

Distributed Cloud Applications With Azure Service Fabric Design And Develop A New Class Of Distributed Cloud Applications

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Microservices with Docker on Microsoft Azure (includes Content Update Program) -

Boris Scholl 2016-06-24

Book + Content Update Program “Beyond just describing the basics, this book dives into best practices every aspiring microservices developer or architect should know.” —Foreword by Corey Sanders, Partner Director of Program Management, Azure Microservice-based applications enable unprecedented agility and ease of management, and Docker containers are ideal for building them. Microsoft Azure offers all the foundational technology and higher-level services you need to develop and run any microservices application. Microservices with Docker on Microsoft Azure brings together essential knowledge for creating these applications from the ground up, or incrementally deconstructing monolithic applications over time. The authors draw on their pioneering experience helping to develop Azure’s microservices features and collaborating

with Microsoft product teams who’ve relied on microservices architectures for years. They illuminate the benefits and challenges of microservices development and share best practices all developers and architects should know. You’ll gain hands-on expertise through a detailed sample application, downloadable at github.com/flakio/flakio.github.io. Step by step, you’ll walk through working with services written in Node.js, Go, and ASP.NET 5, using diverse data stores (mysql, elasticsearch, block storage). The authors guide you through using Docker Hub as a service registry, and Microsoft Azure Container service for cluster management and service orchestration. Coverage includes: Recognizing how microservices architectures are different, and when they make sense Understanding Docker containers in the context of microservices architectures Building, pulling, and layering Docker images Working with Docker volumes, containers, images, tags, and logs Using Docker Swarm, Docker Compose, and

Docker Networks Creating Docker hosts using the Azure portal, Azure Resource Manager, the command line, docker-machine, or locally via Docker toolbox Establishing development and DevOps environments to support microservices applications Making the most of Docker's continuous delivery options Using Azure's cluster and container orchestration capabilities to operate and scale containerized microservices applications with maximum resilience Monitoring microservices applications with Azure Diagnostics, Visual Studio Application Insights, and Microsoft Operations Management Suite Developing microservices applications faster and more effectively with Azure Service Fabric An extensive sample application demonstrating the microservices concepts discussed throughout the book is available online In addition, this book is part of InformIT's exciting new Content Update Program, which provides content updates for major technology improvements! As significant updates are made

to Docker and Azure, sections of this book will be updated or new sections will be added to match the updates to the technologies. As updates become available, they will be delivered to you via a free Web Edition of this book, which can be accessed with any Internet connection. To learn more, visit informit.com/cup. How to access the Web Edition: Follow the instructions inside to learn how to register your book to access the FREE Web Edition.

DevOps Technical Assessment - Lorelay Croce
2020-02-04

This is a publication series of Technical Assessment for Recruiters using tailor-made tests to evaluate developers, engineers and data scientists.

Enterprise Application Architecture with .NET Core - Ganesan Senthivel 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.

Learn Azure in a Month of Lunches, Second Edition - Iain Foulds 2020-10-06

Learn Azure in a Month of Lunches, Second Edition, is a tutorial on writing, deploying, and running applications in Azure. In it, you'll work through 21 short lessons that give you real-world experience. Each lesson includes a hands-

on lab so you can try out and lock in your new skills. Summary You can be incredibly productive with Azure without mastering every feature, function, and service. *Learn Azure in a Month of Lunches, Second Edition* gets you up and running quickly, teaching you the most important concepts and tasks in 21 practical bite-sized lessons. As you explore the examples, exercises, and labs, you'll pick up valuable skills immediately and take your first steps to Azure mastery! This fully revised new edition covers core changes to the Azure UI, new Azure features, Azure containers, and the upgraded Azure Kubernetes Service. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Microsoft Azure is vast and powerful, offering virtual servers, application templates, and prebuilt services for everything from data storage to AI. To navigate it all, you need a trustworthy guide. In this book, Microsoft engineer and Azure trainer Iain Foulds focuses

on core skills for creating cloud-based applications. About the book *Learn Azure in a Month of Lunches, Second Edition*, is a tutorial on writing, deploying, and running applications in Azure. In it, you'll work through 21 short lessons that give you real-world experience. Each lesson includes a hands-on lab so you can try out and lock in your new skills. What's inside

Understanding Azure beyond point-and-click
Securing applications and data
Automating your environment
Azure services for machine learning, containers, and more

About the reader
This book is for readers who can write and deploy simple web or client/server applications.

About the author
Iain Foulds is an engineer and senior content developer with Microsoft.

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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 Features

Build modern microservice-based systems with Azure architecture

Learn to deploy and manage cloud services and virtual machines

Configure clusters with Azure Service Fabric for deployment

Book 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.

Novel Practices and Trends in Grid and Cloud Computing - Raj, Pethuru 2019-06-28

Business and IT organizations are currently embracing new strategically sound concepts in order to be more customer-centric, competitive, and cognitive in their daily operations. While useful, the various software tools, pioneering technologies, as well as their unique contributions largely go unused due to the lack of information provided on their special characteristics. Novel Practices and Trends in Grid and Cloud Computing is a collection of innovative research on the key concerns of cloud computing and how they are being addressed, as well as the various technologies and tools empowering cloud theory to be participative, penetrative, pervasive, and persuasive. While highlighting topics including cyber security,

smart technology, and artificial intelligence, this book is ideally designed for students, researchers, and business managers on the lookout for innovative IT solutions for all the business automation software and improvisations of computational technologies.

