Aws Scripted How To Automate The Deployment Of Secure And Resilient Websites With Amazon Web Services Vpc Elb Ec2 Rds Iam Ses And Sns

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DevOps Bootcamp - Mitesh Soni 2017-05-30 Sharpen your DevOps knowledge with DevOps Bootcamp About This Book Improve your organization's performance to ensure smooth production of software and services. Learn how Continuous Integration and Continuous Delivery practices can be utilized to cultivate the DevOps culture. A fast-paced guide filled with illustrations and best practices to help you consistently ship quality software. Who This Book Is For The book is aimed at IT Developers and Operations—administrators who want to quickly learn and implement the DevOps culture in their organization. What You Will Learn Static Code Analysis using SOnarqube Configure a Maven-based JEE Web Application Perform Continuous Integration using Jenkins and VSTS Install and configure Docker Converge a Chef node using a Chef workstation Accomplish Continuous Delivery in Microsoft Azure VM and Microsoft Azure App Services (Azure Web Apps) using Jenkins Perform Load Testing using Apache JMeter Build and Release Automation using Visual Studio Team Services Monitor Cloud-based resources In Detail DevOps Bootcamp delivers practical learning modules in manageable chunks. Each chunk is delivered in a day, and each day is a productive one. Each day builds your competency in DevOps. You will be able to take the task you learn every day and apply it to cultivate the DevOps culture. Each chapter presents core concepts and key takeaways about a topic in DevOps and provides a series of hands-on exercises. You will not only learn the importance of basic concepts or practices of DevOps but also how to use different tools to automate application lifecycle management. We will start off by building the foundation of the DevOps concepts. On day two, we will perform Continuous Integration using

Jenkins and VSTS both by configuring Maven-based JEE Web Application?. We will also integrate Jenkins and Sonar qube for Static Code Analysis. Further, on day three, we will focus on Docker containers where we will install and configure Docker and also create a Tomcat Container to deploy our Java based web application. On day four, we will create and configure the environment for application deployment in AWS and Microsoft Azure Cloud for which we will use Infrastructure as a Service and Open Source Configuration Management tool Chef. For day five, our focus would be on Continuous Delivery. We will automate application deployment in Docker container using Jenkins Plugin, AWS EC2 using Script, AWS Elastic Beanstalk using Jenkins Plugin, Microsoft Azure VM using script, and Microsoft Azure App Services Using Jenkins. We will also configure Continuous Delivery using VSTS. We will then learn the concept of Automated Testing on day six using Apache JMeter and URL-based tests in VSTS. Further, on day seven, we will explore various ways to automate application lifecycle management using orchestration. We will see how Pipeline can be created in Jenkins and VSTS, so the moment Continuous? Integration is completed successfully, Continuous Delivery will start and application will be deployed. On the final day, our focus would be on Security access to Jenkins and Monitoring of CI resources, and cloud-based resources in AWS and Microsoft Azure Platform as a Service. Style and Approach This book is all about fast and intensive learning. This means we don't waste time in helping readers get started. The new content is basically about filling in with highly-effective examples to build new things, solving problems in newer and unseen ways, and solving real-world examples.

AWS Certified Advanced Networking Official Study Guide - Sidhartha Chauhan 2018-02-13

The official study guide for the AWS certification specialty exam The AWS Certified Advanced Networking Official Study Guide – Specialty Exam helps to ensure your preparation for the AWS Certified Advanced Networking – Specialty Exam. Expert review of AWS fundamentals align with the exam objectives, and detailed explanations of key exam topics merge with real-world scenarios to help you build the robust knowledge base you need to succeed on the exam—and in the field as an AWS Certified Networking specialist. Coverage includes the design, implementation, and deployment of cloud-based solutions; core AWS services implementation and knowledge of architectural best practices; AWS service architecture design and maintenance; networking automation; and more. You also get one year of free access to Sybex's online interactive learning environment and study tools, which features flashcards, a glossary, chapter tests, practice exams, and a test bank to help you track your progress and gauge your readiness as exam day grows near. The AWS credential validates your skills surrounding AWS and hybrid IT network architectures at scale. The exam assumes existing competency with advanced networking tasks, and assesses your ability to apply deep technical knowledge to the design and implementation of AWS services. This book provides comprehensive review and extensive opportunities for practice, so you can polish your skills and approach exam day with confidence. Study key exam essentials with expert insight Understand how AWS skills translate to real-world solutions Test your knowledge with challenging review questions Access online

study tools, chapter tests, practice exams, and more Technical expertise in cloud computing, using AWS, is in high demand, and the AWS certification shows employers that you have the knowledge and skills needed to deliver practical, forward-looking cloud-based solutions. The AWS Certified Advanced Networking Official Study Guide – Specialty Exam helps you learn what you need to take this next big step for your career.

AWS Ultimate Guide: From Beginners to Advanced - SK Singh 2022-12-28

This is a very comprehensive book on AWS, from beginners to advanced. The book has extensive diagrams to help understand topics much easier way. To make understanding the subject a smoother experience, the book is divided into the following sections: Cloud Computing AWS Fundamentals (What is AWS, AWS Account, AWS Free Tier, AWS Cost & Billing Management, AWS Global Cloud Infrastructure (part I)), IAM, EC2) AWS Advanced (EC2 Advanced, ELB, Advanced S3, Route 53, AWS Global Cloud Infrastructure (part II), Advanced Storage on AWS, AWS Monitoring, Audit, and Performance), AWS RDS and Databases (AWS RDS and Cache, AWS Databases) Serverless (Serverless Computing, AWS Integration, and Messaging) Container & CI/CD (Container, AWS CI/CD services) Data & Analytics (Data & Analytics) Machine Learning (AWS ML/AI Services) Security (AWS Security & Encryption, AWS Shared Responsibility Model, How to get Support on AWS, Advanced Identity) Networking (AWS Networking) Disaster Management (Backup, Recovery & Migrations) Solutions Architecture (Cloud Architecture Key Design Principles, AWS Well-Architected Framework, Classic Solutions Architecture) Practice Tests Includes AWS

services/features such as IAM, S3, EC2, EC2 purchasing options, EC2 placement groups, Load Balancers, Auto Scaling, S3 Glacier, S3 Storage classes, Route 53 Routing policies, CloudFront, Global Accelerator, EFS, EBS, Instance Store, AWS Snow Family, AWS Storage Gateway, AWS Transfer Family, Amazon CloudWatch, EventBridge, CloudWatch Insights, AWS CloudTrail, AWS Config, Amazon RDS, Amazon Aurora, Amazon ElatiCache, Amazon DocumentDB, Amazon Keyspaces, Amazon Quantum Ledger Database, Amazon Timestream, Amazon Managed Blockchain, AWS Lambda, Amazon DynamoDB, Amazon API Gateway, SQS, SNS, SES, Amazon Kinesis, Amazon Kinesis Firehose, Amazon Kinesis Data Analytics, Amazon Kinesis Data Streams, Amazon Kinesis ECS, Amazon Kinesis ECR, Amazon EKS, AWS CloudFormation, AWS Elastic Beanstalk, AWS CodeBuild, AWS OpsWorks, AWS CodeGuru, AWS CodeCommit, Amazon Athena, Amazon Redshift, Amazon EMR, Amazon QuickSight, AWS Glue, AWS Lake Formation, Amazon MSK, Amazon Rekognition, Amazon Transcribe, Amazon Polly, Amazon Translate, Amazon Lex, Amazon Connect, Amazon Comprehend, Amazon Comprehend Medical, Amazon SageMaker, Amazon Forecast, Amazon Kendra, Amazon Personalize, Amazon Textract, Amazon Fraud Detector, Amazon Sumerian, AWS WAF, AWS Shield Standard, AWS Shield Advanced, AWS Firewall Manager, AWS GuardDuty, Amazon Inspector, Amazon Macie, Amazon Detective, SSM Session Manager, AWS Systems Manager, S3 Replication & Encryption, AWS Organization, AWS Control Tower, AWS SSO, Amazon Cognito, AWS VPC, NAT Gateway, VPC Endpoints, VPC Peering, AWS Transit Gateway, AWS Site-to-Site VPC, Database Management Service (DMS), and many

others. In the last section, there are five practice test sets with answers, each containing 65 exam-like questions. Though these questions are more geared towards the AWS Certified Cloud Practitioner exam, the knowledge gained from them may help you in many AWS certification exams.

