

Oauth 2 0 Securing Apis Le And Beyond Netiq

This book constitutes the proceedings of the 18th International Conference on Passive and Active Measurement, PAM 2017, held in Sydney, Australia, in March 2017. The 20 full papers presented in this volume were carefully reviewed and selected from 87 submissions. They are organized in topical sections on IPv6, Web and applications, security, performance, latency, characterization and troubleshooting, and wireless.

The textbook covers the main aspects of Edge Computing, from a thorough look at the technology to the standards and industry associations working in the field. The book is conceived as a textbook for graduate students but also functions as a working guide for developers, engineers, and researchers. The book aims not only at providing a comprehensive technology and standard reference overview for students, but also useful research insights and practical exercises for edge software developers and investigators in the area (and for students looking to apply their skills). A particular emphasis is given Multi-access Edge Computing (MEC) as defined in European Telecommunications Standards Institute (ETSI), in relationship with other standard organizations like 3GPP, thus in alignment with the recent industry efforts to produce harmonized standards for edge computing leveraging both ETSI ISG MEC and 3GPP specifications. Practical examples of Edge Computing implementation from industry groups, associations, companies and edge developers, complete the book and make it useful for students entering the field. The book includes exercises, examples, and quizzes throughout.

Do you want to know how OpenID Connect works? This book is for you!

Exploring how OpenID Connect works in detail is the subject of this book. We take a bottom-up approach and first study all the elements (actors, endpoints, and tokens) of OpenID Connect. This puts us in an excellent position for the second step: to understand the various OpenID Connect Flows - how the actors, endpoints, and tokens are put together to transmit identity claims securely. Do you wonder why there are several OpenID Connect Flows? Whether we use OpenID Connect from a mobile app, a script in a browser or from a secure backend server, there is an appropriate OpenID Connect Flow with the right tradeoffs in security, functionality, and convenience for each of these scenarios. This book helps you to choose the right one. Do you think that these OpenID Connect Flows are confusing? You are not alone; the OpenID Connect Flows tend to get confusing. However, with this book, we make it clear and easy to understand: We visualize these flows and show how to choose the flow that is appropriate for a given scenario. A picture says more than a 1000 words - that is why we explain the OpenID Connect Flows using easy to understand sequence diagrams. Do you want to understand how JWT works? This book explains what a JSON Web Token (JWT) is, how it is used in OpenID Connect, how it is constructed, what data it contains, how to read it, and how to protect its contents. Do you wonder why there are so many tokens in OpenID Connect and how to

use them? There are JWT, JWS, JWE, access tokens, refresh tokens, identity tokens, and authorization codes. This book helps you to make sense of them all. Using examples, we explore how the tokens are used, constructed, signed, and encrypted. Why is OpenID Connect so popular? If used in the right way, OpenID Connect is powerful, and everyone loves it: End-users don't need to signup and remember a new password Business owners enjoy high conversion rates Developers don't get any grey hair over securely storing credentials Do you want to increase the conversion rate of your app? Signup and login to a new app become so smooth and convenient that end-users are much more likely to try a new app. It is supported, e.g. by Google, Yahoo, or Microsoft. Would you like to manage no credentials but still have authenticated users? For us developers of web and mobile apps, these signup and login features are attractive, too: we do not need to manage user credentials, and we get a higher conversion rate resulting in more new customers. In effect, this means cutting costs and increasing the number of new customers for our apps. Which programming language do you use in the book? This is not a programming book, don't expect implementations with a specific programming language or library. Instead, we focus on understanding OpenID Connect on a conceptual level, so we can design and architect apps that work with OpenID Connect. And OpenID Connect is the standard behind creating smooth login and signup experiences, increasing the customer signup rate, and creating highly converting apps.

Starting your first project with Spring Boot can be a bit daunting given the vast options that it provides. This book will guide you step-by-step along the way to be a Spring Boot hero in no time. The book covers:

- * Setup of your project
- * Security and user management for your application
- * Writing REST endpoints
- * Connecting with a database from your application
- * Unit and integration testing for all aspects
- * Writing documentation for your REST endpoints
- * Support file upload from your REST API

This book offers an introduction to web-API security with OAuth 2.0 and OpenID Connect. In less than 50 pages you will gain an overview of the capabilities of OAuth. You will learn the core concepts of OAuth. You will get to know all four OAuth flows that are used in cloud solutions and mobile apps. If you have tried to read the official OAuth specification, you may get the impression that OAuth is complex. This book explains OAuth in simple terms. The different OAuth flows are visualized graphically using sequence diagrams. The diagrams allow you to see the big picture of the various OAuth interactions. This high-level overview is complemented with rich set of example requests and responses and an explanation of the technical details. In the book the challenges and benefits of OAuth are presented, followed by an explanation of the technical concepts of OAuth. The technical concepts include the actors, endpoints, tokens and the four OAuth flows. Each flow is described in detail, including the use cases for each flow. Extensions of OAuth are presented, such as OpenID Connect and the SAML2 Bearer Profile. Who should read this book? You do not have the time to

