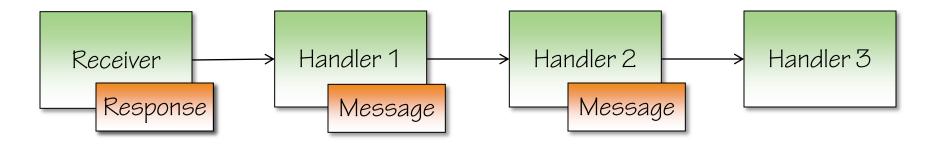
# **Chain of Responsibility**

**Design Patterns** 



#### **Overview**



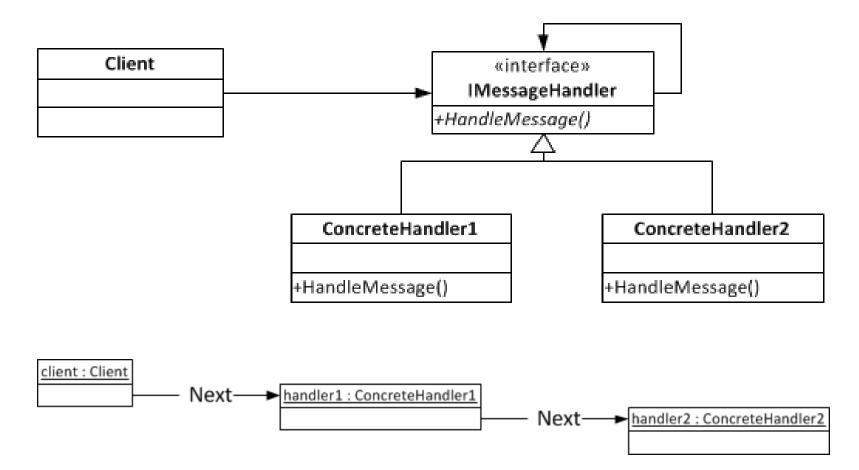


## **Chain of Responsibility Traits**

- Receiver is aware of only one handler
- Each handler is only aware of the next handler
- Handlers either process the message or send it to the next handler
- The receiver does not know who handled the message
- The first handler to process the message terminates the chain
- The order of the handler list matters

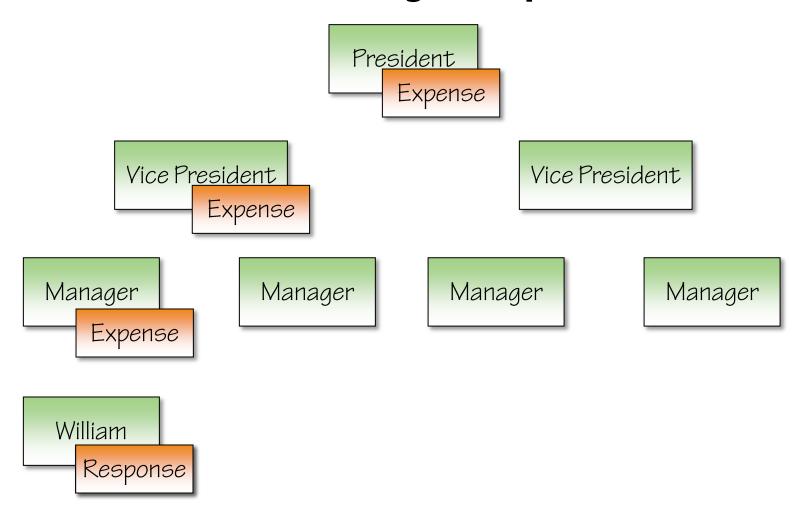


### **Traditional Usage**





## **Motivating Example**





## **Poker Ranking**

Hand

Royal Flush

Straight Flush

Four of a Kind

Full House

Flush

etc...

Hand

Hand

Hand



## **Summary**

#### Use the Chain of Responsibility when...

- More than one message handler for a message
- The appropriate handler is not explicitly known by the sender
- The set of handlers can be dynamically defined

#### Benefits of the Chain of Responsibility

- Reduced coupling
- Dynamically manage the message handlers
- End of chain behavior can be defined appropriately

#### Related Patterns

- Composite
- Tree of Responsibility



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