

Aws Glue Developer Guide

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.

Discover how graph databases can help you manage and query highly connected data. With this practical book, you'll learn how to design and implement a graph database that brings the power of graphs to bear on a broad range of problem domains. Whether you want to speed up your response to user queries or build a database that can adapt as your business evolves, this book shows you how to apply the schema-free graph model to real-world problems. This second edition includes new code samples and diagrams, using the latest Neo4j syntax, as well as information on new functionality. Learn how different organizations are using graph databases to outperform their competitors. With this book's data modeling, query, and code examples, you'll quickly be able to implement your own solution. Model data with the Cypher query language and property graph model Learn best practices and common pitfalls when modeling with graphs Plan and implement a graph database solution in test-driven fashion Explore real-world examples to learn how and why organizations use a graph database Understand common patterns and components of graph database architecture Use analytical techniques and algorithms to mine graph database information

Get more from your data with Amazon Athena's ease-of-use, interactive performance, and pay-per-query pricing Key FeaturesExplore the promising capabilities of Amazon Athena and Athena's Query Federation SDKUse Athena to prepare data for common machine learning activitiesCover best practices for setting up connectivity between your application and Athena and security considerationsBook Description Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using SQL, without needing to manage any infrastructure. This book begins with an overview of the serverless analytics experience offered by Athena and teaches you how to build and tune an S3 Data Lake using Athena, including how to structure your tables using open-source file formats like Parquet. You'll learn how to build, secure, and connect to a data lake with Athena and Lake Formation. Next, you'll cover key tasks such as ad hoc data analysis, working with ETL pipelines, monitoring and alerting KPI breaches using CloudWatch Metrics, running customizable connectors with AWS Lambda, and more. Moving on, you'll work through easy integrations, troubleshooting and tuning common Athena issues, and the most common reasons for query failure. You will also review tips to help diagnose and correct failing queries in your pursuit of operational excellence. Finally, you'll explore advanced concepts such as Athena Query Federation and Athena ML to generate powerful insights without needing to touch a single server. By the end of this book, you'll be able to build and use a data lake with Amazon Athena to add data-driven features to your app and perform the kind of ad hoc data analysis that often precedes many of today's ML modeling exercises. What you will learnSecure and manage the cost of querying your dataUse Athena ML and User Defined Functions (UDFs) to add advanced features to your reportsWrite your own Athena Connector to integrate with a custom data sourceDiscover your datasets on S3 using AWS Glue CrawlersIntegrate Amazon Athena into your applicationsSetup Identity and Access Management (IAM) policies to limit access to tables and databases in Glue Data CatalogAdd an Amazon SageMaker Notebook to your Athena queriesGet to grips with using Athena for ETL pipelinesWho this book is for Business intelligence (BI) analysts, application developers, and system administrators who are looking to generate insights from an ever-growing sea of data while controlling costs and limiting operational burden, will find this book helpful. Basic SQL knowledge is expected to make the most out of this book.

"An Airflow bible. Useful for all kinds of users, from novice to expert." – Rambabu Posa, Sai Aashika Consultancy Data Pipelines with Apache Airflow teaches you how to build and maintain effective data pipelines. A successful pipeline moves data efficiently, minimizing pauses and blockages between tasks, keeping every process along the way operational. Apache Airflow provides a single customizable environment for building and managing data pipelines, eliminating the need for a hodgepodge collection of tools, snowflake code, and homegrown processes. Using real-world scenarios and examples, Data Pipelines with Apache Airflow teaches you how to simplify and automate data pipelines, reduce operational overhead, and smoothly integrate all the technologies in your stack. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Data pipelines manage the flow of data from initial collection through consolidation, cleaning, analysis, visualization, and more. Apache Airflow provides a single platform you can use to design, implement, monitor, and maintain your pipelines. Its easy-to-use UI, plug-and-play options, and flexible Python scripting make Airflow perfect for any data management task. About the book Data Pipelines with Apache Airflow teaches you how to build and maintain effective data pipelines. You'll explore the most common usage patterns, including aggregating multiple data sources, connecting to and from data lakes, and cloud deployment. Part reference and part tutorial, this practical guide covers every aspect of the directed acyclic graphs (DAGs) that power Airflow, and how to customize them for your pipeline's needs. What's inside Build, test, and deploy Airflow pipelines as DAGs Automate moving and transforming data Analyze historical datasets using backfilling Develop custom components Set up Airflow in production environments About the reader For DevOps, data engineers, machine learning engineers, and sysadmins with intermediate Python skills. About the author Bas Harenslak and Julian de Ruiter are data engineers with extensive experience using Airflow to develop pipelines for major companies. Bas is also an Airflow committer. Table of Contents PART 1 – GETTING STARTED 1 Meet Apache Airflow 2 Anatomy of an Airflow DAG 3 Scheduling in Airflow 4 Templating tasks using the Airflow context 5 Defining dependencies between tasks PART 2 – BEYOND THE BASICS 6 Triggering workflows 7 Communicating with external systems 8 Building custom components 9 Testing 10 Running tasks in containers PART 3 – AIRFLOW IN PRACTICE 11 Best practices 12 Operating Airflow in production 13 Securing Airflow 14 Project: Finding the fastest way to get around NYC PART 4 – IN THE CLOUDS 15 Airflow in the clouds 16 Airflow on AWS 17 Airflow on Azure 18 Airflow in GCP