Ansible for Real-Life Automation - Gineesh Madapparambath 2022-09-30

Learn how to automate and manage your IT infrastructure and applications using Ansible Key FeaturesDevelop Ansible automation use cases by automating day-to-day IT and application operationsUse Ansible to automate private and public cloud, application containers, and container platformsImprove your DevOps workflow with AnsibleBook Description Get ready to leverage the power of Ansible's wide applicability to automate and manage IT infrastructure with Ansible for Real-Life Automation. This book will guide you in setting up and managing the free and open source automation tool and remote-managed nodes in the production and dev/staging environments. Starting with its installation and deployment, you'll learn automation using simple use cases in your workplace. You'll go beyond just Linux machines to use Ansible to automate Microsoft Windows machines, network devices, and private and public cloud platforms such as VMWare, AWS, and GCP. As you progress through the chapters, you'll integrate Ansible into your DevOps workflow and deal with application container management and container platforms such as Kubernetes. This Ansible book also contains a detailed introduction to Red Hat Ansible Automation Platform to help you get up to speed with Red Hat AAP and integration with CI/CD and ITSM. What's more, you'll implement efficient automation solutions while learning best practices and

methods to secure sensitive data using Ansible Vault and alternatives to automate non-supported platforms and operations using raw commands, command modules, and REST API calls. By the end of this book, you'll be proficient in identifying and developing real-life automation use cases using Ansible. What you will learnExplore real-life IT automation use cases and employ Ansible for automationDevelop playbooks with best practices for production environmentsApproach different automation use cases with the most suitable methodsUse Ansible for infrastructure management and automate VMWare, AWS, and GCPIntegrate Ansible with Terraform, Jenkins, OpenShift, and KubernetesManage container platforms such as Kubernetes and OpenShift with AnsibleGet to know the Red Hat Ansible Automation Platform and its capabilitiesWho this book is for This book is for DevOps and systems engineers looking to adopt Ansible as their automation tool. To get started with this book, basic knowledge of Linux is necessary, along with an understanding of how tasks are done the manual way before setting out to automate them.

Accelerating DevSecOps on AWS - Nikit Swaraj 2022-04-28

Build high-performance CI/CD pipelines that are powered by AWS and the most cutting-edge tools and techniques Key FeaturesMaster the full AWS developer toolchain for building high-performance, resilient, and powerful CI/CD pipelinesGet to grips with Chaos engineering, DevSecOps, and AIOps as applied to CI/CDEmploy the latest tools and techniques to build a CI/CD pipeline for application and infrastructureBook Description Continuous integration and continuous delivery (CI/CD) has never been simple, but these days the landscape is more bewildering than ever; its

terrain riddled with blind alleys and pitfalls that seem almost designed to trap the less-experienced developer. If you're determined enough to keep your balance on the cutting edge, this book will help you navigate the landscape with ease. This book will guide you through the most modern ways of building CI/CD pipelines with AWS, taking you step-by-step from the basics right through to the most advanced topics in this domain. The book starts by covering the basics of CI/CD with AWS. Once you're well-versed with tools such as AWS Codestar, Proton, CodeGuru, App Mesh, SecurityHub, and CloudFormation, you'll focus on chaos engineering, the latest trend in testing the fault tolerance of your system. Next, you'll explore the advanced concepts of AIOps and DevSecOps, two highly sought-after skill sets for securing and optimizing your CI/CD systems. All along, you'll cover the full range of AWS CI/CD features, gaining real-world expertise. By the end of this AWS book, you'll have the confidence you need to create resilient, secure, and performant CI/CD pipelines using the best techniques and technologies that AWS has to offer. What you will learnUse AWS Codestar to design and implement a full branching strategyEnforce Policy as Code using CloudFormation Guard and HashiCorp SentinelMaster app and infrastructure deployment at scale using AWS Proton and review app code using CodeGuruDeploy and manage production-grade clusters using AWS EKS, App Mesh, and X-RayHarness AWS Fault Injection Simulator to test the resiliency of your appWield the full arsenal of AWS Security Hub and Systems Manager for infrastructure security automationEnhance CI/CD pipelines with the AI-powered DevOps Guru serviceWho this book is for This book is for DevOps engineers, engineering managers, cloud

developers, and cloud architects. Basic experience with the software development life cycle, DevOps, and AWS is all you need to get started.

AWS Certified Advanced Networking - Specialty Exam Guide - Marko Sluga 2019-05-27

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.

AWS Certified Solutions Architect - Associate Exam Guide - SK Singh 2022-12-28

This book is a comprehensive exam guide to help prepare for AWS Certified Solutions Architect -- Associate exam. The book has extensive diagrams to help understand topics much easier way. The book is divided into different sections to logically group related chapters in one section. It has the following sections: AWS Fundamentals (What is AWS, AWS Account, AWS Free Tier, AWS Cost & Billing Management, AWS Global Cloud Infrastructure (part I)), IAM, EC2) AWS Advanced (EC2 Advanced, ELB, Advanced S3, Route 53, AWS Global Cloud Infrastructure (part II), Advanced Storage on AWS, AWS Monitoring, Audit, and Performance), AWS RDS and Databases (AWS RDS and Cache, AWS Databases) Serverless (Serverless Computing, AWS Integration, and Messaging) Container &

CI/CD (Container, AWS CI/CD services) Data & Analytics (Data & Analytics) Machine Learning (AWS ML/AI Services) Security (AWS Security & Encryption, AWS Shared Responsibility Model, How to get Support on AWS, Advanced Identity) Networking (AWS Networking) Disaster Management (Backup, Recovery & Migrations) Solutions Architecture (Cloud Architecture Key Design Principles, AWS Well-Architected Framework, Classic Solutions Architecture, Serverless Solutions Architecture, Solutions Architecture Miscellaneous) Practice Tests Includes 325 Practice Exam Questions with Answers The book Includes AWS services/features such as IAM, S3, EC2, EC2 purchasing options, EC2 placement groups, Load Balancers, Auto Scaling, S3 Glacier, S3 Storage classes, Route 53 Routing policies, CloudFront, Global Accelerator, EFS, EBS, Instance Store, AWS Snow Family, AWS Storage Gateway, AWS Transfer Family, Amazon CloudWatch, EventBridge, CloudWatch Insights, AWS CloudTrail, AWS Config, Amazon RDS, Amazon Aurora, Amazon ElatiCache, Amazon DocumentDB, Amazon Keyspaces, Amazon Quantum Ledger Database, Amazon Timestream, Amazon Managed Blockchain, AWS Lambda, Amazon DynamoDB, Amazon API Gateway, SQS, SNS, SES, Amazon Kinesis, Amazon Kinesis Firehose, Amazon Kinesis Data Analytics, Amazon Kinesis Data Streams, Amazon Kinesis ECS, Amazon Kinesis ECR, Amazon EKS, AWS CloudFormation, AWS Elastic Beanstalk, AWS CodeBuild, AWS OpsWorks, AWS CodeGuru, AWS CodeCommit, Amazon Athena, Amazon Redshift, Amazon EMR, Amazon QuickSight, AWS Glue, AWS Lake Formation, Amazon MSK, Amazon Rekognition, Amazon Transcribe, Amazon Polly, Amazon Translate, Amazon Lex, Amazon Connect, Amazon Comprehend, Amazon Comprehend

Medical, Amazon SageMaker, Amazon Forecast, Amazon Kendra, Amazon Personalize, Amazon Textract, Amazon Fraud Detector, Amazon Sumerian, AWS WAF, AWS Shield Standard, AWS Shield Advanced, AWS Firewall Manager, AWS GuardDuty, Amazon Inspector, Amazon Macie, Amazon Detective, SSM Session Manager, AWS Systems Manager, S3 Replication & Encryption, AWS Organization, AWS Control Tower, AWS SSO, Amazon Cognito, AWS VPC, NAT Gateway, VPC Endpoints, VPC Peering, AWS Transit Gateway, AWS Site-to-Site VPC, Database Management Service (DMS), and many others. In the last section (Practice Tests), there are five practice test sets with answers containing 65 exam-like questions. These questions will help you apply your learning to better prepare for the exam.

AWS Certified SysOps Administrator Official Study Guide - Chris Fitch 2017-09-20

Comprehensive, interactive exam preparation and so much more The AWS Certified SysOps Administrator Official Study Guide: Associate Exam is a comprehensive exam preparation resource. This book bridges the gap between exam preparation and real-world readiness, covering exam objectives while guiding you through hands-on exercises based on situations you'll likely encounter as an AWS Certified SysOps Administrator. From deployment, management, and operations to migration, data flow, cost control, and beyond, this guide will help you internalize the processes and best practices associated with AWS. The Sybex interactive online study environment gives you access to invaluable preparation aids, including an assessment test that helps you focus your study on areas most in need of review, and chapter tests to help you gauge your mastery of the material. Electronic flashcards make it easy to study

anytime, anywhere, and a bonus practice exam gives you a sneak preview so you know what to expect on exam day. Cloud computing offers businesses a cost-effective, instantly scalable IT infrastructure. The AWS Certified SysOps Administrator - Associate credential shows that you have technical expertise in deployment, management, and operations on AWS. Study exam objectives Gain practical experience with hands-on exercises Apply your skills to real-world scenarios Test your understanding with challenging review questions Earning your AWS Certification is much more than just passing an exam—you must be able to perform the duties expected of an AWS Certified SysOps Administrator in a real-world setting. This book does more than coach you through the test: it trains you in the tools, procedures, and thought processes to get the job done well. If you're serious about validating your expertise and working at a higher level, the AWS Certified SysOps Administrator Official Study Guide: Associate Exam is the resource you've been seeking.

