

Streaming Data Solutions On Aws With Amazon Kinesis

AWS certification is a level of Amazon Web Services cloud expertise that an IT professional obtains after passing one or more exams the public cloud provider offers. IT pros gain AWS certifications to demonstrate and validate technical cloud knowledge and skills.

Learn from the AWS subject-matter experts, apply real-world scenarios and clear the AWS Certified Solutions Architect – Associate exam Key Features Build highly reliable and scalable workloads on the AWS platform Pass the exam in less time and with confidence Get up and running with building and managing applications on the AWS platform Book Description Amazon Web Services (AWS) is currently the leader in the public cloud market. With an increasing global interest in leveraging cloud infrastructure, the AWS Cloud from Amazon offers a cutting-edge platform for architecting, building, and deploying web-scale cloud applications. As more the rate of cloud platform adoption increases, so does the need for cloud certification. The AWS Certified Solution Architect – Associate Guide is your one-stop solution to gaining certification. Once you have grasped what AWS and its prerequisites are, you will get insights into different types of AWS services such as Amazon S3, EC2, VPC, SNS, and more to get you prepared with core Amazon services. You will then move on to understanding how to design and deploy highly scalable applications. Finally, you will study security concepts along with the AWS best practices and mock papers to test your knowledge. By the end of this book, you will not only be fully prepared to pass the AWS Certified Solutions Architect – Associate exam but also capable of building secure and reliable applications. What you will learn Explore AWS terminology and identity and access management Acquaint yourself with important cloud services and features in categories such as compute, network, storage, and databases Define access control to secure AWS resources and set up efficient monitoring Back up your database and ensure high availability by understanding all of the database-related services in the AWS Cloud Integrate AWS with your applications to meet and exceed non-functional requirements Build and deploy cost-effective and highly available applications Who this book is for The AWS Certified Solutions Architect – Associate Guide is for you if you are an IT professional or Solutions Architect wanting to pass the AWS Certified Solution Architect – Associate 2018 exam. This book is also for developers looking to start building scalable applications on AWS

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 confidence Gain valuable insights to design, develop, and deploy cloud-based solutions using AWS Develop expert core AWS skills with practice questions and mock tests Book 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 learn Create and manage users, groups, and permissions using AWS IAM services Create a secured VPC with Public and Private Subnets, NAC, and Security groups Launching your first EC2 instance, and working with it Handle application traffic with ELB and monitor AWS resources with CloudWatch Work with AWS storage services such as S3, Glacier, and CloudFront Get acquainted with AWS DynamoDB a NoSQL database service Use SWS to coordinate work across distributed application components Who 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.

The definitive guide to successfully integrating social, mobile, Big-Data analytics, cloud and IoT principles and technologies The main goal of this book is to spur the development of effective big-data computing operations on smart clouds that are fully supported by IoT sensing, machine learning and analytics systems. To that end, the authors draw upon their original research and proven track record in the field to describe a practical approach integrating big-data theories, cloud design principles, Internet of Things (IoT) sensing, machine learning, data analytics and Hadoop and Spark programming. Part 1 focuses on data science, the roles of clouds and IoT devices and frameworks for big-data computing. Big data analytics and cognitive machine learning, as well as cloud architecture, IoT and cognitive systems are explored, and mobile cloud-IoT-interaction frameworks are illustrated with concrete system design examples. Part 2 is devoted to the principles of and algorithms for machine learning, data analytics and deep learning in big data applications. Part 3 concentrates on cloud programming software libraries from MapReduce to Hadoop, Spark and TensorFlow and describes business, educational, healthcare and social media applications for those tools. The first book describing a practical approach to integrating social, mobile, analytics, cloud and IoT (SMACT) principles and technologies Covers theory and computing techniques and technologies, making it suitable for use in both computer science and electrical engineering programs Offers an extremely well-informed vision of future intelligent and cognitive computing environments integrating SMACT technologies Fully illustrated throughout with examples, figures and approximately 150 problems to support and reinforce learning Features a companion website with an instructor manual and PowerPoint slides www.wiley.com/go/hwangIOT Big-Data Analytics for Cloud, IoT and Cognitive Computing satisfies the demand among university faculty and students for cutting-edge information on emerging intelligent and cognitive computing systems and technologies. Professionals working in data science, cloud computing and IoT applications will also find this book to be an extremely useful working resource.

