

# Implementing Azure Putting Modern Devops To Use T

Eventually, you will extremely discover a extra experience and triumph by spending more cash. nevertheless when? realize you tolerate that you require to get those all needs gone having significantly cash? Why dont you attempt to get something basic in the beginning? Thats something that will guide you to understand even more regarding the globe, experience, some places, once history, amusement, and a lot more?

It is your enormously own time to act out reviewing habit. along with guides you could enjoy now is **Implementing Azure Putting Modern Devops To Use T** below.

[Kubeflow Operations Guide](#) - Josh Patterson 2020-12-04 Building models is a small part of the story when it comes to deploying machine learning applications. The entire process involves developing, orchestrating, deploying, and running scalable and portable machine learning workloads--a process Kubeflow makes much easier. This practical book shows data scientists, data engineers, and platform architects how to plan and

execute a Kubeflow project to make their Kubernetes workflows portable and scalable. Authors Josh Patterson, Michael Katzenellenbogen, and Austin Harris demonstrate how this open source platform orchestrates workflows by managing machine learning pipelines. You'll learn how to plan and execute a Kubeflow platform that can support workflows from on-premises to cloud providers including

Google, Amazon, and Microsoft. Dive into Kubeflow architecture and learn best practices for using the platform Understand the process of planning your Kubeflow deployment Install Kubeflow on an existing on-premises Kubernetes cluster Deploy Kubeflow on Google Cloud Platform step-by-step from the command line Use the managed Amazon Elastic Kubernetes Service (EKS) to deploy Kubeflow on AWS Deploy and manage Kubeflow across a network of Azure cloud data centers around the world Use KFServing to develop and deploy machine learning models

*Cloud Computing For Dummies*  
- Judith S. Hurwitz 2010-01-19  
The easy way to understand and implement cloud computing technology written by a team of experts Cloud computing can be difficult to understand at first, but the cost-saving possibilities are great and many companies are getting on board. If you've been put in charge of implementing cloud computing,

this straightforward, plain-English guide clears up the confusion and helps you get your plan in place. You'll learn how cloud computing enables you to run a more green IT infrastructure, and access technology-enabled services from the Internet ("in the cloud") without having to understand, manage, or invest in the technology infrastructure that supports them. You'll also find out what you need to consider when implementing a plan, how to handle security issues, and more. Cloud computing is a way for businesses to take advantage of storage and virtual services through the Internet, saving money on infrastructure and support This book provides a clear definition of cloud computing from the utility computing standpoint and also addresses security concerns Offers practical guidance on delivering and managing cloud computing services effectively and efficiently Presents a proactive and pragmatic approach to implementing cloud computing

in any organization Helps IT managers and staff understand the benefits and challenges of cloud computing, how to select a service, and what's involved in getting it up and running Highly experienced author team consults and gives presentations on emerging technologies Cloud Computing For Dummies gets straight to the point, providing the practical information you need to know.

### **Learning ASP.NET Core 3.0**

**-Second Edition** - Kenneth

Yamikani Fukizi 2019-12-27

A beginner's guide to building fully functioning web applications from scratch using the latest features of ASP.NET Core 3 and C# 8 Key Features Get to grips with the new features and APIs in ASP.NET Core 3, EF Core 3, and Blazor Create web APIs that integrate your applications with other systems and services Learn to deploy your web applications in new environments such as the cloud and Docker containers Book Description ASP.NET Core is an open source framework from Microsoft that

makes it easy to build highly efficient and dynamic cross-platform web applications. Updated for the latest features of ASP.NET Core 3, this second edition will equip you with the skills you need to build powerful web applications. The book starts with an introduction to ASP.NET Core and its features, giving you a complete understanding of the framework. You will also learn how to set up your development environment with Visual Studio 2019 and build a fully functioning application from scratch. You'll then understand core concepts for building web applications such as Model View Controller (MVC), dependency injection, and WebSockets. As you advance, you'll discover how to use Entity Framework Core 3 to automate all database-related activities for your application. You will then build and document secure web APIs using security best practices to protect your web applications from threats and vulnerabilities. Finally, you will learn how to use Azure DevOps

as a CI/CD tool to deploy and monitor your applications using Microsoft Azure, Amazon Web Services (AWS), and Docker. By the end of this book, you'll have the skills you need to develop efficient and robust web applications in ASP.NET Core 3. What you will learn

- Delve into basic and advanced ASP.NET Core 3 concepts with the help of examples
- Build an MVC web application and use Entity Framework Core 3 to access data
- Add web APIs to your web applications using RPC, REST, and HATEOAS
- Create a fully automated continuous integration and continuous delivery (CI/CD) pipeline using Azure DevOps
- Use Azure, Amazon Web Services, and Docker to deploy and monitor your applications
- Secure your web application from common attacks such as Cross-Site Scripting and SQL injection
- Explore client-side development using C# Razor components

Who this book is for  
This book is for developers who want to build modern web applications with ASP.NET Core. The book will also be

helpful for anyone working in infrastructure engineering and operations to monitor and diagnose problems during the runtime of ASP.NET Core 3.0 web applications. Although no prior understanding of ASP.NET or .NET Core is required, basic C# programming knowledge is assumed.

**Cloud Native DevOps with Kubernetes** - John Arundel  
2019-03-08

Kubernetes is the operating system of the cloud native world, providing a reliable and scalable platform for running containerized workloads. In this friendly, pragmatic book, cloud experts John Arundel and Justin Domingus show you what Kubernetes can do—and what you can do with it. You'll learn all about the Kubernetes ecosystem, and use battle-tested solutions to everyday problems. You'll build, step by step, an example cloud native application and its supporting infrastructure, along with a development environment and continuous deployment pipeline that you can use for

your own applications. Understand containers and Kubernetes from first principles; no experience necessary Run your own clusters or choose a managed Kubernetes service from Amazon, Google, and others Use Kubernetes to manage resource usage and the container lifecycle Optimize clusters for cost, performance, resilience, capacity, and scalability Learn the best tools for developing, testing, and deploying your applications Apply the latest industry practices for security, observability, and monitoring Adopt DevOps principles to help make your development teams lean, fast, and effective