read long books? This book provides an overview, the core concepts, without getting lost in the small-small details. This book provides all the necessary information to get started with OAuth in less than 50 pages. You believe OAuth is complicated? OAuth may seem complex with flows and redirects going back and forth. This book will give you clarity by introducing the seemingly complicated material by many illustrations. These illustrations clearly show all the involved interaction parties and the messages they exchange. You want to learn the OAuth concepts efficiently? This book uses many illustrations and sequence diagrams. A good diagram says more than 1000 words. You want to learn the difference between OAuth and OpenID Connect? You wonder when the two concepts are used, what they have in common and what is different between them. This book will help you answer this question. You want to use OAuth in your mobile app? If you want to access resources that are protected by OAuth, you need to get a token first, before you can access the resource. For this, you need to understand the OAuth flows and the dependencies between the steps of the flows. You want to use OAuth to protect your APIs? OAuth is perfectly suited to protect your APIs. You can learn which OAuth endpoints need to be provided and which checks need to be made within the protected APIs.

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.

The OAuth 2.0 authorization framework has become the industry standard in providing secure access to web APIs. It allows users to grant external applications access to their data, such as profile data, photos, and email, without compromising security. OAuth 2.0 Simplified is a guide to building an OAuth 2.0 server. Through high-level overviews, step-by-step instructions, and real-world examples, you will learn how to take advantage of the OAuth 2.0 framework while building a secure API.

Whether you develop web applications or mobile apps, the OAuth 2.0 protocol will save a lot of headaches. This concise introduction shows you how OAuth provides a single authorization technology across numerous APIs on the Web, so you can securely access users' data—such as user profiles, photos, videos, and contact lists—to improve their experience of your application. Through code

examples, step-by-step instructions, and use-case examples, you'll learn how to apply OAuth 2.0 to your server-side web application, client-side app, or mobile app. Find out what it takes to access social graphs, store data in a user's online filesystem, and perform many other tasks. Understand OAuth 2.0's role in authentication and authorization Learn how OAuth's Authorization Code flow helps you integrate data from different business applications Discover why native mobile apps use OAuth differently than mobile web apps Use OpenID Connect and eliminate the need to build your own authentication system

Microservices Security in Action teaches you how to address microservices-specific security challenges throughout the system. This practical guide includes plentiful hands-on exercises using industry-leading open-source tools and examples using Java and Spring Boot. Summary Unlike traditional enterprise applications, Microservices applications are collections of independent components that function as a system. Securing the messages, queues, and API endpoints requires new approaches to security both in the infrastructure and the code. Microservices Security in Action teaches you how to address microservices-specific security challenges throughout the system. This practical guide includes plentiful hands-on exercises using industry-leading open-source tools and examples using Java and Spring Boot. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Integrating independent services into a single system presents special security challenges in a microservices deployment. With proper planning, however, you can build in security from the start. Learn to create secure services and protect application data throughout development and deployment. As microservices continue to change enterprise application systems, developers and architects must learn to integrate security into their design and implementation. Because microservices are created as a system of independent components, each a possible point of failure, they can multiply the security risk. With proper planning, design, and implementation, you can reap the benefits of microservices while keeping your application data—and your company's reputation—safe! About the book Microservices Security in Action is filled with solutions, teaching best practices for throttling and monitoring, access control, and microservice-to-microservice communications. Detailed code samples, exercises, and real-world use cases help you put what you've learned into production. Along the way, authors and software security experts Prabath Siriwardena and Nuwan Dias shine a light on important concepts like throttling, analytics gathering, access control at the API gateway, and microservice-to-microservice communication. You'll also discover how to securely deploy microservices using state-of-the-art technologies including Kubernetes, Docker, and the Istio service mesh. Lots of hands-on exercises secure your learning as you go, and this straightforward guide wraps up with a security process review and best practices. When you're finished reading, you'll be planning, designing, and implementing microservices applications with the priceless confidence that comes with knowing they're secure! What's inside Microservice security concepts Edge services with an API gateway Deployments with Docker, Kubernetes, and Istio Security testing at the code level Communications with HTTP, gRPC, and Kafka About the reader For experienced microservices developers with intermediate Java skills. About the author Prabath

Siriwardena is the vice president of security architecture at WSO2. Nuwan Dias is the director of API architecture at WSO2. They have designed secure systems for many Fortune 500 companies. Table of Contents PART 1 OVERVIEW 1 Microservices security landscape 2 First steps in securing microservices PART 2 EDGE SECURITY 3 Securing north/south traffic with an API gateway 4 Accessing a secured microservice via a single-page application 5 Engaging throttling, monitoring, and access control PART 3 SERVICE-TO-SERVICE COMMUNICATIONS 6 Securing east/west traffic with certificates 7 Securing east/west traffic with JWT 8 Securing east/west traffic over gRPC 9 Securing reactive microservices PART 4 SECURE DEPLOYMENT 10 Conquering container security with Docker 11 Securing microservices on Kubernetes 12 Securing microservices with Istio service mesh PART 5 SECURE DEVELOPMENT 13 Secure coding practices and automation

