1. Describe each of the following three design patterns:

   1) The Strategy Pattern
   2) The Observer Pattern
   3) The Decorator Pattern

For each design pattern, provide a concise description, including in your answer:

a) The **goal(s)** or **benefits** typically gained by using the pattern.

b) With a **UML class diagram** show the structure of the pattern. You may economically combine any two or all three patterns in one design, or leave them separate.

c) Based on your design in (b), provide a typical **coding** example (just enough java to illustrate), including both driver and the coding of the pattern.