Specialty DAS-C01 Exam

Best Practices for Development

Your Essential Guide to the Everyday Skills Expected of a Modern Full Stack Web Developer

AWS Certified Cloud Practitioner (CLF-C01) Cert Guide

Serverless Analytics with Amazon Athena

Programming Amazon EC2

Data Engineering with AWS

The Hitchhiker's Guide to Python takes the journeyman Pythonista to true expertise. More than any other language, Python was created with the philosophy of simplicity and parsimony. Now 25 years old, Python has become the primary or secondary language (after SQL) for many business users. With popularity comes diversity—and possibly dilution. This guide, collaboratively written by over a hundred members of the Python community, describes best practices currently used by package and application developers. Unlike other books for this audience, The Hitchhiker's Guide is light on reusable code and heavier on design philosophy, directing the reader to excellent sources that already exist.

Perform fast interactive analytics against different data sources using the Trino high-performance distributed SQL query engine. With this practical guide, you'll learn how to conduct analytics on data where it lives, whether it's Hive, Cassandra, a relational database, or a proprietary data store. Analysts, software engineers, and production engineers will learn how to manage, use, and even develop with Trino. Initially developed by Facebook, open source Trino is now used by Netflix, Airbnb, LinkedIn, Twitter, Uber, and many other companies. Matt Fuller, Manfred Moser, and Martin Traverso show you how a single Trino query can combine data from multiple sources to allow for analytics across your entire organization. Get started: Explore Trino's use cases and learn about tools that will help you connect to Trino and query data Go deeper: Learn Trino's internal workings, including how to connect to and query data sources with support for SQL statements, operators, functions, and more Put Trino in production: Secure Trino, monitor workloads, tune queries, and connect more applications; learn how other organizations apply Trino

Build, automate, and manage your AWS-based cloud environments About This Book Install, configure, and administer computing, storage, and networking in the AWS cloud Automate your infrastructure and control every aspect of it through infrastructure as code Work through exciting recipes to administer your AWS cloud Who This Book Is For If you are an administrator, DevOps engineer, or an professional who is moving to an AWS-based cloud environment, then this book is for you. It assumes familiarity with cloud computing platforms, and that you have some understanding of virtualization, networking, and other administration-related tasks. What You Will Learn Discover the best practices to achieve an automated repeatable infrastructure in AWS Bring down your IT costs by managing AWS successfully and deliver high availability, fault tolerance, and scalability Make any website faster with static and dynamic caching Create monitoring and alerting dashboards using CloudWatch Migrate a database to AWS Set up consolidated billing to achieve simple and effective cost management with accounts Host a domain and find out how you can automate health checks In Detail Amazon Web Services (AWS) is a bundled remote computing service that provides cloud computing infrastructure over the Internet with storage, bandwidth, and customized support for application programming interfaces (API). Implementing these services to efficiently administer your cloud environments is a core task. This book will help you build and administer your cloud environment with AWS. We'll begin with the AWS fundamentals, and you'll build the foundation for the recipes you'll work on throughout the book. Next, you will find out how to manage multiple accounts and set up consolidated billing. You will then learn to set up reliable and fast hosting for static websites, share data between running instances, and back up your data for compliance. Moving on, you will find out how to use compute service to enable consistent and fast instance provisioning, and will see how to provision storage volumes and autoscale an application server. Next, you'll discover how to effectively use the networking and database service of AWS. You will also learn about the different management tools of AWS along with securing your AWS cloud. Finally, you will learn to estimate the costs for your cloud. By the end of the book, you will be able to easily administer your AWS cloud. Style and approach This practical guide is packed with clear, practical, instruction-based recipes that will enable you to use and implement the latest features of AWS.

"Creating channels with application programming interfaces"--Cover.

Craft Infrastructure-as-Code Solutions

ATDD by Example

AWS Certified Developer – Associate Guide

Hands-On AWS Penetration Testing with Kali Linux

A guide to building, training, and deploying machine learning models for developers and data scientists

New Opportunities for Connected Data

Your comprehensive reference guide to learning about AWS Glue and its features

This practical guide provides over 100 self-contained recipes to help you creatively solve issues you may encounter in your AWS cloud endeavors. If you're comfortable with rudimentary scripting and general cloud concepts, this cookbook will give you what you need to both address foundational tasks and create high-level capabilities. AWS Cookbook provides real-world examples that incorporate best practices. Each recipe includes code that you can safely execute in a sandbox AWS account to ensure that it works. From there, you can customize the code to help construct your application or fix your specific existing problem. Recipes also include a discussion that explains the approach and provides context. This cookbook takes you beyond theory, providing the nuts and bolts you need to successfully build on AWS. You'll find recipes for: Organizing multiple accounts for enterprise deployments Locking down S3 buckets Analyzing IAM roles Autoscaling a containerized service Summarizing news articles Standing up a virtual call center Creating a chatbot that can pull answers from a knowledge repository Automating security group rule monitoring, looking for rogue traffic flows And more.