### **Azure Data Factory by**

**Example** - Richard Swinbank  
2021-09-16

Data engineers who need to hit the ground running will use this book to build skills in Azure Data Factory v2 (ADF). The tutorial-first approach to ADF taken in this book gets you working from the first chapter, explaining key ideas naturally as you encounter

them. From creating your first data factory through to building complex, metadata-driven nested pipelines, the book guides you through essential concepts in Microsoft's cloud-based ETL/ELT platform. It introduces components indispensable for the movement and transformation of data in the cloud. Then it demonstrates the tools necessary to orchestrate, monitor, and manage those components. The hands-on introduction to ADF found in this book is equally well-suited to data engineers embracing their first ETL/ELT toolset as it is to seasoned veterans of Microsoft's SQL Server Integration Services (SSIS). The example-driven approach leads you through ADF pipeline construction from the ground up, introducing important ideas and making learning natural and engaging. SSIS users will find concepts with familiar parallels, while ADF-first readers will quickly master those concepts through the book's steady building up of

knowledge in successive chapters. Summaries of key concepts at the end of each chapter provide a ready reference that you can return to again and again. What You Will Learn

- Create pipelines, activities, datasets, and linked services
- Build reusable components using variables, parameters, and expressions
- Move data into and around Azure services automatically
- Transform data natively using mapping and wrangling data flows
- Master flow-of-control and triggers for tightly orchestrated pipeline execution
- Publish and monitor pipelines easily and with confidence

Who This Book Is For

Data engineers and ETL developers taking their first steps in Azure Data Factory, SQL Server Integration Services users making the transition toward doing ETL in Microsoft's Azure cloud, and SQL Server database administrators involved in data warehousing and ETL operations

*Automating Workflows with GitHub Actions* - Priscila Heller  
2021-11-11

Build, test, and deploy code right from your GitHub repository by automating, customizing, and executing software development workflows with GitHub Actions

Key Features

- Enhance your CI/CD and DevOps workflows using GitHub Actions
- Discover how to create custom GitHub Actions using Docker and JavaScript
- Get up and running with building a CI/CD pipeline effectively

Book Description

GitHub Actions is one of the most popular products that enables you to automate development tasks and improve your software development workflow. Automating Workflows with GitHub Actions uses real-world examples to help you automate everyday tasks and use your resources efficiently. This book takes a practical approach to helping you develop the skills needed to create complex YAML files to automate your daily tasks. You'll learn how to find and use existing workflows, allowing you to get started with GitHub Actions right away. Moving on, you'll discover complex

concepts and practices such as self-hosted runners and writing workflow files that leverage other platforms such as Docker as well as programming languages such as Java and JavaScript. As you advance, you'll be able to write your own JavaScript, Docker, and composite run steps actions, and publish them in GitHub Marketplace! You'll also find instructions to migrate your existing CI/CD workflows into GitHub Actions from platforms like Travis CI and GitLab. Finally, you'll explore tools that'll help you stay informed of additions to GitHub Actions along with finding technical support and staying engaged with the community. By the end of this GitHub book, you'll have developed the skills and experience needed to build and maintain your own CI/CD pipeline using GitHub Actions. What you will learn Get to grips with the basics of GitHub and the YAML syntax Understand key concepts of GitHub Actions Find out how to write actions for JavaScript and Docker environments Discover

how to create a self-hosted runner Migrate from other continuous integration and continuous delivery (CI/CD) platforms to GitHub Actions Collaborate with the GitHub Actions community and find technical help to navigate technical difficulties Publish your workflows in GitHub Marketplace Who this book is for This book is for anyone involved in the software development life cycle, for those looking to learn about GitHub Actions and what can be accomplished, and for those who want to develop a new skill to help them advance their software development career. If you are new to GitHub and GitHub Actions in general, then this book is for you. Basic knowledge of GitHub as a platform will help you to get the most out of this book. [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 Learn Explore the use cases of microservices and monolithic architecture Discover the architecture patterns to build scalable, agile, and secure microservices applications Develop and deploy microservices using Azure Service Fabric and Azure Kubernetes Service Secure microservices using the gateway pattern See 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. *Modern DevOps Practices* - Gaurav Agarwal 2021-09-13 Enhance DevOps workflows by integrating the functionalities of Docker, Kubernetes, Spinnaker, Ansible, Terraform, Flux CD, CaaS, and more with the help of practical examples

and expert tips Key Features Get up and running with containerization-as-a-service and infrastructure automation in the public cloud Learn container security techniques and secret management with Cloud KMS, Anchore Grype, and Grafeas Kritis Leverage the combination of DevOps, GitOps, and automation to continuously ship a package of software Book Description Containers have entirely changed how developers and end-users see applications as a whole. With this book, you'll learn all about containers, their architecture and benefits, and how to implement them within your development lifecycle. You'll discover how you can transition from the traditional world of virtual machines and adopt modern ways of using DevOps to ship a package of software continuously. Starting with a quick refresher on the core concepts of containers, you'll move on to study the architectural concepts to implement modern ways of application development. You'll

cover topics around Docker, Kubernetes, Ansible, Terraform, Packer, and other similar tools that will help you to build a base. As you advance, the book covers the core elements of cloud integration (AWS ECS, GKE, and other CaaS services), continuous integration, and continuous delivery (GitHub actions, Jenkins, and Spinnaker) to help you understand the essence of container management and delivery. The later sections of the book will take you through container pipeline security and GitOps (Flux CD and Terraform). By the end of this DevOps book, you'll have learned best practices for automating your development lifecycle and making the most of containers, infrastructure automation, and CaaS, and be ready to develop applications using modern tools and techniques. What you will learn Become well-versed with AWS ECS, Google Cloud Run, and Knative Discover how to build and manage secure Docker images

efficiently Understand continuous integration with Jenkins on Kubernetes and GitHub actions Get to grips with using Spinnaker for continuous deployment/delivery Manage immutable infrastructure on the cloud with Packer, Terraform, and Ansible Explore the world of GitOps with GitHub actions, Terraform, and Flux CD Who this book is for If you are a software engineer, system administrator, or operations engineer looking to step into the world of DevOps within public cloud platforms, this book is for you. Existing DevOps engineers will also find this book useful as it covers best practices, tips, and tricks to implement DevOps with a cloud-native mindset. Although no containerization experience is necessary, a basic understanding of the software development life cycle and delivery will help you get the most out of the book.

