Streaming Data Solutions On Aws With Amazon Kinesis
1e9034b630fc0d59ea5185761b4fa59f

AWS Certified SysOps Administrator Associate All-in-One-Exam Guide (Exam SOA-C01)

Scalable Data Streaming with Amazon Kinesis

Introduction

AWS Streaming Data Solutions On Aws With Amazon Kinesis is a comprehensive guide to building scalable data streaming applications using Amazon Kinesis. The book is designed for developers who want to learn how to use Amazon Kinesis to process data in real-time and at scale.

Chapter 1: Getting Started with Amazon Kinesis

This chapter covers the basics of Amazon Kinesis, including how to set up a Kinesis stream, how to write data to a stream, and how to read data from a stream.

Chapter 2: Data Processing with Amazon Kinesis

In this chapter, you'll learn how to perform complex data processing with Amazon Kinesis. You'll explore different data processing techniques, including windowing, aggregations, and joins.

Chapter 3: Real-Time Analytics

This chapter focuses on building real-time analytics applications using Amazon Kinesis. You'll learn how to use Kinesis with other AWS services, such as S3 and Redshift, to build powerful analytics solutions.

Chapter 4: Machine Learning with Amazon Kinesis

In this chapter, you'll learn how to use Amazon Kinesis with machine learning models. You'll explore how to use Kinesis to stream data into machine learning models and how to use machine learning models to perform real-time analytics.

Chapter 5: Monitoring and Logging

This chapter covers how to monitor and log data streaming applications using Amazon Kinesis. You'll learn how to use CloudWatch to monitor Kinesis streams and how to use Logs to log streaming data.

Conclusion

In conclusion, AWS Streaming Data Solutions On Aws With Amazon Kinesis is a valuable resource for developers who want to build scalable data streaming applications using Amazon Kinesis. The book provides clear and concise guidance on how to use Amazon Kinesis to process data in real-time and at scale.
Harness the power of Apple iOS machine learning (ML) capabilities and learn the concepts and techniques necessary to be a successful Apple iOS machine learning practitioner! Machine earning (ML) is the science of getting computers to act without being explicitly programmed. A branch of Artificial Intelligence (AI), machine learning techniques offer ways to identify trends, forecast behavior, and make recommendations. The Apple iOS Software Development Kit (SDK) allows developers to integrate ML services, such as speech recognition and language translation, into mobile devices, most of which can be used in multi-cloud settings. Focusing on Apple’s ML services, Machine Learning for iOS Developers is an up-to-date introduction to the field, instructing readers to implement machine learning in iOS applications. Assuming no prior experience with machine learning, this reader-friendly guide offers expert instruction and practical examples of ML integration in iOS. Organized into two sections, the book’s clearly-written chapters first cover fundamental ML concepts, the different types of ML systems, their practical uses, and the potential challenges of ML solutions. The second section teaches readers to use models—both pre-trained and user-built—with Apple’s CoreML framework. Source code examples are provided for readers to download and use in their own projects.

This book helps readers:
- Understand the theoretical concepts and practical applications of machine learning used in predictive data analytics
- Build, deploy, and maintain ML systems for tasks such as model validation, optimization, scalability, and real-time stream processing

By the end of this book, you will be able to design applications that are tolerant of underlying hardware failures, resilient against an ephemeral nature of cloud environments. You’ll also explore advanced DevOps patterns in operations and maintenance, before focusing on virtualization patterns such as containerization and serverless computing. In the final leg of your journey, this book will delve into data persistence and visualization patterns. You’ll get to grips with architectures for processing static and dynamic data, as well as practices for managing streaming data. By the end of this book, you will be able to design applications that are tolerant of underlying hardware failures, resilient against an unexpected influx of data, and easy to manage and replicate.

What you will learn: Implement scaling policies on schedules, influxes in traffic, and deep health checks

In the final leg of your journey, this book will delve into data persistence and visualization patterns. You’ll get to grips with architectures for processing static and dynamic data, as well as practices for managing streaming data. By the end of this book, you will be able to design applications that are tolerant of underlying hardware failures, resilient against an unexpected influx of data, and easy to manage and replicate.

