**CS2180: Artificial Intelligence Lab-2**

**README**

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For implementing the commands required to test the multiAgents.py functions, we need to first set the directory in the terminal to the directory in which the multiAgents.py file is present.

The following commands can help in implementing the functions in multiAgents.py for different mazes and with different agents:

* To run all the questions with the autograder: python autograder.py
* To play a game of classic Pacman: python pacman.py
* To implement ReflexAgent in the testClassic layout: python pacman.py -p ReflexAgent -l testClassic
* To implement ReflexAgent in the mediumClassic layout with one ghost: python pacman.py --frameTime 0 -p ReflexAgent -k 1
* To implement ReflexAgent in the mediumClassic layout with two ghosts: python pacman.py --frameTime 0 -p ReflexAgent -k 2
* To run only the question 1 in autograder with graphics: python autograder.py -q q1
* To run only the question 1 in autograder without graphics: python autograder.py -q q1 --no-graphics
* To run only the question 2 in autograder with graphics: python autograder.py -q q2
* To run only the question 2 in autograder without graphics: python autograder.py -q q2 --no-graphics
* To implement depth 4 on minimaxClassic layout using MinimaxAgent: python pacman.py -p MinimaxAgent -l minimaxClassic -a depth=4
* To implement depth 3 on trappedClassic layout using MinimaxAgent: python pacman.py -p MinimaxAgent -l trappedClassic -a depth=3
* To implement depth 3 on smallClassic layout using AlphaBetaAgent: python pacman.py -p AlphaBetaAgent -a depth=3 -l smallClassic
* To run only the question 3 in autograder with graphics: python autograder.py -q q3
* To run only the question 3 in autograder without graphics: python autograder.py -q q3 --no-graphics
* To run only the question 4 in autograder with graphics: python autograder.py -q q4
* To run only the question 4 in autograder without graphics: python autograder.py -q q4 --no-graphics
* To implement depth 3 on minimaxClassic layout using ExpectimaxAgent: python pacman.py -p ExpectimaxAgent -l minimaxClassic -a depth=3
* To implement depth 3 on trappedClassic layout using AlphaBetaAgent 10 times in a row without graphics: python pacman.py -p AlphaBetaAgent -l trappedClassic -a depth=3 -q -n 10
* To implement depth 3 on trappedClassic layout using ExpectimaxAgent 10 times in a row without graphics: python pacman.py -p ExpectimaxAgent -l trappedClassic -a depth=3 -q -n 10
* To run only the question 5 in autograder with graphics: python autograder.py -q q5
* To run only the question 5 in autograder without graphics: python autograder.py -q q5 --no-graphics