

# Read Book Bmw Microsoft Azure Pdf For Free

**Microsoft Azure Essentials - Fundamentals of Azure Learn Azure in a Month of Lunches, Second Edition Microsoft Azure For Dummies Microsoft Azure** Microsoft Azure For Dummies **Designing Distributed Systems** *Microsoft Azure Infrastructure Services for Architects* Microsoft Azure Security Center Automated Machine Learning with Microsoft Azure **Using Chef with Microsoft Azure** **Microsoft Azure Cosmos DB Revealed** *Pro PowerShell for Microsoft Azure* **Azure SQL Revealed A Developer's Guide to Cloud Apps** **Using Microsoft Azure Learn Microsoft Azure** *Microsoft Azure Fundamentals Certification and Beyond* **Microsoft Azure Cloud - Complete Practical Guide for Ultimate Beginners** **Microsoft Certified Azure Fundamentals Study Guide** **Microsoft Azure Sentinel Learn Microsoft Azure** Microsoft Azure Security Center *Microsoft Azure Architect Technologies and Design Complete Study Guide* **Mastering Microsoft Azure Infrastructure Services** **Cloud Architecture Patterns** *Advanced Serverless Architectures with Microsoft Azure* **Mastering Azure Security** Azure **Pro SQL Server on Microsoft Azure** Building Cloud Apps with Microsoft Azure Implementing Azure: Putting Modern DevOps to Use *Creating and Managing Virtual Machines and Networks Through Microsoft Azure* *Services for Remote Access Connection* **Microsoft Azure IaaS Essentials** Introducing Disaster Recovery with Microsoft Azure Microsoft Azure Essentials Azure Machine Learning *Cloud Debugging and Profiling in Microsoft Azure* **Zen of Cloud Exam Ref 70-532** **Microsoft Azure Security Technologies Certification and Beyond** Automating Microsoft Azure Infrastructure Services Cloud Data Design, Orchestration, and Management Using Microsoft Azure

Do you need to learn about cloud computing architecture with Microsoft's Azure quickly? Read this book! It gives you just enough info on the big picture and is filled with key terminology so that you can join the discussion on cloud architecture. The must-have reference for Azure newcomers As Microsoft's Azure platform takes a larger stake in the cloud computing world, more tech pros need to know the ins-and-outs of this fast-growing platform. Microsoft Azure For Dummies is the essential guide for users who are new to the platform. Take your first steps into the world of Azure as you learn all about the core services—straight from a Microsoft expert. This book covers the Azure essentials you need to know, including building a virtual network on Azure, launching and scaling applications, migrating existing services, and keeping everything secure. In classic Dummies style, you'll learn the fundamentals of Azure's core services and—when you're ready—how to move into more advanced services. Discover the basics of cloud computing with Microsoft Azure and learn what services you can access with Azure Build your cloud network with Azure and migrate an existing network to the platform Scale applications seamlessly and make sure your security is air-tight Updated to included expanded information on data resources, machine learning, artificial intelligence, and collaboration, Microsoft Azure For Dummies, 2nd Edition answers the call for an entry-level, comprehensive guide that provides a simple-to-understand primer on core Azure services. It's an invaluable resource for IT managers and others arriving at the platform for the first time. 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. Implement rich Azure SAAS-PAAS-IAAS ecosystems using containers, serverless services, and storage solutions DESCRIPTION Book explains Azure services offerings to advance resource creation to see how all the moving parts go together. It walks through various cloud development tools which will speed our development process. Books majorly covers practical information to get you started to a Proficient level and towards cloud mindset Azure Cloud offers enormous services to solve your problem in this modern world. Microsoft Azure has Web, Mobile, Big Data, IoT, AI + Machine Learning, Storage, Database, and so on. We will be going through some of these available services to solve our business problem in this book. If you are a .NET developer who wants to learn Microsoft Azure and want to have cloud mindset, this book is for you. Cloud application development requires a Cloud mindset. Cloud mindset is developed by gradually going through all the available services provided by Microsoft Azure and using the best fit solution for your problem. "If you are C# DEVELOPER who wants to start with Azure, then this book is for you." KEY FEATURES This book starts from basic fundamentals and takes you to a professional level. Books emphasizes on real life project use case and in-depth implementation. Books starts right from scratch with creation of Azure account to manually creating Azure resources and deploying them. Exclusive topics are dedicated for Azure Web App, Web Job, Cloud Service (Web Role, Worker Role), Azure functions. All practical implementation of Azure services (PASS, Server less computing) are covered. WHAT WILL YOU LEARN Azure and Services Offered for .NET Developers To create Free Azure Account and Web App Service on Azure Creating and Deploying a Sample ASP.NET Core on Azure Web App. Creating and Running a Background Job with help of Web Jobs on Azure Creating and Running a Service Bus Triggered Web Jobs on Azure to send mail to the Customer using Send Grid Creating your first Cloud Service app

on Azure WHO THIS BOOK IS FOR Students of Polytechnic Diploma Classes- Computer Science/ Information Technology Graduate Students- Computer Science/ CSE / IT/ Computer Applications Master Class Students—Msc (CS/IT)/ MCA/ M.Phil, M.Tech, M.S. .NET developer, C# developer Table of Contents 1. The Era of Data Center 2. Abstract 3. Introduction Day 1: Understanding Azure and Services Offered for .NET Developers Day 2: Creating your Free Azure Account and Create Your First Web App Service on Azure Day 3: Creating and Deploying a Sample ASP.NET Core on Azure Web App. Day 4: Creating and Running a Background Job with help of Web Jobs on Azure Day 5: Creating and Running a Service Bus Triggered Web Jobs on Azure to send mail to the Customer using Send Grid Day 6: Creating your first Cloud Service app on Azure Day 7: Logic/Function as a Service Often Termed has Serverless Computing, Creating your First Azure Function on Microsoft Azure References Prepare for Microsoft Exam 70-532—and help demonstrate your real-world mastery of Microsoft Azure solution development. Designed for experienced developers ready to advance their status, Exam Ref focuses on the critical-thinking and decision-making acumen needed for success at the Microsoft Specialist level. Focus on the expertise measured by these objectives: Design and implement Websites Create and manage Virtual Machines Design and implement Cloud Services Design and implement a storage strategy Manage application and network services This Microsoft Exam Ref : Organizes its coverage by exam objectives Features strategic, what-if scenarios to challenge you Will be valuable for Microsoft Azure developers, solution architects, DevOps engineers, and QA engineers Assumes you have experience designing, programming, implementing, automating, and monitoring Microsoft Azure solutions and that you are proficient with tools, techniques, and approaches for building scalable, resilient solutions Developing Microsoft Azure Solutions About the Exam Exam 70-532 focuses on the skills and knowledge needed to develop Microsoft Azure solutions that include websites, virtual machines, cloud services, storage, application services, and network services. About Microsoft Certification Passing this exam earns you a Microsoft Specialist certification in Microsoft Azure, demonstrating

