TungHo Lin

Txl429

EECS338

Final Project

Progress Report: Timeline

11/13 – First came up with the idea of doing a program that simulates an operating train system, later changed it to a bus system

11/21 – Handed in Proposal

11/23 – Started brainstorming how the bus route system will be implemented.

11/28 – Turned in a 2nd Proposal after knowing what Chris wants to change about our idea

12/1 – Finished the pseudocode with my partner together and assign my partner to implement the traffic lights while I will implement the buses and the roads.

12/2– My partner and I agreed on:   
~ a 5x5 grid that will be used as a map for the buses to run on.

~ traffic lights int flags to control the lights

~ simple routes like vertical-only or horizontal-only for the beta version

12/2 – Finished the structure of the beta version

12/3 – I finished implementing the movement of the buses at the intersections and I decided that it will move into and out of the intersection in one iteration.

12/3 – My partner finished implementing the traffic lights and he decided to let a thread run it.

12/3 – The program output keeps outputting error on segmentation error: core dumped

12/4 – Figured out what’s wrong in the code: a tiny mistake. Program outputs successfully but wrong output at the intersection.

12/5 – Program was not outputting correct coordinates at the intersection because when we assigned intersections value to the intersection location but once bus1 moved pass it, it changes its value into bus1. I changed the implementation of how a bus detects the next step to be an intersection (using a 2D array that stores the x and y coordinates of an intersection). Now the program outputs correct info.

12/5 – My partner and I finished writing the DesignDoc and turned in the beta version.

12/6 – My partner and I created the PowerPoint presentation for 12/7’s presentation.

12/7 – Presentation.

12/8 – My partner and I discussed how we are going to implement semaphores into the traffic light with our TA Ian.

12/9-12/11 – My partner implemented the traffic lights using 2 semaphores instead of the int flags. I changed the vertical/horizontal routes to more complex routes and also had to change how x and y coordinates of a bus’s next step will be assigned. One more thing I had to change was that I had to make sure bus1 will wait for bus2 to finish its step before moving again so I added the next semaphore to make sure it will wait for bus2. Program got stuck because if bus2 finishes first, bus1 will be waiting forever. I then made bus1 check if bus2 is done before waiting for bus2; works! We met on 12/11 night and put all the code together, program works, outputs perfectly.

12/12 – Turns in final version!