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# Read Online RESTful Java Web Services Third Edition A Pragmatic Guide To Designing And Building RESTful APIs Using Java

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Apply microservices patterns to build resilient and scalable distributed systems Key Features Understand the challenges of building large-scale microservice landscapes Build cloud-native production-ready microservices with this comprehensive guide Discover how to get the best out of Spring Cloud, Kubernetes, and Istio when used together Book Description Microservices architecture allows developers to build and maintain applications with ease, and enterprises are rapidly adopting it to build software using Spring Boot as their default framework. With this book, you'll learn how to efficiently build and deploy microservices using Spring Boot. This microservices book will take you through tried and tested approaches to building distributed systems and implementing microservices architecture in your organization. Starting with a set of simple cooperating microservices developed using Spring Boot, you'll learn how you can add functionalities such as persistence, make your microservices reactive, and describe their APIs using Swagger/OpenAPI. As you advance, you'll understand how to add different services from Spring Cloud to your microservice system. The book also demonstrates how to deploy your microservices using Kubernetes and manage them with Istio for improved security and traffic management. Finally, you'll explore centralized log management using the EFK stack and monitor microservices using Prometheus and Grafana. By the end of this book, you'll be able to build microservices that are scalable and robust using Spring Boot and Spring Cloud. What you will learn- Build reactive microservices using Spring Boot Develop resilient and scalable microservices using Spring Cloud Use OAuth 2.0/OIDC and Spring Security to protect public APIs Implement Docker to bridge the gap between development, testing, and production Deploy and manage microservices using Kubernetes Apply Istio for improved security, observability, and traffic management Who this book is for This book is for Java and Spring developers and architects who want to learn how to break up their existing monoliths into microservices and deploy them either on-premises or in the cloud using Kubernetes as a container orchestrator and Istio as a service Mesh. No familiarity with microservices architecture is required to get started with this book.

Explore the best tools and techniques to create lightweight, maintainable, and scalable Python web services Key Features Combine Python with different data sources to build complex RESTful APIs from scratch Configure and fine-tune your APIs using the best tools and techniques available Use command-line and GUI tools

to test CRUD operations performed by RESTful Web Services or APIs Book Description Python is the language of choice for millions of developers worldwide that builds great web services in RESTful architecture. This second edition of Hands-On RESTful Python Web Services will cover the best tools you can use to build engaging web services. This book shows you how to develop RESTful APIs using the most popular Python frameworks and all the necessary stacks with Python, combined with related libraries and tools. You'll learn to incorporate all new features of Python 3.7, Flask 1.0.2, Django 2.1, Tornado 5.1, and also a new framework, Pyramid. As you advance through the chapters, you will get to grips with each of these frameworks to build various web services, and be shown use cases and best practices covering when to use a particular framework. You'll then successfully develop RESTful APIs with all frameworks and understand how each framework processes HTTP requests and routes URLs. You'll also discover best practices for validation, serialization, and deserialization. In the concluding chapters, you will take advantage of specific features available in certain frameworks such as integrated ORMs, built-in authorization and authentication, and work with asynchronous code. At the end of each framework, you will write tests for RESTful APIs and improve code coverage. By the end of the book, you will have gained a deep understanding of the stacks needed to build RESTful web services. What you will learn Select the most appropriate framework based on requirements Develop complex RESTful APIs from scratch using Python Use requests handlers, URL patterns, serialization, and validations Add authentication, authorization, and interaction with ORMs and databases Debug, test, and improve RESTful APIs with four frameworks Design RESTful APIs with frameworks and create automated tests Who this book is for This book is for web developers who have a working knowledge of Python and would like to build amazing web services by taking advantage of the various frameworks of Python. You should have some knowledge of RESTful APIs.

A practical tutorial to get you up and running with the revolutionary WordPress REST API About This Book Learn how to run the latest WordPress REST API with various platforms Create exciting apps and manage non-WordPress content with them Secure, export, and manage your data through illustrative examples Who This Book Is For This book is for WordPress developers and designers who want to get a complete practical understanding of the WordPress REST API and leverage it to create fully-featured web apps. What You Will Learn Use the WordPress REST API to read, write, and edit posts Create and work with metadata using the

WordPress REST API Work with taxonomies using the REST API Add custom routes and build apps using the WordPress REST API Process requests and integrate with external applications and frameworks Make your WordPress projects ready for the RESTful API standard In Detail The WordPress REST API is a recent innovation that has the potential to unlock several new opportunities for WordPress developers. It can help you integrate with technologies outside of WordPress, as well as offer great flexibility when developing themes and plugins for WordPress. As such, the REST API can make developers' lives easier. The book begins by covering the basics of the REST API and how it can be used along with WordPress. Learn how the REST API interacts with WordPress, allowing you to copy posts and modify post metadata. Move on to get an understanding of taxonomies and user roles are in WordPress and how to use them with the WordPress REST API. Next, find out how to edit and process forms with AJAX and how to create custom routes and functions. You will create a fully-functional single page web app using a WordPress site and the REST API. Lastly, you will see how to deal with the REST API in future versions and will use it to interact it with third-party services. By the end of the book, you will be able to work with the WordPress REST API to build web applications. Style and Approach A step by step tutorial to explain the new and exciting world of the WordPress REST API with the real world examples.

"Every developer working with the Web needs to read this book." -- David Heinemeier Hansson, creator of the Rails framework "RESTful Web Services finally provides a practical roadmap for constructing services that embrace the Web, instead of trying to route around it." -- Adam Trachtenberg, PHP author and EBay Web Services Evangelist You've built web sites that can be used by humans. But can you also build web sites that are usable by machines? That's where the future lies, and that's what RESTful Web Services shows you how to do. The World Wide Web is the most popular distributed application in history, and Web services and mashups have turned it into a powerful distributed computing platform. But today's web service technologies have lost sight of the simplicity that made the Web successful. They don't work like the Web, and they're missing out on its advantages. This book puts the "Web" back into web services. It shows how you can connect to the programmable web with the technologies you already use every day. The key is REST, the architectural style that drives the Web. This book: Emphasizes the power of basic Web technologies -- the HTTP application protocol, the URI naming standard, and the XML markup language Introduces the Resource-Oriented Architecture (ROA), a common-sense set of rules for designing RESTful web services Shows how a RESTful design is simpler, more versatile, and more scalable than a design based on Remote Procedure Calls (RPC) Includes real-world examples of RESTful web services, like Amazon's Simple Storage Service and the Atom Publishing Protocol Discusses web service clients for popular programming languages Shows how to implement RESTful services in three popular frameworks -- Ruby on Rails, Restlet (for Java), and Django (for Python) Focuses on practical issues: how to design and implement RESTful web services and clients This is the first book that applies the REST design philosophy to real web services. It sets down the best practices you need to make your design a success, and the techniques you need to turn your design into working code. You can harness the power of the Web for programmable applications: you just have to work with the Web instead of against it. This book shows you how.

A hands-on guide to building an enterprise-grade, scalable RESTful web service using the Spring Framework About This Book Follow best practices and explore techniques such as clustering and caching to achieve a scalable web service Leverage the Spring Framework to quickly implement RESTful endpoints Learn to im-

plement a client library for a RESTful web service using the Spring Framework Who This Book Is For This book is intended for those who want to learn to build RESTful web services with the Spring Framework. To make best use of the code samples included in the book, you should have a basic knowledge of the Java language. Previous experience with the Spring Framework would also help you get up and running quickly. What You Will Learn Deep dive into the principles behind REST Expose CRUD operations through RESTful endpoints with the Spring Framework Devise response formats and error handling strategies, offering a consistent and flexible structure to simplify integration for service consumers Follow the best approaches for dealing with a service's evolution while maintaining backward compatibility Understand techniques to secure web services Comply with the best ways to test RESTful web services, including tips for load testing Optimise and scale web services using techniques such as caching and clustering In Detail REST is an architectural style that tackles the challenges of building scalable web services. In today's connected world, APIs have taken a central role on the web. APIs provide the fabric through which systems interact, and REST has become synonymous with APIs. The depth, breadth, and ease of use of Spring makes it one of the most attractive frameworks in the Java ecosystem. Marrying the two technologies is therefore a very natural choice. This book takes you through the design of RESTful web services and leverages the Spring Framework to implement these services. Starting from the basics of the philosophy behind REST, you'll go through the steps of designing and implementing an enterprise-grade RESTful web service. Taking a practical approach, each chapter provides code samples that you can apply to your own circumstances. This book goes beyond the use of Spring and explores approaches to tackle resilience, security, and scalability concerns. You'll learn techniques to deal with security in Spring and discover how to implement unit and integration test strategies. Finally, the book ends by walking you through building a Java client for your RESTful web service, along with some scaling techniques for it. Style and approach This book is a step-by-step, hands-on guide to designing and building RESTful web services. The book follows the natural cycle of developing these services and includes multiple code samples to help you.

Design and implement scalable and maintainable RESTful solutions with Node.js 10 Key Features Create rich and scalable RESTful API solutions from scratch Explore the new features of Node.js 10, Express 4.0, and MongoDB Integrate MongoDB in your Node.js application to store and secure your data Book Description When building RESTful services, it is really important to choose the right framework. Node.js, with its asynchronous, event-driven architecture, is exactly the right choice for building RESTful APIs. This third edition of RESTful Web API Design with Node.js 10 will teach you to create scalable and rich RESTful applications based on the Node.js platform. You will be introduced to the latest NPM package handler and understand how to use it to customize your RESTful development process. You will begin by understanding the key principle that makes an HTTP application a RESTful-enabled application. After writing a simple HTTP request handler, you will create and test Node.js modules using automated tests and mock objects; explore using the NoSQL database, MongoDB, to store data; and get to grips with using self-descriptive URLs. You'll learn to set accurate HTTP status codes along with understanding how to keep your applications backward-compatible. Also, while implementing a full-fledged RESTful service, you will use Swagger to document the API and implement automation tests for a REST-enabled endpoint with Mocha. Lastly, you will explore some authentication techniques to secure your application. What you will learn Install, develop, and test your own

Node.js user modules Understand the differences between HTTP and RESTful applications Use self-descriptive URLs and set accurate HTTP status codes Eliminate third-party dependencies in your tests with mocking Implement automation tests for a REST-enabled endpoint with Mocha Secure your services with NoSQL database integration within Node.js applications Integrate a simple frontend using JavaScript libraries available on a CDN server Who this book is for If you are a web developer keen to enrich your development skills to create server-side RESTful applications based on the Node.js platform, this book is for you. Some knowledge of REST would be an added advantage, but is definitely not a necessity.

Master core REST concepts and create RESTful web services in Java About This Book\* Build efficient and secure RESTful web APIs in Java..\* Design solutions to produce, consume and visualize RESTful web services using WADL, RAML, and Swagger\* Familiarize the role of RESTful APIs usage in emerging technology trends like Cloud, IoT, Social Media. Who This Book Is For If you are a web developer with a basic understanding of the REST concepts and envisage to get acquainted with the idea of designing and developing RESTful web services, this is the book for you. As all the code samples for the book are written in Java, proficiency in Java is a must. What You Will Learn\* Introduce yourself to the RESTful software architectural style and the REST API design principles\* Make use of the JSR 353 API, JSR 374 API, JSR 367 API and Jackson API for JSON processing\* Build portable RESTful web APIs, making use of the JAX-RS 2.1 API\* Simplify API development using the Jersey and RESTEasy extension APIs\* Secure your RESTful web services with various authentication and authorization mechanisms\* Get to grips with the various metadata solutions to describe, produce, and consume RESTful web services\* Understand the design and coding guidelines to build well-performing RESTful APIs\* See how the role of RESTful web services changes with emerging technologies and trends In Detail Representational State Transfer (REST) is a simple yet powerful software architecture style to create lightweight and scalable web services. The RESTful web services use HTTP as the transport protocol and can use any message formats, including XML, JSON (widely used), CSV, and many more, which makes it easily inter-operable across different languages and platforms. This successful book is currently in its 3rd edition and has been used by thousands of developers. It serves as an excellent guide for developing RESTful web services in Java. This book attempts to familiarize the reader with the concepts of REST. It is a pragmatic guide for designing and developing web services using Java APIs for real-life use cases following best practices and for learning to secure REST APIs using OAuth and JWT. Finally, you will learn the role of RESTful web services for future technological advances, be it cloud, IoT or social media. By the end of this book, you will be able to efficiently build robust, scalable, and secure RESTful web services using Java APIs. Style and approach Step-by-step guide to designing and developing robust RESTful web services. Each topic is explained in a simple and easy-to-understand manner with lots of real-life use-cases and their solutions.

