

CP2406 Programming 3 Assignment 1

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# **User Stories**

User Story 1

As for the user, I want to develop the simulator customization so I can edit the car, road and length for that. Priority is high and estimate day is 5 days. For the testing, develop the new city map, add some street and run the simulation.

User Story 2

As for the user, I want to keep my developed city to use again later so that I make sure not to disappear all of changes for my customized city. Priority is Medium and Estimate time is 3 days. For the testing, after changing the city, press the save button to save the city with name.

User Story 3

As for the user, I want to reload previous developed city to load simulation so that I can play simulation again with different situation like vehicles and rates.

Priority is Low and estimate time is 3 days. Testing is press open button to access the saved city from database.

User Story 4

As for the user, update vehicle rate when I run simulation so that I can control how many vehicles should place on the road. Priority is Medium and Estimate time is 3 days.

For the testing is click the update vehicle rate button to make vehicles more faster or slower.

User Story 5

As for the user, I want the stop button to stop the simulator while moving vehicles on the road so that I can terminate running process of simulation. Priority is High and Estimate time is 3 days. For the testing is press stop button and watch all vehicle of termination.

User Story 6

As for the user, I want to avoid collision with other vehicles based on the distance from ahead vehicles so that I can run simulator without any problems.

Priority is High and Estimation time is 4 days. For the testing ,Watching vehicles carefully when program running simulation.

## **Developer User Stories**

Developer User story 1

As developer can add to change the light and traffic for the user. There are bus and motorbike for this car simulator. Priority is High and Estimate time is 3 days. For the testing, abstract the vehicles class and call some methods to move the cars.

Developer User Story 2

Developers can also stop the cars traffic to avoid collision with in front of car, there will be no error at all. Priority is Low and Estimate time is 2 days. As for the testing: get the gab distance from the front of vehicles and call some methods from vehicles.

Developer User story 3

Developer make the program to save all of the data that cant occur data missing to customers. Priority is High and Estimate time is 3 days. For the testing, save the all data as a file at main method and load the data to view the map again.

Developer User story 4

As for the developer, I want to load some of all data that user created so that all data can load and run again after program started. Priority is Medium and Estimate time is 2 day. The Vehicles Types: Car, Motor, Bus. The road have two lanes, and it will has Straight, 4-way, T junction. Traffic Lights is Red, Green, orange. For the testing, at main method, read the data file from the specific path and load the data.

ULM Diagram:



