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class Minimax(GhostAgent):
    def __init__(self, index, evalFun='scoreEvaluationFunctionGhost', depth='2'):
        self.index = index
        self.evaluationFunction = util.lookup(evalFun, globals())
        self.depth = int(depth)

    def getAction(self, gameState):
        # find most possible move when in another state
        maximum = float('-inf')
        legalActions = gameState.getLegalActions(0)
        result == ''
        for action in legalActions:
            if (action != "STOP"):
                depth = 0
                # min possible choice
                M = min_method(state.generateSuccessor(0, action), depth, 1)
                if M > maximum:
                    maximum = M
                    result = action
        return result

    def max_method(state, depth):
        depth += 1
        if state.isWin() or state.isLose() or depth == self.depth:
            # win or lose or arrive depth
            return self.evaluationFunction(state)
        T = float('-inf')

        # legalActions= state.getLegalActions(now_agent):
        # calculate max for min branch
        for action in legalActions(0):
            T = max(T, min_method(state.generateSuccessor(0, action), depth, 1))
        return T

    def min_method(state, depth, ghostNum):
        # win or loss now
        if state.isWin() or state.isLose():
            return self.evaluationFunction(state)
        T = float('inf')
        # calculate min for every max branch conclude all ghost branch
        for action in state.getLegalActions(ghostNum):
            if ghostNum == gameState.getNumAgents() - 1:
                T = min(T, max_method(state.generateSuccessor(ghostNum, action), depth))
            else:

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        # continue next ghost
        T = min(T, max_method(state.generateSuccessor(ghostNum, action), depth,
ghostNum + 1))
    return T
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(virtualenv) C:\Users\hp\Homework\multiagent>python pacman.py -p ExpectimaxAgent -g RandomGhost -q -n 5
Pacman emerges victorious! Score: 859
Pacman died! Score: 32
Pacman died! Score: -1125
Pacman died! Score: 134
Pacman died! Score: -127
('Average Score:', -45.4)
('Scores:', '859.0, 32.0, -1125.0, 134.0, -127.0')
Win Rate:      1/5 (0.20)
('Record:      ', 'Win, Loss, Loss, Loss, Loss')
```