Using Aws As Your Cloud Attached Data Center

AWS is currently the market leader in the public cloud market.With the increasing global interest in leveraging cloud infrastructure, AWS Cloud from Amazon offers a cutting-edge platform for architecting, building, and deploying web-scale cloud applications. This book will help you in performing these tasks easily.

Did you know that Amazon Web Services runs nearly double the amount of Microsoft Workloads in the cloud than any other provider? Running Microsoft Workloads in AWS is your single-source solution for learning the best practice skills and guidance that AWS consultants offer their customers in the field. Over 70% of enterprise workloads are based on Microsoft technologies and AWS has been running these technologies in the AWS Cloud for more than 12 years—far longer than Microsoft's own Azure cloud platform. This book introduces AWS foundations and compares them to traditional Microsoft architectures, showing you how to design your AWS Cloud platform to run your current Microsoft solutions. It covers the crucial area of identity and access control, showing how to implement Active Directory inside the AWS platform and the most secure ways of enabling Single Sign On from your own data centers and from Microsoft AzureAD. The book goes in-depth and shows how developers across the globe are using their existing .NET skills to develop directly on top of AWS, using current AWS development services such as AWS Code Pipeline, AWS Code Build, and AWS Code Deploy to create the next generation of cloud-native applications using the most popular cloud serverless service—AWS Lambda. What You Will Learn Be familiar with the basic building blocks of AWS and how the terminology differs from your own data center and Microsoft Azure Understand Amazon Machine Images (AMI) strategies and solutions to best manage the trade-off between speed and manageability Run one of the most popular Microsoft products: SQL Server on AWS Be aware of the different database architecture designs for using AWS RDS, AWS DMS, and AWS Aurora Read an overview of Serverless Development in the AWS cloud from a Microsoft .NET perspective Who This Book Is For Covers high-level concepts and solutions for CTOs and CCTOs; provides a solution for architects; and dives deep into the topic for administrators and DevOps engineers

With platforms designed for rapid adaptation and failure recovery such as Amazon Web Services, cloud computing is more like programming than traditional system administration. Tools for automatic scaling and instance replacement allow even small DevOps teams to manage massively scalable application infrastructures—if team members drop their old views of development and operations and start mastering automation. This comprehensive guide shows developers and system administrators how to configure and manage AWS services including EC2, CloudFormation, Elastic Load Balancing, S3, and Route 53. Sysadms will learn will learn to automate their favorite tools and processes; developers will pick up enough ops knowledge to build a robust and resilient AWS application infrastructure. Launch instances with EC2 or CloudFormation Securely deploy and manage your applications with AWS tools Learn to automate AWS configuration management with Python and Puppet Deploy applications with Auto Scaling and Elastic Load Balancing Explore approaches for deploying application and infrastructure updates Save time on development and operations with reusable components Learn strategies for managing log files in AWS environments Configure a cloud-aware DNS service with Route 53 Use AWS CloudWatch to monitor your infrastructure and applications

Foreword by Werner Vogels, Vice President and Corporate Technology Officer, Amazon The AWS exam has been updated. Your study guide should be, too. The AWS Certified Developer Official Study Guide–Associate Exam is your ultimate preparation resource for the latest exam! Covering all exam objectives, this invaluable resource puts a team of AWS experts at your side with expert guidance, clear explanations, and the wisdom of experience with AWS best practices. You'll master core services and basic architecture, and equip yourself to develop, deploy, and debug cloud-based applications using AWS. The AWS Developer certification is earned by those who demonstrate the technical knowledge and skill associated with best practices for building secure, reliable cloud-based applications using AWS technology. This book is your official exam prep companion, providing everything you need to know to pass with flying colors. Study the AWS Certified Developer Exam objectives Gain expert insight on core AWS services and best practices Test your understanding of key concepts with challenging chapter questions Access online study tools including electronic flashcards, a searchable glossary, practice exams, and more Cloud computing offers businesses the opportunity to replace up-front capital infrastructure expenses with low, variable costs that scale as they grow. This customized responsiveness has negated the need for far-future infrastructure planning, putting thousands of servers at their disposal as needed—and businesses have responded, propelling AWS to the number-one spot among cloud service providers. Now these businesses need qualified AWS developers, and the AWS certification validates the exact skills and knowledge they're looking for. When you're ready to get serious about your cloud credentials, the AWS Certified Developer Official Study Guide–Associate Exam is the resource you need to pass the exam with flying colors. NOTE: As of October 7, 2019, the accompanying code for hands-on exercises in the book is available for downloading from the secure Resources area in the online test bank. You'll find code for Chapters 1, 2, 11, and 12.

Step by Step guide to building your project using AWS: Amazon Web ServicesAWS can power the project of your dreams, and it can do it efficiently and affordably, but only if you know how to set it up correctly! Want to learn AWS fast?Amazon Web Services is a cloud service that can be used to build, test, and manage applications and services through a network of Amazon managed servers located throughout the world. When you know how to get the most out of AWS, you have access to a world of computing power and possibilities. Simply by following the easy instructions fully explained inside this guide, you'll be able to harness the power of AWS. It doesn't matter if you have never used AWS before. This step-by-step guide gives you everything you need to know to do more with AWS than you ever thought possible!Fully up to date for 2020The world of cloud services is changing constantly and yesterday's instructions are useless today. Don't waste your time with an outdated guide! Brand new and up to date for 2020, this easy guide gives you what you need to quickly get up and running on AWS today!Here is a preview of what you will learn in this guide: Introduction Defining Cloud Computing AWS API AWS API In Practical Use A Question On Security AWS Management Console Creating Your AWS Account AWS Storage Setup Object Storage Simple Storage Service Bucket and Object Security The Reliability of EBS AWS Security Security Group Best Practices Other AWS Services Choosing The Right AWS Core Services 10 Compelling Reasons to Use AWS IT Agility Business Agility Faster Application Development Simplified IT Operations AWS Is Global AWS Is The Number One Cloud Service Provider AWS Promotes Innovation AWS Constantly Evolves AWS Can Help Build Your Career 10 Cloud Application Design Principles Remember That Failure is Inevitable Using Redundancy WILL SAFEGUARD Against Resource Failure Using Geographic Distribution WILL SAFEGUARD Against Infrastructure Failure Monitor Regularly Keeps Problems At Bay Utilization Review Minimizes Waste Using Application Management Will Aid in Automating Administration Privacy Is Guaranteed Via Encryption Tier-Based Designed Application Improves Efficiency Prevent Technical Debt With Good Application Architecture Conclusion And so much more! Even if you aren't a tech-savvy person or have never used a cloud service, have no fear! This is the guide that will show you how. Learn AWS quickly and easily when you grab this guide now!