Meet Odd Thomas, the unassuming young hero of Dean Koontz's dazzling New York Times bestseller, a gallant sentinel at the crossroads of life and death who offers up his heart in these pages and will forever capture yours. "The dead don't talk. I don't know why." But they do try to communicate, with a short-order cook in a small desert town serving as their reluctant confidant. Sometimes the silent souls who seek out Odd want justice. Occasionally their otherworldly tips help him prevent a crime. But this time it's different. A stranger comes to Pico Mundo, accompanied by a horde of hyena-like shades who herald an imminent catastrophe. Aided by his soul mate, Stormy Llewellyn, and an unlikely community of allies that includes the King of Rock 'n' Roll, Odd will race against time to thwart the gathering evil. His account of these shattering hours, in which past and present, fate and destiny, converge, is a testament by which to live—an unforgettable fable for our time destined to rank among Dean Koontz's most enduring works.

Build efficient data lakes that can scale to virtually unlimited size using AWS Glue Key Features Learn to work with AWS Glue to overcome typical implementation challenges in data lakes Create and manage serverless ETL pipelines that can scale to manage big data Written by AWS Glue community members, this practical guide shows you how to implement AWS Glue in no time Book Description Organizations these days have gravitated toward services such as AWS Glue that undertake undifferentiated heavy lifting and provide serverless Spark, enabling you to create and manage data lakes in a serverless fashion. This guide shows you how AWS Glue can be used to solve real-world problems along with helping you learn about data processing, data integration, and building data lakes. Beginning with AWS Glue basics, this book teaches you how to perform various aspects of data analysis such as ad hoc queries, data visualization, and real-time analysis using this service. It also provides a walk-through of CI/CD for AWS Glue and how to shift left on quality using automated regression tests. You'll find out how data security aspects such as access control, encryption, auditing, and networking are implemented, as well as getting to grips with useful techniques such as picking the right file format, compression, partitioning, and bucketing. As you advance, you'll discover AWS Glue features such as crawlers, Lake Formation, governed tables, lineage, DataBrew, Glue Studio, and custom connectors. The concluding chapters help you to understand various performance tuning, troubleshooting, and monitoring options. By the end of this AWS book, you'll be able to create, manage, troubleshoot, and deploy ETL pipelines using AWS Glue. What you will learn Apply various AWS Glue features to manage and create data lakes Use Glue DataBrew and Glue Studio for data preparation Optimize data layout in cloud storage to accelerate analytics workloads Manage metadata including database, table, and schema definitions Secure your data during access control, encryption, auditing, and networking Monitor AWS Glue jobs to detect delays and loss of data Integrate Spark ML and SageMaker with AWS Glue to create machine learning models Who this book is for This book is for ETL developers, data engineers, and data analysts who want to understand how AWS Glue can help you solve your business problems. Basic knowledge of AWS data services is assumed.

Combines language tutorials with application design advice to cover the PHP server-side scripting language and the MySQL database engine.

AWS Certified Developer Official Study Guide, Associate Exam

AWS Certified Data Analytics Study Guide

Design your cloud infrastructure by implementing DevOps, containers, and Amazon Web Services

Associate (DVA-C01) Exam

The Full Stack Developer

AWS Certified Data Analytics Study Guide with Online Labs

Resilience and Reliability on AWS

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.

AWS Glue is a fully managed ETL (extract, transform, and load) service that makes it simple and cost-effective to categorize your data, clean it, enrich it, and move it reliably between various data stores. AWS Glue consists of a central metadata repository known as the AWS Glue Data Catalog, an ETL engine that automatically generates Python or Scala code, and a flexible scheduler that handles dependency resolution, job monitoring, and retries. AWS Glue is serverless, so there's no infrastructure to set up or manage. Use the AWS Glue console to discover data, transform it, and make it available for search and querying. The console calls the underlying services to orchestrate the work required to transform your data. You can also use the AWS Glue API operations to interface with AWS Glue services. Edit, debug, and test your Python or Scala Apache Spark ETL code using a familiar development environment.