your expertise with the Microsoft Azure enterprise-grade cloud platform. You can earn this certification by passing Exam 70-532, Developing Microsoft Azure Solutions; or Exam 70-533, Implementing Microsoft Azure Infrastructure Solutions; or Exam 70-534, Architecting Microsoft Azure Solutions. See full details at: [microsoft.com/learning](https://microsoft.com/learning). A practical, step-by-step guide to using Microsoft's AutoML technology on the Azure Machine Learning service for developers and data scientists working with the Python programming language

**Key Features**

- Create, deploy, productionalize, and scale automated machine learning solutions on Microsoft Azure
- Improve the accuracy of your ML models through automatic data featurization and model training
- Increase productivity in your organization by using artificial intelligence to solve common problems

**Book Description**

Automated Machine Learning with Microsoft Azure will teach you how to build high-performing, accurate machine learning models in record time. It will equip you with the knowledge and skills to easily harness the power of artificial intelligence and increase the productivity and profitability of your business. Guided user interfaces (GUIs) enable both novices and seasoned data scientists to easily train and deploy machine learning solutions to production. Using a careful, step-by-step approach, this book will teach you how to use Azure AutoML with a GUI as well as the AzureML Python software development kit (SDK). First, you'll learn how to prepare data, train models, and register them to your Azure Machine Learning workspace. You'll then discover how to take those models and use them to create both automated batch solutions using machine learning pipelines and real-time scoring solutions using Azure Kubernetes Service (AKS). Finally, you will be able to use AutoML on your own data to not only train regression, classification, and forecasting models but also use them to solve a wide variety of business problems. By the end of this Azure book, you'll be able to show your business partners exactly how your ML models are making predictions through automatically generated charts and graphs, earning their trust and respect. What you will learn

- Understand how to train classification, regression, and forecasting ML algorithms with Azure AutoML
- Prepare data for Azure AutoML to ensure smooth model training and deployment
- Adjust AutoML

configuration settings to make your models as accurate as possible  
Determine when to use a batch-scoring solution versus a real-time scoring solution  
Productionalize your AutoML and discover how to quickly deliver value  
Create real-time scoring solutions with AutoML and Azure Kubernetes Service  
Train a large number of AutoML models at once using the AzureML Python SDK  
Who this book is for Data scientists, aspiring data scientists, machine learning engineers, or anyone interested in applying artificial intelligence or machine learning in their business will find this machine learning book useful. You need to have beginner-level knowledge of artificial intelligence and a technical background in computer science, statistics, or information technology before getting started. Familiarity with Python will help you implement the more advanced features found in the chapters, but even data analysts and SQL experts will be able to train ML models after finishing this book. 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 Get to grips with artificial intelligence and cybersecurity techniques to respond to adversaries and incidents

### Key Features

Learn how to secure your Azure cloud workloads across applications and networks Protect your Azure infrastructure from cyber attacks Discover tips and techniques for implementing, deploying, and maintaining secure cloud services using best practices

### Book Description

Security is integrated into every cloud, but this makes users put their guard down as they take cloud security for granted. Although the cloud provides higher security, keeping their resources secure is one of the biggest challenges many organizations face as threats are constantly evolving. Microsoft Azure offers a shared responsibility model that can address any challenge with the right approach. Revised to cover product updates up to early 2022, this book will help you explore a variety of services and features from Microsoft Azure that can help you overcome challenges in cloud security. You'll start by learning the most important security concepts in Azure, their implementation, and then advance to understanding how to keep resources secure. The book will guide you through the tools available for monitoring Azure security and enforcing security and governance the right way. You'll also explore tools to detect threats before they can do any real damage and those that use machine learning and AI to analyze your security logs and detect anomalies. By the end of this cloud security book, you'll have understood cybersecurity in the cloud and be able to design secure solutions in Microsoft Azure. What you will learn

### Become well-versed with cloud security concepts

Get the hang of managing cloud identities Understand the zero-trust approach Adopt the Azure security cloud infrastructure Protect and encrypt your data Grasp Azure network security concepts Discover how to keep cloud resources secure Implement cloud governance with security policies and rules Who

this book is for This book is for Azure cloud professionals, Azure architects, and security professionals looking to implement secure cloud services using Azure Security Centre and other Azure security features. A solid understanding of fundamental security concepts and prior exposure to the Azure cloud will help you understand the key concepts covered in the book more effectively. Written for IT and business professionals, this book provides the technical and business insight needed to plan, deploy and manage the services provided by the Microsoft Azure cloud. Find out how to integrate the infrastructure-as-a-service (IaaS) and platform-as-a-service (PaaS) models with your existing business infrastructure while maximizing availability, ensuring continuity and safety of your data, and keeping costs to a minimum. The book starts with an introduction to Microsoft Azure and how it differs from Office 365—Microsoft’s ‘other’ cloud. You’ll also get a useful overview of the services available. Part II then takes you through setting up your Azure account, and gets you up-and-running on some of the core Azure services, including creating web sites and virtual machines, and choosing between fully cloud-based and hybrid storage solutions, depending on your needs. Part III now takes an in-depth look at how to integrate Azure with your existing infrastructure. The authors, Anthony Puca, Mike Manning, Brent Rush, Marshall Copeland and Julian Soh, bring their depth of experience in cloud technology and customer support to guide you through the whole process, through each layer of your infrastructure from networking to operations. High availability and disaster recovery are the topics on everyone’s minds when considering a move to the cloud, and this book provides key insights and step-by-step guidance to help you set up and manage your resources correctly to optimize for these scenarios. You’ll also get expert advice on migrating your existing VMs to Azure using InMage, mail-in and the best 3rd party tools available, helping you ensure continuity of service with minimum disruption to the business. In the book’s final chapters, you’ll find cutting edge examples of cloud technology in action, from machine learning to business intelligence, for a taste of some exciting ways your business could benefit from your new Microsoft Azure deployment. An expert guide for IT administrators needing to create and manage a public