RESTful Java Web Services Packt Publishing Ltd

REST architecture (style) is a pivot of distributed systems, simplify data integration amongst modern and legacy applications leverages through the RESTful paradigm. This book is fully loaded with many RESTful API patterns, samples, hands-on implementations and also discuss the capabilities of many REST API frameworks for Java, Scala, Python and Go

Design, build and test RESTful web services with the Django framework and Python Key Features Create efficient real-world RESTful web services with the latest Django framework Authenticate, secure, and integrate third-party packages efficiently in

your Web Services Leverage the power of Python for faster Web Service development Book Description Django is a Python web framework that makes the web development process very easy. It reduces the amount of trivial code, which simplifies the creation of web applications and results in faster development. It is very powerful and a great choice for creating RESTful web services. If you are a Python developer and want to efficiently create RESTful web services with Django for your apps, then this is the right book for you. The book starts off by showing you how to install and configure the environment, required software, and tools to create RESTful web services with Django and the Django REST framework. We then move on to working with advanced serialization and migrations to interact with SQLite and non-SQL data sources. We will use the features included in the Django REST framework to improve our simple web service. Further, we will create API views to process diverse HTTP requests on objects, go through relationships and hyperlinked API management, and then discover the necessary steps to include security and permissions related to data models and APIs. We will also apply throttling rules and run tests to check that versioning works as expected. Next we will run automated tests to improve code coverage. By the end of the book, you will be able to build RESTful web services with Django. What you will learn The best way to build a RESTful Web Service or API with Django and the Django REST Framework Develop complex RESTful APIs from scratch with Django and the Django REST Framework Work with either SQL or NoSQL data sources Design RESTful Web Services based on application requirements Use third-party packages and extensions to perform common tasks Create automated tests for RESTful web services Debug, test, and profile RESTful web services with Django and the Django REST Framework Who this book is for This book is for Python developers who want to create RESTful web services with Django; you need to have a basic working knowledge of Django but no previous experience with RESTful web services is required.

Build Alfresco applications using Web Services, WebScripts and CMIS.

This IBM® Redbooks® publication can help you develop content and process management applications with IBM FileNet® APIs. The IBM FileNet P8 suite of products contains a set of robust APIs that range from core platform APIs to supporting application APIs. This book focuses specifically on Content Engine and Process Engine APIs. Content Engine API topics that we discuss include creating, retrieving, updating, and deleting objects; querying and viewing documents; and batching and batch execution. We also explore more complex topics, including permissions and authorization, versioning, relationships, annotations, workflow subscriptions and event actions, metadata discovery, and dynamic security inheritance. Process Engine API topics that we discuss include launching a workflow, searching for and processing work items, and working with process status. The more complex topics we cover include, Component Integrator application space, role, workbasket, resource navigation in Process Engine REST API, ECM Widgets, and building a custom Get Next In-basket widget. To help you better understand programming with IBM FileNet APIs, we provide a sample application implemented for a fictional company. We include the data model, security model, workflows, and various applications developed for the sample. You can download them for your reference. This book is intended for IBM FileNet P8 application developers. We recommend using this book in conjunction with the online ECM help.

Discover the RESTful technologies, including REST, JSON, XML, JAX-RS web services, SOAP and more, for building today's microservices, big data applications, and web service applications.

This book is based on a course the Oracle-based author is teaching for UC Santa Cruz Silicon Valley which covers architecture, design best practices and coding labs. Pro RESTful APIs: Design gives you all the fundamentals from the top down: from the top (architecture) through the middle (design) to the bottom (coding). This book is a must have for any microservices or web services developer building applications and services. What You'll Learn Discover the key RESTful APIs, including REST, JSON, XML, JAX, SOAP and more Use these for web services and data exchange, especially in today's big data context Harness XML, JSON, REST, and JAX-RS in examples and case studies Apply best practices to your solutions' architecture Who This Book Is For Experienced web programmers and developers.

Summary OAuth 2 in Action teaches you the practical use and deployment of this HTTP-based protocol from the perspectives of a client, authorization server, and resource server. You'll learn how to confidently and securely build and deploy OAuth on both the client and server sides. Foreword by Ian Glazer. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Think of OAuth 2 as the web version of a valet key. It is an HTTP-based security protocol that allows users of a service to enable applications to use that service on their behalf without handing over full control. And OAuth is used everywhere, from Facebook and Google, to startups and cloud services. About the Book OAuth 2 in Action teaches you practical use and deployment of OAuth 2 from the perspectives of a client, an authorization server, and a resource server. You'll begin with an overview of OAuth and its components and interactions. Next, you'll get hands-on and build an OAuth client, an authorization server, and a protected resource. Then you'll dig into tokens, dynamic client registration, and more advanced topics. By the end, you'll be able to confidently and securely build and deploy OAuth on both the client and server sides. What's Inside Covers OAuth 2 protocol and design Authorization with OAuth 2 OpenID Connect and User-Managed Access Implementation risks JOSE, introspection, revocation, and registration Protecting and accessing REST APIs About the Reader Readers need basic programming skills and knowledge of HTTP and JSON. About the Author Justin Richer is a systems architect and software engineer. Antonio Sanso is a security software engineer and a security researcher. Both authors contribute to open standards and open source. Table of Contents Part 1 - First steps What is OAuth 2.0 and why should you care? The OAuth dance Part 2 - Building an OAuth 2 environment Building a simple OAuth client Building a simple OAuth protected resource Building a simple OAuth authorization server OAuth 2.0 in the real world Part 3 - OAuth 2 implementation and vulnerabilities Common client vulnerabilities Common protected resources vulnerabilities Common authorization server vulnerabilities Common OAuth token vulnerabilities Part 4 - Taking OAuth further OAuth tokens Dynamic client registration User authentication with OAuth 2.0 Protocols and profiles using OAuth 2.0 Beyond bearer tokens Summary and conclusions

REST continues to gain momentum as the best method for building Web services, and this down-to-earth book delivers techniques and examples that show how to design and implement integration solutions using the REST architectural style.

Learn how to secure your Java applications from hackers using Spring Security 4.2 About This Book\* Architect solutions that leverage the full power of Spring Security while remaining loosely coupled.\* Implement various scenarios such as supporting existing user stores, user sign up, authentication, and supporting AJAX requests,\* Integrate with popular Microservice and Cloud services such as Zookeeper, Eureka, and Consul, along with advanced

techniques, including OAuth, JSON Web Token's (JWT), Hashing, and encryption algorithms Who This Book Is For This book is intended for Java Web and/or RESTful webservice developers and assumes a basic understanding of creating Java 8, Java Web and/or RESTful webservice applications, XML, and the Spring Framework. You are not expected to have any previous experience with Spring Security. What You Will Learn\* Understand common security vulnerabilities and how to resolve them\* Learn to perform initial penetration testing to uncover common security vulnerabilities\* Implement authentication and authorization\* Learn to utilize existing corporate infrastructure such as LDAP, Active Directory, Kerberos, CAS, OpenID, and OAuth\* Integrate with popular frameworks such as Spring, Spring-Boot, Spring-Data, JSF, Vaadin, jQuery, and AngularJS.\* Gain deep understanding of the security challenges with RESTful webservices and microservice architectures\* Integrate Spring with other security infrastructure components like LDAP, Apache Directory server and SAML In Detail Knowing that experienced hackers are itching to test your skills makes security one of the most difficult and high-pressured concerns of creating an application. The complexity of properly securing an application is compounded when you must also integrate this factor with existing code, new technologies, and other frameworks. Use this book to easily secure your Java application with the tried and trusted Spring Security framework, a powerful and highly customizable authentication and access-control framework. The book starts by integrating a variety of authentication mechanisms. It then demonstrates how to properly restrict access to your application. It also covers tips on integrating with some of the more popular web frameworks. An example of how Spring Security defends against session fixation, moves into concurrency control, and how you can utilize session management for administrative functions is also included. It concludes with advanced security scenarios for RESTful webservices and microservices, detailing the issues surrounding stateless authentication, and demonstrates a concise, step-by-step approach to solving those issues. And, by the end of the book, readers can rest assured that integrating version 4.2 of Spring Security will be a seamless endeavor from start to finish. Style and approach This practical step-by-step tutorial has plenty of example code coupled with the necessary screenshots and clear narration so that grasping content is made easier and quicker.

Learn how to develop REST-style and SOAP-based web services and clients with this quick and thorough introduction. This hands-on book delivers a clear, pragmatic approach to web services by providing an architectural overview, complete working code examples, and short yet precise instructions for compiling, deploying, and executing them. You'll learn how to write services from scratch and integrate existing services into your Java applications. With greater emphasis on REST-style services, this second edition covers HttpServlet, Restlet, and JAX-RS APIs; jQuery clients against REST-style services; and JAX-WS for SOAP-based services. Code samples include an Apache Ant script that compiles, packages, and deploys web services. Learn differences and similarities between REST-style and SOAP-based services Program and deliver RESTful web services, using Java APIs and implementations Explore RESTful web service clients written in Java, JavaScript, and Perl Write SOAP-based web services with an emphasis on the application level Examine the handler and transport levels in SOAP-based messaging Learn wire-level security in HTTP(S), users/roles security, and WS-Security Use a Java Application Server (JAS) as an alternative to a standalone web server Summary Restlet in Action gets you started with the Restlet Framework and the REST architecture style. You'll create and deploy applications in record time while learning to use popular RESTful Web APIs effectively. This book looks at the many as-

pects of web development, on both the server and client side, along with cloud computing, mobile Android devices, and Semantic Web applications. About the Technology In a RESTful architecture any component can act, if needed, as both client and server—this is flexible and powerful, but tricky to implement. The Restlet project is a reference implementation with a Java-based API and everything you need to build servers and web clients that integrate with most web and enterprise technologies. About the Book Restlet in Action introduces the Restlet Framework and RESTful web APIs. You'll see how to easily create and deploy your own web API while learning to consume other web APIs effectively. You'll learn about designing, securing, versioning, documentation, optimizing, and more on both the server and client side, as well as about cloud computing, mobile Android devices, and Semantic Web applications. The book requires a basic knowledge of Java and the web, but no prior exposure to REST or Restlet. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Written by the creators of Restlet! How to create your own web API How to deploy on cloud and mobile platforms Focus on Android, Google App Engine, Google Web Toolkit, and OSGi technologies Table of Contents PART 1 GETTING STARTED Introducing the Restlet Framework Beginning a Restlet application Deploying a Restlet application PART 2 GETTING READY TO ROLL OUT Producing and consuming Restlet representations Securing a Restlet application Documenting and versioning a Restlet application Enhancing a Restlet application with recipes and best practices PART 3 FURTHER USE POSSIBILITIES Using Restlet with cloud platforms Using Restlet in browsers and mobile devices Embracing hypermedia and the Semantic Web The future of Restlet

A step-by-step guide that will help you design, develop, scale, and deploy RESTful APIs with TypeScript 3 and Node.js Key Features Gain in-depth knowledge of OpenAPI and Swagger to build scalable web services Explore a variety of test frameworks and test runners such as Stryker, Mocha, and Chai Create a pipeline by Dockerizing your environment using Travis CI, Google Cloud Platform, and GitHub Book Description In the world of web development, leveraging data is the key to developing comprehensive applications, and RESTful APIs help you to achieve this systematically. This book will guide you in designing and developing web services with the power of TypeScript 3 and Node.js. You'll design REST APIs using best practices for request handling, validation, authentication, and authorization. You'll also understand how to enhance the capabilities of your APIs with ODMs, databases, models and views, as well as asynchronous callbacks. This book will guide you in securing your environment by testing your services and initiating test automation with different testing approaches. Furthermore, you'll get to grips with developing secure, testable, and more efficient code, and be able to scale and deploy TypeScript 3 and Node.js-powered RESTful APIs on cloud platforms such as the Google Cloud Platform. Finally, the book will help you explore microservices and give you an overview of what GraphQL can allow you to do. By the end of this book, you will be able to use RESTful web services to create your APIs for mobile and web apps and other platforms. What you will learn Explore various methods to plan your services in a scalable way Understand how to handle different request types and the response status code Get to grips with securing web services Delve into error handling and logging your web services for improved debugging Uncover the microservices architecture and GraphQL Create automated CI/CD pipelines for release and deployment strategies Who this book is for If you're a developer who has a basic understanding of REST concepts and want to learn how to design and develop RESTful APIs, this book is for you. Prior knowledge of TypeScript

will help you make the most out of this book.

Explore the best tools and techniques to create lightweight, maintainable, and scalable Python web services Key Features Combine Python with different data sources to build complex RESTful APIs from scratch Configure and fine-tune your APIs using the best tools and techniques available Use command-line and GUI tools to test CRUD operations performed by RESTful Web Services or APIs-Book Description Python is the language of choice for millions of developers worldwide that builds great web services in RESTful architecture. This second edition of Hands-On RESTful Python Web Services will cover the best tools you can use to build engaging web services. This book shows you how to develop RESTful APIs using the most popular Python frameworks and all the necessary stacks with Python, combined with related libraries and tools. You'll learn to incorporate all new features of Python 3.7, Flask 1.0.2, Django 2.1, Tornado 5.1, and also a new framework, Pyramid. As you advance through the chapters, you will get to grips with each of these frameworks to build various web services, and be shown use cases and best practices covering when to use a particular framework. You'll then successfully develop RESTful APIs with all frameworks and understand how each framework processes HTTP requests and routes URLs. You'll also discover best practices for validation, serialization, and deserialization. In the concluding chapters, you will take advantage of specific features available in certain frameworks such as integrated ORMs, built-in authorization and authentication, and work with asynchronous code. At the end of each framework, you will write tests for RESTful APIs and improve code coverage. By the end of the book, you will have gained a deep understanding of the stacks needed to build RESTful web services. What you will learn Select the most appropriate framework based on requirements Develop complex RESTful APIs from scratch using Python Use requests handlers, URL patterns, serialization, and validations Add authentication, authorization, and interaction with ORMs and databases Debug, test, and improve RESTful APIs with four frameworks Design RESTful APIs with frameworks and create automated tests Who this book is for This book is for web developers who have a working knowledge of Python and would like to build amazing web services by taking advantage of the various frameworks of Python. You should have some knowledge of RESTful APIs.