Rely on this robust and thorough guide to build and maintain successful test automation. As the software industry shifts from traditional waterfall paradigms into more agile ones, test automation becomes a highly important tool that allows your development teams to deliver software at an ever-increasing pace without compromising quality. Even though it may seem trivial to automate the repetitive tester's work, using test automation efficiently and properly is not trivial. Many test automation endeavors end up in the "graveyard" of software projects. There are many things that affect the value of test automation, and also its costs. This book aims to cover all of these aspects in great detail so you can make decisions to create the best test automation solution that will not only help your test automation project to succeed, but also allow the entire software project to thrive. One of the most important details that affects the success of the test automation is how easy it is to maintain the automated tests. Complete Guide to Test Automation provides a detailed hands-on guide for writing highly maintainable test code. What You'll Learn Know the real value to be expected from test automation Discover the key traits that will make your test automation project succeed Be aware of the different considerations to take into account when planning automated tests vs. manual

tests Determine who should implement the tests and the implications of this decision Architect the test project and fit it to the architecture of the tested application Design and implement highly reliable automated tests Begin gaining value from test automation earlier Integrate test automation into the business processes of the development teamLeverage test automation to improve your organization's performance and quality, even without formal authority Understand how different types of automated tests will fit into your testing strategy, including unit testing, load and performance testing, visual testing, and more Who This Book Is For Those involved with software development such as test automation leads, QA managers, test automation developers, and development managers. Some parts of the book assume hands-on experience in writing code in an object-oriented language (mainly C# or Java), although most of the content is also relevant for nonprogrammers.

If you plan to use Amazon Web Services to run applications in the cloud, the end-to-end approach in this book will save you needless trial and error. You'll find practical guidelines for designing and building applications with Amazon Elastic Compute Cloud (EC2) and a host of supporting AWS tools, with a focus on critical issues such as load balancing, monitoring, and automation. How do you move an existing application to AWS, or design your application so that it scales effectively? How much storage will you require? Programming Amazon EC2 not only helps you get started, it will also keep you going once you're successfully positioned in the cloud. This book is a must-read for application architects, developers, and administrators. Determine your application's lifecycle and identify the AWS tools you need Learn how to build and run your application as part of the development process Migrate simple web applications to the cloud with EC2, Amazon Simple Storage Service, and CloudFront content delivery Meet traffic demand with EC2's Auto Scaling and Elastic Load Balancing Decouple your application using Simple Queue Service, Simple Notification Service, and other tools Use the right tools to minimize downtime, improve uptime, and manage your decoupled system "Jurg and Flavia have done a great job in this book building a practical guide on how to build real systems using AWS." --Werner Vogels, VP & CTO at Amazon.com

Prepare for CLF-C01 Exam with quizzes, assessment tests, cheat sheets, hands-on lessons and practice exams to build real-life experiences

APIs: A Strategy Guide

Query structured, unstructured, or semi-structured data in seconds without setting up any infrastructure

CLF-C01 Exam

AWS for Solutions Architects

A Practical Guide to Acceptance Test-Driven Development

AWS Cookbook

The missing expert-led manual for the AWS ecosystem – go from foundations to building data engineering pipelines effortlessly **Key Features**Learn about common data architectures and modern approaches to generating value from big dataExplore AWS tools for ingesting, transforming, and consuming data, and for orchestrating pipelinesLearn how to architect and implement data lakes and data lakehouses for big data analytics from a data lakes expertBook Description Written by a Senior Data Architect with over twenty-five years of experience in the business, *Data Engineering for AWS* is a book whose sole aim is to make you proficient in using the AWS ecosystem. Using a thorough and hands-on approach to data, this book will give aspiring and new data engineers a solid theoretical and practical foundation to succeed with AWS. As you progress, you'll be taken through the services and the skills you need to architect and implement data pipelines on AWS. You'll begin by reviewing important data engineering concepts and some of the core AWS services that form a part of the data engineer's toolkit. You'll then architect a data pipeline, review raw data sources, transform the data, and learn how the transformed data is used by various data consumers. You'll also learn about populating data marts and data warehouses along with how a data lakehouse fits into the picture. Later, you'll be introduced to AWS tools for analyzing data, including those for ad-hoc SQL queries and creating visualizations. In the final chapters, you'll understand how the power of machine learning and artificial intelligence can be used to draw new insights from data. By the end of this AWS book, you'll be able to carry out data engineering tasks and implement a data pipeline on AWS independently. What you will learnUnderstand data engineering concepts and emerging technologiesIngest streaming data with Amazon Kinesis Data FirehoseOptimize, denormalize, and join datasets with AWS Glue StudioUse Amazon S3 events to trigger a Lambda process to transform a fileRun complex SQL queries on data lake data using Amazon AthenaLoad data into a Redshift data warehouse and run queriesCreate a visualization of your data using Amazon QuickSightExtract sentiment data from a dataset using Amazon ComprehendWho this book is for This book is for data engineers, data analysts, and data architects who are new to AWS and looking to extend their skills to the AWS cloud. Anyone new to data engineering who wants to learn about the foundational concepts while gaining practical experience with common data engineering services on AWS will also find this book useful. A basic understanding of big data-related topics and Python coding will help you get the most out of this book but it's not a prerequisite. Familiarity with the AWS console and core services will also help you follow along.