cloud and virtual network using Microsoft Azure With Microsoft Azure challenging Amazon Web Services (AWS) for market share, there has been no better time for IT professionals to broaden and expand their knowledge of Microsoft's flagship virtualization and cloud computing service. Microsoft Azure Infrastructure Services for Architects: Designing Cloud Solutions helps readers develop the skills required to understand the capabilities of Microsoft Azure for Infrastructure Services and implement a public cloud to achieve full virtualization of data, both on and off premise. Microsoft Azure provides granular control in choosing core infrastructure components, enabling IT administrators to deploy new Windows Server and Linux virtual machines, adjust usage as requirements change, and scale to meet the infrastructure needs of their entire organization. This accurate, authoritative book covers topics including IaaS cost and options, customizing VM storage, enabling external connectivity to Azure virtual machines, extending Azure Active Directory, replicating and backing up to Azure, disaster recovery, and much more. New users and experienced professionals alike will: Get expert guidance on understanding, evaluating, deploying, and maintaining Microsoft Azure environments from Microsoft MVP and technical specialist John Savill Develop the skills to set up cloud-based virtual machines, deploy web servers, configure hosted data stores, and use other key Azure technologies Understand how to design and implement serverless and hybrid solutions Learn to use enterprise security guidelines for Azure deployment Offering the most up to date information and practical advice, Microsoft Azure Infrastructure Services for Architects: Designing Cloud Solutions is an essential resource for IT administrators, consultants and engineers responsible for learning, designing, implementing, managing, and maintaining Microsoft virtualization and cloud technologies. This book is intended for system administrators and other IT professionals who need to both design and implement an Azure-based cloud solution. With the help of this book, you will soon master the basic tasks needed to build a cloud-based solution. Microsoft Azure Sentinel Plan, deploy, and operate Azure Sentinel, Microsoft's advanced cloud-based SIEM Microsoft's cloud-based Azure Sentinel helps you fully leverage advanced AI to

automate threat identification and response – without the complexity and scalability challenges of traditional Security Information and Event Management (SIEM) solutions. Now, three of Microsoft’s leading experts review all it can do, and guide you step by step through planning, deployment, and daily operations. Leveraging in-the-trenches experience supporting early customers, they cover everything from configuration to data ingestion, rule development to incident management... even proactive threat hunting to disrupt attacks before you’re exploited. Three of Microsoft’s leading security operations experts show how to:

- Use Azure Sentinel to respond to today’s fast-evolving cybersecurity environment, and leverage the benefits of its cloud-native architecture
- Review threat intelligence essentials: attacker motivations, potential targets, and tactics, techniques, and procedures
- Explore Azure Sentinel components, architecture, design considerations, and initial configuration
- Ingest alert log data from services and endpoints you need to monitor
- Build and validate rules to analyze ingested data and create cases for investigation
- Prevent alert fatigue by projecting how many incidents each rule will generate
- Help Security Operation Centers (SOCs) seamlessly manage each incident’s lifecycle
- Move towards proactive threat hunting: identify sophisticated threat behaviors and disrupt cyber kill chains before you’re exploited
- Do more with data: use programmable Jupyter notebooks and their libraries for machine learning, visualization, and data analysis
- Use Playbooks to perform Security Orchestration, Automation and Response (SOAR)
- Save resources by automating responses to low-level events
- Create visualizations to spot trends, identify or clarify relationships, and speed decisions
- Integrate with partners and other third-parties, including Fortinet, AWS, and Palo Alto

This book has been written for the candidates who want to learn and use the Microsoft Azure cloud platform, candidates who have just started his career with Cloud services, who is already working with Azure cloud services. This is also dedicated for those who are preparing themselves for one of the most popular cloud certifications Implementing Microsoft Azure Infrastructure Solutions Exam. This is mainly focused on the hands-on lab exercises and real-world best practices rather than deep theoretical

and conceptual lectures. However, we have covered enough concept and theory part of each of the mentioned topic. There are hundreds of theoretical documentations are available on the Microsoft Azure official documentation site and few other sites on the Internet community. But, there are very few articles on the step by step how to guide to implement, use, and configure Azure Cloud services. This guide will help you to become handy and expert on most of the Microsoft Azure Cloud services that will help you start your career with Cloud technologies. However, this guide also contains various real world, enterprise-level, best practices to implement and use for the production services. These step by step lab exercises will help you to design a highly-secure, scalable, and well-architecture enterprise-level Cloud solutions and designs. We have covered the following topics in this guide along with step by step lab exercises:

01. Cloud Computing Introduction
02. Cloud Service Providers
03. Types of Cloud
04. Cloud Offering Classes
05. Microsoft Azure Introduction
06. Getting Started with Free Azure Subscription
07. Getting Familiarized with Azure Portal Options
08. Getting Azure Subscription Details
09. Creating Administrative Users for Azure Cloud Management
10. Enable Multi-Factor Authentication for Azure Accounts
11. Azure Pricing Calculator
12. Introduction Azure Virtual Network (vNet)
13. Creating an Azure Virtual Network
14. Introduction to Azure Resource Groups
15. Managing Resource Groups
16. Introduction Azure Virtual Machines
17. Understanding Azure VM Series Types
18. Creating Azure Virtual Machine
19. Connecting Azure Virtual Machines
20. Detailed Explanation of Azure Virtual Machine Options
21. Configure Disk in Azure Virtual Machine
22. Capturing VM Image in Azure Cloud
23. Creating Azure VM from Captured Image
24. Importing and Exporting Azure Virtual Machine
25. Azure Network Security Group (NSG) 6726. Creating and Applying NSG for Azure Virtual Network
27. Managing Azure Storage Services
28. Working with Azure Storage Explorer
29. Managing Azure Storage Using Azure CLI
30. Working with Azure Files Share
31. Mounting Azure Files Share
32. Azure Database Storage Services
33. Creating and Using Azure SQL Database
34. Restoring Azure SQL Database
35. Exporting Importing SQL Databases
36. Azure

Active Directory37. Azure Marketplace38. Working with Azure VPN Gateways39. Creating a Windows Server Virtual Machine40. Connecting Your Windows VM Using P2S VPN Gateway Securely41. Configuring vNet Peering Between Azure Virtual Networks42. Working with Load Balancers in Azure Cloud43. Configuring Azure Load Balancer44. Configuring VM Scale Set in Azure Cloud45. Configuring Application Gateway in Azure Cloud46. Configuring WAF in Azure Cloud47. Working with Azure Cloud Management Tools48. Managing Azure Account Using PowerShell49. Scheduling Auto and Stop Azure VMs