Learn the fundamentals of Java EE 8 APIs to build effective web services Key Features Design modern and stylish web services with Java EE APIs Secure your web services with JSON Web Tokens Explore the advanced concepts of RESTful web services and the JAX-RS API Book Description Java Enterprise Edition is one of the leading application programming platforms for enterprise Java development. With Java EE 8 finally released and the first application servers now available, it is time to take a closer look at how to develop modern and lightweight web services with the latest API additions and improvements. Building RESTful Web Services with Java EE 8 is a comprehensive guide that will show you how to develop state-of-the-art RESTful web services with the latest Java EE 8 APIs. You will begin with an overview of Java EE 8 and the latest API additions and improvements. You will then delve into the details of implementing synchronous RESTful web services and clients with JAX-RS. Next up, you will learn about the specifics of data binding and content marshalling using the JSON-B 1.0 and JSON-P 1.1 APIs. This book also guides you in leveraging the power of asynchronous APIs on the server and client side, and you will learn to use server-sent events (SSEs) for push communication. The final section covers advanced web service topics such as validation, JWT security, and diagnosability. By the end of this book, you will have implemented several working web services and have a thorough understanding of the Java EE 8 APIs re-

quired for lightweight web service development. What you will learn Dive into the latest Java EE 8 APIs relevant for developing web services Use the new JSON-B APIs for easy data binding Understand how JSON-P API can be used for flexible processing Implement synchronous and asynchronous JAX-RS clients Use server-sent events to implement server-side code Secure Java EE 8 web services with JSON Web Tokens Who this book is for If you're a Java developer who wants to learn how to implement web services using the latest Java EE 8 APIs, this book is for you. Though no prior knowledge of Java EE 8 is required, experience with a previous Java EE version will be beneficial.

Get up to speed on the principal technologies in the Java Platform, Enterprise Edition 7, and learn how the latest version embraces HTML5, focuses on higher productivity, and provides functionality to meet enterprise demands. Written by Arun Gupta, a key member of the Java EE team, this book provides a chapter-by-chapter survey of several Java EE 7 specifications, including WebSockets, Batch Processing, RESTful Web Services, and Java Message Service. You'll also get self-paced instructions for building an end-to-end application with many of the technologies described in the book, which will help you understand the design patterns vital to Java EE development. Understand the key components of the Java EE platform, with easy-to-understand explanations and extensive code samples Examine all the new components that have been added to Java EE 7 platform, such as WebSockets, JSON, Batch, and Concurrency Learn about RESTful Web Services, SOAP XML-based messaging protocol, and Java Message Service Explore Enterprise JavaBeans, Contexts and Dependency Injection, and the Java Persistence API Discover how different components were updated from Java EE 6 to Java EE 7

Java XML and JSON is your one-stop guide to mastering the XML metalanguage and JSON data format along with significant Java APIs for parsing and creating XML/JSON documents (and more). The first six chapters focus on XML along with the SAX, DOM, StAX, XPath, and XSLT APIs. The remaining four chapters focus on JSON along with the mjson, GSON, and JsonPath APIs. Each chapter ends with select exercises designed to challenge your grasp of the chapter's content. An appendix provides the answers to these exercises. What You'll Learn Master the XML language Learn how to validate XML documents Learn how to parse XML documents with the SAX, DOM, and StAX APIs Learn how to create XML documents with the DOM and StAX APIs Learn how to extract values from XML documents with the XPath API Learn how to transform XML documents with the XSLT API Master the JSON format Learn how to validate JSON documents Learn how to parse and create JSON documents with the mjson and Gson APIs Learn how to extract values from JSON documents with the JsonPath API Who This Book Is For /div>Intermediate or advanced Java programmers/developers.

Design and implement efficient RESTful solutions with this practical hands-on guide About This Book Create a fully featured RESTful API solution from scratch. Learn how to leverage Node.JS, Express, MongoDB and NoSQL datastores to give an extra edge to your REST API design. Use this practical guide to integrate MongoDB in your Node.js application. Who This Book Is For The ideal target audience for this book is web developers who have some experience with RESTful services. Familiarity with basic JavaScript programming techniques is required. No prior experience with Node.JS or Express.js is required. What You Will Learn Install, develop, and test your own Node.js user modules Comprehend the differences between an HTTP and a RESTful application Optimize RESTful service URI routing with best practices Eliminate third-party dependencies in your tests with mocking Learn about NoSQL data stores and integrate MongoDB in your Node.js application with Mongoose Secure your services with NoSQL database inte-

gration within Node.js applications Enrich your development skills to create scalable, server-side, RESTful applications based on the Node.js platform In Detail In this era of cloud computing, every data provisioning solution is built in a scalable and fail-safe way. Thus, when building RESTful services, the right choice for the underlying platform is vital. Node.js, with its asynchronous, event-driven architecture, is exactly the right choice to build RESTful APIs. This book will help you enrich your development skills to create scalable, server-side, RESTful applications based on the Node.js platform. Starting with the fundamentals of REST, you will understand why RESTful web services are better data provisioning solution than other technologies. You will start setting up a development environment by installing Node.js, Express.js, and other modules. Next, you will write a simple HTTP request handler and create and test Node.js modules using automated tests and mock objects. You will then have to choose the most appropriate data storage type, having options between a key/value or document data store, and also you will implement automated tests for it. This module will evolve chapter by chapter until it turns into a full-fledged and secure Restful service. Style and approach Create state of the art RESTful API solutions leveraging Node.JS 4.x.

Spring REST is a practical guide for designing and developing RESTful APIs using the Spring Framework. This book walks you through the process of designing and building a REST application while taking a deep dive into design principles and best practices for versioning, security, documentation, error handling, paging, and sorting. This book provides a brief introduction to REST, HTTP, and web infrastructure. You will learn about several Spring projects such as Spring Boot, Spring MVC, Spring Data JPA, and Spring Security and the role they play in simplifying REST application development. You will learn how to build clients that consume REST services. Finally, you will learn how to use the Spring MVC test framework to unit test and integration test your REST API. After reading this book, you will come away with all the skills to build sophisticated REST applications using Spring technologies.

The Java EE 6 Tutorial: Advanced Topics, Fourth Edition, is a task-oriented, example-driven guide to developing enterprise applications for the Java Platform, Enterprise Edition 6 (Java EE 6). Written by members of the Java EE 6 documentation team at Oracle, this book provides new and intermediate Java programmers with a deep understanding of the platform. This guide—which builds on the concepts introduced in The Java EE 6 Tutorial: Basic Concepts, Fourth Edition—contains advanced material, including detailed introductions to more complex platform features and instructions for using the latest version of the NetBeans IDE and the GlassFish Server, Open Source Edition. This book introduces the Java Message Service (JMS) API and Java EE Interceptors. It also describes advanced features of JavaServer Faces, Servlets, JAX-RS, Enterprise JavaBeans components, the Java Persistence API, Contexts and Dependency Injection for the Java EE Platform, web and enterprise application security, and Bean Validation. The book culminates with three new case studies that illustrate the use of multiple Java EE 6 APIs.

Master core REST concepts and create RESTful web services in Java About This Book Build efficient and secure RESTful web APIs in Java.. Design solutions to produce, consume and visualize RESTful web services using WADL, RAML, and Swagger Familiarize the role of RESTful APIs usage in emerging technology trends like Cloud, IoT, Social Media. Who This Book Is For If you are a web developer with a basic understanding of the REST concepts and envisage to get acquainted with the idea of designing and developing RESTful web services, this is the book for you. As all the code

samples for the book are written in Java, proficiency in Java is a must. What You Will Learn Introduce yourself to the RESTful software architectural style and the REST API design principles Make use of the JSR 353 API, JSR 374 API, JSR 367 API and Jackson API for JSON processing Build portable RESTful web APIs, making use of the JAX-RS 2.1 API Simplify API development using the Jersey and RESTEasy extension APIs Secure your RESTful web services with various authentication and authorization mechanisms Get to grips with the various metadata solutions to describe, produce, and consume RESTful web services Understand the design and coding guidelines to build well-performing RESTful APIs See how the role of RESTful web services changes with emerging technologies and trends In Detail Representational State Transfer (REST) is a simple yet powerful software architecture style to create lightweight and scalable web services. The RESTful web services use HTTP as the transport protocol and can use any message formats, including XML, JSON(widely used), CSV, and many more, which makes it easily inter-operable across different languages and platforms. This successful book is currently in its 3rd edition and has been used by thousands of developers. It serves as an excellent guide for developing RESTful web services in Java. This book attempts to familiarize the reader with the concepts of REST. It is a pragmatic guide for designing and developing web services using Java APIs for real-life use cases following best practices and for learning to secure REST APIs using OAuth and JWT. Finally, you will learn the role of RESTful web services for future technological advances, be it cloud, IoT or social media. By the end of this book, you will be able to efficiently build robust, scalable, and secure RESTful web services using Java APIs. Style and approach Step-by-step guide to designing and developing robust RESTful web services. Each topic is explained in a simple and easy-to-understand manner with lots of real-life use-cases and their solutions.

Looking for Best Practices for RESTful APIs? This book is for you! Why? Because this book is packed with practical experience on what works best for RESTful API Design. You want to design APIs like a Pro? Use API description languages to both design APIs and develop APIs efficiently. The book introduces the two most common API description languages RAML, OpenAPI, and Swagger. Your company cares about its customers? Learn API product management with a customer-centric design and development approach for APIs. Learn how to manage APIs as a product and how to follow an API-first approach. Build APIs your customers love! You want to manage the complete API lifecycle? An API development methodology is proposed to guide you through the lifecycle: API inception, API design, API development, API publication, API evolution, and maintenance. You want to build APIs right? This book shows best practices for REST design, such as the correct use of resources, URIs, representations, content types, data formats, parameters, HTTP status codes, and HTTP methods. Your APIs connect to legacy systems? The book shows best practices for connecting APIs to existing backend systems. Your APIs connect to a mesh of microservices? The book shows the principles for designing APIs for scalable, autonomous microservices. You expect lots of traffic on your API? The book shows you how to achieve high performance, availability and maintainability. You want to build APIs that last for decades? We study API versioning, API evolution, backward- and forward-compatibility and show API design patterns for versioning. The API-University Series is a modular series of books on API-related topics. Each book focuses on a particular API topic, so you can select the topics within APIs, which are relevant for you.

RESTful Java Web Services Packt Publishing Ltd Master core REST concepts and create RESTful web services in Java About This Book Build efficient and secure RESTful web APIs in Java.. Design

solutions to produce, consume and visualize RESTful web services using WADL, RAML, and Swagger Familiarize the role of RESTful APIs usage in emerging technology trends like Cloud, IoT, Social Media. Who This Book Is For If you are a web developer with a basic understanding of the REST concepts and envisage to get acquainted with the idea of designing and developing RESTful web services, this is the book for you. As all the code samples for the book are written in Java, proficiency in Java is a must. What You Will Learn Introduce yourself to the RESTful software architectural style and the REST API design principles Make use of the JSR 353 API, JSR 374 API, JSR 367 API and Jackson API for JSON processing Build portable RESTful web APIs, making use of the JAX-RS 2.1 API Simplify API development using the Jersey and RESTEasy extension APIs Secure your RESTful web services with various authentication and authorization mechanisms Get to grips with the various metadata solutions to describe, produce, and consume RESTful web services Understand the design and coding guidelines to build well-performing RESTful APIs See how the role of RESTful web services changes with emerging technologies and trends In Detail Representational State Transfer (REST) is a simple yet powerful software architecture style to create lightweight and scalable web services. The RESTful web services use HTTP as the transport protocol and can use any message formats, including XML, JSON(widely used), CSV, and many more, which makes it easily inter-operable across different languages and platforms. This successful book is currently in its 3rd edition and has been used by thousands of developers. It serves as an excellent guide for developing RESTful web services in Java. This book attempts to familiarize the reader with the concepts of REST. It is a pragmatic guide for designing and developing web services using Java APIs for real-life use cases following best practices and for learning to secure REST APIs using OAuth and JWT. Finally, you will learn the role of RESTful web services for future technological advances, be it cloud, IoT or social media. By the end of this book, you will be able to efficiently build robust, scalable, and secure RESTful web services using Java APIs. Style and approach Step-by-step guide to designing and developing robust RESTful web services. Each topic is explained in a simple and easy-to-understand manner with lots of real-life use-cases and their solutions. RESTful Java Web Services - Third Edition Master core REST concepts and create RESTful web services in Java About This Book\* Build efficient and secure RESTful web APIs in Java..\* Design solutions to produce, consume and visualize RESTful web services using WADL, RAML, and Swagger\* Familiarize the role of RESTful APIs usage in emerging technology trends like Cloud, IoT, Social Media. Who This Book Is For If you are a web developer with a basic understanding of the REST concepts and envisage to get acquainted with the idea of designing and developing RESTful web services, this is the book for you. As all the code samples for the book are written in Java, proficiency in Java is a must. What You Will Learn\* Introduce yourself to the RESTful software architectural style and the REST API design principles\* Make use of the JSR 353 API, JSR 374 API, JSR 367 API and Jackson API for JSON processing\* Build portable RESTful web APIs, making use of the JAX-RS 2.1 API\* Simplify API development using the Jersey and RESTEasy extension APIs\* Secure your RESTful web services with various authentication and authorization mechanisms\* Get to grips with the various metadata solutions to describe, produce, and consume RESTful web services\* Understand the design and coding guidelines to build well-performing RESTful APIs\* See how the role of RESTful web services changes with emerging technologies and trends In Detail Representational State Transfer (REST) is a simple yet powerful software architecture style to create lightweight and scalable web services. The RESTful web services use HTTP as the transport protocol and can use any message formats, including XML,

JSON(widely used), CSV, and many more, which makes it easily inter-operable across different languages and platforms. This successful book is currently in its 3rd edition and has been used by thousands of developers. It serves as an excellent guide for developing RESTful web services in Java. This book attempts to familiarize the reader with the concepts of REST. It is a pragmatic guide for designing and developing web services using Java APIs for real-life use cases following best practices and for learning to secure REST APIs using OAuth and JWT. Finally, you will learn the role of RESTful web services for future technological advances, be it cloud, IoT or social media. By the end of this book, you will be able to efficiently build robust, scalable, and secure RESTful web services using Java APIs.