What you will learn:
- Implement scaling policies on schedules, influxes in traffic, and deep health checks
- Make complete use of highly available and redundant storage
- Content delivery networks to improve user experience

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 topic 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

Macworld

Create highly efficient design patterns for scalability, redundancy, and high availability in the AWS Cloud Key Features: Build highly robust systems using the cloud infrastructure. Make web applications resilient against scheduled and accidental downtime Explore and apply Amazon-provided services in unique ways to solve common design problems. Book Description: Whether you’re just getting your feet wet in cloud infrastructure or already creating complex systems, this book will guide you through using the patterns to fit your system needs. Starting with patterns that cover basic processes such as source control and infrastructure-as-code, the book goes on to introduce cloud security practices. You’ll then cover patterns of availability and scalability and get acquainted with the ephemeral nature of cloud environments. You’ll also explore advanced DevOps patterns in operations and maintenance, before focusing on virtualization patterns such as containerization and serverless computing. In the final leg of your journey, this book will delve into data persistence and visualization patterns. You’ll get to grips with architectures for processing static and dynamic data, as well as practices for managing streaming data. By the end of this book, you will be able to design applications that are tolerant of underlying hardware failures, resilient against an unexpected influx of data, and easy to manage and replicate.

What you will learn:
- Implement scaling policies on schedules, influxes in traffic, and deep health checks
- Use Amazon-provided services in unique ways to solve common design problems

SciVerse Science Citation Index

Mastering Large Datasets
**Apache Spark 2.x Cookbook**

Build efficient data flow and machine learning programs with this flexible, multi-functional open-source cluster-computing framework. Key Features: Master the art of real-time big data processing and machine learning. Explore a wide range of use-cases to analyze large data. Discover ways to optimize your work by using many features of Spark 2.x and Scala. Book Description: Apache Spark is an in-memory, cluster-based data processing system that provides a wide range of functionalities such as big data processing, analytics, machine learning, and more. With this Learning Path, you can take your knowledge of Apache Spark to the next level by learning how to expand Spark’s functionality and building your own data flow and machine learning programs on this platform. You will work with the different modules in Apache Spark, such as interactive querying with Spark SQL, using DataFrames and datasets, implementing streaming analytics with Spark Streaming, and applying machine learning and deep learning techniques on Spark using MLLib and various external tools. By the end of this elaborately designed Learning Path, you will have all the knowledge you need to master Apache Spark, and build your own big data processing and analytics pipeline quickly and without any hassle. This Learning Path includes content from the following Packt products: Mastering Apache Spark 2.x by Romeo Kienzl, Scala and Spark for Big Data Analytics by Md. Rezaul Karim, Sridhar Alla Apache Spark 2.x Machine Learning Cookbook by Siamak Amirghodsi, Meenakshi Rajendran, Broderick Hall, Shuen MeiCookbook What you will learn: Get to grips with all the features of Apache Spark 2.x. Perform highly optimized real-time big data processing. Use ML and DL techniques with Spark MLLib and third-party tools. Analyze structured and unstructured data using SparkSQL and GraphX. Understand tuning, debugging, and monitoring of big data applications. Build scalable and fault-tolerant streaming applications. Develop scalable recommendation engines. Who this book is for: If you are an intermediate-level Spark developer looking to master the advanced capabilities and use-cases of Apache Spark 2.x, this Learning Path is ideal for you. Big data professionals who want to learn how to integrate and use the features of Apache Spark and build a strong big data pipeline will also find this Learning Path useful. To grasp the concepts explained in this Learning Path, you must know the fundamentals of Apache Spark and Scala.

**Big Data Analytics with Hadoop 3**

This up-to-date study guide offers 100% coverage of every objective for the current version of the AWS Certified Solutions Architect Professional exam. Get complete coverage of all objectives included on the SAA-C02 exam from this comprehensive resource. Written by an expert AWS Solutions Architect and well-respected author, this authoritative guide fully addresses the knowledge and skills required for passing the AWS Certified Solutions Architect – Associate exam. You’ll find learning objectives at the beginning of each chapter, exam tips, practice exam questions, and in-depth explanations. You’ll also build your practical knowledge with the many hands-on labs found throughout this guide. Designed to help you pass the exam with ease, this definitive volume also serves as an essential on-the-job reference. Covers all exam domains, including: Design Resilient Architectures Design High-Performing Architectures Design Secure Applications and Architectures Design Cost-Optimized Architectures Online content includes: 130 practice exam questions Test engine that provides practice exams or quizzes that can be customized by chapter or exam objective

**Apache Spark 2**

With an emphasis on clarity, style, and performance, author J.T. Wolohan expertly guides you through implementing a functionally-influenced approach to Python coding. You’ll get familiar with Python’s functional built-ins like the functools operator and itertools modules, as well as the toolz library. Mastering Large Datasets teaches you to write easily readable, easily scalable Python code that can efficiently process large volumes of structured and unstructured data. By the end of this comprehensive guide, you’ll have a solid grasp on the tools and methods that will take your code beyond the laptop and your data science career to the next level! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

