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KEY=ON - RICHARD ALEAH

INTRODUCING AZURE KUBERNETES SERVICE

A PRACTICAL GUIDE TO CONTAINER ORCHESTRATION

Apress Go from zero to sixty deploying and running a Kubernetes cluster on Microsoft Azure! This hands-on practical guide to Microsoft's Azure Kubernetes Service (AKS), a managed container orchestration platform, arms you with the tools and knowledge you need to easily deploy and operate on this complex platform. Take a journey inside Docker containers, container registries, Kubernetes architecture, Kubernetes components, and core Kubectl commands. Drawing on hard-earned experience in the field, the authors provide just enough theory to help you grasp important concepts, teaching the practical straightforward knowledge you need to start running your own AKS cluster. You will dive into topics related to the deployment and operation of AKS, including Rancher for management, security, networking, storage, monitoring, backup, scaling, identity, package management with HELM, and AKS in CI/CD. What You Will Learn Develop core knowledge of Docker containers, registries, and KubernetesGain AKS skills for Microsoft's fastest growing services in the cloud Understand the pros and cons of deploying and operating AKSDeploy and manage applications on the AKS platform Use AKS within a DevOps CI/CD process Who This Book Is For IT professionals who work with DevOps, the cloud, Docker, networking, storage, Linux, or Windows. Experience with cloud, DevOps, Docker, or application development is helpful.

HANDS-ON AZURE PIPELINES

UNDERSTANDING CONTINUOUS INTEGRATION AND DEPLOYMENT IN AZURE DEVOPS

Apress Build, package, and deploy software projects, developed with any language targeting any platform, using Azure pipelines. The book starts with an overview of CI/CD and the need for software delivery automation. It further delves into the basic concepts of Azure pipelines followed by a hands-on guide to setting up agents on all platforms enabling software development in any language. Moving forward, you will learn to set up a pipeline using the classic Visual Editor using PowerShell scripts, a REST API, building edit history, retention, and much more. You'll work with artifact feeds to store deployment packages and consume them in a build. As part of the discussion you'll see the implementation and usage of YAML (Yet Another Markup Language) build pipelines. You will then create Azure release pipelines in DevOps and develop extensions for Azure pipelines. Finally, you will learn various strategies and patterns for developing pipelines and go through some sample lessons on building and deploying pipelines. After reading Hands-on Azure Pipelines, you will be able to combine CI and CD to constantly and consistently test and build your code and ship it to any target. What You Will Learn Work with Azure build-and-release pipelines Extend the capabilities and features of Azure pipelines Understand build, package, and deployment strategies, and versioning and patterns with Azure pipelines Create infrastructure and deployment that targets commonly used Azure platform services Build and deploy mobile applications Use quick-start Azure DevOps projects Who This Book Is For Software developers and test automation engineers who are involved in the software delivery process.

GENERIC PIPELINES USING DOCKER

THE DEVOPS GUIDE TO BUILDING REUSABLE, PLATFORM AGNOSTIC CI/CD FRAMEWORKS

Apress Create generic pipelines to reduce your overall DevOps workload and allow your team to deliver faster. This book helps you get up to speed on the pros and cons of generic pipeline methodology, and learn to combine shell scripts and Docker to build generic pipelines. In today's world of micro-services and agile practices, DevOps teams need to move as fast as feature teams. This can be extremely challenging if you're creating multiple pipelines per application or tech stack. What if your feature teams could utilize a generic pipeline that could build, test, and deploy any application, regardless of tech stack? What if that pipeline was also cloud and platform agnostic? Too good to be true? Well think again! Generic Pipelines Using Docker explores the principles and implementations that allow you to do just that. You will learn from real-world examples and reusable code. After reading this book you will have the knowledge to build generic pipelines that any team can use. What You'll Learn Explore the pros and cons of generic pipeline methodology Combine shell scripts and Docker to build a generic pipeline Implement a pipeline across CI/CD platforms Build a pipeline that lends itself well to both centralized and federated DevOps teams Construct a modular pipeline with components that can be added, removed, or replaced as needed Who This Book Is For Professionals who use DevOps or are part of a DevOps team, and are seeking ways to streamline their pipelines and drive more deployments while using less code

PRACTICAL AZURE SQL DATABASE FOR MODERN DEVELOPERS

BUILDING APPLICATIONS IN THE MICROSOFT CLOUD

Apress Here is the expert-level, insider guidance you need on using Azure SQL Database as your back-end data store. This book highlights best practices in everything ranging from full-stack projects to mobile applications to critical, back-end APIs. The book provides instruction on accessing your data from any language and platform. And you learn how to push processing-intensive work into the database engine to be near the data and avoid undue networking traffic. Azure SQL is explained from a developer's point of view, helping you master its feature set and create applications that perform well and delight users. Core to the book is showing you how Azure SQL Database provides relational and post-relational support so that any workload can be managed with easy accessibility from any platform and any language. You will learn about features ranging from lock-free tables to columnstore indexes, and about support for data formats ranging from JSON and key-values to the nodes and edges in the graph database paradigm. Reading this book prepares you to deal with almost all data management challenges, allowing you to create lean and specialized solutions having the elasticity and scalability that are needed in the modern world. What You Will Learn Master Azure SQL Database in your development projects from design to the CI/CD pipeline Access your data from any programming language and platform Combine key-value, JSON, and relational data in the same database Push data-intensive compute work into the database for improved efficiency Delight your customers by detecting and improving poorly performing queries Enhance performance through features such as columnstore indexes and lock-free tables Build confidence in your mastery of Azure SQL Database's feature set Who This Book Is For Developers of applications and APIs that benefit from cloud database support, developers who wish to master their tools (including Azure SQL Database, and those who want their applications to be known for speedy performance and the elegance of their code

ESSENTIALS OF SOFTWARE ENGINEERING

Jones & Bartlett Learning "The basic concepts and theories of software engineering have stabilized considerably from the early days of thirty to forty years ago. Nevertheless, the technology and tools continue to evolve, expand and improve every four to five years. In this fifth edition, we will cover some of these newly established improvements in technology and tools but reduce some areas, such as process assessment models, that is becoming less relevant today. We will still maintain many of the historically important concepts that formed the foundation to this field, such as the traditional process models. Our goal is to continue to keep the content of this book to a concise amount that can be taught in a 16-week semester introductory course"--

HANDS-ON GITHUB ACTIONS

IMPLEMENT CI/CD WITH GITHUB ACTION WORKFLOWS FOR YOUR APPLICATIONS

Apress Implement continuous integration/continuous delivery (CI/CD) workflows for any application you develop through GitHub Actions. This book will give you an in-depth idea of implementation patterns, solutions for different technology builds, guidelines to implement your own custom components as actions, and usage of features available with GitHub Actions workflows, to set up CI/CD for your repositories. Hands-on GitHub Actions starts with an introduction to GitHub actions that gives an overview on CI/CD followed by an introduction to its workflows. Next, you will learn how to use variables in a GitHub workflow along with tokens via a REST API. Further, you will explore artifacts and caching dependencies in GitHub and use artifacts in subsequent jobs. Using self-hosted runners is discussed next where you will set up your own hardware and software to run GitHub actions. You will go through publishing packages and migrate to Azure DevOps Pipelines. Along the way, you will use Redis service and PostgreSQL service containers and create custom actions. Finally, you will work with GitHub apps and understand the syntax reference for GitHub Actions and workflows. What You Will Learn Create workflows for any platform and any language with GitHub Actions Develop custom GitHub actions to enhance features and usage of database and service containers Use hosted runners and create self-hosted runners for GitHub workflows Use GitHub Package registry with GitHub Actions to share and use packages Who This Book Is For DevOps teams who want to build quality CI/CD workflows.