The Kubernetes Bible - Nassim Kebbani 2022-02-24

Get up and running with Kubernetes 1.19 and simplify the way you build, deploy, and maintain scalable distributed systems Key Features Design and deploy large clusters on various cloud platforms Explore containerized application deployment, debugging, and recovery with the latest Kubernetes version 1.19 Become well-versed with advanced Kubernetes topics such as traffic routing or Pod autoscaling and scheduling Book Description With its broad adoption across various industries, Kubernetes is helping engineers with the orchestration and automation of container deployments on a large scale, making it the leading container orchestration system and

the most popular choice for running containerized applications. This Kubernetes book starts with an introduction to Kubernetes and containerization, covering the setup of your local development environment and the roles of the most important Kubernetes components. Along with covering the core concepts necessary to make the most of your infrastructure, this book will also help you get acquainted with the fundamentals of Kubernetes. As you advance, you'll learn how to manage Kubernetes clusters on cloud platforms, such as Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform (GCP), and develop and deploy real-world applications in Kubernetes using practical examples. Additionally, you'll get to grips with managing microservices along with best practices. By the end of this book, you'll be equipped with battle-tested knowledge of advanced Kubernetes topics, such as scheduling of Pods and managing incoming traffic to the cluster, and be ready to work with Kubernetes on cloud platforms. What you will learn Manage containerized applications with Kubernetes Understand Kubernetes architecture and the responsibilities of each component Set up Kubernetes on Amazon Elastic Kubernetes Service, Google Kubernetes Engine, and Microsoft Azure Kubernetes Service Deploy cloud applications such as Prometheus and Elasticsearch using Helm charts Discover advanced techniques for Pod scheduling and auto-scaling the cluster Understand possible approaches to traffic routing in Kubernetes Who this book is for This book is for software developers and DevOps engineers looking to understand how to work with Kubernetes for orchestrating containerized applications and services in the cloud. Prior experience with designing software running in operating system containers, as well as a general

background in DevOps best practices, will be helpful. Basic knowledge of Kubernetes, Docker, and leading cloud service providers assist with grasping the concepts covered easily.

AWS Automation Cookbook - Nikit Swaraj 2017-11-24

Automate release processes, deployment, and continuous integration of your application as well as infrastructure automation with the powerful services offered by AWS About This Book Accelerate your infrastructure's productivity by implementing a continuous delivery pipeline within your environment Leverage AWS services and Jenkins 2.0 to perform complete application deployments on Linux servers This recipe-based guide that will help you minimize application deployment downtime Who This Book Is For This book is for developers and system administrators who are responsible for hosting their application and managing instances in AWS. It's also ideal for DevOps engineers looking to provide continuous integration, deployment, and delivery. A basic understanding of AWS, Jenkins, and some scripting knowledge is needed. What You Will Learn Build a sample Maven and NodeJS Application using CodeBuild Deploy the application in EC2/Auto Scaling and see how CodePipeline helps you integrate AWS services Build a highly scalable and fault tolerant CI/CD pipeline Achieve the CI/CD of a microservice architecture application in AWS ECS using CodePipeline, CodeBuild, ECR, and CloudFormation Automate the provisioning of your infrastructure using CloudFormation and Ansible Automate daily tasks and audit compliance using AWS Lambda Deploy microservices applications on Kubernetes using Jenkins Pipeline 2.0 In Detail AWS CodeDeploy, AWS CodeBuild, and CodePipeline are scalable services

offered by AWS that automate an application's build and deployment pipeline. In order to deliver tremendous speed and agility, every organization is moving toward automating an entire application pipeline. This book will cover all the AWS services required to automate your deployment to your instances. You'll begin by setting up and using one of the AWS services for automation – CodeCommit. Next, you'll learn how to build a sample Maven and NodeJS Application using CodeBuild. After you've built the application, you'll see how to use CodeDeploy to deploy the application in EC2/Autoscaling. You'll also build a highly scalable and fault tolerant continuous integration (CI)/continuous deployment (CD) pipeline using some easy-to-follow recipes. Following this, you'll achieve CI/CD for Microservices application and reduce the risk within your software development lifecycle. You'll also learn to set up an infrastructure using CloudFormation Template and Ansible, and see how to automate AWS resources using AWS Lambda. Finally, you'll learn to automate instances in AWS and automate the deployment lifecycle of applications.By the end of this book, you'll be able to minimize application downtime and implement CI/CD, gaining total control over your software development lifecycle. Style and approach This book takes a "How to do it" approach, providing with easy solutions to automate common maintenance and deployment tasks.

AWS Certified SysOps Administrator Study Guide - Brett McLaughlin 2020-02-24

Your #1 all-in-one reference and exam Study Guide for the UPDATED AWS SysOps Administrator certification! This comprehensive book guides readers through the role of a SysOps Administrator and helps prepare candidates to take the updated

AWS Certified SysOps Administrator—Associate (SOA-C01) Exam. The AWS Certified SysOps Administrator—Associate certification validates technical expertise in deployment, management, and operations on the AWS platform. This Study Guide not only prepares readers for the AWS exam, but it makes sure the reader is ready to perform the duties expected of SysOps Administrators. The book focuses on the skill-set required of AWS professionals by filling in the gap between test preparation and real-world preparedness. Concepts covered include: Monitoring and Reporting High Availability Deployment and Provisioning Storage and Dada Management Security and Compliance Networking Automation and Optimization And More Readers will also have one year of free access to the Sybex interactive online learning environment and test bank, providing a suite of robust study tools including an assessment test, chapter tests, bonus practice exam, electronic flashcards, and a glossary of key terms.

AWS Certified DevOps Engineer - Professional Certification and Beyond - Adam Book 2021-11-25

Explore the ins and outs of becoming an AWS certified DevOps professional engineer with the help of easy-to-follow practical examples and detailed explanations Key FeaturesDiscover how to implement and manage continuous delivery systems and methodologies on AWSExplore real-world scenarios and hands-on examples that will prepare you to take the DOP-C01 exam with confidenceLearn from enterprise DevOps scenarios to prepare fully for the AWS certification examBook Description The AWS Certified DevOps Engineer certification is one of the highest AWS credentials, vastly recognized in cloud computing or software

development industries. This book is an extensive guide to helping you strengthen your DevOps skills as you work with your AWS workloads on a day-to-day basis. You'll begin by learning how to create and deploy a workload using the AWS code suite of tools, and then move on to adding monitoring and fault tolerance to your workload. You'll explore enterprise scenarios that'll help you to understand various AWS tools and services. This book is packed with detailed explanations of essential concepts to help you get to grips with the domains needed to pass the DevOps professional exam. As you advance, you'll delve into AWS with the help of hands-on examples and practice questions to gain a holistic understanding of the services covered in the AWS DevOps professional exam. Throughout the book, you'll find real-world scenarios that you can easily incorporate in your daily activities when working with AWS, making you a valuable asset for any organization. By the end of this AWS certification book, you'll have gained the knowledge needed to pass the AWS Certified DevOps Engineer exam, and be able to implement different techniques for delivering each service in real-world scenarios. What you will learnAutomate your pipelines, build phases, and deployments with AWS-native toolingDiscover how to implement logging and monitoring using AWS-native toolingGain a solid understanding of the services included in the AWS DevOps Professional examReinforce security practices on the AWS platform from an exam point of viewFind out how to automatically enforce standards and policies in AWS environmentsExplore AWS best practices and anti-patternsEnhance your core AWS skills with the help of exercises and practice testsWho this book is for This book is for AWS developers and SysOps

administrators looking to advance their careers by achieving the highly sought-after DevOps Professional certification. Basic knowledge of AWS as well as its core services (EC2, S3, and RDS) is needed. Familiarity with DevOps concepts such as source control, monitoring, and logging, not necessarily in the AWS context, will be helpful.

Learning AWS - Aurobindo Sarkar 2018-02-01

Discover techniques and tools for building serverless applications with AWS Key Features Get well-versed with building and deploying serverless APIs with microservices Learn to build distributed applications and microservices with AWS Step Functions A step-by-step guide that will get you up and running with building and managing applications on the AWS platform Book Description Amazon Web Services (AWS) is the most popular and widely-used cloud platform. Administering and deploying application on AWS makes the applications resilient and robust. The main focus of the book is to cover the basic concepts of cloud-based development followed by running solutions in AWS Cloud, which will help the solutions run at scale. This book not only guides you through the trade-offs and ideas behind efficient cloud applications, but is a comprehensive guide to getting the most out of AWS. In the first section, you will begin by looking at the key concepts of AWS, setting up your AWS account, and operating it. This guide also covers cloud service models, which will help you build highly scalable and secure applications on the AWS platform. We will then dive deep into concepts of cloud computing with S3 storage, RDS and EC2. Next, this book will walk you through VPC, building realtime serverless environments, and deploying serverless APIs with microservices. Finally,

this book will teach you to monitor your applications, and automate your infrastructure and deploy with CloudFormation. By the end of this book, you will be well-versed with the various services that AWS provides and will be able to leverage AWS infrastructure to accelerate the development process. What you will learn Set up your AWS account and get started with the basic concepts of AWS Learn about AWS terminology and identity access management Acquaint yourself with important elements of the cloud with features such as computing, ELB, and VPC Back up your database and ensure high availability by having an understanding of database-related services in the AWS cloud Integrate AWS services with your application to meet and exceed non-functional requirements Create and automate infrastructure to design cost-effective, highly available applications Who this book is for If you are an I.T. professional or a system architect who wants to improve infrastructure using AWS, then this book is for you. It is also for programmers who are new to AWS and want to build highly efficient, scalable applications.

