

The proxyDesign Pattern

~gibson/Teaching/CSC4522/CSC4522-DesignPatterns-Proxy.pdf



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Un proxy est une classe se substituant à une autre classe.

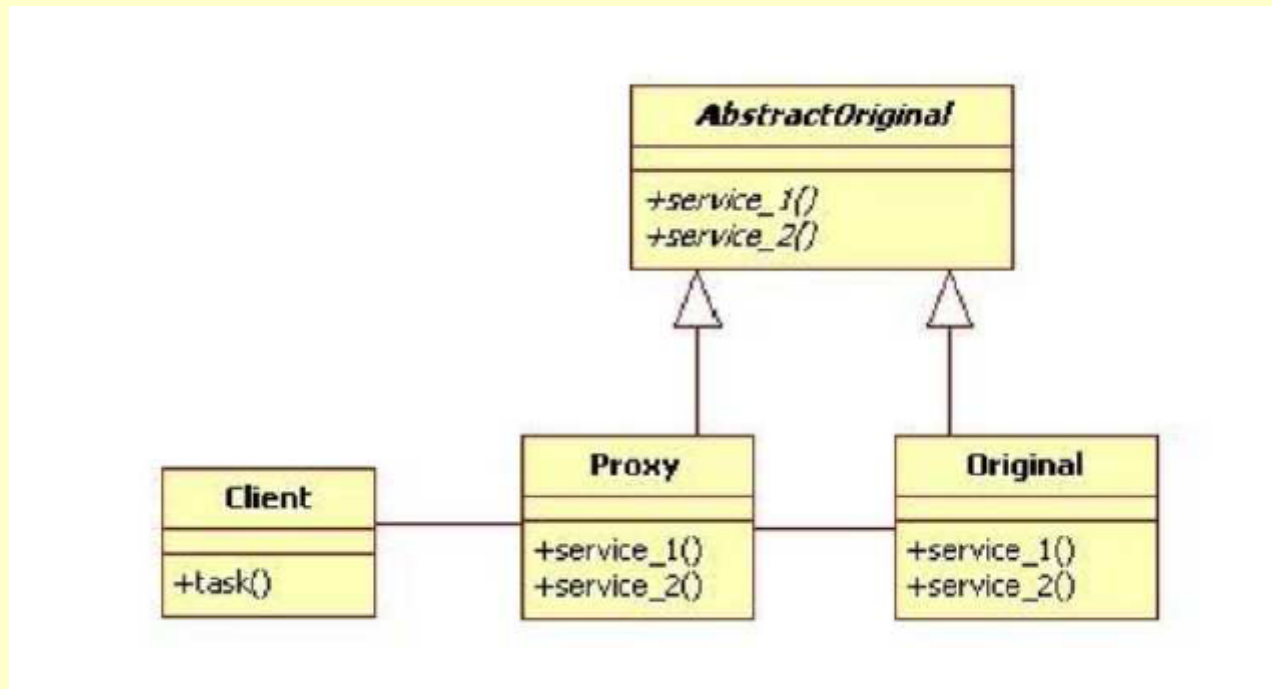
Par convention et simplicité, le proxy implémente la même interface que la classe à laquelle il se substitue

L'utilisation de ce proxy ajoute une indirection à l'utilisation de la classe à substituer

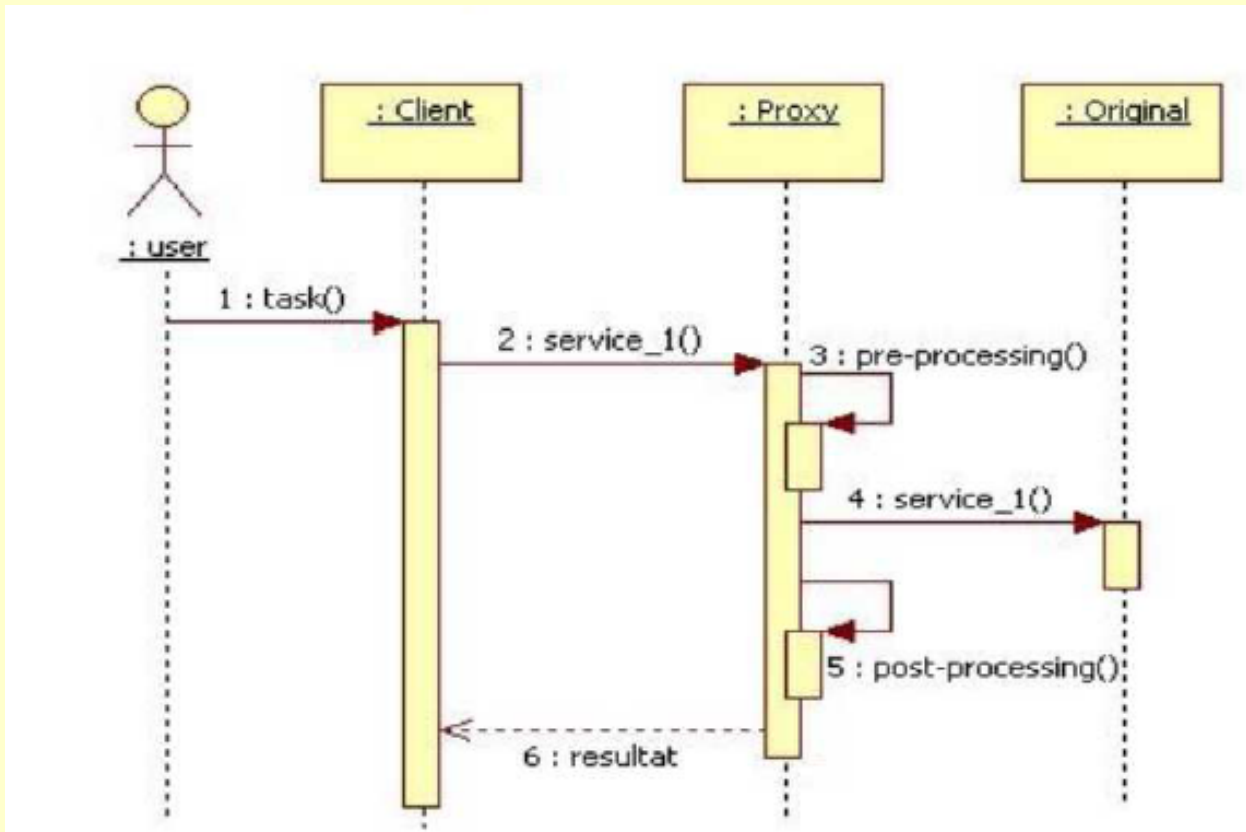
Il existe différents types de proxy :

- Remote proxy
- Virtual proxy ;
- Copy-on-write proxy ;
- Protection (access) proxy ;
- etc..

Class Diagram



Sequence Diagram



A proxy can also add functionality (through pre/post processing)

Proxy Problem

Create a service, as a method of a Java class, that will take an integer and return if it is odd or even

Write a proxy for the service that will ask for a password before the service is executed

Write a proxy that will count the number of times the service is executed

Implement 2 double proxys:

- 1) Asks a password, then counts
- 2) Counts, then asks a password