

Devops On The Microsoft Stack

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Hands-on Cloud Analytics with Microsoft Azure Stack Prashila Naik
2020-11-12 Explore and work with various Microsoft Azure services for real-time Data Analytics
KEY FEATURES Understanding what Azure can do with your data
Understanding the analytics services offered by Azure
Understand how data can be transformed to generate more data
Understand what is done after a Machine Learning model is built
Go through some Data Analytics real-world use cases
DESCRIPTION Data is the key input for Analytics. Building and implementing data platforms such as Data Lakes, modern Data Marts, and Analytics at scale require the right cloud platform that Azure provides through its services. The book starts by sharing how analytics has evolved and continues to evolve. Following the introduction, you will deep dive into ingestion technologies. You will learn about Data processing services in Azure. You will next learn about what is meant by a Data Lake and understand how Azure Data Lake Storage is used for analytical workloads. You will then learn about critical services that will provide actual Machine Learning capabilities in Azure. The book also talks about Azure Data Catalog for cataloging, Azure AD for Access Management, Web Apps and PowerApps for cloud web applications, Cognitive services for Speech, Vision, Search and Language, Azure VM for computing and Data Science VMs,

Functions as serverless computing, Kubernetes and Containers as deployment options. Towards the end, the book discusses two use cases on Analytics.
WHAT WILL YOU LEARN Explore and work with various Azure services
Orchestrate and ingest data using Azure Data Factory
Learn how to use Azure Stream Analytics
Get to know more about Synapse Analytics and its features
Learn how to use Azure Analysis Services and its functionalities
WHO THIS BOOK IS FOR This book is for anyone who has basic to intermediate knowledge of cloud and analytics concepts and wants to use Microsoft Azure for Data Analytics. This book will also benefit Data Scientists who want to use Azure for Machine Learning.
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Hands-On Software Architecture with C# 8 and .NET Core 3

Gabriel Baptista
2019-11-29 Design scalable and high-performance enterprise applications using the latest features of C# 8 and .NET Core 3
Key Features Become a software architect capable of creating modular apps for specific business needs Design high-performance software systems using the latest features of C# 8 and .NET Core 3
Solve scalability problems in web apps using enterprise architectural patterns
Book Description Software architecture is the practice of implementing structures and systems that streamline the software development process and improve the quality of an app. With this software architecture book, you'll follow a hands-on approach to learning various architectural methods that will help you develop and deliver high-quality products. You'll begin by understanding how to transform user requirements into architectural needs and exploring the differences between functional and non-functional requirements. Next, you'll explore how to carefully choose a cloud solution for your infrastructure, along with covering dos and don'ts that will help you manage your app in a cloud-based environment. Later chapters will cover techniques and processes such as DevOps, microservices, and continuous integration, along with providing insights into implementing them using Microsoft technologies such as ASP.NET Core, the Entity Framework, Cosmos DB, and Azure DevOps. You will also learn about testing frameworks and automation tools that will help you through the development process. Finally, you'll discover design patterns and various software approaches that will allow you to solve common problems faced during development. By the end of this book, you'll be able to develop and deliver highly scalable enterprise-ready apps that meet customers' business needs. What you will learn Overcome real-world architectural challenges and solve design consideration issues Apply architectural approaches like Layered Architecture, service-oriented

architecture (SOA), and microservices Learn to use tools like containers, Docker, and Kubernetes to manage microservices Get up to speed with Azure Cosmos DB for delivering multi-continental solutions Learn how to program and maintain Azure Functions using C# Understand when to use test-driven development (TDD) as an approach for software development Write automated functional test cases for your projects Who this book is for This book is for engineers and senior developers aspiring to become architects or looking to build enterprise applications with the .NET Stack. Experience with C# and .NET is required to understand this book.

Full Stack Development with JHipster
Deepu K Sasidharan 2020-01-23 Written by the core development team of JHipster and fully updated for JHipster 6, Java 11, and Spring Boot 2.1, this book will show you how to build modern web applications with real-world examples and best practices
Key Features Build full stack applications with modern JavaScript frameworks such as Angular, React, and Vue.js Explore the JHipster microservices stack, which includes Spring Cloud, Netflix OSS, and the Elastic Stack Learn advanced local and cloud deployment strategies using Docker and Kubernetes
Book Description JHipster is an open source development platform that allows you to easily create web apps and microservices from scratch without spending time on wiring and integrating different technologies. Updated to include JHipster 6, Java 11, Spring Boot 2.1, Vue.js, and Istio, this second edition of Full Stack Development with JHipster will help you build full stack applications and microservices seamlessly. You'll start by understanding JHipster and its associated tools, along with the essentials of full stack development, before building a monolithic web app. You'll then learn the JHipster Domain Language (JDL) with entity modeling using JDL-Studio. With this book, you'll create production-ready web apps using Spring Boot, Spring Framework, Angular, and Bootstrap, and run tests and set up continuous integration pipelines with

Jenkins. As you advance, you'll learn how to convert your monoliths to microservices and how to package your application for production with various deployment options, including Heroku and Google Cloud. You'll also learn about Docker and Kubernetes, along with an introduction to the Istio service mesh. Finally, you'll build your client-side with React and Vue.js and discover JHipster's best practices. By the end of the book, you'll be able to leverage the best tools available to build modern web apps. What you will learn

Create full stack apps from scratch using the latest features of JHipster 6 and Spring Boot 2.1

Build business logic by creating and developing entity models using JDL

Understand how to convert a monolithic architecture into a full-fledged microservices architecture

Build and package your apps for production using Docker

Deploy your application to Google Cloud with Kubernetes

Create continuous integration/continuous delivery pipelines with Jenkins

Create applications using Angular, React, and Vue.js

client-side frameworks

Who this book is for

This book is for full stack developers who want to build web applications and microservices speedily without writing a lot of boilerplate code. If you're a backend developer looking to learn full stack development with JavaScript frameworks and libraries such as Angular, React, and Vue.js, you'll find this book useful. Experience in building Java web applications is required. Some exposure to the Spring Framework would be beneficial but not necessary to get the most out of this book.

Building Cloud Apps with Microsoft Azure
Scott Guthrie 2014-07-18

This ebook walks you through a patterns-based approach to building real-world cloud solutions. The patterns apply to the development process as well as to architecture and coding practices. The content is based on a presentation developed by Scott Guthrie and delivered by him at the Norwegian Developers Conference (NDC) in June of 2013 (part 1, part 2), and at Microsoft Tech Ed Australia in September 2013 (part 1,

part 2). Many others updated and augmented the content while transitioning it from video to written form. Who should read this book

Developers who are curious about developing for the cloud, are considering a move to the cloud, or are new to cloud development will find here a concise overview of the most important concepts and practices they need to know. The concepts are illustrated with concrete examples, and each chapter includes links to other resources that provide more in-depth information. The examples and the links to additional resources are for Microsoft frameworks and services, but the principles illustrated apply to other web development frameworks and cloud environments as well. Developers who are already developing for the cloud may find ideas here that will help make them more successful. Each chapter in the series can be read independently, so you can pick and choose topics that you're interested in. Anyone who watched Scott Guthrie's "Building Real World Cloud Apps with Windows Azure" presentation and wants more details and updated information will find that here.

Assumptions

This ebook expects that you have experience developing web applications by using Visual Studio and ASP.NET. Familiarity with C# would be helpful in places.

Go for DevOps John Doak 2022-07-08

Achieve reliable release automation and get zero troublesome notifications on your release day

Key Features

Develop the skills to build command-line tools to control thousands of nodes

Use Go to create Terraform providers and GitHub actions and extend Kubernetes

Gain the knowledge to build DevOps workflows that are understandable, scalable, and safe

Book Description

Go is the go-to language for DevOps libraries and services, and without it, achieving fast and safe automation is a challenge. With the help of Go for DevOps, you'll learn how to deliver services with ease and safety, becoming a better DevOps engineer in the process. Some of the key things this book will teach you are how to write Go software to automate

configuration management, update remote machines, author custom automation in GitHub Actions, and interact with Kubernetes. As you advance through the chapters, you'll explore how to automate the cloud using software development kits (SDKs), extend HashiCorp's Terraform and Packer using Go, develop your own DevOps services with gRPC and REST, design system agents, and build robust workflow systems. By the end of this Go for DevOps book, you'll understand how to apply development principles to automate operations and provide operational insights using Go, which will allow you to react quickly to resolve system failures before your customers realize something has gone wrong. What you will learn

Understand the basic structure of the Go language to begin your DevOps journey

Interact with filesystems to read or stream data

Communicate with remote services via REST and gRPC

Explore writing tools that can be used in the DevOps environment

Develop command-line operational software in Go

Work with popular frameworks to deploy production software

Create GitHub actions that streamline your CI/CD process

Write a ChatOps application with Slack to simplify production visibility

Who this book is for

This book is for Ops and DevOps engineers who would like to use Go to develop their own DevOps tooling or integrate custom features with DevOps tools such as Kubernetes, GitHub Actions, HashiCorp Packer, and Terraform. Experience with some type of programming language, but not necessarily Go, is necessary to get started with this book.

Full Circle Magazine #97 Ronnie Tucker
2015-05-29 This month: * Command & Conquer * How-To : Run Android Apps in Ubuntu, LibreOffice, Using LaTeX, and Programming JavaScript * Graphics : Inkscape.* Chrome Cult * Linux Labs: IP Camera with Powerline Adapter* Ubuntu Phones * Review: KDE Plasma 5* Ubuntu Games: This War of Mineplus: News, Arduino, Q&A, and soooo much more.
Software Project Management for

Distributed Computing Zaigham Mahmood
2017-04-04 This unique volume explores cutting-edge management approaches to developing complex software that is efficient, scalable, sustainable, and suitable for distributed environments. Practical insights are offered by an international selection of pre-eminent authorities, including case studies, best practices, and balanced corporate analyses. Emphasis is placed on the use of the latest software technologies and frameworks for life-cycle methods, including the design, implementation and testing stages of software development. Topics and features:

- Reviews approaches for reusability, cost and time estimation, and for functional size measurement of distributed software applications
- Discusses the core characteristics of a large-scale defense system, and the design of software project management (SPM) as a service
- Introduces the 3PR framework, research on crowdsourcing software development, and an innovative approach to modeling large-scale multi-agent software systems
- Examines a system architecture for ambient assisted living, and an approach to cloud migration and management assessment
- Describes a software error proneness mechanism, a novel Scrum process for use in the defense domain, and an ontology annotation for SPM in distributed environments
- Investigates the benefits of agile project management for higher education institutions, and SPM that combines software and data engineering

This important text/reference is essential reading for project managers and software engineers involved in developing software for distributed computing environments. Students and researchers interested in SPM technologies and frameworks will also find the work to be an invaluable resource. Prof. Zaigham Mahmood is a Senior Technology Consultant at Debasis Education UK and an Associate Lecturer (Research) at the University of Derby, UK. He also holds positions as Foreign Professor at NUST and IIU in Islamabad, Pakistan, and Professor Extraordinaire at

the North West University Potchefstroom, South Africa.

Azure Infrastructure as Code Henry Been 2022-08-02 Master ARM templates, Bicep scripting, and other Azure Infrastructure-as-Code tools, techniques, and practices to run application infrastructure on the Azure cloud. Azure Infrastructure as Code is a comprehensive guide to seamlessly managing your application infrastructure with Azure's native IaC tools. The book is aimed at supporting collaboration between operations professionals and software developers, to help speed up and improve the quality of software delivery. After you master the basics, you'll dive into niche and advanced topics such as testing, reusing templates between multiple teams, and how you can define policy as code. Discover cutting-edge Deployment Stacks, and how they can help you clean up unused resources, group resources in logical containers to help visualize potential changes, and build starting plateaus for other teams to work on. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Software Engineering: Practical Approach Driven Swarnalath K S 2020-06-22 An introductory course in Software Engineering remains one of the hardest subjects to teach largely because of the wide range of topics the area encompasses. We have believed for some time that we often tend to teach too many concepts and topics in an introductory course resulting in shallow knowledge and little insight on the application of these concepts. And Software Engineering is finally about the application of concepts to efficiently engineer good software solutions. We believe that an introductory course in Software Engineering should focus on imparting to students the knowledge and skills that are needed to successfully execute a commercial project of a few person-months efforts while employing proper practices and techniques. It is worth pointing out that a vast majority of the projects executed in

the industry today fall in this scope—executed by a small team over a few months. I also believe that by carefully selecting the concepts and topics, we can, in the course of a semester, achieve this. This is the motivation of this book. The goal of this book is to introduce to the students a limited number of concepts and practices which will achieve the following two objectives: Teach the student the skills needed to execute a smallish commercial project. Provide the students with the necessary conceptual background for undertaking advanced studies in software engineering, through courses or on their own. I have included in this book only those concepts that I believe are foundational and through which the two objectives mentioned above can be met. Advanced topics have been consciously left out. As executing a software project requires skills in two dimensions—engineering and project management, this book focuses on key tasks in these two dimensions and discusses concepts and techniques that can be applied to effectively execute these tasks. The book is organized in a simple manner, with one chapter for each of the key tasks in a project. For engineering, these tasks are requirements analysis and specification, architecture design, module-level design, coding and unit testing, and testing. For project management, the key tasks are project planning and project monitoring and control, but both are discussed together in one chapter on project planning as even monitoring has to be planned. In addition, the book contains one chapter that clearly defines the problem domain of Software Engineering and another Chapter that discusses the central concept of software process which integrates the different tasks executed in a project. Each chapter opens with some introduction and what the reader can expect to learn from the chapter. For the task covered in the chapter, the important concepts are first discussed, followed by a discussion of the output of the task, the desired quality properties of the output, and some practical methods and notations for performing the

task. The explanations are supported by examples, and the key learnings are summarized in the end for the reader.

[Azure Stack Hub Demystified](#) Richard Young 2021-10-07 Deploy, configure, administer, and run Microsoft Azure Stack Hub Key Features Understand the topics required for the Microsoft Azure AZ-600 exam Configure and provide services from Microsoft Azure Stack Hub Implement data center integration with Microsoft Azure Stack Hub Book Description Azure Stack Hub is the on-premise offering from Microsoft, which provides Azure Cloud services within a customer's own data center. It provides consistent processes between on-site and the cloud, allowing developers to test locally and deploy to the cloud in exactly the same manner. Azure Stack Hub Demystified provides complete coverage of deploying, configuring, administering, and running Microsoft Azure Stack Hub efficiently. Firstly, you will learn how to deploy Azure Stack Hub within an organization. As you progress, you'll understand configuration and the different services provided by the platform. The book also focuses on the underlying architecture and connectivity options for the modern data center. Later, you will understand various approaches to DevOps and their implementation, and learn key topics for the AZ-600 exam. By the end of this Azure book, you will have a thorough understanding of Azure Stack Hub and the services that are provided by the platform, along with the confidence and information you need to be able to pass the AZ-600 exam. What you will learn Understand the architecture of Azure Stack Hub Get up to speed with the management and administration of Azure Stack Hub Explore how to administer virtual networking within your Azure Stack Become well versed in using the Azure Stack Hub support model and updating Azure Stack Hub Understand how licensing and billing is done with Azure Stack Hub Discover the tools that can be used to implement security within Azure Stack Hub Focus on how DevOps practices can be incorporated with Azure Stack

Hub Who this book is for If you are an Azure Administrator and Azure Stack Hub Operator who provides or is looking to provide cloud services to end users or customers within their own data center, then this book is for you. This book will also be beneficial to those who are preparing for Exam AZ-600: Configuring and Operating a Hybrid Cloud with Microsoft Azure Stack Hub.

Software Architecture with C# 10 and .NET 6 Gabriel Baptista 2022-03-15 Design scalable and high-performance enterprise applications using the latest features of C# 10 and .NET 6 Key Features Gain comprehensive software architecture knowledge and the skillset to create fully modular apps Solve scalability problems in web apps using enterprise architecture patterns Master new developments in front-end architecture and the application of AI for software architects Book Description Software architecture is the practice of implementing structures and systems that streamline the software development process and improve the quality of an app. This fully revised and expanded third edition, featuring the latest features of .NET 6 and C# 10, enables you to acquire the key skills, knowledge, and best practices required to become an effective software architect. Software Architecture with C# 10 and .NET 6, Third Edition features new chapters that describe the importance of the software architect, microservices with ASP.NET Core, and analyzing the architectural aspects of the front-end in the applications, including the new approach of .NET MAUI. It also includes a new chapter focused on providing a short introduction to artificial intelligence and machine learning using ML.NET, and updated chapters on Azure Kubernetes Service, EF Core, and Blazor. You will begin by understanding how to transform user requirements into architectural needs and exploring the differences between functional and non-functional requirements. Next, you will explore how to choose a cloud solution for your infrastructure, taking into account the

factors that will help you manage a cloud-based app successfully. Finally, you will analyze and implement software design patterns that will allow you to solve common development problems. By the end of this book, you will be able to build and deliver highly scalable enterprise-ready apps that meet your business requirements. What you will learn

Use proven techniques to overcome real-world architectural challenges

Apply architectural approaches such as layered architecture

Leverage tools such as containers to manage microservices effectively

Get up to speed with Azure features for delivering global solutions

Program and maintain Azure Functions using C#

10 Understand when it is best to use test-driven development (TDD)

Implement microservices with ASP.NET Core in modern architectures

Enrich your application with Artificial Intelligence

Get the best of DevOps principles to enable CI/CD environments

Who this book is for

This book is for engineers and senior software developers aspiring to become architects or looking to build enterprise applications with the .NET Stack. Basic familiarity with C# and .NET is required to get the most out of this book.

Enterprise Application Architecture with .NET Core Ganesan Senthilvel 2017-04-25

Architect and design highly scalable, robust, clean and highly performant applications in .NET Core

About This Book

Incorporate architectural soft-skills such as DevOps and Agile methodologies to enhance program-level objectives

Gain knowledge of architectural approaches on the likes of SOA architecture and microservices to provide traceability and rationale for architectural decisions

Explore a variety of practical use cases and code examples to implement the tools and techniques described in the book

Who This Book Is For

This book is for experienced .NET developers who are aspiring to become architects of enterprise-grade applications, as well as software architects who would like to leverage .NET to create effective blueprints of applications. What

You Will Learn

Grasp the important aspects and best practices of application lifecycle management

Leverage the popular ALM tools, application insights, and their usage to monitor performance, testability, and optimization tools in an enterprise

Explore various authentication models such as social media-based authentication, 2FA and OpenID Connect, learn authorization techniques

Explore Azure with various solution approaches for Microservices and Serverless architecture along with Docker containers

Gain knowledge about the recent market trends and practices and how they can be achieved with .NET Core and Microsoft tools and technologies

In Detail

If you want to design and develop enterprise applications using .NET Core as the development framework and learn about industry-wide best practices and guidelines, then this book is for you. The book starts with a brief introduction to enterprise architecture, which will help you to understand what enterprise architecture is and what the key components are. It will then teach you about the types of patterns and the principles of software development, and explain the various aspects of distributed computing to keep your applications effective and scalable. These chapters act as a catalyst to start the practical implementation, and design and develop applications using different architectural approaches, such as layered architecture, service oriented architecture, microservices and cloud-specific solutions. Gradually, you will learn about the different approaches and models of the Security framework and explore various authentication models and authorization techniques, such as social media-based authentication and safe storage using app secrets. By the end of the book, you will get to know the concepts and usage of the emerging fields, such as DevOps, BigData, architectural practices, and Artificial Intelligence. Style and approach

Filled with examples and use cases, this guide takes a no-nonsense approach to show you the best tools and techniques required to become a successful software architect.

Systems, Software and Services Process Improvement Alastair Walker 2019-09-09

This volume constitutes the refereed proceedings of the 26th European Conference on Systems, Software and Services Process Improvement, EuroSPI conference, held in Edinburgh, Scotland, in September 2019. The 18 revised full papers presented were carefully reviewed and selected from 28 submissions. They are organized in topical sections: Visionary Papers, SPI and Safety and Security, SPI and Assessments, SPI and Future Qualification & Team Performance, and SPI Manifesto and Culture. The selected workshop papers are also presented and organized in following topical sections: GamifySPI, Digitalisation of Industry, Infrastructure and E-Mobility. -Best Practices in Implementing Traceability. - Good and Bad Practices in Improvement. - Functional Safety and Cybersecurity. - Experiences with Agile and Lean. - Standards and Assessment Models. -Team Skills and Diversity Strategies. -Recent Innovations.

Docker on Windows Elton Stoneman 2019-02-28 Containers are a new way to run software. They're efficient, secure and portable. You can run apps in Docker with no code changes. Docker helps to meet the biggest challenges in IT: modernizing legacy apps, building new apps, moving to the cloud, adopting DevOps and staying innovative. This book teaches all you need to know about Docker on Windows.

Implementing Azure: Putting Modern DevOps to Use Florian Klaffenbach 2019-01-31 Explore powerful Azure DevOps solutions to develop and deploy your software faster and more efficiently. Key FeaturesBuild modern microservice-based systems with Azure architectureLearn to deploy and manage cloud services and virtual machinesConfigure clusters with Azure Service Fabric for deploymentBook Description This Learning Path helps you understand microservices architecture and leverage various services of Microsoft Azure Service Fabric to build, deploy, and maintain highly scalable enterprise-grade

applications. You will learn to select an appropriate Azure backend structure for your solutions and work with its toolkit and managed apps to share your solutions with its service catalog. As you progress through the Learning Path, you will study Azure Cloud Services, Azure-managed Kubernetes, and Azure Container Services deployment techniques. To apply all that you've understood, you will build an end-to-end Azure system in scalable, decoupled tiers for an industrial bakery with three business domains. Toward the end of this Learning Path, you will build another scalable architecture using Azure Service Bus topics to send orders between decoupled business domains with scalable worker roles processing these orders. By the end of this Learning Path, you will be comfortable in using development, deployment, and maintenance processes to build robust cloud solutions on Azure. This Learning Path includes content from the following Packt products: Learn Microsoft Azure by Mohamed WaliImplementing Azure Solutions - Second Edition by Florian Klaffenbach, Oliver Michalski, Markus KleinMicroservices with Azure by Namit Tanasseri and Rahul RaiWhat you will learnStudy various Azure Service Fabric application programming modelsCreate and manage a Kubernetes cluster in Azure Kubernetes ServiceUse site-to-site VPN and ExpressRoute connections in your environmentDesign an Azure IoT app and learn to operate it in various scenariosImplement a hybrid Azure design using Azure StackBuild Azure SQL databases with Code First MigrationsIntegrate client applications with Web API and SignalR on AzureImplement the Azure Active Directory (Azure AD) across the entire systemWho this book is for If you are an IT system architect, network admin, or a DevOps engineer who wants to implement Azure solutions for your organization, this Learning Path is for you. Basic knowledge of the Azure Cloud platform will be beneficial.

Microsoft Hybrid Cloud Unleashed with Azure Stack and Azure, First Edition

Kerrie Meyler 2017 Microsoft Hybrid Cloud Unleashed brings together comprehensive and practical insights into hybrid cloud technologies, complete CloudOps and DevOps implementation strategies, and detailed guidance for deploying Microsoft Azure Stack in your environment. Written by five Microsoft Cloud and Datacenter Management MVPs, this book is built on real-world scenarios and the authors' extraordinary hands-on experiences as early adopters. Step by step, the authors help you integrate your optimal mix of private and public cloud, with a unified management experience that lets you move workloads at will, achieving unprecedented flexibility. The authors also guide you through all aspects of building your own secure, high-performance hybrid cloud infrastructure. You'll discover how Azure Stack enables you to run data centers with the same scalability, redundancy, and reliability as Microsoft's Azure data centers; how to integrate Azure infrastructure and platform services with internal operations; and how to manage crucial external dependencies. The book concludes with a deep dive into automating and customizing Azure Stack for maximum reliability, productivity, and cost savings. Detailed information on how to Run a private/hybrid cloud on your hardware in your data center, using APIs and code identical to public Azure Apply ITIL and DevOps lifecycles to your hybrid cloud implementation Gain a deep understanding of Azure Stack architecture, components, and internals Install and configure Azure Stack and master the Azure Stack Portal Integrate and utilize infrastructure, core, and custom resource providers Effectively provision, secure, and manage tenants Manage, monitor, troubleshoot, and back up Azure Stack with CloudOps Automate resource provisioning with PowerShell, the Azure CLI, templates, and Azure Stack's API Write your own Azure Resource Manager templates Centrally automate cloud management and complex tasks connected to external systems Develop customized, production-ready Azure Stack

marketplace items

WinOps Jonathon Lee Wright 2018
DevOps for Networking Steven Armstrong 2016-10-28 Boost your organization's growth by incorporating networking in the DevOps culture About This Book Implement networking fundamentals to the DevOps culture with ease, improving your organization's stability Leverage various open source tools such as Puppet and Ansible in order to automate your network This step-by-step learning guide collaborating the functions of developers and network administrators Who This Book Is For The book is aimed for Network Engineers, Developers, IT operations and System admins who are planning to incorporate Networking in DevOps culture and have no knowledge about it. What You Will Learn Learn about public and private cloud networking using AWS and OpenStack as examples Explore strategies that can be used by engineers or managers to initiate the cultural changes required to enable the automation of network functions Learn about SDN and how an API-driven approach to networking can help solve common networking problems Get the hang of configuration management tools, such as Ansible and Jenkins, that can be used to orchestrate and configure network devices Setup continuous integration, delivery, and deployment pipelines for network functions Create test environments for network changes Understand how load balancing is becoming more software defined with the emergence of microservice applications In Detail Frustrated that your company's network changes are still a manual set of activities that slow developers down? It doesn't need to be that way any longer, as this book will help your company and network teams embrace DevOps and continuous delivery approaches, enabling them to automate all network functions. This book aims to show readers network automation processes they could implement in their organizations. It will teach you the fundamentals of DevOps in networking and how to improve DevOps processes and workflows by providing automation in your

network. You will be exposed to various networking strategies that are stopping your organization from scaling new projects quickly. You will see how SDN and APIs are influencing DevOps transformations, which will in turn help you improve the scalability and efficiency of your organizations networks operations. You will also find out how to leverage various configuration management tools such as Ansible, to automate your network. The book will also look at containers and the impact they are having on networking as well as looking at how automation impacts network security in a software-defined network. Style and approach This will be a comprehensive, learning guide for teaching our readers how networking can be leveraged to improve the DevOps culture for any organization.

Machine Learning for Decision Makers

Patanjali Kashyap 2018-01-04 Take a deep dive into the concepts of machine learning as they apply to contemporary business and management. You will learn how machine learning techniques are used to solve fundamental and complex problems in society and industry. Machine Learning for Decision Makers serves as an excellent resource for establishing the relationship of machine learning with IoT, big data, and cognitive and cloud computing to give you an overview of how these modern areas of computing relate to each other. This book introduces a collection of the most important concepts of machine learning and sets them in context with other vital technologies that decision makers need to know about. These concepts span the process from envisioning the problem to applying machine-learning techniques to your particular situation. This discussion also provides an insight to help deploy the results to improve decision-making. The book uses case studies and jargon busting to help you grasp the theory of machine learning quickly. You'll soon gain the big picture of machine learning and how it fits with other cutting-edge IT services. This knowledge will give you confidence in your decisions for the future of your business. What You Will Learn Discover the machine

learning, big data, and cloud and cognitive computing technology stack Gain insights into machine learning concepts and practices Understand business and enterprise decision-making using machine learning Absorb machine-learning best practices Who This Book Is For Managers tasked with making key decisions who want to learn how and when machine learning and related technologies can help them.

Microsoft Hybrid Cloud Unleashed with Azure Stack and Azure

Kerrie Meyler 2017-11-21 Microsoft Hybrid Cloud Unleashed brings together comprehensive and practical insights into hybrid cloud technologies, complete CloudOps and DevOps implementation strategies, and detailed guidance for deploying Microsoft Azure Stack in your environment. Written by five Microsoft Cloud and Datacenter Management MVPs, this book is built on real-world scenarios and the authors' extraordinary hands-on experiences as early adopters. Step by step, the authors help you integrate your optimal mix of private and public cloud, with a unified management experience that lets you move workloads at will, achieving unprecedented flexibility. The authors also guide you through all aspects of building your own secure, high-performance hybrid cloud infrastructure. You'll discover how Azure Stack enables you to run data centers with the same scalability, redundancy, and reliability as Microsoft's Azure data centers; how to integrate Azure infrastructure and platform services with internal operations; and how to manage crucial external dependencies. The book concludes with a deep dive into automating and customizing Azure Stack for maximum reliability, productivity, and cost savings. Detailed information on how to Run a private/hybrid cloud on your hardware in your data center, using APIs and code identical to public Azure Apply ITIL and DevOps lifecycles to your hybrid cloud implementation Gain a deep understanding of Azure Stack architecture, components, and internals Install and configure Azure Stack and master the Azure Stack Portal

Integrate and utilize infrastructure, core, and custom resource providers Effectively provision, secure, and manage tenants Manage, monitor, troubleshoot, and back up Azure Stack with CloudOps Automate resource provisioning with PowerShell, the Azure CLI, templates, and Azure Stack's API Write your own Azure Resource Manager templates Centrally automate cloud management and complex tasks connected to external systems Develop customized, production-ready Azure Stack marketplace items

Modernizing the Datacenter with Windows Server and Hybrid Cloud John McCabe 2019-07-24 Transform your datacenter for breakthrough flexibility, agility, and scalability! Using public, private, and hybrid cloud services, you can transform your datacenter to serve fast-changing workloads, process and analyze enormous amounts of data, and achieve unprecedented flexibility and value. In this guide, two world-renowned experts in Microsoft datacenter technology show how to effectively leverage current legacy systems as you incorporate your optimal mix of cloud services. Drawing on extensive experience implementing Microsoft cloud solutions, they walk you step-by-step through your entire transition: strategy, deployment, security, identity protection, management, PowerShell automation, and more. Two concluding chapters offer indispensable advice for maximizing datacenter efficiency and supporting future innovation. Two leading enterprise cloud and Windows Server experts show how to: Move from legacy IT models to an agile service structure Implement managed self-service, iteration-based software updates, immutable infrastructure, and other elements of a modern IT environment Plan and smoothly integrate on-premises, Azure, Azure Stack, and Hybrid Cloud components Fortify IT security now and in the future Safeguard identities via new models and tools, including Remote Credential Guard Protect the OS, on premises and in the cloud Optimize datacenter efficiency via enterprise-class virtualization and other

advanced technologies Promote innovation via microservices, DevOps, and NanoServer containerization

Hands-On Full-Stack Web Development with ASP.NET Core Tamir Dresher

2018-10-31 Become a full-stack developer by learning popular Microsoft technologies and platforms such as .NET Core, ASP.NET Core, Entity Framework, and Azure Key Features Bring static typing to web development with features compatible in TypeScript 3 Implement a slim marketplace single page application (SPA) in Angular, React, and Vue Modernize your web apps with Microsoft Azure, Visual Studio, and GitBook Description Today, full-stack development is the name of the game. Developers who can build complete solutions, including both backend and frontend products, are in great demand in the industry, hence being able to do so a desirable skill. However, embarking on the path to becoming a modern full-stack developer can be overwhelmingly difficult, so the key purpose of this book is to simplify and ease the process. This comprehensive guide will take you through the journey of becoming a full-stack developer in the realm of the web and .NET. It begins by implementing data-oriented RESTful APIs, leveraging ASP.NET Core and Entity Framework. Afterward, it describes the web development field, including its history and future horizons. Then, you'll build webbased Single-Page Applications (SPAs) by learning about numerous popular technologies, namely TypeScript, Angular, React, and Vue. After that, you'll learn about additional related concerns involving deployment, hosting, and monitoring by leveraging the cloud; specifically, Azure. By the end of this book, you'll be able to build, deploy, and monitor cloud-based, data-oriented, RESTful APIs, as well as modern web apps, using the most popular frameworks and technologies. What you will learn Build RESTful APIs in C# with ASP.NET Core, web APIs, and Entity Framework See the history and future horizons of the web development field Bring static-typing to web apps using

TypeScriptBuild web applications using Angular, React, and VueDeploy your application to the cloudWrite web applications that scale, can adapt to changes, and are easy to maintainDiscover best practices and real-world tips and tricksSecure your backend server with Authentication and Authorization using OAuth 2.0Who this book is for This book is for developers who are keen on strengthening their skills in the field of cloud-based full-stack web development. You need basic knowledge of web-related pillars, including HTML, CSS, and JavaScript, as well as C# and REST. This book targets novice developers in the realm of Web development and ASP.NET who desire to advance to modern Web and ASP.NET Core development and leverage the Cloud to manage and bring everything together.

Software Architecture with C# 9 and .NET 5 Gabriel Baptista 2020-12-28 Design scalable and high-performance enterprise applications using the latest features of C# 9 and .NET 5 Key FeaturesGain fundamental and comprehensive software architecture knowledge and the skillset to create fully modular appsDesign high-performance software systems using the latest features of .NET 5 and C# 9Solve scalability problems in web apps using enterprise architecture patternsBook Description Software architecture is the practice of implementing structures and systems that streamline the software development process and improve the quality of an app. This fully revised and expanded second edition, featuring the latest features of .NET 5 and C# 9, enables you to acquire the key skills, knowledge, and best practices required to become an effective software architect. This second edition features additional explanation of the principles of Software architecture, including new chapters on Azure Service Fabric, Kubernetes, and Blazor. It also includes more discussion on security, microservices, and DevOps, including GitHub deployments for the software development cycle. You will begin by

understanding how to transform user requirements into architectural needs and exploring the differences between functional and non-functional requirements. Next, you will explore how to carefully choose a cloud solution for your infrastructure, along with the factors that will help you manage your app in a cloud-based environment. Finally, you will discover software design patterns and various software approaches that will allow you to solve common problems faced during development. By the end of this book, you will be able to build and deliver highly scalable enterprise-ready apps that meet your organization's business requirements. What you will learnUse different techniques to overcome real-world architectural challenges and solve design consideration issuesApply architectural approaches such as layered architecture, service-oriented architecture (SOA), and microservicesLeverage tools such as containers, Docker, Kubernetes, and Blazor to manage microservices effectivelyGet up to speed with Azure tools and features for delivering global solutionsProgram and maintain Azure Functions using C# 9 and its latest featuresUnderstand when it is best to use test-driven development (TDD) as an approach for software developmentWrite automated functional test casesGet the best of DevOps principles to enable CI/CD environmentsWho this book is for This book is for engineers and senior software developers aspiring to become architects or looking to build enterprise applications with the .NET Stack. Basic familiarity with C# and .NET is required to get the most out of this book.

Azure for Architects Ritesh Modi 2019-01-31 Create advanced data and integrated solutions using Azure Event Grid, functions, and containers Key FeaturesGet familiar with the different design patterns available in Microsoft AzureDevelop Azure cloud architecture and a pipeline management systemGet to know the security best practices for your Azure deploymentBook Description Over the years, Azure cloud services have grown

quickly, and the number of organizations adopting Azure for their cloud services is also gradually increasing. Leading industry giants are finding that Azure fulfills their extensive cloud requirements. Azure for Architects - Second Edition starts with an extensive introduction to major designing and architectural aspects available with Azure. These design patterns focus on different aspects of the cloud, such as high availability, security, and scalability. Gradually, we move on to other aspects, such as ARM template modular design and deployments. This is the age of microservices and serverless is the preferred implementation mechanism for them. This book covers the entire serverless stack available in Azure including Azure Event Grid, Azure Functions, and Azure Logic Apps. New and advance features like durable functions are discussed at length. A complete integration solution using these serverless technologies is also part of the book. A complete chapter discusses all possible options related to containers in Azure including Azure Kubernetes services, Azure Container Instances and Registry, and Web App for Containers. Data management and integration is an integral part of this book that discusses options for implementing OLTP solutions using Azure SQL, Big Data solutions using Azure Data factory and Data Lake Storage, eventing solutions using stream analytics, and Event Hubs. This book will provide insights into Azure governance features such as tagging, RBAC, cost management, and policies. By the end of this book, you will be able to develop a full-fledged Azure cloud solution that is Enterprise class and future-ready. What you will learn Create an end-to-end integration solution using Azure Serverless Stack Learn Big Data solutions and OLTP-based applications on Azure Understand DevOps implementations using Azure DevOps Architect solutions comprised of multiple resources in Azure Develop modular ARM templates Develop Governance on Azure using locks, RBAC, policies, tags and cost Learn ways to build data solutions on

Azure Understand the various options related to containers including Azure Kubernetes Services Who this book is for If you are Cloud Architects, DevOps Engineers, or developers who want to learn key architectural aspects of the Azure Cloud platform, then this book is for you. Prior basic knowledge of the Azure Cloud platform is good to have.

Network and System Security Man Ho Au 2014-10-09 This book constitutes the proceedings of the 8th International Conference on Network and System Security, NSS 2014, held in Xi'an, China, in October 2014. The 35 revised full papers and 12 revised short papers presented were carefully reviewed and selected from 155 initial submissions. The papers are organized in topical sections on cloud computing, access control, network security, security analysis, public key cryptography, system security, privacy-preserving systems and biometrics, and key management and distribution.