THE COMPLETE ASP.NET CORE 3 API TUTORIAL

HANDS-ON BUILDING, TESTING, AND DEPLOYING

Apress Use this ASP.NET Core API tutorial and straightforward step-by-step guide to build, test, and deploy an ASP.NET Core API to Azure. It will help you code confidently and efficiently, and provides just what you need for context. The book starts with detailing how to set up your development environment, and then introduces a variety of tools and technologies to build, test, and deploy your API. It covers tools such as .NET Core SDK, (Version 3.1), Visual Studio Code, Git, xUnit, Docker, PostgreSQL, Postman, Azure DevOps, Azure, AutoMapper, and many more. Practical guidance is provided so you can achieve a tangible and valuable outcome, and you also are given a dose of theory on REST (Representational State Transfer), JSON, (JavaScript Object Notation), DTOs (Data Transfer Objects), and the MVC (Model View Controller) architectural pattern. What You Will Learn Build an ASP.NET Core API using C#, test it, and deploy it to Azure Understand concepts on Entity Framework Core Gain hard-earned secrets, shortcuts, and gotchas throughout the "build along" Get comfortable with ASP NET Core Environments Be introduced to unit testing, CI/CD pipelines, bearer authentication, and JSON Web Tokens (JWT) Who This Book Is For Developers using the Microsoft stack. Some basic understanding of .NET Core is assumed.

BEGINNING WINDOWS MIXED REALITY PROGRAMMING

FOR HOLOLENS AND MIXED REALITY HEADSETS

Apress Develop applications and experiences for Microsoft's HoloLens and other Windows mixed reality devices. This easy-to-follow guide removes the mystery behind creating amazing augmented reality experiences. Mixed reality development tools and resources are provided. Beginning Windows Mixed Reality Programming clearly explains all the nuances of mixed reality software development. You'll learn how to create 3D objects and holograms, interact with holograms using voice commands and hand gestures, use spatial mapping and 3D spatial sound, build with Microsoft's HoloToolkit, create intuitive user interfaces, and make truly awe-inspiring mixed reality experiences. Start building the holographic future today! What You Will Learn Prototype ideas quickly Get started with Unity, the preferred tool for animating 3D objects. Explore where to find 3D models for your project, or make your own! Use spatial sound, voice commands, and gestures Build with the HoloToolkit to make apps the easy way Publish to the Windows Store and make money from your app Who This Book Is For Programmers with little or no graphics or mixed reality experience

PRACTICAL DATAOPS

DELIVERING AGILE DATA SCIENCE AT SCALE

Apress Gain a practical introduction to DataOps, a new discipline for delivering data science at scale inspired by practices at companies such as Facebook, Uber, LinkedIn, Twitter, and eBay. Organizations need more than the latest AI algorithms, hottest tools, and best people to turn data into insight-driven action and useful analytical data products. Processes and thinking employed to manage and use data in the 20th century are a bottleneck for working effectively with the variety of data and advanced analytical use cases that organizations have today. This book provides the approach and methods to ensure continuous rapid use of data to create analytical data products and steer decision making. Practical DataOps shows you how to optimize the data supply chain from diverse raw data sources to the final data product, whether the goal is a machine learning model or other data-orientated output. The book provides an approach to eliminate wasted effort and improve collaboration between data producers, data consumers, and the rest of the organization through the adoption of lean thinking and agile software development principles. This book helps you to improve the speed and accuracy of analytical application development through data management and DevOps practices that securely expand data access, and rapidly increase the number of reproducible data products through automation, testing, and integration. The book also shows how to collect feedback and monitor performance to manage and continuously improve your processes and output. What You Will LearnDevelop a data strategy for your organization to help it reach its long-term goals Recognize and eliminate barriers to delivering data to users at scale Work on the right things for the right stakeholders through agile collaboration Create trust in data via rigorous testing and effective data management Build a culture of learning and continuous improvement through monitoring deployments and measuring outcomes Create cross-functional self-organizing teams focused on goals not reporting lines Build robust, trustworthy, data pipelines in support of AI, machine learning, and other analytical data products Who This Book Is For Data science and advanced analytics experts, CIOs, CDOs (chief data officers), chief analytics officers, business analysts, business team leaders, and IT professionals (data engineers, developers, architects, and DBAs) supporting data teams who want to dramatically increase the value their organization derives from data. The book is ideal for data professionals who want to overcome challenges of long delivery time, poor data quality, high maintenance costs, and scaling difficulties in getting data science output and machine learning into customer-facing production.

PRO MERN STACK

FULL STACK WEB APP DEVELOPMENT WITH MONGO, EXPRESS, REACT, AND NODE

Apress Assemble the complete stack required to build a modern web app using MongoDB, Express, React, and Node. This book also covers many other complementary tools: React Router, GraphQL, React-Bootstrap, Babel, and Webpack. This new edition will use the latest version of React (React 16) and the latest React Router (React Router 4), which has a significantly different approach to routing compared to React Router 2 which was used in the first edition of the book. Though the primary focus of Pro MERN Stack is to equip you with all that is required to build a full-fledged web application, a large portion of the book will be devoted to React 16. The popular MEAN (MongoDB, Express, AngularJS, Node) stack introduced Single Page Apps (SPAs) and front-end Model-View-Controller (MVC) as new and efficient paradigms. Facebook's React is a technology that competes indirectly with AngularJS. It is not a full-fledged MVC framework. It is a JavaScript library for building user interfaces (in some sense the View part). Yet, it is possible to build a web app by replacing AngularJS with React – hence the term MERN stack What You Will LearnDiscover the features of React 16 to get the maximum out of this library Gain the basics of MongoDB, Express, and Node to build a web app Work with other libraries complementary to React, including React-Bootstrap, React Router, and GraphQL Use tools such as Babel and Webpack required to build JavaScript-based SPAs Tie all the components together to build a complete web app. Who This Book Is For Developers and architects who have prior experience in any web app stack other than the MERN stack will find the book useful to learn about this modern stack. Prior knowledge of JavaScript, HTML, and CSS is required.