Learn the basics of Microsoft Azure and see how SQL Server on Azure VMs (Infrastructure-as-a-Service) and Azure SQL Databases (Platform-as-a-Service) work. This concise book shows you how to deploy, operate, and maintain your data using any one or a combination of these offerings along with your on-premise environment. Pro SQL Server on Microsoft Azure is a quintessential book for any IT professional who is planning to host their data on Microsoft Azure. This book will not only equip you with the tips, tricks, and tools to manage SQL Server offerings on Azure, but will also help you in deciding between PaaS, IaaS, or hybrid. In the ever-changing world of operations, IT administrators and SQL Server DBAs often find that the biggest challenges occur once they've deployed to the cloud. This is precisely why Pro SQL Server on Microsoft Azure was written; it will help you master today's cloud world.

What You'll Learn

- Understand the Microsoft Azure IaaS architecture
- Work with Azure Storage and Networking
- Deploy SQL Server on Azure VMs using best practices
- Apply effective security principles to SQL Azure Databases
- Measure and optimize the performance of SQL Server offerings on Azure
- Implement Business continuity and disaster recovery options with Azure SQL Databases

Who This Book Is For

This book is for IT admins and SQL Server DBAs who are managing or would be managing SQL Server deployments on Microsoft Azure.

v> Learn how to implement multi-layered security controls to protect against rapidly evolving threats to Azure environments

Key Features

- Develop practical skills to protect your organization from constantly evolving security threats
- Become well-versed with real-world Azure security strategies and AZ-500 exam

objectives Effectively manage security governance, policies, and operations in Azure Book Description Security is a key part of any well-architected design. With the help of this book, you'll gain both the knowledge and the practical skills to significantly reduce the attack surface of your Azure workloads and protect your organization from constantly evolving threats to public cloud environments like Azure. This book is a comprehensive security guide for those looking to take the Azure Security Engineer certification exam as well as for those interested in securing their Azure infrastructure. Beyond preparing you for the Azure Security (AZ-500) exam, this book will guide you in securing your Azure environments and workloads using native Azure security capabilities. Complete with hands-on tutorials, projects, and self-assessment questions, this easy-to-follow guide builds a solid foundation of Azure security. You'll not only learn about security technologies in Azure but also be able to configure and manage them. Moreover, you'll develop a clear understanding of how to identify different attack vectors and mitigate risks. By the end of this book, you'll be well-versed with implementing multi-layered security to protect identities, networks, hosts, containers, databases, and storage in Azure. What you will learn Manage users, groups, service principals, and roles effectively in Azure AD Explore Azure AD identity security and governance capabilities Understand how platform perimeter protection secures Azure workloads Implement network security best practices for IaaS and PaaS Discover various options to protect against DDoS attacks Secure hosts and containers against evolving security threats Configure platform governance with cloud-native tools Monitor security operations with Azure Security Center and Azure Sentinel Who this book is for If you are a newly qualified or experienced security professional, cloud administrator, architect, or developer who wants to understand how to secure your Azure environment and workloads, this book is for you. The book is a handy resource for anyone preparing to take the Azure Security Engineer (AZ-500) certification exam. Foundational knowledge of the Azure cloud platform will be helpful but not necessary to understand the concepts covered in this book. 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 Wali
- Implementing Azure Solutions - Second Edition by Florian Klaffenbach, Oliver Michalski, Markus Klein
- Microservices with Azure by Namit Tanasserri and Rahul Rai

**What you will learn**

- Study various Azure Service Fabric application programming models
- Create and manage a Kubernetes cluster in Azure Kubernetes Service
- Use site-to-site VPN and ExpressRoute connections in your environment
- Design an Azure IoT app and learn to operate it in various scenarios
- Implement a hybrid Azure design using Azure Stack
- Build Azure SQL databases with Code First Migrations
- Integrate client applications with Web API and SignalR on Azure
- Implement the Azure Active Directory (Azure AD) across the entire system

**Who 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. Build and deploy modern and

secure applications on Microsoft Azure by implementing best practices, patterns, and new technologies with this easy-to-follow guide Purchase of the print or Kindle book includes a free PDF eBook Key FeaturesLearn various methods to migrate legacy applications to cloud using different Azure servicesImplement continuous integration and deployment as a best practice for DevOps and agile developmentGet started with building cloud-based applications using containers and orchestrators in different scenariosBook Description Companies face several challenges during cloud adoption, with developers and architects needing to migrate legacy applications and build cloud-oriented applications using Azure-based technologies in different environments. A Developer's Guide to Cloud Apps Using Microsoft Azure helps you learn how to migrate old apps to Azure using the Cloud Adoption Framework and presents use cases, as well as build market-ready secure and reliable applications. The book begins by introducing you to the benefits of moving legacy apps to the cloud and modernizing existing ones using a set of new technologies and approaches. You'll then learn how to use technologies and patterns to build cloud-oriented applications. This app development book takes you on a journey through three major services in Azure, namely Azure Container Registry, Azure Container Instances, and Azure Kubernetes Service, which will help you build and deploy an application based on microservices. Finally, you'll be able to implement continuous integration and deployment in Azure to fully automate the software delivery process, including the build and release processes. By the end of this book, you'll be able to perform application migration assessment and planning, select the right Azure services, and create and implement a new cloud-oriented application using Azure containers and orchestrators. What you will learnGet to grips with new patterns and technologies used for cloud-native applicationsMigrate old applications and databases to Azure with easeWork with containers and orchestrators to automate app deploymentSelect the right Azure service for deployment as per the use casesSet up CI/CD pipelines to deploy apps and services on Azure DevOpsLeverage Azure App Service to deploy your first applicationBuild a containerized app using Docker and Azure Container

