

Important features

Objects

Game state : Specifies the full game state (food, capsules, agent configuration, score changes. It is used by game objects, which capture the actual state of the game and use it for reasoning.

The information is stored in GameStateData object. We have to use getters and setters to gather the information.

Agent : An agent must define a getAction method

Grid : A 2-dimensionnal array (list of lists). To access the information : grid[x][y].
N.B. [0,0] at the bottom-left corner.

Fonctions	Return/Remark
getLegalActions()	Where Pacman can go
getPacmanState()	Agent state object for pacman
getPacmanPosition()	
generatePacmanSuccessor(action)	Successor state after the specified agent takes the action
getScore()	
getCapsules()	
getNumFood()	
getFood()	A grid of boolean
getWalls()	A grid of boolean
hasFood(x, y)	data.food[x][y]
hasWalls(x, y)	Data.layout.walls[x][y]
isLose() / isWin()	

Util.py : Contains every data structures we need for the algorithms (Stack, Queue, Priority Queue ...) with at least three methods (pop, push, isEmpty).