

Homework 1 Report; An Introduction About JADE

Distributed Artificial Intelligence and Intelligent Agents , ID2209

Adisu @ Netsanet

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1 Description About The Code

In this first homework, we were expected to take a hands on experience with agent platforms and to implement software agents using JADE. As we know, '*JADE is a middleware that facilitates the development of multi-agent systems.*'

Having said this, we implement the given problem by defining five classes. Three of them have internal private classes which are extended from different behaviour classes. The first class that we have is *ProfilerAgent* class. This class has two inner classes namely *SearchTourGuideBehaviour* extended from *SimpleBehaviour* and *RequestVirtualTourBehaviour* which inherits the *Behaviour* class.

The reason we inherit from *SimpleBehaviour* is, this class has an atomic behaviour. And can model behaviours that are made by a single, monolithic task and cannot be interrupted. The second class that we have defined is *CuratorAgent*. In this class we have one inner class that extends from *CyclicBehaviour*. Here, our behaviour (actual job of the agent) will stay forever. The third class is *TourGuideAgent* class with three inner classes. Based on the description of the problem Tour guide agent retrieves the information about artefacts in the gallery/museum and builds a virtual tour (upon the request) for profiler agent. To handle this request from the profiler we have *TourRequestHandler* class which inherits from *CyclicBehaviour*. Because the handler should be executed forever. In addition to this inner class we also have *InformProfilerBehaviour* class extending from *OneShotBehaviour* to be executed at once.