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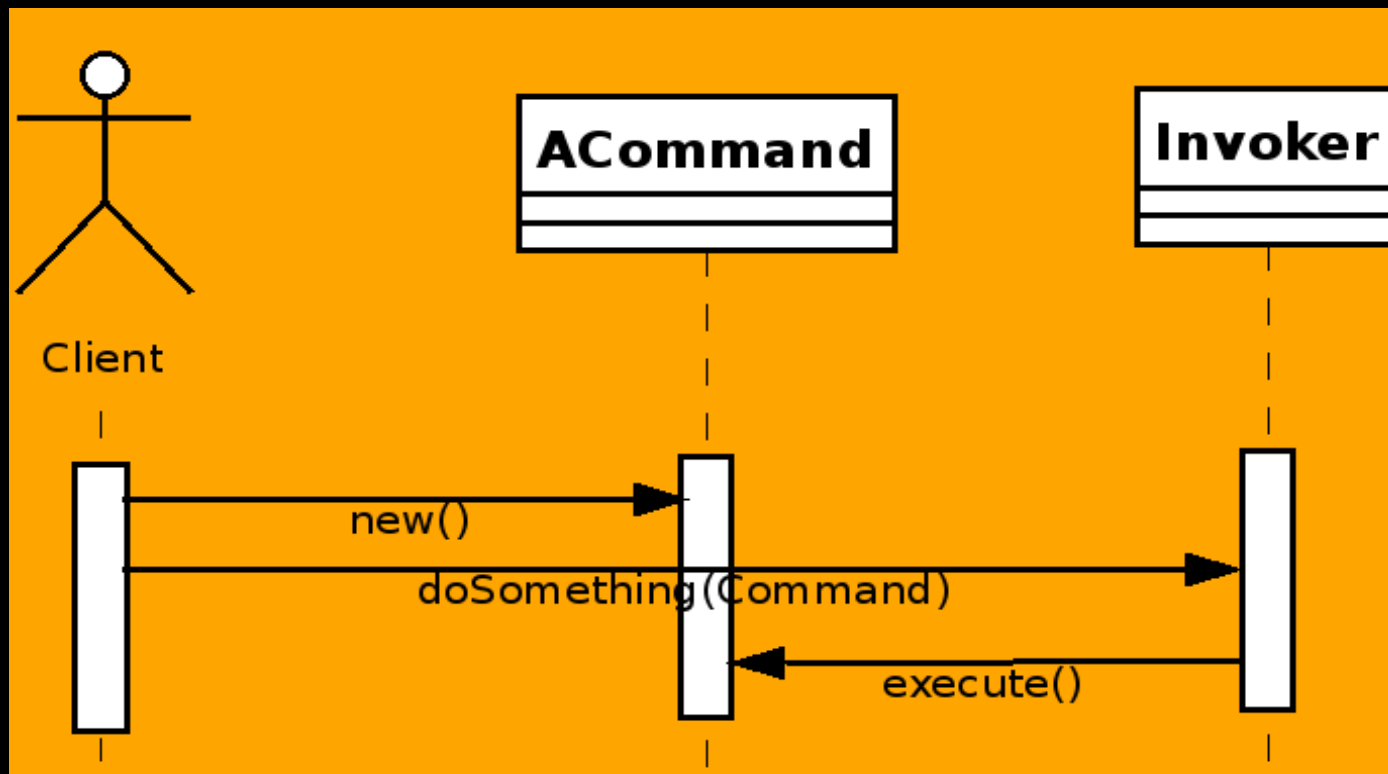
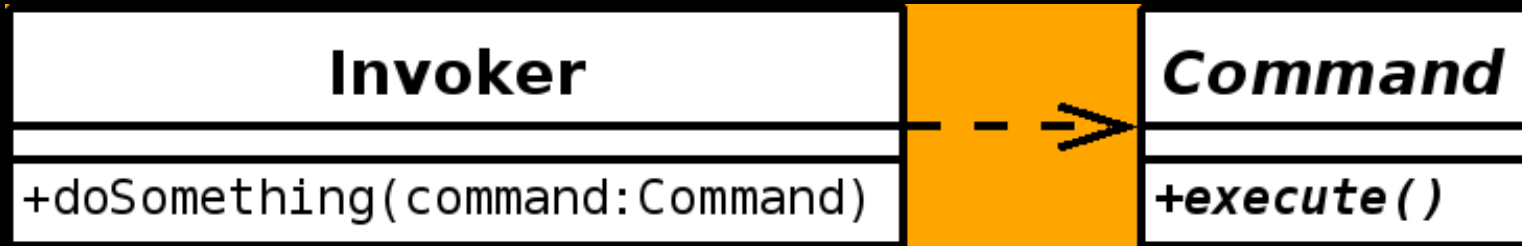
View Source:
Design Patterns
in the Wild

