**Team B – Ekathra**

**TEST SUITE**

| **Test Suite No.** | **Test-case** | **Set Up** | **Expected Result** | **Final Result** |
| --- | --- | --- | --- | --- |
| 1.1.1 | 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. |  |
| 1.1.2 | What if the user doesn’t select any road type and he runs the simulation. | If the user do not select the road type and clicks on connect button. | A single road should appear where a user can vary the speed limit of the road. |  |
| 1.1.3 | 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. |  |
| 1.2 | After connection user can be able to go back and re customize his road types if he need to. | 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. |  |
| 1.3 | To make sure that the T junction was dropped at the end of the road. | As T junction will not have the other side it should be at the end of the road system. | I f T junction was dropped in the middle there should be message notifying user T junction should come only at the end of the road system. |  |
|  | **Setting Input parameters** |  |  |  |
| 2.1 | 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. |  |
| 2.2 | 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. |  |
| 2.3 | What if the user gives inappropriate inputs like negative values, rational numbers while setting the input parameters? | If the user gives wrong inputs in the parameters that he has to input i.e. arrival rate, speed limits etc. | Every parameter should have certain validations such that it should satisfy them otherwise an error message accordingly should be provided. |  |
| 2.4 | 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. |  |
| 2.5 | 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. |  |
| 2.6 | After setting all the values and preparing the simulation, user must able to run the system. Then system must redirect to simulation page. | To check whether the system moves to the simulation page after clicking on run | System must move to the simulation page where he will see his entire simulation in running state. |  |
|  | **In the Simulation page** |
| 3.1 | 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. |  |
| 3.2 | 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. |  |
| 3.3 | 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. |  |
| 3.4 | What if we click on the pause button on the simulation page? | To check what will happen on clicking pause button | System should get paused at that point until the user clicks on run button. |  |
| 3.5 | What if the user wants to change his inputs in the middle of the running simulation? | If the user wants to change its simulation in the middle of the simulation. | Once the parameters were set one cannot be able to change his inputs, if the user wants to change he should stop the simulation and start new simulation. |  |
| 3.6 | To check what will happen once the user stops the simulation. | Once the simulation was completed to check information regarding simulation was displayed or not. | After clicking on the pause button information regarding the simulation should be appeared. |  |