Microservices, IoT and Azure - Bob Familiar 2015-11-07

This book provides practical guidance for adopting a high velocity, continuous delivery process to create reliable, scalable, Software-as-a-Service (SaaS) solutions that are designed and built using a microservice architecture, deployed to the Azure cloud, and managed through automation. Microservices, IoT, and Azure offers software developers, architects, and operations engineers' step-by-step directions for building SaaS applications—applications that are available 24x7, work on any device, scale elastically, and are resilient to change—through code, script, exercises, and a working reference implementation. The book provides a working

definition of microservices and contrasts this approach with traditional monolithic Layered Architecture. A fictitious, homebiomedical startup is used to demonstrate microservice architecture and automation capabilities for cross-cutting and business services as well as connected device scenarios for Internet of Things (IoT). Several Azure PaaS services are detailed including Storage, SQL Database, DocumentDb, Redis Cache, Cloud Services, Web API's, API Management, IoT Hub, IoT Suite, Event Hub, and Stream Analytics. Finally the book looks to the future and examines Service Fabric to see how microservices are becoming the de facto approach to building reliable software in the cloud. In this book, you'll learn: What microservices are and why are they're a compelling architecture pattern for SaaS applications How to design, develop, and deploy microservices using Visual Studio, PowerShell, and Azure Microservice patterns for cross-cutting concerns and business capabilities

Microservice patterns for Internet of Things and big data analytics solutions using IoT Hub, Event Hub, and Stream Analytics Techniques for automating microservice provisioning, building, and deployment What Service Fabric is and how it's the future direction for microservices on Microsoft Azure

Hands-On Azure for Developers - Kamil Mrzygłód 2018-11-30

Gain practical skills with Azure and understand how to start developing scalable and easy-to-maintain cloud applications Key FeaturesGet up and running with the development aspects of Azure cloudBuild fault-tolerant and scalable applications on AzureA practical, developer-centric guide for Azure developersBook Description Microsoft Azure is one of the fastest growing public cloud service providers in the market currently, and also holds the second highest market share after AWS. Azure has a sophisticated set of services that will help you build fault-tolerant and scalable cloud-based

applications. Hands-On Azure for Developers will take you on a journey through multiple PaaS services available in Azure, including App Services, Functions, and Service Fabric, and explain in detail how to build a complete and reliable system with ease. You will learn about how to maximize your skills when building cloud-based solutions leveraging different SQL/NoSQL databases, serverless and messaging components, and even search engines such as Azure Search. In the concluding chapters, this book covers more advanced scenarios such as scalability best practices, serving static content with Azure CDN, and distributing loads with Azure Traffic Manager. By the end of the book, you will be able to build modern applications on the Azure cloud using the most popular and promising technologies, which will help make your solutions reliable, stable, and efficient. What you will learn Implement serverless components such as Azure functions and logic apps Integrate applications with available

storages and containers Understand messaging components, including Azure Event Hubs and Azure Queue Storage Gain an understanding of Application Insights and other proper monitoring solutions Store your data with services such as Azure SQL and Azure Data Lake Storage Develop fast and scalable cloud applications Who this book is for Hands-On Azure for Developers is for developers who want to build highly scalable cloud-based applications on Azure. Prior knowledge of Azure services will be an added advantage.

Exam Ref 70-535 Architecting Microsoft Azure Solutions - Haishi Bai 2018-06-04

Prepare for Microsoft Exam 70-535—and help demonstrate your real-world mastery of architecting complete cloud solutions on the Microsoft Azure platform. Designed for architects and other cloud professionals ready to advance their status, Exam Ref focuses on the critical thinking and decision-making acumen needed for success at the MCSA level. Focus on

the expertise measured by these objectives:
Design compute infrastructure
Design data implementation
Design networking implementation
Design security and identity solutions
Design solutions by using platform services
Design for operations
This Microsoft Exam Ref: Organizes its coverage by exam skills
Features strategic, what-if scenarios to challenge you
Includes DevOps and hybrid technologies and scenarios
Assumes you have experience building infrastructure and applications on the Microsoft Azure platform, and understand the services it offers

Implementing Azure Cloud Design Patterns

- Oliver Michalski 2018-01-29

A hands-on guide to mastering Azure cloud design patterns and best practices. Key Features
Master architectural design patterns in Azure.
Get hands-on with implementing design patterns. Implement best practices for improving efficiency and security
Book Description
A well designed cloud infrastructure

covers factors such as consistency, maintenance, simplified administration and development, and reusability. Hence it is important to choose the right architectural pattern as it has a huge impact on the quality of cloud-hosted services. This book covers all Azure design patterns and functionalities to help you build your cloud infrastructure so it fits your system requirements. This book initially covers design patterns that are focused on factors such as availability and data management/monitoring. Then the focus shifts to complex design patterns such as multitasking, improving scalability, valet keys, and so on, with practical use cases. The book also supplies best practices to improve the security and performance of your cloud. By the end of this book, you will thoroughly be familiar with the different design and architectural patterns available with Windows Azure and capable of choosing the best pattern for your system. What you will learn
Learn to organize Azure access
Design the core areas of the Azure

Execution Model Work with storage and data management Create a health endpoint monitoring pattern Automate early detection of anomalies Identify and secure Azure features Who this book is for This book is targeted at cloud architects and cloud solution providers who are looking for an extensive guide to implementing different patterns for the deployment and maintenance of services in Microsoft Azure. Prior experience with Azure is required as the book is completely focused on design patterns.

