Elijah Hager

9/24/2018

Reflection

1. To start I would like to say I got permission from Professor Huang that my second track could be lower than the first and have their own separate gates. This is how I interpreted the assignment to be and didn’t realize she wanted otherwise until much later. That being said, I like this design more because creating separate gates that work independently and with space in between created its own problems I enjoyed solving. For instance, I had troubles with cars stopping on the first track because the second track’s gate was shut. To solve that I had cars check if there was space to stop in the roadway between the tracks, and if not just stop before the first gate even if it is open. To get cars on the east to randomly travel the EastWest road, I ran into a problem of cars behind those that turn to just stop completely right as the car turned. This made sense since the cars only observed the difference in Y distance and it moving along the X didn’t change anything. To fix that and essentially break the observer connections cars had to one another I made Booleans canTurn and turn, that told whether a car turned and then if it did I reset the leadCarY variable to -1 so it stopped worrying about what happened to that car and could move on. The only thing I did not like about my code was creating a Train2 class for the train going the opposite way, I started with better code that just used the one Train class but ran into major problems and didn’t have time to go back and change it back after finishing.

1. Right now, the main thing that would have to change for it to scale up is the way that I assign the gates to observe the trains. At first this was done in a for loop for all gates and that is scalable but in order to differentiate the gates to different tracks I got rid of the for loop and hardcoded in 4 addObservers(). Besides that, the code is pretty scalable and reliable.