

## environment.py ([original](#))

---

```
# environment.py
# -----
# Licensing Information: Please do not distribute or publish solutions to this
# project. You are free to use and extend these projects for educational
# purposes. The Pacman AI projects were developed at UC Berkeley, primarily by
# John DeNero (denero@cs.berkeley.edu) and Dan Klein (klein@cs.berkeley.edu).
# For more info, see http://inst.eecs.berkeley.edu/~cs188/sp09/pacman.html

#!/usr/bin/python

class Environment:

    def getCurrentState(self):
        """
        Returns the current state of environment
        """
        abstract

    def getPossibleActions(self, state):
        """
        Returns possible actions the agent
        can take in the given state. Can
        return the empty list if we are in
        a terminal state.
        """
        abstract

    def doAction(self, action):
        """
        Performs the given action in the current
        environment state and updates the environment.

        Returns a (reward, nextState) pair
        """
        abstract

    def reset(self):
        """
        Resets the current state to the start state
        """
        abstract

    def isTerminal(self):
        """
        Has the environment entered a terminal
        state? This means there are no successors
        """
        state = self.getCurrentState()
        actions = self.getPossibleActions(state)
        return len(actions) == 0
```