Patterns in
Apache Tomcat

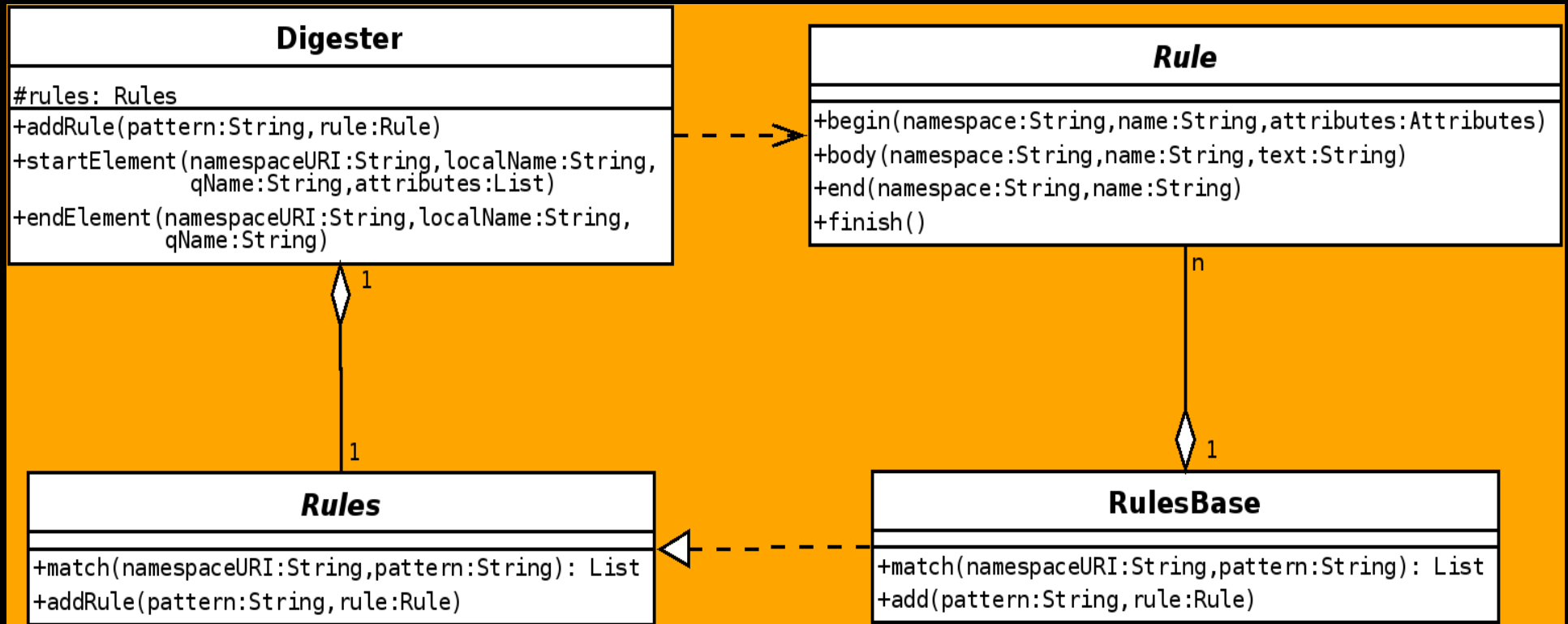
Patterns for Today

- Command
- Strategy
- Intercepting Filter
- Visitor

Command



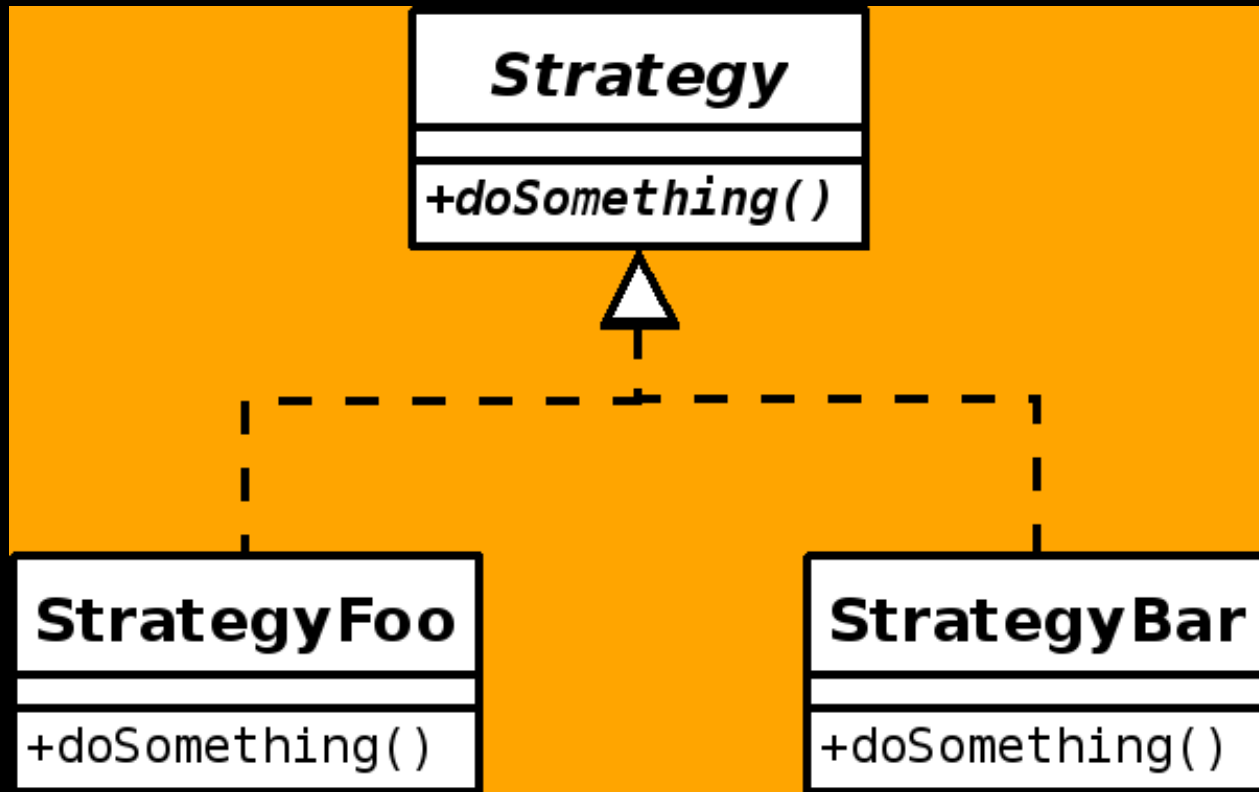