In depth informative guide to implement and use AWS security services effectively. About This Book Learn to secure your network, infrastructure, data and applications in AWS cloud Log, monitor and audit your AWS resources for continuous security and continuous compliance in AWS cloud Use AWS managed security services to automate security. Focus on increasing your business rather than being diverged onto security risks and issues with AWS security. Delve deep into various aspects such as the security model, compliance, access management and much more to build and maintain a secure environment. Who This Book Is For This book is for all IT professionals, system administrators and security analysts, solution architects and Chief Information Security Officers who are responsible for

securing workloads in AWS for their organizations. It is helpful for all Solutions Architects who want to design and implement secure architecture on AWS by the following security by design principle. This book is helpful for personnel in Auditors and Project Management role to understand how they can audit AWS workloads and how they can manage security in AWS respectively. If you are learning AWS or championing AWS adoption in your organization, you should read this book to build security in all your workloads. You will benefit from knowing about security footprint of all major AWS services for multiple domains, use cases, and scenarios. What You Will Learn Learn about AWS Identity Management and Access control Gain knowledge to create and secure your private network in AWS Understand and secure your infrastructure in AWS Understand monitoring, logging and auditing in AWS Ensure Data Security in AWS Learn to secure your applications in AWS Explore AWS Security best practices In Detail Mastering AWS Security starts with a deep dive into the fundamentals of the shared security responsibility model. This book tells you how you can enable continuous security, continuous auditing, and continuous compliance by automating your security in AWS with the tools, services, and features it provides. Moving on, you will learn about access control in AWS for all resources. You will also learn about the security of your network, servers, data and applications in the AWS cloud using native AWS security services. By the end of this book, you will understand the complete AWS Security landscape, covering all aspects of end - to -end software and hardware security along with logging, auditing, and compliance of your entire IT environment in the AWS cloud. Lastly, the book will wrap up with AWS best practices for security. Style and approach The book will take a practical approach delving into different aspects of AWS security to help you become a master of it. It will focus on using native AWS security features and managed AWS services to help you achieve continuous security and continuous compliance.

- This is the latest practice test to pass the Amazon AWS Certified Cloud Practitioner (CLF-C01) Exam. - It contains 633 Questions and Answers. - All the questions are 100% valid and stable. - You can reply on this practice test to pass the exam with a good mark and in the first attempt.

Create highly efficient design patterns for scalability, redundancy, and high availability in the AWS Cloud Key Features Build highly robust systems using the cloud infrastructure Make web applications resilient against scheduled and accidental downtime Explore and apply Amazon-provided services in unique ways to solve common design problems Book Description Whether you're just getting your feet wet in cloud infrastructure or already creating complex systems, this book will guide you through using the patterns to fit your system needs. Starting with patterns that cover basic processes such as source control and infrastructure-as-code, the book goes on to introduce cloud security practices. You'll then cover patterns of availability and scalability and get acquainted with the ephemeral nature of cloud environments. You'll also explore advanced DevOps patterns in operations and maintenance, before focusing on virtualization patterns such as containerization and serverless computing. In the final leg of your journey, this book will delve into data persistence and visualization patterns. You'll get to grips with architectures for processing static and dynamic data, as well as practices for managing streaming data. By the end of this book, you will be able to design applications that are tolerant of underlying hardware failures, resilient against an unexpected influx of data, and easy to manage and replicate. What you will learn Implement scaling policies on schedules, influxes in traffic, and deep health checks Make complete use of highly available and redundant storage Design content delivery networks to improve user experience Optimize databases through caching and sharding Apply patterns to solve common problems Implement repeatable processes for deploying systems Who this book is for If you’re an architect, solution provider, or DevOps community member looking to implement repeatable patterns for deploying and maintaining services in the Amazon cloud infrastructure, this book is for you. You’ll need prior experience of using AWS understand key concepts covered in the book, as it focuses on the patterns rather than the basics of using AWS.

Build scalable and production-ready infrastructure in Amazon Web Services with CloudFormation Key Features Leverage AWS CloudFormation templates to manage your entire infrastructure Get up and running with writing your infrastructure as code and automating your environment Simplify infrastructure management and increase productivity with AWS CloudFormation Book Description DevOps and the cloud revolution have forced software engineers and operations teams to rethink how to manage infrastructures. With this AWS book, you'll understand how you can use Infrastructure as Code (IaC) to simplify IT operations and manage the modern cloud infrastructure effectively with AWS CloudFormation. This comprehensive guide will help you explore AWS CloudFormation from template structures through to developing complex and reusable infrastructure stacks. You'll then delve into validating templates, deploying stacks, and handling deployment failures. The book will also show you how to leverage AWS CodeBuild and CodePipeline to automate resource delivery and apply continuous integration and continuous delivery (CI/CD) practices to the stack. As you advance, you'll learn how to generate templates on the fly using macros and create resources outside AWS with custom resources. Finally, you'll improve the way you manage the modern cloud in AWS by extending CloudFormation using AWS serverless application model (SAM) and AWS cloud development kit (CDK). By the end of this book, you'll have mastered all the major AWS CloudFormation concepts and be able to simplify infrastructure management. What you will learn Understand modern approaches to IaC Develop universal and reusable CloudFormation templates Discover ways to apply continuous delivery with CloudFormation Implement IaC best practices for the AWS Cloud Provision massive applications across multiple regions and accounts Automate template generation and software provisioning for AWS Extend CloudFormation with custom resources and template macros Who this book is for If you are a developer who wants to learn how to write templates, a DevOps engineer interested in deployment and orchestration, or a solutions architect looking to understand the benefits of managing infrastructure with ease, this book is for you. Prior understanding of the AWS Cloud is necessary.

