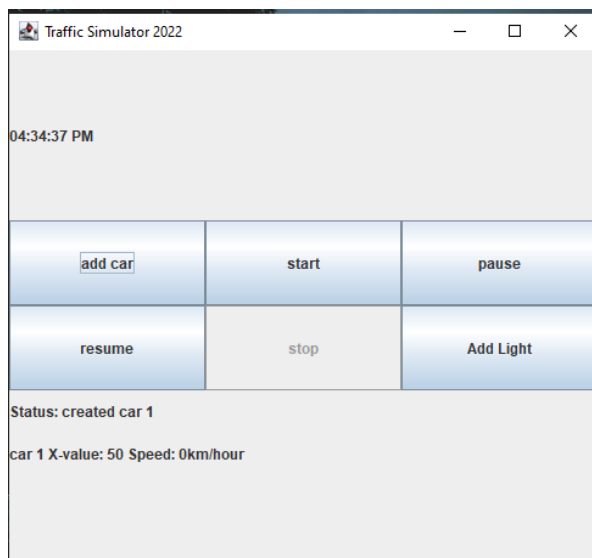


CMSC335 Project 3 Test Cases

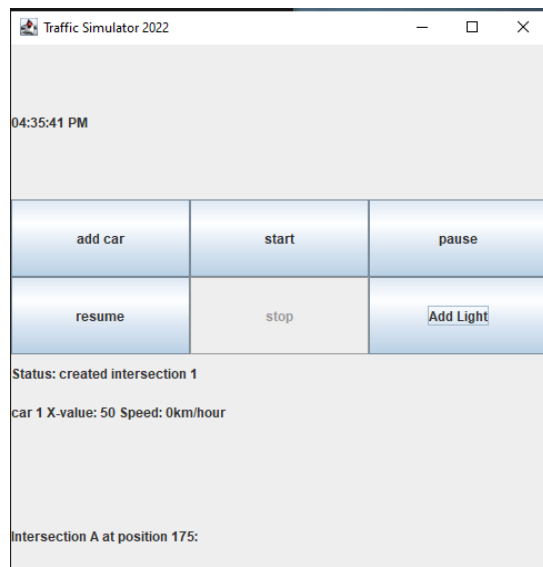
Lessons Learned:

I learned a lot about concurrent programming in Java. I learned how to set up threads that correspond to certain tasks and to increment time by having them sleep. I learned the difference between pausing and stopping a thread, as well as how to restart and interrupt a thread that is waiting or sleeping. I also learned a lot about Java swing and how to update values in a JLabel based on values returned by a threaded process. I found this program challenging and fun.

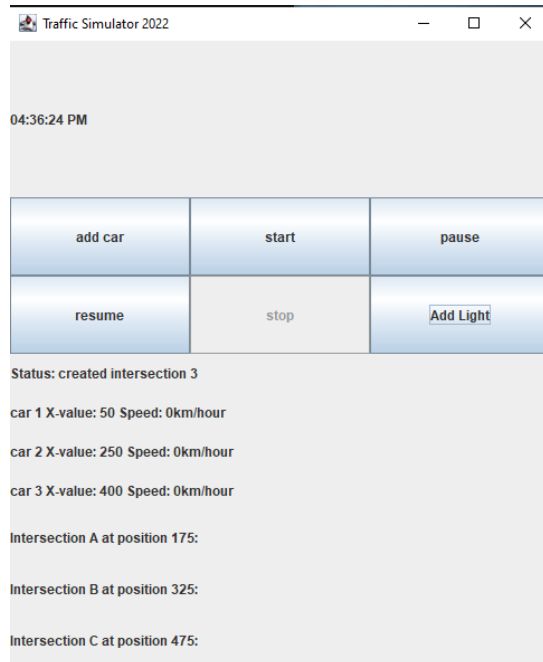
Test case	Input	Expected output	Actual output	Pass
1	add a car add an intersection add a car add an intersection add a car add an intersection press start press pause press resume press stop	"created car 1" "created intersection 1" "created car 2" "created intersection 2" "created car 3" "created intersection 3" "sim running" "sim paused" "sim resumed" "sim ended"	"created car 1" "created intersection 1" "created car 2" "created intersection 2" "created car 3" "created intersection 3" "sim running" "sim paused" "sim resumed" "sim ended"	pass