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.

Learn from the AWS subject-matter experts, explore real-world scenarios, and pass the AWS Certified Developer – Associate exam **Key Features**This 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.

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.

The Complete Guide to Practices and Procedures

Aws Certified Cloud Practitioner Exam Success Guide 2

Database Administration

Seven Databases in Seven Weeks

Trino: The Definitive Guide

John Dies at the End

Serverless ETL and Analytics with AWS Glue

Move your career forward with AWS certification! Prepare for the AWS Certified Data Analytics Specialty Exam with this thorough study guide This comprehensive study guide will help assess your technical skills and prepare for the updated AWS Certified Data Analytics exam. Earning this AWS certification will confirm your expertise in designing and implementing AWS services to derive value from data. The AWS Certified Data Analytics Study Guide: Specialty (DAS-C01) Exam is designed for business analysts and IT professionals who perform complex Big Data analyses. This AWS Specialty Exam guide gets you ready for certification testing with expert content, real-world knowledge, key exam concepts, and topic reviews. Gain confidence by studying the subject areas and working through the practice questions. Big data concepts covered in the guide include: Collection Storage Processing Analysis Visualization Data security AWS certifications allow professionals to demonstrate skills related to leading Amazon Web Services technology. The AWS Certified Data Analytics Specialty (DAS-C01) Exam specifically evaluates your ability to design and maintain Big Data, leverage tools to automate data analysis, and implement AWS Big Data services according to architectural best practices. An exam study guide can help you feel more prepared about taking an AWS certification test and advancing your professional career. In addition to the guide's content, you'll have access to an online learning environment and test bank that offers practice exams, a glossary, and electronic flashcards.

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 Features**Build, 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.

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 Data Analytics Study Guide to give you the same experience working in these labs as you prepare for the Certified Data Analytics 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 Data Analyst. AWS Certified Data Analytics Study Guide: Specialty (DAS-C01) Exam is intended for individuals who perform in a data analytics-focused role. This UPDATED exam validates an examinee's comprehensive understanding of using AWS services to design, build, secure, and maintain analytics solutions that provide insight from data. It assesses an examinee's ability to define AWS data analytics services and understand how they integrate with each other; and explain how AWS data analytics services fit in the data lifecycle of collection, storage, processing, and visualization. The book focuses on the following domains: • Collection • Storage and Data Management • Processing • Analysis and Visualization • Data Security This is your opportunity to take the next step in your career by expanding and validating your skills on the AWS cloud. AWS is the frontrunner in cloud computing products and services, and the AWS Certified Data Analytics Study Guide: Specialty exam will get you fully prepared through expert content, and real-world knowledge, key exam essentials, chapter review questions, and much more. Written by an AWS subject-matter expert, this study guide covers exam concepts, and provides key review on exam topics. Readers will also have access to Sybex's superior online interactive learning environment and test bank, including chapter tests, practice exams, a glossary of key terms, and electronic flashcards. 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 Data Analytics Labs with 3 unique lab modules based on the book. This effective self-study system delivers complete coverage of every topic on the AWS Certified Developer Associate Exam Take the challenging AWS Certified Developer Associate Exam with confidence using the comprehensive information contained in this effective test preparation guide. Written by an Amazon Web Services certified expert and experienced trainer, AWS Certified Developer Associate All-in-One Exam Guide (Exam DVA-C01) covers every subject on the exam and clearly explains how to create, deploy, migrate, monitor, and debug cloud-native applications. Designed to help you pass the exam with ease, this guide also serves as an ideal on-the-job reference. Covers all topics on the exam, including: Getting started with AWS Journey AWS high availability and fault tolerance Working with cloud storage Authentication and authorization Creating SQL and NoSQL databases in AWS Cloud AWS application integration and management Developing cloud-native applications in AWS Building, deploying, and debugging cloud applications Electronic content includes: 130 practice questions Test engine containing full-length practice exams and customizable quizzes

Web Database Applications with PHP and MySQL

AWS Certified SysOps Administrator Official Study Guide

AWS Administration Cookbook

AWS Certified Developer Associate All-in-One Exam Guide (Exam DVA-C01)

