Tutorial: Design Patterns (II)

Purpose

Introduce you to three other important patterns, and give you a chance to think and talk about patterns and their use in general.

Exercises

1. Go through the same procedure that you used in last week's tutorial – see that sheet again for details – but using these sheets for the new patterns:

Pattern	starting from criteria	starting from solution
Decorator	Problem 4	Problem 7
Strategy	Problem 5	Problem 6
Visitor	Problem 2	Problem 9

   (If last week you found one order – "starting from criteria" or "starting from solution" – easier to learn from, feel free to use that one exclusively this time. Otherwise, use any randomisation process you like.)

2. (This part and the next are an invitation to discuss... feel free to take the discussion wherever it goes.)

   Look back at all the patterns we have discussed in the course (both in lectures and in tutorials). Can you spot things they have in common? (Two of them have exactly the same class diagram, modulo labelling - why is that? Do they deserve to be separate patterns? Why or why not?) Do you understand the classification into Creational, Structural, Behavioural? Why do you think patterns became such a success when the idea was introduced into software design, whereas in building architecture they're rarely used?

3. There's a view that patterns should be easy for you because you've learned functional programming. What do you think is meant by this? Do you agree? I claimed there could be patterns for use by functional programmers, but they'd be different from these. What would they be?