ECE 4524 - PROJECT 1 - SPRING 2020
Search in Pacman
Due February 14

Instructions:
The goal of this assignment is for you to gain experience with several common search techniques. You must develop and test Python code that operates in the Pacman world. A graphical display provides an entertaining way to observe and assess the different techniques.

Follow the instructions that are posted here: https://computing.ece.vt.edu/~abbott/teaching/ece4524/p1/
Please use Python version 3.8.1. The assignment consists of 8 parts:

> Q1: Depth First Search
> Q2: Breadth First Search
> Q3: Uniform Cost Search
> Q4: A* Search
> Q5: Corners Problem: Representation
> Q6: Corners Problem: Heuristic Search
> Q7: Eating All the Dots: Heuristic Search
> Q8: Suboptimal Search

Solve these problems by editing and testing 2 files, as explained at the web site:

- `search.py`: where all of your search algorithms will reside.
- `searchAgents.py`: where all of your search-based agents will reside.

Submitting your work:
Place both of your completed files (listed above) into a single zip file. Do not include any other source files. A suggested name for the file is `p1solutions.zip`. Submit that file to Canvas before the deadline. After uploading, please verify correct submission by downloading your zip file from Canvas and checking the contents. (The files that you submit to Canvas are the files that will be graded.)

If you did not complete some part of the assignment, you may provide a brief description to the grader to explain the situation, and to describe how the grader could evaluate your code for partial credit. Preferred formats for this file are *.txt or *.pdf. Place this file in the zip archive that you submit to Canvas.

Grading:
A human grader will test your code by using his copy of the `autograder.py` script. He will use Python version 3.8.1.

According to the web site, the maximum score for this assignment is 25 points. (However, Question 7 allows you to earn 1 extra-credit point through some hard work. This extra work is optional.)

Programming style:
In general, please follow the coding style that is in the starter code. Provide useful comments to explain interesting parts of code that you develop. A lengthier discussion of Python style is provided at python.org/dev/peps/pep-0008.

Honor Code:
As a reminder from the course syllabus, project assignments must be completed independently. You are allowed to refer to code provided by the instructor, a Teaching Assistant, or the textbook's web site. You should not share your code with anyone except the instructor or TA.