This book constitutes the proceedings of the 15th International Conference on Applied Cryptology and Network Security, ACNS 2017, held in Kanazawa, Japan, in July 2017. The 34 papers presented in this volume were carefully reviewed and selected from 149 submissions. The topics focus on innovative research and current developments that advance the areas of applied cryptography, security analysis, cyber security and privacy, data and server security.

This book constitutes the refereed proceedings of the Third International Conference on Future Data and Security Engineering, FDSE 2016, held in Can Tho City, Vietnam, in November 2016. The 27 revised full papers and 2 short papers presented were carefully reviewed and selected from 115 submissions. They have been organized in the following topical sections: Big Data Analytics and Cloud Data Management; Internet of Things and Applications; Security and Privacy Engineering; Data Protection and Data Hiding; Advances in Authentication and Data Access Control; Access Control in NoSQL and Big Data; Context-based Data Analysis and Applications; Emerging Data Management Systems and Applications.

OAuth 2 is like the web version of a valet key. Instead of unsafe password-sharing, OAuth offers a much more secure delegation protocol. OAuth is used everywhere, from large providers like Facebook and Google, to small APIs at startups, and even cloud services, it's the worldwide standard. OAuth 2 is the must-know security protocol on the web today. "OAuth 2 in Action" teaches practical use and deployment of this protocol from the perspective of a client, authorization server, and resource server. It begins with an overview of OAuth and a look at its components and interactions. Using hands-on examples, it shows how to build a first OAuth client, followed by an authorization server, and then a protected resource. The second part of the book dives into crucial implementation vulnerability, and more advanced topics. By the end of this book, anyone will be able to build and deploy applications that use OAuth on both the client and server sides. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Today, information technology plays a pivotal role in financial control and audit: most financial data is now digitally recorded and dispersed among servers, clouds and networks over which the audited firm has no control. Additionally, a firm's data—particularly in the case of finance, software, insurance and biotech firms—comprises most of the audited value of the firm. Financial audits are critical mechanisms for ensuring the integrity of information systems and the reporting of

organizational finances. They help avoid the abuses that led to passage of legislation such as the Foreign Corrupt Practices Act (1977), and the Sarbanes-Oxley Act (2002). Audit effectiveness has declined over the past two decades as auditor skillsets have failed to keep up with advances in information technology. Information and communication technology lie at the core of commerce today and are integrated in business processes around the world. This book is designed to meet the increasing need of audit professionals to understand information technology and the controls required to manage it. The material included focuses on the requirements for annual Securities and Exchange Commission audits (10-K) for listed corporations. These represent the benchmark auditing procedures for specialized audits, such as internal, governmental, and attestation audits. Using R and RStudio, the book demonstrates how to render an audit opinion that is legally and statistically defensible; analyze, extract, and manipulate accounting data; build a risk assessment matrix to inform the conduct of a cost-effective audit program; and more.

A developer's guide to designing, testing, and securing production-ready modern APIs with the help of practical ideas to improve your application's functionality

Key Features

- Build resilient software for your enterprises and customers by understanding the complete API development life cycle
- Overcome the challenges of traditional API design by adapting to a new and evolving culture of modern API development
- Use Spring and Spring Boot to develop future-proof scalable APIs

Book Description

The philosophy of API development has evolved over the years to serve the modern needs of enterprise architecture, and developers need to know how to adapt to these modern API design principles. Apps are now developed with APIs that enable ease of integration for the cloud environment and distributed systems. With this Spring book, you'll discover various kinds of production-ready API implementation using REST APIs and explore async using the reactive paradigm, gRPC, and GraphQL. You'll learn how to design evolving REST-based APIs supported by HATEOAS and ETAGs and develop reactive, async, non-blocking APIs. After that, you'll see how to secure REST APIs using Spring Security and find out how the APIs that you develop are consumed by the app's UI. The book then takes you through the process of testing, deploying, logging, and monitoring your APIs. You'll also explore API development using gRPC and GraphQL and design modern scalable architecture with microservices. The book helps you gain practical knowledge of modern API implementation using a sample e-commerce app. By the end of this Spring book, you'll be able to develop, test, and deploy highly scalable, maintainable, and developer-friendly APIs to help your customers to transform their business.