**Implementing Cloud Design Patterns for AWS**

This document is intended to facilitate the deployment of the scalable hybrid cloud solution for data agility and collaboration using IBM® Spectrum Scale across multiple public clouds. To complete the tasks it describes, you must understand IBM Spectrum Scale and IBM Spectrum Scale Active File Management (AFM). The information in this document is distributed on an as-is basis without any warranty that is either expressed or implied. Support assistance for the use of this material is limited to situations where IBM Spectrum Scale or IBM Spectrum Scale Active File Management are supported and entitled, and where the issues are specific to a blueprint implementation.

**Wards Business Directory**

Tap the power of Big Data with Microsoft technologies. Big Data is here, and Microsoft's new Big Data platform is a valuable tool to help your company get the very most out of it. This timely book shows you how to use HDInsight along with HortonWorks Data Platform for Windows to store, manage, analyze, and share Big Data throughout the enterprise. Focusing primarily on Microsoft and HortonWorks technologies but also covering open source tools, Microsoft Big Data Solutions explains best practices, covers on-premises and cloud-based solutions, and features valuable case studies. Best of all, it helps you integrate these new solutions with technologies you already know, such as SQL Server and Hadoop. Walks you through how to integrate Big Data solutions in your company using Microsoft's HDInsight Server, HortonWorks Data Platform for Windows, and open source tools. Explores both on-premises and cloud-based solutions. Shows how to store, manage, analyze, and share Big Data through the enterprise. Covers topics such as Microsoft's approach to Big Data, installing and configuring HortonWorks Data Platform for Windows, integrating Big Data with SQL Server, visualizing data with Microsoft and HortonWorks BI tools, and more. Helps you build and execute a Big Data plan. Includes contributions from the Microsoft and HortonWorks Big Data product teams. If you need a detailed roadmap for designing and implementing a fully deployed Big Data solution, you'll want Microsoft Big Data Solutions. 

Page 3/8
AWS Certified Developer Associate All-in-One Exam Guide (Exam DVA-C01)

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

IBM Hybrid Solution for Scalable Data Solutions using IBM Spectrum Scale

Vols. for 1964- have guides and journal lists.

AWS Certified Solutions Architect Official Study Guide

COVERS THE NEW 2018 EXAM SAA-C01! This effective study guide provides 100% coverage of every topic on the AWS Certified Solutions Architect Associate exam. Get complete coverage of all objectives included on the February 2018 SAA-C01 exam from this comprehensive resource. Written by an expert AWS Solutions Architect and well-respected author, this authoritative guide fully addresses the knowledge and skills required for passing the AWS Certified Solutions Architect Associate exam. You'll find learning objectives at the beginning of each chapter, exam tips, practice exam questions, and in-depth explanations. Designed to help you pass the exam with ease, this definitive volume also serves as an essential on-the-job reference. Covers all exam domains, including:
- Design Resilient Architectures
- Define Performant Architectures
- Specify Secure Applications and Architectures
- Design Cost-Optimized Architectures
- Define Operationally Excellent Architectures

Digital content includes:
- 130 practice exam questions
- Test engine that provides practice exams or quizzes that can be customized by chapter or exam objective

Microsoft Big Data Solutions

Serverless Architecture

Fast, intensive, and effective Docker learning. About This Book Get well-versed with Docker in 7 days. Identify and resolve common problems faced by users while working with Docker. A fast-paced guide that will focus on all the core Docker functionalities. Who This Book Is For: This book targets developers, IT professionals, and DevOps engineers who want to learn how to gain intensive, hands-on knowledge and skills with Docker without spending hours and hours in learning. If you have been struggling to find the time to gain proficiency and confidence with Docker containers and everyday Docker tasks, you have come to the right place! What You Will Learn Use Docker Compose to make multi-container applications easier to launch. Learn how to use Docker Swarm to create a robust and resilient environment. Deploy and configure a Docker Swarm cluster to generate portable, composable, scalable, and stable application containers. The book starts by installing the core Docker Engine on MacOS, Windows 10, and Linux desktops. We will then define multi-container applications and understand the advantages of using containers locally. Once this is done, we will deploy containers on a single Docker host which is publicly accessible. Furthermore, we will learn how to deploy and configure a Docker Swarm cluster and explore networking and storage third-party plugins to extend the core Docker functionality. Towards the end, the book will demonstrate how to monitor and troubleshoot day-to-day problems in addition to various real-world examples of container deployments. Style and approach: This book is all about fast and intensive learning. That means we don't waste time in helping readers get started. The content is about filling in with highly-effective examples to build new things, show solving problems in newer and unseen ways, and solve real-world examples.