Adding car



Adding intersection



Adding cars and intersections

Status: sim running

Car 1 X-value: 130 Speed: 180 km/h

Car 2 X-value: 330 Speed: 180 km/h

Car 3 X-value: 480 Speed: 180 km/h

Intersection A at position 175: GREEN

Intersection B at position 325: GREEN

Intersection C at position 475: GREEN

Starting sim

Traffic Simulator 2022

04:40:20 PM

add car	start	pause
resume	stop	Add Light

car 1 stopped at red light

Car 1 X-value: 130 Speed: 0 km/h

Car 2 X-value: 430 Speed: 0 km/h

Car 3 X-value: 430 Speed: 0 km/h

Intersection A at position 175: RED

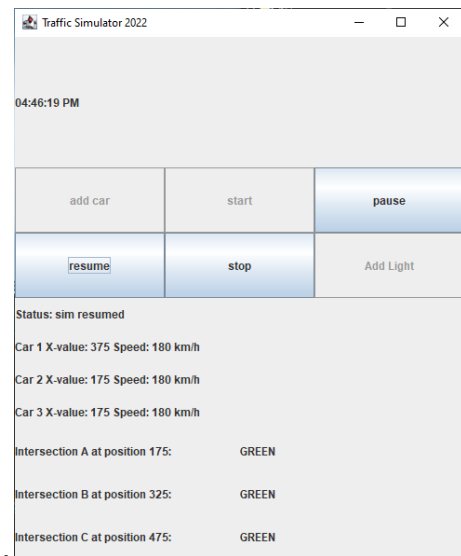
Intersection B at position 325: RED

Intersection C at position 475: RED

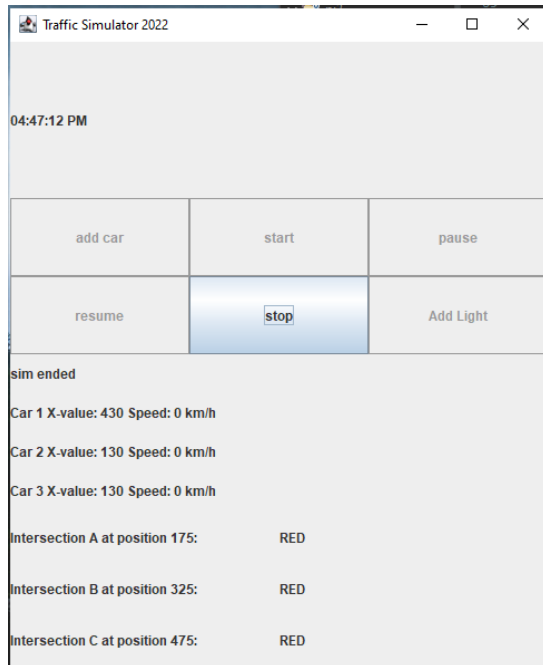
(All Cars are stopped because they are within 50 meters before a red traffic light)



