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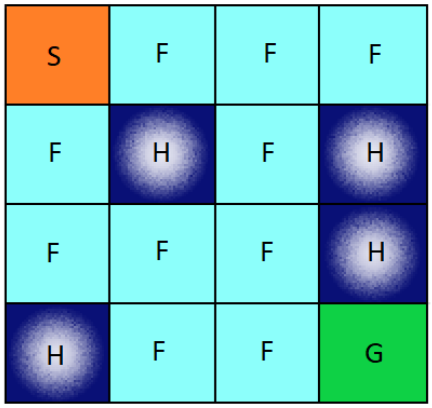
1 Discription of the game : AI game

Discription taken from : https://medium.com/swlh/introduction-to-reinforcement-learning-coding-q-learning-part-3-9778366a41c0

Imagine, you are standing on a frozen lake. The lake is not all frozen, there are some parts where the ice is very thin. You goal is to go from place S to G without falling into the holes.



Here, S is the starting point, G is the goal, F is the solid ice where the agent can stand and H is the hole where if the agent goes, it falls down.

The agent has 4 possible moves which are represented in the environment as 0, 1, 2, 3 for left, right, down, up respectively.

For every state F, the agent gets 0 reward, for state H it gets -1 reward as in state H the agent will die and upon reaching the goal, the agent gets +1 reward. see how the game upon rendering in the terminal looks like)

The states here are F, S and G. That is there are 4x4=16 states and 4 actions.