**Effective DevOps** - Jennifer Davis 2016-05-30

Some companies think that adopting devops means

bringing in specialists or a host of new tools. With this practical guide, you'll learn why devops is a professional and cultural movement that calls for change from inside your organization. Authors Ryn Daniels and Jennifer Davis provide several approaches for improving collaboration within teams, creating affinity among teams, promoting efficient tool usage in your company, and scaling up what works throughout your organization's inflection points. Devops stresses iterative efforts to break down information silos, monitor relationships, and repair misunderstandings that arise between and within teams in your organization. By applying the actionable strategies in this book, you can make sustainable changes in your environment regardless of your level within your organization. Explore the foundations of devops and learn the four pillars of effective devops Encourage collaboration to help individuals work together and build durable and long-lasting relationships Create affinity

among teams while balancing differing goals or metrics Accelerate cultural direction by selecting tools and workflows that complement your organization Troubleshoot common problems and misunderstandings that can arise throughout the organizational lifecycle Learn from case studies from organizations and individuals to help inform your own devops journey

[Azure Resource Manager Templates Quick Start Guide](#) - Ritesh Modi 2019-02-28 Azure Resource Manager (ARM) templates are declarations of Azure resources in the JSON format to provision and maintain them using infrastructure as code. This book gives practical solutions and examples for provisioning and managing various Azure services using ARM templates. [Microsoft Azure Administrator Exam Prep \(AZ-104\)](#) - Lalit Rawat 2021-01-02 Step-by-step exam guide to learn Microsoft Azure Administration with hands-on labs. KEY FEATURES Well-

organized and detailed coverage for passing the Azure Administrator Exam. Gain proficiency in analyzing resource utilization and consumption. Explore how to manage resource groups and establish storage accounts. Expert-led designed and scenario-focused questions and answers. DESCRIPTION The Azure administrator is a new way to learn and develop the Microsoft Azure skills, and it helps you to grow your career in the cloud era. In this book, you will learn about the basic and advance concepts of the Azure administration. You will also learn how to use the Azure active directory user management and how to sync your on-premises active directory with the Azure directory. This book also explains concepts like the Azure Virtual machine, Azure storage account, and Azure networking with an exam-based scenario. At the end the book explains Azure monitor, Azure networking, on-premises to Azure connectivity using the site-to-site connection or

through EXPRESS ROUTE along with the Disaster and Backup recovery option. This book covers a full chapter of Exam Preparation Guidelines and scenarios-based questions that will help readers in their exam preparations. WHAT YOU WILL LEARN Efficient use of Azure components with conceptual-based learning on Azure services. Step-by-step implementation of routine Azure administration tasks. Exciting examples and illustrations on using Azure active directory and other utilities. Smart coverage on Azure virtual machine, Azure storage account, and Azure networking. WHO THIS BOOK IS FOR This book is for all system administration roles or anyone seeking to successfully pass the Azure Administration certification exam and become a true professional Azure Administrator. To make the best of this book, we expect you to be familiar with PowerShell and CLI. TABLE OF CONTENTS 1.Implement and manage the hybrid identities 2.Managing Role assignment

through the RBAC Policy 3.Azure Subscription and Resources Group Management 4.Managing and Configuration of the Storage Accounts 5.Manage data in the Azure Storage 6.Configure the Azure File 7.Create and configure a VM 8.Automate the deployment of the VMs 9.Create and configure the containers 10.Create and configure the Web Apps 11.Configure the Virtual Networking and Integrate an on-premises to the Azure Network 12.Configure the load balancing 14.Secure access to the virtual networks 15.Monitor and troubleshoot virtual networking 16.Analyze resource utilization and consumption 17.Implement backup and recovery 18.Exam Guidelines and Assessment [Excel 2019 in easy steps](#) - Michael Price 2019-02-07 Are you making the most of this feature-packed spreadsheet? Excel 2019 in easy steps starts with the basics and then reveals the key clever features on offer - all in easy steps! Areas covered include: · Creating, editing and

manipulating worksheets · Formulas, Functions, Tables, and importing data · Handy templates to give you a head start · Macros for everyday tasks to save time · Charts to get an overview of your data · What-if, Goal Seek and Optimization · Using the Excel Online app to share and collaborate on spreadsheets and workbooks · Adding images and illustrations to your spreadsheet to impress your colleagues! This primer illustrates how to use Excel to manage your finance and data effectively and easily - both at home and at work. Whether you're upgrading to Excel 2019 or new to spreadsheets, use this guide to get more out of Microsoft Excel! Table of Contents: 1. Introduction 2. Begin with Excel 3. Manage Data 4. Formulas and Functions 5. Excel Tables 6. Advanced Functions 7. Control Excel 8. Charts 9. Macros in Excel 10. Templates and Scenarios 11. Links and Connections

**Azure for Architects** - Ritesh Modi 2017-10-20

Your one stop guide to making the most out of Azure Cloud  
About This Book 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 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. What You Will Learn Familiarize yourself with the components of the Azure Cloud platform Understand the cloud design patterns Use enterprise security guidelines for your Azure deployment Design and implement Serverless solutions See Cloud architecture and the deployment pipeline Understand cost management for Azure solutions In Detail Over the years, Azure cloud services has 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. This book will guide you through all the important and tough decision-making aspects involved in architecting a Azure public cloud for your organization. The book starts with an extensive introduction to all the categories of designs available with Azure. These design patterns focus on different aspects of cloud such as high availability, data management, and so on. Gradually, we move on to various aspects such as building your cloud structure and architecture. It will also include a brief description about different types of services provided by Azure, such as Azure functions and Azure Analytics, which can prove beneficial for an organization. This book will cover each and every aspect and function required to develop a Azure cloud based on your organizational

requirements. By the end of this book, you will be in a position to develop a full-fledged Azure cloud. Style and approach This hands-on guide to the Azure Cloud platform covers different architectural concepts and implementations necessary for any enterprise scale deployment.