If you intend to use Amazon Web Services (AWS) for remote computing and storage, Python is an ideal programming language for developing applications and controlling your cloud-based infrastructure. This cookbook gets you started with more than two dozen recipes for using Python with AWS, based on the author’s boto library. You’ll find detailed recipes for working with the S3 storage service as well as EC2, the service that lets you design and build cloud applications. Each recipe includes a code solution you can use immediately, along with a discussion of why and how the recipe works. You also get detailed advice for using boto with AWS and other cloud services. This book’s recipes include methods to help you: Launch instances on EC2, and keep track of them with tags Associate an Elastic IP address with an instance Restore a failed Elastic Block Store volume from a snapshot Store and monitor your own custom metrics in CloudWatch Create a bucket in S3 to contain your data objects Reduce the cost of storing noncritical data Prevent accidental deletion of data in S3

This concise, easy-to-use reference puts one of the most popular frameworks for deep learning research and development at your fingertips. Author Joe Papa provides instant access to syntax, design patterns, and code examples to accelerate your development and reduce the time you spend searching for answers. Research scientists, machine learning engineers, and software developers will find clear, structured PyTorch code that covers every step of neural network developmentâ??from loading data to customizing training loops to model optimization and GPU/TPU acceleration. Quickly learn how to deploy your code to production using AWS, Google Cloud, or Azure and deploy your ML models to mobile and edge devices. Learn basic PyTorch syntax and design patterns Create custom models and data transforms Train and deploy models using a GPU and TPU Train and test a deep learning classifier Accelerate training using

optimization and distributed training Access useful PyTorch libraries and the PyTorch ecosystem

Apply cloud design patterns to overcome real-world challenges by building scalable, secure, highly available, and cost-effective solutions Key Features Apply AWS Well-Architected Framework concepts to common real-world use cases Understand how to select AWS patterns and architectures that are best suited to your needs Ensure the security and stability of a solution without impacting cost or performance Book Description One of the most popular cloud platforms in the world, Amazon Web Services (AWS) offers hundreds of services with thousands of features to help you build scalable cloud solutions; however, it can be overwhelming to navigate the vast number of services and decide which ones best suit your requirements. Whether you are an application architect, enterprise architect, developer, or operations engineer, this book will take you through AWS architectural patterns and guide you in selecting the most appropriate services for your projects. AWS for Solutions Architects is a comprehensive guide that covers the essential concepts that you need to know for designing well-architected AWS solutions that solve the challenges organizations face daily. You'll get to grips with AWS architectural principles and patterns by implementing best practices and recommended techniques for real-world use cases. The book will show you how to enhance operational efficiency, security, reliability, performance, and cost-effectiveness using real-world examples. By the end of this AWS book, you'll have gained a clear understanding of how to design AWS architectures using the most appropriate services to meet your organization's technological and business requirements. What you will learn Rationalize the selection of AWS as the right cloud provider for your organization Choose the most appropriate service from AWS for a particular use case or project Implement change and operations management Find out the right resource type and size to balance performance and efficiency Discover how to mitigate risk and enforce security, authentication, and authorization Identify common business scenarios and select the right reference architectures for them Who this book is for This book is for application and enterprise architects, developers, and operations engineers who want to become well-versed with AWS architectural patterns, best practices, and advanced techniques to build scalable, secure, highly available, and cost-effective solutions in the cloud. Although existing AWS users will find this book most useful, it will also help potential users understand how leveraging AWS can benefit their organization.

Would you like to uncover a new world of possibilities with the Amazon Web Services (AWS)?Are you interested in knowing exactly just how the Amazon Web Services function?Do you want to know whether you should align your next web service securely with AWS to take your business to another level? If you want to uncover the most complete and used cloud platform in the world, then keep reading! If you have the above concerns as you dabble with the concept of taking on AWS for your business, this book is all you need. By the end of this book, you will certainly have all the answers you require to make an informed decision on whether it is time to take on Amazon Web Services (AWS) for your business. The book, AWS: Amazon Web Services gives a detailed introduction to Amazon Web Services (AWS), highlights of what you can do with AWS and other amazing information required to know exactly how you can get started. While AWS is not Amazon's primary business, this service segment is much ahead of the other business segments in providing efficient, adaptable, safe, dependable, user friendly, and cost effective cloud computing options! The book provides an overview to AWS for both beginners and advanced users. If you intend to lower your business running prices, and also regulate the security of your information, use this detailed guide for computing and networking in the AWS cloud platform. Indeed, high performing, efficient and profitable companies around the world have realized that cloud computing is the secret to massive growth and efficiency in service delivery on a global scale especially because it allows data access from anywhere in the world. You don't need to be an IT expert to use AWS. You merely need this extensive and easy to understand bestselling companion. This book covers everything about AWS that will certainly leave you feeling confident about your understanding of AWS so as to make an educated choice. A few of the topics in this book include: Introduction to Amazon Web Services Types of Cloud Cloud Service Model AWS Basic Architecture AWS Management Console Platform Services Business Application Other AWS Services AWS Billing and Support Services Why You Should Consider AWS ..And Much More ! If you think cloud computing is something that will certainly sustain your business as it grows to an international scale, make AWS your best option; you will never ever regret it! The very best part about AWS is that it deals with any scale. It doesn't really matter if you are a large or small scale business owner, the AWS can be implemented in your operations. Even if you are already familiar with the AWS cloud, this guide will help you increase your understanding on the subject. You'll find out whatever there is on AWS methods, cloud selection, and also exactly how to generate income with a wise AWS implementation in your company. Don't wait any longer!Click the "BUY NOW" button now and begin immediately!