Programming Windows Azure - Sriram

Krishnan 2010-05-07

Learn the nuts and bolts of cloud computing with Windows Azure, Microsoft's new Internet services platform. Written by a key member of the product development team, this book shows you how to build, deploy, host, and manage applications using Windows Azure's programming model and essential storage services. Chapters in Programming Windows

Azure are organized to reflect the platform's buffet of services. The book's first half focuses on how to write and host application code on Windows Azure, while the second half explains all of the options you have for storing and accessing data on the platform with high scalability and reliability. Lots of code samples and screenshots are available to help you along the way. Learn how to build applications using the Windows Azure toolset Discover how Windows Azure works under the hood, and learn the how and the why behind several features Choose to write application code in .NET or other languages such as C/C++, PHP, or Ruby Understand the various options for managing your service Get up to speed on Azure's storage services, including blobs, queues, and tables Build a secure backup system, and learn about cloud application security, cryptography, and performance

Designing Distributed Systems - Brendan

Burns 2018-02-20

Without established design patterns to guide them, developers have had to build distributed systems from scratch, and most of these systems are very unique indeed. Today, the increasing use of containers has paved the way for core distributed system patterns and reusable containerized components. This practical guide presents a collection of repeatable, generic patterns to help make the development of reliable distributed systems far more approachable and efficient. Author Brendan Burns—Director of Engineering at Microsoft Azure—demonstrates how you can adapt existing software design patterns for designing and building reliable distributed applications. Systems engineers and application developers will learn how these long-established patterns provide a common language and framework for dramatically increasing the quality of your system. Understand how patterns and reusable components enable the rapid development of reliable distributed systems Use the side-car,

adapter, and ambassador patterns to split your application into a group of containers on a single machine Explore loosely coupled multi-node distributed patterns for replication, scaling, and communication between the components Learn distributed system patterns for large-scale batch data processing covering work-queues, event-based processing, and coordinated workflows [Cloud Computing](#) - Dan C. Marinescu
2013-05-30

Cloud Computing: Theory and Practice provides students and IT professionals with an in-depth analysis of the cloud from the ground up. Beginning with a discussion of parallel computing and architectures and distributed systems, the book turns to contemporary cloud infrastructures, how they are being deployed at leading companies such as Amazon, Google and Apple, and how they can be applied in fields such as healthcare, banking and science. The volume also examines how to successfully deploy a cloud application across the enterprise using

virtualization, resource management and the right amount of networking support, including content delivery networks and storage area networks. Developers will find a complete introduction to application development provided on a variety of platforms. Learn about recent trends in cloud computing in critical areas such as: resource management, security, energy consumption, ethics, and complex systems Get a detailed hands-on set of practical recipes that help simplify the deployment of a cloud based system for practical use of computing clouds along with an in-depth discussion of several projects Understand the evolution of cloud computing and why the cloud computing paradigm has a better chance to succeed than previous efforts in large-scale distributed computing

Embracing Microservices Design - Ovais Mehboob Ahmed Khan 2021-10-29
Develop microservice-based enterprise applications with expert guidance to avoid

failures and technological debt with the help of real-world examples Key Features Implement the right microservices adoption strategy to transition from monoliths to microservices Explore real-world use cases that explain anti-patterns and alternative practices in microservices development Discover proven recommendations for avoiding architectural mistakes when designing microservices Book Description Microservices have been widely adopted for designing distributed enterprise apps that are flexible, robust, and fine-grained into services that are independent of each other. There has been a paradigm shift where organizations are now either building new apps on microservices or transforming existing monolithic apps into microservices-based architecture. This book explores the importance of anti-patterns and the need to address flaws in them with alternative practices and patterns. You'll identify common mistakes caused by a lack of understanding when implementing

microservices and cover topics such as organizational readiness to adopt microservices, domain-driven design, and resiliency and scalability of microservices. The book further demonstrates the anti-patterns involved in re-platforming brownfield apps and designing distributed data architecture. You'll also focus on how to avoid communication and deployment pitfalls and understand cross-cutting concerns such as logging, monitoring, and security. Finally, you'll explore testing pitfalls and establish a framework to address isolation, autonomy, and standardization. By the end of this book, you'll have understood critical mistakes to avoid while building microservices and the right practices to adopt early in the product life cycle to ensure the success of a microservices initiative. What you will learn

Discover the responsibilities of different individuals involved in a microservices initiative

Avoid the common mistakes in architecting microservices for scalability and

resiliency

Understand the importance of domain-driven design when developing microservices

Identify the common pitfalls involved in migrating monolithic applications to microservices

Explore communication strategies, along with their potential drawbacks and alternatives

Discover the importance of adopting governance, security, and monitoring

Understand the role of CI/CD and testing

Who this book is for

This practical microservices book is for software architects, solution architects, and developers involved in designing microservices architecture and its development, who want to gain insights into avoiding pitfalls and drawbacks in distributed applications, and save time and money that might otherwise get wasted if microservices designs fail. Working knowledge of microservices is assumed to get the most out of this book.

[Microsoft Azure Architect Technologies PQ Exam Practice Tests & Dumps](#) - Maester Books

This AZ-300 practice test Microsoft Azure

Architect Technologies has been advanced to test your knowledge before taking the official exam. Unlike other online simulation practice tests, you get an Paperback version easy to read & remember these questions. You can simply rely on these 100+ questions for successfully certifying this exam Prepare the best practice test: AZ-300 Developed on Microsoft Azure Architect Technologies, it is one of the only tests in which it is separated by the exam topic; Each question has reference links for you to understand deeply

[The Azure Cloud Native Architecture Mapbook](#) -
Stephane Eyskens 2021-02-17

Improve your Azure architecture practice and set out on a cloud and cloud-native journey with this Azure cloud native architecture guide Key Features Discover the key drivers of successful Azure architecture Implement architecture maps as a compass to tackle any challenge Understand architecture maps in detail with the help of practical use cases Book Description