**Modern PHP** - Josh Lockhart  
2015-02-16

PHP is experiencing a renaissance, though it may be difficult to tell with all of the outdated PHP tutorials online. With this practical guide, you'll learn how PHP has become a full-featured, mature language with object-orientation, namespaces, and a growing collection of reusable component libraries. Author Josh Lockhart—creator of PHP The Right Way, a popular initiative to encourage PHP best practices—reveals these new language features in action. You'll learn best practices for application architecture and planning, databases, security, testing, debugging, and deployment. If you have a basic understanding

of PHP and want to bolster your skills, this is your book. Learn modern PHP features, such as namespaces, traits, generators, and closures Discover how to find, use, and create PHP components Follow best practices for application security, working with databases, errors and exceptions, and more Learn tools and techniques for deploying, tuning, testing, and profiling your PHP applications Explore Facebook’s HVVM and Hack language implementations—and how they affect modern PHP Build a local development environment that closely matches your production server

The Phoenix Project - Gene Kim  
2018-02-06

\*\*\*Over a half-million sold! The sequel, The Unicorn Project, is coming Nov 26\*\*\* “Every person involved in a failed IT project should be forced to read this book.”—TIM O’REILLY, Founder & CEO of O’Reilly Media “The Phoenix Project is a must read for business and IT executives who are struggling with the

growing complexity of IT.”—JIM WHITEHURST, President and CEO, Red Hat, Inc. Five years after this sleeper hit took on the world of IT and flipped it on it's head, the 5th Anniversary Edition of The Phoenix Project continues to guide IT in the DevOps revolution. In this newly updated and expanded edition of the bestselling The Phoenix Project, co-author Gene Kim includes a new afterword and a deeper delve into the Three Ways as described in The DevOps Handbook. Bill, an IT manager at Parts Unlimited, has been tasked with taking on a project critical to the future of the business, code named Phoenix Project. But the project is massively over budget and behind schedule. The CEO demands Bill must fix the mess in ninety days or else Bill's entire department will be outsourced. With the help of a prospective board member and his mysterious philosophy of The Three Ways, Bill starts to see that IT work has more in common with a manufacturing plant work than he ever

imagined. With the clock ticking, Bill must organize work flow streamline interdepartmental communications, and effectively serve the other business functions at Parts Unlimited. In a fast-paced and entertaining style, three luminaries of the DevOps movement deliver a story that anyone who works in IT will recognize. Readers will not only learn how to improve their own IT organizations, they'll never view IT the same way again. "This book is a gripping read that captures brilliantly the dilemmas that face companies which depend on IT, and offers real-world solutions."—JEZ HUMBLE, Co-author of Continuous Delivery, Lean Enterprise, Accelerate, and The DevOps Handbook ——— "I'm delighted at how The Phoenix Project has reshaped so many conversations in technology. My goal in writing The Unicorn Project was to explore and reveal the necessary but invisible structures required to make developers (and all

engineers) productive, and reveal the devastating effects of technical debt and complexity. I hope this book can create common ground for technology and business leaders to leave the past behind, and co-create a better future together."—Gene Kim, November 2019

**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. *The Art of Opportunity* - Marc Sniukas 2016-05-02

Innovate your way toward growth using practical, research-backed frameworks

The Art of Opportunity offers a path toward new growth, providing the perspective and methods you need to make innovation happen. Written by a team of experts with both academic and industry experience—and a client roster composed of some of the world’s leading companies—this book provides you with the necessary tools to help you capture growth instead of chasing it. The visual frameworks and research-based methodology presented in *The Art of Opportunity* merge business design thinking and strategic innovation to help you change your growth paradigm. You’ll learn creative and practical methods for exploring growth opportunities and employ a new approach for identifying what “opportunity” looks like in the first place. Put aside the old school way of

focusing on new products and new markets, to instead applying value creation to find your new opportunity, craft your offering, design your strategy and build new growth ventures. The changing business ecosystem is increasingly pushing traditional thinking out to pasture. New consumers and the new marketplace are demanding a profound adjustment to the way companies plan and execute growth strategies. This book gives you the tools to create your roadmap toward the new state of growth, and gain invaluable insight into a new way of thinking. The Art of Opportunity will help you to:

- Start looking at business growth from a new perspective
- Create value for the customers, company and ecosystem
- Innovate strategically and design new business models
- Develop a new active business design thinking approach to innovation

Your company’s goal is to grow, and to turn non-customers into customers. The old ways are becoming less

tenable and less cost-effective. The Art of Opportunity outlines the new growth paradigm and gives you a solid framework for putting new ideas into practice.

## **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.

## **A Practical Guide to Continuous Delivery -**

Eberhard Wolff 2017-02-24

Using Continuous Delivery, you can bring software into production more rapidly, with greater reliability. A Practical Guide to Continuous Delivery is a 100% practical guide to building Continuous Delivery pipelines that automate rollouts, improve reproducibility, and dramatically reduce risk.

Eberhard Wolff introduces a proven Continuous Delivery technology stack, including Docker, Chef, Vagrant, Jenkins, Graphite, the ELK stack, JBehave, and Gatling. He guides you through applying these technologies throughout build, continuous integration, load testing, acceptance testing, and monitoring. Wolff's start-to-finish example projects offer the basis for your own experimentation, pilot programs, and full-fledged deployments. A Practical Guide to Continuous Delivery is for everyone who wants to introduce Continuous Delivery, with or without DevOps. For

managers, it introduces core processes, requirements, benefits, and technical consequences. Developers, administrators, and architects will gain essential skills for implementing and managing pipelines, and for integrating Continuous Delivery smoothly into software architectures and IT organizations. Understand the problems that Continuous Delivery solves, and how it solves them Establish an infrastructure for maximum software automation Leverage virtualization and Platform as a Service (PAAS) cloud solutions Implement build automation and continuous integration with Gradle, Maven, and Jenkins Perform static code reviews with SonarQube and repositories to store build artifacts Establish automated GUI and textual acceptance testing with behavior-driven design Ensure appropriate performance via capacity testing Check new features and problems with exploratory testing Minimize risk throughout automated production software rollouts

Gather and analyze metrics and logs with Elasticsearch, Logstash, Kibana (ELK), and Graphite Manage the introduction of Continuous Delivery into your enterprise Architect software to facilitate Continuous Delivery of new capabilities

*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

*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.

*Software Architecture with C++* - Adrian Ostrowski  
2021-04-23

Apply business requirements to IT infrastructure and deliver a high-quality product by understanding architectures such as microservices, DevOps, and cloud-native using modern C++ standards and features  
Key Features Design scalable

large-scale applications with the C++ programming language Architect software solutions in a cloud-based environment with continuous integration and continuous delivery (CI/CD) Achieve architectural goals by leveraging design patterns, language features, and useful tools Book Description Software architecture refers to the high-level design of complex applications. It is evolving just like the languages we use, but there are architectural concepts and patterns that you can learn to write high-performance apps in a high-level language without sacrificing readability and maintainability. If you're working with modern C++, this practical guide will help you put your knowledge to work and design distributed, large-scale apps. You'll start by getting up to speed with architectural concepts, including established patterns and rising trends, then move on to understanding what software architecture actually is and start exploring its

components. Next, you'll discover the design concepts involved in application architecture and the patterns in software development, before going on to learn how to build, package, integrate, and deploy your components. In the concluding chapters, you'll explore different architectural qualities, such as maintainability, reusability, testability, performance, scalability, and security. Finally, you will get an overview of distributed systems, such as service-oriented architecture, microservices, and cloud-native, and understand how to apply them in application development. By the end of this book, you'll be able to build distributed services using modern C++ and associated tools to deliver solutions as per your clients' requirements. What you will learn Understand how to apply the principles of software architecture Apply design patterns and best practices to meet your architectural goals Write elegant, safe, and performant

code using the latest C++ featuresBuild applications that are easy to maintain and deployExplore the different architectural approaches and learn to apply them as per your requirementSimplify development and operations using application containersDiscover various techniques to solve common problems in software design and developmentWho this book is for This software architecture C++ programming book is for experienced C++ developers looking to become software architects or develop enterprise-grade applications.