Pausing sim

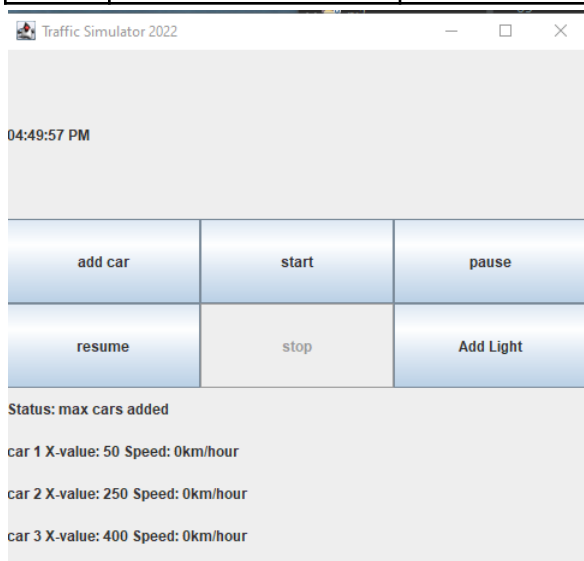


resuming sim

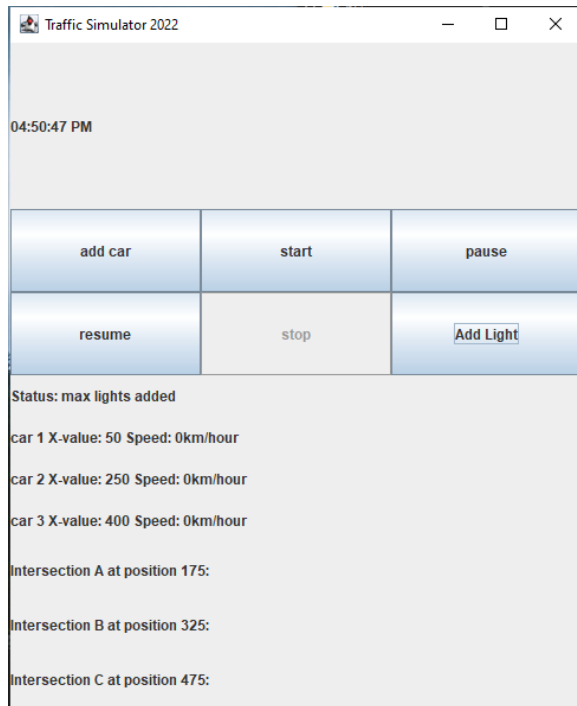


ending sim

Test case	Input	Expected output	Actual output	Pass
2	add a car add a car add a car add a car add an intersection add an intersection add an intersection add an intersection	"created car 1" "created car 2" "created car 3" "max cars added" "created intersection 1" "created intersection 2" "created intersection 3" "max lights added"	"created car 1" "created car 2" "created car 3" "max cars added" "created intersection 1" "created intersection 2" "created intersection 3" "max lights added"	pass

