2/14 2 hours: review material, project setup, planning & implementation

2/16 2 hours: setup working test project. Wrote down thoughts and set goals for next two dev sessions before release 1.

2/18 5 hours:

I really dove into the project fully today. I was able to make some good progress and am trying hard to not focus too much on implementing a perfect design. I was able to implement a basic alternating pattern where cars are able to move successfully between road segments. I wanted to focus on the simulation aspect in the early stages of the product and did not want to mess with the ui portion. As a result, I found myself working around an increasingly-complex road creation script in the model class. This can obviously be improved with a builder and a few factories.

2/19 5 hours:

I was able to implement the basics of the intersections and lights. Lights transition between the states detailed in the notes. I used enums and was very happy with the extra functionality java provided me. In addition to holding the basic state representation, the enums currently hold a delay setting and the ability to return which direction is currently allowed to pass. The intersections currently are only implemented on East-West roads however. I hope to fix this issue next.

2/20 2 hours:

Worked on mostly the car behavior today. Cars will now no longer pass each other, though there are a few bugs related to passing cars between road segments that I’m still dealing with. The big problem I’m running into is the behavior at intersections.

2/21 3 hours:

Primarily focused on some intersection behavior which had been troubling me. Cars seemed to bounce and line up on top of each other due to an error in the function which calculated free space. One of the biggest issues I seem to be having is separating responsibilities between car and road. Is it the car’s responsibility to check the road for issues ahead? It probably is, maybe I should move that logic to the car and just have the road return a queue of cars.

I also changed the road interface to use a queue. Because cars cannot pass, the queue provides some functionality that seems useful.