Software Architecture with C# 9 and .NET 5 - Second Edition Gabriel Baptista 2020-12-24

DevOps Bootcamp Mitesh Soni 2017-05-30 Sharpen your DevOps knowledge with DevOps Bootcamp About This Book Improve your organization's performance to ensure smooth production of software and services. Learn how Continuous Integration and Continuous Delivery practices can be utilized to cultivate the DevOps culture. A fast-paced guide filled with illustrations and best practices to help you consistently ship quality software. Who This Book Is For The book is aimed at IT Developers and Operations—administrators who want to quickly learn and implement the DevOps culture in their organization. What You Will Learn Static Code Analysis using SONarqube Configure a Maven-based JEE Web Application Perform Continuous Integration using Jenkins and VSTS Install and configure Docker Converge a Chef node using a Chef workstation Accomplish Continuous Delivery in Microsoft Azure VM and Microsoft Azure App Services (Azure Web Apps) using Jenkins Perform Load

Testing using Apache JMeter Build and Release Automation using Visual Studio Team Services Monitor Cloud-based resources In Detail DevOps Bootcamp delivers practical learning modules in manageable chunks. Each chunk is delivered in a day, and each day is a productive one. Each day builds your competency in DevOps. You will be able to take the task you learn every day and apply it to cultivate the DevOps culture. Each chapter presents core concepts and key takeaways about a topic in DevOps and provides a series of hands-on exercises. You will not only learn the importance of basic concepts or practices of DevOps but also how to use different tools to automate application lifecycle management. We will start off by building the foundation of the DevOps concepts. On day two, we will perform Continuous Integration using Jenkins and VSTS both by configuring Maven-based JEE Web Application?. We will also integrate Jenkins and Sonar qube for Static Code Analysis. Further, on day three, we will focus on Docker containers where we will install and configure Docker and also create a Tomcat Container to deploy our Java based web application. On day four, we will create and configure the environment for application deployment in AWS and Microsoft Azure Cloud for which we will use Infrastructure as a Service and Open Source Configuration Management tool Chef. For day five, our focus would be on Continuous Delivery. We will automate application deployment in Docker container using Jenkins Plugin, AWS EC2 using Script, AWS Elastic Beanstalk using Jenkins Plugin, Microsoft Azure VM using script, and Microsoft Azure App Services Using Jenkins. We will also configure Continuous Delivery using VSTS. We will then learn the concept of Automated Testing on day six using Apache JMeter and URL-based tests in VSTS. Further, on day seven, we will explore various ways to automate application lifecycle management using orchestration. We will see how Pipeline can be created in Jenkins and VSTS, so the moment Continuous? Integration is

completed successfully, Continuous Delivery will start and application will be deployed. On the final day, our focus would be on Security access to Jenkins and Monitoring of CI resources, and cloud-based resources in AWS and Microsoft Azure Platform as a Service. Style and Approach This book is all about fast and intensive learning. This means we don't waste time in helping readers get started. The new content is basically about filling in with highly-effective examples to build new things, solving problems in newer and unseen ways, and solving real-world examples.

Implementing DevOps with Microsoft Azure Mitesh Soni 2017-04-28 Accelerate and Automate Build, Deploy, and Management of applications to achieve High Availability. About This Book This guide highlights tools that offer development and deployment environments for application services Secure and continuously monitor your web application in order to make it highly available Use Visual Studio Team Services for Continuous Integration and Continuous Development to expedite your application life cycle management process Use Microsoft Azure App Services (Azure Web Apps / Azure Websites), PaaS offering from Microsoft to deploy web application Who This Book Is For This book is for DevOps engineers, system administrators, and developers (.net) who want to implement DevOps for their organization. You do not need to have any knowledge of VSTS or Azure App Services (Azure Web Apps / Azure Websites). What You Will Learn Explore the features of PaaS and aPaaS in DevOps Use Visual Studio Team Services (VSTS) to manage versions of code and integrating VSTS with Eclipse IDE Understand and configure Continuous Integration in VSTS Review Unit Test Execution for Automated Testing Create different environments that can be used to continuous deploy a web application Configure Roll-based Access to enable secure access for Azure Web Apps Create and configure the App Service Environment to enhance security

Understand the execution of the end-to-end automation process Conduct Performance Testing using JMeter Discover the different monitoring options available in Microsoft Azure Portal In Detail This book will teach you all about the Visual Studio Team Services and Microsoft Azure PaaS offerings that support Continuous Integration, Continuous Delivery, Continuous Deployment, and execution in the cloud with high availability, disaster recovery, and security. You will first be given a tour of all the concepts and tools that Microsoft Azure has to offer and how these can be used in situations to cultivate the DevOps culture. You'll be taught how to use and manage Visual Studio Team Services (VSTS) and about the structure of the sample application used throughout the book. You will become familiar with the nitty gritty of Continuous Integration and Continuous Development with VSTS and Microsoft Azure Apps. You will not only learn how to create App service environments, but also how to compare Azure Web Apps and App Service Environments to deploy web applications in a more secure environment. Once you have completed Continuous Integration and created the Platform for application deployment, you will learn more about the final stepping stone in achieving end-to-end automation using approval-based Continuous Delivery and Deployment. You will then learn about Continuous Monitoring, using the monitoring and notification options provided by Microsoft Azure and Visual Studio Team Services.

Introducing Disaster Recovery with Microsoft Azure Bapi Chakraborty

2020-06-23 Explore and learn the key building blocks of Microsoft Azure services and tools for implementing a disaster-recovery solution of any on-premises or

cloud-based application. In this book, you will go through various aspects of planning, designing, and configuring a robust recovery solution on Azure. *Introducing Disaster Recovery with Microsoft Azure* starts by explaining the disaster-recovery landscape and how Azure disaster recovery is different from the traditional approach. You will learn how to leverage Azure site recovery and various Azure-based services to design and implement a recovery solution and much more. Moving forward, you will design and implement various scenarios such as on-premises to Azure, Azure to Azure, and on-premises to on-premises disaster recovery. You will also learn common considerations and technicalities of implementing recovery solutions for various multi-tier, monolithic, and modern micro-services enterprise applications. Finally, you will go through real-life examples, scenarios, and exercises. After reading this book, you will be able to design and implement disaster recovery on Azure in different scenarios. You will also look at a few real-world scenarios that will provide more practical insights. *What You Will Learn* Discover the fundamental building blocks of disaster recovery on Azure Examine various application-specific considerations for disaster recovery Leverage various PaaS capabilities to achieve maximum benefit Design and implement a multi-regional Azure to Azure disaster recovery plan *Who This Book Is For* Consultants, architects, and Azure administrators.

Azure for Architects Ritesh Modi

2020-07-17 Build and design multiple types of applications that are cross-language, platform, and cost-effective by understanding core Azure principles and foundational concepts *Key Features* Get familiar with the different design patterns available in Microsoft Azure Develop Azure cloud architecture and a pipeline management system Get to know the security best practices for your Azure deployment *Book Description* Thanks to its support for high availability, scalability, security, performance, and disaster

recovery, Azure has been widely adopted to create and deploy different types of application with ease. Updated for the latest developments, this third edition of *Azure for Architects* helps you get to grips with the core concepts of designing serverless architecture, including containers, Kubernetes deployments, and big data solutions. You'll learn how to architect solutions such as serverless functions, you'll discover deployment patterns for containers and Kubernetes, and you'll explore large-scale big data processing using Spark and Databricks. As you advance, you'll implement DevOps using Azure DevOps, work with intelligent solutions using Azure Cognitive Services, and integrate security, high availability, and scalability into each solution. Finally, you'll delve into Azure security concepts such as OAuth, OpenConnect, and managed identities. By the end of this book, you'll have gained the confidence to design intelligent Azure solutions based on containers and serverless functions. What you will learn

- Understand the components of the Azure cloud platform
- Use cloud design patterns
- Use enterprise security guidelines for your Azure deployment
- Design and implement serverless and integration solutions
- Build efficient data solutions on Azure
- Understand container services on Azure

Who this book is for If you are a cloud architect, DevOps engineer, or a developer looking to learn about the key architectural aspects of the Azure cloud platform, this book is for you. A basic understanding of the Azure cloud platform will help you grasp the concepts covered in this book more effectively.

The Complete ASP.NET Core 3 API

Tutorial Les Jackson 2020-11-02 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.

