Technical Specification Aws

With this practical book, AI and machine learning practitioners will learn how to successfully build and deploy data science projects on Amazon Web Services. The Amazon AI and machine learning stack unifies data science, data engineering, and application development to help level upyour skills. This guide shows you how to build and run pipelines in the cloud, then integrate the results into applications in minutes instead of days. Throughout the book, authors Chris Fregly and Antje Barth demonstrate how to reduce cost and improve performance. Apply the Amazon AI and ML stack to real-world use cases for natural language processing, computer vision, fraud detection, conversational devices, and more Use automated machine learning to implement a specific subset of use cases with SageMaker Autopilot Dive deep into the complete model development lifecycle for a BERT-based NLP use case including data ingestion, analysis, model training, and deployment Tie everything together into a repeatable machine learning operations pipeline Explore real-time ML, anomaly detection, and streaming analytics on data streams with Amazon Kinesis and Managed Streaming for Apache Kafka Learn security best practices for data science projects and workflows including identity and access management,

authentication, authorization, and more
Run Docker on AWS and build real-world, secure, and scalable container platforms on cloud Key Features Configure Docker for the ECS environment Integrate Docker with different AWS tools Implement container networking and deployment at scale Book Description Over the last few years, Docker has been the gold standard for building and distributing container applications. Amazon Web Services (AWS) is a leader in public cloud computing, and was the first to offer a managed container platform in the form of the Elastic Container Service (ECS). Docker on Amazon Web Services starts with the basics of containers, Docker, and AWS, before teaching you how to install Docker on your local machine and establish access to your AWS account. You'll then dig deeper into the ECS, a native container management platform provided by AWS that simplifies management and operation of your Docker clusters and applications for no additional cost. Once you have got to grips with the basics, you'll solve key operational challenges, including secrets management and auto-scaling your infrastructure and applications. You'll explore alternative strategies for deploying and running your Docker applications on AWS, including Fargate and ECS Service Discovery, Elastic Beanstalk, Docker Swarm and Elastic Kubernetes Service (EKS). In addition to this, there will be a strong focus on adopting an

Infrastructure as Code (IaC) approach using AWS CloudFormation. By the end of this book, you'll not only understand how to run Docker on AWS, but also be able to build real-world, secure, and scalable container platforms in the cloud. What you will learn Build, deploy, and operate Docker applications using AWS Solve key operational challenges, such as secrets management Exploit the powerful capabilities and tight integration of other AWS services Design and operate Docker applications running on ECS Deploy Docker applications quickly, consistently, and reliably using IaC Manage and operate Docker clusters and applications for no additional cost Who this book is for Docker on Amazon Web Services is for you if you want to build, deploy, and operate applications using the power of containers, Docker, and Amazon Web Services. Basic understanding of containers and Amazon Web Services or any other cloud provider will be helpful, although no previous experience of working with these is required.

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.

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 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.

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, deploy, and test your Python applications, analyses, and models with ease using Streamlit Key Features Learn how to showcase machine learning models in a Streamlit application effectively and efficiently Become an expert

Streamlit creator by getting hands-on with complex application creation Discover how Streamlit enables you to create and deploy apps effortlessly Book Description Streamlit shortens the development time for the creation of data-focused web applications, allowing data scientists to create web app prototypes using Python in hours instead of days. Getting Started with Streamlit for Data Science takes a hands-on approach to helping you learn the tips and tricks that will have you up and running with Streamlit in no time. You'll start with the fundamentals of Streamlit by creating a basic app and gradually build on the foundation by producing high-quality graphics with data visualization and testing machine learning models. As you advance through the chapters, you'll walk through practical examples of both personal data projects and work-related data-focused web applications, and get to grips with more challenging topics such as using Streamlit Components, beautifying your apps, and quick deployment of your new apps. By the end of this book, you'll be able to create dynamic web apps in Streamlit quickly and effortlessly using the power of Python. What you will learn Set up your first development environment and create a basic Streamlit app from scratch Explore methods for uploading, downloading, and manipulating data in Streamlit apps Create dynamic visualizations in Streamlit using built-in and imported Python libraries Discover strategies for creating and deploying

machine learning models in Streamlit Use Streamlit sharing for one-click deployment Beautify Streamlit apps using themes, Streamlit Components, and Streamlit sidebar Implement best practices for prototyping your data science work with Streamlit Who this book is for This book is for data scientists and machine learning enthusiasts who want to create web apps using Streamlit. Whether you're a junior data scientist looking to deploy your first machine learning project in Python to improve your resume or a senior data scientist who wants to use Streamlit to make convincing and dynamic data analyses, this book will help you get there! Prior knowledge of Python programming will assist with understanding the concepts covered.

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.

Learn from the AWS subject-matter experts, apply real-world scenarios and clear the AWS Certified Solutions Architect –Associate exam Key Features Build highly reliable and scalable workloads on the AWS platform Pass the exam in less time and with confidence Get up and running with building and managing applications on the AWS platform Book Description Amazon Web Services (AWS) is currently the leader in the public cloud market. With an increasing global interest in leveraging cloud infrastructure, the AWS Cloud from Amazon offers a cutting-edge platform for architecting, building, and deploying web-scale cloud applications. As more the rate of cloud platform adoption increases, so does the need for cloud certification. The AWS Certified Solution Architect – Associate Guide is your one-stop solution to gaining certification. Once you have grasped what AWS and its prerequisites are, you will get insights into different types of AWS services such as Amazon S3, EC2, VPC, SNS, and more to get you prepared with core Amazon services. You will then move on to understanding how to design and deploy highly scalable applications. Finally, you will

study security concepts along with the AWS best practices and mock papers to test your knowledge. By the end of this book, you will not only be fully prepared to pass the AWS Certified Solutions Architect – Associate exam but also capable of building secure and reliable applications. What you will learn Explore AWS terminology and identity and access management Acquaint yourself with important cloud services and features in categories such as compute, network, storage, and databases Define access control to secure AWS resources and set up efficient monitoring Back up your database and ensure high availability by understanding all of the database-related services in the AWS Cloud Integrate AWS with your applications to meet and exceed non-functional requirements Build and deploy cost-effective and highly available applications Who this book is for The AWS Certified Solutions Architect –Associate Guide is for you if you are an IT professional or Solutions Architect wanting to pass the AWS Certified Solution Architect – Associate 2018 exam. This book is also for developers looking to start building scalable applications on AWS

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.

Discover how to build a cloud-based data warehouse at petabyte-scale that is burstable and built to scale for end-to-end analytical solutions Key Features Discover how to translate familiar data warehousing concepts into Redshift implementation Use impressive Redshift features to optimize development, productionizing, and operations processes Find out how to use advanced features such as concurrency scaling, Redshift Spectrum, and federated queries Book Description Amazon Redshift is a fully managed, petabyte-scale AWS cloud data warehousing service. It enables you to build new data warehouse workloads on AWS and migrate on-premises traditional data warehousing platforms to Redshift. This book on Amazon Redshift starts by focusing on Redshift architecture, showing you how to perform database administration tasks on Redshift. You'll then learn how to optimize your data warehouse to quickly execute complex analytic queries against very large datasets. Because of the massive amount of data involved in data warehousing, designing your database for analytical processing lets you take full advantage of Redshift's columnar architecture and managed services.

As you advance, you'll discover how to deploy fully automated and highly scalable extract, transform, and load (ETL) processes, which help minimize the operational efforts that you have to invest in managing regular ETL pipelines and ensure the timely and accurate refreshing of your data warehouse. Finally, you'll gain a clear understanding of Redshift use cases, data ingestion, data management, security, and scaling so that you can build a scalable data warehouse platform. By the end of this Redshift book, you'll be able to implement a Redshift-based data analytics solution and have understood the best practice solutions to commonly faced problems. What you will learn Use Amazon Redshift to build petabyte-scale data warehouses that are agile at scale Integrate your data warehousing solution with a data lake using purpose-built features and services on AWS Build end-to-end analytical solutions from data sourcing to consumption with the help of useful recipes Leverage Redshift's comprehensive security capabilities to meet the most demanding business requirements Focus on architectural insights and rationale when using analytical recipes Discover best practices for working with big data to operate a fully managed solution Who this book is for This book is for anyone involved in architecting, implementing, and optimizing an Amazon Redshift data warehouse, such as data warehouse developers, data analysts, database administrators, data engineers, and data scientists. Basic knowledge of data warehousing, database systems, and cloud concepts and familiarity with Redshift will be beneficial.