Secure your Amazon Web Services (AWS) infrastructure with permission policies, key management, and network security, along with following cloud security best practices Key Features Explore useful recipes for implementing robust cloud security solutions on AWS Monitor your AWS infrastructure and workloads using CloudWatch, CloudTrail, config, GuardDuty, and Macie Prepare for the AWS Certified Security-Specialty exam by exploring various security models and compliance offerings Book Description As a security consultant, securing your infrastructure by implementing policies and following best practices is critical. This cookbook discusses practical solutions to the most common problems related to safeguarding infrastructure, covering services and features within AWS that can help you implement security models such as the CIA triad (confidentiality, integrity, and availability), and the AAA triad (authentication, authorization, and availability), along with non-repudiation. The book begins with IAM and S3 policies and later gets you up to speed with data security, application security, monitoring, and compliance. This includes everything from using firewalls and load balancers to secure endpoints, to leveraging Cognito for managing users and authentication. Over the course of this book, you'll learn to use AWS security services such as Config for monitoring, as well as maintain compliance with GuardDuty, Macie, and Inspector. Finally, the book covers cloud security best practices and demonstrates how you can integrate additional security services such as Glacier Vault Lock and Security Hub to further strengthen your infrastructure. By the end of this book, you'll be well versed in the techniques required for securing AWS deployments, along with having the knowledge to prepare for the AWS Certified Security - Specialty certification. What you will learn Create and manage users, groups, roles, and policies across accounts Use AWS Managed Services for logging, monitoring, and auditing Check compliance with AWS Managed Services that use machine learning Provide security and availability for EC2 instances and applications Secure data using symmetric and asymmetric encryption Manage user pools and identity pools with federated login Who this book is for If you are an IT security professional, cloud security architect, or a cloud application developer working on security-related roles and are interested in using AWS infrastructure for secure application deployments, then this Amazon Web Services book is for you. You will also find this book useful if you're looking to achieve AWS certification. Prior

knowledge of AWS and cloud computing is required to get the most out of this book.
Start deploying, managing, and scaling containerized applications into AWS container infrastructure using Docker on Amazon EC2, Amazon Elastic Container Service (ECS), and AWS Elastic Kubernetes Service (EKS). This step by step practical book will cover all the available container services on AWS and review the usage of each one based on your required scale and cost. Further, you will see how to set up each environment and finally deploy, manage, and scale containerized applications on each one. In the chapter about Elastic Kubernetes Service (EKS), you will learn the process of building and managing Kubernetes clusters on AWS and see how to provision hosts in a matter of minutes, while deploying containers in seconds and making them available globally. Deploy Containers on AWS shows you how to get started with AWS container offerings and manage production or test environments of containerized applications using a hands-on approach with step-by-step instructions. What You Will Learn Deploy and manage containers with Docker on Amazon EC2 Store and retrieve container images using the Amazon EC2 container registry Orchestrate containers with Amazon Elastic Container Service (ECS) Run Kubernetes-managed infrastructure on AWS (EKS) Monitor, manage, back up, and restore containers on AWS Who This Book Is ForDevelopers, cloud and systems administrators, and architects
The Practical, Foundational Technical Introduction to the World's #1 Cloud Platform Includes access to several hours of online training video: Mark Wilkins' expert training video library guides you through setting up core services and prepares you to deploy your own apps and resources. Learning Amazon Web Services (AWS) is the perfect foundational resource for all administrators, developers, project managers, and other IT professionals who want to plan and deploy AWS services and/or earn AWS certification. Top cloud trainer and evangelist Mark Wilkins teaches best practices that align with Amazon's Well-Architected Framework, introduces key concepts in the context of a running case study, carefully explains how core AWS services operate and integrate, and offers extensively tested tips for maximizing flexibility, security, and value. Companion online videos guide you step-by-step through setting AWS compute, storage, networking, scale, security, automation, and more. Balance cost, compliance, and latency in your service designs Choose the right networking options for your virtual private cloud (VPC) Build, host, launch, manage, and budget for EC2 compute services Plan for scale and resiliency, and make informed decisions about AWS storage Enforce strict security, and automate to improve operational efficiency This book with companion training videos is a valuable learning tool for anyone seeking to demonstrate expertise through formal certification. WEB EDITION: All buyers of the book or ebook can register your book for access to a free online Web Edition of this title, which included videos embedded within the text, plus updates as they become available.
Get to grips with the fundamentals of cloud security and prepare for the AWS Security Specialty exam with the help of this comprehensive certification guide Key Features Learn the fundamentals of security with this fast-paced guide Develop modern cloud security skills to build effective security solutions Answer practice questions and take mock tests to pass the exam with confidence Book Description AWS Certified Security – Specialty is a certification exam to validate your expertise in advanced cloud security. With an ever-increasing demand for AWS security skills in the cloud market, this certification can help you advance in your career. This book helps you prepare for the exam and gain certification by guiding you through building complex security solutions. From understanding the AWS shared responsibility model and identity and access management to implementing access management best practices, you'll gradually build on your skills. The book will also delve into securing instances and the principles of securing VPC infrastructure. Covering security threats, vulnerabilities, and attacks such as the DDoS attack, you'll discover how to mitigate these at different layers. You'll then cover compliance and learn how to use AWS to audit and govern infrastructure, as well as to focus on monitoring your environment by implementing logging mechanisms and tracking data. Later, you'll explore how to implement data encryption as you get hands-on with securing a live environment. Finally, you'll discover security best practices that will assist you in making critical decisions relating to cost, security,and deployment complexity. By the end of this AWS security book, you'll have the skills to pass the exam and design secure AWS solutions. What you will learn Understand how to identify and mitigate security incidents Assign appropriate Amazon Web Services (AWS) resources to underpin security requirements Work with the AWS shared responsibility model Secure your AWS public cloud in different layers of cloud computing Discover how to implement authentication through federated and mobile access Monitor and log tasks effectively using AWS Who this book is for If you are a system administrator or a security professional looking to get AWS security certification, this book is for you. Prior experience in securing cloud environments is necessary to get the most out of this AWS book.
IBM® Spectrum Virtualize is a key member of the IBM Spectrum® Storage portfolio. It is a highly flexible storage solution that enables rapid deployment of block storage services for new and traditional workloads, whether on-premises, off-premises, or a combination of both. The initial release of IBM Spectrum Virtualize for Public Cloud is now available on Amazon Web Services (AWS). This IBM RedpaperTM publication gives a broad understanding of the IBM Spectrum Virtualize for Public Cloud on AWS architecture. It also provides planning and implementation information about the common use cases for this new product. This publication helps storage and networking administrators plan, implement, install, modify, and configure the IBM Spectrum Virtualize for Public Cloud on AWS offering Version 8.3.1. It also provides a detailed description of troubleshooting tips.
IBM® Spectrum Virtualize is a key member of the IBM SpectrumTM Storage portfolio. It is a highly flexible storage solution that enables rapid deployment of block storage services for new and traditional workloads, whether on-premises, off-premises, or a combination of both. The initial release of IBM Spectrum VirtualizeTM for Public Cloud is now available on Amazon Web Services (AWS). This IBM RedpaperTM Redbooks publication gives a broad understanding of the IBM Spectrum Virtualize for Public Cloud on AWS architecture, and provides planning and implementation details of the common use cases for this new product. This publication helps storage and networking administrators plan, implement, install, modify, and configure the IBM Spectrum Virtualize for Public Cloud on AWS offering. It also provides a detailed description of troubleshooting tips.
Work through exciting recipes to administer your AWS cloud Key Features Build secure environments using AWS components and services Explore core AWS features with real-world applications and best practices Design and build Lambda functions using real-world examples Book Description With this Learning Path, you'll explore techniques to easily manage applications on the AWS cloud. You'll begin with an introduction to serverless computing, its advantages, and the fundamentals of AWS. The following chapters will guide you on how to manage multiple accounts by setting up consolidated billing, enhancing your application delivery skills, with the latest AWS services such as CodeCommit, CodeDeploy, and CodePipeline to provide continuous delivery and deployment, while also securing and monitoring your environment's workflow. It'll also add to your understanding of the services AWS Lambda provides to developers. To refine your skills further, it demonstrates how to design, write, test, monitor, and troubleshoot Lambda functions. By the end of this Learning Path, you'll be able to create a highly secure, fault-tolerant, and scalable environment for your applications. This Learning Path includes content from the following Packt products: AWS Administration: The Definitive Guide, Second Edition by Yohan Wadia AWS Administration Cookbook by Rowan Udell, Lucas Chan Mastering AWS

