

Introduction to Multi-Agent-Programming

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Exercise Sheet 5

Due: November 30, 2009

Exercise 5.1 (JADE, FIPA, and Contract Net)

(a) **JADE bookTrading Example (1pt; written)**

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

(b) **Steal the highest price (1pt; programming)**

Based on the bookTrading example, change the behaviors of the agents according to the following descriptions.

The buyer will reject the proposal unless the price is no more than an acceptable price (predefined).

The seller will inform “sold” unless the price cannot be added more than 1 [Euro].

Exercise 5.2 (Communication Subsystem)

(a) **Implement a communication subsystem (0.5pt; programming)**

Copy the CommInterface.java and CommObject.java from the map09/ directory to your grp/ directory as a base for a communication system. Fill out the missing features marked by TODOs in the com base code.

(b) **Implement the IDToken and IDListToken classes for later use. (0.5pt; programming)**

Assume an id is a 4 byte integer and use little endian encoding.

For the IDList start with 1 byte encoding the number of ids and then list the ids.