Specialty (DAS-C01) Exam

Best Practices for Sysadmins in the Amazon Cloud

Associate Exam

"Jason Pargin] has updated the Lovecraft tradition and infused it with humor that rather than lessening the horror, increases it dramatically. Every time I set the book down down, I was wary that something really was afoot, that there were creatures I couldn't see, and that because I suspected this, I was next. Engaging, comic, and terrifying." —Joe Garden, Features Editor, *The Onion* "[Pargin] is like a mash-up of Douglass Adams and Stephen King... 'page-turner' is an understatement." —Don Coscarelli, director, *Phantasm I-V, Bubba Ho-ten* "That rarest of things—a genuinely scary story." —David Wellington, author of *Monster Island, Vampire Zero* "JOHN DIES AT THE END has a cult following for a reason: it's horrific, thought-provoking, and hilarious all at once. This is one of the most entertaining and addictive novels I've ever read." —Jacob Kier, Publisher, *Permuted Press STOP. You should not have touched this flyer with your bare hands. NO, don't put it down. It's too late. They're watching you. My name is David. My best friend is John. Those names are fake. You may not want to know about the things you'll read on these pages, about the sauce, about Korrok, about the invasion, and the future. But it's too late. You touched the book. You're in the game. You're under the eye. The only defense is knowledge. You need to read this book, to the end. Even the part with the bratwurst. Why? You just have to trust me. The important thing is this: The sauce is a drug, and it gives users a window into another dimension. John and I never had the chance to say no. You still do. I'm sorry to have involved you in this, I really am. But as you read about these terrible events and the very dark epoch the world is about to enter as a result, it is crucial you keep one thing in mind: None of this was my fault.*

Building models is a small part of the story when it comes to deploying machine learning applications. The entire process involves developing, orchestrating, deploying, and running scalable and portable machine learning workloads--a process Kubeflow makes much easier. This practical book shows data scientists, data engineers, and platform architects how to plan and execute a Kubeflow project to make their Kubernetes workflows portable and scalable. Authors Josh Patterson, Michael Katzenellenbogen, and Austin Harris demonstrate how this open source platform orchestrates workflows by managing machine learning pipelines. You'll learn how to plan and execute a Kubeflow project that can support workflows from on-premises to cloud providers including Google, Amazon, and Microsoft. Dive into Kubeflow architecture and learn best practices for using the platform Understand the process of planning your Kubeflow deployment Install Kubeflow on an existing on-premises Kubernetes cluster Deploy Kubeflow on Google Cloud Platform step-by-step from the command line Use the managed Amazon Elastic Kubernetes Service (EKS) to deploy Kubeflow on AWS Deploy and manage Kubeflow across a network of Azure cloud data centers around the world Use KFServing to develop and deploy machine learning models

Data is getting bigger and more complex by the day, and so are your choices in handling it. Explore some of the most cutting-edge databases available - from a traditional relational database to newer NoSQL approaches - and make informed decisions about challenging data storage problems. This is the only comprehensive guide to the world of NoSQL databases, with in-depth practical and conceptual introductions to seven different technologies: Redis, Neo4J, CouchDB, MongoDB, HBase, Postgres, and DynamoDB. This second edition includes a new chapter on DynamoDB and updated content for each chapter. While relational databases such as MySQL remain as relevant as ever, the alternative, NoSQL paradigm has opened up new horizons in performance and scalability and changed the way we approach data-centric problems. This book presents the

*essential concepts behind each database alongside hands-on examples that make each technology come alive. With each database, tackle a real-world problem that highlights the concepts and features that make it shine. Along the way, explore five database models - relational, key/value, columnar, document, and graph - from the perspective of challenges faced by real applications. Learn how MongoDB and CouchDB are strikingly different, make your applications faster with Redis and more connected with Neo4J, build a cluster of HBase servers using cloud services such as Amazon's Elastic MapReduce, and more. This new edition brings a brand new chapter on DynamoDB, updated code samples and exercises, and a more up-to-date account of each database's feature set. Whether you're a programmer building the next big thing, a data scientist seeking solutions to thorny problems, or a technology enthusiast venturing into new territory, you will find something to inspire you in this book. What You Need: You'll need a *nix shell (Mac OS or Linux preferred, Windows users will need Cygwin), Java 6 (or greater), and Ruby 1.8.7 (or greater). Each chapter will list the downloads required for that database.*

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

AWS Glue Developer Guide

Specialty Exam

Kubeflow Operations Guide

Complete Guide to Test Automation

Your one-stop solution to passing the AWS developer's 2019 (DVA-C01) certification, 2nd Edition

An Odd Thomas Novel

Learn Amazon SageMaker

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

With Acceptance Test-Driven Development (ATDD), business customers, testers, and developers can collaborate to produce testable requirements that help them build higher quality software more rapidly. However, ATDD is still widely misunderstood by many practitioners. ATDD by Example is the first practical, entry-level, hands-on guide to implementing and successfully applying it. ATDD pioneer Markus Gartner walks readers step by step through deriving the right systems from business users, and then implementing fully automated, functional tests that accurately reflect business requirements, are intelligible to stakeholders, and promote more effective development. Through two end-to-end case studies, Gartner demonstrates how ATDD can be applied using diverse frameworks and languages. Each case study is accompanied by an extensive set of artifacts, including test automation classes, step definitions, and full sample implementations. These realistic examples illuminate ATDD's fundamental principles, show how ATDD fits into the broader development process, highlight tips from Gartner's extensive experience, and identify crucial pitfalls to avoid. Readers will learn to Master the thought processes associated with successful ATDD implementation Use ATDD with Cucumber to describe software in ways businesspeople can understand Test web pages using ATDD tools Bring ATDD to Java with the FitNesse wiki-based acceptance test framework Use examples more effectively in Behavior-Driven Development (BDD) Specify software collaboratively through innovative workshops