AWS Certified Solutions Architect Associate Real Exam Preparation Practice test for the AWS Certified Solutions Architect -Associate certification. This will help assess how ready you are to pass the exam. This AWS Certified Solutions Architect Associate Practice Exam course update every month. Every day there is new security threats that's why I will keep you updated, every week I will publish a new question about AWS so you will always be updated. Certification Provider: Amazon Exam: AWS Certified Solutions Architect - Associate (SAA-001) Duration: 2 Hours Number of questions in the database: +150 and more Practice Exam Updated: Nov. 09.2, 2020 *If you do not want to lose time and money, you can try this practice test. Why Amazon? Certification takes time and money, so you want to pick a certificate awarding institution that has real world value. Amazon is known for offering quality exams that give a variety of amazing certifications. You'll get world class work by taking any certification path they offer and hopefully learn some new incredible skills along the way! After all, Amazon is industry renowned and produces employees that work all across the world in different tech niches. Whether it's one exam or many, you'll find everything Amazon offers on ExamTopics so you can begin your journey to a rewarding career. You'll Also Get: ? Lifetime Access to course updates ? Fast & Friendly Support in the Q&A section Don't Miss Out! Every second you wait is costing you valuable leads . Go ahead and hit the "take this practice test" button to start test yourself today! Thank you very much and have a wonderful day!

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 Solutions Architect - Associate (SAA-C01) exam success with this Cert Guide from Pearson IT Certification, a leader in IT Certification learning. Master AWS Certified Solutions Architect - Associate (SAA-C01) exam topics Assess your knowledge with chapter-ending quizzes Review key concepts with exam preparation tasks AWS Certified Solutions Architect - Associate (SAA-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 Solutions Architect - Associate exam, including how to

- Design resilient architectures that ensure storage high availability while providing for decoupling mechanisms, multitier infrastructure, and high availability
- Define performant architectures with efficient storage and databases, caching optimizations, and improved elasticity
- Specify secure applications and architectures, encompassing application tiers, data, and networking infrastructure
- Design cost-optimized architectures, addressing both storage and compute
- Define operationally excellent architectures, and understand their

characteristics

This book constitutes selected papers from the 14th European, Mediterranean, and Middle Eastern Conference, EMCIS 2017, held in Coimbra, Portugal, in September 2017. EMCIS is focusing on approaches that facilitate the identification of innovative research of significant relevance to the IS discipline following sound research methodologies that lead to results of measurable impact. The 37 full and 16 short papers presented in this volume were carefully reviewed and selected from a total of 106 submissions. They are organized in sections on big data and Semantic Web; digital services, social media and digital collaboration; e-government; healthcare information systems; information systems security and information privacy protection; IT governance; and management and organizational issues in information systems.

This book comprehensively conveys the theoretical and practical aspects of IoT and big data analytics with the solid contributions from practitioners as well as academicians. This book examines and expounds the unique capabilities of the big data analytics platforms in capturing, cleansing and crunching IoT device/sensor data in order to extricate actionable insights. A number of experimental case studies and real-world scenarios are incorporated in this book in order to instigate our book readers. This book Analyzes current research and development in the domains of IoT and big data analytics Gives an overview of latest trends and transitions happening in the IoT data analytics space Illustrates the various platforms, processes, patterns, and practices for simplifying and streamlining IoT data analytics The Internet of Things and Big Data Analytics: Integrated Platforms and Industry Use Cases examines and accentuates how the multiple challenges at the cusp of IoT and big data can be fully met. The device ecosystem is growing steadily. It is forecast that there will be billions of connected devices in the years to come. When these IoT devices, resource-constrained as well as resource-intensive, interact with one another locally and remotely, the amount of multi-structured data generated, collected, and stored is bound to grow exponentially. Another prominent trend is the integration of IoT devices with cloud-based applications, services, infrastructures, middleware solutions, and databases. This book examines the pioneering technologies and tools emerging and evolving in order to collect, pre-process, store, process and analyze data heaps in order to disentangle actionable insights.

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

Expert guidance on how to use Amazon Web Services to supercharge your digital services business In *Transforming Your Business with AWS: Getting the Most Out of Using AWS to Modernize and Innovate Your Digital Services*, renowned international consultant and sought-after speaker Philippe Abdoulaye delivers a practical and accessible guide to using Amazon Web Services to modernize your business and the digital services you offer. This book provides you with a concrete action plan to build a team capable of creating world-class digital services and long-term competitive advantages. You'll discover what separates merely average digital service organizations from the truly outstanding, as well as how moving to the cloud will enable your business to deliver your services faster, better, and more efficiently. This book also includes: A comprehensive overview of building industry-leading digital service delivery capabilities, including discussions of the development lifecycle, best practices, and AWS-based development infrastructure Explanations of how to implement a digital business transformation strategy An exploration of key roles like DevOps Continuous Delivery, Continuous Deployment, Continuous Integration, Automation, and DevSecOps Hands-on treatments of AWS application management tools, including Elastic Beanstalk, CodeDeploy, and CodePipeline Perfect for executives, managers, and other business leaders attempting to clarify and implement their organization's digital vision and strategy, *Transforming Your Business with AWS* is a must-read reference that answers the "why" and, most importantly, the "how," of digital transformation with Amazon Web Services.

While many companies ponder implementation details such as distributed processing engines and algorithms for data analysis, this practical book takes a much wider view of big data development, starting with initial planning and moving diligently toward execution. Authors Ted Malaska and Jonathan Seidman guide you through the major components necessary to start, architect, and develop successful big data projects. Everyone from CIOs and COOs to lead architects and developers will explore a variety of big data architectures and applications, from massive data pipelines to web-scale applications. Each chapter addresses a piece of the software development life cycle and identifies patterns to maximize long-term success throughout the life of your project. Start the planning process by considering the key data project types Use guidelines to evaluate and select data management solutions Reduce risk related to technology, your team, and vague requirements Explore system interface design using APIs, REST, and pub/sub systems Choose the right distributed storage system for your big data system Plan and implement metadata collections for your data architecture Use data pipelines to ensure data integrity from source to final storage Evaluate the attributes of various engines for processing the data you collect

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, or you're new to big data analytics. A basic understanding of the Java programming language is required.

This volume explores the diverse applications of advanced tools and technologies of the emerging field of big data and their evidential value in business. It examines the role of analytics tools and methods of using big data in strengthening businesses to meet today's information challenges and shows how businesses can adapt big data for effective businesses practices. This volume shows how big data and the use of data analytics is being effectively adopted more frequently, especially in companies that are looking for new methods to develop smarter capabilities and tackle challenges in dynamic processes. Many illustrative case studies are presented that highlight how companies in every sector are now focusing on harnessing data to create a new way of doing business.

The Amazon Web Services, AWS Certified Solutions Architect is among the most valuable and highly sought after cloud computing certifications in the world today. The Associate examination is intended for individuals who perform a solutions architect role and have one or more years of hands-on experience designing available, cost-efficient, fault-tolerant, and scalable distributed systems on AWS. The examination is comprised of 65 questions; either multiple choice or multiple response, and you have 130 minutes to complete the exam.

Internet of things (IoT) is an emerging research field that is rapidly becoming an important part of our everyday lives including home automation, smart buildings, smart things, and more. This is due to cheap, efficient, and wirelessly-enabled circuit boards that are enabling the functions of remote sensing/actuating, decentralization, autonomy, and other essential functions. Moreover, with the advancements in embedded artificial intelligence, these devices are becoming more self-aware and autonomous, hence making decisions themselves. Current research is devoted to the understanding of how decision support systems are integrated

into industrial IoT. Decision Support Systems and Industrial IoT in Smart Grid, Factories, and Cities presents the internet of things and its place during the technological revolution, which is taking place now to bring us a better, sustainable, automated, and safer world. This book also covers the challenges being faced such as relations and implications of IoT with existing communication and networking technologies; applications like practical use-case scenarios from the real world including smart cities, buildings, and grids; and topics such as cyber security, user privacy, data ownership, and information handling related to IoT networks. Additionally, this book focuses on the future applications, trends, and potential benefits of this new discipline. This book is essential for electrical engineers, computer engineers, researchers in IoT, security, and smart cities, along with practitioners, researchers, academicians, and students interested in all aspects of industrial IoT and its applications.

"This book provides insight into the latest findings concerning data warehousing, data mining, and their applications in everyday human activities"--Provided by publisher.

The AWS Certified Solutions Architect Professional exam validates advanced technical skills and experience in designing distributed applications and systems on the AWS platform. Example concepts you should understand for this exam include: - Designing and deploying dynamically scalable, highly available, fault-tolerant, and reliable applications on AWS - Selecting appropriate AWS services to design and deploy an application based on given requirements - Migrating complex, multi-tier applications on AWS - Designing and deploying enterprise-wide scalable operations on AWS - Implementing cost-control strategies - Recommended AWS Knowledge This book contains Free Resources. Preview the book & see what's inside.

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.

Succeed on the AWS Machine Learning exam or in your next job as a machine learning specialist on the AWS Cloud platform with this hands-on guide. As the most popular cloud service in the world today, Amazon Web Services offers a wide range of opportunities for those interested in the development and deployment of artificial intelligence and machine learning business solutions. The AWS Certified Machine Learning Study Guide: Specialty (MLS-CO1) Exam delivers hyper-focused, authoritative instruction for anyone considering the pursuit of the prestigious Amazon Web Services Machine Learning certification or a new career as a machine learning specialist working within the AWS architecture. From exam to interview to your first day on the job, this study guide provides the domain-by-domain specific knowledge you need to build, train, tune, and deploy machine learning models with the AWS Cloud. And with the practice exams and assessments, electronic flashcards, and supplementary online resources that accompany this Study Guide, you'll be prepared for success in every subject area covered by the exam. You'll also find: An intuitive and organized layout perfect for anyone taking the exam for the first time or seasoned professionals seeking a refresher on machine learning on the AWS Cloud. Authoritative instruction on a widely recognized certification that unlocks countless career opportunities in machine learning and data science. Access to the Sybex online learning resources and test bank, with chapter review questions, a full-length practice exam, hundreds of electronic flashcards, and a glossary of key terms. AWS Certified Machine Learning Study Guide: Specialty (MLS-CO1) Exam is an indispensable guide for anyone seeking to prepare themselves for success on the AWS Certified Machine Learning Specialty exam or for a job interview in the field of machine learning, or who wishes to improve their skills in the field as they pursue a career in AWS machine learning.

AWS Certified Solutions Architect Associate (SAA-C02) The AWS Certified Solutions Architect - Associate examination is intended for individuals who perform a solutions architect role and have one or more years of hands-on experience designing available, cost-efficient, fault-tolerant, and scalable distributed systems on AWS. Abilities Validated by the Certification Effectively demonstrate knowledge of how to architect and deploy secure and robust applications on AWS technologies. Define a solution using architectural design principles based on customer requirements. Provide implementation guidance based on best practices to the organization throughout the life cycle of the project. Recommended Knowledge and Experience: Hands-on experience using compute, networking, storage, and database AWS services. Hands-on experience with AWS deployment and management services. Ability to identify and define technical requirements for an AWS-based application. Ability to identify which AWS services meet a given technical requirement. Knowledge of recommended best practices for building secure and reliable applications on the AWS platform. An understanding of the basic architectural principles of building on the AWS Cloud. An understanding of the AWS global infrastructure. An understanding of network technologies as they relate to AWS. An understanding of security features and tools that AWS provides and how they relate to traditional services. 435+ most up-to-date and unique questionnaires verified by our extensive years of experienced experts to prepare for AWS Certified Solutions Architect - Associate (SAA-C02) exam. We proud to says that, many students have easily cleared the exam with good score by practiced these questions and personal study guides. Don't hesitate!!! Please buy the book confidently because we always update the book with current level exam questions so

that you can fully prepared for the actual exam.

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 contains 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.

