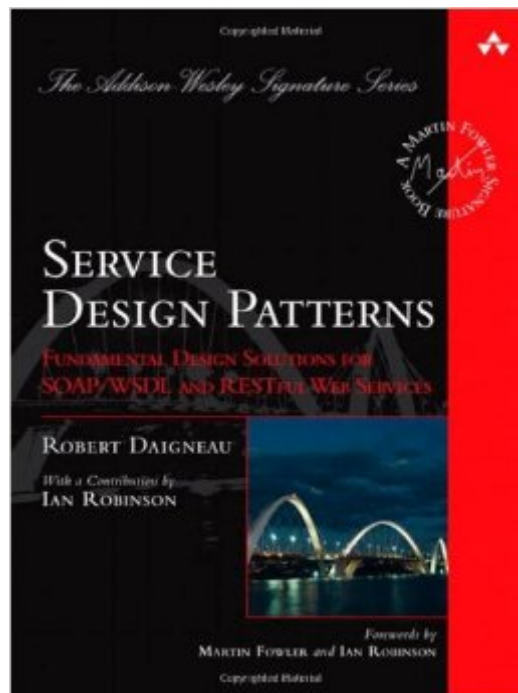# Service Design Patterns: Fundamental Design Solutions For SOAP/WSDL And RESTful Web Services

Synopsis

Web services have been used for many years. In this time, developers and architects have encountered a number of recurring design challenges related to their usage, and have learned that certain service design approaches work better than others to solve certain problems. Â In   Service Design Patterns,   Rob Daigneau codifies proven design solutions for web services that follow the REST architectural style or leverage the SOAP/WSDL specifications. This catalogue identifies the fundamental topics in web service design and lists the common design patterns for each topic. All patterns identify the context in which they may be used, explain the constituent design elements, and explore the relative strengths and trade-offs. Code examples are provided to help you better understand how the patterns work but are kept general so that you can see how the solutions may be applied to disparate technologies that will inevitably change in the years to come. Â This book will help readers answer the following questions: How do you create a web service API, what are the common API styles, and when should a particular style be used?   How can clients and web services communicate, and what are the foundations for creating complex conversations in which multiple parties exchange data over extended periods of time?   What are the options for implementing web service logic, and when should a particular approach be used?   How can clients become less coupled to the underlying systems used by a service?   How can information about a web service be discovered?   How can generic functions like authentication, validation, caching, and logging be supported on the client or service?   What changes to a service cause clients to break? What are the common ways to version a service? How can web services be designed to support the continuing evolution of business logic without forcing clients to constantly upgrade?Â   This book is an invaluable resource for enterprise architects, solution architects, and developers who use web services to create enterprise IT applications, commercial or open source products, and Software as a Service (SaaS) products that leverage emerging Cloud platforms.

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Customer Reviews

I have been a fan of the Martin Fowler Signature Series for a long time. This book fit into the series great and filled in a missing link in the series.One of the things I liked seeing was that the author does not think web services are a silver bullet. Right off the bat he warns that web services should be reserved for situations which out-of-process and cross-machine calls "make sense".The book is broken down into seven chapters, an appendix, and a nice glossary. The chapters include From Objects to Web Services, Web Service API Styles, Client-Service Interactions, Request and Response Management, Web Service Implementation Styles, Web Service Infrastructures, Web Service Evolution, and an appendix Reference to External Patterns.I felt the book worked at the right level of abstraction digging into details when needed to shed a deeper light on the subject at hand.Each chapter contains several related patterns. Each pattern answers a primary question. For example chapter one Web Service API Styles cover the following 3 patterns that answer the question that follows below.RPC API - How can clients execute remote procedures over HTTP?Message API - How can clients send commands, notifications, or other information to remote systems over HTTP while avoiding direct coupling to remote procedures?Resource API - How can a client manipulate data managed by a remote system, avoid direct coupling to remote procedures, and minimize the need for domain-specific APIs?

I found Service Design Patterns to be a refreshing and well-crafted book. I would expect nothing less from anything accepted into the Fowler series. The author is quite clear from the very beginning that this book is intended to get the reader familiar with the most common approaches for implementing services. At first inspection of this statement, I expected to read lots of problem statements, with pattern definitions, and code samples to follow that mapped directly to SOAP/WSDL and REST. I was pleasantly surprised.In the pages of the very first chapter this book challenges your standard thought on Service Architecture. Over the years I have asked many colleagues why they think SOA is a superior architecture. Often I have received the response that it reduces complexity, provides loose coupling, and is the most reliable way to allow disparate

systems to communicate. Naturally, the next question is, well how are those objectives met? That question tends to put a wrinkle on the face of some of the most seasoned software architects. This book presents those questions, and paints candid responses before you get to page 10.As you advance through the chapters, the author did a great job at codifying various approaches to web service design in a way that's not specific to any particular technology or specification. The pattern descriptions are easy to read, help the reader understand how to choose between them and the contexts in which to use them. The book provides an easy to reference handbook that classifies the patterns into categories that really make sense, and I think it gives practitioners a very useful vocabulary. Although the title says it's about creating services for SOAP/WSDL and REST, it's not a book about either.

SUMMARY: This book might have presented some interesting topics and patterns for discussion and debate, but it is far from an authoritative patterns book. It lacks "The Narratives" in PoEAA, while the patterns in it lack the usefulness of those found in EIP.When I saw this book on the , I purchased the printed book straight away without having had a quick read of the book, say from a pdf you can download on the Internet, since I really enjoyed reading the other two pattern books in the Martin Fowler series, i.e., Patterns of Enterprise Application Architecture (PoEAA) and Enterprise Integration Patterns (EIP).It turns out to be a disappointment with this book.Why? First, with the other two patterns books, in some cases I learned/relearned some core concepts of Enterprise Application or Enterprise Integration, while in other cases I learned some best way to describe what I had already learned from experience. Unfortunately, That has not been the case with this book about SOAP based Web service or REST Web service, except "situations in which out-of-process and cross-machine calls 'make sense'" (page 8).Second, the patterns in the book generally try to prescribe what industry has been actually doing (often using a different vocabulary). The problem starts when you try to have a more clear understanding of the patterns by reading the examples for the patterns and by trying to make a connection between the patterns and actual SOAP or REST implementation technologies.Take chapter 2 Web Service API patterns as an example.

Service Design Patterns: Fundamental Design Solutions for SOAP/WSDL and RESTful Web Services Soap Making: 365 Days of Soap Making (Soap Making, Soap Making Books, Soap Making for Beginners, Soap Making Guide, Soap Making Recipes, Soap Making Supplies): Soap Making Recipes for 365 Days Soap Making: How To Make Homemade Soap: 32 Easy DIY Homemade

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