RegistryWho this book is for This book is for cloud developers, software architects, system administrators, developers, and computer science students looking to understand the new role of the software architect or developer in the cloud world. Professionals looking to enhance their cloud and cloud-native programming concepts will also find this book useful. A sound background in C#, ASP.NET Core, and Visual Studio (any recent version) and basic knowledge of cloud computing will be helpful. This book is written for Windows professionals who are familiar with PowerShell and want to learn to build, operate, and administer their Windows workloads in the Microsoft cloud. Pro PowerShell for Microsoft Azure is packed with practical examples and scripts, with easy-to-follow explanations for a wide range of day-to-day needs and essential administration tasks. Author Sherif Talaat begins by explaining the fundamental concepts behind the Microsoft Azure platform and how to get started configuring it through PowerShell. Readers will find out how to deploy, configure and manage the various components of the Azure platform, from storage and virtual networks to Azure Web Sites, HDInsight clusters and the Azure SQL Database. Workload automation, scheduling and resource management are covered in depth to help build efficiency in everyday tasks, and administrators will gain full control over Azure identity and access rights using Azure Active Directory and Rights Management Services. Put your PowerShell skills to good use and ensure that your applications and data are available anywhere at any time, with Pro PowerShell for Microsoft Azure. What You'll Learn Create and manage virtual networks and VPNs using PowerShell. Configure and maintain Azure Storage accounts, blobs, and containers. Provision and manage a redundant Windows or Linux server. Deploy and configure your sites in the cloud using Microsoft Azure Web Sites. Provision Apache Hadoop clusters in the cloud using Azure HDInsight. Deploy, configure and manage a Microsoft Azure SQL Database. Protect and secure identities and resources with Azure Active Directory and Azure Rights Management Services. Who This Book Is For This is book is for the intermediate to advanced Windows professional who is ready to make the leap to the cloud. Explore and learn the key building blocks of Microsoft Azure services and tools for implementing a



disaster-recovery solution of any on-premises or cloud-based application. In this book, you will go through various aspects of planning, designing, and configuring a robust recovery solution on Azure. Introducing Disaster Recovery with Microsoft Azure starts by explaining the disaster-recovery landscape and how Azure disaster recovery is different from the traditional approach. You will learn how to leverage Azure site recovery and various Azure-based services to design and implement a recovery solution and much more. Moving forward, you will design and implement various scenarios such as on-premises to Azure, Azure to Azure, and on-premises to on-premises disaster recovery. You will also learn common considerations and technicalities of implementing recovery solutions for various multi-tier, monolithic, and modern micro-services enterprise applications. Finally, you will go through real-life examples, scenarios, and exercises. After reading this book, you will be able to design and implement disaster recovery on Azure in different scenarios. You will also look at a few real-world scenarios that will provide more practical insights. What You Will Learn Discover the fundamental building blocks of disaster recovery on Azure Examine various application-specific considerations for disaster recovery Leverage various PaaS capabilities to achieve maximum benefit Design and implement a multi-regional Azure to Azure disaster recovery plan Who This Book Is For Consultants, architects, and Azure administrators. Your roadmap to Microsoft Azure Azure is Microsoft's flagship cloud computing platform. With over 600 services available to over 44 geographic regions, it would take a library of books to cover the entire Azure ecosystem. Microsoft Azure For Dummies offers a shortcut to getting familiar with Azure's core product offerings used by the majority of its subscribers. It's a perfect choice for those looking to gain a quick, basic understanding of this ever-evolving public cloud platform. Written by a Microsoft MVP and Microsoft Certified Azure Solutions Architect, Microsoft Azure For Dummies covers building virtual networks, configuring cloud-based virtual machines, launching and scaling web applications, migrating on-premises services to Azure, and keeping your Azure resources secure and compliant. Migrate your applications and services to Azure with confidence

Manage virtual machines smarter than you've done on premises Deploy web applications that scale dynamically to save you money and effort Apply Microsoft's latest security technologies to ensure compliance to maintain data privacy With more and more businesses making the leap to run their applications and services on Microsoft Azure, basic understanding of the technology is becoming essential. Microsoft Azure For Dummies offers a fast and easy first step into the Microsoft public cloud. 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. Microsoft Azure Essentials from Microsoft Press is a series of free ebooks designed to help you advance your technical skills with Microsoft Azure. This third ebook in the series introduces Microsoft

Azure Machine Learning, a service that a developer can use to build predictive analytics models (using training datasets from a variety of data sources) and then easily deploy those models for consumption as cloud web services. The ebook presents an overview of modern data science theory and principles, the associated workflow, and then covers some of the more common machine learning algorithms in use today. It builds a variety of predictive analytics models using real world data, evaluates several different machine learning algorithms and modeling strategies, and then deploys the finished models as machine learning web services on Azure within a matter of minutes. The ebook also expands on a working Azure Machine Learning predictive model example to explore the types of client and server applications you can create to consume Azure Machine Learning web services. Watch Microsoft Press's blog and Twitter (@MicrosoftPress) to learn about other free ebooks in the Microsoft Azure Essentials series. 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 Gain in-depth

knowledge of Azure fundamentals that will make it easy for you to achieve AZ-900 certification

**Key Features**

- Get fundamental knowledge of cloud concepts and the Microsoft Azure platform
- Explore practical exercises to gain experience of working with the Microsoft Azure platform in the real world
- Prepare to achieve AZ-900 certification on the first go with the help of simplified examples covered in the book

**Book Description**

This is the digital and cloud era, and Microsoft Azure is one of the top cloud computing platforms. It's now more important than ever to understand how the cloud functions and the different services that can be leveraged across the cloud. This book will give you a solid understanding of cloud concepts and Microsoft Azure, starting by taking you through cloud concepts in depth, then focusing on the core Azure architectural components, solutions, and management tools. Next, you will understand security concepts, defense-in-depth, and key security services such as Network Security Groups and Azure Firewall, as well as security operations tooling such as Azure Security Center and Azure Sentinel. As you progress, you will understand how identity, governance, privacy, and compliance are managed in Azure. Finally, you will get to grips with cost management, service-level agreements, and service life cycles. Throughout, the book features a number of hands-on exercises to support the concepts, services, and solutions discussed. This provides you with a glimpse of real-world scenarios, before finally concluding with practice questions for AZ-900 exam preparation. By the end of this Azure book, you will have a thorough understanding of cloud concepts and Azure fundamentals, enabling you to pass the AZ-900 certification exam easily.

