

## Third Assignment

We want to use RVIZ to visualize a robot's environment as well as to generate a path within the environment that will allow the robot to move from a starting position to a goal position.

Create a params.yaml file that will contain the following data:

```
obstacles_x : list
obstacles_y : list
starting_pose : list
goal_pose : list
```

Then, create an **obstacles.py** node that will load these params and send them to RVIZ to be visualized. Load the obstacles as green colored cubes in any scale you want. Use the MarkerArray display type in RVIZ to achieve this.

Finally, create a **get\_path.py** node that will solve the environment and will generate a path from the starting position to the end position. Use any path planning algorithm you wish to compute this (Dijkstra, A\*, APF, RRT, etc...). In RVIZ you should display both the generated path (using the ***path*** display type) as well as a Red Spherical Robot that will follow the path, for this use the Marker display type.

All your nodes should be launched through a **follow\_path.launch** file. Make the necessary adjustments to your package to achieve this.

Goodluck