Lambda by Yohan Wadia, Udita Gupta What you will learn Explore the benefits of serverless computing and applications Deploy apps with AWS Elastic Beanstalk and Amazon Elastic File System Secure environments with AWS CloudTrail, AWSConfig, and AWS Shield Run big data analytics with Amazon EMR and Amazon Redshift Back up and safeguard data using AWS Data Pipeline Create monitoring and alerting dashboards using CloudWatch Effectively monitor and troubleshoot serverless applications with AWS Design serverless apps via AWS Lambda, DynamoDB, and API Gateway Who this book is for This Learning Path is specifically designed for IT system and network administrators, AWS architects, and DevOps engineers who want to effectively implement AWS in their organization and easily manage daily activities. Familiarity with Linux, web services, cloud computing platforms, virtualization, networking, and other administration-related tasks will assist in understanding the concepts in the book. Prior hands-on experience with AWS core services such as EC2, IAM, S3, and programming languages, such as Node.Js, Java, and C#, will also prove beneficial.

Cloud services are just as susceptible to network outages as any other platform. This concise book shows you how to prepare for potentially devastating interruptions by building your own resilient and reliable applications in the public cloud. Guided by engineers from 9apps—an independent provider of Amazon Web Services and Eucalyptus cloud solutions—you'll learn how to combine AWS with open source tools such as PostgreSQL, MongoDB, and Redis. This isn't a book on theory. With detailed examples, sample scripts, and solid advice, software engineers with operations experience will learn specific techniques that 9apps routinely uses in its cloud infrastructures. Build cloud applications with the "rip, mix, and burn" approach Get a crash course on Amazon Web Services Learn the top ten tips for surviving outages in the cloud Use elasticsearch to build a dependable NoSQL data store Combine AWS and PostgreSQL to build an RDBMS that scales well Create a highly available document database with MongoDB Replica Set and SimpleDB Augment Redis with AWS to provide backup/restore, failover, and monitoring capabilities Work with CloudFront and Route 53 to safeguard global content delivery

Put the power of AWS Cloud machine learning services to work in your business and commercial applications! Machine Learning in the AWS Cloud introduces readers to the machine learning (ML) capabilities of the Amazon Web Services ecosystem and provides practical examples to solve real-world regression and classification problems. While readers do not need prior ML experience, they are expected to have some knowledge of Python and a basic knowledge of Amazon Web Services. Part One introduces readers to fundamental machine learning concepts. You will learn about the types of ML systems, how they are used, and challenges you may face with ML solutions. Part Two focuses on machine learning services provided by Amazon Web Services. You'll be introduced to the basics of cloud computing and AWS offerings in the cloud-based machine learning space. Then you'll learn to use Amazon Machine Learning to solve a simpler class of machine learning problems, and Amazon SageMaker to solve more complex problems. • Learn techniques that allow you to preprocess data, basic feature engineering, visualizing data, and model building • Discover common neural network frameworks with Amazon SageMaker • Solve computer vision problems with Amazon Rekognition • Benefit from illustrations, source code examples, and sidebars in each chapter The book appeals to both Python developers and technical/solution architects. Developers will find concrete examples that show them how to perform common ML tasks with Python on AWS. Technical/solution architects will find useful information on the machine learning capabilities of the AWS ecosystem.

With the immense cost savings and scalability the cloud provides, the rationale for building cloud native applications is no longer in question. The real issue is how. With this practical guide, developers will learn about the most commonly used design patterns for building cloud native applications using APIs, data, events, and streams in both greenfield and brownfield development. You'll learn how to incrementally design, develop, and deploy large and effective cloud native applications that you can manage and maintain at scale with minimal cost, time, and effort. Authors Kasun Indrasiri and Sriskandarajah Suhothayan highlight use cases that effectively demonstrate the challenges you might encounter at each step. Learn the fundamentals of cloud native applications Explore key cloud native communication, connectivity, and composition patterns Learn decentralized data management techniques Use event-driven architecture to build distributed and scalable cloud native applications Explore the most commonly used patterns for API management and consumption Examine some of the tools and technologies you'll need for building cloud native systems