**Style and approach** Step-by-step guide to designing and developing robust RESTful web services. Each topic is explained in a simple and easy-to-understand manner with lots of real-life use-cases and their solutions.

**RESTful Java Web Services** Packt Publishing Ltd Design scalable and robust RESTful web services with JAX-RS and Jersey extension APIs

**About This Book** Get to grips with the portable Java APIs used for JSON processing

**Design solutions to produce, consume, and visualize RESTful web services using WADL, RAML, and Swagger** A step-by-step guide packed with many real-life use-cases to help you build efficient and secure RESTful web APIs in Java

**Who This Book Is For** If you are a web developer with a basic understanding of the REST concepts but are new to the idea of designing and developing RESTful web services, this is the book for you. As all the code samples for the book are written in Java, proficiency in Java is a must.

**What You Will Learn** Introduce yourself to the RESTful software architectural style and the REST API design principles Make use of the JSR 353 APIs and Jackson API for JSON processing Build portable RESTful web APIs, making use of the JAX-RS 2.0 API Simplify API development using the Jersey extension APIs Secure your RESTful web services with various authentication and authorization mechanisms Get to grips with the various metadata solutions to describe, produce, and consume RESTful web services Understand the design and coding guidelines to build well-performing RESTful APIs See how the role of RESTful web services changes with emerging technologies and trends

**In Detail** REST (REpresentational State Transfer) is a simple yet powerful software architecture style to create scalable web services and allow them to be simple, lightweight, and fast. The REST API uses HTTP and JSON, so that it can be used with many programming languages such as Ruby, Java, Python, and Scala. Its use in Java seems to be the most popular though, because of the API's reusability. This book is a guide to developing RESTful web services in Java using the popular RESTful framework APIs available today. You will begin with gaining an in-depth knowledge of the RESTful software architectural style and its relevance in modern applications. Further, you will understand the APIs to parse, generate, transform, and query JSON effectively. Then, you will see how to build a simple RESTful service using the popular JAX-RS 2.0 API along with some real-world examples. This book will introduce you to the Jersey framework API, which is used to simplify your web services. You will also see how to secure your services with various authentication mechanisms. You will get to grips with various solutions to describe, produce, consume, and visualize RESTful web services. Finally, you will see how to design your web services to equip them for the future technological advances, be it Cloud or mobile computing. By the end of this book, you will be able to efficiently build robust, scalable, and secure RESTful web services, making use of the JAX-RS and Jersey framework extensions.

**Style and approach** This book is written as a step-by-step guide to designing and developing robust RESTful web services. Each topic is explained in a simple and easy-to-understand manner with lots of real-life use-cases and their solutions.

**RESTful Web**

**Services** "O'Reilly Media, Inc." "Every developer working with the Web needs to read this book." -- David Heinemeier Hansson, creator of the Rails framework "RESTful Web Services finally provides a practical roadmap for constructing services that embrace the Web, instead of trying to route around it." -- Adam Trachtenberg, PHP author and EBay Web Services Evangelist You've built web sites that can be used by humans. But can you also build web sites that are usable by machines? That's where the future lies, and that's what RESTful Web Services shows you how to do. The World Wide Web is the most popular distributed application in history, and Web services and mashups have turned it into a powerful distributed computing platform. But today's web service technologies have lost sight of the simplicity that made the Web successful. They don't work like the Web, and they're missing out on its advantages. This book puts the "Web" back into web services. It shows how you can connect to the programmable web with the technologies you already use every day. The key is REST, the architectural style that drives the Web. This book: Emphasizes the power of basic Web technologies -- the HTTP application protocol, the URI naming standard, and the XML markup language Introduces the Resource-Oriented Architecture (ROA), a common-sense set of rules for designing RESTful web services Shows how a RESTful design is simpler, more versatile, and more scalable than a design based on Remote Procedure Calls (RPC) Includes real-world examples of RESTful web services, like Amazon's Simple Storage Service and the Atom Publishing Protocol Discusses web service clients for popular programming languages Shows how to implement RESTful services in three popular frameworks -- Ruby on Rails, Restlet (for Java), and Django (for Python) Focuses on practical issues: how to design and implement RESTful web services and clients This is the first book that applies the REST design philosophy to real web services. It sets down the best practices you need to make your design a success, and the techniques you need to turn your design into working code. You can harness the power of the Web for programmable applications: you just have to work with the Web instead of against it. This book shows you how.

**Building RESTful Web Services with Java EE 8** Packt Publishing Ltd Learn the fundamentals of Java EE 8 APIs to build effective web services

**Key Features** Design modern and stylish web services with Java EE APIs Secure your web services with JSON Web Tokens Explore the advanced concepts of RESTful web services and the JAX-RS API

**Book Description** Java Enterprise Edition is one of the leading application programming platforms for enterprise Java development. With Java EE 8 finally released and the first application servers now available, it is time to take a closer look at how to develop modern and lightweight web services with the latest API additions and improvements. Building RESTful Web Services with Java EE 8 is a comprehensive guide that will show you how to develop state-of-the-art RESTful web services with the latest Java EE 8 APIs. You will begin with an overview of Java EE 8 and the latest API additions and improvements. You will then delve into the details of implementing synchronous RESTful web services and clients with JAX-RS. Next up, you will learn about the specifics of data binding and content marshalling using the JSON-B 1.0 and JSON-P 1.1 APIs. This book also guides you in leveraging the power of asynchronous APIs on the server and client side, and you will learn to use server-sent events (SSEs) for push communication. The final section covers advanced web service topics such as validation, JWT security, and diagnosability. By the end of this book, you will have implemented several working web services and have a thorough understanding of the Java EE 8 APIs required for lightweight web service development. What you will learn Dive into the latest Java EE 8 APIs relevant for developing web services Use the new JSON-B APIs for easy data binding Understand how



JSON-P API can be used for flexible processing Implement synchronous and asynchronous JAX-RS clients Use server-sent events to implement server-side code Secure Java EE 8 web services with JSON Web Tokens Who this book is for If you're a Java developer who wants to learn how to implement web services using the latest Java EE 8 APIs, this book is for you. Though no prior knowledge of Java EE 8 is required, experience with a previous Java EE version will be beneficial. Java Web Services: Up and Running"O'Reilly Media, Inc."This example-driven book offers a thorough introduction to Java's APIs for XML Web Services (JAX-WS) and RESTful Web Services (JAX-RS). Java Web Services: Up and Running takes a clear, pragmatic approach to these technologies by providing a mix of architectural overview, complete working code examples, and short yet precise instructions for compiling, deploying, and executing an application. You'll learn how to write web services from scratch and integrate existing services into your Java applications. With Java Web Services: Up and Running, you will: Understand the distinction between SOAP-based and REST-style services Write, deploy, and consume SOAP-based services in core Java Understand the Web Service Definition Language (WSDL) service contract Recognize the structure of a SOAP message Learn how to deliver Java-based RESTful web services and consume commercial RESTful services Know security requirements for SOAP- and REST-based web services Learn how to implement JAX-WS in various application servers Ideal for students as well as experienced programmers, Java Web Services: Up and Running is the concise guide you need to start working with these technologies right away. RESTful Java with JAX-RS 2.0"O'Reilly Media, Inc."Learn how to design and develop distributed web services in Java, using RESTful architectural principles and the JAX-RS 2.0 specification in Java EE 7. By focusing on implementation rather than theory, this hands-on reference demonstrates how easy it is to get started with services based on the REST architecture. With the book's technical guide, you'll learn how REST and JAX-RS work and when to use them. The RESTEasy workbook that follows provides step-by-step instructions for installing, configuring, and running several working JAX-RS examples, using the JBoss RESTEasy implementation of JAX-RS 2.0. Learn JAX-RS 2.0 features, including a client API, server-side asynchronous HTTP, and filters and interceptors Examine the design of a distributed RESTful interface for an e-commerce order entry system Use the JAX-RS Response object to return complex responses to your client (ResponseBuilder) Increase the performance of your services by leveraging HTTP caching protocols Deploy and integrate web services within Java EE7, servlet containers, EJB, Spring, and JPA Learn popular mechanisms to perform authentication on the Web, including client-side SSL and OAuth 2.0 RESTful Java Web ServicesPackt Pub LimitedThe approach we take is ideal for software developers with some, or extensive, programming experience: we design a RESTful API, which serves as our software specification, and implement it with every framework discussed in the book—there are no hypothetical examples; only practical working applications. This book is for Java developers who want to code RESTful web services using any of the open source RESTful frameworks available to date, for example, JAX-RS implementations such as Jersey and RESTEasy, the Restlet lightweight framework, or Struts 2 with the REST plug-in. You don't need to know REST, as we cover the theory of REST and web services; however, you should be familiar with the Java language and have some understanding of Java web applications. For each framework, we develop the same web service outlined in Chapter 4, so there is lots of working code available. This is a practical guide and the majority of the book is about coding RESTful web services, and not just about the theory of REST. RESTful Java with JAX-RS"O'Reilly Media, Inc."Learn how to design and develop distributed web services in

Java using RESTful architectural principals and the JAX-RS specification in Java EE 6. With this hands-on reference, you'll focus on implementation rather than theory, and discover why the RESTful method is far better than technologies like CORBA and SOAP. It's easy to get started with services based on the REST architecture. RESTful Java with JAX-RS includes a technical guide that explains REST and JAX-RS, how they work, and when to use them. With the RESTEasy workbook that follows, you get step-by-step instructions for installing, configuring, and running several working JAX-RS examples using the JBoss RESTEasy implementation of JAX-RS. Work on the design of a distributed RESTful interface, and develop it in Java as a JAX-RS service Dispatch HTTP requests in JAX-RS, and learn how to extract information from them Deploy your web services within Java Enterprise Edition using the Application class, Default Component Model, EJB Integration, Spring Integration, and JPA Discover several options for securing your web services Learn how to implement RESTful design patterns using JAX-RS Write RESTful clients in Java using libraries and frameworks such as java.net.URL, Apache HTTP Client, and RESTEasy Proxy-Building Restful Web Services with Java Ee 8Learn the fundamentals of Java EE 8 APIs to build effective web services Key Features Design modern and stylish web services with Java EE APIs Secure your web services with JSON Web Tokens Explore the advanced concepts of RESTful web services and the JAX-RS API Book Description Java Enterprise Edition is one of the leading application programming platforms for enterprise Java development. With Java EE 8 finally released and the first application servers now available, it is time to take a closer look at how to develop modern and lightweight web services with the latest API additions and improvements. Building RESTful Web Services with Java EE 8 is a comprehensive guide that will show you how to develop state-of-the-art RESTful web services with the latest Java EE 8 APIs. You will begin with an overview of Java EE 8 and the latest API additions and improvements. You will then delve into the details of implementing synchronous RESTful web services and clients with JAX-RS. Next up, you will learn about the specifics of data binding and content marshalling using the JSON-B 1.0 and JSON-P 1.1 APIs. This book also guides you in leveraging the power of asynchronous APIs on the server and client side, and you will learn to use server-sent events (SSEs) for push communication. The final section covers advanced web service topics such as validation, JWT security, and diagnosability. By the end of this book, you will have implemented several working web services and have a thorough understanding of the Java EE 8 APIs required for lightweight web service development. What you will learn Dive into the latest Java EE 8 APIs relevant for developing web services Use the new JSON-B APIs for easy data binding Understand how JSON-P API can be used for flexible processing Implement synchronous and asynchronous JAX-RS clients Use server-sent events to implement server-side code Secure Java EE 8 web services with JSON Web Tokens Who this book is for If you're a Java developer who wants to learn how to implement web services using the latest Java EE 8 APIs, this book is for you. Though no prior knowledge of Java EE 8 is required, experience with a previous Java EE version will be beneficial. Java EE 7 Essentials"O'Reilly Media, Inc."Get up to speed on the principal technologies in the Java Platform, Enterprise Edition 7, and learn how the latest version embraces HTML5, focuses on higher productivity, and provides functionality to meet enterprise demands. Written by Arun Gupta, a key member of the Java EE team, this book provides a chapter-by-chapter survey of several Java EE 7 specifications, including WebSockets, Batch Processing, RESTful Web Services, and Java Message Service. You'll also get self-paced instructions for building an end-to-end application with many of the technologies described in the book, which will help you understand the design

