**Part 1: Implement a basic driving agent**

I’ve saved this basic implementation as agent1.py which made just one simple change to the original file:

Line 28 was originally: action = None

And has been changed to action = random.choice(Environment.valid\_actions)

Which chooses an action randomly (None, left, right, forward.)

The agent will move in accordance to the random action chosen as long as the action is allowed by the current state of the traffic lights.

Result: The agent eventually reaches the destination through trial and error but not after considerable time as it moves in random directions.

**Part 2: Identify and update state**

Every state will be determined by a 2-tuple: (Waypoint, Light)

Due to the # of cars in the simulation, it’s very rare that we run into another car on the left, right, or oncoming positions and even then, there are no rewards or penalties for running into other cars. So to simplify the learning, I’ve left those variable out of the state.