Rules as Commands



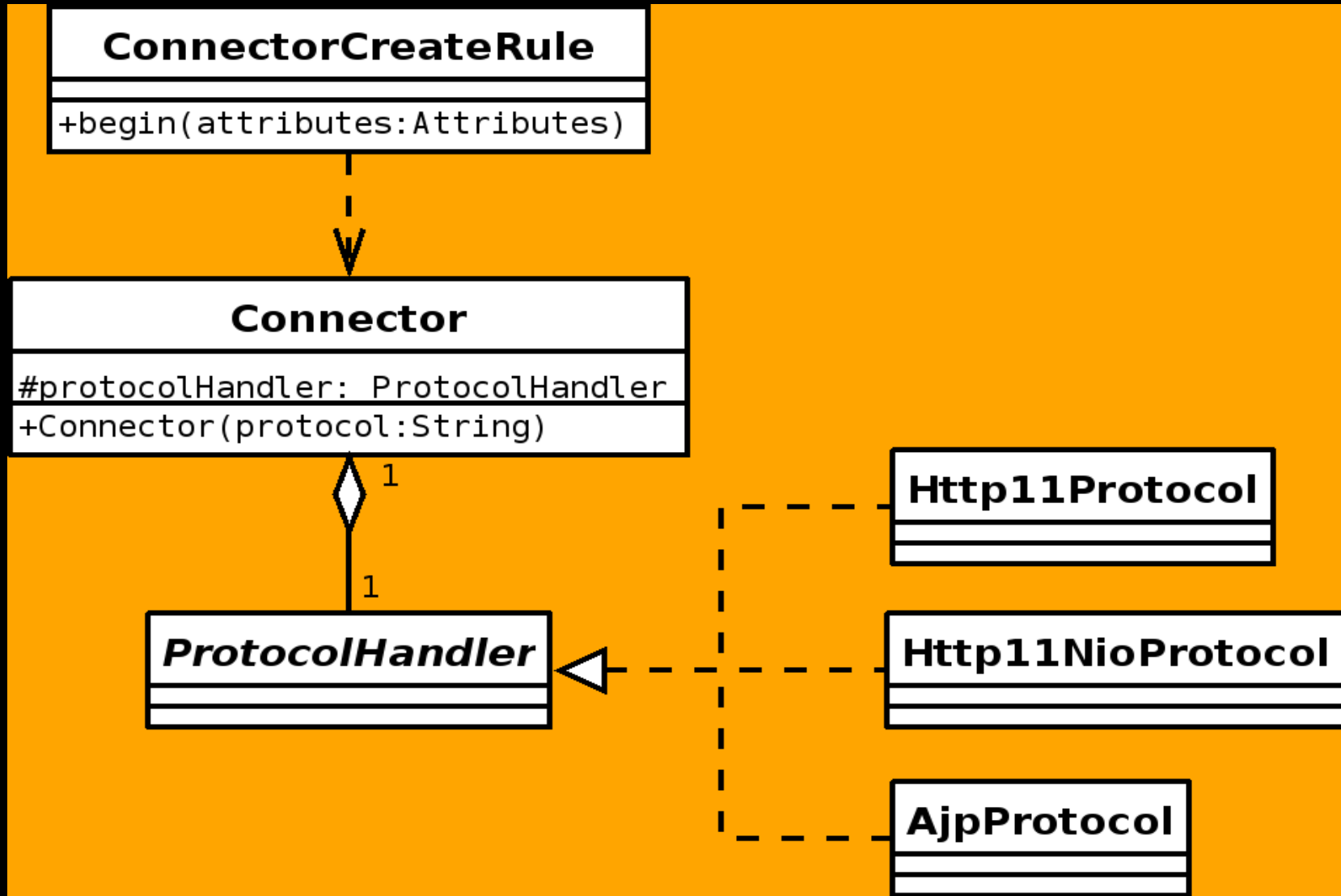
Using Command

- Decouple invoker of an operation from command object performing operation