*Developing Microservices Architecture on Microsoft Azure with Open Source Technologies* - Arvind Chandaka 2021-01-27

Developing Microservices Architecture on Azure with Open Source Technologies is a complete, step-by-step guide to building flexible microservices architectures by leveraging services provided by the Microsoft Azure cloud platform, and key open-source

technologies such as Java, Node.JS, .NET Core and Angular. Expert Microsoft consultants Ovais Mehboob and Arvind Chandaka guide students step by step through a realistic case study project that illuminates key technical implementation tasks for establishing end to end infrastructure, developing cloud-native applications, automating deployment, and realizing value.

### **SAP on Azure Implementation Guide** - Nick Morgan 2020-02-21

Learn how to migrate your SAP data to Azure simply and successfully. Key FeaturesLearn why Azure is suitable for business-critical systemsUnderstand how to migrate your SAP infrastructure to AzureUse Lift & shift migration, Lift & migrate, Lift & migrate to HANA, or Lift & transform to S/4HANABook Description Cloud technologies have now reached a level where even the most critical business systems can run on them. For most organizations SAP is the key

business system. If SAP is unavailable for any reason then potentially your business stops. Because of this, it is understandable that you will be concerned whether such a critical system can run in the public cloud. However, the days when you truly ran your IT system on-premises have long since gone. Most organizations have been getting rid of their own data centers and increasingly moving to co-location facilities. In this context the public cloud is nothing more than an additional virtual data center connected to your existing network. There are typically two main reasons why you may consider migrating SAP to Azure: You need to replace the infrastructure that is currently running SAP, or you want to migrate SAP to a new database. Depending on your goal SAP offers different migration paths. You can decide either to migrate the current workload to Azure as-is, or to combine it with changing the database and execute both activities as a

single step. SAP on Azure Implementation Guide covers the main migration options to lead you through migrating your SAP data to Azure simply and successfully. What you will learn  
Successfully migrate your SAP infrastructure to Azure  
Understand the security benefits of Azure  
See how Azure can scale to meet the most demanding of business needs  
Ensure your SAP infrastructure maintains high availability  
Increase business agility through cloud capabilities  
Leverage cloud-native capabilities to enhance SAP  
Who this book is for  
SAP on Azure Implementation Guide is designed to benefit existing SAP architects looking to migrate their SAP infrastructure to Azure. Whether you are an architect implementing the migration or an IT decision maker evaluating the benefits of migration, this book is for you.  
*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.

[Azure Strategy and Implementation Guide](#) - Peter De Tender 2020-06-09  
Learn Azure's cloud capabilities with the help of this introductory guide to employing Azure for your cloud infrastructure needs. Key Features  
Get a clear overview

of Azure's capabilities and benefits, and learn how to get started efficiently  
Develop the ability to opt for cloud architecture and design that best fits your organization  
Leverage Azure opportunities for cost savings and optimization  
Book 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.  
Azure Strategy and Implementation Guide Third Edition 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 by leveraging Azure's

capabilities. The guide further acquaints you with practical insights on 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 be proficient in driving Azure operations right from the planning and cloud migration stage to cost management and troubleshooting. What you will learn Deploy and run Azure infrastructure services Carry out detailed planning for migrating applications to the cloud with Azure Move underlying code class structure into a serverless model Use a gateway to isolate your services and applications Define roles and responsibilities in DevOps Implement release & deployment coordination and automation Who this book is for Azure Strategy and Implementation Guide Third Edition is designed to benefit Azure architects, cloud solution architects, Azure developers,

Azure administrators, and anyone who wants to develop an expertise in operating and administering the Azure cloud. A basic familiarity with operating systems and databases will help you grasp the concepts covered in this book.

*Learning DevOps* - Mikael Krief  
2019-10-25

Simplify your DevOps roles with DevOps tools and techniques Key Features Learn to utilize business resources effectively to increase productivity and collaboration Leverage the ultimate open source DevOps tools to achieve continuous integration and continuous delivery (CI/CD) Ensure faster time-to-market by reducing overall lead time and deployment downtime Book Description The implementation of DevOps processes requires the efficient use of various tools, and the choice of these tools is crucial for the sustainability of projects and collaboration between development (Dev) and operations (Ops). This

book presents the different patterns and tools that you can use to provision and configure an infrastructure in the cloud. You'll begin by understanding DevOps culture, the application of DevOps in cloud infrastructure, provisioning with Terraform, configuration with Ansible, and image building with Packer. You'll then be taken through source code versioning with Git and the construction of a DevOps CI/CD pipeline using Jenkins, GitLab CI, and Azure Pipelines. This DevOps handbook will also guide you in containerizing and deploying your applications with Docker and Kubernetes. You'll learn how to reduce deployment downtime with blue-green deployment and the feature flags technique, and study DevOps practices for open source projects. Finally, you'll grasp some best practices for reducing the overall application lead time to ensure faster time to market. By the end of this book, you'll have built a solid foundation in DevOps, and developed the skills necessary to enhance a

traditional software delivery process using modern software delivery tools and techniques. What you will learn: Become well versed with DevOps culture and its practices. Use Terraform and Packer for cloud infrastructure provisioning. Implement Ansible for infrastructure configuration. Use basic Git commands and understand the Git flow process. Build a DevOps pipeline with Jenkins, Azure Pipelines, and GitLab CI. Containerize your applications with Docker and Kubernetes. Check application quality with SonarQube and Postman. Protect DevOps processes and applications using DevSecOps tools. Who this book is for: If you are a developer or a system administrator interested in understanding continuous integration, continuous delivery, and containerization with DevOps tools and techniques, this book is for you.