Docker on Amazon Web Services - Justin Menga 2018-08-30

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.

Machine Learning with Amazon SageMaker Cookbook - Joshua Arvin Lat 2021-10-29

A step-by-step solution-based guide to preparing building, training, and deploying high-quality machine learning models with Amazon SageMaker Key FeaturesPerform ML experiments with built-in and custom algorithms in SageMakerExplore proven solutions when working with TensorFlow, PyTorch, Hugging Face Transformers, and scikit-learnUse the different features and capabilities of SageMaker to automate relevant ML processesBook Description Amazon SageMaker is a fully managed machine learning (ML) service that helps data scientists and ML practitioners manage ML experiments. In this book, you'll use the different capabilities and features of Amazon SageMaker to solve relevant data science and ML problems. This step-by-step guide features 80 proven recipes designed to give you the hands-on machine learning experience needed to contribute to real-world experiments and projects. You'll cover the algorithms and techniques that are commonly used when training and deploying NLP, time series forecasting, and computer vision models to solve ML problems. You'll explore various solutions for working with deep learning libraries and frameworks such as TensorFlow, PyTorch, and Hugging Face Transformers in Amazon SageMaker. You'll also learn how to use SageMaker Clarify, SageMaker Model Monitor, SageMaker Debugger, and SageMaker Experiments to debug, manage, and monitor multiple ML experiments and deployments. Moreover, you'll have a better understanding of how SageMaker Feature Store, Autopilot, and Pipelines can meet the specific needs of data science teams. By the end of this book, you'll be able to combine

the different solutions you've learned as building blocks to solve real-world ML problems. What you will learnTrain and deploy NLP, time series forecasting, and computer vision models to solve different business problemsPush the limits of customization in SageMaker using custom container imagesUse AutoML capabilities with SageMaker Autopilot to create high-quality modelsWork with effective data analysis and preparation techniquesExplore solutions for debugging and managing ML experiments and deploymentsDeal with bias detection and ML explainability requirements using SageMaker ClarifyAutomate intermediate and complex deployments and workflows using a variety of solutionsWho this book is for This book is for developers, data scientists, and machine learning practitioners interested in using Amazon SageMaker to build, analyze, and deploy machine learning models with 80 step-by-step recipes. All you need is an AWS account to get things running. Prior knowledge of AWS, machine learning, and the Python programming language will help you to grasp the concepts covered in this book more effectively.

AWS Scripted - Christian Cerri 2014-11-05 Amazon Web Services provides an excellent Command Line Interface (CLI) for managing Cloud Resources. This cookbook shows you in detail with practical examples how to automate many tasks using the CLI and bash. Launch Servers, Elastic Load Balancers and RDS Databases from comprehensive scripts. Also included is a scripted approach to setting up SES (Amazon's email service) and the SNS callbacks required. The book also focusses heavily on Security: Apache, PHP, ModSecurity and MySQL are discussed and scripted in detail. You can download all the scripts from the book at http:

//www.quickstepapps.com and also get valuable support and further articles. Please 'Look Inside' and read the Table of Contents and Introduction for even more information.

AWS Administration - the Definitive Guide - Yohan Wadia 2018

Leverage this step-by-step guide to build a highly secure, fault-tolerant, and scalable Cloud environment 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. Delve into 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 the rich plethora of services provided by AWS. Although no prior experience with AWS is required, it is recommended that you have some hands-on experience of Linux, Web Services, and basic networking. What You Will Learn Take an in-depth look at what's new with AWS, along with how to effectively manage and automate your EC2 infrastructure with AWS Systems Manager Deploy and scale your applications with ease using AWS Elastic Beanstalk and Amazon Elastic File System Secure and govern your environments using AWS CloudTrail, AWS Config, and AWS Shield Learn the DevOps way using a combination of AWS CodeCommit, AWS CodeDeploy, and AWS CodePipeline Run big data analytics and workloads using Amazon EMR and Amazon Redshift Learn to back up and safeguard your data using AWS Data Pipeline Get started with the Internet of Things using AWS IoT and AWS Greengrass In Detail Many businesses are moving from traditional data centers to AWS because of

its reliability, vast service offerings, lower costs, and high rate of innovation. AWS can be used to accomplish a variety of both simple and tedious tasks. Whether you are a seasoned system admin or a rookie, this book will help you to learn all the skills you need to work with the AWS cloud. This book guides you through some of the most popular AWS services, such as EC2, Elastic Beanstalk, EFS, CloudTrail, Redshift, EMR, Data Pipeline, and IoT using a simple, real-world, application-hosting example. This book will also enhance 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. Each chapter is designed to provide you with maximal information about each AWS service, coupled with easy to follow, hands-on steps, best practices, tips, and recommendations. By the end of the book...

Pipeline as Code - Mohamed Labouardy 2021-11-23

Start thinking about your development pipeline as a mission-critical application. Discover techniques for implementing code-driven infrastructure and CI/CD workflows using Jenkins, Docker, Terraform, and cloud-native services. In Pipeline as Code, you will master: Building and deploying a Jenkins cluster from scratch Writing pipeline as code for cloud-native applications Automating the deployment of Dockerized and Serverless applications Containerizing applications with Docker and Kubernetes Deploying Jenkins on AWS, GCP and Azure Managing, securing and monitoring a Jenkins cluster in production Key principles for a successful DevOps culture Pipeline as Code is a practical guide to automating your development pipeline in a cloud-native, service-driven world. You'll use the latest

infrastructure-as-code tools like Packer and Terraform to develop reliable CI/CD pipelines for numerous cloud-native applications. Follow this book's insightful best practices, and you'll soon be delivering software that's quicker to market, faster to deploy, and with less last-minute production bugs. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Treat your CI/CD pipeline like the real application it is. With the Pipeline as Code approach, you create a collection of scripts that replace the tedious web UI wrapped around most CI/CD systems. Code-driven pipelines are easy to use, modify, and maintain, and your entire CI pipeline becomes more efficient because you directly interact with core components like Jenkins, Terraform, and Docker. About the book In Pipeline as Code you'll learn to build reliable CI/CD pipelines for cloud-native applications. With Jenkins as the backbone, you'll programmatically control all the pieces of your pipeline via modern APIs. Hands-on examples include building CI/CD workflows for distributed Kubernetes applications, and serverless functions. By the time you're finished, you'll be able to swap manual UI-based adjustments with a fully automated approach! What's inside Build and deploy a Jenkins cluster on scale Write pipeline as code for cloud-native applications Automate the deployment of Dockerized and serverless applications Deploy Jenkins on AWS, GCP, and Azure Grasp key principles of a successful DevOps culture About the reader For developers familiar with Jenkins and Docker. Examples in Go. About the author Mohamed Labouardy is the CTO and co-founder of Crew.work, a Jenkins contributor, and a DevSecOps evangelist. Table of Contents PART 1 GETTING STARTED WITH JENKINS 1 What's CI/CD? 2 Pipeline as

code with Jenkins PART 2 OPERATING A SELF-HEALING JENKINS CLUSTER 3 Defining Jenkins architecture 4 Baking machine images with Packer 5 Discovering Jenkins as code with Terraform 6 Deploying HA Jenkins on multiple cloud providers PART 3 HANDS-ON CI/CD PIPELINES 7 Defining a pipeline as code for microservices 8 Running automated tests with Jenkins 9 Building Docker images within a CI pipeline 10 Cloud-native applications on Docker Swarm 11 Dockerized microservices on K8s 12 Lambda-based serverless functions PART 4 MANAGING, SCALING, AND MONITORING JENKINS 13 Collecting continuous delivery metrics 14 Jenkins administration and best practices

Architecting Cloud Native Applications - Kamal Arora 2019-04-16

Apply cloud native patterns and practices to deliver responsive, resilient, elastic, and message-driven systems with confidence Key FeaturesDiscover best practices for applying cloud native patterns to your cloud applicationsExplore ways to effectively plan resources and technology stacks for high security and fault toleranceGain insight into core architectural principles using real-world examplesBook Description Cloud computing has proven to be the most revolutionary IT development since virtualization. Cloud native architectures give you the benefit of more flexibility over legacy systems. This Learning Path teaches you everything you need to know for designing industry-grade cloud applications and efficiently migrating your business to the cloud. It begins by exploring the basic patterns that turn your database inside out to achieve massive scalability. You'll learn how to develop cloud native architectures using microservices and serverless computing as your design principles. Then, you'll explore ways to continuously deliver production code by

implementing continuous observability in production. In the concluding chapters, you'll learn about various public cloud architectures ranging from AWS and Azure to the Google Cloud Platform, and understand the future trends and expectations of cloud providers. By the end of this Learning Path, you'll have learned the techniques to adopt cloud native architectures that meet your business requirements. This Learning Path includes content from the following Packt products: Cloud Native Development Patterns and Best Practices by John GilbertCloud Native Architectures by Erik Farr et al.What you will learnUnderstand the difference between cloud native and traditional architectureAutomate security controls and configuration managementMinimize risk by evolving your monolithic systems into cloud native applicationsExplore the aspects of migration, when and why to use itApply modern delivery and testing methods to continuously deliver production codeEnable massive scaling by turning your database inside outWho this book is for This Learning Path is designed for developers who want to progress into building cloud native systems and are keen to learn the patterns involved. Software architects, who are keen on designing scalable and highly available cloud native applications, will also find this Learning Path very useful. To easily grasp these concepts, you will need basic knowledge of programming and cloud computing.

