

I hereby confirm that the information provided by me is of completely my own work.

Signed: Johnny Do

SID: 861003761

### **Data Link GO HERE For Full Data**

[https://docs.google.com/spreadsheets/d/1NxdQFLLHJceLcmOVW5KjiOLm4w2T\\_ZM7\\_6p\\_oG9Gz7M/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1NxdQFLLHJceLcmOVW5KjiOLm4w2T_ZM7_6p_oG9Gz7M/edit?usp=sharing)

Provided: **"Source"** Folder

Contains: **part1.cpp**, **Makefile**, **test.py**

### **INSTRUCTION ON HOW TO COMPILE**

On a terminal in the same directory as the files mentioned within the folder **"Source,"**

Type **"make"** into terminal and press enter

From here, the executable **"csim"** is created

### **INSTRUCTIONS ON HOW TO OPERATE**

#### **Manual Operation No Command Line (For Hourly Reports)**

Type **"/csim"** into terminal and press enter for default of 55 cars and with light

Further changes must be made in **part1.cpp**

const bool LIGHTS\_ON = [true | false];

const unsigned NUM\_CARS = [1-59]

Repeat: **INSTRUCTIONS ON HOW TO COMPILE**

Repeat: **INSTRUCTIONS ON HOW TO OPERATE:**

**Manual Operation No Command Line**

#### **Manual Operation With Command Line (Minimal Input Checking)**

Type **"/csim "** into terminal followed by two additional fields and press enter

First field is 0 or 1: No traffic light and with traffic light respectively

Second field is number of cars: [0 - 59]. Higher numbers treated as 59.

#### **Automated Operation**

Type **"make output"** into terminal and press enter

This will run **test.py**

test.py will create files **output.txt**, and **output2.txt**

**output.txt** contains no traffic light data

**output2.txt** contains with traffic light data

Type **"make check"** into terminal and it will output to terminal:

**output.txt's:** Total Laps by all cars [1-60]

**output.txt's:** Average Laps per car [1-60]

**output2.txt's:** Total Laps by all cars [1-60]

**output2.txt's:** Average Laps per car [1-60]