**97 Things Every Cloud Engineer Should Know** - Emily Freeman 2020-12-04

If you create, manage, operate, or configure systems running in the cloud, you're a cloud engineer--even if you work as a system administrator, software developer, data scientist, or site reliability engineer. With this book, professionals from around the world provide valuable insight into today's cloud engineering role. These concise articles explore the entire cloud computing experience, including fundamentals, architecture, and migration. You'll delve into security and compliance, operations and reliability, and software development. And examine networking, organizational culture, and more. You're sure to find 1, 2, or 97 things that inspire you to dig deeper and expand your own career. "Three Keys to Making the Right Multicloud Decisions," Brendan O'Leary "Serverless Bad Practices," Manases Jesus Galindo Bello "Failing a Cloud Migration," Lee Atchison "Treat Your Cloud Environment as If It Were On Premises," Iyana Garry "What Is Toil, and Why Are SREs

Obsessed with It?", Zachary Nickens "Lean QA: The QA Evolving in the DevOps World," Theresa Neate "How Economies of Scale Work in the Cloud," Jon Moore "The Cloud Is Not About the Cloud," Ken Corless "Data Gravity: The Importance of Data Management in the Cloud," Geoff Hughes "Even in the Cloud, the Network Is the Foundation," David Murray "Cloud Engineering Is About Culture, Not Containers," Holly Cummins

**Modern Authentication with Azure Active Directory for Web Applications** - Vittorio Bertocci 2015-12-17

Build advanced authentication solutions for any cloud or web environment Active Directory has been transformed to reflect the cloud revolution, modern protocols, and today's newest SaaS paradigms. This is an authoritative, deep-dive guide to building Active Directory authentication solutions for these new environments. Author Vittorio Bertocci drove these technologies from initial concept to general availability,

playing key roles in everything from technical design to documentation. In this book, he delivers comprehensive guidance for building complete solutions. For each app type, Bertocci presents high-level scenarios and quick implementation steps, illuminates key concepts in greater depth, and helps you refine your solution to improve performance and reliability. He helps you make sense of highly abstract architectural diagrams and nitty-gritty protocol and implementation details. This is the book for people motivated to become experts. Active Directory Program Manager Vittorio Bertocci shows you how to: Address authentication challenges in the cloud or on-premises Systematically protect apps with Azure AD and AD Federation Services Power sign-in flows with OpenID Connect, Azure AD, and AD libraries Make the most of OpenID Connect's middleware and supporting classes Work with the Azure AD representation of apps and their relationships Provide fine-

grained app access control via roles, groups, and permissions Consume and expose Web APIs protected by Azure AD Understand new authentication protocols without reading complex spec documents

**The Unicorn Project** - Gene Kim 2019-11-26

The Phoenix Project wowed over a half-million readers. Now comes the Wall Street Journal Bestselling The Unicorn Project! "The Unicorn Project is amazing, and I loved it 100 times more than The Phoenix Project..."—FERNANDO CORNAGO, Senior Director Platform Engineering, Adidas "Gene Kim does a masterful job of showing how ... the efforts of many create lasting business advantages for all."—DR. STEVEN SPEAR, author of The High-Velocity Edge, Sr. Lecturer at MIT, and principal of HVE LLC. "The Unicorn Project is so clever, so good, so crazy enlightening!"—CORNELIA DAVIS, Vice President Of Technology at Pivotal Software, Inc., Author of Cloud Native

Patterns This highly anticipated follow-up to the bestselling title *The Phoenix Project* takes another look at *Parts Unlimited*, this time from the perspective of software development. In *The Unicorn Project*, we follow Maxine, a senior lead developer and architect, as she is exiled to the Phoenix Project, to the horror of her friends and colleagues, as punishment for contributing to a payroll outage. She tries to survive in what feels like a heartless and uncaring bureaucracy and to work within a system where no one can get anything done without endless committees, paperwork, and approvals. One day, she is approached by a ragtag bunch of misfits who say they want to overthrow the existing order, to liberate developers, to bring joy back to technology work, and to enable the business to win in a time of digital disruption. To her surprise, she finds herself drawn ever further into this movement, eventually becoming one of the leaders of the Rebellion, which puts her

in the crosshairs of some familiar and very dangerous enemies. The Age of Software is here, and another mass extinction event looms—this is a story about rebel developers and business leaders working together, racing against time to innovate, survive, and thrive in a time of unprecedented uncertainty...and opportunity. “The Unicorn Project provides insanely useful insights on how to improve your technology business.”—DOMINICA DEGRANDIS, author of *Making Work Visible* and Director of Digital Transformation at Tasktop ——— “My goal in writing *The Unicorn Project* was to explore and reveal the necessary but invisible structures required to make developers (and all engineers) productive, and reveal the devastating effects of technical debt and complexity. I hope this book can create common ground for technology and business leaders to leave the past behind, and co-create a better future together.”—Gene Kim, November 2019  
[Azure DevOps Explained](#) -

Sjoukje Zaal 2020-12-11  
Implement real-world DevOps and cloud deployment scenarios using Azure Repos, Azure Pipelines, and other Azure DevOps tools  
Key Features  
Improve your application development life cycle with Azure DevOps in a step-by-step manner  
Apply continuous integration and continuous deployment to reduce application downtime  
Work with real-world CI/CD scenarios curated by a team of renowned Microsoft MVPs and MCTs  
Book Description  
Developing applications for the cloud involves changing development methodologies and procedures. Continuous integration and continuous deployment (CI/CD) processes are a must today, but are often difficult to implement and adopt. Azure DevOps is a Microsoft Azure cloud service that enhances your application development life cycle and enables DevOps capabilities. Starting with a comprehensive product overview, this book helps you to understand Azure DevOps and apply DevOps

techniques to your development projects. You'll find out how to adopt DevOps techniques for your development processes by using built-in Azure DevOps tools. Throughout the course of this book, you'll also discover how to manage a project with the help of project management techniques such as Agile and Scrum, and then progress toward development aspects such as source code management, build pipelines, code testing and artifacts, release pipelines, and GitHub integration. As you learn how to implement DevOps practices, this book will also provide you with real-world examples and scenarios of DevOps adoption. By the end of this DevOps book, you will have learned how to adopt and implement Azure DevOps features in your real-world development processes. What you will learn  
Get to grips with Azure DevOps  
Find out about project management with Azure Boards  
Understand source code management with Azure Repos  
Build and release

pipelinesRun quality tests in build pipelinesUse artifacts and integrate Azure DevOps in the GitHub flowDiscover real-world CI/CD scenarios with Azure DevOpsWho this book is for This book is for developers, solutions architects, and DevOps engineers interested in getting started with cloud DevOps practices on Azure. Prior understanding of Azure architecture and services is necessary. Some knowledge of DevOps principles and techniques will be useful.