- Invoker doesn't need to know what command does
- Command may carry internal state

Strategy



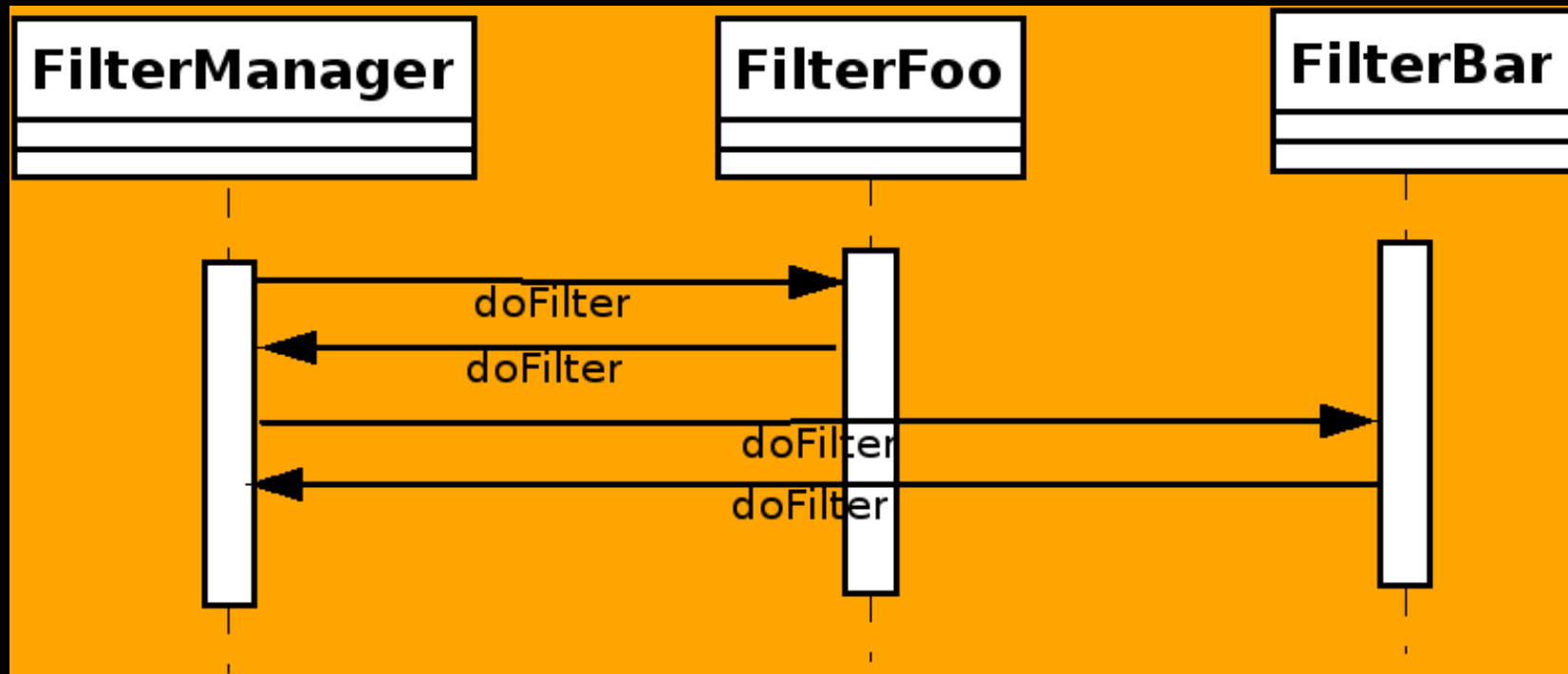
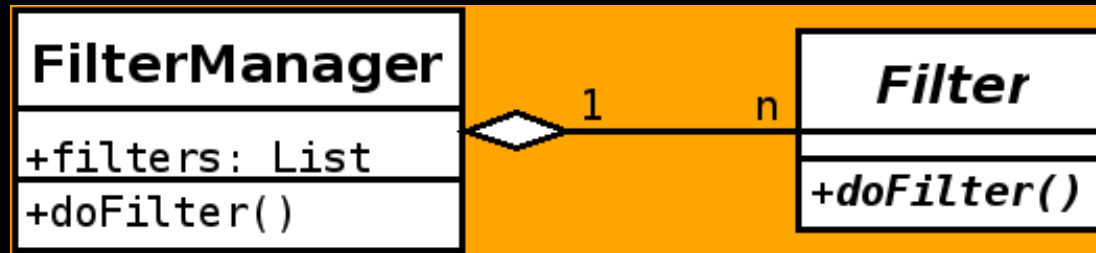
ProtocolHandler as Strategy