What you will learn

- Understand RESTful API development, its design paradigm, and its best practices
- Become well versed in Spring's core components for implementing RESTful web services
- Implement reactive APIs and explore async API development
- Apply Spring Security for authentication using JWT and authorization of requests
- Develop a React-based UI to consume APIs
- Implement gRPC inter-service communication
- Design GraphQL-based APIs by understanding workflows and tooling
- Gain insights into how you can secure, test, monitor, and deploy your APIs

Who this book is for

This book is for inexperienced Java programmers, comp science, or coding boot camp graduates who have knowledge of basic programming constructs, data structures, and algorithms in Java but lack the practical web development skills necessary to start working as a developer. Professionals who've recently joined a

startup or a company and are tasked with creating real-world web APIs and services will also find this book helpful. This book is also a good resource for Java developers who are looking for a career move into web development to get started with the basics of web service development.

Practical ASP.NET Web API provides you with a hands-on and code-focused demonstration of the ASP.NET Web API in action. From the very beginning, you'll be writing working code in order to see best practices and concepts in action. As the book progresses, the concepts and code will become more sophisticated. Beginning with an overview of the web service model in general and Web API in particular, you'll progress quickly to a detailed exploration of the request binding and response formatting that lie at the heart of Web API. You'll investigate various scenarios and see how they can be manipulated to achieve the results you need. Later in the book more sophisticated themes will be introduced that will set your applications apart from the crowd. You'll learn how you can validate the request messages on arrival, how you can create loosely coupled controllers, extend the pipeline processing to compartmentalize your code for security and unit testing before being put onto a live hosting server. What you'll learn

What ASP.NET Web API is and how it can be used effectively
Ways to optimize your code for readability and performance
What controller dependencies are and why they matter
How to maintain robust security across your projects
Reliable best-practices for using Web API in a professional context
Who this book is for
The book is ideal for any .NET developer who wants to learn how the ASP.NET Web API framework works in a realistic setting. A good working knowledge of C# and the .NET framework and a familiarity with Visual Studio are the only pre-requisites to benefit from this book

Table of Contents
Building a Basic Web API
Debugging HTTP Formatting CLR Objects into HTTP Response
Customizing Response Binding HTTP Request into CLR Objects
Validating Request Managing Controller Dependencies Extending Pipeline Hosting ASP.NET Web API
Securing ASP.NET Web API Consuming ASP.NET Web API
Building Performant Web API

Skillfully navigate through the complex realm of implementing scalable, trustworthy industrial systems and architectures in a hyper-connected business world. Key Features

- Gain practical insight into security concepts in the Industrial Internet of Things (IIoT) architecture
- Demystify complex topics such as cryptography and blockchain
- Comprehensive references to industry standards and security frameworks when developing IIoT blueprints

Book Description

Securing connected industries and autonomous systems is a top concern for the Industrial Internet of Things (IIoT) community. Unlike cybersecurity, cyber-physical security is an intricate discipline that directly ties to system reliability as well as human and environmental safety. Practical Industrial Internet of Things Security enables you to develop a comprehensive understanding of the entire spectrum of securing connected industries, from the edge to the cloud. This book establishes the foundational concepts and tenets of IIoT security by presenting real-world case studies, threat models, and reference architectures. You'll work with practical tools to design risk-based security controls for industrial use cases and gain practical know-how on the multi-layered defense techniques including Identity and Access Management (IAM), endpoint security, and communication infrastructure. Stakeholders, including developers, architects, and business leaders, can gain practical insights in securing IIoT lifecycle processes, standardization,

governance and assess the applicability of emerging technologies, such as blockchain, Artificial Intelligence, and Machine Learning, to design and implement resilient connected systems and harness significant industrial opportunities. What you will learn Understand the crucial concepts of a multi-layered IIoT security framework Gain insight on securing identity, access, and configuration management for large-scale IIoT deployments Secure your machine-to-machine (M2M) and machine-to-cloud (M2C) connectivity Build a concrete security program for your IIoT deployment Explore techniques from case studies on industrial IoT threat modeling and mitigation approaches Learn risk management and mitigation planning Who this book is for Practical Industrial Internet of Things Security is for the IIoT community, which includes IIoT researchers, security professionals, architects, developers, and business stakeholders. Anyone who needs to have a comprehensive understanding of the unique safety and security challenges of connected industries and practical methodologies to secure industrial assets will find this book immensely helpful. This book is uniquely designed to benefit professionals from both IT and industrial operations backgrounds.

Advanced API Security is a complete reference to the next wave of challenges in enterprise security--securing public and private APIs. API adoption in both consumer and enterprises has gone beyond predictions. It has become the 'coolest' way of exposing business functionalities to the outside world. Both your public and private APIs, need to be protected, monitored and managed. Security is not an afterthought, but API security has evolved a lot in last five years. The growth of standards, out there, has been exponential. That's where AdvancedAPI Security comes in--to wade through the weeds and help you keep the bad guys away while realizing the internal and external benefits of developing APIs for your services. Our expert author guides you through the maze of options and shares industry leading best practices in designing APIs for rock-solid security. The book will explain, in depth, securing APIs from quite traditional HTTP Basic Authentication to OAuth 2.0 and the standards built around it. Build APIs with rock-solid security today with Advanced API Security. Takes you through the best practices in designing APIs for rock-solid security. Provides an in depth tutorial of most widely adopted security standards for API security. Teaches you how to compare and contrast different security standards/protocols to find out what suits your business needs the best.