[Migrating Applications to the Cloud with Azure](#)

Sjoukje Zaal 2019-12-06 Modernize your apps with Microsoft Azure by moving web, desktop, and mobile apps to the cloud

Key Features

- Decide which migration strategy is most suitable for your organization and create a migration roadmap
- Move existing infrastructure to Azure and learn strategies to reduce cost, increase storage, and improve ROI
- Design secure, scalable, and cost-effective solutions with the help of practical examples

Book Description

Whether you are trying to re-architect a legacy app or build a cloud-ready app from scratch, using the Azure ecosystem with .NET and Java technologies helps you to strategize and plan your app modernization process effectively. With this book, you'll learn how to modernize your applications by using Azure for containerization, DevOps, microservices, and serverless solutions to reduce development time and costs, while also making your applications robust, secure, and scalable. You will delve into improving application efficiency by using container services such as Azure Container

Service, Azure Kubernetes Service (AKS), and more. Next, you will learn to modernize your application by implementing DevOps throughout your application development life cycle. You will then focus on increasing the scalability and performance of your overall application with microservices, before learning how to add extra functionality to your application with Azure serverless solutions. Finally, you'll get up to speed with monitoring and troubleshooting techniques. By the end of this book, you will have learned how to use the Azure ecosystem to refactor, re-architect, and rebuild your web, mobile, and desktop applications. What you will learn Use DevOps and containerization technologies to modernize your applications and infrastructure Build microservices using Azure Service Fabric Develop scalable applications using Azure Functions Manage and deploy your application code and database connectivity Secure and monitor your applications in Azure effectively Design for high availability and disaster recovery Who this book is for This book is for .NET and Java developers who want to modernize their applications using Azure. Solution architects and experienced developers interested in modernizing legacy applications using Azure will also find this book useful. Some prior understanding of cloud computing concepts will be beneficial.

Xamarin Continuous Integration and Delivery Gerald Versluis 2017-05-09 Learn everything you need to set up a full-featured, automated pipeline for Xamarin development and deployment. Automate everything from the build step through to deployment and delivery to your customer. If you thought this level of automation could be achieved only by large companies with generous funding, think again! You as a single developer, or working in a small team or company, can automate your processes to punch heavier than your weight. What's more, you can achieve this level of automation completely for free! This hands-on guide takes you step-by-step from setting up your first automated build

all the way to integrated unit testing, and finally through to delivering a high-quality app to your testers and end users. The automation presented in this book saves a lot of frustration and recurring work, providing you more time to focus on building the robust and compelling apps that delight your customers and keep you steps ahead of the competition. Not only does this book teach how to get a grip on consistent quality, but it covers the use of HockeyApp to track events and usage, and to report errors and anomalies back to home base for developers to investigate. Many times it's possible to detect and fix errors before a user even notices they are there. This book: Teaches the necessity of an automated development pipeline Helps you set up an automated pipeline for Xamarin development Integrates testing (on physical devices!) to ensure high-quality apps What You'll Learn Why you want an automated development pipeline Obtain and configure the automated tooling Continuously integrate your apps Run automated unit tests Push updates to your customers Monitor and detect errors without user intervention Who This Book Is For App developers looking for ways to ensure consistent quality of work and wanting to know how their apps are doing in actual use by customers

.Net Knowledge Book Patrick Desjardins 2017-01-07 .Net Knowledge book This book is a melting pot of several articles about Asp.Net MVC, Azure, Entity Framework, JavaScript, CSS, C# and SQL. They are scenarios that happen in the everyday work of developers who use these technologies. They are divided into short articles that are easy to understand. This book is ideal for anyone with intermediate to advanced knowledge of Microsoft web stack who wants to learn more about how to deal with practical cases. This book includes articles written during 2016. It is volume 4 of a series of books that focus on real software developing problems. I strongly believe that the content of this book is a must for anyone who works with Microsoft Asp.Net in enterprise. Here are some subjects

discussed in the book: Asp.Net MVC Localization in URL, C# Fluent API, MVC Routing, Azure, Application Insights, Azure Webjobs, Asp.Net MVC Bundle, 404 and fonts, Visitor Pattern, Http and Https, Performance with Asp.Net MVC Razor, Bootstrap, Azure CronJobs, Analytics Feature, Azure DNS Zone, Visual Studio, C# Circuit Breaker Pattern, Context Menu, AutoMapper, Continuous Integration, Open-Source, Create Nuget Package, DevOps, Microsoft Band, Post-mortem of a project, Redis, Data Annotation, Unit Testing, Repository and Accessor Pattern, Authentication, Lz4net Compression, Complex Object, TypeScript, React First Impression, MsTest with localization, Diagnostic slow code, Improve Visual Studio Speed, Deployment on Azure and Azure Slots.

Combining DataOps, MLOps and DevOps

Dr. Kalpesh Parikh 2022-05-16 Accelerate the delivery of software, data, and machine learning **KEY FEATURES** ● Each chapter harmonizes the DevOps, Data Engineering, and Optimized Machine Learning cultures. ● Equips readers with **AGILE** skills to continuously re-prioritize production backlogs. ● Containerization, Docker, Kubernetes, DataOps, and MLOps are all rolled together. **DESCRIPTION** This book instructs readers on how to operationalize the creation of systems, software applications, and business information using the best practices of DevOps, DataOps, and MLOps, among other things. From software unit packaging code and its dependencies to automating the software development lifecycle and deployment, the book provides a learning roadmap that begins with the basics and progresses to advanced topics. This book teaches you how to create a culture of cooperation, affinity, and tooling at scale using DevOps, Docker, Kubernetes, Data Engineering, and Machine Learning. Microservices design, setting up clusters and maintaining them, processing data pipelines, and automating operations with machine learning are all topics that will aid you in your career. When you use each of

the xOps methods described in the book, you will notice a clear shift in your understanding of system development. Throughout the book, you will see how every stage of software development is modernized with the most up-to-date technologies and the most effective project management approaches. **WHAT YOU WILL LEARN** ● Learn about the Packaging code and all its dependencies in a container. ● Utilize DevOps to automate every stage of software development. ● Learn how to create Microservices that are focused on a specific issue. ● Utilize Kubernetes to containerize applications in a variety of settings. ● Using DataOps, you can align people, processes, and technology. **WHO THIS BOOK IS FOR** This book is meant for the Software Engineering team, Data Professionals, IT Operations and Application Development Team with prior knowledge in software development. **TABLE OF CONTENTS** 1. Container - Containerization is the New Virtualization 2. Docker with Containers for Developing and Deploying Software 3. DevOps to Build at Scale a Culture of Collaboration, Affinity, and Tooling 4. Docker Containers for Microservices Architecture Design 5. Kubernetes - The Cluster Manager for Container 6. Data Engineering with DataOps 7. MLOps: Engineering Machine Learning Operations 8. xOps Best Practices **Agile, DevOps and Cloud Computing with Microsoft Azure** Mitesh Soni 2019-09-17 A step-by-step guide to understand Agile, Scrum, DevOps and Cloud Computing using Azure DevOps and Microsoft Azure Cloud **DESCRIPTION** Agile development and implementation of Scrum methodologies require quick delivery of applications. Manual activities to manage application lifecycle management are no longer sufficient. This book will cover the DevOps practices implementation that helps to achieve speed for faster time to market using transformation in culture using people, processes, and tools. This book discusses the definition of Cloud computing and the benefits of Cloud Service Models. You will understand how

Agile, DevOps practices implementation and Cloud computing can be utilized effectively to transform the culture of an organization. The main objective of this book is to demonstrate continuous practices of the DevOps culture using Microsoft Azure DevOps and Microsoft Azure Cloud. You will learn how to track features, user stories, backlogs, dashboards, and burndown charts. You will also learn how to create and manage repositories. This book gives an overview of Microsoft Azure Cloud and Azure App Services and a brief description of virtual machines and App Services. It summarizes Build and Release definitions available in Microsoft Azure DevOps and explains how to configure Pipelines and create end-to-end automation pipelines.