**What you will learn**

- Explore cloud computing with Azure cloud
- Gain an understanding of the core Azure architectural components
- Acquire knowledge of core services and management tools on Azure
- Get up and running with security concepts, security operations, and protection from threats
- Focus on identity, governance, privacy, and compliance features
- Understand Azure cost management, SLAs, and service life cycles

**Who this book is for**

This Azure fundamentals book is both for those with technical backgrounds and non-technical backgrounds who want to learn and explore the field of cloud computing, especially with Azure. This book

will also help anyone who wants to develop a good foundation for achieving advanced Azure certifications. There is no prerequisite for this book except a willingness to learn and explore cloud concepts and Microsoft Azure. **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. **Table of Contents** PART 1 - AZURE CORE SERVICES 1 Before you begin 2 Creating a virtual machine 3 Azure Web Apps 4 Introduction to Azure Storage 5 Azure Networking basics PART 2 - HIGH AVAILABILITY

AND SCALE 6 Azure Resource Manager 7 High availability and redundancy 8 Load-balancing applications 9 Applications that scale 10 Global databases with Cosmos DB 11 Managing network traffic and routing 12 Monitoring and troubleshooting PART 3 - SECURE BY DEFAULT 13 Backup, recovery, and replication 14 Data encryption 15 Securing information with Azure Key Vault 16 Azure Security Center and updates PART 4 - THE COOL STUFF 17 Machine learning and artificial intelligence 18 Azure Automation 19 Azure containers 20 Azure and the Internet of Things 21 Serverless computing

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. This book is your hands-on guide to infrastructure provisioning and configuration management in the cloud using Chef's open source, cross-platform toolset. With over 10,000 customers joining the Microsoft Azure cloud platform each week and steadily increasing usage, the need for automation approaches has never been greater. This book provides both practical examples and a much needed strategic overview of how these two technologies can be combined. Using Chef with Microsoft Azure takes you through the process of writing 'recipes' in Chef to describe your infrastructure as code, and simplify your configuration management processes. You'll also meet the Chef tools that can be used to provision complete environments within Microsoft Azure. There are now a wide variety of tools and approaches that can be taken to provision resources such as virtual machines within Microsoft Azure. This book demonstrates them, discusses the benefits and weaknesses of each approach, and shows how a continuous provisioning pipeline can

be established as part of a reliable, repeatable, and robust provisioning process. Each chapter has practical exercises that highlight the capabilities of both Chef and Microsoft Azure from an automation perspective and can be executed on Windows, Mac, or Linux platforms. In this book, you'll learn: The purpose and principles behind automated provisioning Microsoft Azure concepts and management options How to deploy Chef Azure Virtual Machine Extensions using PowerShell, Azure command-line tools, and Chef Provisioning Chef Provisioning techniques, including provisioning PaaS resources such as KeyVault How to integrate quality tooling into the Chef development lifecycle, including Test Kitchen and InSpec with Azure compute resources How to set up a pipeline for continuous provisioning with Chef and Azure Who This Book Is For This book is for infrastructure platform and operations engineers and DevOps specialists/practitioners working with infrastructure and platform provisioning on Microsoft's public cloud, Azure. An understanding of programming in any language would be beneficial, but not necessary as the examples are designed to be easily readable by anyone with general IT experience. While it is expected most users picking up this book will be on the Windows platform, a good proportion of compute workload on the Azure platform is Linux based. As a result the book includes examples that are relevant to both Windows and Linux platforms. Get valuable tips and techniques for automating your cloud deployments with Azure PowerShell cmdlets, and learn how to provision Azure services on the fly. In this hands-on guide, Microsoft cloud technology expert Michael Washam shows you how to automate various management tasks and deploy solutions that are both complex and at scale. By combining the native automation capabilities of PowerShell with Azure Infrastructure Services, these powerful cmdlets enable you to create and configure virtual machines with ease. You'll learn how to take advantage of these technologies to build complete virtual networks. If you have experience with PowerShell and Azure, you're ready to get started. Install and authenticate cmdlets to set up your environment Create and update virtual machines with Azure platform images Manage network endpoints, access control lists, and IP addresses Use cmdlets to manage and configure virtual machine

storage Automate Azure virtual networks with hybrid technologies such as site-to-site, point-to-site, and ExpressRoute Dive into advanced virtual machine provisioning capabilities and management techniques Learn tips and tricks for deleting or moving virtual machines within (or out of) your subscription Learn the main features of Azure Cosmos DB and how to use Microsoft's multi-model database service as a data store for mission-critical applications. The clear examples help in writing your own applications to take advantage of Cosmos DB's multi-model, globally distributed, elastic database. Simple step-by-step instructions show how to resolve common and uncommon scenarios involving Azure Cosmos DB, and scenarios such as delivering extremely low response times (in the order of milliseconds), and scaling rapidly and globally. Microsoft Azure Cosmos DB Revealed demonstrates a multitude of possible implementations to get you started. This book guides you toward best practices to get the most out of Microsoft's Cosmos DB service. Later chapters in the book cover advanced implementation features, helping you master important elements such as securing the database, querying, and using various APIs. What You'll Learn Set up a development environment to work with Azure Cosmos DB Configure Azure Cosmos DB in a production environment with multi-region distribution Query using all APIs, including SQL, JavaScript, MongoDB, and Graph Work with the Azure Cosmos DB.NET SDK in an application you built Access Cosmos DB from web applications created in .NET Who This Book Is For Developers who build applications to be hosted in Microsoft Azure, whether they use PaaS or IaaS. No previous knowledge of Azure Cosmos DB is assumed, but readers must be familiar with developing applications in Microsoft Visual Studio. Zen of Cloud: Learning Cloud Computing by Examples on Microsoft Azure provides comprehensive coverage of the essential theories behind cloud computing and the Windows Azure cloud platform. Sharing the author's insights gained while working at Microsoft's headquarters, it presents nearly 70 end-to-end examples with step-by-step guidance on implementing typical cloud-based scenarios. The book is organized into four sections: cloud service fundamentals, cloud solutions, devices and cloud, and system integration and project



management. Each chapter contains detailed exercises that provide readers with the opportunity to develop valuable hands-on skills in cloud service development. Explains how to prepare for Microsoft Azure development and how to use Microsoft Azure Management Portal Provides best practices for designing cloud-based applications Includes online access to updated examples and answers to the exercises

Beginners can use this book as a guide in their journey through cloud computing. Experienced cloud developers will benefit from the specific examples and detailed guidance on implementing typical cloud-based scenarios. The examples cover a range of application types and technologies with varying levels of difficulties. Supplying comprehensive coverage of the Windows Azure cloud platform, the book provides a practical understanding and powerful tips that readers can immediately apply to their own work—making it ideal for cloud system developers, architects, and IT professionals. Organized into easily digestible sessions, it is also ideal for use in instructional settings.

