The program is developed to take user inputs for walls ,and start and stop point of the car and find the
path for the car using AStar algorithm. It moves the car while avoiding the walls and detecting possible collisions with people (moving blue sprites)
and hence avoiding a collision with them too.
Please read the following to understand the working of the program in order to run it.

User Guide:

Step 1:

As the user would run the code a canvas would open up on the screen for him along with the instructions to follow printed on the bottom of the canvas.

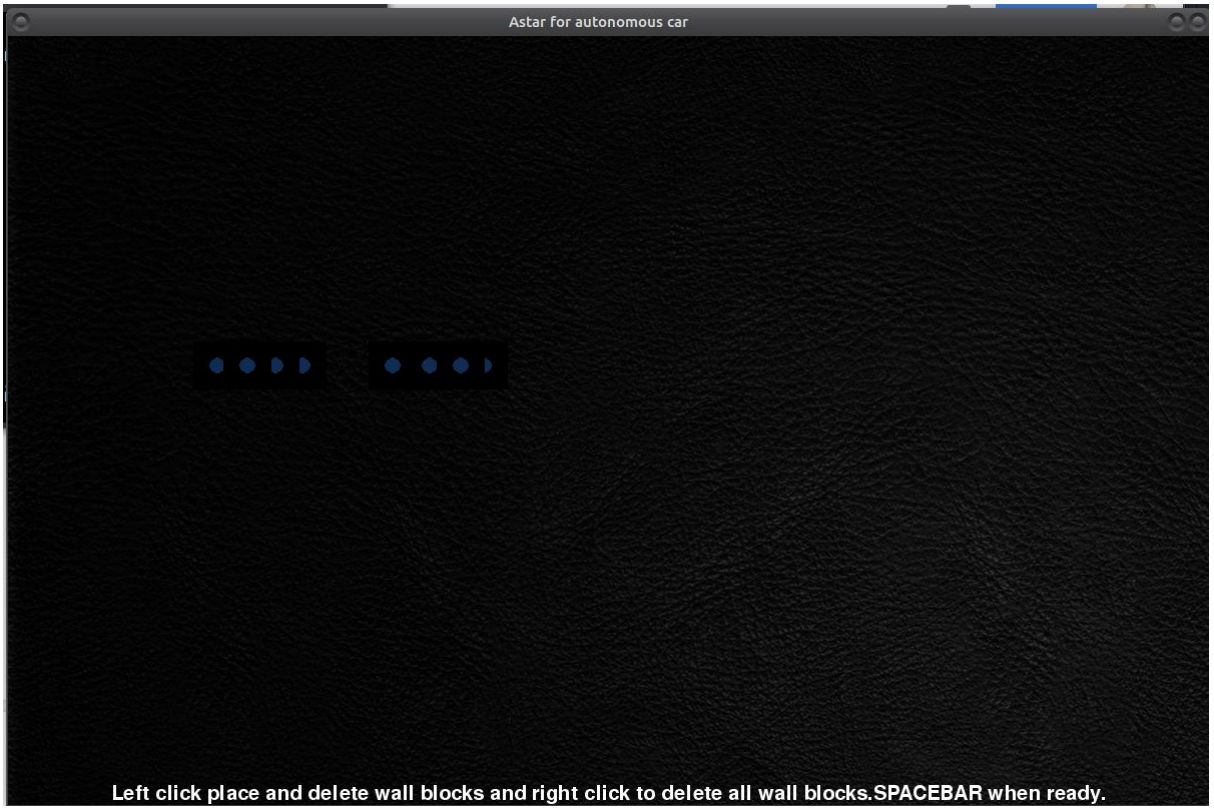

Figure 4.1: Landing page of the canvas, Step 1

The canvas would consist of some moving obstacles generated by the code. The user would be allowed to click on the canvas to place “walls” which would be treated as stationary obstacles for the autonomous car. The wall blocks can be removed by left and right clicks on them and placed on any empty space on the canvas by a single click. A spacebar press action would be required when the user is done placing the walls.