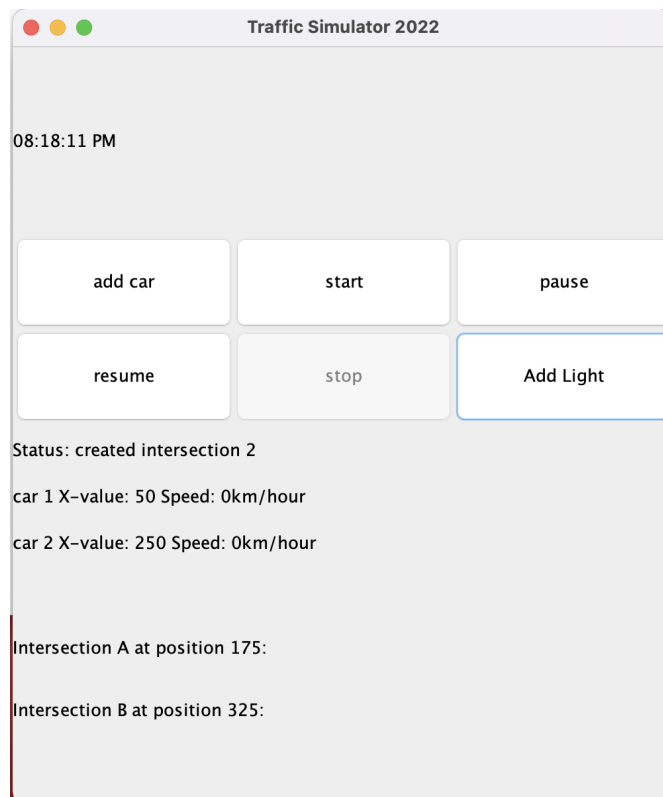


Max cars added

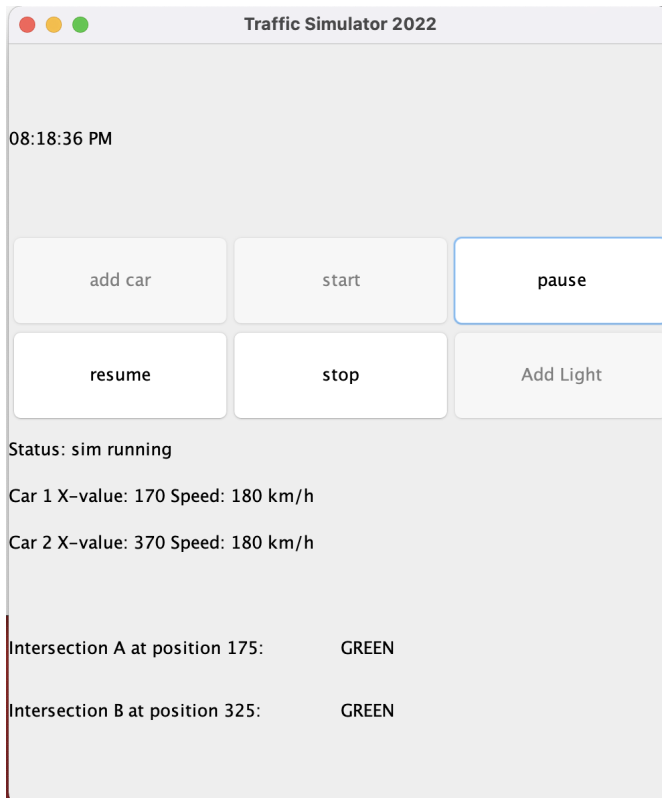


Max lights added

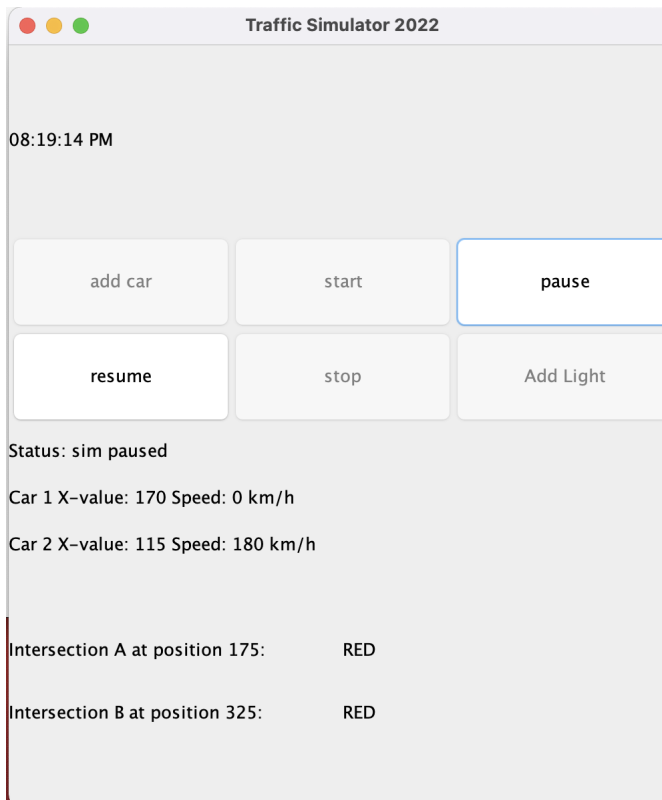
Test case	Input	Expected output	Actual output	Pass
3	add a car add a car add an intersection add an intersection press start press pause press resume press stop	"created car 1" "created car 2" "created intersection 1" "created intersection 2" "sim running" "sim paused" "sim resumed" "sim ended"	"created car 1" "created car 2" "created intersection 1" "created intersection 2" "sim running" "sim paused" "sim resumed" "sim ended"	pass



