G54DIA: Designing Intelligent Agents

Lecture 14: Feedback on Coursework 1 SET and SEM

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Outline of this lecture

- coursework feedback:
 - average mark
 - typical reasons for losing marks
 - how to do better in the second coursework
 - any questions

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Average mark

- Average mark for the first coursework is 68
- Generally the coursework was done very well, especially given time pressures (individual project and other modules)
- Best average scores were 12-15 billion, mostly deliberative or hybrid solutions
- There were also some very good reactive-with-state solutions, too, with scores of 10-12 billion.

- Not explaining the design well in the report and not explaining the reasons for why it was chosen
- some descriptions of how the agent is going to work were unclear, incomplete (missing important details) or confusing (for example talking simultaneously about several versions of the solution)
- some justifications were excellent, but some not very appropriate for this particular task environment (for example, "I chose reactive architecture because it can respond fast" the Tanker does not have to respond fast)

- Misunderstanding the problem
- for example, stopping after the first round of discovered tasks is accomplished, and not looking for new tasks

- Running out of time :
- while programming (there are solutions which are obviously not finished, such as the agent compiles a good map of the environment and then does not do anything very clever with it, or there are bits of code left with "TODO" in then)
- while writing the report (I am guessing most of unclear reports were produced in a hurry and never proof-read)

- Bugs in code, bad choice of data structures (such as arrays instead of lists when you don't know how many elements it is going to store)
- Exploiting the library package instead of exploring the environment (Point.toString, Environment.stations...)

Miscellaneous

- I tried to put comments about things to fix in the feedback (both about the solution, the report and the code)
- sometimes I could deduce that there is a bug in the code somewhere but could not find it even after spending an hour or more
- making your code easier to read will improve the quality of feedback...

How to improve your mark: 1

- If you are re-using your agent in the multi-agent solution:
 - tidy up the code
 - fix at least the easy to fix problems
 - if you have time, improve your solution (for example if your agent made pointless trips to the fuel pump or started off to deliver water when it did not have enough fuel for the return trip, fix it)

How to improve your mark: 2

- leave enough time for doing the coursework and writing the report
- in the report, explain how your multi-agent system works and justify your choices based on the task environment: for example,
 - why did you decide that the agents should be specialised (or not)
 - how they divide the tasks and, again, why this way of dividing tasks is a good idea

How to improve your mark: 3

- some "optimality" argument is always good
- work out how much effort would be spent on option A and how much on option B (some people did a good analysis of this for exploration strategies)
- if you do not see a good analytical way to prove that your solution is better than alternatives, implement (some, credible) alternatives and run experiments.

Questions...

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3/4/2015

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04/03/2015 13:27



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Possible Responses

- 1) Strongly Agree
- 2) Agree
- 3) Neutral
- 4) Disagree
- 5) Strongly Disagree