Metals Abstracts

AWS Certified Solutions Architect Study Guide

Build efficient data flow and machine learning programs with this flexible, multi-functional open-source cluster-computing framework. Key Features: Master the art of real-time big data processing and machine learning. Explore a wide range of use-cases to analyze large data. Discover ways to optimize your work by using many features of Spark 2.x and Scala. Book Description Apache Spark is an in-memory, cluster-based data processing system that provides a wide range of functionalities such as big data processing, analytics, machine learning, and more. With this Learning Path, you can take your knowledge of Apache Spark to the next level by learning how to expand Spark’s functionality and building your own data flow and machine learning programs on this platform. You will work with the different modules in Apache Spark, such as interactive querying with Spark SQL, using DataFrames and datasets, implementing streaming analytics with Spark Streaming, and applying machine learning.
learning and deep learning techniques on Spark using MLlib and various external tools. By the end of this elaborately designed Learning Path, you will have all the knowledge you need to master Apache Spark, and build your own big data processing and analytics pipeline quickly and without any hassle. This Learning Path includes content from the following Packt products: Mastering Apache Spark 2.x by Romeo Kienzler Scala and Spark for Big Data Analytics by Md. Rezaul Karim, Sridhar Alla Apache Spark 2.x Machine Learning Cookbook by Siaamak Amiringhodsi, Meenakshi Rajendran, Broderick Hall, Shuen MeiCookbook What you will learn Get to grips with all the features of Apache Spark 2.x Perform highly optimized real-time big data processing Use ML and DL techniques with Spark MLlib and third-party tools Analyze structured and unstructured data using SparkSQL and GraphX Understand tuning, debugging, and monitoring of big data applications Build scalable and fault-tolerant streaming applications Develop scalable recommendation engines Who this book is for If you are an intermediate-level Spark developer looking to master the advanced capabilities and use-cases of Apache Spark 2.x, this Learning Path is ideal for you. Big data professionals who want to learn how to integrate and use the features of Apache Spark and build a strong big data pipeline will also find this Learning Path useful. To grasp the concepts explained in this Learning Path, you must know the fundamentals of Apache Spark and Scala.

**AWS Certified Security Specialty All-in-One Exam Guide (Exam SCS-C01)**

This practical guide takes a hands-on approach to implementation and associated methodologies to have you up and running with all that Amazon Kinesis has to offer. You’ll work with use cases and practical examples to be able to ingest, process, analyze, and stream real-time data in no time.

**Apache Spark 2: Data Processing and Real-Time Analytics**

Master the intricacies of Amazon Web Services and efficiently prepare for the SAA-C02 Exam with this comprehensive study guide AWS Certified Solutions Study Guide: Associate (SAA-C02) Exam, Third Edition comprehensively and efficiently prepares you for the SAA-C02 Exam. The study guide contains robust and effective study tools that will help you succeed on the exam. The guide grants you access to the regularly updated Sybex online learning environment and test bank, which contain hundreds of test questions, bonus practice exams, electronic flashcards, and a glossary of key terms. In this study guide, accomplished and experienced authors Ben Piper and David Clinton show you how to: Design resilient architectures Create high-performing architectures Craft secure applications and architectures Design cost-optimized architectures Perfect for anyone who hopes to begin a new career as an Amazon Web Services cloud professional, the study guide also belongs on the bookshelf of any existing AWS professional who wants to brush up on the fundamentals of their profession.