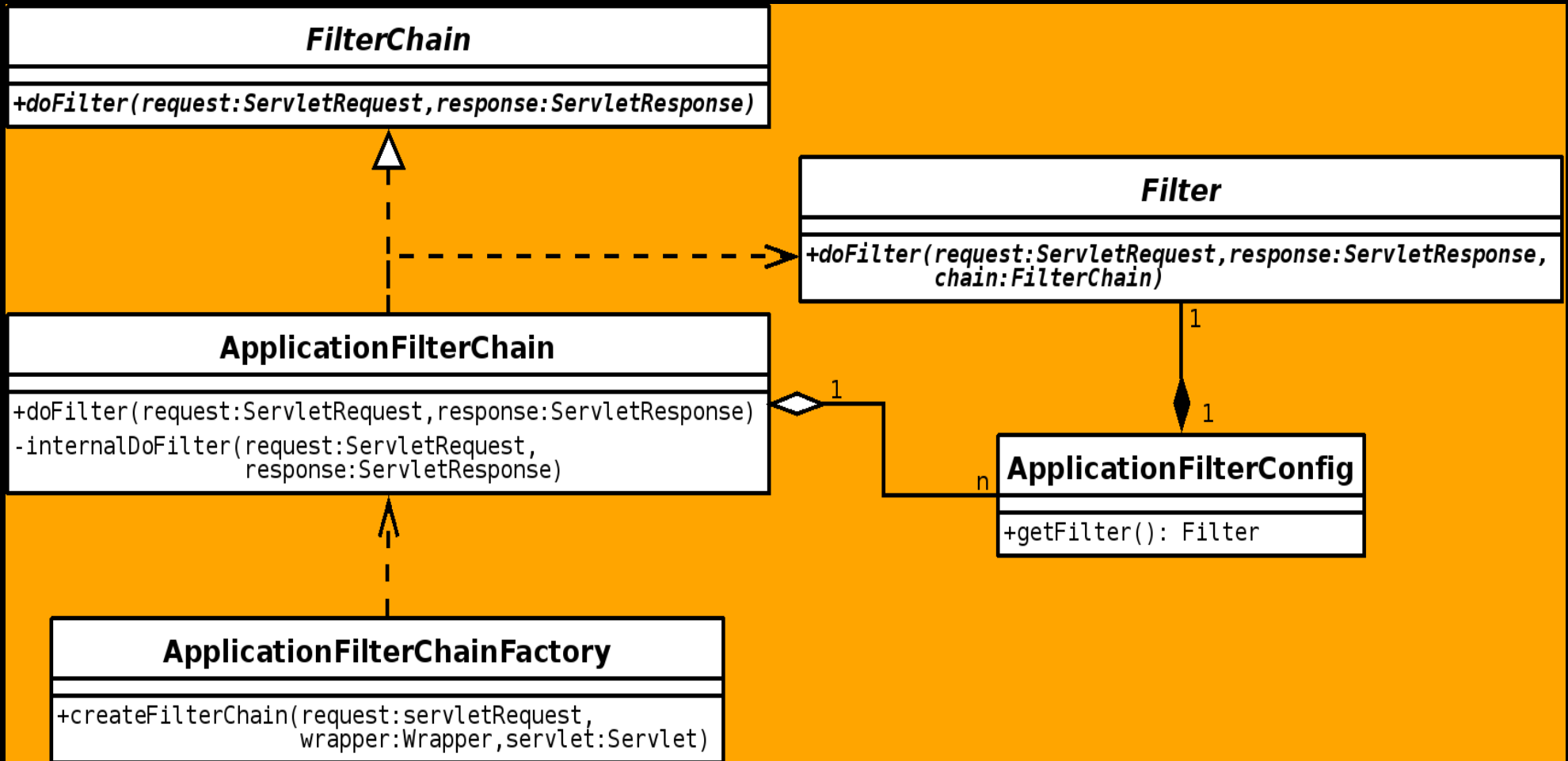
Using Strategy

- Client operates on interface or abstract class
- Implementation varies independent of client
