**Team B – Ekathra**

**TEST SUITE**

| **Test Suite No.** | **Test-case** | **Set Up** | **Expected Result** | **Final Result** |
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| 1 | To check whether the user drag and drops the type of roads that he needed to simulate. | The user must be able to drag and drop the road type easily when he enters the website. | User must select his type of road successfully. |  |
| 2 | To check whether the user connects the type of road in an appropriate way. | The user should see what type of roads he has selected and then he should connect. | The user should connect the roads that he has selected. |  |
| 3 | After connecting user should get a clear view of the roads that he has selected and then he can go back to re-customize. | The user should be able to re-customize if he doesn’t select the appropriate road type. | User go back to the selection of roads page by clicking re-customize button. |  |
| 4 | Every entrance of the road should have car generator, based on which it should have some default values for the inputs of the cars and change those if needed. | The user can be able to click on car generator and should change those default values. | The user can change those default values in the way he likes the car to simulate. |  |
| 5 | If the user gives some values and leaves remaining value system must take the default values which are set before. | To check if the system takes the default values. | The system must be able to take default values if the user doesn’t enter the values. |  |
| 6 | To check whether the user gives the correct percentages upon which an adding there must be 100%. | Check whether the user has entered the correct inputs regarding the direction which car should flow. | If the user enters a wrong input error message must be populated or else it should continue. |  |
| 7 | Every road should have a speed limit and the car must go according to that speed limit on the road. | Make sure that when the car enters the specific road it should set its speed based on the road. | The car must follow the speed limit of the road. |  |
| 8 | To check whether the user has the credibility to change the speed limits of the road if he needs. | When the user clicks on the road, he should get an option to change its speed limits. | The user should be able to change the speed limit of the road. |  |
| 9 | We should check cars which are generated randomly should slow down with respect to the speed of the car before. | Cars which are generated should decelerate or accelerate based on the buffer speed. | Good traffic flow must be maintained. |  |
| 10 | To check cars must be able to take random direction by which user has selected. | Check the system when the cars enter the signal it takes the correct direction. | The car must go in a direction in which user has intended to go. |  |
| 11 | For road with a signal check that the signal synchronizes with the directions of the car which it is allowed and proper flow is maintained at the traffic. | Check that signals are in a correct flow for which signal should change regular intervals of time. | Signals should change in proper way. |  |
| 12 | For a signaling system signal time should vary based on the type of road like a main road, High way etc. | To check whether there is a proper signal time based on road. | Signal timing should be in a proper way. |  |
| 13 | Generating a car without giving the input values. | The values must be taken from the defaults file and the system must run. | Generating cars with different speeds. |  |
| 14 | Generating a car with giving some input values. | Some values must be taken from the user and the rest from defaults file and the system must run. | Generating cars with different speeds and running properly. |  |
| 15 | Drag a roundabout and populate cars moving in the opposite direction with same speeds and check whether their move in directions using a random manner and stop at the signals. | Drag a roundabout and click generate cars and run. | The cars must move in directions using a random manner and stop at the signals. |  |
| 16 | Drag a roundabout, 2-way and 4-way and join them after that populate cars moving in the opposite direction with different speeds whether they move in specified directions using a random manner, stop at the signals and the car must be deleted when it reaches the end of the road. | Drag a roundabout, 2-way and 4-way and click generate cars and run. | The cars must move in directions using a random manner and stop at the signals and also the car must be deleted when it reaches the end of the road. |  |
| 17 | Drag a 2-way and populate cars moving in the opposite direction with same speeds and check whether their move in directions using a random manner and stop at the signals. | Drag a 2-way and click generate cars and run. | The cars must move in directions using a random manner and stop at the signals. |  |
| 18 | Drag a 4-way and populate cars moving in the opposite direction with same speeds and check whether their move in directions using a random manner and stop at the signals. | Drag a 4-way and click generate cars and run. | The cars must move in directions using a random manner and stop at the signals. |  |
| 19 | Drag a roundabout, 4-way, 2-way junctions and join them and populate cars moving in all directions with same speeds and check whether their move in directions using a random manner with the given percentage. | Drag a roundabout, 2-way and 4-way, give the percentages and click generate cars and run. | The cars must move as per the percentage mentioned in the junctions. |  |
| 20 | Drag any type of road and populate cars moving in all directions and check the buffer time. | Drag a type of road and generate cars in all directions and click on run. | The buffer time of the cars must be as specified. |  |
| 21 | Drag any 2 types of road and populate cars moving in all directions and check that no collision occurs between cars. | Drag 2 types of road and generate cars in all directions and click on run. | Collision such no occur between cars. |  |
| 22 | Drag any type of road and populate cars using default values and check the buffer time. | Drag a type of road and generate cars with default values and click on run. | The buffer time of the cars must be as specified. |  |
| 23 | Drag any 2 types of road and populate cars using default values and check that no collision occurs between cars. | Drag 2 types of road and generate cars with default values and click on run. | Collision such no occur between cars. |  |
| 24 | Drag any type of road and populate cars using the given values and check the buffer time. | Drag a type of road and generate cars with given values and click on run. | The buffer time of the cars must be as specified. |  |
| 25 | Drag any 2 types of road and populate cars using the given values and check that no collision occurs between cars. | Drag 2 types of road and generate cars with given values and click on run. | Collision such no occur between cars. |  |