REINVENTING ITIL® IN THE AGE OF DEVOPS

INNOVATIVE TECHNIQUES TO MAKE PROCESSES AGILE AND RELEVANT

Apress Delve into the principles of ITIL® and DevOps and examine the similarities and differences. This book re-engineers the ITIL framework to work in DevOps projects without changing its meaning and its original objectives, making it fit for purpose for use in DevOps projects. Reinventing ITIL® in the Age of DevOpsshows you the relevance of ITIL since the emergence of DevOps and puts a unique spin on the ITIL service management framework. Along the way you will see that ITIL is a mature service management framework and years of maturity will be lost if it's made invalid. The ideas, recommendations, and solutions provided in Reinventing ITIL in the Age of DevOps can be leveraged in order to readily develop solutions or create proposals for clients. The ideas in this book can be further expanded to deliver seamless services to DevOps projects. What You Will LearnDiscover the basics of ITIL and DevOps Compare ITIL and DevOps Understand the structure of a DevOps organization and adapt the ITIL roles to this structure Re-engineer ITIL for DevOps projects Implement major processes such as incident management, configuration management, and change management processes in DevOps projects Automate activities within processes Who This Book Is For Consultants, business analysts, administrators, and project managers who are looking for more information about Dynamics 365.

DEVELOPING BOTS WITH MICROSOFT BOTS FRAMEWORK

CREATE INTELLIGENT BOTS USING MS BOT FRAMEWORK AND AZURE COGNITIVE SERVICES

Apress Develop Intelligent Bots using Microsoft Bot framework (C# and Node.js), Visual Studio Enterprise & Code, MicrosoftAzure and Cognitive Services. This book shows you how to develop great Bots, publish to Azure and register with Bot portal so that customers canconnect and communicate using famous communication channels like Skype, Slack, Web and Facebook. You'll also learn how to build intelligence into Bots using Azure Cognitive Services like LUIS, OCR, Speech to Text and Web Search.Bots are the new face of user experience. Conversational User Interface provides many options to make userexperience richer, innovative and engaging with email, text, buttons or voice as the medium for communication.Modern line of business applications can be replaced or associated with Intelligent Bots that can use data/historycombined with Machine Intelligence to make user experience inclusive and exciting. With Developing Bots with Microsoft Bots Framework, you'll see just how simple Bot building can be. What You'll Learn Build Bots using MS Bot framework on Windows and Non-Windows platforms Publish your Bot to the cloud in minutes Create rich communication platforms between your application and users Apply Artificial Intelligence and Machine Learning to your applications Who This Book Is For Developers and Architects who design and build modern applications or communication platforms using MS stack or open source technologies. Business Analysts and UX Specialists interested in designing and building trendy user interfaces/platforms using Bots and Azure ML

MODEL-DRIVEN DEVELOPMENT AND OPERATION OF MULTI-CLOUD APPLICATIONS

THE MODACLOUDS APPROACH

Springer This books is open access under a CC BY 4.0 license. This book summarizes work being undertaken within the collaborative MODAClouds research project, which aims to facilitate interoperability between heterogeneous Cloud platforms and remove the constraints of deployment, portability, and reversibility for end users of Cloud services. Experts involved in the project provide a clear overview of the MODAClouds approach and explain how it operates in a variety of applications. While the wide spectrum of available Clouds constitutes a vibrant technical environment, many early-stage issues pose specific challenges from a software engineering perspective. MODAClouds will provide methods, a decision support system, and an open source IDE and run-time environment for the high-level design, early prototyping, semiautomatic code generation, and automatic deployment of applications on multiple Clouds. It will free developers from the need to commit to a fixed Cloud technology stack during software design and other benefits in terms of cost savings, portability of applications and data between Clouds, reversibility (moving applications and data from Cloud to non-Cloud environments), risk management, quality assurance, and flexibility in the development process.

FIREWALLS DON'T STOP DRAGONS

A STEP-BY-STEP GUIDE TO COMPUTER SECURITY FOR NON-TECHIES

Apress Rely on this practical, end-to-end guide on cyber safety and online security written expressly for a non-technical audience. You will have just what you need to protect yourself—step by step, without judgment, and with as little jargon as possible. Just how secure is your computer right now? You probably don't really know. Computers and the Internet have revolutionized the modern world, but if you're like most people, you have no clue how these things work and don't know the real threats. Protecting your computer is like defending a medieval castle. While moats, walls, drawbridges, and castle guards can be effective, you'd go broke trying to build something dragon-proof. This book is not about protecting yourself from a targeted attack by the NSA; it's about armoring yourself against common hackers and mass surveillance. There are dozens of no-brainer things we all should be doing to protect our computers and safeguard our data—just like wearing a seat belt, installing smoke alarms, and putting on sunscreen. Author Carey Parker has structured this book to give you maximum benefit with minimum effort. If you just want to know what to do, every chapter has a complete checklist with step-by-step instructions and pictures. The book contains more than 150 tips to make you and your family safer. It includes: Added steps for Windows 10 (Spring 2018) and Mac OS X High Sierra Expanded coverage on mobile device safety Expanded coverage on safety for kids online More than 150 tips with complete step-by-step instructions and pictures What You'll Learn Solve your password problems once and for all Browse the web safely and with confidence Block online tracking and dangerous ads Choose the right antivirus software for you Send files and messages securely Set up secure home networking Conduct secure shopping and banking online Lock down social media accounts Create automated backups of all your devices Manage your home computers Use your smartphone and tablet safely Safeguard your kids online And more! Who This Book Is For Those who use computers and mobile devices, but don't really know (or frankly care) how they work. This book is for people who just want to know what they need to do to protect themselves—step by step, without judgment, and with as little jargon as possible.

