Reflections

Andrés: During the first midterm the most important part that I had to work on and caused me more problems was the transfer of items between stations in cases of having two stations in the same height of the pipeline, in addition to the processing and collection of data generated by the simulation. For the second midterm, beyond the visualization issue, I had to work on the conversion and collection of data in python for a json to connect with the javascript of the web page, in addition to implementing a database in the cloud with MongoDB Atlas. For this last part unfortunately we had to remove the connection with Mongo because of strange problems with the CORS in Flask. But for the same reason I ended up focusing on the development of the dictionaries of moments and various bugs that were presented. In summary my biggest complication during the project was on the side of the constant updating of the information.

Mario: IIn the first partial, it was fun to work, I had the part of the implementation of reading data and a little analysis, to see the simulation and also had a small part of data visualization with pygame, in the second partial, I had to work on having the information well, I tried some connections but did not work, then we left everything in local, it was also adding that was not so complicated to add months with the simulated data was to put probability, there was also a challenge trying to save all the statistics in an online database due to limitations in the number of indexes allowed. I passed the info to my partner and helped a bit with the web part for the visualization, the work was almost that, it was that the given info was passed well to our json. In this final part my biggest contribution was following the errors in our files and detect the moment when the code failed. I also kept helping my partners in some of their tasks.

Carlos: One of the main things I noticed about this project is related to the fact that it was in a certain sense modular. We were adding different requirements to the project in each midterm. And sometimes not knowing the full picture can cause problems when trying to implement it later down the line. The first midterm was the easiest in my opinion, simply because we only had to work on the backend, frontend programming has always been one of my weaknesses. Second midterm we started connecting to js and node.js, and this presented its own set of difficulties that we

surpassed as a team. There were several ideas that we put on the table that we had to abandon due to the logistics of the project, this means that in a certain sense, the visual aspect was a rush job. I feel that knowing what each midterm was going to bring would have let us plan in advance the system, and not need to patch it up as needed.

Mike: The implementation of this project has been very interesting. My favorite part was the first assignment, where we created a full simulation and learned how to measure the data generated by the stations of the simulation. I didn't like the second assignment too much since the database gave us tons of problems, but I enjoyed the transformation of the data to json files that could be read by the frontend. Finally this assignment was kinda troublesome, because the database gave us a lot of new issues and we decided to discard it. At the implementation of the animations we have had a lot of problems too, the simulation came with new bugs and those little bugs just broke the position of the data and the points started to move to places where they shouldn't do it. But generally, this project and the class have been very very interesting, we learned a lot and we kinda enjoyed a lot the challenge.

Francisco: During this project i had a lot of problems understanding must of the parts of the simulation but in this final part i was able to help my team in the animation from the javascript coding the movement of the circles that represent the products.