A comprehensive guide in developing and deploying high performance microservices with Rust Key Features Start your microservices journey and get a broader perspective on microservices development using RUST 2018, Build, deploy, and test microservices using AWS Explore advanced techniques for developing microservices such as actor model, Requests Routing, and threads Book Description Microservice architecture is sweeping the world as the de facto pattern for building web-based applications. Rust is a language particularly well-suited for building microservices. It is a new system programming language that offers a practical and safe alternative to C. This book describes web development using the Rust programming language and will get you up and running with modern web frameworks and crates with examples of RESTful microservices creation. You will deep dive into Reactive programming, and asynchronous programming, and split your web application into a set of concurrent actors. The book provides several HTTP-handling examples with manageable memory allocations. You will walk through stateless high-performance microservices, which are ideally suitable for computation or caching tasks, and look at stateful microservices, which are filled with persistent data and database interactions. As we move along, you will learn how to use Rust macros to describe business or protocol entities of our application and compile them into native structs, which will be performed at full speed with the help of the server's CPU. Finally, you will be taken through examples of how to test and debug microservices and pack them into a tiny monolithic binary or put them

into a container and deploy them to modern cloud platforms such as AWS. What you will learn Get acquainted with leveraging Rust web programming Get to grips with various Rust crates, such as hyper, Tokio, and Actix Explore RESTful microservices with Rust Understand how to pack Rust code to a container using Docker Familiarize yourself with Reactive microservices Deploy your microservices to modern cloud platforms such as AWS Who this book is for This book is for developers who have basic knowledge of RUST, and want to learn how to build, test, scale, and manage RUST microservices. No prior experience of writing microservices in RUST is assumed. Scale and maintain outstanding performance in your AWS-based infrastructure using DevOps principles Key Features Implement continuous integration and continuous deployment pipelines on AWS Gain insight from an expert who has worked with Silicon Valley's most high-profile companies Implement DevOps principles to take full advantage of the AWS stack and services Book Description The DevOps movement has transformed the way modern tech companies work. Amazon Web Services (AWS), which has been at the forefront of the cloud computing revolution, has also been a key contributor to the DevOps movement, creating a huge range of managed services that help you implement DevOps principles. Effective DevOps with AWS, Second Edition will help you to understand how the most successful tech start-ups launch and scale their services on AWS, and will teach you how you can do the same. This book explains how to treat infrastructure as code, meaning you can bring resources online

and offline as easily as you control your software. You will also build a continuous integration and continuous deployment pipeline to keep your app up to date. Once you have gotten to grips will all this, we'll move on to how to scale your applications to offer maximum performance to users even when traffic spikes, by using the latest technologies, such as containers. In addition to this, you'll get insights into monitoring and alerting, so you can make sure your users have the best experience when using your service. In the concluding chapters, we'll cover inbuilt AWS tools such as CodeDeploy and CloudFormation, which are used by many AWS administrators to perform DevOps. By the end of this book, you'll have learned how to ensure the security of your platform and data, using the latest and most prominent AWS tools. What you will learn Implement automatic AWS instance provisioning using CloudFormation Deploy your application on a provisioned infrastructure with Ansible Manage infrastructure using Terraform Build and deploy a CI/CD pipeline with Automated Testing on AWS Understand the container journey for a CI/CD pipeline using AWS ECS Monitor and secure your AWS environment Who this book is for Effective DevOps with AWS is for you if you are a developer, DevOps engineer, or you work in a team which wants to build and use AWS for software infrastructure. Basic computer science knowledge is required to get the most out of this book.
Accelerate your company's growth in a disciplined fashion. This book provides leaders of large and small companies a proven comprehensive framework to think

systematically about growth options and to yield practical strategies that produce faster growth. Drawing insights from case studies of successful and unsuccessful companies, strategy teacher and venture capitalist Peter Cohan models his systematic approach to brainstorming, evaluating, and implementing growth strategies across five dimensions: Customers, Geography, Products, Capabilities, Culture. He examines each of these five growth dimensions in turn, selecting and organizing his cases to compare the growth strategies deployed successfully and unsuccessfully by large and small companies along the given dimension. In each of his five dimensional chapters, the author derives from his case analyses the key principles and processes for creating and achieving faster growth. Professor Cohan draws on a network of hundreds of founders, CEOs, and investors developed through his decades of consulting, authorship of 11 books, and over five years as a Forbes columnist. He shows through many compelling stories how leaders craft effective growth strategies. Business leaders will learn the following lessons from this book: Achieving rapid but sustainable growth is a business leader's most important responsibility – and leaders must approach this challenge with a mixture of vision, intellectual humility, and a willingness to experiment and learn from failure. The growth challenges facing companies that are currently growing quickly differ from the ones that stagnating or shrinking companies must overcome. Companies can achieve growth along one or more of the dimensions simultaneously – and they often expand geographically to customers in the same segments. Useful insights can emerge

from comparing case studies of successful and unsuccessful companies pursuing similar growth strategies. Companies should select a growth strategy based on three factors: the attractiveness of the growth opportunity, the company's capabilities to provide superior value to customers in the selected market, and the expected return on investment in the growth vector. Companies should select a growth strategy that best fits their capabilities and culture and they must enhance both to adapt to new growth opportunities. Who This Book Is For The people in companies who are responsible for growth: chief executive officers, chief marketing officers, chief product officers, heads of business development, product managers, sales people, and human resources managers