AWS Administration - The Definitive Guide - Yohan Wadia 2018-03-23

Leverage this step-by-step guide to build a highly secure, fault-tolerant, and scalable Cloud environment Key Features 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. Delve into 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. Book Description Many businesses are moving from traditional data centers to AWS because of its reliability, vast service offerings, lower costs, and high rate of innovation. AWS can be used to accomplish a variety of both simple and tedious tasks. Whether you are a seasoned system admin or a rookie, this book will help you to learn all the skills you need to work with the AWS cloud. This book guides you through some of the most popular AWS services, such as EC2, Elastic Beanstalk, EFS, CloudTrail, Redshift, EMR, Data Pipeline, and IoT using a simple, real-world, application-hosting example. This book will also enhance 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. Each chapter is designed to provide you with maximal information about each 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. What you will learn Take an in-depth look at what's new with AWS, along with how to effectively manage and automate your EC2 infrastructure with AWS Systems Manager Deploy and scale your applications with ease using AWS Elastic Beanstalk and Amazon Elastic File System Secure and govern your environments using AWS CloudTrail, AWS Config, and AWS Shield

Learn the DevOps way using a combination of AWS CodeCommit, AWS CodeDeploy, and AWS CodePipeline Run big data analytics and workloads using Amazon EMR and Amazon Redshift Learn to back up and safeguard your data using AWS Data Pipeline Get started with the Internet of Things using AWS IoT and AWS Greengrass Who this book is for This book is for those who want to learn and leverage the rich plethora of services provided by AWS. Although no prior experience with AWS is required, it is recommended that you have some hands-on experience of Linux, Web Services, and basic networking.

AWS Certified Developer – Associate Guide - Vipul Tankariya 2019-06-03

Learn from the AWS subject-matter experts, explore real-world scenarios, and pass the AWS Certified Developer – Associate exam Key FeaturesThis fast-paced guide will help you clear the AWS Certified Developer – Associate (DVA-C01) exam with confidenceGain valuable insights to design, develop, and deploy cloud-based solutions using AWSDevelop expert core AWS skills with practice questions and mock testsBook Description This book will focus on the revised version of AWS Certified Developer Associate exam. The 2019 version of this exam guide includes all the recent services and offerings from Amazon that benefits developers. AWS Certified Developer - Associate Guide starts with a quick introduction to AWS and the prerequisites to get you started. Then, this book will describe about getting familiar with Identity and Access Management (IAM) along with Virtual private cloud (VPC). Next, this book will teach you about microservices, serverless architecture, security best practices, advanced deployment methods and more. Going ahead we will take you through AWS DynamoDB A NoSQL Database

Service, Amazon Simple Queue Service (SQS) and CloudFormation Overview. Lastly, this book will help understand Elastic Beanstalk and will also walk you through AWS lambda. At the end of this book, we will cover enough topics, tips and tricks along with mock tests for you to be able to pass the AWS Certified Developer - Associate exam and develop as well as manage your applications on the AWS platform. What you will learnCreate and manage users, groups, and permissions using AWS IAM servicesCreate a secured VPC with Public and Private Subnets, NAC, and Security groupsLaunching your first EC2 instance, and working with itHandle application traffic with ELB and monitor AWS resources with CloudWatchWork with AWS storage services such as S3, Glacier, and CloudFrontGet acquainted with AWS DynamoDB a NoSQL database serviceUse SWS to coordinate work across distributed application componentsWho this book is for This book is for IT professionals and developers looking to clear the AWS Certified Developer Associate 2019 exam. Developers looking to develop and manage their applications on the AWS platform will also find this book useful. No prior AWS experience is needed.

Learn Amazon SageMaker - Julien Simon 2020-08-27

Quickly build and deploy machine learning models without managing infrastructure, and improve productivity using Amazon SageMaker’s capabilities such as Amazon SageMaker Studio, Autopilot, Experiments, Debugger, and Model Monitor Key FeaturesBuild, train, and deploy machine learning models quickly using Amazon SageMakerAnalyze, detect, and receive alerts relating to various business problems using machine learning algorithms and techniquesImprove productivity by training and fine-tuning machine learning models in

productionBook Description Amazon SageMaker enables you to quickly build, train, and deploy machine learning (ML) models at scale, without managing any infrastructure. It helps you focus on the ML problem at hand and deploy high-quality models by removing the heavy lifting typically involved in each step of the ML process. This book is a comprehensive guide for data scientists and ML developers who want to learn the ins and outs of Amazon SageMaker. You'll understand how to use various modules of SageMaker as a single toolset to solve the challenges faced in ML. As you progress, you'll cover features such as AutoML, built-in algorithms and frameworks, and the option for writing your own code and algorithms to build ML models. Later, the book will show you how to integrate Amazon SageMaker with popular deep learning libraries such as TensorFlow and PyTorch to increase the capabilities of existing models. You'll also learn to get the models to production faster with minimum effort and at a lower cost. Finally, you'll explore how to use Amazon SageMaker Debugger to analyze, detect, and highlight problems to understand the current model state and improve model accuracy. 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 learnCreate and automate end-to-end machine learning workflows on Amazon Web Services (AWS)Become well-versed with data annotation and preparation techniquesUse AutoML features to build and train machine learning models with AutoPilotCreate models using built-in algorithms and frameworks and your own codeTrain computer vision and NLP models using real-world examplesCover training

techniques for scaling, model optimization, model debugging, and cost optimizationAutomate deployment tasks in a variety of configurations using SDK and several automation toolsWho 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. Some understanding of machine learning concepts and the Python programming language will also be beneficial.

AI Blueprints - Dr. Joshua Eckroth 2018-12-31

The essential blueprints and workflow you need to build successful AI business applications Key FeaturesLearn and master the essential blueprints to program AI for real-world business applicationsGain insights into how modern AI and machine learning solve core business challengesAcquire practical techniques and a workflow that can build AI applications using state-of-the-art software librariesWork with a practical, code-based strategy for creating successful AI solutions in your businessBook Description AI Blueprints gives you a working framework and the techniques to build your own successful AI business applications. You'll learn across six business scenarios how AI can solve critical challenges with state-of-the-art AI software libraries and a well thought out workflow. Along the way you'll discover the practical techniques to build AI business applications from first design to full coding and deployment. The AI blueprints in this book solve key business scenarios. The first blueprint uses AI to find solutions for building plans for cloud computing that are

on-time and under budget. The second blueprint involves an AI system that continuously monitors social media to gauge public feeling about a topic of interest - such as self-driving cars. You'll learn how to approach AI business problems and apply blueprints that can ensure success. The next AI scenario shows you how to approach the problem of creating a recommendation engine and monitoring how those recommendations perform. The fourth blueprint shows you how to use deep learning to find your business logo in social media photos and assess how people interact with your products. Learn the practical techniques involved and how to apply these blueprints intelligently. The fifth blueprint is about how to best design a 'trending now' section on your website, much like the one we know from Twitter. The sixth blueprint shows how to create helpful chatbots so that an AI system can understand customers' questions and answer them with relevant responses. This book continuously demonstrates a working framework and strategy for building AI business applications. Along the way, you'll also learn how to prepare for future advances in AI. You'll gain a workflow and a toolbox of patterns and techniques so that you can create your own smart code. What you will learnAn essential toolbox of blueprints and advanced techniques for building AI business applicationsHow to design and deploy AI applications that meet today's business needsA workflow from first design stages to practical code solutions in your next AI projectsSolutions for AI projects that involve social media analytics and recommendation enginesPractical projects and techniques for sentiment analysis and helpful chatbotsA blueprint for AI projects that recommend products based on customer purchasing habitsHow to prepare

yourself for the next decade of AI and machine learning advancementsWho this book is for Programming AI Business Applications provides an introduction to AI with real-world examples. This book can be read and understood by programmers and students without requiring previous AI experience. The projects in this book make use of Java and Python and several popular and state-of-the-art opensource AI libraries.

