

# An Introduction to Software Agents

## Exercises

### 1. A Mobile Agent

In this exercise you will create an agent able to move between agent containers. The goal of the exercise is to understand agent mobility and test this out in practice with the JADE framework.

You have been given an introduction to how platform locations are obtained with the `GetAvailableLocationsBehaviour` class. You should use this with your own behaviour implementation in order to make the agent move between the available containers.

The goal of this exercise is to program an agent to visit every container available on the platform. You should run 3 or more containers (including the main container), either on your local computer or cooperate with other students. You decide for yourself if you want the agent to perform some action on each container, or simply display a “I am here!” log message.

### 2. The Bargaining Agent

In this exercise you should cooperate with another student to create a seller and a buyer agent. The seller agent should register with the yellow-pages service (the Directory Facilitator) as a “seller”. The buyer agent will perform a search for a seller agent and will initiate a bargaining for a good price!

This exercise focuses on agent communication with ACL messages and the yellow-pages services offered by the JADE framework (the Directory Facilitator). How you implement the bargaining logic is entirely up to you.

A few tips:

ACL messages are sent by using the following code:

```
ACLMessage msg = new
    ACLMessage (ACLMessage.<messagetype>);
// set message attributes
myAgent.send(msg);
```

ACL messages are received one of the following two ways:

```
ACLMessage msg = receive();
```

or

```
ACLMessage msg = blockingReceive();
```

in your behaviours.