patterns vital to Java EE development. Understand the key components of the Java EE platform, with easy-to-understand explanations and extensive code samples. Examine all the new components that have been added to Java EE 7 platform, such as WebSockets, JSON, Batch, and Concurrency. Learn about RESTful Web Services, SOAP XML-based messaging protocol, and Java Message Service. Explore Enterprise JavaBeans, Contexts and Dependency Injection, and the Java Persistence API. Discover how different components were updated from Java EE 6 to Java EE 7. Restlet in Action: Simon and Schuster Summary. Restlet in Action gets you started with the Restlet Framework and the REST architecture style. You'll create and deploy applications in record time while learning to use popular RESTful Web APIs effectively. This book looks at the many aspects of web development, on both the server and client side, along with cloud computing, mobile Android devices, and Semantic Web applications. About the Technology In a RESTful architecture any component can act, if needed, as both client and server—this is flexible and powerful, but tricky to implement. The Restlet project is a reference implementation with a Java-based API and everything you need to build servers and web clients that integrate with most web and enterprise technologies. About the Book Restlet in Action introduces the Restlet Framework and RESTful web APIs. You'll see how to easily create and deploy your own web API while learning to consume other web APIs effectively. You'll learn about designing, securing, versioning, documentation, optimizing, and more on both the server and client side, as well as about cloud computing, mobile Android devices, and Semantic Web applications. The book requires a basic knowledge of Java and the web, but no prior exposure to REST or Restlet. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Written by the creators of Restlet! How to create your own web API How to deploy on cloud and mobile platforms Focus on Android, Google App Engine, Google Web Toolkit, and OSGi technologies Table of Contents PART 1 GETTING STARTED Introducing the Restlet Framework Beginning a Restlet application Deploying a Restlet application PART 2 GETTING READY TO ROLL OUT Producing and consuming Restlet representations Securing a Restlet application Documenting and versioning a Restlet application Enhancing a Restlet application with recipes and best practices PART 3 FURTHER USE POSSIBILITIES Using Restlet with cloud platforms Using Restlet in browsers and mobile devices Embracing hypermedia and the Semantic Web The future of Restlet RESTful Web Services Cookbook "O'Reilly Media, Inc." While the REST design philosophy has captured the imagination of web and enterprise developers alike, using this approach to develop real web services is no picnic. This cookbook includes more than 100 recipes to help you take advantage of REST, HTTP, and the infrastructure of the Web. You'll learn ways to design RESTful web services for client and server applications that meet performance, scalability, reliability, and security goals, no matter what programming language and development framework you use. Each recipe includes one or two problem statements, with easy-to-follow, step-by-step instructions for solving them, as well as examples using HTTP requests and responses, and XML, JSON, and Atom snippets. You'll also get implementation guidelines, and a discussion of the pros, cons, and trade-offs that come with each solution. Learn how to design resources to meet various application scenarios Successfully design representations and URIs Implement the hypertext constraint using links and link headers Understand when and how to use Atom and AtomPub Know what and what not to do to support caching Learn how to implement concurrency control Deal with advanced use cases involving copying, merging, transactions, batch processing, and partial updates Secure web services and support OAuth Building a RESTful Web

Service with Spring Packt Publishing Ltd A hands-on guide to building an enterprise-grade, scalable RESTful web service using the Spring Framework About This Book Follow best practices and explore techniques such as clustering and caching to achieve a scalable web service Leverage the Spring Framework to quickly implement RESTful endpoints Learn to implement a client library for a RESTful web service using the Spring Framework Who This Book Is For This book is intended for those who want to learn to build RESTful web services with the Spring Framework. To make best use of the code samples included in the book, you should have a basic knowledge of the Java language. Previous experience with the Spring Framework would also help you get up and running quickly. What You Will Learn Deep dive into the principles behind REST Expose CRUD operations through RESTful endpoints with the Spring Framework Devise response formats and error handling strategies, offering a consistent and flexible structure to simplify integration for service consumers Follow the best approaches for dealing with a service's evolution while maintaining backward compatibility Understand techniques to secure web services Comply with the best ways to test RESTful web services, including tips for load testing Optimise and scale web services using techniques such as caching and clustering In Detail REST is an architectural style that tackles the challenges of building scalable web services. In today's connected world, APIs have taken a central role on the web. APIs provide the fabric through which systems interact, and REST has become synonymous with APIs. The depth, breadth, and ease of use of Spring makes it one of the most attractive frameworks in the Java ecosystem. Marrying the two technologies is therefore a very natural choice. This book takes you through the design of RESTful web services and leverages the Spring Framework to implement these services. Starting from the basics of the philosophy behind REST, you'll go through the steps of designing and implementing an enterprise-grade RESTful web service. Taking a practical approach, each chapter provides code samples that you can apply to your own circumstances. This book goes beyond the use of Spring and explores approaches to tackle resilience, security, and scalability concerns. You'll learn techniques to deal with security in Spring and discover how to implement unit and integration test strategies. Finally, the book ends by walking you through building a Java client for your RESTful web service, along with some scaling techniques for it. Style and approach This book is a step-by-step, hands-on guide to designing and building RESTful web services. The book follows the natural cycle of developing these services and includes multiple code samples to help you. Pro RESTful APIs Apress Discover the RESTful technologies, including REST, JSON, XML, JAX-RS web services, SOAP and more, for building today's microservices, big data applications, and web service applications. This book is based on a course the Oracle-based author is teaching for UC Santa Cruz Silicon Valley which covers architecture, design best practices and coding labs. Pro RESTful APIs: Design gives you all the fundamentals from the top down: from the top (architecture) through the middle (design) to the bottom (coding). This book is a must have for any microservices or web services developer building applications and services. What You'll Learn Discover the key RESTful APIs, including REST, JSON, XML, JAX, SOAP and more Use these for web services and data exchange, especially in today's big data context Harness XML, JSON, REST, and JAX-RS in examples and case studies Apply best practices to your solutions' architecture Who This Book Is For Experienced web programmers and developers. RESTful Web API Design with Node.js 10, Third Edition Packt Publishing Ltd Design and implement scalable and maintainable RESTful solutions with Node.js 10 Key Features Create rich and scalable RESTful API solutions from scratch Explore the new features of Node.js 10, Express 4.0, and MongoDB Integrate Mon-

goDB in your Node.js application to store and secure your data

**Book Description** When building RESTful services, it is really important to choose the right framework. Node.js, with its asynchronous, event-driven architecture, is exactly the right choice for building RESTful APIs. This third edition of RESTful Web API Design with Node.js 10 will teach you to create scalable and rich RESTful applications based on the Node.js platform. You will be introduced to the latest NPM package handler and understand how to use it to customize your RESTful development process. You will begin by understanding the key principle that makes an HTTP application a RESTful-enabled application. After writing a simple HTTP request handler, you will create and test Node.js modules using automated tests and mock objects; explore using the NoSQL database, MongoDB, to store data; and get to grips with using self-descriptive URLs. You'll learn to set accurate HTTP status codes along with understanding how to keep your applications backward-compatible. Also, while implementing a full-fledged RESTful service, you will use Swagger to document the API and implement automation tests for a REST-enabled endpoint with Mocha. Lastly, you will explore some authentication techniques to secure your application. What you will learn

Install, develop, and test your own Node.js user modules

Understand the differences between HTTP and RESTful applications

Use self-descriptive URLs and set accurate HTTP status codes

Eliminate third-party dependencies in your tests with mocking

Implement automation tests for a REST-enabled endpoint with Mocha

Secure your services with NoSQL database integration within Node.js applications

Integrate a simple frontend using JavaScript libraries available on a CDN server

**Who this book is for** If you are a web developer keen to enrich your development skills to create server-side RESTful applications based on the Node.js platform, this book is for you. Some knowledge of REST would be an added advantage, but is definitely not a necessity.

**Building RESTful Web Services with Spring 5** Packt Publishing Ltd

Find out how to implement the REST architecture to build resilient software in Java with the help of the Spring 5.0 framework. **Key Features** Follow best practices and explore techniques such as clustering and caching to achieve a reactive, scalable web service. Leverage the Spring Framework to quickly implement RESTful endpoints. Learn to implement a client library for a RESTful web service using the Spring Framework along with the new front end framework.

**Book Description** REST is an architectural style that tackles the challenges of building scalable web services. In today's connected world, APIs have taken a central role on the web. APIs provide the fabric through which systems interact, and REST has become synonymous with APIs. The depth, breadth, and ease of use of Spring makes it one of the most attractive frameworks in the Java ecosystem. Marrying the two technologies is therefore a very natural choice. This book takes you through the design of RESTful web services and leverages the Spring Framework to implement these services. Starting from the basics of the philosophy behind REST, you'll go through the steps of designing and implementing an enterprise-grade RESTful web service. Taking a practical approach, each chapter provides code samples that you can apply to your own circumstances. This second edition brings forth the power of the latest Spring 5.0 release, working with MVC built-in as well as the front end framework. It then goes beyond the use of Spring to explore approaches to tackle resilience, security, and scalability concerns. Improve performance of your applications with the new HTTP 2.0 standards. You'll learn techniques to deal with security in Spring and discover how to implement unit and integration test strategies. Finally, the book ends by walking you through building a Java client for your RESTful web service, along with some scaling techniques using the new Spring Reactive libraries. What you will learn

Deep dive into the principles be-

hind REST

Expose CRUD operations through RESTful endpoints with the Spring Framework

Devise response formats and error handling strategies, offering a consistent and flexible structure to simplify integration for service consumers

Follow the best approaches for dealing with a service's evolution while maintaining backward compatibility

Understand techniques to secure web services

Comply with the best ways to test RESTful web services, including tips for load testing

Optimise and scale web services using techniques such as caching and clustering

**Who this book is for** This book is intended for those who want to learn to build RESTful web services with the latest Spring 5.0 Framework. To make best use of the code samples included in the book, you should have a basic knowledge of the Java language. Previous experience with the Spring Framework would also help you get up and running quickly.

**REST in Practice** O'Reilly Media, Inc.

REST continues to gain momentum as the best method for building Web services, and this down-to-earth book delivers techniques and examples that show how to design and implement integration solutions using the REST architectural style.

**REST API Design Rulebook** O'Reilly Media, Inc.

The basic rules of REST APIs - "many nouns, few verbs, stick with HTTP" - seem easy, but that simplicity and power require discipline to work smoothly. This brief guide provides next steps for implementing complex projects on simple and extensible foundations.

**Hands-On RESTful API Design Patterns and Best Practices** Packt Publishing Ltd

REST architecture (style) is a pivot of distributed systems, simplify data integration amongst modern and legacy applications leverages through the RESTful paradigm. This book is fully loaded with many RESTful API patterns, samples, hands-on implementations and also discuss the capabilities of many REST API frameworks for Java, Scala, Python and Go

**Learning WordPress REST API** Packt Publishing Ltd

A practical tutorial to get you up and running with the revolutionary WordPress REST API

**About This Book** Learn how to run the latest WordPress REST API with various platforms

Create exciting apps and manage non-WordPress content with them

Secure, export, and manage your data through illustrative examples

**Who This Book Is For** This book is for WordPress developers and designers who want to get a complete practical understanding of the WordPress REST API and leverage it to create fully-featured web apps.

**What You Will Learn** Use the WordPress REST API to read, write, and edit posts

Create and work with metadata using the WordPress REST API

Work with taxonomies using the REST API

Add custom routes and build apps using the WordPress REST API

Process requests and integrate with external applications and frameworks

Make your WordPress projects ready for the RESTful API standard

**In Detail** The WordPress REST API is a recent innovation that has the potential to unlock several new opportunities for WordPress developers. It can help you integrate with technologies outside of WordPress, as well as offer great flexibility when developing themes and plugins for WordPress. As such, the REST API can make developers' lives easier. The book begins by covering the basics of the REST API and how it can be used along with WordPress. Learn how the REST API interacts with WordPress, allowing you to copy posts and modify post metadata. Move on to get an understanding of taxonomies and user roles are in WordPress and how to use them with the WordPress REST API. Next, find out how to edit and process forms with AJAX and how to create custom routes and functions. You will create a fully-functional single page web app using a WordPress site and the REST API. Lastly, you will see how to deal with the REST API in future versions and will use it to interact it with third-party services. By the end of the book, you will be able to work with the WordPress REST API to build web applications.

**Style and Approach** A step by step tutorial to explain the new and exciting world of the WordPress REST API with the real world examples.