Want to build APIs like Facebook? Since Facebook's framework for building APIs, GraphQL, has become publicly available, this ambition seems to be within reach for many companies. And that is great. But first, let's learn what GraphQL really is and - maybe even more importantly - let's figure out how to apply GraphQL to build APIs that consumers love. Do you like to learn hands-on? In this book, we take a hands-on approach to learning GraphQL. We first explore the concepts of the two GraphQL languages using examples. Then we start writing some code for our first GraphQL API. We develop this API step by step, from creating a schema and resolving queries, over mocking data and connecting data sources all the way to developing mutations and setting up event

subscriptions. Are your API consumers important to you? This book shows you how to apply a consumer-oriented design process for GraphQL APIs, so you can deliver what your consumers really want: an API that solves their problems and offers a great developer experience. Do you want to enable the API consumers so they can build great apps? This book explains the GraphQL query language, which allows the API consumers to retrieve data, write data and get notified when data changes. More importantly, you let them decide, which data they really need from the API. Do you want to make your API easy and intuitive to use? This book shows you how to use the GraphQL schema language to define a type system for your API, which serves as a reference documentation and helps your API consumers write queries that are syntactically correct. Do you want to profit from what has worked for others? This book provides a collection of best practices for GraphQL that have worked for other companies, e.g. regarding pagination, authentication and caching. REST vs. GraphQL: Which one is better? GraphQL and REST are competing philosophies for building APIs. It is not in the scope of this book to compare or discuss the two approaches. The focus of this book is on a hands-on approach for learning GraphQL.

Leverage existing free open source software to build an identity and access management (IAM) platform that can serve your organization for the long term. With the emergence of open standards and open source software, it's now easier than ever to build and operate your own IAM stack. The most common culprit of the largest hacks has been bad personal identification. In terms of bang for your buck, effective access control is the best investment you can make. Financially, it's more valuable to prevent than to detect a security breach. That's why Identity and Access Management (IAM) is a critical component of an organization's security infrastructure. In the past, IAM software has been available only from large enterprise software vendors. Commercial IAM offerings are bundled as "suites" because IAM is not just one component. It's a number of components working together, including web, authentication, authorization, cryptographic, and persistence services. Securing the Perimeter documents a recipe to take advantage of open standards to build an enterprise-class IAM service using free open source software. This recipe can be adapted to meet the needs of both small and large organizations. While not a comprehensive guide for every application, this book provides the key concepts and patterns to help administrators and developers leverage a central security infrastructure. Cloud IAM service providers would have you believe that managing an IAM is too hard. Anything unfamiliar is hard, but with the right road map, it can be mastered. You may find SaaS identity solutions too rigid or too expensive. Or perhaps you don't like the idea of a third party holding the credentials of your users—the keys to your kingdom. Open source IAM provides an alternative. Take control of your IAM infrastructure if digital services are key to your organization's success. What You'll Learn Understand why you should deploy a centralized authentication and policy management infrastructure Use the SAML or Open ID Standards for web

or single sign-on, and OAuth for API Access Management Synchronize data from existing identity repositories such as Active Directory Deploy two-factor authentication services Who This Book Is For Security architects (CISO, CSO), system engineers/administrators, and software developers