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

A thorough reference on database administration outlines a variety of DBA roles and responsibilities and discusses such topics as data modeling and normalization, database/application design, change management, database security and data integrity, performance issues, disaster planning, and other essentials. Original. (Advanced)

A Guide to Modern Databases and the NoSQL Movement

Graph Databases

Techniques, Practices, and Patterns for Building and Maintaining Effective Software Projects

The Definitive Guide to AWS Infrastructure Automation

AWS System Administration

Serverless Architectures with AWS

Discover how you can migrate from traditional deployments to serverless architectures with AWS

This book is volume 2 of AWS Certified Cloud Practitioner Exam Success Guide. In this volume, you'll continue your lessons on Amazon Web Services. I'll give you special exam preparation tips in Chapter 10 to help you complete your preparation and fast-track your AWS Certified Cloud Practitioner exam success. The great thing about the cloud practitioner exam is it's very suitable for people coming from many different backgrounds. So, it doesn't matter if you have little or no technical experience, or if you do have a technical background and you're looking to transition your skill sets into the cloud. Whatever background you're coming from, the two volumes of my guide are all you need. If you've not read the first volume, please order it now and read it first. Everything you need is both volumes. They will help you pass your exam. You're not in this alone because I'm going to help you through it. My support link is at the end of this book for you to contact me any time if you need further help. Whatever your preferred learning style, I've also got you covered. If you're a visual learner, you'll love my clear diagrams and illustrations throughout this book. You'll enjoy the facts I present to you and the cheat sheets I created because they have exam specific information in them. If you're a practical learner, you'll love my hands-on lessons so that you can get practical with AWS and learn in a hands-on way.

Don't waste your energy thinking about servers; use AWS to build enterprise-grade serverless applications. Key Features Learn how to quickly and easily go serverless Explore AWS and Lambda: the first building blocks of serverless applications on AWS Study different approaches to deploy and maintain serverless applications Book Description Serverless Architecture with AWS begins with an introduction to the serverless model and helps you get started with AWS and Lambda. You'll also get to grips with other capabilities of the AWS Serverless Platform and see how AWS supports enterprise-grade serverless applications with and without Lambda. This book will guide you in deploying your first serverless project and exploring the capabilities of serverless Amazon Athena, an interactive query service that makes it easy to analyze data in Amazon Simple Storage Service (S3 Amazon) using standard SQL. You'll also learn about AWS Glue, a fully managed ETL service that makes categorizing data easy and cost-effective. You'll study how Amazon Kinesis makes it possible to unleash the potential of real-time data insights and analytics with capabilities such as video streams, data streams, data firehose, and data analytics. Last but not least, you'll be equipped to combine Amazon Kinesis capabilities with AWS Lambda to create lightweight serverless architectures. By the end of the book, you will be ready to create and run your first serverless application that takes advantage of the high availability, security, performance, and scalability of AWS. What you will learn Explore AWS services for supporting a serverless environment Set up AWS services to make applications scalable and highly available Deploy a static website with a serverless architecture Build your first serverless web application Study the changes in a deployed serverless web application Apply best practices to ensure overall security, availability, and reliability Who this book is for This book is for you if you want to develop serverless applications and have some prior coding experience. Though no prior experience of AWS is needed, basic knowledge of Java or Node.js will be an added advantage.

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

Data in the genomics field is booming. In just a few years, organizations such as the National Institutes of Health (NIH) will host 50+ petabytes—or over 50 million gigabytes—of genomic data, and they're turning to cloud infrastructure to make that data available to the research community. How do you adapt analysis tools and protocols to access and analyze that volume of data in the cloud? With this practical book, researchers will learn how to work with genomics algorithms using open source tools including the Genome Analysis Toolkit (GATK), Docker, WDL, and Terra. Geraldine Van der Auwera, longtime custodian of the GATK user community, and Brian O'Connor of the UC Santa Cruz Genomics Institute, guide you through the process. You'll learn by working with real data and genomics algorithms from the field. This book covers: Essential genomics and computing technology background Basic cloud computing operations Getting started with GATK, plus three major GATK Best Practices pipelines Automating analysis with scripted workflows using WDL and Cromwell Scaling up workflow execution in the cloud, including parallelization and cost optimization Interactive analysis in the cloud using Jupyter notebooks Secure collaboration and computational reproducibility using Terra

Data Pipelines with Apache Airflow

Learn how to design and build cloud-based data transformation pipelines using AWS

Set up a virtual lab and pentest major AWS services, including EC2, S3, Lambda, and CloudFormation