**RESTful Web**

APIs"O'Reilly Media, Inc."The popularity of REST in recent years has led to tremendous growth in almost-RESTful APIs that don't include many of the architecture's benefits. With this practical guide, you'll learn what it takes to design usable REST APIs that evolve over time. By focusing on solutions that cross a variety of domains, this book shows you how to create powerful and secure applications, using the tools designed for the world's most successful distributed computing system: the World Wide Web. You'll explore the concepts behind REST, learn different strategies for creating hypermedia-based APIs, and then put everything together with a step-by-step guide to designing a RESTful Web API. Examine API design strategies, including the collection pattern and pure hypermedia Understand how hypermedia ties representations together into a coherent API Discover how XMDP and ALPS profile formats can help you meet the Web API "semantic challenge" Learn close to two-dozen standardized hypermedia data formats Apply best practices for using HTTP in API implementations Create Web APIs with the JSON-LD standard and other the Linked Data approaches Understand the CoAP protocol for using REST in embedded systemsHands-On Microservices with Spring Boot and Spring CloudPackt Publishing LtdApply microservices patterns to build resilient and scalable distributed systems Key FeaturesUnderstand the challenges of building large-scale microservice landscapesBuild cloud-native production-ready microservices with this comprehensive guideDiscover how to get the best out of Spring Cloud, Kubernetes, and Istio when used togetherBook Description Microservices architecture allows developers to build and maintain applications with ease, and enterprises are rapidly adopting it to build software using Spring Boot as their default framework. With this book, you'll learn how to efficiently build and deploy microservices using Spring Boot. This microservices book will take you through tried and tested approaches to building distributed systems and implementing microservices architecture in your organization. Starting with a set of simple cooperating microservices developed using Spring Boot, you'll learn how you can add functionalities such as persistence, make your microservices reactive, and describe their APIs using Swagger/OpenAPI. As you advance, you'll understand how to add different services from Spring Cloud to your microservice system. The book also demonstrates how to deploy your microservices using Kubernetes and manage them with Istio for improved security and traffic management. Finally, you'll explore centralized log management using the EFK stack and monitor microservices using Prometheus and Grafana. By the end of this book, you'll be able to build microservices that are scalable and robust using Spring Boot and Spring Cloud. What you will learnBuild reactive microservices using Spring BootDevelop resilient and scalable microservices using Spring CloudUse OAuth 2.0/OIDC and Spring Security to protect public APIsImplement Docker to bridge the gap between development, testing, and productionDeploy and manage microservices using KubernetesApply Istio for improved security, observability, and traffic managementWho this book is for This book is for Java and Spring developers and architects who want to learn how to break up their existing monoliths into microservices and deploy them either on-premises or in the cloud using Kubernetes as a container orchestrator and Istio as a service Mesh. No familiarity with microservices architecture is required to get started with this book.Hands-On RESTful Python Web ServicesPackt Publishing LtdExplore the best tools and techniques to create lightweight, maintainable, and scalable Python web services Key FeaturesCombine Python with different data sources to build complex RESTful APIs from scratchConfigure and fine-tune your APIs using the best tools and techniques availableUse command-line and GUI tools to test CRUD operations performed by RESTful Web Services or APIsBook Description Python is the language of choice

for millions of developers worldwide that builds great web services in RESTful architecture. This second edition of Hands-On RESTful Python Web Services will cover the best tools you can use to build engaging web services. This book shows you how to develop RESTful APIs using the most popular Python frameworks and all the necessary stacks with Python, combined with related libraries and tools. You'll learn to incorporate all new features of Python 3.7, Flask 1.0.2, Django 2.1, Tornado 5.1, and also a new framework, Pyramid. As you advance through the chapters, you will get to grips with each of these frameworks to build various web services, and be shown use cases and best practices covering when to use a particular framework. You'll then successfully develop RESTful APIs with all frameworks and understand how each framework processes HTTP requests and routes URLs. You'll also discover best practices for validation, serialization, and deserialization. In the concluding chapters, you will take advantage of specific features available in certain frameworks such as integrated ORMs, built-in authorization and authentication, and work with asynchronous code. At the end of each framework, you will write tests for RESTful APIs and improve code coverage. By the end of the book, you will have gained a deep understanding of the stacks needed to build RESTful web services. What you will learnSelect the most appropriate framework based on requirementsDevelop complex RESTful APIs from scratch using PythonUse requests handlers, URL patterns, serialization, and validationsAdd authentication, authorization, and interaction with ORMs and databasesDebug, test, and improve RESTful APIs with four frameworksDesign RESTful APIs with frameworks and create automated testsWho this book is for This book is for web developers who have a working knowledge of Python and would like to build amazing web services by taking advantage of the various frameworks of Python. You should have some knowledge of RESTful APIs.RESTful API DesignAPI-University PressLooking for Best Practices for RESTful APIs? This book is for you! Why? Because this book is packed with practical experience on what works best for RESTful API Design. You want to design APIs like a Pro? Use API description languages to both design APIs and develop APIs efficiently. The book introduces the two most common API description languages RAML, OpenAPI, and Swagger. Your company cares about its customers? Learn API product management with a customer-centric design and development approach for APIs. Learn how to manage APIs as a product and how to follow an API-first approach. Build APIs your customers love! You want to manage the complete API lifecycle? An API development methodology is proposed to guide you through the lifecycle: API inception, API design, API development, API publication, API evolution, and maintenance. You want to build APIs right? This book shows best practices for REST design, such as the correct use of resources, URIs, representations, content types, data formats, parameters, HTTP status codes, and HTTP methods. Your APIs connect to legacy systems? The book shows best practices for connecting APIs to existing backend systems. Your APIs connect to a mesh of microservices? The book shows the principles for designing APIs for scalable, autonomous microservices. You expect lots of traffic on your API? The book shows you how to achieve high performance, availability and maintainability. You want to build APIs that last for decades? We study API versioning, API evolution, backward and forward-compatibility and show API design patterns for versioning. The API-University Series is a modular series of books on API-related topics. Each book focuses on a particular API topic, so you can select the topics within APIs, which are relevant for you.Django RESTful Web ServicesPackt Publishing LtdDesign, build and test RESTful web services with the Django framework and Python Key Features Create efficient real-world RESTful web services with the latest Django framework Authenticate, secure, and inte-

grate third-party packages efficiently in your Web Services Leverage the power of Python for faster Web Service development Book Description Django is a Python web framework that makes the web development process very easy. It reduces the amount of trivial code, which simplifies the creation of web applications and results in faster development. It is very powerful and a great choice for creating RESTful web services. If you are a Python developer and want to efficiently create RESTful web services with Django for your apps, then this is the right book for you. The book starts off by showing you how to install and configure the environment, required software, and tools to create RESTful web services with Django and the Django REST framework. We then move on to working with advanced serialization and migrations to interact with SQLite and non-SQL data sources. We will use the features included in the Django REST framework to improve our simple web service. Further, we will create API views to process diverse HTTP requests on objects, go through relationships and hyperlinked API management, and then discover the necessary steps to include security and permissions related to data models and APIs. We will also apply throttling rules and run tests to check that versioning works as expected. Next we will run automated tests to improve code coverage. By the end of the book, you will be able to build RESTful web services with Django. What you will learn The best way to build a RESTful Web Service or API with Django and the Django REST Framework Develop complex RESTful APIs from scratch with Django and the Django REST Framework Work with either SQL or NoSQL data sources Design RESTful Web Services based on application requirements Use third-party packages and extensions to perform common tasks Create automated tests for RESTful web services Debug, test, and profile RESTful web services with Django and the Django REST Framework Who this book is for This book is for Python developers who want to create RESTful web services with Django; you need to have a basic working knowledge of Django but no previous experience with RESTful web services is required. Developing Applications with IBM FileNet P8 APIs IBM Redbooks This IBM® Redbooks® publication can help you develop content and process management applications with IBM FileNet® APIs. The IBM FileNet P8 suite of products contains a set of robust APIs that range from core platform APIs to supporting application APIs. This book focuses specifically on Content Engine and Process Engine APIs. Content Engine API topics that we discuss include creating, retrieving, updating, and deleting objects; querying and viewing documents; and batching and batch execution. We also explore more complex topics, including permissions and authorization, versioning, relationships, annotations, workflow subscriptions and event actions, metadata discovery, and dynamic security inheritance. Process Engine API topics that we discuss include launching a workflow, searching for and processing work items, and working with process status. The more complex topics we cover include, Component Integrator application space, role, workbasket, resource navigation in Process Engine REST API, ECM Widgets, and building a custom Get Next In-basket widget. To help you better understand programming with IBM FileNet APIs, we provide a sample application implemented for a fictional company. We include the data model, security model, workflows, and various applications developed for the sample. You can download them for your reference. This book is intended for IBM FileNet P8 application developers. We recommend using this book in conjunction with the online ECM help. Spring RESTpress Spring REST is a practical guide for designing and developing RESTful APIs using the Spring Framework. This book walks you through the process of designing and building a REST application while taking a deep dive into design principles and best practices for versioning, security, documentation, error handling, paging, and sorting. This book provides a brief introduction to REST,

HTTP, and web infrastructure. You will learn about several Spring projects such as Spring Boot, Spring MVC, Spring Data JPA, and Spring Security and the role they play in simplifying REST application development. You will learn how to build clients that consume REST services. Finally, you will learn how to use the Spring MVC test framework to unit test and integration test your REST API. After reading this book, you will come away with all the skills to build sophisticated REST applications using Spring technologies. RESTful Web API Design with Node.js Packt Publishing Ltd Design and implement efficient RESTful solutions with this practical hands-on guide About This Book Create a fully featured RESTful API solution from scratch. Learn how to leverage Node.js, Express, MongoDB and NoSQL datastores to give an extra edge to your REST API design. Use this practical guide to integrate MongoDB in your Node.js application. Who This Book Is For The ideal target audience for this book is web developers who have some experience with RESTful services. Familiarity with basic JavaScript programming techniques is required. No prior experience with Node.js or Express.js is required. What You Will Learn Install, develop, and test your own Node.js user modules Comprehend the differences between an HTTP and a RESTful application Optimize RESTful service URI routing with best practices Eliminate third-party dependencies in your tests with mocking Learn about NoSQL data stores and integrate MongoDB in your Node.js application with Mongoose Secure your services with NoSQL database integration within Node.js applications Enrich your development skills to create scalable, server-side, RESTful applications based on the Node.js platform In Detail In this era of cloud computing, every data provisioning solution is built in a scalable and fail-safe way. Thus, when building RESTful services, the right choice for the underlying platform is vital. Node.js, with its asynchronous, event-driven architecture, is exactly the right choice to build RESTful APIs. This book will help you enrich your development skills to create scalable, server-side, RESTful applications based on the Node.js platform. Starting with the fundamentals of REST, you will understand why RESTful web services are better data provisioning solution than other technologies. You will start setting up a development environment by installing Node.js, Express.js, and other modules. Next, you will write a simple HTTP request handler and create and test Node.js modules using automated tests and mock objects. You will then have to choose the most appropriate data storage type, having options between a key/value or document data store, and also you will implement automated tests for it. This module will evolve chapter by chapter until it turns into a full-fledged and secure Restful service. Style and approach Create state of the art RESTful API solutions leveraging Node.js 4.x. Java XML and JSON Apress Java XML and JSON is your one-stop guide to mastering the XML metalanguage and JSON data format along with significant Java APIs for parsing and creating XML/JSON documents (and more). The first six chapters focus on XML along with the SAX, DOM, StAX, XPath, and XSLT APIs. The remaining four chapters focus on JSON along with the mjson, GSON, and JsonPath APIs. Each chapter ends with select exercises designed to challenge your grasp of the chapter's content. An appendix provides the answers to these exercises. What You'll Learn Master the XML language Learn how to validate XML documents Learn how to parse XML documents with the SAX, DOM, and StAX APIs Learn how to create XML documents with the DOM and StAX APIs Learn how to extract values from XML documents with the XPath API Learn how to transform XML documents with the XSLT API Master the JSON format Learn how to validate JSON documents Learn how to parse and create JSON documents with the mjson and Gson APIs Learn how to extract values from JSON documents with the JsonPath API Who This Book Is For /div Intermediate or advanced Java programmers/developers. Hands-On RESTful Web Ser-

vices with TypeScript 3Packt Publishing LtdA step-by-step guide that will help you design, develop, scale, and deploy RESTful APIs with TypeScript 3 and Node.js Key FeaturesGain in-depth knowledge of OpenAPI and Swagger to build scalable web servicesExplore a variety of test frameworks and test runners such as Stryker, Mocha, and ChaiCreate a pipeline by Dockerizing your environment using Travis CI, Google Cloud Platform, and GitHubBook Description In the world of web development, leveraging data is the key to developing comprehensive applications, and RESTful APIs help you to achieve this systematically. This book will guide you in designing and developing web services with the power of TypeScript 3 and Node.js. You'll design REST APIs using best practices for request handling, validation, authentication, and authorization. You'll also understand how to enhance the capabilities of your APIs with ODMs, databases, models and views, as well as asynchronous callbacks. This book will guide you in securing your environment by testing your services and initiating test automation with different testing approaches. Furthermore, you'll get to grips with developing secure, testable, and more efficient code, and be able to scale and deploy TypeScript 3 and Node.js-powered RESTful APIs on cloud platforms such as the Google Cloud Platform. Finally, the book will help you explore microservices and give you an overview of what GraphQL can allow you to do. By the end of this book, you will be able to use RESTful web services to create your APIs for mobile and web apps and other platforms. What you will learnExplore various methods to plan your services in a scalable wayUnderstand how to handle different request types and the response status codeGet to grips with securing web servicesDelve into error handling and logging your web services for improved debuggingUncover the microservices architecture and GraphQLCreate automated CI/CD pipelines for release and deployment strategiesWho this book is for If you're a developer who has a basic understanding of REST concepts and want to learn how to design and develop RESTful APIs, this book is for you. Prior knowledge of TypeScript will help you make the most out of this book.Java API for RESTful Web ServicesMaster the Java API for RESTful Web Services in this in-depth course from Java expert Zanis Khan. There are seven topics which focus on the Java programming language API spec allowing you to create powerful web services according to the Representational State Transfer architectural pattern: Introducing RESTful Services . Be able to explain RESTful (Representational State Transfer) services during this first topic in the Rest API using Java course. Follow along with Zanis and learn about the tools we will use: Oracle Weblogic and Eclipse, Oracle database, and the Chrome browser to start building APIs. HTTP, XML, JSON, and URIs are discussed as well. Using the RESTful/API Service . Practice working with the RESTful/API Service during this second topic in the Rest API using Java course. Get the environment up and running and also set up two very important frameworks: the Jersey framework and the Jackson framework. Connecting to a Database . Use the RESTful/API service to connect to a database during this third topic in the Rest API using Java course. Creating Search Functionality Part 1 . Use the RESTful/API service to create search functionality during this fourth topic in the Rest API using Java course. Creating Search Functionality Part 2 . Continue using the RESTful/API service and build upon the prior session to include additional search functionality during this fifth topic in the Rest API using Java course. Submitting Data . Use the RESTful/API service to submit data during this sixth topic in the Rest API using Java course. Follow along with Zanis and practice using SQL to insert data into the relational database. Updating and Deleting Data . Use the RESTful/API service to update and delete data during this seventh topic in the Rest API using Java course. Follow along with Zanis and practice using SQL to update and delete data from the relational