Azure offers a wide range of services that enable a million ways to architect your solutions. Complete with original maps and expert analysis, this book will help you to explore Azure and choose the best solutions for your unique requirements. Starting with the key aspects of architecture, this book shows you how to map different architectural perspectives and covers a variety of use cases for each architectural discipline. You'll get acquainted with the basic cloud vocabulary and learn which strategic aspects to consider for a successful cloud journey. As you advance through the chapters, you'll understand technical considerations from the perspective of a solutions architect. You'll then explore infrastructure aspects, such as network, disaster recovery, and high availability, and leverage Infrastructure as Code (IaC) through ARM templates, Bicep, and Terraform. The book also guides you through cloud design patterns, distributed architecture, and ecosystem solutions, such as Dapr, from an

application architect's perspective. You'll work with both traditional (ETL and OLAP) and modern data practices (big data and advanced analytics) in the cloud and finally get to grips with cloud native security. By the end of this book, you'll have picked up best practices and more rounded knowledge of the different architectural perspectives. What You Will Learn Gain overarching architectural knowledge of the Microsoft Azure cloud platform Explore the possibilities of building a full Azure solution by considering different architectural perspectives Implement best practices for architecting and deploying Azure infrastructure Review different patterns for building a distributed application with ecosystem frameworks and solutions Get to grips with cloud-native concepts using containerized workloads Work with AKS (Azure Kubernetes Service) and use it with service mesh technologies to design a microservices hosting platform Who this Book is for This book is for aspiring Azure Architects or anyone who

specializes in security, infrastructure, data, and application architecture. If you are a developer or infrastructure engineer looking to enhance your Azure knowledge, you'll find this book useful.

Briggs - Barry Briggs 2016-01-07

How do you start? How should you build a plan for cloud migration for your entire portfolio? How will your organization be affected by these changes? This book, based on real-world cloud experiences by enterprise IT teams, seeks to provide the answers to these questions. Here, you'll see what makes the cloud so compelling to enterprises; with which applications you should start your cloud journey; how your organization will change, and how skill sets will evolve; how to measure progress; how to think about security, compliance, and business buy-in; and how to exploit the ever-growing feature set that the cloud offers to gain strategic and competitive advantage.

[Programming Microsoft Azure Service Fabric](#) -

Haishi Bai 2018-05-25

Build, operate, and orchestrate scalable microservices applications in the cloud This book combines a comprehensive guide to success with Microsoft Azure Service Fabric and a practical catalog of design patterns and best practices for microservices design, implementation, and operation. Haishi Bai brings together all the information you'll need to deliver scalable and reliable distributed microservices applications on Service Fabric. He thoroughly covers the crucial DevOps aspects of utilizing Service Fabric, reviews its interactions with key cloud-based services, and introduces essential service integration mechanisms such as messaging systems and reactive systems. Leading Microsoft Azure expert Haishi Bai shows how to: Set up your Service Fabric development environment Program and deploy Service Fabric applications to a local or a cloud-based cluster Compare and use stateful services, stateless services, and the actor model Design

Service Fabric applications to maximize availability, reliability, and scalability Improve management efficiency via scripting Configure network security and other advanced cluster settings Collect diagnostic data, and use Azure Operational Management Suite to interpret it Integrate microservices components developed in parallel Use containers to mobilize applications for failover, replication, scaling, and load balancing Streamline containerization with Docker in Linux and Windows environments Orchestrate containers to schedule workloads and maintain services at desired states Implement proven design patterns for common cloud application workloads Balance throughput, latency, scalability, and cost
Robust Cloud Integration with Azure - Mahindra Morar 2017-03-22

Unleash the power of serverless integration with Azure About This Book Build and support highly available and scalable API Apps by learning powerful Azure-based cloud integration Deploy

and deliver applications that integrate seamlessly in the cloud and quickly adapt as per your integration needs Deploy hybrid applications that work and integrate on the cloud (using Logic Apps and BizTalk Server) Who This Book Is For This book is for Microsoft Enterprise developers, DevOps, and IT professionals who would like to use Azure App Service and Microsoft Cloud Integration technologies to create cloud-based web and mobile apps. What You Will Learn Explore new models of robust cloud integration in Microsoft Azure Create your own connector and learn how to publish and manage it Build reliable, scalable, and secure business workflows using Azure Logic Apps Simplify SaaS connectivity with Azure using Logic Apps Connect your on-premises system to Azure securely Get to know more about Logic Apps and how to connect to on-premises “line-of-business” applications using Microsoft BizTalk Server In Detail Microsoft is focusing heavily on Enterprise connectivity so

that developers can build scalable web and mobile apps and services in the cloud. In short, Enterprise connectivity from anywhere and to any device. These integration services are being offered through powerful Azure-based services. This book will teach you how to design and implement cloud integration using Microsoft Azure. It starts by showing you how to build, deploy, and secure the API app. Next, it introduces you to Logic Apps and helps you quickly start building your integration applications. We'll then go through the different connectors available for Logic Apps to build your automated business process workflow. Further on, you will see how to create a complex workflow in Logic Apps using Azure Function. You will then add a SaaS application to your existing cloud applications and create Queues and Topics in Service Bus on Azure using Azure Portal. Towards the end, we'll explore event hubs and IoT hubs, and you'll get to know more about how to tool and monitor the business

workflow in Logic Apps. Using this book, you will be able to support your apps that connect to data anywhere—be it in the cloud or on-premises. Style and approach This practical hands-on tutorial shows you the full capability of App Service and other Azure-based integration services to build scalable and highly available web and mobile apps. It helps you successfully build and support your applications in the cloud or on-premises successfully. We'll debunk the popular myth that switching to cloud is risky—it's not!