AWS Certified SysOps Administrator Study Guide with Online Labs - Sara Perrott 2020-07-21

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 SysOps Administrator Study Guide to give you the same experience working in these labs as you prepare for the Certified SysOps Administrator 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 SysOps Administrator. This comprehensive book guides readers through the role of a SysOps Administrator and helps prepare candidates to take the updated AWS Certified SysOps Administrator—Associate (SOA-C01) Exam. The AWS Certified SysOps Administrator—Associate certification validates technical expertise in deployment, management, and operations on the AWS platform. This Study Guide not only prepares readers for the AWS exam, but it makes sure the reader is ready to perform the duties expected of SysOps Administrators. The book focuses on the skill-set required of AWS professionals by filling in the gap between test preparation and real-world preparedness. Concepts covered include: Monitoring and Reporting High Availability Deployment and

Provisioning Storage and Dada Management Security and Compliance Networking Automation and Optimization And More Readers will also have one year of free access to the Sybex interactive online learning environment and test bank, providing a suite of robust study tools including an assessment test, chapter tests, bonus practice exam, electronic flashcards, and a glossary of key terms. And included with this version of the book, 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 SysOps Administrator Labs with 6 unique lab modules based on the book.

AWS Certified Solutions Architect Study Guide with Online Labs - Ben Piper 2021-04-13

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 Solutions Architect Study Guide to give you the same experience working in these labs as you prepare for the Certified Solutions Architect 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 Solutions Architect. This is your opportunity to take the next step in your career by expanding and validating your skills on the AWS Cloud. AWS has been the frontrunner in cloud computing products and services, and the UPDATED AWS Certified Solutions Architect Study Guide, Third Edition, for the Associate SAA-C02 Exam will get you fully prepared. This study guide covers exam concepts, and provides key review of exam topics, including: Designing resilient architectures Designing high-performing architectures Designing

secure applications and architectures Designing cost-optimized architectures If you are looking to take the AWS Certified Solutions Architect Associate exam, this guide is what you need for comprehensive content and robust study tools that will help you gain the edge on exam day and throughout your career. Readers will have access to Sybex's superior online interactive learning environment and test bank, including hundreds of test questions, practice exams, electronic flashcards, and a glossary of key terms. And included with this version of the book, XtremeLabs virtual labs that run from your browser. The registration code is included with the book and gives you 6 months of unlimited access to XtremeLabs AWS Certified Solutions Architect Labs with 12 unique lab modules based on the book. If you are unable to register your lab PIN code, please contact Wiley customer support for a replacement PIN code.

Pro PowerShell for Amazon Web Services - Brian Beach 2014-01-14

Pro PowerShell for Amazon Web Services is written specifically for Windows professionals who already know PowerShell and want to learn to host Windows workloads in the Amazon Elastic Cloud Compute (EC2) cloud service. The cloud offers information technology workers significant cost savings and agility unimaginable even just a few years ago. Tasks that traditionally took weeks of work, costing thousands of dollars, can be completed in minutes for a fraction of a penny. This book is a resource for using Microsoft's powerful scripting language, PowerShell, to create, host, manage, and administer workloads using a service widely recognized as the industry leader in cloud computing. Inside, find scripts to create and manage virtual machines, provision storage,

configure networks with agility, and more--all using your preferred Windows scripting language. Use your PowerShell knowledge to harness the power of Amazon EC2 today! What you'll learnCreate, manage, and terminate Windows servers in the cloud Manage storage options including backup and recovery Configure a virtual network including subnets and route tables Secure your servers using security groups and access control lists Use Auto Scaling to respond to changing conditionsDeploy SQL Server using Relational Database ServiceUse Simple Storage Service (S3) to reliably store and archive data Control access to resources using Identity and Access Management (IAM) Who this book is for Pro PowerShell for Amazon Web Services is for the intermediate to advanced Windows professional who is ready to make the leap to the Amazon cloud. Table of Contents Chapter 1 AWS Architecture Overview Chapter 2 Getting Started Chapter 3 Basic Instance Management Chapter 4 Elastic Block Storage Chapter 5 Virtual Private Cloud Chapter 6 Advanced Instance Management Chapter 7 Amazon Machine Images Chapter 8 Monitoring and High Availability Chapter 9 Relational Database Service Chapter 10 Simple Storage Service Chapter 11 Identity and Access Management Chapter 12 Glossary of Terms Chapter 13 Metadata URL Structure Chapter 14 List of Filters by EC2 Command Chapter 15 List of API Methods by Command Chapter 16 CloudWatch Metrics and Dimensions Chapter 17 SQL Server RDS Parameters

DevOps for Web Development - Mitesh Soni 2016-10-24

Achieve the Continuous Integration and Continuous Delivery of your web applications with ease About This Book Overcome the challenges of implementing DevOps for web applications, familiarize

yourself with diverse third-party modules, and learn how to integrate them with bespoke code to efficiently complete tasks Understand how to deploy web applications for a variety of Cloud platforms such as Amazon EC2, AWS Elastic Beanstalk, Microsoft Azure, Azure Web Apps, and Docker Container Understand how to monitor applications deployed in Amazon EC2, AWS Elastic Beanstalk, Microsoft Azure, Azure Web Apps using Nagios, New Relic, Microsoft Azure, and AWS default monitoring features Who This Book Is For If you are a system admin or application and web application developer with a basic knowledge of programming and want to get hands-on with tools such as Jenkins 2 and Chef, and Cloud platforms such as AWS and Microsoft Azure, Docker, New Relic, Nagios, and their modules to host, deploy, monitor, and manage their web applications, then this book is for you. What You Will Learn Grasp Continuous Integration for a JEE application—create and configure a build job for a Java application with Maven and with Jenkins 2.0 Create built-in delivery pipelines of Jenkins 2 and build a pipeline configuration for end-to-end automation to manage the lifecycle of Continuous Integration Get to know all about configuration management using Chef to create a runtime environment Perform instance provisioning in AWS and Microsoft Azure and manage virtual machines on different cloud platforms—install Knife plugins for Amazon EC2 and Microsoft Azure Deploy an application in Amazon EC2, AWS Elastic Beanstalk, Microsoft Azure Web Apps, and a Docker container Monitor infrastructure, application servers, web servers, and applications with the use of open source monitoring solutions and New Relic Orchestrate multiple build jobs to achieve application deployment

automation—create parameterized build jobs for end-to-end automation In Detail The DevOps culture is growing at a massive rate, as many organizations are adopting it. However, implementing it for web applications is one of the biggest challenges experienced by many developers and admins, which this book will help you overcome using various tools, such as Chef, Docker, and Jenkins. On the basis of the functionality of these tools, the book is divided into three parts. The first part shows you how to use Jenkins 2.0 for Continuous Integration of a sample JEE application. The second part explains the Chef configuration management tool, and provides an overview of Docker containers, resource provisioning in cloud environments using Chef, and Configuration Management in a cloud environment. The third part explores Continuous Delivery and Continuous Deployment in AWS, Microsoft Azure, and Docker, all using Jenkins 2.0. This book combines the skills of both web application deployment and system configuration as each chapter contains one or more practical hands-on projects. You will be exposed to real-world project scenarios that are progressively presented from easy to complex solutions. We will teach you concepts such as hosting web applications, configuring a runtime environment, monitoring and hosting on various cloud platforms, and managing them. This book will show you how to essentially host and manage web applications along with Continuous Integration, Cloud Computing, Configuration Management, Continuous Monitoring, Continuous Delivery, and Deployment. Style and approach This is a learning guide for those who have a basic knowledge of application deployment, configuration management tools, and Cloud computing, and are eager to leverage it to

implement DevOps for web applications using end-to-end automation and orchestration.

Rapid Application Development with AWS Amplify - Adrian Leung 2021-07-16 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 FeaturesExplore the capabilities of AWS Amplify with popular app frameworks for both web and mobile app platformsBuild your first cloud-native web and mobile applications using AWS AmplifyLeverage AWS Amplify to design GraphQL APIs for your web and mobile applicationsBook 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 learnBuild React and React Native apps with Amplify and TypeScriptExplore pre-built Amplify UI components for rapid prototypingAdd user management with Amplify authentication to your appUse Amplify GraphQL to create a blog postDiscover how to upload photos to Amplify StorageEnable DevOps with the Amplify pipeline for your appGet to grips with BDD and test automation with Cypress and CucumberSet up a custom domain name for your website and manage app content with the Amplify Admin UIWho 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.