DEVOPS FOR DIGITAL LEADERS

REIGNITE BUSINESS WITH A MODERN DEVOPS-ENABLED SOFTWARE FACTORY

Apress Learn to design, implement, measure, and improve DevOps programs that are tailored to your organization. This concise guide assists leaders who are accountable for the rapid development of high-quality software applications. In DevOps for Digital Leaders, deep collective experience on both sides of the dev–ops divide informs the global thought leadership and penetrating insights of the authors, all three of whom are cross-portfolio DevOps leaders at CA Technologies. Aruna Ravichandran, Kieran Taylor, and Peter Waterhouse analyze the organizational benefits, costs, freedoms, and constraints of DevOps. They chart the coordinated strategy of organizational change, metrics, lean thinking, and investment that an enterprise must undertake to realize the full potential of DevOps and reach the sweet spot where accelerating code deployments drive increasing customer satisfaction, revenue, and profitability. Digital leaders are charged to bridge the dev–ops disconnect if their organizations are to survive and flourish in a business world increasingly differentiated by the degree to which dynamic application software development harmonizes with operational resilience and reliability. This short book applies the DevOps perspective to the competitive challenge, faced by every high-performance IT organization today, of integrating and automating open source, cloud, and enterprise tools, processes, and techniques across the software development life cycle from requirements to release. What You Will Learn: Remove dependencies and constraints so that parallel practices can accelerate the development of defect-free software Automate continuous delivery across the software life cycle to eliminate release bottlenecks, manual labor waste, and technical debt accumulation Generate virtualized production-style testing of applications through real-time behavioral analytics Adopt agile practices so operations teams can support developer productivity with automated feedback, streamline infrastructure monitoring, spot and resolve operations issues before they impact production, and improve customer experience Identify the DevOps metrics appropriate to your organization and integrate DevOps with your existing best practices and investment Who This Book Is For: IT leaders in large companies and government agencies who have any level of responsibility for the rapid development of high-quality software applications. The secondary readership is members of development and operations teams, security professionals, and service managers.

MICROSOFT AZURE COSMOS DB REVEALED

A MULTI-MODEL DATABASE DESIGNED FOR THE CLOUD

Apress Learn the main features of Azure Cosmos DB and how to use Microsoft's multi-model database service as a data store for mission-critical applications. The clear examples help in writing your own applications to take advantage of Cosmos DB's multi-model, globally distributed, elastic database. Simple step-by-step instructions show how to resolve common and uncommon scenarios involving Azure Cosmos DB, and scenarios such as delivering extremely low response times (in the order of milliseconds), and scaling rapidly and globally. Microsoft Azure Cosmos DB Revealed demonstrates a multitude of possible implementations to get you started. This book guides you toward best practices to get the most out of Microsoft's Cosmos DB service. Later chapters in the book cover advanced implementation features, helping you master important elements such as securing the database, querying, and using various APIs. What You'll Learn Set up a development environment to work with Azure Cosmos DB Configure Azure Cosmos DB in a production environment with multi-region distribution Query using all APIs, including SQL, JavaScript, MongoDB, and Graph Work with the Azure Cosmos DB.NET SDK in an application you built Access Cosmos DB from web applications created in .NET Who This Book Is For Developers who build applications to be hosted in Microsoft Azure, whether they use PaaS or IaaS. No previous knowledge of Azure Cosmos DB is assumed, but readers must be familiar with developing applications in Microsoft Visual Studio.

COMPLETE GUIDE TO TEST AUTOMATION

TECHNIQUES, PRACTICES, AND PATTERNS FOR BUILDING AND MAINTAINING EFFECTIVE SOFTWARE PROJECTS

Apress Rely on this robust and thorough guide to build and maintain successful test automation. As the software industry shifts from traditional waterfall paradigms into more agile ones, test automation becomes a highly important tool that allows your development teams to deliver software at an ever-increasing pace without compromising quality. Even though it may seem trivial to automate the repetitive tester's work, using test automation efficiently and properly is not trivial. Many test automation endeavors end up in the "graveyard" of software projects. There are many things that affect the value of test automation, and also its costs. This book aims to cover all of these aspects in great detail so you can make decisions to create the best test automation solution that will not only help your test automation project to succeed, but also allow the entire software project to thrive. One of the most important details that affects the success of the test automation is how easy it is to maintain the automated tests. Complete Guide to Test Automation provides a detailed hands-on guide for writing highly maintainable test code. What You'll Learn Know the real value to be expected from test automation Discover the key traits that will make your test automation project succeed Be aware of the different considerations to take into account when planning automated tests vs. manual tests Determine who should implement the tests and the implications of this decision Architect the test project and fit it to the architecture of the tested application Design and implement highly reliable automated tests Begin gaining value from test automation earlier Integrate test automation into the business processes of the development teamLeverage test automation to improve your organization's performance and quality, even without formal authority Understand how different types of automated tests will fit into your testing strategy, including unit testing, load and performance testing, visual testing, and more Who This Book Is For Those involved with software development such as test automation leads, QA managers, test automation developers, and development managers. Some parts of the book assume hands-on experience in writing code in an object-oriented language (mainly C# or Java), although most of the content is also relevant for nonprogrammers.

REAL-TIME WEB APPLICATION DEVELOPMENT

WITH ASP.NET CORE, SIGNALR, DOCKER, AND AZURE

Apress Design, develop, and deploy a real-world web application by leveraging modern open source technologies. This book shows you how to use ASP.NET Core to build cross-platform web applications along with SignalR to enrich the application by enabling real-time communication between server and clients. You will use Docker to containerize your application, integrate with GitHub to package the application, and provide continuous deployment to Azure's IaaS platform. Along the way, Real-Time Web Application Development covers topics including designing a Materialize CSS theme, using a test-driven development approach with xUnit.net, and securing your application with the OAuth 2.0 protocol. To further your understanding of the technology, you will learn logging and exception handling; navigation using view components; and how to work with forms and validations. The rich code samples from this book can be used to retrofit or upgrade existing ASP.NET Core applications. What You Will Learn Design and develop a real-world web application Implement security and data storage with OAuth2 and Azure Table Storage Orchestrate real-time notifications through SignalR Use GitHub and Travis CI for continuous integration of code Master Docker containerization and continuous deployment with Docker Cloud to Azure Linux virtual machines Who This Book Is For Developers and software engineers interested in learning an end-to-end approach to application development using Microsoft technologies.

BUILDING MICROSERVICES APPLICATIONS ON MICROSOFT AZURE

DESIGNING, DEVELOPING, DEPLOYING, AND MONITORING

Apress Implement microservices starting with their architecture and moving on to their deployment, manageability, security, and monitoring. This book focuses on the key scenarios where microservices architecture is preferred over a monolithic architecture. Building Microservices Applications on Microsoft Azure begins with a survey of microservices architecture compared to monolithic architecture and covers microservices implementation in detail. You'll see the key scenarios where microservices architecture is preferred over a monolithic approach. From there, you will explore the critical components and various deployment options of microservices on platforms such as Microsoft Azure (public cloud) and Azure Stack (hybrid cloud). This includes in-depth coverage of developing, deploying, and monitoring microservices on containers and orchestrating with Azure Service Fabric and Azure Kubernetes Cluster (AKS). This book includes practical experience from large-scale enterprise deployments, therefore it can be a quick reference for solution architects and developers to understand the critical factors while designing a microservices application. What You Will LearnExplore the use cases of microservices and monolithic architecture Discover the architecture patterns to build scalable, agile, and secure microservices applicationsDevelop and deploy microservices using Azure Service Fabric and Azure Kubernetes Service Secure microservices using the gateway patternSee the deployment options for Microservices on Azure StackImplement database patterns to handle the complexities introduced by microservices Who This Book Is For Architects and consultants who work on Microsoft Azure and manage large-scale deployments.

PRACTICAL DOCKER WITH PYTHON

BUILD, RELEASE AND DISTRIBUTE YOUR PYTHON APP WITH DOCKER

Apress Learn the key differences between containers and virtual machines. Adopting a project based approach, this book introduces you to a simple Python application to be developed and containerized with Docker. After an introduction to Containers and Docker you'll be guided through Docker installation and configuration. You'll also learn basic functions and commands used in Docker by running a simple container using Docker commands. The book then moves on to developing a Python based Messaging Bot using required libraries and virtual environment where you'll add Docker Volumes to your project, ensuring your container data is safe. You'll create a database container and link your project to it and finally, bring up the Bot-associated database all at once with Docker Compose. What You'll Learn Build, run, and distribute Docker containers Develop a Python App and containerize it Use Dockerfile to run the Python App Define and run multi-container applications with Docker Compose Work with persisting data generated by and used by Docker containers Who This Book Is For Intermediate developers/DevOps practitioners who are looking to improve their build and release workflow by containerizing applications

DEVOPS IN PYTHON

INFRASTRUCTURE AS PYTHON

Apress Explore and apply best practices for efficient application deployment. This book draws upon author Moshe Zadka's years of Dev Ops experience and focuses on the parts of Python, and the Python ecosystem, that are relevant for DevOps engineers. You'll start by writing command-line scripts and automating simple DevOps-style tasks. You'll then move on to more advanced cases, like using Jupyter as an auditable remote-control panel, and writing Ansible and Salt extensions. This work also covers how to use the AWS API to manage cloud infrastructure, and how to manage Python programs and environments on remote machines. Python was invented as a systems management language for distributed operating systems, which makes it an ideal tool for DevOps. Assuming a basic understanding of Python concepts, this book is perfect for engineers who want to move from operations/system administration into coding. What You'll LearnUse third party packages and create new packages Create operating system management and automation code in Python Write testable code, and testing best practices Work with REST APIs for web clients Who This Book Is For Junior or intermediate sysadmin who has picked up some bash and Python basics.

MICROSOFT AZURE ARCHITECT TECHNOLOGIES STUDY COMPANION

HANDS-ON PREPARATION AND PRACTICE FOR EXAM AZ-300 AND AZ-303

Apress Use this invaluable study companion and hands-on guide to help you prepare for the AZ-300 and AZ-303 certification exam and get well on your way to becoming an Azure Solutions Architect. The book starts with an overview of public, private, and hybrid clouds and then goes into configuration of virtual machines. Azure Resource Manager (ARM) and VM encryption are discussed along with Azure Monitor. You will learn how to work with Azure recommendations and analyze your resource configuration. Storage solutions, connecting to networks, and Azure Active Directory are discussed in depth, with examples. You will be able to migrate servers to Azure and demonstrate server-less computing, load balancing, and app services in Azure. You also will learn about Service Fabric, Azure Kubernetes services, and data security in Azure. Cosmos DB and Relational DB are covered and you will know how to connect to cloud databases using SQL Server Management Studio (SSMS). The book presents exercises, practice questions, and Azure architecture best practices. What Will You Learn Be able to speak with customers, understand their infrastructure, and provide a blueprint to migrate their framework to Azure Go beyond moving on-premise frameworks to Azure and design solutions on Azure from the start Know Azure architecture best practices to optimize Azure deployments Complete practice exercises to prepare for exam lab assignments Take a mock exam for practice Who This Book Is For Azure developers, Azure Solution Architects, and those aspiring to fill these roles, who possess some familiarity with cloud computing

THE DEFINITIVE GUIDE TO AZURE DATA ENGINEERING

MODERN ELT, DEVOPS, AND ANALYTICS ON THE AZURE CLOUD PLATFORM

Apress Build efficient and scalable batch and real-time data ingestion pipelines, DevOps continuous integration and deployment pipelines, and advanced analytics solutions on the Azure Data Platform. This book teaches you to design and implement robust data engineering solutions using Data Factory, Databricks, Synapse Analytics, Snowflake, Azure SQL database, Stream Analytics, Cosmos database, and Data Lake Storage Gen2. You will learn how to engineer your use of these Azure Data Platform components for optimal performance and scalability. You will also learn to design self-service capabilities to maintain and drive the pipelines and your workloads. The approach in this book is to guide you through a hands-on, scenario-based learning process that will empower you to promote digital innovation best practices while you work through your organization's projects, challenges, and needs. The clear examples enable you to use this book as a reference and guide for building data engineering solutions in Azure. After reading this book, you will have a far stronger skill set and confidence level in getting hands on with the Azure Data Platform. What You Will Learn Build dynamic, parameterized ELT data ingestion orchestration pipelines in Azure Data Factory Create data ingestion pipelines that integrate control tables for self-service ELT Implement a reusable logging framework that can be applied to multiple pipelines Integrate Azure Data Factory pipelines with a variety of Azure data sources and tools Transform data with Mapping Data Flows in Azure Data Factory Apply Azure DevOps continuous integration and deployment practices to your Azure Data Factory pipelines and development SQL databases Design and implement real-time streaming and advanced analytics solutions using Databricks, Stream Analytics, and Synapse Analytics Get started with a variety of Azure data services through hands-on examples Who This Book Is For Data engineers and data architects who are interested in learning architectural and engineering best practices around ELT and ETL on the Azure Data Platform, those who are creating complex Azure data engineering projects and are searching for patterns of success, and aspiring cloud and data professionals involved in data engineering, data governance, continuous integration and deployment of DevOps practices, and advanced analytics who want a full understanding of the many different tools and technologies that Azure Data Platform provides

BUILDING REST APIS WITH FLASK

CREATE PYTHON WEB SERVICES WITH MYSQL

Apress Develop RESTful web services using the Flask micro-framework and integrate them using MySQL. Use Flask to develop, deploy, and manage REST APIs with easy-to-read and understand Python code. Solve your problem from a choice of libraries. Learn to use MySQL as the web services database for your Flask API using SQLAlchemy ORM. Building REST APIs with Flask provides a primer on Flask, RESTful services, and working with pip to set up your virtual environment. The key differences between NoSQL and SQL are covered, and you are taught how to connect MySQL and Flask using SQLAlchemy. Author Kunal Relan presents best practices for creating REST APIs and guides you in structuring your app and testing REST endpoints. He teaches you how to set up authentication and render HTML using views. You learn how to write unit tests for your REST APIs, and understand mocks, assertions, and integration testing. You will know how to document your REST APIs, deploy your Flask application on all of the major cloud platforms, and debug and monitor your Flask application. What You'll LearnUse MySQL to create Flask REST APIs Test REST endpoints Create CRUD endpoints with Flask and MySQL Deploy Flask on all of the major cloud platforms Monitor your Flask application Who This Book Is For Python developers interested in REST API development using Flask and web developers with basic programming knowledge who want to learn how Python and REST APIs work together. Readers should be familiar with Python (command line, or at least pip) and MySQL.