database.Learning Network Programming with JavaPackt Publishing LtdHarness the hidden power of Java to build network-enabled applications with lower network traffic and faster processes About This Book Learn to deliver superior server-to-server communication through the networking channels Gain expertise of the networking features of your own applications to support various network architectures such as client/server and peer-to-peer Explore the issues that impact scalability, affect security, and allow applications to work in a heterogeneous environment Who This Book Is For Learning Network Programming with Java is oriented to developers who wish to use network technologies to enhance the utility of their applications. You should have a working knowledge of Java and an interest in learning the latest in network programming techniques using Java. No prior experience with network development or special software beyond the Java SDK is needed. Upon completion of the book, beginner and experienced developers will be able to use Java to access resources across a network and the Internet. What You Will Learn Connect to other applications using sockets Use channels and buffers to enhance communication between applications Access network services and develop client/server applications Explore the critical elements of peer-to-peer applications and current technologies available Use UDP to perform multicasting Address scalability through the use of core and advanced threading techniques Incorporate techniques into an application to make it more secure Configure and address interoperability issues to enable your applications to work in a heterogeneous environment In Detail Network-aware applications are becoming more prevalent and play an ever-increasing role in the world today. Connecting and using an Internet-based service is a frequent requirement for many applications. Java provides numerous classes that have evolved over the years to meet evolving network needs. These range from low-level socket and IP-based approaches to those encapsulated in software services. This book explores how Java supports networks, starting with the basics and then advancing to more complex topics. An overview of each relevant network technology is presented followed by detailed examples of how to use Java to support these technologies. We start with the basics of networking and then explore how Java supports the development of client/server and peer-to-peer applications. The NIO packages are examined as well as multitasking and how network applications can address practical issues such as security. A discussion on networking concepts will put many network issues into perspective and let you focus on the appropriate technology for the problem at hand. The examples used will provide a good starting point to develop similar capabilities for many of your network needs. Style and approach Each network technology's terms and concepts are introduced first. This is followed up with code examples to explain these technologies. Many of the examples are supplemented with alternate Java 8 solutions when appropriate. Knowledge of Java 8 is not necessary but these examples will help you better understand the power of Java 8.Spring Security - Third EditionLearn how to secure your Java applications from hackers using Spring Security 4.2About This Book\* Architect solutions that leverage the full power of Spring Security while remaining loosely coupled.\* Implement various scenarios such as supporting existing user stores, user sign up, authentication, and supporting AJAX requests,\* Integrate with popular Microservice and Cloud services such as Zookeeper, Eureka, and Consul, along with advanced techniques, including OAuth, JSON Web Token's (JWT), Hashing, and encryption algorithmsWho This Book Is ForThis book is intended for Java Web and/or RESTful webservice developers and assumes a basic understanding of creating Java 8, Java Web and/or RESTful webservice applications, XML, and the Spring Framework. You are not expected to have any previous experience with Spring Security.What

You Will Learn\* Understand common security vulnerabilities and how to resolve them\* Learn to perform initial penetration testing to uncover common security vulnerabilities\* Implement authentication and authorization\* Learn to utilize existing corporate infrastructure such as LDAP, Active Directory, Kerberos, CAS, OpenID, and OAuth\* Integrate with popular frameworks such as Spring, Spring-Boot, Spring-Data, JSF, Vaaden, jQuery, and AngularJS.\* Gain deep understanding of the security challenges with RESTful webservices and microservice architectures\* Integrate Spring with other security infrastructure components like LDAP, Apache Directory server and SAMLIn DetailKnowing that experienced hackers are itching to test your skills makes security one of the most difficult and high-pressured concerns of creating an application. The complexity of properly securing an application is compounded when you must also integrate this factor with existing code, new technologies, and other frameworks. Use this book to easily secure your Java application with the tried and trusted Spring Security framework, a powerful and highly customizable authentication and access-control framework.The book starts by integrating a variety of authentication mechanisms. It then demonstrates how to properly restrict access to your application. It also covers tips on integrating with some of the more popular web frameworks. An example of how Spring Security defends against session fixation, moves into concurrency control, and how you can utilize session management for administrative functions is also included.It concludes with advanced security scenarios for RESTful webservices and microservices, detailing the issues surrounding stateless authentication, and demonstrates a concise, step-by-step approach to solving those issues. And, by the end of the book, readers can rest assured that integrating version 4.2 of Spring Security will be a seamless endeavor from start to finish.Style and approachThis practical step-by-step tutorial has plenty of example code coupled with the necessary screenshots and clear narration so that grasping content is made easier and quicker.Making Java GroovySimon and SchusterSummary Making Java Groovy is a practical handbook for developers who want to blend Groovy into their day-to-day work with Java. It starts by introducing the key differences between Java and Groovy—and how you can use them to your advantage. Then, it guides you step-by-step through realistic development challenges, from web applications to web services to desktop applications, and shows how Groovy makes them easier to put into production. About this Book You don't need the full force of Java when you're writing a build script, a simple system utility, or a lightweight web app—but that's where Groovy shines brightest. This elegant JVM-based dynamic language extends and simplifies Java so you can concentrate on the task at hand instead of managing minute details and unnecessary complexity. Making Java Groov is a practical guide for developers who want to benefit from Groovy in their work with Java. It starts by introducing the key differences between Java and Groovy and how to use them to your advantage. Then, you'll focus on the situations you face every day, like consuming and creating RESTful web services, working with databases, and using the Spring framework. You'll also explore the great Groovy tools for build processes, testing, and deployment and learn how to write Groovy-based domain-specific languages that simplify Java development. Written for developers familiar with Java. No Groovy experience required. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside Easier Java Closures, builders, and metaprogramming Gradle for builds, Spock for testing Groovy frameworks like Grails and Griffon About the Author Ken Kousen is an independent consultant and trainer specializing in Spring, Hibernate, Groovy, and Grails. Table of Contents PART 1: UP TO SPEED WITH GROOVY Why add Groovy to Java? Groovy by exam-

ple Code-level integration Using Groovy features in Java PART 2: GROOVY TOOLS Build processes Testing Groovy and Java projects PART 3: GROOVY IN THE REAL WORLD The Spring framework Database access RESTful web services Building and testing web applicationsAlfredo 3 Web ServicesPackt Publishing LtdBuild Alfresco applications using Web Services, WebScripts and CMIS.Hands-On RESTful Python Web ServicesExplore the best tools and techniques to create lightweight, maintainable, and scalable Python web services Key Features Combine Python with different data sources to build complex RESTful APIs from scratch Configure and fine-tune your APIs using the best tools and techniques available Use command-line and GUI tools to test CRUD operations performed by RESTful Web Services or APIs Book Description Python is the language of choice for millions of developers worldwide that builds great web services in RESTful architecture. This second edition of Hands-On RESTful Python Web Services will cover the best tools you can use to build engaging web services. This book shows you how to develop RESTful APIs using the most popular Python frameworks and all the necessary stacks with Python, combined with related libraries and tools. You'll learn to incorporate all new features of Python 3.7, Flask 1.0.2, Django 2.1, Tornado 5.1, and also a new framework, Pyramid. As you advance through the chapters, you will get to grips with each of these frameworks to build various web services, and be shown use cases and best practices covering when to use a particular framework. You'll then successfully develop RESTful APIs with all frameworks and understand how each framework processes HTTP requests and routes URLs. You'll also discover best practices for validation, serialization, and deserialization. In the concluding chapters, you will take advantage of specific features available in certain frameworks such as integrated ORMs, built-in authorization and authentication, and work with asynchronous code. At the end of each framework, you will write tests for RESTful APIs and improve code coverage. By the end of the book, you will have gained a deep understanding of the stacks needed to build RESTful web services. What you will learn Select the most appropriate framework based on requirements Develop complex RESTful APIs from scratch using Python Use requests handlers, URL patterns, serialization, and validations Add authentication, authorization, and interaction with ORMs and databases Debug, test, and improve RESTful APIs with four frameworks Design RESTful APIs with frameworks and create automated tests Who this book is for This book is for web developers who have a working knowledge of Python and would like to build amazing web services by taking advantage of the various frameworks of Python. You should have some knowledge of RESTful APIs.The Java EE 6 TutorialAddison-WesleyThe Java EE 6 Tutorial: Advanced Topics, Fourth Edition, is a task-oriented, example-driven guide to developing enterprise applications for the Java Platform, Enterprise Edition 6 (Java EE 6). Written by members of the Java EE 6 documentation team at Oracle, this book provides new and intermediate Java programmers with a deep understanding of the platform. This guide—which builds on the concepts introduced in The Java EE 6 Tutorial: Basic Concepts, Fourth Edition—contains advanced material, including detailed introductions to more complex platform features and instructions for using the latest version of the NetBeans IDE and the GlassFish Server, Open Source Edition. This book introduces the Java Message Service (JMS) API and Java EE Interceptors. It also describes advanced features of JavaServer Faces, Servlets, JAX-RS, Enterprise JavaBeans components, the Java Persistence API, Contexts and Dependency Injection for the Java EE Platform, web and enterprise application security, and Bean Validation. The book culminates with three new case studies that illustrate the use of multiple Java EE 6 APIs.OAuth 2 in ActionSimon and SchusterSummary OAuth 2 in Action teaches you the

practical use and deployment of this HTTP-based protocol from the perspectives of a client, authorization server, and resource server. You'll learn how to confidently and securely build and deploy OAuth on both the client and server sides. Foreword by Ian Glazer. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Think of OAuth 2 as the web version of a valet key. It is an HTTP-based security protocol that allows users of a service to enable applications to use that service on their behalf without handing over full control. And OAuth is used everywhere, from Facebook and Google, to startups and cloud services. About the Book OAuth 2 in Action teaches you practical use and deployment of OAuth 2 from the perspectives of a client, an authorization server, and a resource server. You'll begin with an overview of OAuth and its components and interactions. Next, you'll get hands-on and build an OAuth client, an authorization server, and a protected resource. Then you'll dig into tokens, dynamic client registration, and more advanced topics. By the end, you'll be able to confidently and securely build and deploy OAuth on both the client and server sides. What's Inside Covers OAuth 2 protocol and design Authorization with OAuth 2 OpenID Connect and User-Managed Access Implementation risks JOSE, introspection, revocation, and registration Protecting and accessing REST APIs About the Reader Readers need basic programming skills and knowledge of HTTP and JSON. About the Author Justin Richer is a systems architect and software engineer. Antonio Sanso is a security software engineer and a security researcher. Both authors contribute to open standards and open source. Table of Contents Part 1 - First steps What is OAuth 2.0 and why should you care? The OAuth dance Part 2 - Building an OAuth 2 environment Building a simple OAuth client Building a simple OAuth protected resource Building a simple OAuth authorization server OAuth 2.0 in the real world Part 3 - OAuth 2 implementation and vulnerabilities Common client vulnerabilities Common protected resources vulnerabilities Common authorization server vulnerabilities Common OAuth token vulnerabilities Part 4 - Taking OAuth further OAuth tokens Dynamic client registration User authentication with OAuth 2.0 Protocols and profiles using OAuth 2.0 Beyond bearer tokens Summary and conclusions Java Web Services: Up and Running "O'Reilly Media, Inc." Learn how to develop REST-style and SOAP-based web services and clients with this quick and thorough introduction. This hands-on book delivers a clear, pragmatic approach to web services by providing an architectural overview, complete working code examples, and short yet precise instructions for compiling, deploying, and executing them. You'll learn how to write services from scratch and integrate existing services into your Java applications. With greater emphasis on REST-style services, this second edition covers HttpServlet, Restlet, and JAX-RS APIs; jQuery clients against REST-style services; and JAX-WS for SOAP-based services. Code samples include an Apache Ant script that compiles, packages, and deploys web services. Learn differences and similarities between REST-style and SOAP-based services Program and deliver RESTful web services, using Java APIs and implementations Explore RESTful web service clients written in Java, JavaScript, and Perl Write SOAP-based web services with an emphasis on the application level Examine the handler and transport levels in SOAP-based messaging Learn wire-level security in HTTP(S), users/roles security, and WS-Security Use a Java Application Server (JAS) as an alternative to a standalone web server

The popularity of REST in recent years has led to tremendous growth in almost-RESTful APIs that don't include many of the architecture's benefits. With this practical guide, you'll learn what it takes to design usable REST APIs that evolve over time. By focusing on solutions that cross a variety of domains, this book shows

you how to create powerful and secure applications, using the tools designed for the world's most successful distributed computing system: the World Wide Web. You'll explore the concepts behind REST, learn different strategies for creating hypermedia-based APIs, and then put everything together with a step-by-step guide to designing a RESTful Web API. Examine API design strategies, including the collection pattern and pure hypermedia Understand how hypermedia ties representations together into a coherent API Discover how XMDP and ALPS profile formats can help you meet the Web API "semantic challenge" Learn close to two-dozen standardized hypermedia data formats Apply best practices for using HTTP in API implementations Create Web APIs with the JSON-LD standard and other the Linked Data approaches Understand the CoAP protocol for using REST in embedded systems