Develop proficiency in AWS technologies and validate your skills by becoming an AWS Certified Cloud Practitioner Key Features Develop the skills to design highly available and fault-tolerant solutions in the cloud Learn how to adopt best-practice security measures in your cloud applications Achieve credibility through industry-recognized AWS Cloud Practitioner certification Book Description Amazon Web Services is the largest cloud computing service provider in the world. Its foundational certification, AWS Certified Cloud Practitioner (CLF-C01), is the first step to fast-tracking your career in cloud computing. This certification will add value even to those in non-IT roles, including professionals from sales,

legal, and finance who may be working with cloud computing or AWS projects. If you are a seasoned IT professional, this certification will make it easier for you to prepare for more technical certifications to progress up the AWS ladder and improve your career prospects. The book is divided into four parts. The first part focuses on the fundamentals of cloud computing and the AWS global infrastructure. The second part examines key AWS technology services, including compute, network, storage, and database services. The third part covers AWS security, the shared responsibility model, and several security tools. In the final part, you'll study the fundamentals of cloud economics and AWS pricing models and billing practices. Complete with exercises that highlight best practices for designing solutions, detailed use cases for each of the AWS services, quizzes, and two complete practice tests, this CLF-C01 exam study guide will help you gain the knowledge and hands-on experience necessary to ace the AWS Certified Cloud Practitioner exam. What you will learn Create an AWS account to access AWS cloud services in a secure and isolated environment Understand identity and access management (IAM), encryption, and multifactor authentication (MFA) protection Configure multifactor authentication for your IAM accounts Configure AWS services such as EC2, ECS, Lambda, VPCs, and Route53 Explore various storage and database services such as S3,

EBS, and Amazon RDS Study the fundamentals of modern application design to shift from a monolithic to microservices architecture Design highly available solutions with decoupling ingrained in your design architecture Who this book is for If you're looking to advance your career and gain expertise in cloud computing, with particular focus on the AWS platform, this book is for you. This guide will help you ace the AWS Certified Cloud Practitioner Certification exam, enabling you to embark on a rewarding career in cloud computing. No previous IT experience is essential to get started with this book, since it covers core IT fundamentals from the ground up.

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.

Swiftly build and deploy machine learning models without managing infrastructure and boost productivity using the latest Amazon SageMaker capabilities such as Studio, Autopilot, Data Wrangler, Pipelines, and Feature Store Key Features Build, train, and deploy machine learning models quickly using Amazon SageMaker Optimize the accuracy, cost, and fairness of your models Create and automate end-to-end machine learning workflows on Amazon Web Services (AWS) Book Description Amazon SageMaker enables you to quickly build, train, and deploy machine learning models at scale without managing any infrastructure. It helps you focus on the machine learning problem at hand and deploy high-quality models by eliminating the heavy lifting typically involved in each step of the ML process. This second edition will help data scientists and ML developers to explore new features such as SageMaker Data

Wrangler, Pipelines, Clarify, Feature Store, and much more. You'll start by learning how to use various capabilities of SageMaker as a single toolset to solve ML challenges and progress to cover features such as AutoML, built-in algorithms and frameworks, and writing your own code and algorithms to build ML models. The book will then show you how to integrate Amazon SageMaker with popular deep learning libraries, such as TensorFlow and PyTorch, to extend the capabilities of existing models. You'll also see how automating your workflows can help you get to production faster with minimum effort and at a lower cost. Finally, you'll explore SageMaker Debugger and SageMaker Model Monitor to detect quality issues in training and production. By the end of this Amazon book, you'll be able to use Amazon SageMaker on the full spectrum of ML workflows, from experimentation, training, and monitoring to scaling, deployment, and automation. What you will learn Become well-versed with data annotation and preparation techniques Use AutoML features to build and train machine learning models with AutoPilot Create models using built-in algorithms and frameworks and your own code Train computer vision and natural language processing (NLP) models using real-world examples Cover training techniques for scaling, model optimization, model debugging, and cost optimization Automate deployment tasks in a variety of configurations using SDK and several

automation tools Who this book is for This book is for software engineers, machine learning developers, data scientists, and AWS users who are new to using Amazon SageMaker and want to build high-quality machine learning models without worrying about infrastructure. Knowledge of AWS basics is required to grasp the concepts covered in this book more effectively. A solid understanding of machine learning concepts and the Python programming language will also be beneficial.

