CS4618 Artificial Intelligence I
Term 2012/2013, 1st Period
http://www.cs.ucc.ie/∼tj2/cs4618/

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Assignment 1

Topic 'Task Environments'

Problem 1 Give a PEAS description for a robot vacuum cleaner. Classify the corresponding task environment using the list of seven 'dimensions' from the lecture.

Topic 'Rational Agents'

Problem 2 Assume you wanted to build a chess playing agent and decided that you want to implement the agent as a simple reflex agent.

1. Give a PEAS description for the task such that this is not possible.
2. Give a PEAS description for the task such that this is possible.
3. In the case where the task is possible in principle, discuss if it is realistic.

Topic 'Search'

Problem 3 **Implementation Task**
Implement at least one of the search algorithms for uninformed search. In your implementation aim for generality and flexibility more than efficiency. For example, it should be easy to change your implementation from implementing BFS to implementing DFS.

Test your implementation on a simple instance of the 8 puzzle.

Note that this assignment is an exception. Written solutions are **not** due next Wednesday. Please, look at the problems and think about solutions. We will discuss solutions next Wednesday.

Assignments are handed out on each Friday during the lecture. Written solutions are due the next Wednesday. Feedback is given and solutions are discussed the Wednesday after that.