Koç University
COMP341
Introduction to Artificial Intelligence
Assignment 1

Instructor: Barış Akgün
Due Date: November 10 2024, 23:59
Submission Through: KUHub Learn
Make sure you read and understand every part of this document

Introduction

This programming assignment will test your knowledge and your implementation abilities of what you have learned in the uninformed and informed search parts of the class. You are asked to complete a coding part and answer a few questions about how it runs. The coding part of the homework will follow the Berkeley CS188 Spring 2024 Pacman Project 1: Search at `https://inst.eecs.berkeley.edu/~cs188/sp24/projects/proj1`.

This homework must be completed individually. Discussion about algorithms, algorithm properties, code structure, and Python is allowed but group work is not. Coming up with the same approach and talking about the ways of implementation leads to very similar code which is treated as plagiarism! Furthermore, do not discuss the answers directly as it will lead to similar sentences which is treated as plagiarism. Any academic dishonesty, will not be tolerated. **By submitting your assignment, you agree to abide by the Koç University codes of conduct.**

Important: Make sure you go over all the submission instructions at the end of this document before submission. Once you upload your submission, download it to make sure it is not corrupted and it has your latest report/code. You are only going to be graded by your KUHub Learn submission.

Warning: The solution code for the homeworks can be found online. We are going to compare your submission with these sources. We are also going to compare your code to latest and previous submissions of Koç students. If your code's similarity level is above a certain threshold, your code will be scrutinized. If there is strong suspicion of plagiarism, we will take action based on university policies.

Programming

You are going to do the 8 programming questions about search given in the website. You are only required to change *search.py* and *searchAgents.py*. If you have any issues with other parts of the code let your instructor or TA know ASAP, even if you manage to solve your problem. Use the data structures in *util.py* for the autograder to work properly. If the you think you have the right answer but the autograder is not giving you any points, try to run it on individual questions. The warmup project has information on how to do this.

Hints

- We understand that having too many files to go through might be troublesome, however keep in mind that **you do not need to go over all the files**. Read the Project 1:Search documentation in the Berkeley Website and the comment sections of the relevant files/functions that you are going to work on. If you start worrying about implementation details of Pacman, you will get lost and lose track of how to handle the assignment requirements.
- **Always** read the comment sections of the given code before starting your implementation. These comments are very useful and they will save you precious time later on.

Submission

You are going to submit a compressed archive through the KUHub Learn site. The file should extract to a folder which only contains *search.py* and *searchAgents.py*. Other files will be deleted and/or overwritten.

Submission Instructions

- You are going to submit a **single** compressed archive through the KUHub Learn site. The file can have *zip*, *rar*, *tar*, *tar.gz* or *7z* format. If you submit files individually they may get lost.
- You are fine as long as the compressed archive has the required files within 4 folder levels.
- Code that does not run (e.g. due to syntax errors), that does not terminate (e.g. due to infinite loops) or that blows up memory will not get any points.
- **Important:** Download your submission to make sure it is not corrupted and it has your latest report/code. You are only going to be graded by your KUHub Learn submission.

Best of luck and happy coding!