Get to grips with security assessment, vulnerability exploitation, workload security, and encryption with this guide to ethical hacking and learn to secure your AWS environment Key Features Perform cybersecurity events such as red or blue team activities and functional testing Gain an overview and understanding of AWS penetration testing and security Make the most of your AWS cloud infrastructure by learning about AWS fundamentals and exploring pentesting best practices Book Description Cloud security has always been treated as the highest priority by AWS while designing a robust cloud infrastructure. AWS has now extended its support to allow users and security experts to perform penetration tests on its environment. This has not only revealed a number of loopholes and brought vulnerable points in their existing system to the fore, but has also opened up opportunities for organizations to build a secure cloud

environment. This book teaches you how to perform penetration tests in a controlled AWS environment. You'll begin by performing security assessments of major AWS resources such as Amazon EC2 instances, Amazon S3, Amazon API Gateway, and AWS Lambda. Throughout the course of this book, you'll also learn about specific tests such as exploiting applications, testing permissions flaws, and discovering weak policies. Moving on, you'll discover how to establish private-cloud access through backdoor Lambda functions. As you advance, you'll explore the no-go areas where users can't make changes due to vendor restrictions and find out how you can avoid being flagged to AWS in these cases. Finally, this book will take you through tips and tricks for securing your cloud environment in a professional way. By the end of this penetration testing book, you'll have become well-versed in a variety of ethical hacking techniques for securing your AWS environment against modern cyber threats. What you will learn Set up your AWS account and get well-versed in various pentesting services Delve into a variety of cloud pentesting tools and methodologies Discover how to exploit vulnerabilities in both AWS and applications Understand the legality of pentesting and learn how to stay in scope Explore cloud pentesting best practices, tips, and tricks Become competent at using tools such as Kali Linux, Metasploit, and Nmap Get to grips with post-exploitation procedures and

find out how to write pentesting reports Who this book is for If you are a network engineer, system administrator, or system operator looking to secure your AWS environment against external cyberattacks, then this book is for you. Ethical hackers, penetration testers, and security consultants who want to enhance their cloud security skills will also find this book useful. No prior experience in penetration testing is required; however, some understanding of cloud computing or AWS cloud is recommended.

AWS Certified Solutions Architect Associate (SAA-C02) The AWS Certified Solutions Architect - Associate examination is intended for individuals who perform a solutions architect role and have one or more years of hands-on experience designing available, cost-efficient, fault-tolerant, and scalable distributed systems on AWS. Abilities Validated by the Certification Effectively demonstrate knowledge of how to architect and deploy secure and robust applications on AWS technologies Define a solution using architectural design principles based on customer requirements Provide implementation guidance based on best practices to the organization throughout the life cycle of the project Recommended Knowledge and Experience Hands-on experience using compute, networking, storage, and database AWS services Hands-on experience with AWS deployment and management services Ability to identify and define

technical requirements for an AWS-based application Ability to identify which AWS services meet a given technical requirement Knowledge of recommended best practices for building secure and reliable applications on the AWS platform An understanding of the basic architectural principles of building on the AWS Cloud An understanding of the AWS global infrastructure An understanding of network technologies as they relate to AWS An understanding of security features and tools that AWS provides and how they relate to traditional services 435+ most up-to-date and unique questionnaires verified by our extensive years of experienced experts to prepare for AWS Certified Solutions Architect - Associate (SAA-C02) exam. We proud to says that, many students have easily cleared the exam with good score by practiced these questions and personal study guides. Don't hesitate!!! Please buy the book confidently because we always update the book with current level exam questions so that you can fully prepared for the actual exam.

This Workbook is developed by multiple engineers that are specialized in different fields e.g. Big Data, Cloud, Information Security, Networking etc. Each of these engineers has developed content in his/her field of specialization, therefore, this training guide provides an in-depth understanding and complete course material to pass the AWS Certified Big Data - Specialty Exam. The

workbook is designed to develop a practical approach to learn real-life examples and case studies.

Get more from your data with Amazon Athena's ease-of-use, interactive performance, and pay-per-query pricing Key Features Explore the promising capabilities of Amazon Athena and Athena's Query Federation SDK Use Athena to prepare data for common machine learning activities Cover best practices for setting up connectivity between your application and Athena and security considerations Book Description Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using SQL, without needing to manage any infrastructure. This book begins with an overview of the serverless analytics experience offered by Athena and teaches you how to build and tune an S3 Data Lake using Athena, including how to structure your tables using open-source file formats like Parquet. You'll learn how to build, secure, and connect to a data lake with Athena and Lake Formation. Next, you'll cover key tasks such as ad hoc data analysis, working with ETL pipelines, monitoring and alerting KPI breaches using CloudWatch Metrics, running customizable connectors with AWS Lambda, and more. Moving on, you'll work through easy integrations, troubleshooting and tuning common Athena issues, and the most common reasons for query failure. You will also review tips to help diagnose and correct

