p1_search_introduction

Project 1: Search in Pacman

All those colored walls,
Mazes give Pacman the blues,
So teach him to search.

Introduction

In this project, your Pacman agent will find paths through his maze world, both to reach a particular location and to collect food efficiently. You will build general search algorithms and apply them to Pacman scenarios.

As in Python Refresher, this project includes an autograder for you to grade your answers on your machine. This can be run with the command:

```
python autograder.py
```

See the autograder tutorial in Python Refresher for more information about using the autograder.

The code for this project consists of several Python files, some of which you will need to read and understand in order to complete the assignment, and some of which you can ignore. You can download all the code and supporting files as a zip archive.

Files you'll edit:	
search.py	Where all of your search algorithms will reside.
searchAgents.py	Where all of your search-based agents will reside.
Files you should read but NOT edit:	
pacman.py	The main file that runs Pacman games. This file describes a Pacman GameState type, which you use in this project.
game.py	The logic behind how the Pacman world works. This file describes several supporting types like AgentState, Agent, Direction, and Grid.
util.py	Useful data structures for implementing search algorithms.
Supporting files you can ignore:	
graphicsDisplay.py	Graphics for Pacman
graphicsUtils.py	Support for Pacman graphics
textDisplay.py	ASCII graphics for Pacman
ghostAgents.py	Agents to control ghosts
keyboardAgents.py	Keyboard interfaces to control Pacman
layout.py	Code for reading layout files and storing their contents
autograder.py	Project autograder
testParser.py	Parses autograder test and solution files
testClasses.py	General autograding test classes

`test_cases/`	Directory containing the test cases for each question
`searchTestClasses.py`	Project 1 specific autograding test classes

Files to Edit and Submit: You will fill in portions of `search.py` and `searchAgents.py` during the assignment. You should submit these files with your code and comments. Please *do not* change the other files in this distribution or submit any of our original files other than these files.

Evaluation: Your code will be autograded for technical correctness. Please *do not* change the names of any provided functions or classes within the code, or you will wreak havoc on the autograder.

Getting Help: You are not alone! If you find yourself stuck on something, take advantage of our piazza discussion forum.

Discussion: Please be careful not to post spoilers.