KEY FEATURES

- Learn how to do Continuous Planning in Azure DevOps
- Learn the basics of Continuous Code Inspection and importance of Code Quality
- Learn how continuous integration can make a difference in the application life cycle
- Learn how to create and configure Cloud resources using Platform as a Service Model
- Learn how to perform continuous integration using the YAML script and continuous delivery pipeline using a release pipeline
- Learn how to configure monitoring for Platform as a Service resources

WHAT WILL YOU LEARN By the end of the book, you will get an overview of Agile, Scrum, DevOps and Continuous Practices such as Continuous Integration, Continuous Delivery, Cloud Computing, and Continuous Code Inspection. You will learn how all these practices can be utilized in real-life scenarios with the sample applications. This book will provide detailed insights into Microsoft Azure Cloud, especially Platform as a Service Model. A step-by-step implementation guide of continuous practices of DevOps will help beginners to get started with.

WHO THIS BOOK IS FOR DevOps Evangelists, DevOps Engineers, Technical Specialists, Technical Architects, and Cloud Experts

Basic knowledge of application development and deployment, Cloud computing, and DevOps practices

Beginners Table of Contents

1. An

2. Need for DevOps
3. An overview of Cloud Computing
4. Azure Boards
5. Azure Repos
6. Microsoft Azure Cloud
7. Microsoft Azure Cloud: IaaS and PaaS
8. Azure Pipelines: Continuous Integration and Continuous Delivery
9. Azure Pipelines Implementation

DevOps on the Microsoft Stack Wouter de Kort 2016-04-29 This book tells you everything you need to know to help your organization implement DevOps on the Microsoft platform. You will learn how to use Visual Studio, Visual Studio Team Services, and Azure to implement a complete DevOps process in your company. You will learn about Agile Project Management, Continuous Integration, Continuous Delivery, Technical Debt Management, Automatic Testing and Monitoring, and see how all these areas fit together. DevOps is important for organizations that want to make the best use of their resources and avoid costly mistakes. Teams that embrace DevOps deploy code up to 30 times more frequently than their competition and less than 50% of their deployments fail according to Puppet Labs State of DevOps survey. DevOps on the Microsoft Stack shows you how to help your organization implement DevOps, covering the tooling they will need and how to make everything work together while following best practices. The focus is not only on technology but also on the cultural issues that teams will face when implementing DevOps. The author's goal is to not only show you which tooling there is but help you to successfully use everything together to implement DevOps in your projects and organization. In this book, you'll learn: What DevOps is and how it can help development teams How to use Visual Studio, Visual Studio Team Services, and Azure to setup a DevOps process How to introduce DevOps to your organization and how to overcome problems

Azure Strategy and Implementation

Guide Jack Lee 2021-05-14 Leverage Azure's cloud capabilities to find the most optimized path to meet your firm's cloud infrastructure needs

Key Features Get to

grips with the core Azure infrastructure technologies and solutionsDevelop the ability to opt for cloud design and architecture that best fits your organizationCover the entire spectrum of cloud migration from planning to implementation and best practicesBook Description Microsoft Azure is a powerful cloud computing platform that offers a multitude of services and capabilities for organizations of any size moving to a cloud strategy. This fourth edition comes with the latest updates on cloud security fundamentals, hybrid cloud, cloud migration, Microsoft Azure Active Directory, and Windows Virtual Desktop. It encapsulates the entire spectrum of measures involved in Azure deployment that includes understanding Azure fundamentals, choosing a suitable cloud architecture, building on design principles, becoming familiar with Azure DevOps, and learning best practices for optimization and management. The book begins by introducing you to the Azure cloud platform and demonstrating the substantial scope of digital transformation and innovation that can be achieved with Azure's capabilities. The guide also acquaints you with practical insights into application modernization, Azure Infrastructure as a Service (IaaS) deployment, infrastructure management, key application architectures, best practices of Azure DevOps, and Azure automation. By the end of this book, you will have acquired the skills required to drive Azure operations from the planning and cloud migration stage to cost management and troubleshooting. What you will learnUnderstand core Azure infrastructure technologies and solutionsCarry out detailed planning for migrating applications to the cloud with AzureDeploy and run Azure infrastructure servicesDefine roles and responsibilities in DevOpsGet a firm grip on Azure security fundamentalsCarry out cost optimization in AzureWho this book is for This book is designed to benefit Azure architects, cloud solution architects, Azure developers, Azure administrators, and anyone who wants to

develop expertise in operating and administering the Azure cloud. Basic familiarity with operating systems and databases will help you grasp the concepts covered in this book.

Mastering Microsoft Dynamics 365 Business Central Stefano Demiliani 2019-12-20 Develop customized business management solutions with the latest features of Microsoft Dynamics 365 Business Central Key FeaturesLearn Dynamics 365 Business Central, the next generation of Dynamics NAVExplore advanced topics for handling complex integrations such as using APIs, OData, and Azure FunctionsDiscover best practices for developing SaaS extensions and moving existing solutions to the cloudBook Description Dynamics 365 Business Central is an all-in-one business management solution, which is easy to adopt and helps you make smarter business decisions. This book is a comprehensive guide to developing solutions with Microsoft ERP (in the cloud and also on-premises). It covers all aspects of developing extensions, right from preparing a sandbox environment to deploying a complete solution. The book starts by introducing you to the Dynamics 365 Business Central platform and the new Modern Development Environment. You'll then explore the sandbox concept, and see how to create sandboxes for development. As you advance, you'll be able to build a complete advanced solution for Dynamics 365 Business Central with AL language and Visual Studio Code. You'll then learn how to debug and deploy the extension and write automatic testing. The book will also take you through advanced topics like integration (with Azure Functions, web services, and APIs), DevOps and CI/CD techniques, and machine learning. You'll discover how Dynamics 365 Business Central can be used with Office 365 apps. Finally, you'll analyze different ways to move existing solutions to the new development model based on extensions. By the end of this book, you'll be able to develop highly customized solutions that meet the requirements of modern

businesses using Dynamics 365 Business Central. What you will learn
Create a sandbox environment with Dynamics 365 Business Central
Handle source control management when developing solutions
Explore extension testing, debugging, and deployment
Create real-world business processes using Business Central and different Azure services
Integrate Business Central with external applications
Apply DevOps and CI/CD to development projects
Move existing solutions to the new extension-based architecture
Who this book is for
If you're a new developer looking to get started with Dynamics 365 Business Central, this book is for you. This book will also help experienced professionals enhance their knowledge and understanding of Dynamics 365 Business Central.

DevOps for SharePoint Oscar Medina
2018-10-29 Deploy a SharePoint farm in a repeatable, predictable, and reliable fashion using Infrastructure as Code (IaC) techniques to automate provisioning. Savvy IT pros will learn how to use DevOps practices and open source tools to greatly reduce costs, and streamline management operations for SharePoint farms deployed via Amazon Web Services (AWS), Azure, or on premise. DevOps for SharePoint will help you navigate the complex challenges of deploying and managing SharePoint Server farms. You will learn how to reduce time-consuming tasks and errors when generating development, testing, or

production environments. And you will benefit from learning proven methods to apply Microsoft updates with minimal downtime and productivity loss. Whether you are a SharePoint architect, IT pro, or developer helping customers with the SharePoint platform, this book will teach you the most useful DevOps practices to tackle those issues and broaden your skill set.
What You'll Learn
Understand the basics of the most popular open source tools—Vagrant, Packer, Terraform, and Ansible—and how to use them in the context of deploying and scaling a SharePoint farm
Use Vagrant to build SharePoint development environments in less than an hour, and add automated testing
Use Packer to create a “golden image” with preconfigured settings, and then use it as the base image in your Terraform configuration for both AWS and Azure farms
Use Terraform to scale your SharePoint farm topology
Use Red Hat's Ansible Playbooks to perform configuration management on your farm
Use Terraform to deploy immutable infrastructure environments using IaC (Infrastructure as Code)
Use InSpec 2.0 to stay in compliance by testing your cloud infrastructure
Use Ansible to apply Microsoft updates and patches
Who This Book Is For
IT pros and developers who are looking to expand their knowledge and take a modern approach by using open source technologies to work with Microsoft products. Experience installing SharePoint, and a basic understanding of either Azure or AWS, is helpful.