The Giving Game: Project Log

The Giving Game

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Week 1

This week I managed to ...

Monday 30th of March 2015

Today I met with my supervisor. We discussed the project plan I made before the start of the poject. We agreed to meet at least once a week. This meeting will take place each monday at 10.30 a.m. with the exception of next week. Next week the meeting will take place on Tuesday at 11.00 a.m. because of Easter. This week I will be working on designing the simulator and the literature study.

Tuesday 31th of March 2015

I used this day to improve my knowlodge of Python. I searched the internet for Python packages and frameworks I might be able to use. For example I found the Qt framework which I will use for the user interface of the simulator. I read the documentation for this framework and for other packages and I did some tutorials.

Wednesday 1st of April 2015

Today I started designing the simulator. I did most of the designing on paper and I put some thoughts in the design document. Tommorow I will continue with the design of the simulotor and try to finnish the design document.

Thursday 2nd of April 2015

I continued working on the design of the simulator. I have the most important parts of the Back-End figured out. I also created some pseudocode for the Agents and the Goods. Tommorow I will create a more visual design.

Sunday 5th of April 2015

Today I added the visual parts of the design. The design is finnished, any changes or additions I come across during the implementation will be documented in the design document.

Week 2

Tuesday 7th of April 2015

Today I me with my supervisor. We discussed the design document I created last week. I have to pay attention to the following when creating the simulator:

- Comunnity percentage
- Perishable and durable goods with a perish factor between [0, 1]
- Production time of a perishable product
- Multiple goods with the same type, for example 8 perishable goods and 2 durable goods.

For the theoretical research I will compare the random rule and the balance rule with the goodwill rule, because these rules are special. During the research I will try to find more rules with the same properties. I also started working on the Python code for the simulator. I have created a simple simulation for the random rule with durable goods. This piece of code will be used as a foundation for the whole simulation.

Wednesday 8th of April 2015

Today I created a simple simulation for perishable goods. I had some trouble with the implementing the goods. Updating and changing the values of the goods was a bit difficult, because they existed in multiple locations. I decided to assign a few agents as default producers of goods which made creating new goods easy, problem solved. I now have a simple simulation for sustainable and perishable goods, both types can be used during the same simulation. For the perish factor I use a value between 0 and MAX_INTEGER, this is alot easier and more logical than using a value between [0, 1]. The good perishes after n times the good has been given. A new good is produced after m transactions. Friday, Saturday and Sunday I will try to figure out how I should implement the calculation of the community effect and in how the balance should be implemented. I also want to try to create a visualisation of the simulation process. If i can see what is happening it will be much more easy to conclude that the simulation is working correctly.

Friday 10th of April 2015

Today I took my time to look at the Qt framework and VisPy. I managed to create a simple input GUI and i created a testfile for VisPy. I figured out how I can implement the Qt framework with the code from the past few days. Tommorow I will try to visualise the input and the ouput of the simulation. At the end of this week I hope I will have a simple simulation with a GUI for the input and the output. If I manage to do this it will be alot easier to create the rest of the simulator, because I will already have a working foundation/framework which allows me to only having to add code on top of the already existing code.

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Week 4

Week 5

Week 6

Week 7

Week 8

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Week 11

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