Understand, create, deploy, and maintain a public cloud using Microsoft Azure Mastering Microsoft Azure Infrastructure Services guides you through the process of creating and managing a public cloud and virtual network using Microsoft Azure. With step-by-step instruction and clear explanation, this book equips you with the skills required to provide services both on-premises and off-premises through full virtualization, providing a deeper understanding of Azure's capabilities as an infrastructure service. Each chapter includes online videos that visualize and enhance the concepts presented in the book, and access to a Windows app that provides instant Azure updates and demonstrates the process of going from on-premises to public cloud via Azure. Coverage includes storage customization, connectivity, virtual networks, backing up, hybrid environments, System Center management, and more, giving you everything you need to understand, evaluate, deploy, and maintain environments that utilize Microsoft Azure. Understand cost, options, and applications of Infrastructure as a Service (IaaS) Enable on- and off-premises connectivity to Azure Customize Azure templates and management processes Exploit key technologies and embrace the hybrid environment Mastering Microsoft Azure Infrastructure Services is your

total solution. Access detailed content and examples on Azure SQL, a set of cloud services that allows for SQL Server to be deployed in the cloud. This book teaches the fundamentals of deployment, configuration, security, performance, and availability of Azure SQL from the perspective of these same tasks and capabilities in SQL Server. This distinct approach makes this book an ideal learning platform for readers familiar with SQL Server on-premises who want to migrate their skills toward providing cloud solutions to an enterprise market that is increasingly cloud-focused. If you know SQL Server, you will love this book. You will be able to take your existing knowledge of SQL Server and translate that knowledge into the world of cloud services from the Microsoft Azure platform, and in particular into Azure SQL. This book provides information never seen before about the history and architecture of Azure SQL. Author Bob Ward is a leading expert with access to and support from the Microsoft engineering team that built Azure SQL and related database cloud services. He presents powerful, behind-the-scenes insights into the workings of one of the most popular database cloud services in the industry. What You Will Learn Know the history of Azure SQL Deploy, configure, and connect to Azure SQL Choose the correct way to deploy SQL Server in Azure Migrate existing SQL Server instances to Azure SQL Monitor and tune Azure SQL's performance to meet your needs Ensure your data and application are highly available Secure your data from attack and theft Who This Book Is For This book is designed to teach SQL Server in the Azure cloud to the SQL Server professional. Anyone who operates, manages, or develops applications for SQL Server will benefit from this book. Readers will be able to translate their current knowledge of SQL Server—especially of SQL Server 2019—directly to Azure. This book is ideal for database professionals looking to remain relevant as their customer base moves into the cloud. NOW FULLY UPDATED: high-value Azure Security Center insights, tips, and operational solutions Reflecting updates through mid-2019, 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 help you apply Azure Security

Center's robust protection, detection, and response capabilities in key operational scenarios. You'll walk through securing any Azure workload, and optimizing key facets of modern security, from policies and identity to incident response and risk management. Brand-new coverage includes single-click remediation, IoT, improved container security, Azure Sentinel, and more. Whatever your security role, you'll learn how to save hours, days, or even weeks by solving problems in the most efficient and reliable ways possible. Two of Microsoft's leading cloud security experts show how to: Implement a comprehensive new security paradigm designed specifically for cloud and hybrid environments Gain visibility and control to secure all key workloads Incorporate Azure Security Center into your security operations center, and integrate 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 fast with single-click remediation 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 Assess IoT device security with the Azure IoT Hub managed service Monitor user behavior and access, and investigate compromised or misused credentials Integrate Microsoft's new Azure Sentinel Security Information and Event Management (SIEM) platform Customize and perform operating system security baseline assessments

About This Book For cloud architects, designers, implementers, operations professionals, and security specialists working in Microsoft Azure cloud or hybrid environments For all IT professionals and decision-makers concerned with the security of Azure environments Use this collection of best practices and tips for assessing the health of a solution. This book provides detailed techniques and instructions to quickly diagnose aspects of your Azure cloud solutions. The initial chapters of this book introduce you to the many facets of Microsoft Azure, explain why and how building for the cloud differs from on-premise development, and outline the need for a comprehensive strategy to debugging and profiling in Azure. You learn the major types of blades

(FaaS, SaaS, PaaS, IaaS), how different views can be created for different scenarios, and you will become familiar with the Favorites section, Cost Management & Billing blade, support, and Cloud Shell. You also will know how to leverage Application Insights for application performance management, in order to achieve a seamless cloud development experience. Application Insights, Log Analytics, and database storage topics are covered. The authors further guide you on identity security with Azure AD and continuous delivery with CI and CD covered in detail along with the capabilities of Azure DevOps. And you are exposed to external tooling and trouble shooting in a production environment. After reading this book, you will be able to apply methods to key Azure services, including App Service (Web Apps, Function Apps, and Logic Apps), Cloud Services, Azure Container Service, Azure Active Directory, Azure Storage, Azure SQL Database, Cosmos DB, Log Analytics, and many more.

**What You Will Learn**

- Debug and manage the performance of your applications
- Leverage Application Insights for application performance management
- Extend and automate CI/CD with the help of various build tools, including Azure DevOps, TeamCity, and Cake bootstrapper

**Who This Book Is For**

Application developers, designers, and DevOps personnel who want to find a one-stop shop in best practices for managing their application's performance in the cloud and for debugging the issues accordingly

**Use Microsoft Azure to optimally design your data solutions and save time and money.**

Scenarios are presented covering analysis, design, integration, monitoring, and derivatives. This book is about data and provides you with a wide range of possibilities to implement a data solution on Azure, from hybrid cloud to PaaS services. Migration from existing solutions is presented in detail. Alternatives and their scope are discussed. Five of six chapters explore PaaS, while one focuses on SQL Server features for cloud and relates to hybrid cloud and IaaS functionalities.

