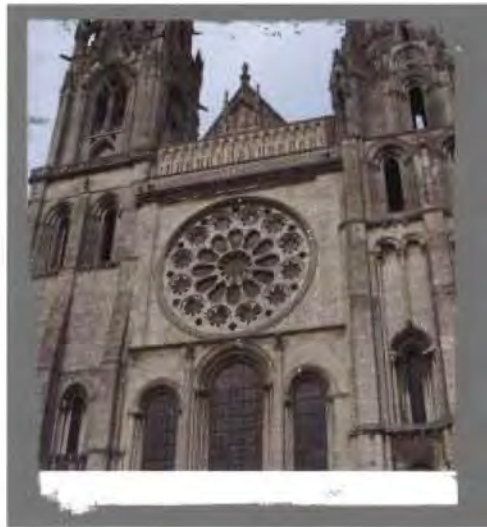


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# PATTERN-ORIENTED SOFTWARE ARCHITECTURE

## A System of Patterns



**Volume 1**

Frank Buschmann  
Regine Meunier  
Hans Rohnert  
Peter Sommerlad  
Michael Stal

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OBJECT-ORIENTED PROGRAMMING



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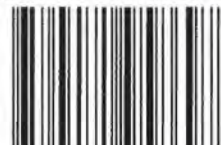
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**A SYSTEM OF**  
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# 2 Architectural Patterns

## *Layer Cake*

*2 cl. White Crème de Cacao*

*2 cl. Apricot Brandy*

*2 cl. Double cream*

*Pour Crème de Cacao into a Pusse-Café glass. Add the Apricot Brandy by carefully letting it flow over the back of a spoon that is touching the inside of the glass. Add the cream in the same way as the Apricot Brandy. The individual layers must not be mixed.*

*Drink while reading the Layers pattern.*

Architectural patterns express fundamental structural organization schemas for software systems. They provide a set of predefined subsystems, specify their responsibilities, and include rules and guidelines for organizing the relationships between them.

In this chapter we present the following eight architectural patterns: Layers, Pipes and Filters, Blackboard, Broker, Model-View-Controller, Presentation-Abstraction-Control, Microkernel, and Reflection.

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