Develop on Yammer is your guide to integrating the Yammer social network with your company's application ecosystem. By developing custom apps and features on the Yammer platform, you can make your workplace more productive, encourage communication and feedback, and get your colleagues collaborating across a range of platforms, including SharePoint, ASP.NET, and Windows Phone. The book begins with an introduction to the development options available along with guidance on how to set up a Yammer developer account. You'll then take your first step in Yammer integration by building a Yammer feed into a web page or other JavaScript-based client application, before diving into app creation and management on the Yammer platform. The authors provide a deep dive into the Yammer authorization process from client-side and server-side perspectives, and you'll find out how to work closely with Yammer's data streams and its full range of development possibilities using Open Graph and Yammer's REST API. The final chapters cover how to build Yammer integration into standalone applications for SharePoint and Windows Phone 8 with Yammer SDKs. All chapters are illustrated with examples and sample code, and a case study follows the development of a workplace training application as the authors apply each technique, so you can see how to make the most of what Yammer has to offer. What You'll Learn Why develop on Yammer, and what development options are available How to add a Yammer feed to an HTML-based application using Yammer Embed, to bring relevant news and discussions into the contexts where they matter How to develop custom Yammer features for your SharePoint, Office or web applications on the client side with the Yammer JavaScript SDK How to carry out secure authorization and authentication on Yammer How to use Yammer Open Graph and REST APIs to posts messages, create custom activities and get data from Yammer-integrated applications How to work with the Yammer Windows Phone 8 SDK to add Yammer functionality to a Windows Phone 8 application Who This Book Is For This book is targeted at developers with a background in .NET/C# development. Readers should be comfortable working with JavaScript. Software architects will also find this book valuable for planning social integration across their companies' business ecosystems. 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. Got RESTful APIs? Great. API consumers love them. But today, such RESTful APIs are not enough for the evolving expectations of API consumers. Their apps need to be responsive, event-based and react to changes in near real-time. This results in a new set of requirements for the APIs, which power the apps. APIs now need to provide concepts such as events, notifications, triggers, and subscriptions. These concepts are not natively supported by the REST architectural style. In this book we show how to engineer RESTful APIs that support events with a webhook infrastructure. What are the alternatives to webhooks? We study several approaches for realizing events, such as Polling, Long Polling, Webhooks, HTTP Streaming, Server-Sent Events, WebSockets, WebSub and GraphQL Subscriptions. All of these approaches have their advantages and disadvantages. Can webhooks communicate in real-time? We study the non-functional requirements of a webhooks infrastructure, in areas such as security, reliability and developer experience. How do well-known API providers design webhooks? We examine the webhook infrastructure provided by GitHub, BitBucket, Stripe, Slack, and Intercom. With the best practices, case studies, and design templates provided in this book, we want to help you extend your API portfolio with a modern webhook infrastructure. So you can offer both APIs and events that developers love to use.

This book constitutes the refereed proceedings of the 17th International Conference on Information Security, ISC 2014, held in Hong Kong, China, in October 2014. The 20 revised full papers presented together with 16 short papers and two invited papers were carefully reviewed and selected from 106 submissions. The papers are organized in topical sections on public-key encryption, authentication, symmetric key cryptography, zero-knowledge proofs and arguments, outsourced and multi-party computations, implementation, information leakage, firewall and forensics, Web security, and android security.

This book is Open Access under a CC BY licence. This book constitutes the proceedings of the 7th International Conference on Principles of Security and Trust, POST 2018, which took place in Thessaloniki, Greece, in April 2018, held as part of the European Joint Conference on Theory and Practice of Software, ETAPS 2018. The 13 papers presented in this volume were carefully reviewed and selected from 45 submissions. The papers are organized in topical sections named: information flow and non-interference; leakage, information flow, and protocols; smart contracts and privacy; firewalls and attack-defense trees.

Whether you're moving from Microsoft Office to Google Docs or simply want to learn how to automate Docs with Google Apps Script, this practical guide shows you by example how to work with each of the major Apps Script services. Office still supports VBA, but it's not likely to do so for much longer. If you're a VBA or .NET developer, you'll learn how to port existing VBA code and structure to their JavaScript-based Apps Script equivalents with minimal effort. Author Bruce Mcpherson introduces JavaScript basics for experienced developers unfamiliar with the language, and demonstrates ways to build real-world apps using all of the Apps Script services previously covered. Use App Script's equivalent of Excel's object model Target the most commonly used parts of Microsoft Word Automate processes in Gmail, Calendar, and Contacts Access the local client filesystem with Google Drive Build and run applications in a browser Store persistent data conveniently Render HTML content in response to HTTP requests Automate the maintenance and creation of pages and content Interact with a REST service or NoSQL database Access Apps Script capabilities from other platforms

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.

This book provides an advanced understanding of cyber threats as well as the risks companies are facing. It includes a detailed analysis of many technologies and approaches important to decreasing, mitigating or remediating those threats and risks. Cyber security technologies discussed in this book are futuristic and current. Advanced security topics such as secure remote work, data security, network security, application and device security, cloud security, and cyber risk and privacy are presented in this book. At the end of every chapter, an evaluation

of the topic from a CISOs perspective is provided. This book also addresses quantum computing, artificial intelligence and machine learning for cyber security. The opening chapters describe the power and danger of quantum computing, proposing two solutions for protection from probable quantum computer attacks: the tactical enhancement of existing algorithms to make them quantum-resistant, and the strategic implementation of quantum-safe algorithms and cryptosystems. The following chapters make the case for using supervised and unsupervised AI/ML to develop predictive, prescriptive, cognitive and auto-reactive threat detection, mitigation, and remediation capabilities against advanced attacks perpetrated by sophisticated threat actors, APT and polymorphic/metamorphic malware. CISOs must be concerned about current on-going sophisticated cyber-attacks, and can address them with advanced security measures. The latter half of this book discusses some current sophisticated cyber-attacks and available protective measures enabled by the advancement of cybersecurity capabilities in various IT domains. Chapters 6-10 discuss secure remote work; chapters 11-17, advanced data security paradigms; chapters 18-28, Network Security; chapters 29-35, application and device security; chapters 36-39, Cloud security; and chapters 40-46 organizational cyber risk measurement and event probability. Security and IT engineers, administrators and developers, CIOs, CTOs, CISOs, and CFOs will want to purchase this book. Risk personnel, CROs, IT and Security Auditors as well as security researchers and journalists will also find this useful.