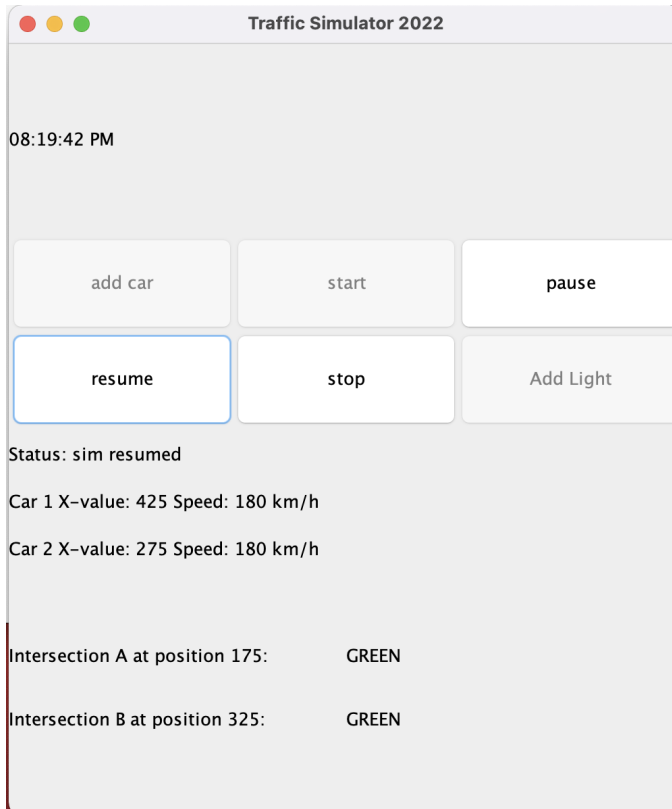
2 lights and 2 intersections created



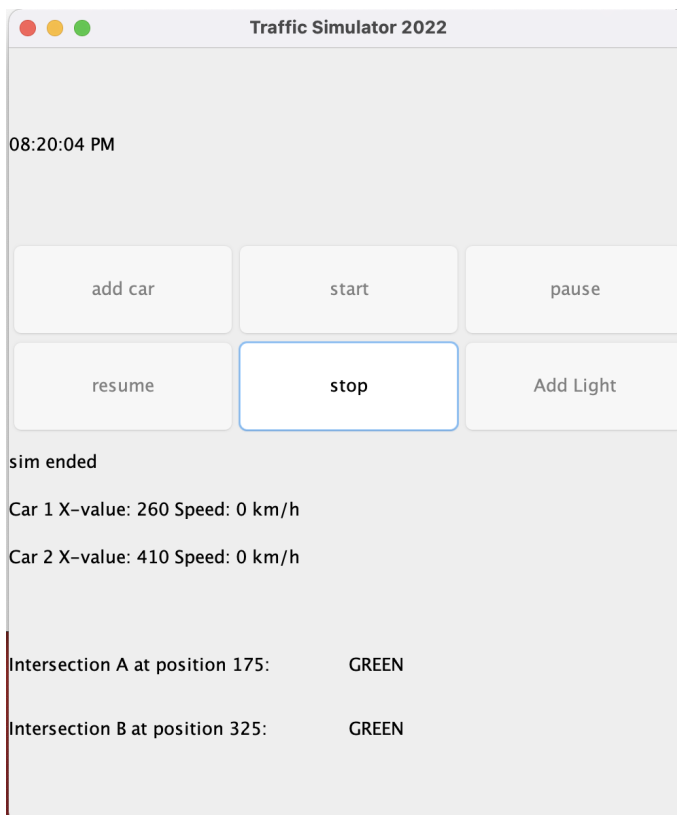
.simulation running



.simulation paused



simulation resumed



simulation ended

UML diagram