- Strategies are “pluggable”

Intercepting Filter



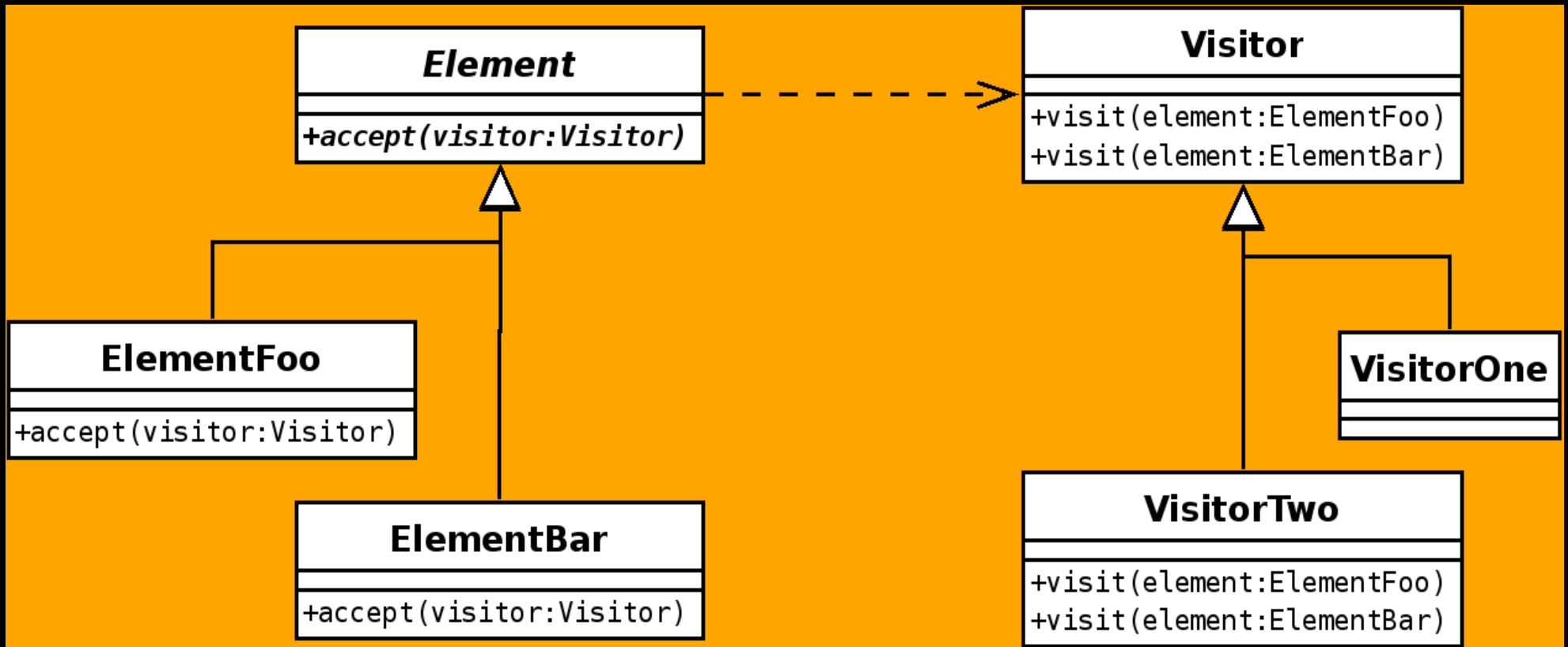
ApplicationFilterChain as Intercepting Filter