**What You'll Learn**

- Know the Azure services useful to implement a data solution
- Match the products/services used to your specific needs
- Fit relational databases efficiently into data design
- Understand how to work with any type of data using Azure hybrid and public cloud features
- Use non-relational alternatives to solve even complex requirements
- Orchestrate

data movement using Azure services Approach analysis and manipulation according to the data life cycle Who This Book Is For Software developers and professionals with a good data design background and basic development skills who want to learn how to implement a solution using Azure data services The major benefit of a remote desktop connection is being able to connect to your data from anywhere in the world. Your data is in one place that is easy to see and you no longer have to have software installed on your own computer. Azure is one of the best virtual computers and networks providers for remote desktop (RDP) connections. Azure documentations is too deep and it is hard to be understand creating and managing virtual computers and networks in Auzre for remote access connection by any beginner. So, I tried to outline in this report the most important topics as reference guide to assist the user to create and manage virtual computers and networks in Azure for remote access connection in simplified and clear way. This report will include the following parts: 1. Getting free Azure subscription through Sandbox Microsoft Learn subscription (No credit card needed) 2. Free 12 months, then pay-as-you-go Azure account subscription (Credit card needed) 3. Student subscription (No debit/credit cards needed) 4. How to get university email 5. Virtual networks and virtual machines in Azure 6. Quick start for PowerShell in Azure Cloud Shell 7. Quick start with Azure PowerShell 8. Installing Azure CLI on Windows and creating virtual machine 9. Creating a Windows virtual machine in Azure 10. Quick start to create a Linux virtual machine in the Azure portal 11. Tutorial to create a NAT Gateway using the Azure portal and test the NAT service 12. What is Azure Network Watcher? 13. Network Watcher Agent 14. Troubleshoot connections with Azure Network Watcher using the Azure portal 15. Troubleshoot Azure VM connectivity problems 16. Quick start to configure Load Balancer 17. Quick start to configure VPN Gateway using Azure portal 18. Tutorial to connect to a virtual machine using Azure Bastion 19. Exercise to create Window Virtual Machine 20. Exercise to create Ubuntu Virtual Machine Quickly preps technical and non-technical readers to pass the Microsoft AZ-900 certification exam Microsoft Certified Azure Fundamentals Study Guide: Exam AZ-900 is

your complete resource for preparing for the AZ-900 exam. Microsoft Azure is a major component of Microsoft's cloud computing model, enabling organizations to host their applications and related services in Microsoft's data centers, eliminating the need for those organizations to purchase and manage their own computer hardware. In addition, serverless computing enables organizations to quickly and easily deploy data services without the need for servers, operating systems, and supporting systems. This book is targeted at anyone who is seeking AZ-900 certification or simply wants to understand the fundamentals of Microsoft Azure. Whatever your role in business or education, you will benefit from an understanding of Microsoft Azure fundamentals. Readers will also get one year of FREE access to Sybex's superior online interactive learning environment and test bank, including hundreds of questions, a practice exam, electronic flashcards, and a glossary of key terms. This book will help you master the following topics covered in the AZ-900 certification exam: Cloud concepts Cloud types (Public, Private, Hybrid) Azure service types (IaaS, SaaS, PaaS) Core Azure services Security, compliance, privacy, and trust Azure pricing levels Legacy and modern lifecycles Growth in the cloud market continues to be very strong, and Microsoft is poised to see rapid and sustained growth in its cloud share. Written by a long-time Microsoft insider who helps customers move their workloads to and manage them in Azure on a daily basis, this book will help you break into the growing Azure space to take advantage of cloud technologies. Build complex, observable, and fault-tolerant serverless systems easily on Microsoft Azure. Key Features Use serverless systems to help you fulfill complex requirements Develop your knowledge of Azure Microsoft Serverless Understand concepts with a hands-on approach and helpful examples Book Description Advanced Serverless Architectures with Microsoft Azure redefines your experience of designing serverless systems. It shows you how to tackle challenges of varying levels, not just the straightforward ones. You'll be learning how to deliver features quickly by building systems, which retain the scalability and benefits of serverless. You'll begin your journey by learning how to build a simple, completely serverless application. Then, you'll build a highly scalable

solution using a queue, load messages onto the queue, and read them asynchronously. To boost your knowledge further, the book also features durable functions and ways to use them to solve errors in a complex system. You'll then learn about security by building a security solution from serverless components. Next, you'll gain an understanding of observability and ways to leverage application insights to bring you performance benefits. As you approach the concluding chapters, you'll explore chaos engineering and the benefits of resilience, by actively switching off a few of the functions within a complex system, submitting a request, and observing the resulting behavior. By the end of this book, you will have developed the skills you need to build and maintain increasingly complex systems that match evolving platform requirements.

What you will learn

- Understand what true serverless architecture is
- Study how to extend and scale architectures until they become 'complex'
- Implement durable functions in your design
- Improve the observability of your serverless architecture
- Implement security solutions using serverless services
- Learn how to 'practise' chaos engineering in production

Who this book is for

Advanced Serverless Architectures with Microsoft Azure is ideal if you want to build serverless systems with fewer outages and high performance using Azure. Familiarity with the C# syntax and Azure Functions and ARM templates will help you to benefit more from this book. Prior knowledge of basic front-end development, HTML JS, and CSS is beneficial but not essential. Some DevOps knowledge is also beneficial but not essential.

Microsoft Azure is a cloud computing platform that provides a wide variety of services that we can use without purchasing and arranging our hardware. It enables the fast development of solutions and provides the resources to complete tasks that may not be achievable in an on-premises environment. Azure Services like compute, storage, network, and application services allow us to put our effort into building great solutions without worrying about the assembly of physical infrastructure.

This book covers the fundamentals of Azure, which will provide us the idea about all the Azure key services that we are most likely required to know to start developing solutions. After completing this book, we can crack job interviews or able to get different Microsoft

Azure certifications. Microsoft Azure is a cloud service that can be used to for building, testing, and managing applications and services through a network of servers managed by Microsoft in various locations all over the world. Get the most out of Azure, simply by following the easy instructions fully explained in this audiobook. This step-by-step guide gives you everything you need to know to do more with Azure than you ever thought possible! Here is a preview of what you will learn in this guide: Infrastructure as a Service (IAAS) Platform as a Service (PAAS) Software as a Service (SAAS) Public, Private, and Hybrid Clouds Cloud Computing and Security Issues The Importance of Geopolitics in Cloud Computing Overview of Available Azure Services Development with Azure Mobile Services in Azure Azure Storage Services Data-Management Functions in Azure Messaging Functions on Microsoft Azure Azure's Content Delivery Network Developer Tools in Azure Application Management with Azure Machine Learning Capabilities in Azure Azure and the Internet of Things (IOT) Definition of Azure Devops Advantages of Azure Devops Privacy and Microsoft Azure Creating a Windows Virtual Machine Creating a Linux Virtual Machine And so much more! With this guide, you will learn everything you need to know about Microsoft Azure! 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.

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