**Docker Bootcamp**

Design, process, and analyze large sets of complex data in real time About This Book Get acquainted with transformations and database-level interactions, and ensure the reliability of messages processed using Storm Implement strategies to solve the challenges of real-time data processing Load datasets, build queries, and make recommendations using Spark SQL Who This Book Is For If you are a Big Data architect, developer, or a program who wants to develop applications or frameworks to implement real-time analytics using open source technologies, then this book is for you. What You Will Learn Explore big data technologies and frameworks Work through practical challenges and use cases of real-time analytics versus batch analytics Develop real-world use cases for processing and analyzing data in real-time using the programming paradigm of Apache Storm Handle and process real-time transactional data Optimize and tune Apache Storm for varied workloads and production deployments Process and stream data with Amazon Kinesis and Elastic MapReduce Perform interactive and exploratory data analytics using Spark SQL Develop common enterprise architectures/applications for real-time and batch analytics In Detail Enterprise has been striving hard to deal with the challenges of data arriving in real-time or near real-time. Although there are technologies such as Storm and Spark (and many more) that solve the challenges of real-time data, using the appropriate technology/framework for the right business use case is the key to success. This book provides you with the skills required to quickly design, implement and deploy your real-time analytics using real-world examples of big data use cases. From the beginning of the book, we will cover the basics of varied real-time data processing frameworks and technologies. We will discuss and explain the differences between batch and real-time processing in detail, and will also explore the techniques and programming concepts using Apache Storm. Moving on, we’ll familiarize you with “Amazon Kinesis” for real-time data processing on cloud. We will further develop your understanding of real-time analytics through a comprehensive review of Apache Spark along with the high-level architecture and the building blocks of a Spark program. You will learn how to transform your data, get an output from transformations, and persist your results using Spark RDDs, using an interface called Spark SQL to work with Spark. At the end of this book, we will introduce Spark Streaming, the streaming library of Spark, and will walk you through the emerging Lambda Architecture (LA), which provides a hybrid platform for big data processing by combining real-time and precomputed batch data to provide a near real-time view of incoming data. Style and approach This step-by-step is an easy-to-follow, detailed tutorial, filled with practical examples of basic and advanced features. Each topic is explained sequentially and supported by real-world examples and executable code snippets.

**Apache Spark 2.x Machine Learning Cookbook**

**Real-Time Big Data Analytics**

Simplify machine learning model implementations with Spark About This Book Solve the day-to-day problems of data science with Spark This unique cookbook consists of exciting and intuitive numerical recipes Optimize your work by acquiring, cleaning, analyzing, predicting, and visualizing your data Who This Book Is For This book is for Scala developers with a fairly good exposure to and understanding of machine learning techniques, but lack practical implementations with Spark. A solid knowledge of machine learning algorithms is assumed, as well as hands-on experience of implementing ML algorithms with Scala. However, you do not need to be acquainted with the Spark ML libraries and ecosystem. What You Will Learn Get to know how Scala and Spark go hand-in-hand **Page 5/8**
for developers when developing ML systems with Spark Build a recommendation engine that scales with Spark Find out how to build unsupervised clustering systems to classify data in Spark Build machine learning systems with the Decision Tree and Ensemble models in Spark Deal with the curse of high-dimensionality in big data using Spark Implement Text analytics for Search Engines in Spark The Streaming Machine Learning System implementing Spark In Detail Machine learning aims to extract knowledge from data, relying on fundamental concepts in computer science, statistics, probability, and optimization. Learning about algorithms enables a wide range of applications, from everyday tasks such as product recommendations and spam filtering to cutting edge applications such as self-driving cars and personalized medicine. You will gain hands-on experience of applying these principles using Apache Spark, a resilient cluster computing system well suited for large-scale machine learning tasks. This book begins with a quick overview of setting up the necessary IDEs to facilitate the execution of code examples that will be covered in various chapters. It also highlights some key issues developers face while working with machine learning algorithms on the Spark platform. We progress by uncovering the various Spark APIs and the implementation of ML algorithms with developing classification systems, recommendation engines, text analytics, clustering, and learning systems. Toward the final chapters, we’ll focus on building high-end applications and explain various unsupervised methodologies and challenges to tackle when implementing with big data ML systems. Style and approach This book is packed with intuitive recipes supported with line-by-line explanations to help you understand how to optimize your workflow and resolve problems when working with complex data modeling tasks and predictive algorithms. This is a valuable resource for data scientists and those working on large scale data projects.

**Data Science on AWS**

Gain expertise in processing and storing data by using advanced techniques with Apache Spark. About This Book Explore the integration of Apache Spark with third party applications such as H2O, Databricks and Titan Evaluate how Cassandra and Hbase can be used for storage. An advanced guide with a combination of instructions and practical examples to extend the most up-to-date Spark functionalities. Who This Book Is For If you are a developer with some experience with Spark and want to strengthen your knowledge of how to get around in the world of Spark, then this book is ideal for you. Basic knowledge of Linux, Hadoop and Spark is assumed. Reasonable knowledge of Scala is expected. What You Will Learn Extend the tools available for processing and storage Examining clustering and classification using MLlib Discover Spark stream processing via Flume, HDFS Create a schema in Spark SQL, and learn how a Spark schema can be populated with data. Study Spark based graph processing using Spark GraphX Combine Spark with H2O and deep learning and learn why it is useful. Evaluate how graph storage works with Apache Spark, Titan, HBase and Cassandra. Use Apache Spark in the cloud with Databricks and AWS. In Detail Apache Spark is an in-memory cluster based parallel processing system that provides a wide range of functionality like graph processing, machine learning, stream processing and SQL. It operates at unprecedented speeds, is easy to use and offers a rich set of data transformations. This book aims to take your limited knowledge of Spark to the next level by teaching you how to expand Spark functionality. The book commences with an overview of the Spark eco-system. You will learn how to use MLlib to create a fully working neural net for handwriting recognition. You will then discover how processing streams can be tuned for optimal performance and to ensure parallel processing. The book extends to show how to incorporate H2O for machine learning, Titan for graph based storage, Databricks for cloud-based Spark. Intermediate Scala based code examples are provided for Apache Spark module processing in a CentOS Linux and Databricks cloud environment. Style and approach This book is an extensive guide to Apache Spark modules and tools and shows how Spark's functionality can be extended for real-time processing and storage with worked examples.

**Mastering Apache Spark**

**Hands-On Artificial Intelligence on Google Cloud Platform**

**AWS Certified Cloud Practitioner All-in-One Exam Guide (Exam CLF-C01)**

This effective study guide offers 100% coverage of every objective for the AWS Certified Cloud Practitioner exam. Take the challenging AWS Certified Cloud Practitioner exam with confidence using the detailed information contained in this effective self-study guide. Written by a recognized AWS expert, the book offers 100 percent coverage of all four exam domains: Cloud concepts, security and compliance, technology, and billing and pricing. AWS Certified Cloud Practitioner All-in-One Exam Guide (Exam CLF-C01) is based on proven pedagogy and features special elements that teach and reinforce practical skills. You will get accurate practice questions along with detailed explanations. Beyond exam preparation, the guide also serves as a valuable on-the-job reference. Comprehensive coverage includes: How to obtain AWS Certified Cloud Practitioner certification. The value of the AWS Cloud. The AWS shared responsibility model. AWS Cloud security best practices. AWS Cloud costs, economics, and billing practices. Core services, including compute, network, databases, and storage. AWS services used as common use cases. AWS Cloud economics. Full-length practice exam with explanations. And much more. Online content includes: 130 practice exam questions. Fully customizable exam engine.

**AWS Certified Solutions Architect Associate All-in-One Exam Guide, Second Edition (Exam SAA-C02)**

A practical guide to help you tackle different real-time data processing and analytics problems using the best tools for each scenario. About This Book Learn about the various challenges in real-time data processing and use the right tools to overcome them. This book covers popular tools and frameworks such as Spark, Flink, and Apache Storm to solve all your distributed processing problems. A practical guide filled with examples, tips, and tricks to help you perform efficient big data processing in real-time. Who This Book Is For If you are a Java developer who would like to be equipped with all the tools required to devise an end-to-end practical solution on real-time data streaming, then this book is for you. Basic knowledge of real-time processing would be helpful, and knowing the fundamentals of Maven, Shell, and Eclipse would be great. What You Will Learn Get an introduction to the established real-time stack. Understand the key integration of all the components.
thorough understanding of the basic building blocks for real-time solution designing. Garnish the search and visualization aspects for your real-time solution Get conceptually and practically acquainted with real-time analytics. Be well equipped to apply the knowledge and create your own solutions. In Detail: With the rise of Big Data, there is an increasing need to process large amounts of data continuously, with a shorter turnaround time. Real-time data processing involves continuous input, processing and output of data, with the condition that the time required for processing is as short as possible. This book covers the majority of the existing and evolving open-source technology stack for real-time processing and analytics. You will get to know about all the real-time solution aspects, from the source to the presentation to processing. Through this practical book, you'll be equipped with a clear understanding of how to solve challenges on your own. We'll cover topics such as how to set up components, basic executions, integrations, advanced use cases, alerts, and monitoring. You'll be exposed to the popular tools used in real-time processing today such as Apache Spark, Apache Flink, and Storm. Finally, you'll put your knowledge to practical use by implementing all of the techniques in the form of a practical, real-world use case. By the end of this book, you will have a solid understanding of all the aspects of real-time data processing and analytics, and will know how to deploy the solutions in production environments in the best possible manner.