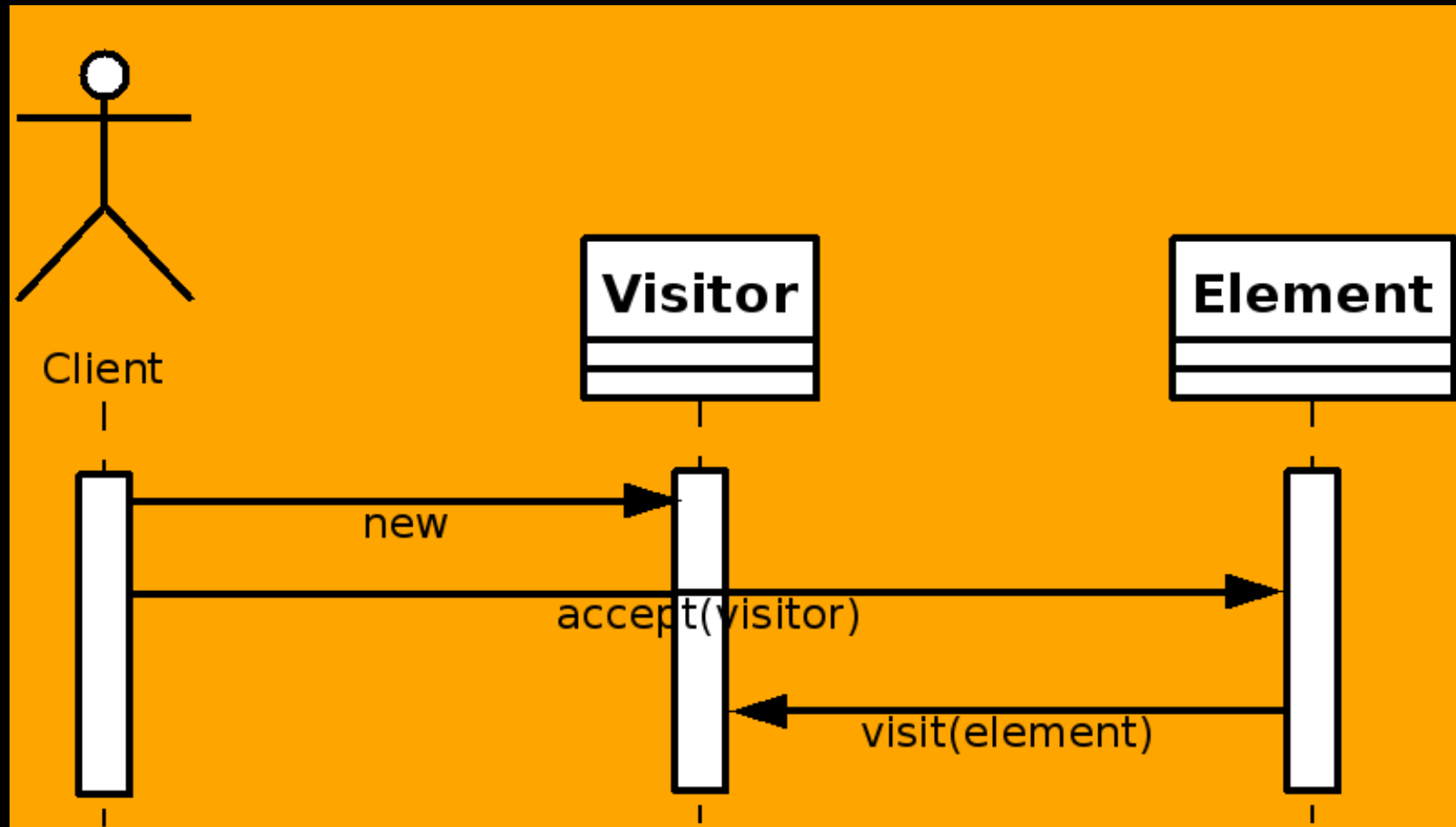
Using Intercepting Filter

- Filter chain “intercepts” all requests
- Filters are loosely coupled
- Filter Manager oversees invocations of Filters
- Filters may choose to abort processing for a request
- Spaghetti Code Warning: don't let your Filters reference one another!