Kubernetes: Up and Running - Kelsey Hightower
2017-09-07

Legend has it that Google deploys over two billion application containers a week. How's that possible? Google revealed the secret through a project called Kubernetes, an open source cluster orchestrator (based on its internal Borg system) that radically simplifies the task of building, deploying, and maintaining scalable distributed systems in the cloud. This practical

guide shows you how Kubernetes and container technology can help you achieve new levels of velocity, agility, reliability, and efficiency. Authors Kelsey Hightower, Brendan Burns, and Joe Beda—who've worked on Kubernetes at Google and other organizations—explain how this system fits into the lifecycle of a distributed application. You will learn how to use tools and APIs to automate scalable distributed systems, whether it is for online services, machine-learning applications, or a cluster of Raspberry Pi computers. Explore the distributed system challenges that Kubernetes addresses Dive into containerized application development, using containers such as Docker Create and run containers on Kubernetes, using the docker image format and container runtime Explore specialized objects essential for running applications in production Reliably roll out new software versions without downtime or errors Get examples of how to develop and deploy real-world applications in Kubernetes

Microservices with Azure - Namit Tanasseri 2017-03-31

Compute, Explore and Architect Microservices using Azure Service fabric
About This Book* Handle Microservices with ease using Azure Service Fabric* Diagnose and monitor applications deployed on Service Fabric along with event driven scenarios.* Secure your microservices using certificates and manage Service Fabric clusters using PowerShell.
Who This Book Is For
The book is aimed at IT architects, system administrators and DevOps engineers who have no knowledge about Microservices and how it can be leveraged with Azure
What You Will Learn* Understand Azure offerings for hosting Microservices.* Know about Service Fabric architecture and service.* Explore Service Fabric application programming models.* Take a deep look at the various design patterns from industrial scenarios.* Manage and deploy Microservices on Azure.* Glance at the future of Microservices with containers and

serverless computing.
In Detail
Microsoft Azure is rapidly evolving and is widely used as a platform on which one can build Microservices that can be deployed on premise and on cloud through Microsoft Azure Service Fabric. With this book you will understand the concepts of Microservices architecture and how you can build highly maintainable and scalable applications using various services of Microsoft Azure.
We will begin with laying out the foundation of Microservices and its advantages over monolithic architecture and service oriented architecture. We will showcase various scenarios where Microservices should and should not be used and you will also understand the architecture of Microservices based system. You will get an in depth look at Microsoft Azure Service Fabric, which is the platform for building Microservices. You will explore how to develop and deploy sample applications on Microsoft Azure Service Fabric to have a thorough understanding of it. We will also take

you through several design patterns that solve the various challenges associated with realizing Microservices architecture in industrial applications. Each pattern will be clearly illustrated with example and code. Finally, you will be introduced to advanced topics that cover possible architectures for Microservices such as CQRS and Event Sourcing. You will learn how to use Microservices architecture to realize an IoT solution.

Microsoft Azure Security Center - Yuri Diogenes 2018-06-04

Discover high-value Azure security insights, tips, and operational optimizations This book presents comprehensive Azure Security Center techniques for safeguarding cloud and hybrid environments. Leading Microsoft security and cloud experts Yuri Diogenes and Dr. Thomas Shinder show how to apply Azure Security Center's full spectrum of features and capabilities to address protection, detection, and response in key operational scenarios. You'll

learn how to secure any Azure workload, and optimize virtually all facets of modern security, from policies and identity to incident response and risk management. Whatever your role in Azure security, you'll learn how to save hours, days, or even weeks by solving problems in most efficient, reliable ways possible. Two of Microsoft's leading cloud security experts show how to:

- Assess the impact of cloud and hybrid environments on security, compliance, operations, data protection, and risk management
- Master a new security paradigm for a world without traditional perimeters
- Gain visibility and control to secure compute, network, storage, and application workloads
- Incorporate Azure Security Center into your security operations center
- Integrate Azure Security Center with Azure AD Identity Protection Center and third-party solutions
- Adapt Azure Security Center's built-in policies and definitions for your organization
- Perform security assessments and implement Azure

Security Center recommendations • Use incident response features to detect, investigate, and address threats • Create high-fidelity fusion alerts to focus attention on your most urgent security issues • Implement application whitelisting and just-in-time VM access • Monitor user behavior and access, and investigate compromised or misused credentials • Customize and perform operating system security baseline assessments • Leverage integrated threat intelligence to identify known bad actors

Microservice by examples using .NET Core -

Pujarini Mohapatra, Biswa 2019-01-24

This book predominately covers Microservices architecture with real-world example which can help professionals with ease of adoption of this technology. Following the trend of modularity in real world, the idea behind Microservice by Examples is to allow developers to build their applications from various independent components which can be easily changed,

removed or upgraded. Also, it is relevant now because of enterprises are moving towards DevOps/ Modernization, this book will emphasize on containers and Dockers as well.

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.

Mastering Azure Serverless Computing - Lorenzo Barbieri 2019-11-22

Become an expert in implementing Azure Functions to work seamlessly with your serverless applications Key Features Develop scalable, robust multi-tier apps without worrying about infrastructure needs Deploy and manage

cost-effective and highly available serverless apps using Azure Functions Accelerate enterprise-level application development by seamlessly integrating different cloud services with Azure Functions Book Description Application development has evolved from traditional monolithic app development to using serverless options and microservices. This book is designed to guide you through using Microsoft's Azure Functions to process data, integrate systems, and build simple APIs and microservices. You will discover how to apply serverless computing to speed up deployment and reduce downtime. You'll also explore Azure Functions, including its core functionalities and essential tools, along with understanding how to debug and even customize Azure Functions. In addition to this, the book will take you through how you can effectively implement DevOps and automation in your working environment. Toward the concluding chapters, you'll cover some quick tips, troubleshooting techniques, and

real-world serverless use cases that will help you make the most of serverless computing. By the end of this book, you will have gained the skills you need to develop and deliver cost-effective Azure serverless solutions. What you will learn Create and deploy advanced Azure Functions Learn to extend the runtime of Azure Functions Orchestrate your logic through code or a visual workflow Add caching, security, routing, and filtering to your APIs Use serverless technologies in real-world scenarios Understand how to apply DevOps and automation to your working environment Who this book is for This book is designed for cloud administrators, architects, and developers interested in building scalable systems and deploying serverless applications with Azure Functions. Prior knowledge of core Microsoft Azure services and Azure Functions is necessary to understand the topics covered in this book. *Architecting Microsoft Azure Solutions - Exam Guide 70-535* - Sjoukje Zaal 2018-04-27

