet).
Based on the bookTrading example, develop the behavior of the seller agent according to the following descriptions:

- If the seller knows, what maximum price the buyer is willing to pay it will offer this price and make the trade.

- Otherwise, the seller will start the first auction with its minimum price (representing the book's value) and change it in subsequent auctions. Then the seller will always inform "failure" on every auction.

Make sure that your seller's behaviour will lead to the seller always selling the book for the maximum price.

Describe your behaviour and state why it will lead to the highest price.

Exercise 5.3 (Re-Steal the lowest price (2 pt))

Assume the seller is trying to "steal the highest price". Develop a buyer behaviour that maximally exploits this strategy.

Describe your behaviour and state why it will get the lowest price.