Take your AWS skills to the next level by learning infrastructure automation techniques using CloudFormation, Terraform, and Boto3 Key Features Explore AWS automation using CloudFormation, Terraform, and Boto3 Leverage AWS to make your infrastructure flexible and highly available Discover various AWS features for building a secure and reliable environment to host your application Book Description Amazon Web Services (AWS) is one of the most popular and efficient cloud platforms for administering and deploying your applications to make them resilient and robust. AWS for System Administrators will help you to learn several advanced cloud administration concepts for deploying, managing, and operating highly available systems on AWS. Starting with the fundamentals of identity and access management (IAM) for securing your environment, this book will gradually take you through AWS networking and monitoring tools. As you make your way through the chapters, you'll get to grips with VPC, EC2, load balancer, Auto Scaling, RDS database, and data management. The book will also show you how to initiate AWS automated backups and store and keep track of log files. Later, you'll work with AWS APIs and understand how to use them along with CloudFormation, Python Boto3 Script, and Terraform to automate infrastructure. By the end of this AWS book, you'll be ready to build your two-tier startup with all the necessary infrastructure, monitoring, and logging components in place. What you will learn Adopt a security-first approach by giving users minimum access using IAM policies Build your first Amazon Elastic Compute Cloud (EC2) instance using the AWS CLI, Boto3, and Terraform Set up your datacenter in AWS Cloud using VPC Scale your application based on demand using Auto Scaling Monitor services using CloudWatch and SNS Work with centralized logs for analysis (CloudWatch Logs) Back up your data using Amazon Simple Storage Service (Amazon S3), Data Lifecycle Manager, and AWS Backup Who this book is for This Amazon Web Services book is for system administrators and solution architects who want to build highly available and flexible AWS Cloud platforms for their applications. Software engineers and programmers looking to deploy their applications to AWS Cloud will also find this book useful. Basic knowledge of Linux and AWS is necessary to get started.

Create dynamic cloud-based websites with Amazon Web Services and this friendly guide! As the largest cloud computing platform in the world, Amazon Web Services (AWS) provides one of the most popular web services options available. This easy-to-understand guide is the perfect introduction to the Amazon Web Services platform and all it can do for you. You'll learn about the Amazon Web Services tool set; how different web services (including S3, Amazon EC2, and Amazon Flexible Payments) and Glacier work; and how you can implement AWS in your organization. Explains how to use Amazon Web Services to store objects, take payments, manage large quantities of data, send e-mails, deploy push notifications, and more from your website Details how AWS can reduce costs, improve efficiency, increase productivity, and cut down on expensive hardware investments - and administrative headaches - in your organization Includes practical examples and helpful step-by-step lists to help you experiment with different AWS features and create a robust website that meets your needs Amazon Web Services For Dummies is exactly what you need to get your head in the cloud with Amazon Web Services!

A practical, real-world introduction to AWS tools and concepts Amazon Web Services for Mobile Developers: Building Apps with AWS presents a professional view of cloud computing and AWS for experienced iOS/Android developers and technical/solution architects. Cloud computing is a rapidly expanding ecosystem, and working professionals need a practical resource to bring them up-to-date on tools that are rapidly becoming indispensable; this book helps expand your skill set by introducing you to AWS offerings that can make your job easier, with a focus on real-world application. Author and mobile applications developer Abhishek Mishra shows you how to create IAM accounts and try out some of the most popular services, including EC2, Lambda, Mobile Analytics, Device Farm, and more. You'll build a chat application in both Swift (iOS) and Java (Andoid), running completely off AWS Infrastructure to explore SDK installation, Xcode, Cognito authentication, DynamoDB, Amazon SNA Notifications,

and other useful tools. By actually using the tools as you learn about them, you develop a more intuitive understanding that feels less like a shift and more like a streamlined integration. If you have prior experience with Swift or Java and a solid knowledge of web services, this book can help you quickly take your skills to the next level with a practical approach to learning that translates easily into real-world use. Understand the key concepts of AWS as applied to both iOS and Android developers Explore major AWS offerings for mobile developers, including DynamoDB, RDS, EC2, SNS, Cognito, and more Learn what people are talking about when they use buzzwords like PaaS, IaaS, SaaS, and APaaS Work through explanations by building apps that tie into the AWS ecosystem Any job is easier with the right tools, and Amazon Web Services for Mobile Developers: Building Apps with AWS gets you acquainted with an ever-expanding toolkit for mobile app development.

Mastering AWS CloudFormationPlan, develop, and deploy your cloud infrastructure effectively using AWS CloudFormationPackt Publishing Ltd

Secure public and private cloud workloads with this comprehensive learning guide. Key Features Take your cloud security functions to the next level by automation Learn to automate your security functions on AWS and OpenStack Practical approach towards securing your workloads efficiently Book Description Security issues are still a major concern for all IT organizations. For many enterprises, the move to cloud computing has raised concerns for security, but when applications are architected with focus on security, cloud platforms can be made just as secure as on-premises platforms. Cloud instances can be kept secure by employing security automation that helps make your data meet your organization's security policy. This book starts with the basics of why cloud security is important and how automation can be the most effective way of controlling cloud security. You will then delve deeper into the AWS cloud environment and its security services by dealing with security functions such as Identity and Access Management and will also learn how these services can be automated. Moving forward, you will come across aspects such as cloud storage and data security, automating cloud deployments, and so on. Then, you'll work with OpenStack security modules and learn how private cloud security functions can be automated for better time- and cost-effectiveness. Toward the end of the book, you will gain an understanding of the security compliance requirements for your Cloud. By the end of this book, you will have hands-on experience of automating your cloud security and governance. What you will learn Define security for public and private cloud services Address the security concerns of your cloud Understand Identity and Access Management Get acquainted with cloud storage and network security Improve and optimize public and private cloud security Automate cloud security Understand the security compliance requirements of your cloud Who this book is for This book is targeted at DevOps Engineers, Security professionals, or any stakeholders responsible for securing cloud workloads. Prior experience with AWS or OpenStack will be an advantage.

Set yourself apart by becoming an AWS Certified Cloud Practitioner Take the next step in your career by expanding and validating your skills on the Amazon Web Services (AWS) Cloud. The AWS Certified Cloud Practitioner Study Guide: Exam CLF-C01 provides a solid introduction to this industry-leading technology, relied upon by thousands of businesses across the globe, as well as the resources you need to prove your knowledge in the AWS Certification Exam. This guide offers complete and thorough treatment of all topics included in the exam, beginning with a discussion of what the AWS cloud is and its basic global infrastructure and architectural principles. Other chapters dive into the technical, exploring core characteristics of deploying and operating in the AWS Cloud Platform, as well as basic security and compliance aspects and the shared security model. In addition, the text identifies sources of documentation or technical assistance, such as white papers or support tickets. To complete their coverage, the authors discuss the AWS Cloud value proposition and define billing, account management, and pricing models. This includes describing the key services AWS can provide and their common use cases (e.g., compute, analytics, etc.). Distinguish yourself as an expert by obtaining a highly desirable certification in a widely used platform Hone your skills and gain new insights on AWS whether you work in a technical, managerial, sales, purchasing, or financial field Fully prepare for this new exam using expert content and real-world knowledge, key exam essentials, chapter review questions, and other textual resources Benefit from access to the Sybex online interactive learning environment and test bank, including chapter tests, practice exams, key term glossary, and electronic flashcards The AWS Certified Cloud Practitioner Study Guide is essential reading for any professional in IT or other fields that work directly with AWS, soon-to-be graduates studying in those areas, or anyone hoping to prove themselves as an AWS Certified Cloud Practitioner.

