**ID2209 – Distributed Artificial Intelligence and Intelligent Agents**

**Assignment 2 – Negotiation and Communication (FIPA)**

***Group 7***

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For this assignment we where asked to create a dutch auction simulation. The agents in this simulation are the auctioneers and the guests of the festival that will participate in the auctions.

Auctioneers will be place in the simulation and will announce an auction of an item for the guest to participate once the participants arrive to the action the auctioneer will set the initial price for the item and waits for any offers if there are no offers the auctioneer will decrease the price till he receives an offer and sell the item.

**Species**

Guest

The guests will wander through the simulation till they receive an auction announcement of an item they are interest on, once they receive it they will start moving towards the auction to be able to participate.

Auctioneer

Auctioneers will be place at a specific point in the simulation and start a dutch auction on specific items that guests might be interested on.

**Implementation**

We first began to set up the necessary global variables for Auction simulation. In the simulation there will be a random number of guest between 10 and 20 and 3 auctioneers. To set the items that the guests will be interested and the auctioneers will be selling we created a list of possible items. Then we set minimum and maximum ranges for the price that a guest can go for a item, the starting price and minimum accepted price of an auctioned item, this variables will will help to randomize price values. When initializing the simulation we define the first item that the guests will be interested in and the first item that the auctioneer will be selling.

The Guests will implement the moving and fipa skills, start at a random location and they will be wandering around in the simulation, they will have a random accepted price for the item that they are interested at that point.

**Result**

**Conclusion**

This assignments made it possible for us to understand the basics of GAMA and how we are able to create and interact with agents in a distributed artificial intelligent simulation. At the start there was some difficulties understanding some of the syntax of GAMA but once we got the basic understanding of it we where able to successfully implement the assignment.