Oauth 2.0 SimplifiedLulu.com

- This is the latest practice test to pass the C2150-609 IBM Security Access Manager V9.0 Deployment Exam. - It contains 138 Questions and Answers. - All the questions are 100% valid and stable. - You can reply on this practice test to pass the exam with a good mark and in the first attempt.

Prepare for the next wave of challenges in enterprise security. Learn to better protect, monitor, and manage your public and private APIs. Enterprise APIs have become the common way of exposing business functions to the outside world. Exposing functionality is convenient, but of course comes with a risk of exploitation. This book teaches you about TLS Token Binding, User Managed Access (UMA) 2.0, Cross Origin Resource Sharing (CORS), Incremental Authorization, Proof Key for Code Exchange (PKCE), and Token Exchange. Benefit from lessons learned from analyzing multiple attacks that have taken place by exploiting security vulnerabilities in various OAuth 2.0 implementations. Explore root causes, and improve your security practices to mitigate against similar future exploits. Security must be an integral part of any development project. This book shares best practices in designing APIs for rock-solid security. API security has evolved since the first edition of this book, and the growth of standards has been exponential. OAuth 2.0 is the most widely adopted framework that is used as the foundation for standards, and this book shows you how to apply OAuth 2.0 to your own situation in order to secure and protect your

enterprise APIs from exploitation and attack. What You Will Learn Securely design, develop, and deploy enterprise APIs Pick security standards and protocols to match business needs Mitigate security exploits by understanding the OAuth 2.0 threat landscape Federate identities to expand business APIs beyond the corporate firewall Protect microservices at the edge by securing their APIs Develop native mobile applications to access APIs securely Integrate applications with SaaS APIs protected with OAuth 2.0 Who This Book Is For Enterprise security architects who are interested in best practices around designing APIs. The book is also for developers who are building enterprise APIs and integrating with internal and external applications.

"Consumers are growing more aware of the importance and value of the data they personally generate across industries and domains. Financial services is one such area where the link between one's personal data and its economic value is most clearly established, and consumers are beginning to agitate for and gain a measure of agency over their data. A study of the phenomenon of open banking provides a focused lens on the broader phenomena of data proliferation and data monetization. Thus, open banking and its related legal and economic issues along with policy ideas, such as consumer financial data rights, can serve as an interesting model for the broader policy discussion on general data rights. Open banking is a specific manifestation of the revolution of consumer technology in banking and will dramatically change not only how we bank but also the world of finance and how we interact with it. Since the United Kingdom along with the rest of the European Union adopted rules requiring banks to share customer data to improve competition in the banking sector, a wave of countries from Asia to Africa to the Americas have adopted various forms of their own open banking regimes. Among Basel Committee jurisdictions, at least fifteen jurisdictions have some form of open banking, and this number does not even include the many jurisdictions outside the Basel Committee membership with open banking activities. Although U.S. banks and market participants have been sharing customer-permissioned data for the past twenty years and there has been recent but limited policy discussions, such as the Obama administration's failed Consumer Data Privacy Bill and the Data Aggregation Principles of the Consumer Financial Protection Bureau, open banking is still a little-known concept among consumers and policymakers in the States. This book defines the concept of 'open banking' and explores key legal, policy and economic questions raised by open banking"--

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If you want to enter the fascinating world of Tizen and learn how to develop engaging and successful applications then this book is for you. It'll benefit novices and experienced application developers alike.

In today's business in motion environments, workers expect to be connected to

their critical business processes while on-the-go. It is imperative to deliver more meaningful user engagements by extending business processes to the mobile working environments. This IBM® Redbooks® publication provides an overview of the market forces that push organizations to reinvent their process with Mobile in mind. It describes IBM Mobile Smarter Process and explains how the capabilities provided by the offering help organizations to mobile-enable their processes. This book outlines an approach that organizations can use to identify where within the organization mobile technologies can offer the greatest benefits. It provides a high-level overview of the IBM Business Process Manager and IBM Worklight® features that can be leveraged to mobile-enable processes and accelerate the adoption of mobile technologies, improving time-to-value. Key IBM Worklight and IBM Business Process Manager capabilities are showcased in the examples included in this book. The examples show how to integrate with IBM Bluemix™ as the platform to implement various supporting processes. This IBM Redbooks publication discusses architectural patterns for exposing business processes to mobile environments. It includes an overview of the IBM MobileFirst reference architecture and deployment considerations. Through use cases and usage scenarios, this book explains how to build and deliver a business process using IBM Business Process Manager and how to develop a mobile app that enables remote users to interact with the business process while on-the-go, using the IBM Worklight Platform. The target audience for this book consists of solution architects, developers, and technical consultants who will learn the following information: What is IBM Mobile Smarter Process Patterns and benefits of a mobile-enabled Smarter Process IBM BPM features to mobile-enable processes IBM Worklight features to mobile-enable processes Mobile architecture and deployment topology IBM BPM interaction patterns Enterprise mobile security with IBM Security Access Manager and IBM Worklight Implementing mobile apps to mobile-enabled business processes

