

Tecniche di Progettazione: Design Patterns

GoF: Builder, CoR, Flyweight

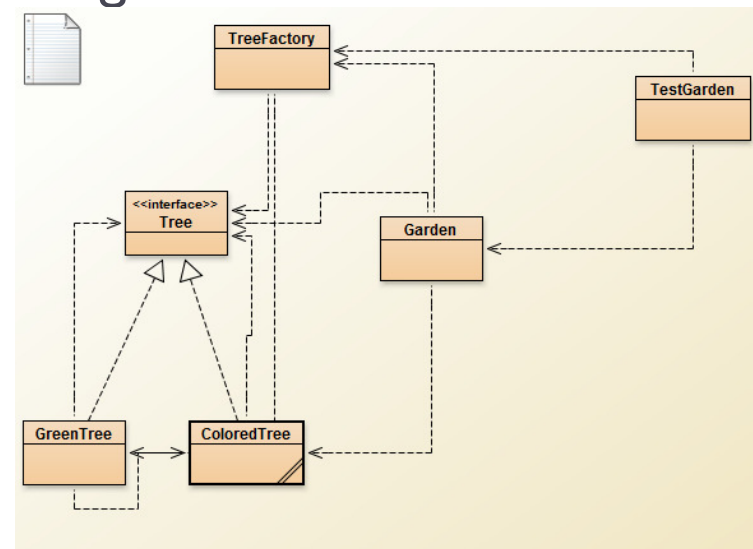
Ex 1. Builder Advent Calendars

- ▶ Using pattern Builder, write the code to construct Advent Calendars
 - ▶ One filled with chocolate, offering method
 - ▶ Chocolate open(int i)
 - ▶ One filled with hipster pieces for the crib, offering method
 - ▶ CribPiece get(int i)



Ex 2. Flyweight

- ▶ You have to fill a garden (10x10 matrix) with trees.
- ▶ To add a tree, the garden uses a Factory.
- ▶ A tree offers a
 - ▶ `display()` method printing its color.
 - ▶ `Tree setColor(String color)` to change the color
- ▶ Default trees are green.
(Flyweight)
- ▶ When a green tree is colored of a different color, a new object is instantiated.



Ex3. CoR

Example: Trusty Bank

To further explore the Chain of Responsibility pattern, we'll model the action of a bank that is careful about allowing withdrawals of large amounts. Trusty Bank's business rules for handling withdrawals are:

- Clerks can handle withdrawals of up to \$1,000.
- Supervisors can handle withdrawals of up to \$4,000.
- The bank manager can handle withdrawals of up to \$9,000.