Get certified as an Azure architect by acing the 70-535 Architecting Microsoft Solutions (70-535) exam using this comprehensive guide with full coverage of the exam objectives Key Features Learn to successfully design and architect powerful solutions on the Azure Cloud platform Enhance your skills with mock tests and practice questions A detailed certification guide that will help you ace the 70-535 exam with confidence Book Description Architecting Microsoft Azure Solutions: Exam Guide 70-535 will get Azure architects and developers up-to-date with the latest updates on Azure from an architecture and design perspective. The book includes all the topics that are still relevant from the previous 70-534 exam, and is updated with latest topics covered, including Artificial Intelligence, IoT, and architecture styles. This exam guide is divided into six parts, where the first part will give you a good understanding of how to design a compute infrastructure. It also dives into designing networking and data implementations.

You will learn about designing solutions for Platform Service and operations. Next, you will be able to secure your resources and data, as well as design a mechanism for governance and policies. You will also understand the objective of designing solutions for Platform Services, by covering Artificial Intelligence, IoT, media services, and messaging solution concepts. Finally, you will cover the designing for operations objective. This objective covers application and platform monitoring, as well as designing alerting strategies and operations automation strategies. By the end of the book, you'll have met all of the exam objectives, and will have all the information you need to ace the 70-535 exam. You will also have become an expert in designing solutions on Microsoft Azure. What you will learn Use Azure Virtual Machines to design effective VM deployments Implement architecture styles, like serverless computing and microservices Secure your data using different security features and design effective

security strategies Design Azure storage solutions using various storage features Create identity management solutions for your applications and resources Architect state-of-the-art solutions using Artificial Intelligence, IoT, and Azure Media Services Use different automation solutions that are incorporated in the Azure platform Who this book is for This book is for architects and experienced developers, who are gearing up for the 70-535 exam. Technical architects interested in learning more about designing Cloud solutions will also find this book useful.

Microservices with Azure - Namit Tanasseri
2017-06-28

Architect enterprise-grade, Microservice-based solutions using Microsoft Azure Service Fabric. About This Book Explore architectural patterns for building modern day Microservice-based systems Learn about Microsoft Service Fabric as a platform to host distributed Microservices Discover multiple options for hosting

Microservices on heterogeneous, cross-platform environments Learn to configure Azure Service Fabric clusters for enterprise-grade service deployments Who This Book Is For The book is aimed at IT architects, system administrators, and DevOps engineers who have a basic knowledge of the Microsoft Azure platform and are working on, or are curious about, the concepts of Microservices and Microservice architecture. What You Will Learn Understand the basics of Microservices and how Microsoft Azure fits into the equation Master Azure Service Fabric architecture and services Explore Azure Service Fabric application programming models Comprehensive study of various architecture patterns for building enterprise-grade Microservices Manage and deploy Microservices on Azure Service Fabric An insight into the future of Microservices with containers and serverless computing In Detail Microsoft Azure is rapidly evolving and is widely used as a platform on which you can build

Microservices that can be deployed on-premise and on-cloud heterogeneous environments through Microsoft Azure Service Fabric. This book will help you understand the concepts of Microservice application architecture and build highly maintainable and scalable enterprise-grade applications using the various services in Microsoft Azure Service Fabric. We will begin by understanding the intricacies of the Microservices architecture and its advantages over the monolithic architecture and Service Oriented Architecture (SOA) principles. We will present various scenarios where Microservices should be used and walk you through the architectures of Microservice-based applications. Next, you will take an in-depth look at Microsoft Azure Service Fabric, which is the best-in-class platform for building Microservices. You will explore how to develop and deploy sample applications on Microsoft Azure Service Fabric to gain a thorough understanding of it. Building Microservice-based

application is complicated. Therefore, we will take you through several design patterns that solve the various challenges associated with realizing the Microservices architecture in enterprise applications. Each pattern will be clearly illustrated with examples that you can keep referring to when designing applications. Finally, you will be introduced to advanced topics such as Serverless computing and DevOps using Service Fabric, to help you undertake your next venture with confidence. Style and approach This book introduces its readers to the concept of Microservices and Microsoft Azure Service Fabric as a distributed platform to host enterprise-grade Microservices. It then addresses common architectural challenges associated with the Microservice architecture, using proven architectural patterns.

Microsoft Azure Architect Technologies and Design Complete Study Guide - Benjamin

Perkins 2021-01-13

Become a proficient Microsoft Azure solutions

architect Azure certifications are critical to the millions of IT professionals Microsoft has certified as MCSE and MCSA in Windows Server in the last 20 years. All of these professionals need to certify in key Azure exams to stay current and advance in their careers. Exams AZ-303 and AZ-304 are the key solutions architect exams that experienced Windows professionals will find most useful at the intermediate and advanced points of their careers. Microsoft Azure Architect Technologies and Design Complete Study Guide Exams AZ-303 and AZ-304 covers the two critical Microsoft Azure exams that intermediate and advanced Microsoft IT professionals will need to show proficiency as their organizations move to the Azure cloud. Understand Azure Set up your Microsoft Cloud network Solve real-world problems Get the confidence to pass the exam By learning all of these things plus using the Study Guide review questions and practice exams, the reader will be ready to take the exam

and perform the job with confidence.

Cloud Computing for Scientific Research - Jie Xiong 2018-08-24

I introduce the cloud computing fundamentals, architecture of layers, and scientific services on the cloud firstly. Then, I introduce several typical commercial cloud computing platforms, such as Amazon Cloud Computing, Microsoft Azure, and Google Cloud Platform. Lastly, I discuss the scientific cloud computing based on these three commercial cloud computing platforms.