### Modernizing Enterprise Java -

Markus Eisele 2021-10-21

While containers, microservices, and distributed systems dominate discussions in the tech world, the majority of applications in use today still run monolithic architectures that follow traditional development processes. This practical book helps developers examine long-established Java-based models and demonstrates how to bring these monolithic applications successfully into the future. Relying on their years of experience modernizing

applications, authors Markus Eisele and Natale Vinto walk you through the steps necessary to update your organization's Java applications. You'll discover how to dismantle your monolithic application and move to an up-to-date software stack that works across cloud and on-premises installations. Learn cloud native application basics to understand what parts of your organization's Java-based applications and platforms need to migrate and modernize Understand how enterprise Java specifications can help you transition projects and teams Build a cloud native platform that supports effective development without falling into buzzword traps Find a starting point for your migration projects by identifying candidates and staging them through modernization steps Discover how to complement a traditional enterprise Java application with components on top of containers and Kubernetes

### 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

### **Learn Microsoft Azure -**

Mohamed Wali 2018-12-26

Explore various Azure services to build solutions that leverage effective design patterns Key Features Create, deploy, and host cloud applications on Azure Understand various Azure services that help you host serverless

applications Explore practical examples to help you secure and troubleshoot your cloud environment Book Description Azure is one of the leading public cloud service providers. Thanks to a number of Azure service updates, it continues to make advances in the realm of cloud computing. Learn Microsoft Azure starts with the fundamentals of cloud computing. You will learn to configure and set up the Azure infrastructure. As you make your way through the book, you'll explore Azure services, along with working on virtual memory systems (VMS) and deployment models. You will

understand various services in the Azure ecosystem, such as Azure IoT and Azure Analytics, among others. An easy-to-follow introduction to various cloud design patterns will also add to your efficiency in designing cloud solutions. In the concluding chapters, you'll secure your virtual networks using Network security groups and configure Azure Active Directory (Azure AD) to set a custom domain name and company profile. By the end of this book, you will have learned to secure and troubleshoot your Azure cloud environment and be fully aware of best practices for Azure cloud administration. What you will learn Understand the cloud services offered by Azure Design storage and networks in Azure for your Azure VM Work with web apps and Azure SQL databases Build your identity management solutions on Azure using Azure AD Monitor, protect, and automate your Azure services using Operation Management Suite (OMS) Implement OMS for Azure services Who this

book is for Learn Microsoft Azure is for administrators, cloud engineers, and developers who want to get started with using Azure as their cloud platform and build cloud-based applications for their enterprises.

**Developing Cloud Native Applications in Azure using .NET Core** - Rekha Kodali

2020-02-01

Guide to designing and developing cloud native applications in Azure

**DESCRIPTION** The mainstreaming of Cloud Native Architecture as an enterprise discipline is well underway.

According to the Forbes report in January 2018, 83% of the enterprise workloads will be in the cloud by 2020 and 41% of the enterprise workloads will run on public cloud platforms, while another 22% will be running on hybrid cloud platforms. Customers are embarking on the enterprise digital transformation journeys. Adopting cloud and cloud native architectures and microservices is an important aspect of the journey. This

book starts with a brief introduction on the basics of cloud native applications, cloud native application patterns. Then it covers the cloud native options available in Azure. The objective of the book is to provide practical guidelines to an architect/designer/consultant/developer, who is a part of the Cloud application definition Team. The book articulates a methodology that the implementation team needs to follow in a step-by-step manner and adopt them to fulfil the requirements for enablement of the Cloud Native application. It emphasizes on the interpersonal skills and techniques for organizing and directing the Cloud Native definition, leadership buy-in, leading the transition from planning to implementation. It also highlights the steps to be followed for performing the cloud native applications, cloud native patterns in the development of Cloud native applications, Cloud native options available in Azure, Developing BOT, Microservices

based on Azure. It also covers how to develop simple IoT applications, Machine learning based applications, server less architecture, using Azure with a practical and pragmatic approach. This book embraces a structured approach organized around the following key themes, which represent the typical phases that an enterprise traverses during its Cloud Native application journey: ● Basics of Cloud Native Applications: It covers basics of cloud native applications using .NET core. ● Cloud Native Application Patterns: The reader will understand the patterns for developing Cloud Native Applications. ● Cloud Native Options available in Azure: The reader will understand the different options available in Azure. ● Developing a Simple BOT using .NET Core: The reader will understand the Azure BOT framework basics and will learn how to develop a simple BOT. ● Developing cloud native applications leveraging Microservices: The reader will understand the

concepts of developing micro services using the Azure API Gateway Manager. ● Developing Integration capabilities using serverless architecture: The reader will understand the integration capabilities and various options available in Azure ● Developing a simple IoT application: The reader will understand the basics of developing IoT applications. ● Developing a simple ML based application: The reader will understand Machine Learning basics and how to develop a simple ML application ● Different enterprise use cases, which enable digital transformation using the Cloud Native Applications: The reader will learn about different use cases that can be built using cloud native applications KEY FEATURES (Add 5-7 key features only) ● Basics of Cloud Native Applications ● Designing Microservices ● Different cloud native options for developing Cloud Native Applications in Azure ● BOTs, Web Apps, Mobile Apps, Logic

Apps, Service Bus, Azure Functions ● Azure IOT Applications ● Azure Machine Learning Basics ● Enterprise Digital Journeys WHAT WILL YOU LEARN This book aims to:

- Demonstrate the importance of a Cloud Native application in elevating the effectiveness of organizational transformation programs and digital enterprise journeys, using MS Azure
- Disseminate current advancements and thought leadership in the area of Cloud Native architecture, in the context of digital enterprises
- Provide initiatives with evidence-based, credible, field tested and practical guidance in crafting their respective architectures; and
- Showcase examples and experiences of the innovative use of Cloud Native Applications in enhancing transformation initiatives.

