Definitions

Environment

The *smartcab* operates in an ideal, grid-like city (similar to N North-South and East-West directions. Other vehicles will ce there will be no pedestrians to be concerned with. At each i either allows traffic in the North-South direction or the East- rules apply:

- On a green light, a left turn is permitted if there is no c or coming straight through the intersection.
- On a red light, a right turn is permitted if no oncoming through the intersection. To understand how to corre turning left, you may refer to **this official drivers' edu (https://www.youtube.com/watch?v=TW0Eq2Q-9Ac), (https://www.youtube.com/watch?v=0EdkxI6NeuA)**.

Inputs and Outputs

Assume that the *smartcab* is assigned a route plan based or and destination. The route is split at each intersection into v the *smartcab*, at any instant, is at some intersection in the w to the destination, assuming the destination has not already away in one direction (North, South, East, or West). The *sma* the intersection it is at: It can determine the state of the traf movement, and whether there is a vehicle at the intersectio directions. For each action, the *smartcab* may either idle at t intersection to the left, right, or ahead of it. Finally, each trip which decreases for each action taken (the passengers wan time becomes zero before reaching the destination, the trip

Rewards and Goal

The *smartcab* will receive positive or negative rewards basec Expectedly, the *smartcab* will receive a small positive reward varying amount of negative reward dependent on the sever

have committed. Based on the rewards and penalties the *sr*
agent implementation should learn an optimal policy for dri
traffic rules, avoiding accidents, and reaching passengers' d

Definitions

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Submission