AWS Certified Solutions Architect Associate All-In-One Exam Guide (Exam SAA-C01)

Explore big data concepts, platforms, analytics, and their applications using the power of Hadoop 3 Key Features Learn Hadoop 3 to build effective big data analytics solutions on-premise and on cloud Integrate Hadoop with other big data tools such as R, Python, Apache Spark, and Apache Flink. Exploit big data using Hadoop 3 with real-world examples. Book Description: Apache Hadoop is the most popular platform for big data processing, and can be combined with a host of other big data tools to build powerful analytics solutions. Big Data Analytics with Hadoop 3 shows you how to do just that, by providing insights into the software as well as its benefits with the help of practical examples. Once you have taken a tour of Hadoop 3’s latest features, you will get an overview of HDFS, MapReduce, and YARN, and how they enable faster, more efficient big data processing. You will then move on to learning how to integrate Hadoop with the open source tools, such as Python and R, to analyze and visualize data and perform statistical computing on big data. As you get acquainted with all this, you will explore how to use Hadoop 3 with Apache Spark and Apache Flink for real-time data analytics and stream processing. In addition to this, you will understand how to use Hadoop to build analytics solutions on the cloud and an end-to-end pipeline to perform big data analysis using practical use cases. By the end of this book, you will be well-versed with the analytical capabilities of the Hadoop ecosystem. You will be able to build powerful solutions to perform big data analytics and get insight effortlessly. What you will learn: Explore the new features of Hadoop 3 along with HDFS, YARN, and MapReduce. Get well-versed with the analytical capabilities of Hadoop ecosystem using practical examples. Integrate Hadoop with R and Python for more efficient big data processing. Learn to use Hadoop with Apache Spark and Apache Flink for real-time data analytics. Set up a Hadoop cluster on AWS cloud. Perform big data analytics on AWS using Elastic Map Reduce. Who this book is for: Big Data Analytics with Hadoop 3 is for you if you are looking to build high-performance analytics solutions for your enterprise or business using Hadoop 3’s powerful features, you’re new to big data analytics. A basic understanding of the Java programming language is required.

Cloud Computing Basics

Publisher’s Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. This study guide covers 100% of the objectives for the AWS Certified SysOps Administrator Associate exam. Take the challenging AWS Certified SysOps Administrator Associate exam with confidence using this highly effective study guide. You will learn how to provision systems, ensure data integrity, handle security, and monitor and tune Amazon Web Services performance. Written by an industry-leading expert, AWS Certified SysOps Administrator Associate All-in-One Exam Guide (Exam SAA-C01) fully covers every objective for the exam and follows a hands-on, step-by-step methodology. The book also serves as a valuable on-the-job reference. Covers all exam topics, including: System management, including IAM, AWS CLI, AWS Identity and Access Management, and AWS Security. AWS compute services, such as EC2, ECS, AWS Lambda, and AWS Batch. Storage and archiving with Amazon EBS, Amazon EFS, and Amazon S3. Managing databases in the cloud, with Amazon RDS, Amazon Aurora, Amazon DynamoDB, and Amazon RDS. AWS CloudWatch, including monitoring and managing events. AWS cost and pricing, including pricing tiers, billing, and cost optimization. AWS networking, including VPC and subnets. AWS security, including VPC security and security groups. AWS compute services, including EC2, Lambda, and Elasticache. AWS storage services, including EBS, EFS, and S3. AWS networking services, including VPC and subnets. AWS security services, including VPC security and security groups. AWS management and operations, including AWS CloudFormation, AWS CloudTrail, and AWS CloudWatch. AWS identity and access management, including IAM and AWS Identity and Access Management (IAM). AWS compute services and the Elastic Compute Cloud (EC2). AWS Identity and Access Management (IAM). AWS compute services and the Elastic Compute Cloud (EC2). AWS Batch. AWS Lambda, and other compute services. Storage and archiving in the AWS cloud with Amazon EBS, Amazon EFS, and Amazon S3 Glacier. Managing databases in the cloud—Amazon RDS, Amazon Aurora, Amazon DynamoDB, Amazon ElastiCache, and Amazon Redshift. Integration with Amazon S3, Amazon SNS, Amazon SQS, and AWS CloudWatch. Monitoring with Amazon CloudWatch. Managing events with AWS CloudWatch. AWS costs and billing. Infrastructure provisioning through AWS CloudFormation and AWS OpsWorks. Application deployment, and creating scalable infrastructures. Online content includes: 130 practice questions. Test engine that provides full-length practice exams or customized quizzes by chapter or by exam domain.