ACCELERATE

THE SCIENCE OF LEAN SOFTWARE AND DEVOPS: BUILDING AND SCALING HIGH PERFORMING TECHNOLOGY ORGANIZATIONS

IT Revolution Winner of the Shingo Publication Award Accelerate your organization to win in the marketplace. How can we apply technology to drive business value? For years, we've been told that the performance of software delivery teams doesn't matter—that it can't provide a competitive advantage to our companies. Through four years of groundbreaking research to include data collected from the State of DevOps reports conducted with Puppet, Dr. Nicole Forsgren, Jez Humble, and Gene Kim set out to find a way to measure software delivery performance—and what drives it—using rigorous statistical methods. This book presents both the findings and the science behind that research, making the information accessible for readers to apply in their own organizations. Readers will discover how to measure the performance of their teams, and what capabilities they should invest in to drive higher performance. This book is ideal for management at every level.

AZURE DEVOPS FOR WEB DEVELOPERS

STREAMLINED APPLICATION DEVELOPMENT USING PAAS, IAAS, AND CONTAINERS

Apress Explore the architecture, product offerings, and the various stages of implementation processes in Azure DevOps. The book starts with the basic concepts of DevOps and moves on to discuss project management in Azure DevOps. Next, you will learn requirement management and version control in DevOps. Along the way, you will go through test management followed by continuous integration and build automation with more details on code quality and security implementations. Moving forward, you will learn release pipeline and infrastructure as code implementation including ARM-based environment provisioning and execution. Finally, you'll cover DevOps architecture blueprints used for deploying your web applications to different platforms . After reading this book, you will be able to understand each stage of Azure DevOps and master its implementation. What You Will Learn Understand the various concepts of Azure DevOps Apply DevOps concepts in a variety of application contexts including web applications, containers, and database Understand the implementation of end-to-end DevOps in Azure Work with the different DevOps design patterns and architectures in Azure Who Is This Book For: Developers and architects working with Azure.

ACHIEVING DEVOPS

A NOVEL ABOUT DELIVERING THE BEST OF AGILE, DEVOPS, AND MICROSERVICES

Apress Ben is stuck. A development lead with a strong vision for how the intersection of development and operations at his office can be improved, he can't help but feel overwhelmed and discouraged by common problems such as slow turnaround time, rushed and ineffective handover documentation, mounting technical debt, and a lagging QA process. What steps should Ben take to build the momentum needed to create positive changes within his company? In this unique business novel by Dave Harrison and Knox Lively, two DevOps professionals with years of diverse experience in the industry, you follow Ben as he solves work frustrations in order to adopt Agile, DevOps, and microservices architectures for his organization. Achieving DevOps addresses the "Now what?" moment many DevOps professionals face on their journey. The story provides you with the knowledge you need to navigate the internal political waters, build management support, show measurable results, and bring DevOps successfully into your organization. Come away with practical lessons and timeless business concepts. You'll know how to effect change in a company from the bottom up, gain support, and instill a pattern of progressively building on success. Experience Ben's progress vicariously in Achieving DevOps and bridge the gap between inspiration and the implementation of your own DevOps practices. Who This Book Is For Those serving as change agents who are working to influence and move their organizations toward a DevOps approach to software development and deployment: those working to effect change from the bottom up such as development leads, QA leads, project managers, and individual developers; and IT directors, CTOs, and others at the top of an organization who are being asked to lend their support toward DevOps implementation efforts

SOFTWARE ENGINEERING ASPECTS OF CONTINUOUS DEVELOPMENT AND NEW PARADIGMS OF SOFTWARE PRODUCTION AND DEPLOYMENT

FIRST INTERNATIONAL WORKSHOP, DEVOPS 2018, CHATEAU DE VILLEBRUMIER, FRANCE, MARCH 5-6, 2018, REVISED SELECTED PAPERS

Springer This book constitutes revised selected papers from the First International Workshop on Software Engineering Aspects of Continuous Development and New Paradigms of Software Production and Deployment, DEVOPS 2018, hled at the hateau de Villebrumier, France, in March 2018. The 17 papers presented in this volume were carefully reviewed and selected from 23 submissions. They cover a wide range of problems arising from Devops and related approaches, current tools, rapid development-deployment processes, effects on team performance, analytics, trustworthiness, microservices and related topics.

ADVANCES IN RAMS ENGINEERING

IN HONOR OF PROFESSOR AJIT KUMAR VERMA ON HIS 60TH BIRTHDAY

Springer Nature This book surveys reliability, availability, maintainability and safety (RAMS) analyses of various engineering systems. It highlights their role throughout the lifecycle of engineering systems and explains how RAMS activities contribute to their efficient and economic design and operation. The book discusses a variety of examples and applications of RAMS analysis, including: • software products; • electrical and electronic engineering systems; • mechanical engineering systems; • nuclear power plants; • chemical and process plants and • railway systems. The wide-ranging nature of the applications discussed highlights the multidisciplinary nature of complex engineering systems. The book provides a quick reference to the latest advances and terminology in various engineering fields, assisting students and researchers in the areas of reliability, availability, maintainability, and safety engineering.

PRO MICROSOFT HYPER-V 2019

PRACTICAL GUIDANCE AND HANDS-ON LABS

Apress Successfully create and manage your Hyper-V environment without any of the marketing fluff. This book's lab-driven, hands-on approach will get you up and running as quickly and efficiently as possible. Virtualization is the cornerstone of today's data center. As a modern-day IT pro, you are required to manage environments that are in a regular state of flux and increasing in both size and complexity. To keep up, you need practical information in a format that is succinct, yet comprehensive and highly applicable. Pro Hyper-V 2019 breaks down critical and time-saving topics into a series of easy-to-digest chapters, showing you how to perform Hyper-V management tasks using both GUI and PowerShell-based tools. Building on your existing knowledge of Windows Server management, Active Directory, networking, and storage, experts and Microsoft MVPs Syrewicze and Siddaway begin with a foundation of why computing workloads are virtualized. This is followed by chapters covering the range of management tasks associated with virtualized environments, including: managing hosts and guest machines; networking, storage, and high availability (host and guest); disaster recovery and virtual machine migration; and monitoring. What You'll Learn Apply practical information to administer your Hyper-V environments Understand multiple administration styles (GUI, command line, and automation) Written by IT pros for IT pros – just the information you really need without the padding Administer and use containers Utilize hands-on labs to learn about storage, networking, and high availability Who This Book Is For IT administrators tasked with implementing Hyper-V environments or migrating from VMware. IT pros joining a team that is responsible for managing Hyper-V and "lone administrators" covering the gamut in smaller organizations will also find this book indispensable.