Microsoft Azure Essentials - Fundamentals of Azure - Michael Collier 2015-01-29

Microsoft Azure Essentials from Microsoft Press is a series of free ebooks designed to help you advance your technical skills with Microsoft Azure. The first ebook in the series, Microsoft Azure Essentials: Fundamentals of Azure, introduces developers and IT professionals to the wide range of capabilities in Azure. The authors - both Microsoft MVPs in Azure - present

both conceptual and how-to content for key areas, including: Azure Websites and Azure Cloud Services Azure Virtual Machines Azure Storage Azure Virtual Networks Databases Azure Active Directory Management tools Business scenarios Watch Microsoft Press's blog and Twitter (@MicrosoftPress) to learn about other free ebooks in the "Microsoft Azure Essentials" series.

Building Microservices Applications on Microsoft Azure - Harsh Chawla 2019-07-17

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 Stack Implement 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.

Cloud Computing - Pandey U.S. & Chaudhary Kavita 2014

Cloud Computing

Mastering Azure Serverless Computing -

Lorenzo Barbieri 2019-11-22

Become an expert in implementing Azure Functions to work seamlessly with your serverless applications Key Features Develop scalable, robust multi-tier apps without worrying about infrastructure needs Deploy and manage cost-effective and highly available serverless apps using Azure Functions Accelerate enterprise-level application development by seamlessly integrating different cloud services with Azure Functions Book Description Application development has evolved from

traditional monolithic app development to using serverless options and microservices. This book is designed to guide you through using Microsoft's Azure Functions to process data, integrate systems, and build simple APIs and microservices. You will discover how to apply serverless computing to speed up deployment and reduce downtime. You'll also explore Azure Functions, including its core functionalities and essential tools, along with understanding how to debug and even customize Azure Functions. In addition to this, the book will take you through how you can effectively implement DevOps and automation in your working environment. Toward the concluding chapters, you'll cover some quick tips, troubleshooting techniques, and real-world serverless use cases that will help you make the most of serverless computing. By the end of this book, you will have gained the skills you need to develop and deliver cost-effective Azure serverless solutions. What you will learn Create and deploy advanced Azure Functions

Learn to extend the runtime of Azure Functions
Orchestrate your logic through code or a visual workflow
Add caching, security, routing, and filtering to your APIs
Use serverless technologies in real-world scenarios
Understand how to apply DevOps and automation to your working environment
Who this book is for
This book is designed for cloud administrators, architects, and developers interested in building scalable systems and deploying serverless applications with Azure Functions. Prior knowledge of core Microsoft Azure services and Azure Functions is necessary to understand the topics covered in this book.

Multimedia Cloud Computing Systems - Mohsen Amini Salehi 2021-11-03

The second generation of cloud computing systems, known as domain-specific clouds, are emerging based on application-specific processors and serverless computing paradigm. As multimedia streaming services are increasingly growing in popularity and diversity,

this book is authored to introduce “multimedia clouds” as a domain-specific cloud that operates in the intersection of cloud computing technologies and digital media streaming. The book concentrates on the architectural aspects of multimedia clouds and describes development of high-level abstractions that will mitigate the burden of programmers, cloud architects, and system administrators. Multimedia clouds not only democratize multimedia streaming and add flexibility to the streaming services, they also help stream providers to offer robust and reliable streaming services in a cost- and energy-efficient manner.

Zen of Cloud - Haishi Bai 2019-05-15

This book provides a comprehensive review of cloud philosophy, design principals, development trends as well as practical patterns to guide readers to understand, design and implement successful cloud-based solutions. This book provides both "hows" and "whys." It peers behind the buzz words such as machine

learning, containers, and blockchains to help readers understand how to put those technologies into practical use. This unique book covers a broad spectrum of technologies of cloud computing.

Apache Hadoop YARN - Arun C. Murthy 2014

"Apache Hadoop is helping drive the Big Data revolution. Now, its data processing has been completely overhauled: Apache Hadoop YARN provides resource management at data center scale and easier ways to create distributed applications that process petabytes of data. And now in Apache Hadoop™ YARN, two Hadoop technical leaders show you how to develop new applications and adapt existing code to fully leverage these revolutionary advances." -- From the Amazon

Cloud-Native Applications in Java - Ajay

Mahajan 2018-02-26

Highly available microservice-based web apps for Cloud with Java Key Features Take advantage of the simplicity of Spring to build a

full-fledged application Let your applications run faster while generating smaller cloud service bills Integrate your application with various tools such as Docker and ElasticSearch and use specific tools in Azure and AWS Book

Description Businesses today are evolving so rapidly that they are resorting to the elasticity of the cloud to provide a platform to build and deploy their highly scalable applications. This means developers now are faced with the challenge of building build applications that are native to the cloud. For this, they need to be aware of the environment, tools, and resources they're coding against. If you're a Java developer who wants to build secure, resilient, robust, and scalable applications that are targeted for cloud-based deployment, this is the book for you. It will be your one stop guide to building cloud-native applications in Java Spring that are hosted in On-prem or cloud providers - AWS and Azure The book begins by explaining the driving factors for cloud adoption and shows you how

cloud deployment is different from regular application deployment on a standard data centre. You will learn about design patterns specific to applications running in the cloud and find out how you can build a microservice in Java Spring using REST APIs You will then take a deep dive into the lifecycle of building, testing, and deploying applications with maximum automation to reduce the deployment cycle time. Gradually, you will move on to configuring the AWS and Azure platforms and working with their APIs to deploy your application. Finally, you'll take a look at API design concerns and their best practices. You'll also learn how to migrate an existing monolithic application into distributed cloud native applications. By the end, you will understand how to build and monitor a scalable, resilient, and robust cloud native application that is always available and fault tolerant. What you will learn See the benefits of the cloud environment when it comes to variability, provisioning, and tooling support Understand