Delve deep into various security aspects of AWS to build and maintain a secured environment Key Features ?Learn to secure your network, infrastructure, data, and applications in AWS cloud ?Use AWS managed security services to automate security ?Dive deep into various aspects such as the security model, compliance, access management and much more to build and maintain a secured environment ?Explore Cloud Adoption Framework (CAF) and its components ?Embedded with assessments that will help you revise the concepts you have learned in this book Book Description With organizations moving their workloads, applications, and infrastructure to the cloud at an unprecedented pace, security of all these resources has been a paradigm shift for all those who are responsible for security; experts, novices, and apprentices alike. This book focuses on using native AWS security features and managed AWS services to help you achieve continuous security. Starting with an introduction to Virtual Private Cloud (VPC) to secure your AWS VPC, you will quickly explore various components that make up VPC such as subnets, security groups, various gateways, and many more. You will also learn to protect data in the AWS platform for various AWS services by encrypting and decrypting data in AWS. You will also learn to secure web and mobile applications in AWS cloud. This book is ideal for all IT professionals, system administrators, security analysts, solution architects, and chief information security officers who are responsible for securing workloads in AWS for their organizations. This book is embedded with useful assessments that will help you revise the concepts you have learned in this book. What you will learn ?Get familiar with VPC components, features, and benefits ?Learn to create and secure your private network in AWS ?Explore encryption and decryption fundamentals ?Understand monitoring, logging, and auditing in AWS ?Ensure data security in AWS ?Secure your web and mobile applications in AWS ?Learn security best practices for IAM, VPC, shared security responsibility model, and so on Who this book is for This book is for all IT professionals, system administrators, security analysts, solution architects, and chief information security officers who are responsible for securing workloads in AWS for their organizations.

This book provides readers with an overview of Cloud Computing, starting with historical background on mainframe computers and early networking protocols, leading to current concerns such as hardware and systems security, performance, emerging areas of IoT, Edge Computing etc. Readers will benefit from the in-depth discussion of cloud computing usage and the underlying architectures. The authors explain carefully the “why’s and how’s” of Cloud Computing, so engineers will find this book an invaluable source of information to the topic. This second edition includes new material on Cloud Computing Security, Threat Vectors and Trust Models, as well as best practices for a using dynamic cloud infrastructure, and cloud operations management. Several new examples and analysis of cloud security have been added, including edge computing with IoT devices.

Develop advanced skills for working with Linux systems on-premises and in the cloud Key Features Become proficient in everyday Linux administration tasks by mastering the Linux command line and using automation Work with the Linux filesystem, packages, users, processes, and daemons Deploy Linux to the cloud with AWS, Azure, and Kubernetes Book Description Linux plays a significant role in modern data center management and provides great versatility in deploying and managing your workloads on-premises and in the cloud. This book covers the important topics you need to know about for your everyday Linux administration tasks. The book starts by helping you understand the Linux command line and how to work with files, packages, and filesystems. You'll then begin administering network services and hardening security, and learn about cloud computing, containers, and orchestration. Once you've learned how to work with the command line, you'll explore the essential Linux commands for

managing users, processes, and daemons and discover how to secure your Linux environment using application security frameworks and firewall managers. As you advance through the chapters, you'll work with containers, hypervisors, virtual machines, Ansible, and Kubernetes. You'll also learn how to deploy Linux to the cloud using AWS and Azure. By the end of this Linux book, you'll be well-versed with Linux and have mastered everyday administrative tasks using workflows spanning from on-premises to the cloud. If you also find yourself adopting DevOps practices in the process, we'll consider our mission accomplished. What you will learn Understand how Linux works and learn basic to advanced Linux administration skills Explore the most widely used commands for managing the Linux filesystem, network, security, and more Get to grips with different networking and messaging protocols Find out how Linux security works and how to configure SELinux, AppArmor, and Linux iptables Work with virtual machines and containers and understand container orchestration with Kubernetes Work with containerized workflows using Docker and Kubernetes Automate your configuration management workloads with Ansible Who this book is for If you are a Linux administrator who wants to understand the fundamentals and as well as modern concepts of Linux system administration, this book is for you. Windows System Administrators looking to extend their knowledge to the Linux OS will also benefit from this book.

Are you looking for a low-cost, scalable, and highly reliable infrastructure platform in the cloud to boost your business? If yes then you are in the right place! If you've lately come across Amazon Web Services as a cloud computing solution, perhaps the reason you're reading this is to know what it is, what it does, how it operates, how it can be of use to you, how to begin using it, the consequences of adoption, and more. Lucky for you, this book is all about this and much more. Commonly known as cloud computing nowadays, web services in the form of IT infrastructure services began to be offered by Amazon in 2004 for public use. AWS cloud computing provides a low-cost, scalable, and highly reliable infrastructure platform in the cloud. This has been adopted by thousands of businesses globally. At present, its regions include locations like Asia Pacific, European Union, North America, South America, Canada, China, etc. WHY SHOULD YUOUR BUSINESS NEED AWS TOO? There are 4 reasons at least: -Security: To ensure the safety and integrity of your data, Amazon's data centers and services have several layers of physical and operational security. -Cost Effectiveness: You have to pay only for as much as you use. No upfront investment is required. -Flexibility: You can select the programming model or development platform that can be the most beneficial for your business. -Scalability: You can quickly scale up or scale down on the basis of demand. This book covers the basics of an end-user (maybe a business owner or business executive) who cares less about the technical aspects of its implementation to help you make an informed decision that understands what makes it different from all other cloud service providers out there. It goes deep and wide, answering almost every question you may have about AWS from different angles to give you an in-depth understanding of why AWS is perhaps considered to be the most flexible, highly scalable, cost-effective and reliable infrastructure you can use to deploy secure web solutions with minimal support whatever your requirements! What You Will Learn: Why cloud computing is the way to get any business, whatever its size, to a worldwide scale Detailed understanding of AWS features that make it stand out from the rest Myths about AWS that you should to stop accepting as true Fundamental building bl??k? in the AWS ?nvir?nm?nt that make it a flawless solution to implement How to rely on AWS can transform your company for the better The weaknesses of AWS that you need to be conscious of before you adopt it O?ti?n?l AWS su???rt s?rvi??? that you can use to enhance user experience Put Your Feet Into The Realm Of Amazon Web Services (AWS) To Know A Limitless Sea Of Possibilities! Scroll up, click on "Buy Now" and Start Scaling Your Business!