THE ROBOTIC PROCESS AUTOMATION HANDBOOK

A GUIDE TO IMPLEMENTING RPA SYSTEMS

Apress While Robotic Process Automation (RPA) has been around for about 20 years, it has hit an inflection point because of the convergence of cloud computing, big data and AI. This book shows you how to leverage RPA effectively in your company to automate repetitive and rules-based processes, such as scheduling, inputting/transferring data, cut and paste, filling out forms, and search. Using practical aspects of implementing the technology (based on case studies and industry best practices), you'll see how companies have been able to realize substantial ROI (Return On Investment) with their implementations, such as by lessening the need for hiring or outsourcing. By understanding the core concepts of RPA, you'll also see that the technology significantly increases compliance – leading to fewer issues with regulations – and minimizes costly errors. RPA software revenues have recently soared by over 60 percent, which is the fastest ramp in the tech industry, and they are expected to exceed $1 billion by the end of 2019. It is generally seamless with legacy IT environments, making it easier for companies to pursue a strategy of digital transformation and can even be a gateway to AI. The Robotic Process Automation Handbook puts everything you need to know into one place to be a part of this wave. What You'll Learn Develop the right strategy and planDeal with resistance and fears from employeesTake an in-depth look at the leading RPA systems, including where they are most effective, the risks and the costsEvaluate an RPA system Who This Book Is For IT specialists and managers at mid-to-large companies

ADVANCES IN CONSULTING RESEARCH

RECENT FINDINGS AND PRACTICAL CASES

Springer This book brings together cutting-edge research on consulting in a single volume, thus helping to make the state-of-the-art in the field of consulting research more accessible, to promote better practices in business, and to spark further research. The respective articles approach consulting from very different angles, taking into account various approaches for and fields of consulting, consulting providers, clients and markets, as well as technologies and trends. The book will benefit all consultants who want to critically reflect on their own methods and approaches in light of recent scientific findings. It also offers a helpful guide for students in Management and IT-related courses who are either considering a career in consulting or want to be informed consulting clients. Lastly, the book provides a comprehensive review of current developments and trends in consulting that will foster future contributions in this important research field.

PIVOTAL CERTIFIED PROFESSIONAL CORE SPRING 5 DEVELOPER EXAM

A STUDY GUIDE USING SPRING FRAMEWORK 5

Apress Pass the Pivotal Certified Professional exam for Core Spring, based on the latest Spring Framework 5, using source code examples, study summaries, and mock exams. This book now includes WebFlux, reactive programming, and more found in Spring 5. You'll find a descriptive overview of certification-related Spring modules and a single example application demonstrating the use of all required Spring modules. Furthermore, in Pivotal Certified Professional Core Spring 5 Developer Exam, Second Edition, each chapter contains a brief study summary and question set, and the book's free downloadable source code package includes one mock exam (50 questions – like a real exam). After using this study guide, you will be ready to take and pass the Pivotal Certified Professional exam. When you become Pivotal Certified, you will have one of the most valuable credentials in Java. Pivotal certification helps you advance your skills and your career, and get the maximum benefit from Spring. Passing the exam demonstrates your understanding of Spring and validates your familiarity with: container-basics, aspect oriented programming (AOP), data access and transactions, Spring Security, Spring Boot, microservices, and Spring model-view-controller (MVC). Good luck! What You Will Learn Understand the core principles of Spring Framework 5Use dependency injectionWork with aspects in Spring and do AOP (aspect oriented programming)Control transactional behavior and work with SQL and NoSQL databasesCreate and secure web applications based on Spring MVCGet to know the format of the exam and the type of questions in itCreate Spring microservices applications Who This Book Is For Spring developers who have taken the Pivotal Core Spring class are eligible to take the Pivotal Certified Professional exam.

THREAT MODELING

"O'Reilly Media, Inc." Threat modeling is one of the most essential--and most misunderstood--parts of the development lifecycle. Whether you're a security practitioner or a member of a development team, this book will help you gain a better understanding of how you can apply core threat modeling concepts to your practice to protect your systems against threats. Contrary to popular belief, threat modeling doesn't require advanced security knowledge to initiate or a Herculean effort to sustain. But it is critical for spotting and addressing potential concerns in a cost-effective way before the code's written--and before it's too late to find a solution. Authors Izar Tarandach and Matthew Coles walk you through various ways to approach and execute threat modeling in your organization. Explore fundamental properties and mechanisms for securing data and system functionality Understand the relationship between security, privacy, and safety Identify key characteristics for assessing system security Get an in-depth review of popular and specialized techniques for modeling and analyzing your systems View the future of threat modeling and Agile development methodologies, including DevOps automation Find answers to frequently asked questions, including how to avoid common threat modeling pitfalls

REACT NATIVE FOR MOBILE DEVELOPMENT

HARNESS THE POWER OF REACT NATIVE TO CREATE STUNNING IOS AND ANDROID APPLICATIONS

Apress Develop native iOS and Android apps with ease using React Native. Learn by doing through an example-driven approach, and have a substantial running app at the end of each chapter. This second edition is fully updated to include ES7 (ECMAScript 7), the latest version of React Native (including Redux), and development on Android. You will start by setting up React Native and exploring the anatomy of React Native apps. You'll then move on to Redux data flow, how it differs from flux, and how you can include it in your React Native project to solve state management differently and efficiently. You will also learn how to boost your development by including popular packages developed by the React Native community that will help you write less; do more. Finally, you'll learn how to write test cases using Jest and submit your application to the App Store. React Native challenges the status quo of native iOS and Android development with revolutionary components, asynchronous execution, unique methods for touch handling, and much more. This book reveals the the path-breaking concepts of React.js and acquaints you with the React way of thinking so you can learn to create stunning user interfaces. What You'll Learn Build stunning iOS and Android applications Understand the Redux design pattern and use it in your project Interact with iOS and android device capabilities such as addressbook, camera, GPS and more with your apps Test and launch your application to the App StoreWho This Book Is For Anyone with JavaScript experience who wants to build native mobile applications but dreads the thought of programming in Objective-C or Java. Developers who have experience with JavaScript but are new or not acquainted to React Native or ReactJS.