WHO THIS BOOK IS FOR The book is intended for anyone looking for a career in Cloud technology, all aspiring Cloud Architects who want to learn Cloud Native Architectures, Microservices, IoT, BoT and Microsoft Azure

platform and working professionals who want to switch their career in Cloud Technology. While no prior knowledge of Azure or related technologies is assumed, it will be helpful to have some .Net programming experience. In addition, the target audience of this book are,

- Business Leaders, Chief Architects, Analysts and Designers seeking better, quicker and easier approaches to respond to needs of their internal and external customers;
- CIOs/CTOs of business software companies interested in incorporating Cloud Native architecture to differentiate their products and services offerings and increasing the value proposition to their customers;
- Consultants and practitioners desirous of new solutions and technologies to improve productivity of their clients;
- Academic and consulting researchers looking to uncover and characterize new research problems and programmes
- Practitioners and professionals involved with organizational technology

strategic planning, technology procurement, management of technology projects, consulting and advising on technology issues and management of total cost of ownership. Table of Contents

1. Basics of Cloud Native Applications
2. Cloud Native Application Patterns
3. Cloud Native Options available in Azure - BOTs, Logic Apps, Service Bus, Azure Microservices, ML services
4. Developing a Simple BOT using .NET Core
5. Developing Cloud Native applications leveraging Microservices and Azure API Gateway
6. Developing Integration capabilities using serverless architecture
7. Developing a simple IoT application
8. Developing a simple ML based application
9. Different enterprise use cases which enable digital transformation using Cloud Native Applications

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 Features

Gain fundamental and comprehensive software architecture knowledge and the skillset to create fully modular apps

Design high-performance software systems using the latest features of .NET 5 and C# 9

Solve scalability problems in web apps using enterprise architecture 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. 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 learn Use different techniques to overcome real-world architectural challenges and solve design consideration issues Apply architectural approaches such as layered architecture, service-oriented architecture (SOA), and

microservices Leverage tools such as containers, Docker, Kubernetes, and Blazor to manage microservices effectively Get up to speed with Azure tools and features for delivering global solutions Program and maintain Azure Functions using C# 9 and its latest features Understand when it is best to use test-driven development (TDD) as an approach for software development Write automated functional test cases 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. 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.

### **High Performance Drupal -**

Jeff Sheltren 2013-10-14  
How can you help your Drupal website continue to perform at the highest level as it grows to meet demand? This comprehensive guide provides best practices, examples, and in-depth explanations for solving several performance and scalability issues. You'll learn how to apply coding and infrastructure techniques to Drupal internals, application performance, databases, web servers, and performance analysis. Covering Drupal

versions 7 and 8, this book is the ideal reference for everything from site deployment to implementing specific technologies such as Varnish, memcache, or Solr. If you have a basic understanding of Drupal and the Linux-Apache-MySQL-PHP (LAMP) stack, you're ready to get started. Establish a performance baseline and define goals for improvement Optimize your website's code and front-end performance Get best and worst practices for customizing Drupal core functionality Apply infrastructure design techniques to launch or expand a site Use tools to configure, monitor, and optimize MySQL performance Employ alternative storage and backend search options as your site grows Tune your web servers through httpd and PHP configuration Monitor services and perform load tests to catch problems before they become critical

### **Hands-On Cloud Administration in Azure -**

Mustafa Toroman 2018-10-23

Explore Azure services such as networking, virtual machines, web apps, databases, cloud migration, and security Key Features Understand Azure services to build, deploy, and manage workloads on cloud Learn in-depth core Azure services and work through real-world scenarios and case studies A concise and practical guide for learning cloud administration on Azure Book Description Azure continues to dominate the public cloud market and grow rapidly thanks to a number of recent innovations. Azure's wide range of services and support has led to a large number of customers switching to Azure cloud. Hands-On Cloud Administration in Azure starts with the basics of Azure cloud fundamentals and key concepts of the cloud computing ecosystem and services. Then, you will gradually get acquainted with core services provided by Azure, including Azure VNet, types and assignments of IP addresses, and network security groups. You will also work on creating

and administering Azure Virtual Machines, types of virtual machines (VMs), and design VM solutions based on computing workloads. As you make your way through the chapters, you will explore Azure App Service, discover how to host your web apps in Azure, and monitor and troubleshoot them. In the concluding chapters, you will learn more complex and abstract services, such as Azure Storage, Azure Backup, and Azure Site Recovery. You will also get to grips with Azure SQL Databases and the SQL on Azure VM concept. By the end of this book, you will have obtained practical experience of working with Azure services and Azure administration, along with maintaining, monitoring, and securing your Azure resources. What you will learn Understand the concepts of IaaS and PaaS Learn design patterns for Azure solutions Design data solutions in Azure Explore concepts of hybrid clouds with Azure Implement Azure Security in cloud Create and

manage Azure resources with script-based tools Who this book is for Hands-On Cloud Administration in Azure is for system administrators, cloud admins, cloud engineers, and DevOps engineers who are interested in understanding administration-related services in Azure. Prior experience of working with Azure is an added advantage.

*Implementing Azure DevOps Solutions* - Henry Been

2020-06-11

A comprehensive guide to becoming a skilled Azure DevOps engineer Key Features Explore a step-by-step approach to designing and creating a successful DevOps environment Understand how to implement continuous integration and continuous deployment pipelines on Azure Integrate and implement security, compliance, containers, and databases in your DevOps strategies Book Description *Implementing Azure DevOps Solutions* helps DevOps engineers and administrators to leverage Azure DevOps Services to

master practices such as continuous integration and continuous delivery (CI/CD), containerization, and zero downtime deployments. This book starts with the basics of continuous integration, continuous delivery, and automated deployments. You will then learn how to apply configuration management and Infrastructure as Code (IaC) along with managing databases in DevOps scenarios. Next, you will delve into fitting security and compliance with DevOps. As you advance, you will explore how to instrument applications, and gather metrics to understand application usage and user behavior. The latter part of this book will help you implement a container build strategy and manage Azure Kubernetes Services. Lastly, you will understand how to create your own Azure DevOps organization, along with covering quick tips and tricks to confidently apply effective DevOps practices. By the end of this book, you'll have gained the knowledge you need to

ensure seamless application deployments and business continuity. What you will learn  
Get acquainted with Azure DevOps Services and DevOps practices  
Implement CI/CD processes  
Build and deploy a CI/CD pipeline with automated testing on Azure  
Integrate security and compliance in pipelines  
Understand and implement Azure Container Services  
Become well versed in closing the loop from

production back to development  
Who this book is for  
This DevOps book is for software developers and operations specialists interested in implementing DevOps practices for the Azure cloud. Application developers and IT professionals with some experience in software development and development practices will also find this book useful. Some familiarity with Azure DevOps basics is an added advantage.