AWS Tools for PowerShell 6 - Ramesh Waghmare 2017-08-03

Leverage the power of PowerShell to bring the best out of your AWS infrastructure About This Book A collection of real-world-tested Powershell scripts that can be used to manage your Windows server efficiently Follow step-by-step processes to solve your problems with Windows servers using AWS tools Design examples that work in the Amazon free usage tier, which lets you run the Windows platform on cloud Who This Book Is For This book will be useful for (but not limited to) Windows System administrators, cloud engineers, architects,

DevOps engineers, and all those who want to accomplish tasks on the AWS Public Cloud using PowerShell. What You Will Learn Install the AWS Tools for PowerShell 6 Understand key services provided by Amazon Web services (AWS) Understand the Virtual Private Cloud Use PowerShell 6 for AWS Identity and Access Management (IAM) Use PowerShell 6 for AWS Elastic Compute Cloud (EC2) Use PowerShell 6 for AWS Simple Storage Service (S3) Use PowerShell 6 for AWS Relational Database Service (RDS) Build fault-tolerant and highly-available applications using PowerShell 6 In Detail AWS Tools for PowerShell 6 shows you exactly how to automate all the aspects of AWS. You can take advantage of the amazing power of the cloud, yet add powerful scripts and mechanisms to perform common tasks faster than ever before. This book expands on the Amazon documentation with real-world, useful examples and production-ready scripts to automate all the aspects of your new cloud platform. It will cover topics such as managing Windows with PowerShell, setting up security services, administering database services, and deploying and managing networking. You will also explore advanced topics such as PowerShell authoring techniques, and configuring and managing storage and content delivery. By the end of this book, you will be able to use Amazon Web Services to automate and manage Windows servers. You will also have gained a good understanding of automating the AWS infrastructure using simple coding. Style and approach This step-by-step guide starts with simple examples then expands to full-blown administrative tasks leading to the efficient management of Windows servers. Each topic covers a section related to Amazon Web Services products, and the examples are built on one another to deliver

a comprehensive library of scripts for administrators.

Amazon Web Services in Action, Third Edition - Andreas Wittig 2023-05-30

Master essential best practices for deploying and managing applications on Amazon Web Services. This revised bestseller is packed with techniques for building highly available and scalable architectures and automating deployment with Infrastructure as Code. Leverage globally distributed data centers to launch virtual machines with EC2 Store and archive large volumes of data with EBS, S3, and EFS Persist and query data with highly available and scalable database systems with RDS and DynamoDB Enhance performance with caching data in-memory with ElastiCache and MemoryDB Use Infrastructure as Code to automate your cloud infrastructure Secure workloads running in the cloud with VPC and IAM Build fault-tolerant web applications with ALB and SQS Automate common sysadmin tasks with Lambda, CLI, and SDK Build cloud-native applications based on containers with AppRunner, ECS, Fargate Thousands of developers have chosen Amazon Web Services in Action: An in-depth guide to AWS to help them succeed with the AWS cloud. Readers love this all-practical handbook for its complete introduction to computing, storage, and networking, along with best practices for all core AWS services. This revised third edition features new chapters on containerization, along with a variety of AWS innovations. You'll also learn how automating your infrastructure with IAC is a game changer for your cloud deployment, delivering a massive boost to efficiency and quality. About the Technology Amazon Web Services, the leading cloud computing platform, offers customers APIs for on-demand access to computing services. Rich in examples and best practices of how to

use AWS, this Manning bestseller is now released in its third, revised, and improved edition. About the Book In Amazon Web Services in Action, Third Edition: An in-depth guide to AWS, the Wittig brothers give you a comprehensive, practical introduction to deploying and managing applications on the AWS cloud platform. With a sharp focus on the most important AWS tasks and services, they will save you hours of unproductive time. You'll learn hands-on as you complete real-world projects like hosting a WordPress site, setting up a private cloud, and deploying an app on containers. What's Inside Leverage globally distributed data centers to launch virtual machines Enhance performance with caching data in-memory Secure workloads running in the cloud with VPC and IAM Build fault-tolerant web applications with ALB and SQS About the Reader Written for mid-level developers, DevOps or platform engineers, architects, and system administrators. About the Author Andreas Wittig and Michael Wittig are software engineers and consultants focused on AWS. Together, they migrated the first bank in Germany to AWS in 2013.

AWS Certified Cloud Practitioner Study Guide with Online Labs - Ben Piper 2020-07-28

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.

DevOps in AWS LiveLessons (Video Training) - Paul Duvall 2014

Overview Jolt-award winning Continuous Integration author and consultant Paul M. Duvall trains infrastructure developers on how to create a fully-automated continuous delivery system in Amazon Web Services (AWS) using DevOps best practices and tools. Description Amazon Web Services (AWS) is the leading cloud computing provider. AWS began selling its cloud services to startups but has rapidly evolved into serving large enterprises. While large companies can migrate their infrastructure to AWS over a period of months or years, the real value comes from properly leveraging key features of AWS, such as programmable infrastructure, elasticity and ephemeral resources. When companies bring a DevOps mindset to AWS, they can achieve the benefits of having always-releasable software, continuous feedback and reduction of the overall lead time. DevOps in AWS focuses on how to implement the key architectural construct in continuous delivery: the deployment pipeline. Viewers receive step-by-step instructions on how to do this in AWS based on an open-source software system that is in production. They also learn the DevOps practices teams can embrace to increase their effectiveness. About the Instructor Paul M. Duvall is the Chairman and CTO of Stelligent. Stelligent is an expert in Cloud Delivery solutions in Amazon Web Services (AWS) and has been working with AWS for over five years. Paul is the principal author of Continuous Integration: Improving

Software Quality and Reducing Risk (Addison-Wesley, 2007) and a 2008 Jolt Award Winner. Paul is an author of many other books, videos and publications including DevOps in the Cloud (Addison-Wesley, 2012) and two IBM developerWorks series on topics concerned with automation, DevOps, and cloud computing. He is passionate about software delivery and the cloud and actively blogs at http://www.stelligent.com/. You can follow him on Twitter @paulduvall. Skill Level Intermediate What You Will Learn How to set up and establish a process for applying continuous delivery in AWS How to create a fully-automated deployment pipeline using the Jenkins Continuous Integration server, CloudFormation, OpsWorks and Chef How to use AWS deployment and management tools to automate infrastructure How to write and run infrastructure/deployment tests Who Should Take This Course Infrastructure and application developers, Sys Ops engineers Anyone else involved in the software systems lifecycle. This will includes testers, DBAs, managers ...

Implementing AWS: Design, Build, and Manage your Infrastructure - Yohan Wadia 2019-01-31

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.

Ansible For Amazon Web Services AWS By Examples - Luca Berton 2022-07-13

This course provides an introduction to the Ansible language. Ansible is a popular open source IT automation technology for scripting applications in a wide variety of domains. It is free, portable, powerful, and remarkably easy and fun to use. This course is a tool to learn the Ansible automation technology with some real-life examples. Learn the Ansible automation technology with some real-life examples. Every successful IT department needs automation nowadays for bare metal servers, virtual machines, could, containers, and edge computing. Automate your IT journey with Ansible automation technology. I'm going to teach you example by example how to accomplish the most common IT Professional tasks to automate your AWS Infrastructure. Each of the lessons summarizes a specific use case for the Modern AWS Infrastructure. Each lesson is focused on a module from the most important parameter with some live demo of code and real-life usage. Each code is battle proved in the real life. Console interaction and verification are included in every video. How to configure Ansible to interact with AWS infrastructure - EC2, VPC, security groups, etc.. You could automate the creation, update, and gather information for EC2 machines, and many more use-cases using Ansible. A mundane activity like creating an AWS EC2 machine is the most used with Ansible For AWS. Each example is using the secure connection protocol to guarantee sensible data are encrypted and reserved. Maintain your AWS infrastructure network the most efficiently as possible with

Ansible Automation, the simple human-readable automation technology. Are you ready to automate your day with Ansible? Examples in the book are tested with the latest version of Ansible 2.9+ and Ansible Core 2.11+.

Hands-On Serverless Applications with Go - Mohamed Labouardy 2018-08-29

Learn to build, secure, deploy, and manage your serverless application in Golang with AWS Lambda Key Features Implement AWS lambda to build scalable and cost-efficient applications in Go Design and set the data flow between cloud services and custom business logic Learn to design Lambda functions using real-world examples and implementation scenarios Book Description Serverless architecture is popular in the tech community due to AWS Lambda. Go is simple to learn, straightforward to work with, and easy to read for other developers; and now it's been heralded as a supported language for AWS Lambda. This book is your optimal guide to designing a Go serverless application and deploying it to Lambda. This book starts with a quick introduction to the world of serverless architecture and its benefits, and then delves into AWS Lambda using practical examples. You'll then learn how to design and build a production-ready application in Go using AWS serverless services with zero upfront infrastructure investment. The book will help you learn how to scale up serverless applications and handle distributed serverless systems in production. You will also learn how to log and test your application. Along the way, you'll also discover how to set up a CI/CD pipeline to automate the deployment process of your Lambda functions. Moreover, you'll learn how to troubleshoot and monitor your apps in near real-time with services such as AWS CloudWatch and X-ray. This book will also teach you how to

secure the access with AWS Cognito. By the end of this book, you will have mastered designing, building, and deploying a Go serverless application. What you will learn Understand how AWS Lambda works and use it to create an application Understand how to scaleup serverless applications Design a cost-effective serverless application in AWS Build a highly scalable and fault-tolerant CI/CD pipeline Understand how to troubleshoot and monitor serverless apps in AWS Discover the working of APIs and single page applications Build a production-ready serverless application in Go Who this book is for This book is for Go developers who would like to learn about serverless architecture. Go programming knowledge is assumed. DevOps and Solution Architects who are interested in building serverless applications in Go can also choose this book.