LEARN MICROSERVICES WITH SPRING BOOT

A PRACTICAL APPROACH TO RESTFUL SERVICES USING RABBITMQ, EUREKA, RIBBON, ZUUL AND CUCUMBER

Apress Build a microservices architecture with Spring Boot, by evolving an application from a small monolith to an event-driven architecture composed of several services. This book follows an incremental approach to teach microservice structure, test-driven development, Eureka, Ribbon, Zuul, and end-to-end tests with Cucumber. Author Moises Macero follows a very pragmatic approach to explain the benefits of using this type of software architecture, instead of keeping you distracted with theoretical concepts. He covers some of the state-of-the-art techniques in computer programming, from a practical point of view. You'll focus on what's important, starting with the minimum viable product but keeping the flexibility to evolve it. What You'll Learn Build microservices with Spring Boot Use event-driven architecture and messaging with RabbitMQ Create RESTful services with Spring Master service discovery with Eureka and load balancing with Ribbon Route requests with Zuul as your API gateway Write end-to-end rests for an event-driven architecture using Cucumber Carry out continuous integration and deployment Who This Book Is For Those with at least some prior experience with Java programming. Some prior exposure to Spring Boot recommended but not required.

BUILDING XAMARIN.FORMS MOBILE APPS USING XAML

MOBILE CROSS-PLATFORM XAML AND XAMARIN.FORMS FUNDAMENTALS

Apress Leverage Xamarin.Forms to build iOS and Android apps using a single, cross-platform approach. This book is the XAML companion to the C# guide Xamarin Mobile Application Development. You'll begin with an overview of Xamarin.Forms, then move on to an in-depth XAML (eXtensible Application Markup Language) primer covering syntax, namespaces, markup extensions, constructors, and the XAML standard. XAML gives us both the power of decoupled UI development and the direct use of Xamarin.Forms elements. This book explores the core of the Xamarin.Forms mobile app UI: using layouts and FlexLayouts to position controls and views to design and build screens, formatting your UI using resource dictionaries, styles, themes and CSS, then coding user interactions with behaviors, commands, and triggers. You'll see how to use XAML to build sophisticated, robust cross-platform mobile apps and help your user get around your app using Xamarin.Forms navigation patterns. Building

Xamarin.Forms Mobile Apps Using XAML explains how to bind UI to data models using data binding and using the MVVM pattern, and how to customize UI elements for each platform using industry-standard menus, effects, custom renderers, and native view declaration. What You Will Learn Create world-class mobile apps for iOS and Android using C# and XAMLBuild a XAML UI decoupled from the C# code behind Design UI layouts such as FrameLayout, controls, lists, and navigation patterns Style your app using resource dictionaries, styles, themes, and CSS Customize controls to have platform-specific features using effects, custom renderers, and native views Who This Book Is For XAML and C# developers, architects, and technical managers as well as many Android and iOS developers

ANSIBLE

FROM BEGINNER TO PRO

Apress This book is your concise guide to Ansible, the simple way to automate apps and IT infrastructure. In less than 250 pages, this book takes you from knowing nothing about configuration management to understanding how to use Ansible in a professional setting. You will learn how to create an Ansible playbook to automatically set up an environment, ready to install an open source project. You'll extract common tasks into roles that you can reuse across all your projects, and build your infrastructure on top of existing open source roles and modules that are available for you to use. You will learn to build your own modules to perform actions specific to your business. By the end you will create an entire cluster of virtualized machines, all of which have your applications and all their dependencies installed automatically. Finally, you'll test your Ansible playbooks. Ansible can do as much or as little as you want it to. Ansible: From Beginner to Pro will teach you the key skills you need to be an Ansible professional. You'll be writing roles and modules and creating entire environments without human intervention in no time at all – add it to your library today. What You Will Learn Learn why Ansible is so popular and how to download and install it Create a playbook that automatically downloads and installs a popular open source project Use open source roles to complete common tasks, and write your own specific to your business Extend Ansible by writing your own modules Test your infrastructure using Test Kitchen and ServerSpec Who This Book Is For Developers that currently create development and production environments by hand. If you find yourself running apt-get install regularly, this book is for you. Ansible adds reproducibility and saves you time all at once. Ansible: From Beginner to Pro is great for any developer wanting to enhance their skillset and learn new tools.

C# 6.0 AND THE .NET 4.6 FRAMEWORK

Apress This new 7th edition of Pro C# 6.0 and the .NET 4.6 Platform has been completely revised and rewritten to reflect the latest changes to the C# language specification and new advances in the .NET Framework. You'll find new chapters covering all the important new features that make .NET 4.6 the most comprehensive release yet, including: A Refined ADO.NET Entity Framework Programming Model Numerous IDE and MVVM Enhancements for WPF Desktop Development Numerous updates to the ASP.NET Web APIs This comes on top of award winning coverage of core C# features, both old and new, that have made the previous editions of this book so popular. Readers will gain a solid foundation of object-oriented development techniques, attributes and reflection, generics and collections as well as numerous advanced topics not found in other texts (such as CIL opcodes and emitting dynamic assemblies). The mission of this book is to provide you with a comprehensive foundation in the C# programming language and the core aspects of the .NET platform plus overviews of technologies built on top of C# and .NET (ADO.NET and Entity Framework, Windows Communication Foundation (WCF), Windows Presentation Foundation (WPF), ASP.NET (WebForms, MVC, WebAPI).). Once you digest the information presented in these chapters, you'll be in a perfect position to apply this knowledge to your specific programming assignments, and you'll be well equipped to explore the .NET universe on your own terms. What You Will Learn: Be the first to understand the .NET 4.6 platform and C# 6. Discover the ins and outs of the leading .NET technology. Learn from an award-winning author who has been teaching the .NET world since version 1.0. Find complete coverage of XAML, .NET 4.6 and Visual Studio 2015 together with discussion of the new Windows Runtime.

SERVICE-ORIENTED AND CLOUD COMPUTING

8TH IFIP WG 2.14 EUROPEAN CONFERENCE, ESOCC 2020, HERAKLION, CRETE, GREECE, SEPTEMBER 28–30, 2020, PROCEEDINGS

Springer Nature This book constitutes the refereed proceedings of the 8th IFIP WG 2.14 European Conference on Service-Oriented and Cloud Computing, ESOCC 2020, held in Heraklion, Crete, Greece, in September 2020. The 6 full and 8 short papers presented in this volume were carefully reviewed and selected from 20 submissions. The main event mapped to the main research track which focused on the presentation of cutting-edge research in both the service-oriented and cloud computing areas. In conjunction, an industrial track was also held attempting to bring together academia and industry through showcasing the application of service-oriented and cloud computing research, especially in the form of case studies, in the industry. The chapters 'Identification of Comparison Key Elements and their Relationships for Cloud Service Selection' and 'Technology-Agnostic Declarative Deployment Automation of Cloud Applications' are available open access under a Creative Commons Attribution 4.0 International License via link.springer.com.