In this paper we present a route map generation of an autonomous mobile robot. The work in path planning has led into issues of map representation for a real world. Therefore, this problem is considered as one challenge in the field of mobile robots because of its direct effect for having a simple computationally efficient path planning strategy. For the real application in a real environment, it is necessary for the mobile robot to have a real time section while executing the planned path connected the start point and the goal point. The robot must then be able to understand the structure of the environment to find a way towards its target without collisions. To perform well this task several requirements must be satisfied and intelligent components become a necessity. More, world understanding and data interpreting is very solicited in any way of navigation When the target position is detected, the path planner will generate the proper path between the start and the goal position. This is called path planning step. The next step is to generate the geometric information of the generated path by searching the ways around the robot along the paths. This is called route map generation. When a route map generation is done, the next work is to control the robot itself to execute the route map, in order to achieve the goal planned by path planner and it is named as route runner. This is will be more clarified by the proposed work while answering to some interesting questions. The software implementation is very interesting to see the main factors are realized