Virtual, hands-on learning labs allow you to apply your technical skills in realistic environments. So Sybex has bundled AWS labs from XtremeLabs with our popular AWS Certified Cloud Practitioner Study Guide to give you the same experience working in these labs as you prepare for the Certified Cloud Practitioner Exam that you would face in a real-life application. These labs in addition to the book are a proven way to prepare for the certification and for work as an AWS Cloud Practitioner. The AWS Certified Cloud Practitioner Study Guide: Exam CLF-C01 provides a solid introduction to this industry-leading technology, relied upon by thousands of businesses across the globe, as well as the resources you need to prove your knowledge in the AWS Certification Exam. This guide offers complete and thorough treatment of all topics included in the exam, beginning with a discussion of what the AWS cloud is and its basic global infrastructure and architectural principles. Other chapters dive into the technical, exploring core characteristics of deploying and operating in the AWS Cloud Platform, as well as basic security and compliance aspects and the shared security model. In addition, the text identifies sources of documentation or technical assistance, such as white papers or support tickets. To complete their coverage, the authors discuss the AWS Cloud value proposition and define billing, account management, and pricing models. This includes describing the key services AWS can provide and their common use cases (e.g., compute, analytics, etc.). Distinguish yourself as an expert by obtaining a highly desirable certification in a widely used platform Hone your skills and gain new insights on AWS whether you work in a technical, managerial, sales, purchasing, or financial field Fully prepare for this new exam using expert content and real-world knowledge, key exam essentials, chapter review questions, and other textual resources Benefit from access to the Sybex online interactive learning environment and test bank, including chapter tests, practice exams, key term glossary, and electronic flashcards XtremeLabs virtual labs that run from your browser. The registration code is included with the book and gives you 6 months unlimited access to XtremeLabs AWS Certified Cloud Practitioner Labs with 8 unique lab modules based on the book. The AWS Certified Cloud Practitioner Study Guide is essential reading for any professional in IT or other fields that work directly with AWS, soon-to-be graduates studying in those areas, or anyone hoping to prove themselves as an AWS Certified Cloud Practitioner.

Learn to design, build, and manage your infrastructure on the most popular of all the Cloud platforms—Amazon Web Services About This Book Learn how to leverage various Amazon Web Services (AWS) components and services to build a secure, reliable, and robust environment to host your applications on Deep dive into the core AWS service offerings with hands-on tutorials, real-world use case scenarios, and best practices A self-paced, systematic, and step-by-step guide to learning and implementing AWS in your

own environment Who This Book Is For This book is for those who want to learn and leverage AWS. Although no prior experience with AWS is required, it is recommended that you have some hands-on experienceofLinux, Web Services, and basic networking What You Will Learn A brief introduction to Cloud Computing and AWS accompanied by steps to sign up for your first AWS account Create and manage users, groups, and permissions using AWSS Identity and Access Management services Get started with deploying and accessing EC2 instances, working with EBS Volumes and Snapshots Customize and create your very own Amazon Machine Image Design and deploy your instances on a highly secured, network isolated environment using Amazon VPC Effectively monitor your AWS environment using specialized alarms, custom monitoring metrics, and much more Explore the various benefits of Database-as-a-Service offerings and leverage them using Amazon RDS and Amazon DynamoDB Take an in-depth look at what's new with AWS, including EC2 Container Service and Elastic File System In Detail AWS is at the forefront of Cloud Computing today. Many businesses are moving away from traditional datacenters and toward AWS because of its reliability, vast service offerings, lower costs, and high rate of innovation. Because of its versatility and flexible design, AWS can be used to accomplish a variety of simple and complicated tasks such as hosting multitier websites, running large scale parallel processing, content delivery, petabyte storage and archival, and lots more. Whether you are a seasoned sysadmin or a rookie, this book will provide you with all the necessary skills to design, deploy, and manage your applications on the AWS cloud platform. The book guides you through the core AWS services such as IAM, EC2, VPC, RDS, and S3 using a simple real world application hosting example that you can relate to. Each chapter is designed to provide you with the most information possible about a particular AWS service coupled with easy to follow hands-on steps, best practices, tips, and recommendations. By the end of the book, you will be able to create a highly secure, fault tolerant, and scalable environment for your applications to run on. Style and approach This in-depth and insightful guide is filled with easy-to-follow examples, real-world use cases, best practices, and recommendations that will help you design and leverage AWS.

Get prepared for the AWS Certified Security Specialty certification with this excellent resource By earning the AWS Certified Security Specialty certification, IT professionals can gain valuable recognition as cloud security experts. The AWS Certified Security Study Guide: Specialty (SCS-C01) Exam helps cloud security practitioners prepare for success on the certification exam. It’s also an excellent reference for professionals, covering security best practices and the implementation of security features for clients or employers. Architects and engineers with knowledge of cloud computing architectures will find significant value in this book, which offers guidance on primary security threats and defense principles. Amazon Web Services security controls and tools are explained through real-world scenarios. These examples demonstrate how professionals can design, build, and operate secure cloud environments that run modern applications. The study guide serves as a primary source for those who are ready to apply their skills and seek certification. It addresses how cybersecurity can be improved using the AWS cloud and its native security services. Readers will benefit from detailed coverage of AWS Certified Security Specialty Exam topics. Covers all AWS Certified Security Specialty exam topics Explains AWS cybersecurity techniques and incident response Covers logging and monitoring using the Amazon cloud Examines infrastructure security Describes access management and data protection With a single study resource, you can learn how to enhance security through the automation, troubleshooting, and development integration capabilities available with cloud computing. You will also discover services and tools to develop security plans that work in sync with cloud adoption.