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This is a practical and fast-paced guide that gives you all the information you need to start implementing secure OAuth 2.0 implementations in your web applications. OAuth 2.0 Identity and Access Management Patterns is intended for software developers, software architects, and enthusiasts working with the OAuth 2.0 framework. In order to learn and understand the OAuth 2.0 grant flow, it is assumed that you have some basic knowledge of HTTP communication. For the practical examples, basic knowledge of HTML templating, programming languages, and executing commands in the command line terminal is assumed. While many resources for network and IT security are available, detailed knowledge regarding modern web application security has been lacking—until now. This practical guide provides both offensive and defensive security concepts that software engineers can easily learn and apply. Andrew Hoffman, a

senior security engineer at Salesforce, introduces three pillars of web application security: recon, offense, and defense. You'll learn methods for effectively researching and analyzing modern web applications—including those you don't have direct access to. You'll also learn how to break into web applications using the latest hacking techniques. Finally, you'll learn how to develop mitigations for use in your own web applications to protect against hackers. Explore common vulnerabilities plaguing today's web applications Learn essential hacking techniques attackers use to exploit applications Map and document web applications for which you don't have direct access Develop and deploy customized exploits that can bypass common defenses Develop and deploy mitigations to protect your applications against hackers Integrate secure coding best practices into your development lifecycle Get practical tips to help you improve the overall security of your web applications

This book constitutes the proceedings of the 13th International Conference on Network and System Security, NSS 2019, held in Sapporo, Japan, in December 2019. The 36 full papers and 7 short papers presented together with 4 invited papers in this book were carefully reviewed and selected from 89 initial submissions. The papers cover a wide range of topics in the field, including authentication, access control, availability, integrity, privacy, confidentiality, dependability and sustainability of computer networks and systems.

ASP.NET Web API is a key part of ASP.NET MVC 4 and the platform of choice for building RESTful services that can be accessed by a wide range of devices. Everything from JavaScript libraries to RIA plugins, RFID readers to smart phones can consume your services using platform-agnostic HTTP. With such wide accessibility, securing your code effectively needs to be a top priority. You will quickly find that the WCF security protocols you're familiar with from .NET are less suitable than they once were in this new environment, proving themselves cumbersome and limited in terms of the standards they can work with. Fortunately, ASP.NET Web API provides a simple, robust security solution of its own that fits neatly within the ASP.NET MVC programming model and secures your code without the need for SOAP, meaning that there is no limit to the range of devices that it can work with – if it can understand HTTP, then it can be secured by Web API. These SOAP-less security techniques are the focus of this book. What you'll learn Identity management and cryptography HTTP basic and digest authentication and Windows authentication HTTP advanced concepts such as web caching, ETag, and CORS Ownership factors of API keys, client X.509 certificates, and SAML tokens Simple Web Token (SWT) and signed and encrypted JSON Web Token (JWT) OAuth 2.0 from the ground up using JWT as the bearer token OAuth 2.0 authorization codes and implicit grants using DotNetOpenAuth Two-factor authentication using Google Authenticator OWASP Top Ten risks for 2013 Who this book is for No prior experience of .NET security is needed to read this book. All security related concepts will be introduced from first-principles and developed to the point where you can use them confidently in

a professional environment. A good working knowledge of and experience with C# and the .NET framework are the only prerequisites to benefit from this book.

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How to empower people and communities with user-centric data ownership, transparent and accountable algorithms, and secure digital transaction systems. Data is now central to the economy, government, and health systems—so why are data and the AI systems that interpret the data in the hands of so few people? Building the New Economy calls for us to reinvent the ways that data and artificial intelligence are used in civic and government systems. Arguing that we need to think about data as a new type of capital, the authors show that the use of data trusts and distributed ledgers can empower people and communities with user-centric data ownership, transparent and accountable algorithms, machine learning fairness principles and methodologies, and secure digital transaction systems. It's well known that social media generate disinformation and that mobile phone tracking apps threaten privacy. But these same technologies may also enable the creation of more agile systems in which power and decision-making are distributed among stakeholders rather than concentrated in a few hands. Offering both big ideas and detailed blueprints, the authors describe such key building blocks as data cooperatives, tokenized funding mechanisms, and tradecoin architecture. They also discuss technical issues, including how to build an ecosystem of trusted data, the implementation of digital currencies, and interoperability, and consider the evolution of computational law systems.

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