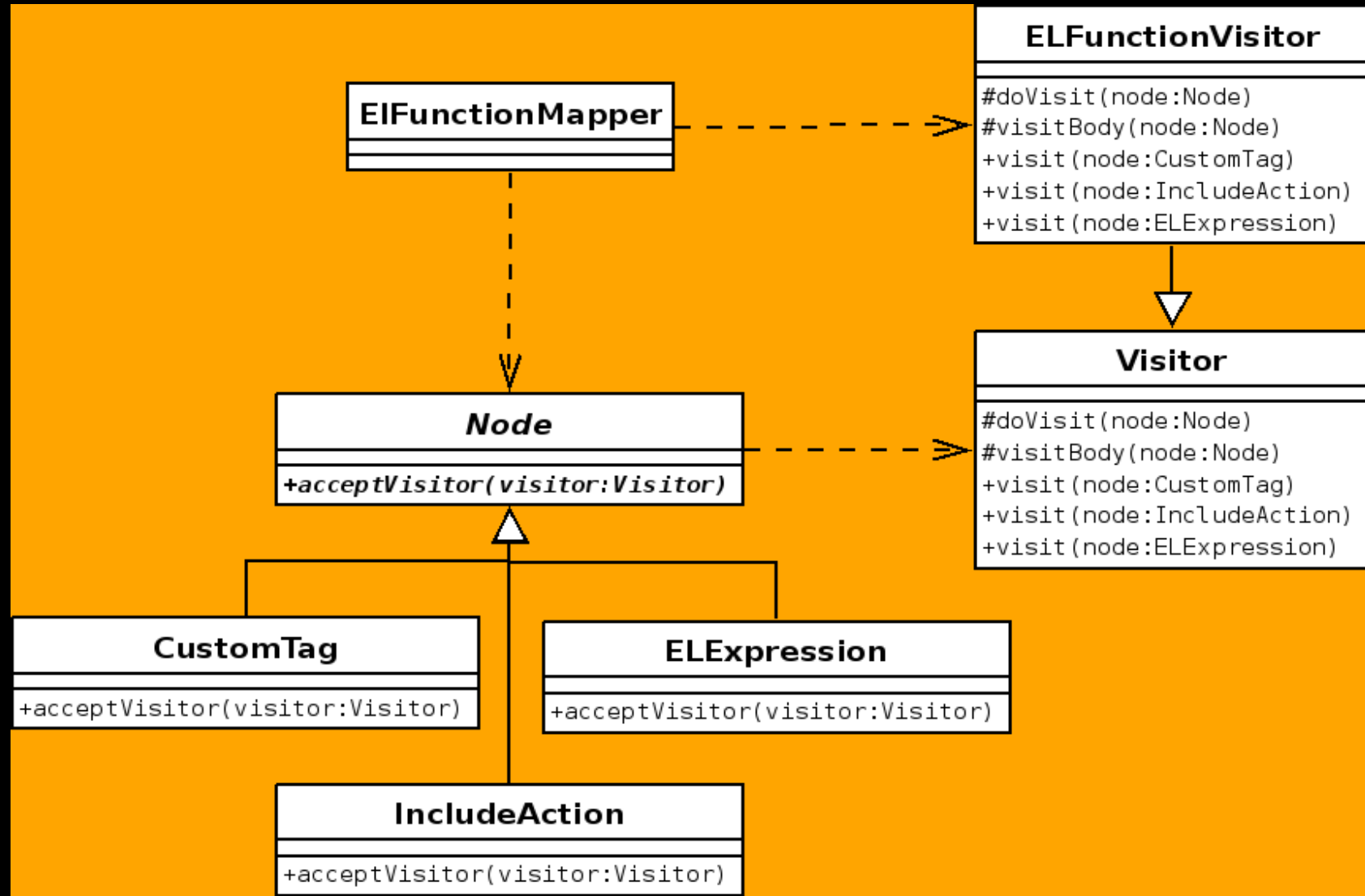
Visitor



Double Dispatch



Visiting Nodes



Using Visitor

- Decouple operations to perform on a collection from the collection itself
- Define new operations without affecting the structure of the collection
- Polymorphic double dispatch based on type of object being visited
- The right code is executed based on types of both objects involved in double dispatch