failing queries in your pursuit of operational excellence. Finally, you'll explore advanced concepts such as Athena Query Federation and Athena ML to generate powerful insights without needing to touch a single server. By the end of this book, you'll be able to build and use a data lake with Amazon Athena to add data-driven features to your app and perform the kind of ad hoc data analysis that often precedes many of today's ML modeling exercises. What you will learn Secure and manage the cost of querying your data Use Athena ML and User Defined Functions (UDFs) to add advanced features to your reports Write your own Athena Connector to integrate with a custom data source Discover your datasets on S3 using AWS Glue Crawlers Integrate Amazon Athena into your applications Setup Identity and Access Management (IAM) policies to limit access to tables and databases in Glue Data Catalog Add an Amazon SageMaker Notebook to your Athena queries Get to grips with using Athena for ETL pipelines Who this book is for Business intelligence (BI) analysts, application developers, and system administrators who are looking to generate insights from an ever-growing sea of data while controlling costs and limiting operational burden, will find this book helpful. Basic SQL knowledge is expected to make the most out of this 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.

Develop technical skills and expertise to automate AWS networking tasks Key Features A fast paced guide that will help you pass the exam with confidence Learn advanced skill sets to build effective AWS networking solutions Enhance your AWS skills with practice exercises and mock tests Book Description Amazon has recently come up a with specialty certifications which validates a particular user's expertise that he/she would want to build a career in. Since the Cloud market now demands of AWS networking skills this becomes the most wanted certification to upheld ones industry portfolio. This book would be your

ideal companion to getting skilled with complex and creative networking solutions. Cloud practitioners or associate-level certified individuals interested in validating advanced skills in networking can opt for this practical guide. This book will include topics that will help you design and implement AWS and hybrid IT network architectures along with some network automation tasks. You will also delve deep into topics that will help you design and maintain network architecture for all AWS services. Like most of our certification guides this book will also follow a unique approach of testing your learning with chapter-level practice exercises and certification-based mock tests. The exam mock tests will help you gauge whether you are ready to take the certification exam or not. This book will also be an advanced guide for networking professionals to enhance their networking skills and get certified. By the end of this book, you will be all equipped with AWS networking concepts and techniques and will have mastered core architectural best practices. What you will learn Formulate solution plans and provide guidance on AWS architecture best practices Design and deploy scalable, highly available, and fault-tolerant systems on AWS Identify the tools required to replicate an on-premises network in AWS Analyze the access and egress of data to and from AWS Select the appropriate AWS service based on data, compute, database, or security requirements Estimate AWS costs and

identify cost control mechanisms Who this book is for If you are a system administrator, or a network engineer interested in getting certified with an advanced Cloud networking certification then this book is for you. Prior experience in Cloud administration and networking would be necessary. Build, deploy, test, and run cloud-native serverless applications using AWS Lambda and other popular AWS services Key Features Learn how to write, run, and deploy serverless applications in Amazon Web Services Make the most of AWS Lambda functions to build scalable and cost-efficient systems Build and deploy serverless applications with Amazon API Gateway and AWS Lambda functions Book Description Serverless computing is a way to run your code without having to provision or manage servers. Amazon Web Services provides serverless services that you can use to build and deploy cloud-native applications. Starting with the basics of AWS Lambda, this book takes you through combining Lambda with other services from AWS, such as Amazon API Gateway, Amazon DynamoDB, and Amazon Step Functions. You'll learn how to write, run, and test Lambda functions using examples in Node.js, Java, Python, and C# before you move on to developing and deploying serverless APIs efficiently using the Serverless Framework. In the concluding chapters, you'll discover tips and best practices for leveraging Serverless Framework to increase

your development productivity. By the end of this book, you'll have become well-versed in building, securing, and running serverless applications using Amazon API Gateway and AWS Lambda without having to manage any servers. What you will learn Understand the core concepts of serverless computing in AWS Create your own AWS Lambda functions and build serverless APIs using Amazon API Gateway Explore best practices for developing serverless applications at scale using Serverless Framework Discover the DevOps patterns in a modern CI/CD pipeline with AWS CodePipeline Build serverless data processing jobs to extract, transform, and load data Enforce resource tagging policies with continuous compliance and AWS Config Create chatbots with natural language understanding to perform automated tasks Who this book is for This AWS book is for cloud architects and developers who want to build and deploy serverless applications using AWS Lambda. A basic understanding of AWS is required to get the most out of this book.