A sample of the canvas after a few walls were placed is presented below:

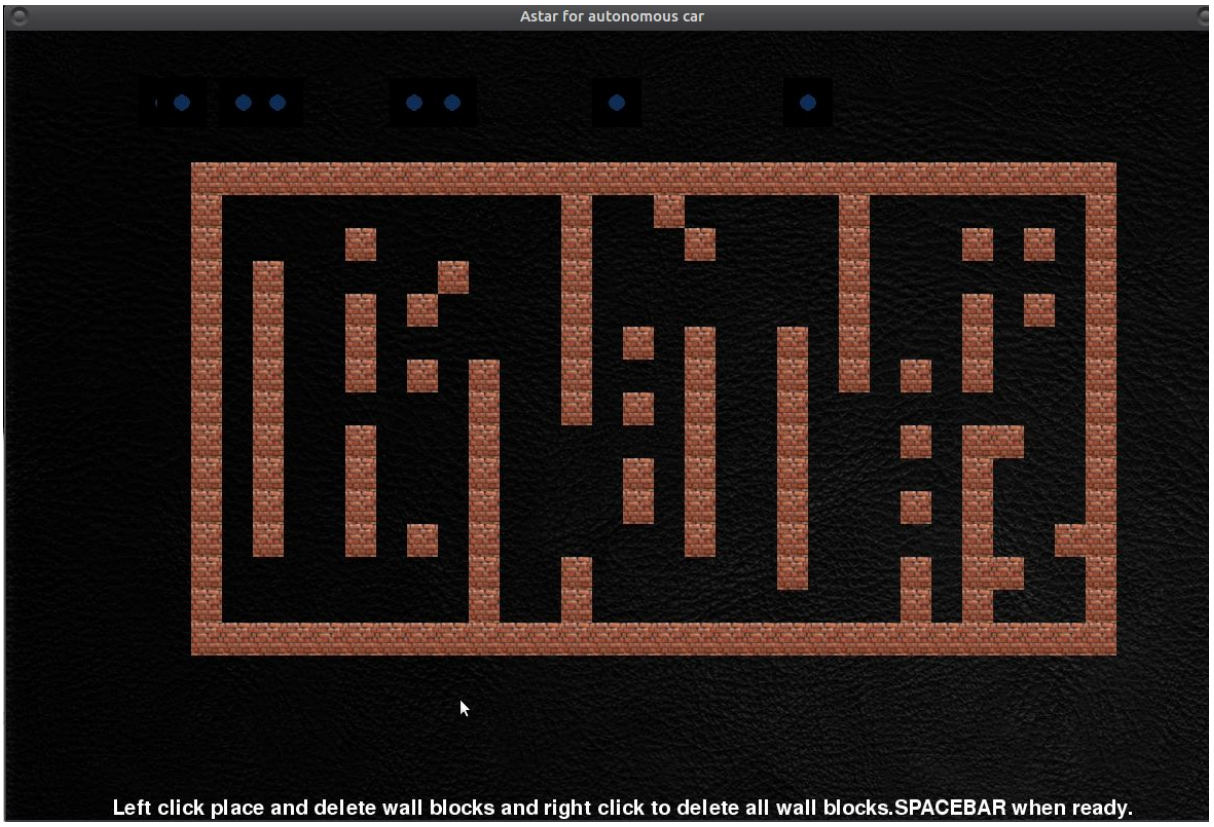

Figure 1.2: Placing of the walls (stationary obstacles) done, ready for step2

Step 2:

After completing the first step the user would then be required to place the start and stop points. The start point would be placed first followed by the stop point. Both the points can be placed by a mouse click each and a spacebar action after completing the step.A sample of this is shown below:

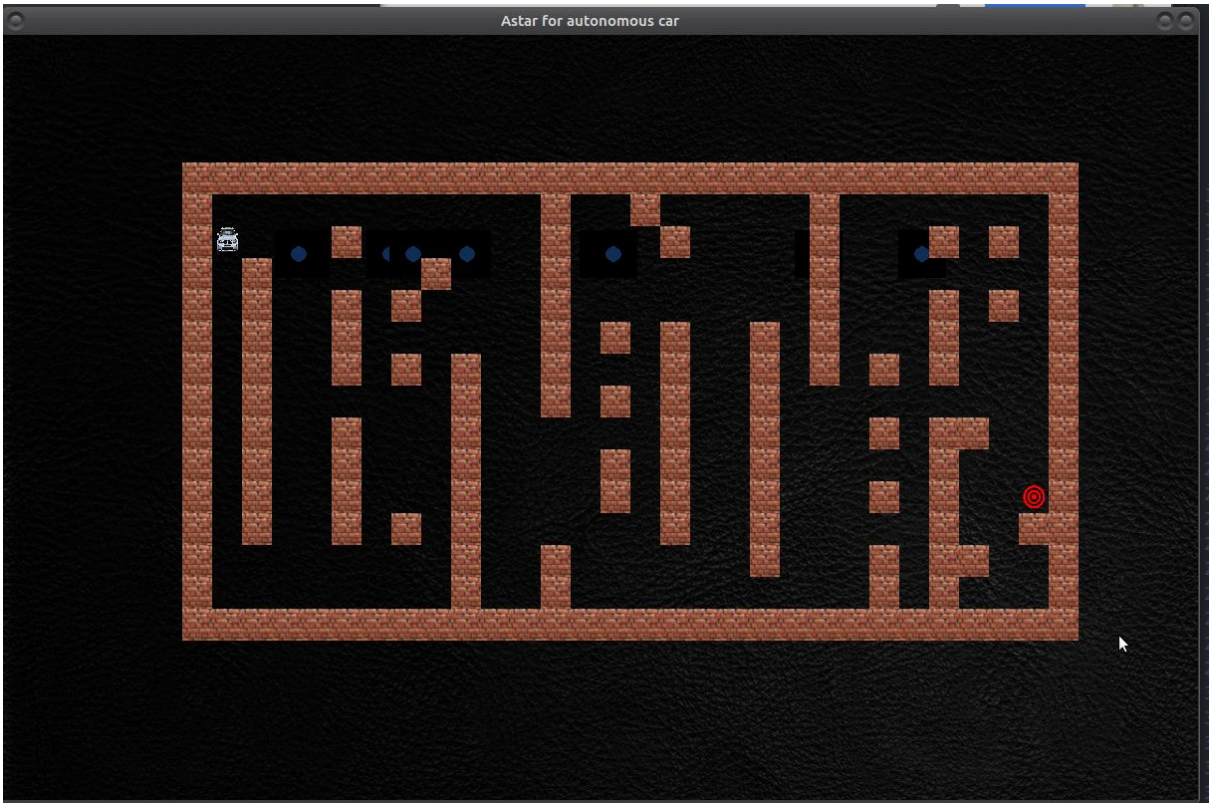

Figure 1.3: Placing of the start and goal (finish point) done, ready for step3

Step 3:

The intelligent movement was planned and simulated at this step. The algorithm was allowed a few seconds to plan its path and then draw it on the canvas.
At first the path was drawn on the canvas and then the start point which represented the car was moved along the path to reach the goal (finish point) while avoiding the obstacles. All moving obstacles however are not always avoided. This aspect of the software is explained later in the report.
A sample of the intelligent movement is shown below:

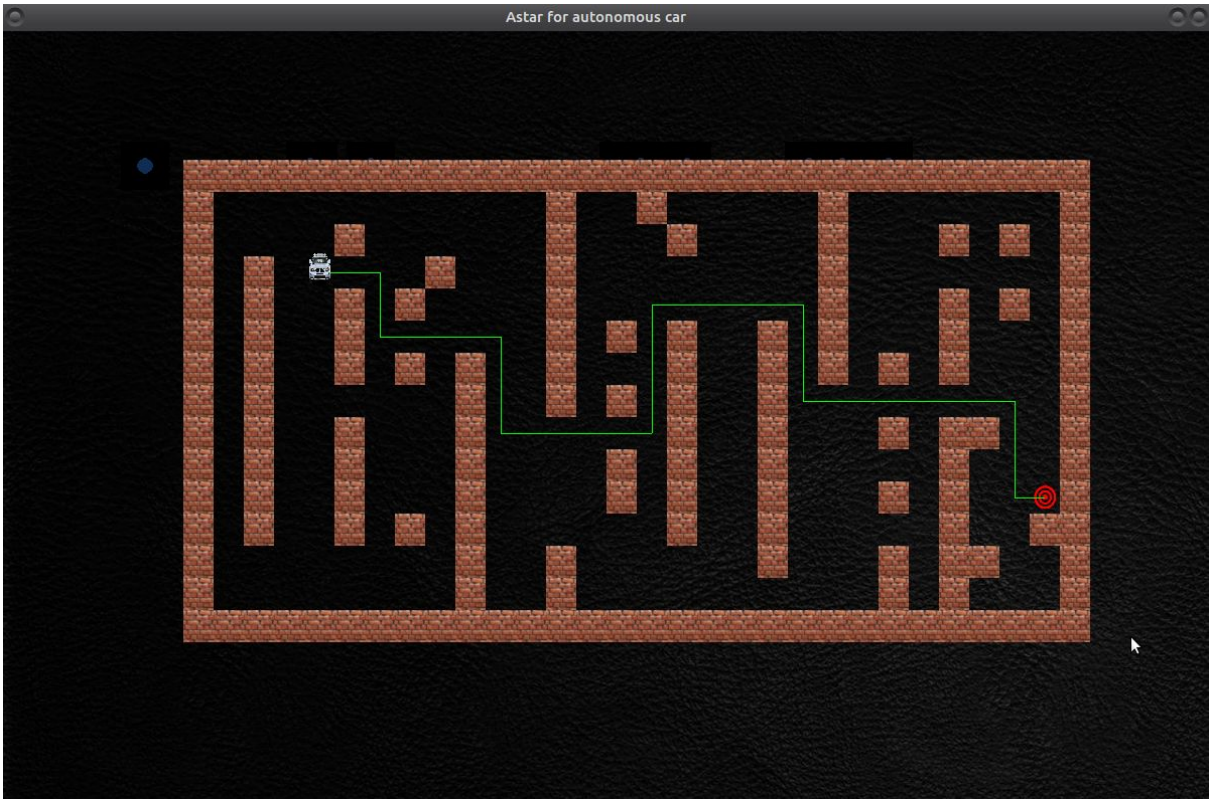

Figure 1.4: Drawing path on the canvas/screen

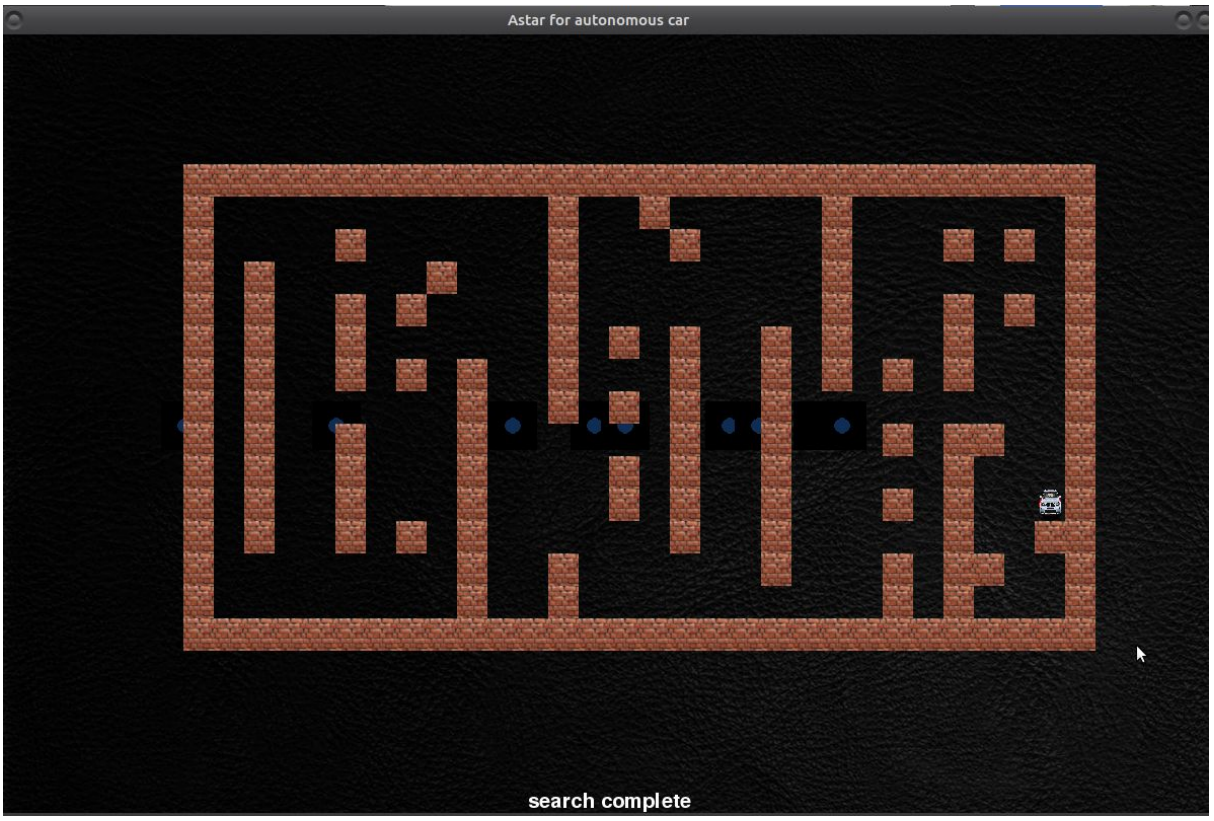

Figure 1.5: Search Complete