Odd Thomas

AWS Certified Advanced Networking Official Study Guide

AWS Certified Cloud Practitioner Study Guide with Online Labs

Genomics in the Cloud

This is the eBook version of the print title. Note that the eBook does not provide access to the practice test software that accompanies the print book. Learn, prepare, and practice for AWS Certified Cloud Practitioner (CLF-C01) exam success with this Cert Guide from Pearson IT Certification, a leader in IT Certification learning. Master AWS Certified Cloud Practitioner (CLF-C01) exam topics Assess your knowledge with chapter-ending quizzes Review key concepts with exam preparation tasks AWS Certified Cloud Practitioner (CLF-C01) Cert Guide is a best-of-breed exam study guide. Best-selling author and expert instructor Anthony Sequeira shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam topics. The book presents you with an organized test preparation routine through the use of proven series elements and techniques. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. Review questions help you assess your knowledge, and a final preparation chapter guides you through tools and resources to help you craft your final study plan. Well-regarded for its level of detail, assessment features, and challenging review questions and exercises, this study guide helps you master the concepts and techniques that will enable you to succeed on the exam the first time. The study guide helps you master all the topics on the AWS Certified Cloud Practitioner exam, including how to: Define the AWS Cloud and its value proposition, and discuss its economics Define the AWS Shared Responsibility model, and key AWS security and compliance concepts Identify AWS access management capabilities Define methods of deploying the AWS Cloud and operating within Define the AWS global infrastructure and identify core AWS services Recognize and compare AWS pricing models and account structures Identify support resources for security, AWS cloud technology, and billing

Identify tools and techniques to secure and perform a penetration test on an AWS infrastructure using Kali Linux Key FeaturesEfficiently perform penetration testing techniques on your public cloud instancesLearn not only to cover loopholes but also to automate security monitoring and alerting within your cloud-based deployment pipelinesA step-by-step guide that will help you leverage the most widely used security platform to secure your AWS Cloud environmentBook Description The cloud is taking over the IT industry. Any organization housing a large amount of data or a large infrastructure has started moving cloud-ward — and AWS rules the roost when it comes to cloud service providers, with its closest competitor having less than half of its market share. This highlights the importance of security on the cloud, especially on AWS. While a lot has been said (and written) about how cloud environments can be secured, performing external security assessments in the form of pentests on AWS is still seen as a dark art. This book aims to help pentesters as well as seasoned system administrators with a hands-on approach to pentesting the various cloud services provided by Amazon through AWS using Kali Linux. To make things easier for novice pentesters, the book focuses on building a practice lab and refining penetration testing with Kali Linux on the cloud. This is helpful not only for beginners but also for pentesters who want to set up a pentesting environment in their private cloud, using Kali Linux to perform a white-box assessment of their own cloud resources. Besides this, there is a lot of in-depth coverage of the large variety of AWS services that are often overlooked during a pentest — from serverless infrastructure to automated deployment pipelines. By the end of this book, you will be able to identify possible vulnerable areas efficiently and secure your AWS cloud environment. What you will learnFamiliarize yourself with and pentest the most common external-facing AWS servicesAudit your own infrastructure and identify flaws, weaknesses, and loopholesDemonstrate the process of lateral and vertical movement through a partially compromised AWS accountMaintain stealth and persistence within a compromised AWS accountMaster a hands-on approach to pentestingDiscover a number of automated tools to ease the process of continuously assessing and improving the security stance of an AWS infrastructureWho this book is for If you are a security analyst or a penetration tester and are interested in exploiting Cloud environments to reveal vulnerable areas and secure them, then this book is for you. A basic understanding of penetration testing, cloud computing, and its security concepts is mandatory.

Understand the technical foundations, as well as the non-programming skills needed to be a successful full stack web developer. This book reveals the reasons why a truly successful full stack developer does more than write code. You will learn the principles of the topics needed to help a developer new to agile or full stack working—UX, project management, QA, product management, and more—from the point of view of a developer. Covering these skills alongside the fundamentals and foundations of modern web development, rather than specifics of current technologies and frameworks (which can age quickly), all programming examples are given in the context of the web as it is in 2018. Although you need to feel comfortable working on code at the system, database, API, middleware or user interface level, depending on the task in hand, you also need to be able to deal with the big picture and the little details. The Full Stack Developer recognizes skills beyond the technical, and gives foundational knowledge of the wide set of skills needed in a modern software development team. What You'll Learn Plan your work including Agile vs Waterfall, tools, scrum, kanban and continuous delivery Translate UX into code: grids, component libraries and style guides Design systems and system architectures (microservices to monoliths) Review patterns for APIs (SOAP, AJAX, REST), defining API domains, patterns for REST APIs and more API goodnessStudy the various front-end design patterns you need to know Store data, what to consider for security, deployment, in production and more Who This Book Is For New graduates or junior developers who are transitioning to working as part of a larger team structure in a multi-disciplinary teams and developers previously focused on only front-end or back-end dev transitioning into full stack.

Using Docker, GATK, and WDL in Terra

The Hitchhiker's Guide to Python