**Team B – Ekathra**

**TEST SUITE**

| **Test Suite No.** | **Test-case** | **Set Up** | **Expected Result** | **Final Result** |
| --- | --- | --- | --- | --- |
| 1.1 | To make sure proper 2-D layout is appeared on the simulation page in which user wants to simulate. | A proper 2-D layout with all the required roads are given to user. | A 2-D layout must be appeared for the user in order to simulate. | **Passed** |
| 1.2 | To make sure that the significance of the roundabout is achieved when the user starts the application. | When the user runs the application. | Cars should move in appropriate way based on real time scenario at the roundabout. | **Failed** |
| 1.3 | To check whether the stop signs are placed at the appropriate position where they are required | 2 way stops and 4 way stops are placed at the appropriate position. | Stops signs are placed where they are required on the 2-D layout. | **Passed** |
|  | **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. | **Passed** |
| 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. | **Passed** |
| 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. | **Passed** |
| 2.4 | To check whether the user can input direction number at the intersection even if the road does not exist | User should input at the T junction in all four directions. | At the directions where the cant go at the junction, user must unable to input direction where the car can’t move. | **Passed** |
| 2.5 | To check whether the user has the credibility to change the speed limits of the road if he needs. | When the user wants | The user should be able to change the speed limit of the road. | **Passed** |
| 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. | **Passed** |
|  | **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. | **Passed** |
| 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. | **Passed** |
| 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. | **Failed** |
| 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. | **Passed** |
| 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. | **Passed** |
| 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. | **Passed** |
| 3.7 | To check car stops at all the junctions where it is required. | Cars moving on roads has to go through the stop signs and behave accordingly. | Car should stop at the junctions where the stop signs are there. | **Failed(some cars are not stopping)** |