Learn how to design and develop distributed web services in Java using RESTful architectural principals and the JAX-RS specification in Java EE 6. With this hands-on reference, you'll focus on implementation rather than theory, and discover why the RESTful method is far better than technologies like CORBA and SOAP. It's easy to get started with services based on the REST architecture. RESTful Java with JAX-RS includes a technical guide that explains REST and JAX-RS, how they work, and when to use them. With the RESTEasy workbook that follows, you get step-by-step instructions for installing, configuring, and running several working JAX-RS examples using the JBoss RESTEasy implementation of JAX-RS. Work on the design of a distributed RESTful interface, and develop it in Java as a JAX-RS service Dispatch HTTP requests in JAX-RS, and learn how to extract information from them Deploy your web services within Java Enterprise Edition using the Application class, Default Component Model, EJB Integration, Spring Integration, and JPA Discover several options for securing your web services Learn how to implement RESTful design patterns using JAX-RS Write RESTful clients in Java using libraries and frameworks such as java.net.URL, Apache HTTP Client, and RESTEasy Proxy Find out how to implement the REST architecture to build resilient software in Java with the help of the Spring 5.0 framework. Key Features Follow best practices and explore techniques such as clustering and caching to achieve a reactive, scalable web service. Leverage the Spring Framework to quickly implement RESTful endpoints. Learn to implement a client library for a RESTful web service using the Spring Framework along with the new front end framework. Book Description REST is an architectural style that tackles the challenges of building scalable web services. In today's connected world, APIs have taken a central role on the web. APIs provide the fabric through which systems interact, and REST has become synonymous with APIs. The depth, breadth, and ease of use of Spring makes it one of the most attractive frameworks in the Java ecosystem. Marrying the two technologies is therefore a very natural choice. This book takes you through the design of RESTful web services and leverages the Spring Framework to implement these services. Starting from the basics of the philosophy behind REST, you'll go through the steps of designing and implementing an enterprise-grade RESTful web service. Taking a practical approach, each chapter provides code samples that you can apply to your own circumstances. This second edition brings forth the power of the latest Spring 5.0 release, working with MVC built-in as well as the front end framework. It then goes beyond the use of Spring to explore approaches to tackle resilience, security, and scalability concerns. Improve performance of your applications with the new HTTP 2.0 standards. You'll learn techniques to deal with security in Spring and discover how to implement unit and integration test strategies. Finally, the book ends by walking you through building a Java client for your REST-



ful web service, along with some scaling techniques using the new Spring Reactive libraries. What you will learn Deep dive into the principles behind REST Expose CRUD operations through RESTful endpoints with the Spring Framework Devise response formats and error handling strategies, offering a consistent and flexible structure to simplify integration for service consumers Follow the best approaches for dealing with a service's evolution while maintaining backward compatibility Understand techniques to secure web services Comply with the best ways to test RESTful web services, including tips for load testing Optimise and scale web services using techniques such as caching and clustering Who this book is for This book is intended for those who want to learn to build RESTful web services with the latest Spring 5.0 Framework. To make best use of the code samples included in the book, you should have a basic knowledge of the Java language. Previous experience with the Spring Framework would also help you get up and running quickly.

While the REST design philosophy has captured the imagination of web and enterprise developers alike, using this approach to develop real web services is no picnic. This cookbook includes more than 100 recipes to help you take advantage of REST, HTTP, and the infrastructure of the Web. You'll learn ways to design RESTful web services for client and server applications that meet performance, scalability, reliability, and security goals, no matter what programming language and development framework you use. Each recipe includes one or two problem statements, with easy-to-follow, step-by-step instructions for solving them, as well as examples using HTTP requests and responses, and XML, JSON, and Atom snippets. You'll also get implementation guidelines, and a discussion of the pros, cons, and trade-offs that come with each solution. Learn how to design resources to meet various application scenarios Successfully design representations and URIs Implement the hypertext constraint using links and link headers Understand when and how to use Atom and AtomPub Know what and what not to do to support caching Learn how to implement concurrency control Deal with advanced use cases involving copying, merging, transactions, batch processing, and partial updates Secure web services and support OAuth

The basic rules of REST APIs - "many nouns, few verbs, stick with HTTP" - seem easy, but that simplicity and power require discipline to work smoothly. This brief guide provides next steps for implementing complex projects on simple and extensible foundations.

Master the Java API for RESTful Web Services in this in-depth course from Java expert Zanis Khan. There are seven topics which focus on the Java programming language API spec allowing you to create powerful web services according to the Representational State Transfer architectural pattern: Introducing RESTful Services . Be able to explain RESTful (Representational State Transfer) services during this first topic in the Rest API using Java course. Follow along with Zanis and learn about the tools we will use: Oracle Weblogic and Eclipse, Oracle database, and the Chrome browser to start building APIs. HTTP, XML, JSON, and URIs are discussed as well. Using the RESTful/API Service . Practice working with the RESTful/API Service during this second topic in the Rest API using Java course. Get the environment up and running and also set up two very important frameworks: the Jersey framework and the Jackson framework. Connecting to a Database . Use the RESTful/API service to connect to a database during this third topic in the Rest API using Java course. Creating Search Functionality Part 1 . Use the RESTful/API service to create search functionality during this fourth topic in the Rest API using Java course. Creating Search Functionality Part 2 . Continue using the RESTful/API service and build upon the prior session to include additional search functionality during this fifth topic in the Rest API

using Java course. Submitting Data . Use the RESTful/API service to submit data during this sixth topic in the Rest API using Java course. Follow along with Zanis and practice using SQL to insert data into the relational database. Updating and Deleting Data . Use the RESTful/API service to update and delete data during this seventh topic in the Rest API using Java course. Follow along with Zanis and practice using SQL to update and delete data from the relational database.

This example-driven book offers a thorough introduction to Java's APIs for XML Web Services (JAX-WS) and RESTful Web Services (JAX-RS). Java Web Services: Up and Running takes a clear, pragmatic approach to these technologies by providing a mix of architectural overview, complete working code examples, and short yet precise instructions for compiling, deploying, and executing an application. You'll learn how to write web services from scratch and integrate existing services into your Java applications. With Java Web Services: Up and Running, you will: Understand the distinction between SOAP-based and REST-style services Write, deploy, and consume SOAP-based services in core Java Understand the Web Service Definition Language (WSDL) service contract Recognize the structure of a SOAP message Learn how to deliver Java-based RESTful web services and consume commercial RESTful services Know security requirements for SOAP- and REST-based web services Learn how to implement JAX-WS in various application servers Ideal for students as well as experienced programmers, Java Web Services: Up and Running is the concise guide you need to start working with these technologies right away.

The approach we take is ideal for software developers with some, or extensive, programming experience: we design a RESTful API, which serves as our software specification, and implement it with every framework discussed in the book—there are no hypothetical examples; only practical working applications. This book is for Java developers who want to code RESTful web services using any of the open source RESTful frameworks available to date, for example, JAX-RS implementations such as Jersey and RESTEasy, the Restlet lightweight framework, or Struts 2 with the REST plugin. You don't need to know REST, as we cover the theory of REST and web services; however, you should be familiar with the Java language and have some understanding of Java web applications. For each framework, we develop the same web service outlined in Chapter 4, so there is lots of working code available. This is a practical guide and the majority of the book is about coding RESTful web services, and not just about the theory of REST.

Summary Making Java Groovy is a practical handbook for developers who want to blend Groovy into their day-to-day work with Java. It starts by introducing the key differences between Java and Groovy—and how you can use them to your advantage. Then, it guides you step-by-step through realistic development challenges, from web applications to web services to desktop applications, and shows how Groovy makes them easier to put into production. About this Book You don't need the full force of Java when you're writing a build script, a simple system utility, or a lightweight web app—but that's where Groovy shines brightest. This elegant JVM-based dynamic language extends and simplifies Java so you can concentrate on the task at hand instead of managing minute details and unnecessary complexity. Making Java Groov is a practical guide for developers who want to benefit from Groovy in their work with Java. It starts by introducing the key differences between Java and Groovy and how to use them to your advantage. Then, you'll focus on the situations you face every day, like consuming and creating RESTful web services, working with databases, and using the Spring framework. You'll also explore the great Groovy tools for build processes, testing, and

deployment and learn how to write Groovy-based domain-specific languages that simplify Java development. Written for developers familiar with Java. No Groovy experience required. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside Easier Java Closures, builders, and metaprogramming Gradle for builds, Spock for testing Groovy frameworks like Grails and Griffon About the Author Ken Kousen is an independent consultant and trainer specializing in Spring, Hibernate, Groovy, and Grails. Table of Contents PART 1: UP TO SPEED WITH GROOVY Why add Groovy to Java? Groovy by example Code-level integration Using Groovy features in Java PART 2: GROOVY TOOLS Build processes Testing Groovy and Java projects PART 3: GROOVY IN THE REAL WORLD The Spring framework Database access RESTful web services Building and testing web applications

Harness the hidden power of Java to build network-enabled applications with lower network traffic and faster processes About This Book Learn to deliver superior server-to-server communication through the networking channels Gain expertise of the networking features of your own applications to support various network architectures such as client/server and peer-to-peer Explore the issues that impact scalability, affect security, and allow applications to work in a heterogeneous environment Who This Book Is For Learning Network Programming with Java is oriented to developers who wish to use network technologies to enhance the utility of their applications. You should have a working knowledge of Java and an interest in learning the latest in network programming techniques using Java. No prior experience with network development or special software beyond the Java SDK is needed. Upon completion of the book, beginner and experienced developers will be able to use Java to access resources across a network and the Internet. What You Will Learn Connect to other applications using sockets Use channels and buffers to enhance communication between applications Access network services and develop client/server applications Explore the critical elements of peer-to-peer applications and current technologies available Use UDP to perform multicasting Address scalability through the use of core and advanced threading techniques Incorporate techniques into an application to make it more secure Configure and address interoperability issues to enable your applications to work in a heterogeneous environment In Detail Network-aware applications are becoming more prevalent and play an ever-increasing role in the world today. Connecting and using an Internet-based service is a frequent requirement for many applications. Java provides numerous classes that have evolved over the years to meet evolving network needs. These range from low-level socket and IP-based approaches to those encapsulated in software services. This book explores how Java supports networks, starting with the basics and then advancing to more complex topics. An overview of each relevant network technology is presented followed by detailed examples of how to use Java to support these technologies. We start with the basics of networking and then explore how Java supports the development of client/server and peer-to-peer applications. The NIO packages are examined as well as multitasking and how network applications can address practical issues such as security. A discussion on networking concepts will put many network issues into perspective and let you focus on the appropriate technology for the problem at hand. The examples used will provide a good starting point to develop similar capabilities for many of your network needs. Style and approach Each network technology's terms and concepts are introduced first. This is followed up with code examples to explain these technologies. Many of the examples are supplemented with alternate Java 8 solutions when appropriate. Knowledge of Java 8 is not necessary but these examples will help you better understand the power of

Java 8.

Design scalable and robust RESTful web services with JAX-RS and Jersey extension APIs About This Book Get to grips with the portable Java APIs used for JSON processing Design solutions to produce, consume, and visualize RESTful web services using WADL, RAML, and Swagger A step-by-step guide packed with many real-life use-cases to help you build efficient and secure RESTful web APIs in Java Who This Book Is For If you are a web developer with a basic understanding of the REST concepts but are new to the idea of designing and developing RESTful web services, this is the book for you. As all the code samples for the book are written in Java, proficiency in Java is a must. What You Will Learn Introduce yourself to the RESTful software architectural style and the REST API design principles Make use of the JSR 353 APIs and Jackson API for JSON processing Build portable RESTful web APIs, making use of the JAX-RS 2.0 API Simplify API development using the Jersey extension APIs Secure your RESTful web services with various authentication and authorization mechanisms Get to grips with the various metadata solutions to describe, produce, and consume RESTful web services Understand the design and coding guidelines to build well-performing RESTful APIs See how the role of RESTful web services changes with emerging technologies and trends In Detail REST (REpresentational State Transfer) is a simple yet powerful software architecture style to create scalable web services and allow them to be simple, lightweight, and fast. The REST API uses HTTP and JSON, so that it can be used with many programming languages such as Ruby, Java, Python, and Scala. Its use in Java seems to be the most popular though, because of the API's reusability. This book is a guide to developing RESTful web services in Java using the popular RESTful framework APIs available today. You will begin with gaining an in-depth knowledge of the RESTful software architectural style and its relevance in modern applications. Further, you will understand the APIs to parse, generate, transform, and query JSON effectively. Then, you will see how to build a simple RESTful service using the popular JAX-RS 2.0 API along with some real-world examples. This book will introduce you to the Jersey framework API, which is used to simplify your web services. You will also see how to secure your services with various authentication mechanisms. You will get to grips with various solutions to describe, produce, consume, and visualize RESTful web services. Finally, you will see how to design your web services to equip them for the future technological advances, be it Cloud or mobile computing. By the end of this book, you will be able to efficiently build robust, scalable, and secure RESTful web services, making use of the JAX-RS and Jersey framework extensions. Style and approach This book is written as a step-by-step guide to designing and developing robust RESTful web services. Each topic is explained in a simple and easy-to-understand manner with lots of real-life use-cases and their solutions.

Learn how to design and develop distributed web services in Java, using RESTful architectural principles and the JAX-RS 2.0 specification in Java EE 7. By focusing on implementation rather than theory, this hands-on reference demonstrates how easy it is to get started with services based on the REST architecture. With the book's technical guide, you'll learn how REST and JAX-RS work and when to use them. The RESTEasy workbook that follows provides step-by-step instructions for installing, configuring, and running several working JAX-RS examples, using the JBoss RESTEasy implementation of JAX-RS 2.0. Learn JAX-RS 2.0 features, including a client API, server-side asynchronous HTTP, and filters and interceptors Examine the design of a distributed RESTful interface for an e-commerce order entry system Use the JAX-RS Response object to return complex responses to your client (Response-

Builder) Increase the performance of your services by leveraging HTTP caching protocols Deploy and integrate web services within Java EE7, servlet containers, EJB, Spring, and JPA Learn popular mechanisms to perform authentication on the Web, including client-side SSL and OAuth 2.0