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. Identify tools and techniques to secure and perform a penetration test on an AWS infrastructure using Kali Linux Key Features Efficiently perform penetration testing techniques on your public cloud instances Learn not only to cover loopholes but also to automate security monitoring and alerting within your cloud-based deployment pipelines A step-by-step guide that will help you leverage the most widely used security platform to secure your AWS Cloud environment Book Description The cloud is taking over the IT industry. Any organization housing a large amount of data or a large infrastructure has started moving cloud-ward — and AWS rules the roost when it comes to cloud service providers, with its closest competitor having less than half of its market share. This highlights the importance of security on the cloud, especially on AWS. While a lot has been said (and written) about how cloud environments can be secured, performing

external security assessments in the form of pentests on AWS is still seen as a dark art. This book aims to help pentesters as well as seasoned system administrators with a hands-on approach to pentesting the various cloud services provided by Amazon through AWS using Kali Linux. To make things easier for novice pentesters, the book focuses on building a practice lab and refining penetration testing with Kali Linux on the cloud. This is helpful not only for beginners but also for pentesters who want to set up a pentesting environment in their private cloud, using Kali Linux to perform a white-box assessment of their own cloud resources. Besides this, there is a lot of in-depth coverage of the large variety of AWS services that are often overlooked during a pentest — from serverless infrastructure to automated deployment pipelines. By the end of this book, you will be able to identify possible vulnerable areas efficiently and secure your AWS cloud environment. What you will learn Familiarize yourself with and pentest the most common external-facing AWS services Audit your own infrastructure and identify flaws, weaknesses, and loopholes Demonstrate the process of lateral and vertical movement through a partially compromised AWS account Maintain stealth and persistence within a compromised AWS account Master a hands-on approach to pentesting Discover a number of automated tools to ease the process of continuously assessing and improving the security stance

of an AWS infrastructure Who this book is for If you are a security analyst or a penetration tester and are interested in exploiting Cloud environments to reveal vulnerable areas and secure them, then this book is for you. A basic understanding of penetration testing, cloud computing, and its security concepts is mandatory.

Get to grips with the AWS Amplify framework and use it to build scalable cloud-native progressive web apps with React and cross-platform mobile apps with React Native in TypeScript Key Features Explore the capabilities of AWS Amplify with popular app frameworks for both web and mobile app platforms Build your first cloud-native web and mobile applications using AWS Amplify Leverage AWS Amplify to design GraphQL APIs for your web and mobile applications Book Description AWS Amplify is a modern toolkit that includes a command line interface (CLI); libraries for JS, iOS, and Android programming; UI component libraries for frameworks like React, Angular, and Vue.js for web development, and React Native and Flutter for mobile development. You'll begin by learning how to build AWS Amplify solutions with React and React Native with TypeScript from scratch, along with integrating it with existing solutions. This book will show you the fastest way to build a production-ready minimum viable product (MVP) within days instead of years. You'll also discover how to increase development

speed without compromising on quality by adopting behavior-driven development (BDD) and Cypress for end-to-end test automation, as well as the Amplify build pipeline (DevOps or CI/CD pipeline) to ensure optimal quality throughout continuous test automation and continuous delivery. As you advance, you'll work with React to determine how to build progressive web apps (PWAs) with Amplify and React Native for cross-platform mobile apps. In addition to this, you'll find out how to set up a custom domain name for your new website and set up the AWS Amplify Admin UI for managing the content of your app effectively. By the end of this AWS book, you'll be able to build a full-stack AWS Amplify solution all by yourself. What you will learn Build React and React Native apps with Amplify and TypeScript Explore pre-built Amplify UI components for rapid prototyping Add user management with Amplify authentication to your app Use Amplify GraphQL to create a blog post Discover how to upload photos to Amplify Storage Enable DevOps with the Amplify pipeline for your app Get to grips with BDD and test automation with Cypress and Cucumber Set up a custom domain name for your website and manage app content with the Amplify Admin UI Who this book is for This book is for developers and tech companies looking to develop cloud-native products rapidly with the AWS ecosystem. Web and mobile developers with little-to-no experience in TypeScript programming will also find this book helpful.