the architecture patterns and considerations when developing on the cloud Find out how to perform cloud-native techniques/patterns for request routing, RESTful service creation, Event Sourcing, and more Create Docker containers for microservices and set up continuous integration using Jenkins Monitor and troubleshoot an application deployed in the cloud environment Explore tools such as Docker and Kubernetes for containerization and the ELK stack for log aggregation and visualization Use AWS and Azure specific tools to design, develop, deploy, and manage applications Migrate from monolithic architectures to a cloud native deployment Who this book is for Java developers who want to build secure, resilient, robust and scalable applications that are targeted for cloud based deployment, will find this book helpful. Some knowledge of Java, Spring, web programming and public cloud providers (AWS, Azure) should be sufficient to get you through the book.

Programming Microsoft Azure Service Fabric -
Haishi Bai 2016-06-01

Build exceptionally scalable cloud applications for fast-growing businesses Microsoft Azure Service Fabric makes it easier than ever before to build large-scale distributed cloud applications. You can quickly develop and update microservice-based applications, efficiently operate highly reliable hyperscale services, and deploy the same application code on public, hosted, or private clouds. This book introduces all key Azure Service Fabric concepts and walks you through implementing several real-world applications. You'll find advanced design patterns, tuning tips, and lessons learned from early adopters—all from the perspective of developing and operating large projects in production. Microsoft Azure evangelist Haishi Bai shows how to: Implement background services and use stateless services to handle user requests Solve state-management problems in distributed systems Package, stage, and

deploy applications Upgrade applications in place, with zero downtime Leverage Quality of Service (QoS) options throughout app design, implementation, and operation Manage Service Fabric clusters with Windows PowerShell and the Management Portal Configure Service Fabric Diagnostics and analyze collected data Test functionality and performance Design Internet of Things (IoT) solutions that capture and manage petabytes of data Handle demanding real-time data-streaming compute scenarios Understand multitenancy and single-tenancy as logical architecture choices Build Service Fabric game engines to support large-scale, multiplayer online games Model complex systems with the Service Fabric Actors Pattern About This Book For all cloud developers who want to create and operate large-scale distributed cloud applications by using Microsoft Azure Service Fabric For all IT professionals who want to integrate Windows Server and Microsoft Azure in any environment, including

datacenters

Cloud Native Patterns - Cornelia Davis

2019-05-12

Summary *Cloud Native Patterns* is your guide to developing strong applications that thrive in the dynamic, distributed, virtual world of the cloud. This book presents a mental model for cloud-native applications, along with the patterns, practices, and tooling that set them apart. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Cloud platforms promise the holy grail: near-zero downtime, infinite scalability, short feedback cycles, fault-tolerance, and cost control. But how do you get there? By applying cloud-native designs, developers can build resilient, easily adaptable, web-scale distributed applications that handle massive user traffic and data loads. Learn these fundamental patterns and practices, and you'll be ready to thrive in the dynamic, distributed, virtual world of the cloud. About the

Book With 25 years of experience under her belt, Cornelia Davis teaches you the practices and patterns that set cloud-native applications apart. With realistic examples and expert advice for working with apps, data, services, routing, and more, she shows you how to design and build software that functions beautifully on modern cloud platforms. As you read, you will start to appreciate that cloud-native computing is more about the how and why rather than the where. What's inside The lifecycle of cloud-native apps Cloud-scale configuration management Zero downtime upgrades, versioned services, and parallel deploys Service discovery and dynamic routing Managing interactions between services, including retries and circuit breakers About the Reader Requires basic software design skills and an ability to read Java or a similar language. About the Author Cornelia Davis is Vice President of Technology at Pivotal Software. A teacher at heart, she's spent the last 25 years making good software and great software

developers. Table of Contents PART 1 - THE CLOUD-NATIVE CONTEXT You keep using that word: Defining "cloud-native" Running cloud-native applications in production The platform for cloud-native software PART 2 - CLOUD-NATIVE PATTERNS Event-driven microservices: It's not just request/response App redundancy: Scale-out and statelessness Application configuration: Not just environment variables The application lifecycle: Accounting for constant change Accessing apps: Services, routing, and service discovery Interaction redundancy: Retries and other control loops Fronting services: Circuit breakers and API gateways Troubleshooting: Finding the needle in the haystack Cloud-native data: Breaking the data monolith

Pro Application Lifecycle Management with Visual Studio 2012 - Joachim Rossberg
2012-11-27

You can have the best coders in the world working in your teams, but if your project

management isn't up to scratch, your project is almost certain to be delayed, to come in over budget, and in some cases to fail entirely. By taking precise control of your application development process, you can make changes, both large and small, throughout your project's life cycle that will lead to better-quality finished products that are consistently delivered on time and within budget. Application lifecycle management (ALM) is an area of rapidly growing interest within the development community. Because its techniques allow you to deal with the process of developing applications across many areas of responsibility and across many different disciplines, its effects on your project can be wide ranging and pronounced. It is a project management tool that has practical implications for the whole team—from architects to designers, from developers to testers. Pro Application Lifecycle Management with Visual Studio 2012 focuses on the most powerful ALM tool available for the Microsoft .NET

Framework: Visual Studio Team Foundation Server. It demonstrates the key concepts and techniques of ALM at first with a guide to the overall methodology, and then delves into architecture and testing--illustrating all of the concepts, tips and tricks using the tools TFS provides. The book serves as a complete guide to

the ALM style--with no fluff and many relevant code samples and examples. After reading the book, you will understand how TFS can be used to generate continuous meaningful reporting on your project's health for the decision makers on your team as well as for your project's sponsors.