Geophysics

Over 70 recipes to help you use Apache Spark as your single big data computing platform and master its libraries. About This Book: This book contains recipes on how to use Apache Spark as a unified compute engine. Cover how to connect various source systems to Apache Spark. Covers various parts of machine learning including supervised/unsupervised learning & recommendation engines. Who This Book is For: This book is for data engineers, data scientists, and those who want to implement Spark for real-time data processing. Anyone who is using Spark (or is planning to) will benefit from this book. The book assumes you have a basic knowledge of Scala as a programming language. What You Will Learn: Install and configure Apache Spark with various cluster managers & on AWS. Set up a development environment for Apache Spark including Databricks Cloud notebook. Find out how to operate on data in Spark with schemas Get to grips with real-time streaming analytics using Spark Streaming & Structured Streaming. Master supervised learning and unsupervised learning using MLlib. Build a recommendation engine using MLlib. Graph processing using GraphX & GraphFrames. Libraries Develop a set of common applications or project types, and solutions that solve complex big data problems. In Detail: While Apache Spark 1.x gained a lot of traction and adoption in the early years, Spark 2.x delivers notable improvements in the areas of API, schema awareness, Performance, Structured Streaming, and simplifying building blocks to build better, faster, smarter, and more accessible big data applications. This book uncovers all these features in the form of structured recipes to analyze and mature large and complex sets of data. Starting with installing and configuring Apache Spark with various cluster managers, you will learn to set up development environments. Further on, you will be introduced to working with RDDs, DataFrames and Datasets to operate on schema aware data, and real-time streaming with various sources such as Twitter Stream and Apache Kafka. You will also work through recipes on machine learning, including supervised learning.
unsupervised learning & recommendation engines in Spark. Last but not least, the final few chapters delve deeper into the concepts of graph processing using GraphX, securing your implementations, cluster optimization, and troubleshooting. Style and approach This book is packed with intuitive recipes supported with line-by-line explanations to help you understand Spark 2.x’s real-time processing capabilities and deploy scalable big data solutions. This is a valuable resource for data scientists and those working on large-scale data projects.

**Nuclear News**

Discover how serverless architecture can solve your organization’s software development and deployment challenges. Review use cases and examples of different serverless solutions.

**Practical Real-time Data Processing and Analytics**

Validate your AWS skills. 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 AWS Certified Solutions Architect Official Study Guide for the Associate exam will get you fully prepared through expert content, and real-world knowledge, key exam essentials, chapter review questions, access to Sybex’s interactive online learning environment, and much more. This official study guide, written by AWS experts, covers exam concepts, and provides key review on exam topics, including: Mapping Multi-Tier Architectures to AWS Services, such as web/app servers, firewalls, caches and load balancers Understanding managed RDBMS through AWS RDS (MySQL, Oracle, SQL Server, Postgres, Aurora) Understanding Loose Coupling and Stateless Systems Comparing Different Consistency Models in AWS Services Understanding how AWS CloudFront can make your application more cost efficient, faster and secure Implementing Route tables, Access Control Lists, Firewalls, NAT, and DNS Applying AWS Security Features along with traditional Information and Application Security Using Compute, Networking, Storage, and Database AWS services Architecting Large Scale Distributed Systems Understanding of Elasticity and Scalability Concepts Understanding of Network Technologies Relating to AWS Deploying and Managing Services with tools such as CloudFormation, OpsWorks and Elastic Beanstalk. Learn from the AWS subject-matter experts, review with proven study tools, and apply real-world scenarios. 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.

**Learning Apache Flink**

This self-study resource offers complete coverage of every topic on the AWS Certified Security Specialty exam Take the AWS Certified Security – Specialty exam with confidence using the detailed information contained in this effective self-study resource. Written by a team of AWS insiders, the book shows how to develop, deploy, and maintain robust security protocols on Amazon Web Services. AWS Certified Security Specialty All-in-One Exam Guide (Exam SCS-C01) covers every objective for the exam and provides comprehensive content on cloud-based security. To aid in study, each chapter includes exam tips, chapter summaries, and practice questions that simulate those on the live test. Designed to help you pass the exam with ease, this hands-on guide also serves as an ideal on-the-job reference. Covers all exam topics, including: Cloud security event investigation Cloud security event remediation and planning Monitoring with Amazon CloudWatch Enhanced security monitoring and compliance with AWS services Logging on AWS AWS cryptographic services and tools Designing edge security on AWS Designing and implementing a secure network infrastructure Troubleshooting a secure network infrastructure Designing and implementing host-based security AWS identity and access management Troubleshooting authorization and authentication services Online content includes: 130 practice exam questions Fully customizable exam engine Downloadable code

Copyright code : 1e9034b630fc0d59ea5185761b4fa59f