Although no prior experience with AWS or TypeScript is required, basic familiarity with modern frameworks such as React and React Native is useful.
This practical guide takes a hands-on approach to implementation and associated methodologies to have you up and running with all that Amazon Kinesis has to offer. You'll work with use cases and practical examples to be able to ingest, process, analyze, and stream real-time data in no time.
An effective guide to becoming an AWS Certified SysOps Administrator Key Features Not only pass the certification with confidence but also enhance your skills to solving real-world scenarios. A practical guide to getting you hands-on experience with application management, deployment, operation. Enhance your AWS skills with practice questions and mock tests. Book Description AWS certifications are becoming one of the must have certifications for any IT professional working on an AWS Cloud platform. This book will act as your one stop preparation guide to validate your technical expertise in deployment, management, and operations on the AWS platform. Along with exam specific content this book will also deep dive into real world scenarios and hands-on instructions. This book will revolve around concepts like teaching you to deploy, manage, and operate scalable, highly available, and fault tolerant systems on AWS. You will also learn to migrate an existing on-premises application to AWS. You get hands-on experience in selecting the appropriate AWS service based on compute, data, or security requirements. This book will also get you well versed with estimating AWS usage costs and identifying operational cost control mechanisms. By the end of this book, you will be all prepared to implement and manage resources efficiently on the AWS cloud along

with confidently passing the AWS Certified SysOps Administrator – Associate exam. What you will learn Create and manage users, groups, and permissions using AWS IAM services Create a secure VPC with public and private subnets, Network Access Control, and security groups Get started with launching your first EC2 instance, and working with it Handle application traffic with ELB and monitor AWS resources with CloudWatch Work with S3, Glacier, and CloudFront Work across distributed application components using SWF Understand event-based processing with Lambda and messaging SQS and SNS in AWS Get familiar with AWS deployment concepts and tools including Elastic Beanstalk, CloudFormation and AWS OpsWorks Who this book is for If you are a system administrator or a system engineer interested in leveraging the AWS platform to deploy applications then, this book is for you. IT professionals interested in passing the AWS Certified Sysops Administrator will also benefit from this book. Some basic understanding of working AWS components would do wonders. 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.

This document brings together a set of latest data points and publicly available information relevant for Retail & Consumer Goods Industry. We are very excited to share this content and believe that readers will benefit from this periodic publication immensely.

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.

A guide to Amazon Web services provides code samples and information on using APIs to create applications.

Understand the IAM toolsets, capabilities, and paradigms of the AWS platform and learn how to apply practical identity use cases to AWS at the administrative and application level Key Features Learn administrative lifecycle management and authorization Extend workforce identity to AWS for applications deployed to Amazon Web Services (AWS) Understand how to use native AWS IAM capabilities with apps deployed to AWS Book Description AWS identity management offers a powerful yet complex array of native capabilities and connections to existing enterprise identity systems for administrative and application identity use cases. This book breaks down the complexities involved by adopting a use-case-driven approach that helps identity and cloud engineers understand how to use the right mix of native AWS capabilities and external IAM components to achieve the business and security outcomes they want. You will begin by learning about the IAM toolsets and paradigms within AWS. This will allow you to determine how to best leverage them for administrative control, extending workforce identities to the cloud, and using IAM toolsets and paradigms on an app deployed on

AWS. Next, the book demonstrates how to extend your on-premise administrative IAM capabilities to the AWS backplane, as well as how to make your workforce identities available for AWS-deployed applications. In the concluding chapters, you'll learn how to use the native identity services with applications deployed on AWS. By the end of this IAM Amazon Web Services book, you will be able to build enterprise-class solutions for administrative and application identity using AWS IAM tools and external identity systems. What you will learn Understand AWS IAM concepts, terminology, and services Explore AWS IAM, Amazon Cognito, AWS SSO, and AWS Directory Service to solve customer and workforce identity problems Apply the concepts you learn about to solve business, process, and compliance challenges when expanding into AWS Navigate the AWS CLI to unlock the programmatic administration of AWS Explore how AWS IAM, its policy objects, and notational language can be applied to solve security and access management use cases Relate concepts easily to your own environment through IAM patterns and best practices Who this book is for Identity engineers and administrators, cloud administrators, security architects, or anyone who wants to explore and manage IAM solutions in AWS will find this book useful. Basic knowledge of AWS cloud infrastructure and services is required to understand the concepts covered in the book more effectively.

This book contains practical steps business users can take to implement data management in a number of ways, including data governance, data architecture, master data management, business intelligence, and others. It defines data strategy, and covers chapters that illustrate how to align a data strategy with the business strategy, a discussion on valuing data as an asset, the evolution of data management, and who should oversee a data strategy. This

provides the user with a good understanding of what a data strategy is and its limits. Critical to a data strategy is the incorporation of one or more data management domains. Chapters on key data management domains—data governance, data architecture, master data management and analytics, offer the user a practical approach to data management execution within a data strategy. The intent is to enable the user to identify how execution on one or more data management domains can help solve business issues. This book is intended for business users who work with data, who need to manage one or more aspects of the organization's data, and who want to foster an integrated approach for how enterprise data is managed. This book is also an excellent reference for students studying computer science and business management or simply for someone who has been tasked with starting or improving existing data management.