

# Template Method

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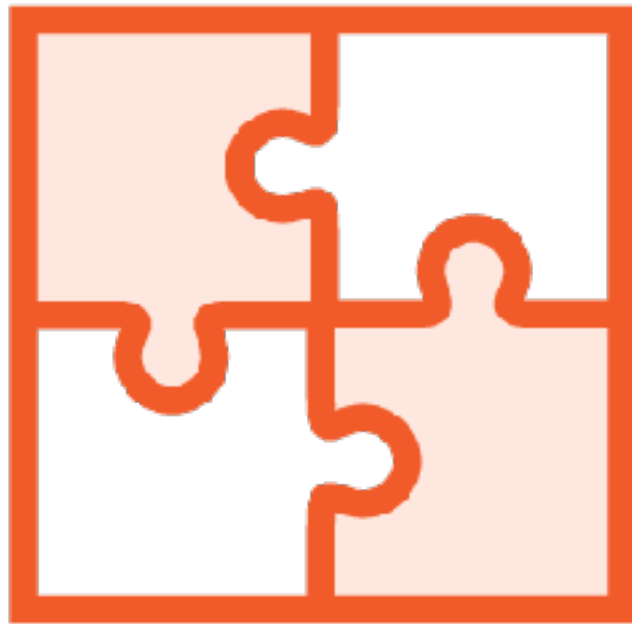
# Overview

## **Motivation**

## **Pretty print demo**

- Encode objects and display as JSON or XML

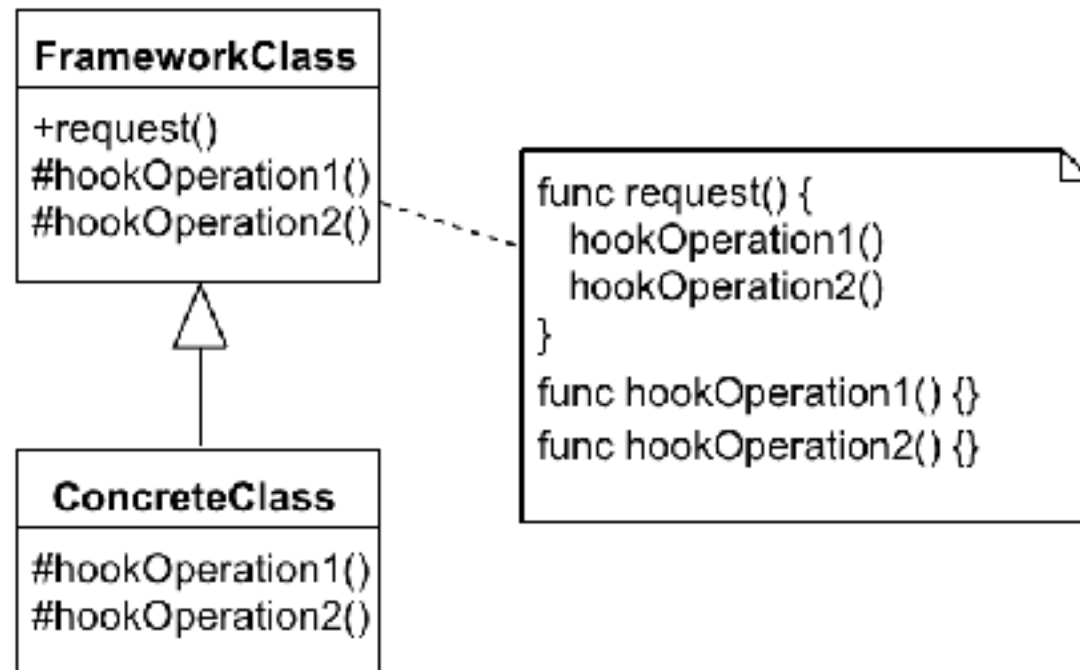
# Motivation



## **Vary certain steps of an algorithm**

- Common behavior remains fixed
- Separate variable parts into hook methods
- Clients can override the hook methods
- Hook operations are called at specific points

# Template Method Design



## FrameworkClass

- Defines the skeleton of the algorithm
- Defines hooks/extension points

## ConcreteClass

- Implements the hook operations

# Template Method

Allows specific steps in an algorithm to be replaced by clients without modifying the structure of the algorithm.

# Demo

## **Pretty print demo**

- Encode and display objects as JSON or XML
- Template Method implemented the Protocol-Oriented way

# Summary

## **The Template Method pattern:**

- Allows changing certain steps of an algorithm
- Keeps fixed functionality in the base type
- Provides operation hooks for the steps that can vary

## **Pitfalls**

- Don't use to change the entire algorithm