Cloud Native AI and Machine Learning on AWS - Premkumar Rangarajan 2023-02-14

Bring elasticity and innovation to Machine Learning and AI operations KEY FEATURES ● Coverage includes a wide range of AWS AI and ML services to help you speedily get fully operational with ML. ● Packed with real-world examples, practical guides, and expert data science methods for improving AI/ML education on AWS. ● Includes ready-made, purpose-built models as AI services and proven methods to adopt MLOps techniques. DESCRIPTION Using machine learning and artificial intelligence (AI) in existing business processes has been successful. Even AWS's ML and AI services make it simple and economical to conduct machine learning experiments. This book will show readers how to use the complete set of AI and ML services available on AWS to streamline the management of their whole AI operation and speed up their

innovation. In this book, you'll learn how to build data lakes, build and train machine learning models, automate MLOps, ensure maximum data reusability and reproducibility, and much more. The applications presented in the book show how to make the most of several different AWS offerings, including Amazon Comprehend, Amazon Rekognition, Amazon Lookout, and AutoML. This book teaches you to manage massive data lakes, train artificial intelligence models, release these applications into production, and track their progress in real-time. You will learn how to use the pre-trained models for various tasks, including picture recognition, automated data extraction, image/video detection, and anomaly detection. Every step of your Machine Learning and AI project's development process is optimised throughout the book by utilising Amazon's pre-made, purpose-built AI services. WHAT YOU WILL LEARN ● Learn how to build, deploy, and manage large-scale AI and ML applications on AWS. ● Get your hands dirty with AWS AI services like SageMaker, Comprehend, Rekognition, Lookout, and AutoML. ● Master data transformation, feature engineering, and model training with Amazon SageMaker modules. ● Use neural networks, distributed learning, and deep learning algorithms to improve ML models. ● Use AutoML, SageMaker Canvas, and Autopilot for Model Deployment and Evaluation. ● Acquire expertise with Amazon SageMaker Studio, Jupyter Server, and ML frameworks such as TensorFlow and MXNet. WHO THIS BOOK IS FOR Data Engineers, Data Scientists, AWS and Cloud Professionals who are comfortable with machine learning and the fundamentals of Python will find this book powerful. Familiarity with AWS would be helpful but is not required. TABLE OF CONTENTS 1.

Introducing the ML Workflow 2. Hydrating the Data Lake 3. Predicting the Future With Features 4. Orchestrating the Data Continuum 5. Casting a Deeper Net (Algorithms and Neural Networks) 6. Iteration Makes Intelligence (Model Training and Tuning) 7. Let George Take Over (AutoML in Action) 8. Blue or Green (Model Deployment Strategies) 9. Wisdom at Scale with Elastic Inference 10. Adding Intelligence with Sensory Cognition 11. AI for Industrial Automation 12. Operationalized Model Assembly (MLOps and Best Practices)

Serverless Beyond the Buzzword - Thomas Smart 2020-11-12

This book is for anyone interested in Serverless, regardless of their technical level. I share strategic insights for entrepreneurs and executives, planning and team insights for project managers, and technical insights for architects and team leads. The intent is to provide a deep but relevant understanding of Serverless Architecture and how it could impact your business and your projects.

Implementing DevOps on AWS - Veselin Kantsev 2017-01-24

Bring the best out of DevOps and build, deploy, and maintain applications on AWS About This Book Work through practical examples and gain DevOps best practices to successfully deploy applications on AWS Successfully provision and operate distributed application systems and your AWS infrastructure using DevOps Perform Continuous Integration and deployment and fine-tune the way you deliver on AWS Who This Book Is For This book is for system administrators and developers who manage AWS infrastructure and environments and are planning to implement DevOps in their organizations. Those aiming for the AWS Certified DevOps Engineer certification will

also find this book useful. Prior experience of operating and managing AWS environments is expected. What You Will Learn Design and deploy infrastructure as code within your AWS Virtual Private Cloud Implement Continuous Integration using AWS Services Configure EC2 instances using SaltStack Implement Continuous Deployment using Jenkins and the AWS CLI Collect important metrics and log data to gain more insight into infrastructure and applications Troubleshooting popular issues with some less known techniques using the AWS platform In Detail Knowing how to adopt DevOps in your organization is becoming an increasingly important skill for developers, whether you work for a start-up, an SMB, or an enterprise. This book will help you to drastically reduce the amount of time spent on development and increase the reliability of your software deployments on AWS using popular DevOps methods of automation. To start, you will get familiar with the concept of IaC and will learn to design, deploy, and maintain AWS infrastructure. Further on, you'll see how to design and deploy a Continuous Integration platform on AWS using either open source or AWS provided tools/services. Following on from the delivery part of the process, you will learn how to deploy a newly created, tested, and verified artefact to the AWS infrastructure without manual intervention. You will then find out what to consider in order to make the implementation of Configuration Management easier and more effective. Toward the end of the book, you will learn some tricks and tips to optimize and secure your AWS environment. By the end of the book, you will have mastered the art of implementing DevOps practices onto AWS. Style and approach This book is packed full of real-world examples demonstrating use cases that help you

deploy DevOps best practices on AWS.

Ansible for AWS - Yan Kurniawan 2016-10-26

A simple way to provision and manage your Amazon Cloud infrastructureAbout This Book- Get started with AWS management for infrastructure engineers- Explore techniques to set up and manage your private cloud using Ansible- A practical guide to help you manage AWS-based applications and infrastructure using AnsibleWho This Book Is ForIf you are an infrastructure engineer, system administrator, or Dev Ops engineer, this book is for you. You will find this book helpful if you have previous experience with Linux systems administration, including familiarity with the command line, file system, and text editing. Prior basic knowledge of Amazon Web Services and some experience with Ansible is assumed.What You Will Learn- Set up your own AWS account and get started with the AWS console- Use Ansible Playbook to configure and launch EC2 instances- Delve deeper into the AWS cloud infrastructure and create and manage VPC- Provision Amazon Relational Database Service (RDS) with Ansible- Manage files in an Amazon Simple Storage Service (S3) bucket using Ansible- Extend Ansible's functionality in the AWS environment- Use Ansible to provision ELB and Auto Scaling groups- Manage IAM users, groups, roles, and keys- See how to refine and chain together AWS tools using AnsibleIn DetailLooking to get a simple and efficient way to manage your Amazon Cloud infrastructure? Ansible is exactly what you need. This book will show you how to use Ansible's cloud modules to easily provision and manage AWS resources including EC2, VPC, RDS, S3, ELB, ElastiCache, and Route 53. We'll take you beyond the basics of Ansible, showing you real-world examples of

AWS infrastructure automation and management with detailed steps, complete code, and screen captures from the AWS console.The example projects inside this title will help you grasp the process leading to full AWS automation. From a single WordPress site to a highly available and scalable WordPress site, we'll demonstrate the power of using Ansible to provision and automate AWS-based infrastructure deployment.Style and approachThis hands-on guide will help you get acquainted with techniques to implement AWS for your private cloud.

The Definitive Guide to AWS Infrastructure Automation - Bradley Campbell 2019-12-06

Discover the pillars of AWS infrastructure automation, starting with API-driven infrastructure concepts and its immediate benefits such as increased agility, automation of the infrastructure life cycle, and flexibility in experimenting with new architectures. With this base established, the book discusses infrastructure-as-code concepts in a general form, establishing principled outcomes such as security and reproducibility. Inescapably, we delve into how these concepts enable and underpin the DevOps movement. The Definitive Guide to AWS Infrastructure Automation begins by discussing services and tools that enable infrastructure-as-code solutions; first stop: AWS's CloudFormation service. You'll then cover the ever-expanding ecosystem of tooling emerging in this space, including CloudFormation wrappers such as Troposphere and orchestrators such as Sceptre, to completely independent third-party tools such as Terraform and Pulumi. As a bonus, you'll also work with AWS' newly-released CDK (Cloud Development Kit). You'll then look at how to implement modular, robust, and extensible solutions across a few examples -- in the process

building out each solution with several different tools to compare and contrast the strengths and weaknesses of each. By the end of the journey, you will have gained a wide knowledge of both the AWS-provided and third-party ecosystem of infrastructure-as-code/provisioning tools, and the strengths and weaknesses of each. You'll possess a mental framework for how to craft an infrastructure-as-code solution to solve future problems based on examples discussed throughout the book. You'll also have a demonstrable understanding of the hands-on operation of each tool, situational appropriateness of each tool, and how to leverage the tool day to day. What You Will Learn Discover the technological and organizational benefits to infrastructure-as-code solutions Examine the overall landscape of infrastructure-as-code tooling and solutions available to consumers of AWS services See the strengths and weaknesses of these tools relative to one another as examined through hands-on implementation of several solutions Gain hands-on experience, best practices, and tips and tricks learned through several years' real-world experience delivering solutions using these very tools in a wide variety of scenarios Engineer solid solutions that leave room for new requirements and changes without requiring needless refactoring Who This Book Is For DevOps engineers, cloud engineers and architects focused on the AWS ecosystem, software engineers/developers working within the AWS ecosystem, and engineering leaders looking for best practices.