Discover how to build a cloud-based data warehouse at petabyte-scale that is burstable and built to scale for end-to-end analytical solutions Key Features Discover how to translate familiar data warehousing concepts into Redshift implementation Use impressive Redshift features to optimize development, productionizing, and operations processes Find out how to use advanced features such as concurrency scaling, Redshift Spectrum, and federated queries Book Description Amazon Redshift is a fully managed, petabyte-scale AWS cloud data warehousing service. It enables you to build new data warehouse workloads on AWS and migrate on-premises traditional data warehousing platforms to Redshift. This book on Amazon Redshift starts by focusing on Redshift architecture, showing you how to perform database administration tasks on Redshift. You'll then learn how to optimize your data warehouse to quickly execute complex analytic queries against very large datasets. Because of the massive amount of data involved in data warehousing, designing your database for analytical processing lets you take full advantage of Redshift's columnar architecture and managed services. As you advance, you'll discover how to deploy fully automated and highly scalable extract, transform, and load (ETL) processes, which help minimize the operational efforts that you have to invest in managing regular ETL pipelines and ensure the timely and accurate refreshing of your data warehouse. Finally, you'll gain a clear understanding of Redshift use cases, data ingestion, data management, security, and scaling so that you can build a scalable data warehouse platform. By the end of this Redshift book, you'll be able to implement a Redshift-based data analytics solution and have understood the best practice solutions to commonly faced problems. What you will learn Use Amazon Redshift to build petabyte-scale data warehouses that are agile at scale Integrate your data warehousing solution with a data lake using purpose-built features and services on AWS Build end-to-end analytical solutions from data sourcing to consumption with the help of useful recipes Leverage Redshift's comprehensive security capabilities to meet the most demanding business requirements Focus on architectural insights and rationale when using analytical recipes Discover best practices for working with big data to operate a fully managed solution Who this book is for This book is for anyone involved in architecting, implementing, and optimizing an Amazon Redshift data warehouse, such as data warehouse developers, data analysts, database administrators, data engineers,

and data scientists. Basic knowledge of data warehousing, database systems, and cloud concepts and familiarity with Redshift will be beneficial.

The proposed book will discuss various aspects of big data Analytics. It will deliberate upon the tools, technology, applications, use cases and research directions in the field. Chapters would be contributed by researchers, scientist and practitioners from various reputed universities and organizations for the benefit of readers.

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 Dive deep into the complete model development lifecycle for a BERT-based NLP use case including data ingestion, analysis, model training, and deployment Tie everything together into a repeatable machine learning operations pipeline Explore real-time ML, anomaly detection, and streaming analytics on data streams with Amazon Kinesis and Managed Streaming for Apache Kafka Learn security best practices for data science projects and workflows including identity and access management, authentication, authorization, and more

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.

Apply cloud design patterns to overcome real-world challenges by building scalable, secure, highly available, and cost-effective solutions Key Features Apply AWS Well-Architected Framework concepts to common real-world use cases Understand how to select AWS patterns and architectures that are best suited to your needs Ensure the security and stability of a solution without

impacting cost or performance

Book Description One of the most popular cloud platforms in the world, Amazon Web Services (AWS) offers hundreds of services with thousands of features to help you build scalable cloud solutions; however, it can be overwhelming to navigate the vast number of services and decide which ones best suit your requirements. Whether you are an application architect, enterprise architect, developer, or operations engineer, this book will take you through AWS architectural patterns and guide you in selecting the most appropriate services for your projects. AWS for Solutions Architects is a comprehensive guide that covers the essential concepts that you need to know for designing well-architected AWS solutions that solve the challenges organizations face daily. You'll get to grips with AWS architectural principles and patterns by implementing best practices and recommended techniques for real-world use cases. The book will show you how to enhance operational efficiency, security, reliability, performance, and cost-effectiveness using real-world examples. By the end of this AWS book, you'll have gained a clear understanding of how to design AWS architectures using the most appropriate services to meet your organization's technological and business requirements. What you will learn

- Rationalize the selection of AWS as the right cloud provider for your organization
- Choose the most appropriate service from AWS for a particular use case or project
- Implement change and operations management
- Find out the right resource type and size to balance performance and efficiency
- Discover how to mitigate risk and enforce security, authentication, and authorization
- Identify common business scenarios and select the right reference architectures for them

Who this book is for This book is for application and enterprise architects, developers, and operations engineers who want to become well-versed with AWS architectural patterns, best practices, and advanced techniques to build scalable, secure, highly available, and cost-effective solutions in the cloud. Although existing AWS users will find this book most useful, it will also help potential users understand how leveraging AWS can benefit their organization.

Beyond Fintech: Technology Applications for the Islamic Economy is a follow-up to the first-ever Islamic Fintech book by the author (published in 2018) that provided linkages between Islamic Finance and disruptive technologies like the blockchain. In the wake of fintech as a new trend in financial markets, the ground-breaking book stressed the relevance of Islamic finance and its implications, when enabled by fintech, towards the development of the Islamic digital economy. While the earlier work discussed the crucial innovation, structural, and institutional development for financial technologies in Islamic Finance, this new research explores the multiple applications possible in the various sectors of the economy, within and beyond finance, that can be significantly transformed. These revolutionary applications involve the integration of AI, blockchain, data analytics, and Internet-of-Things (IoT) devices for a holistic solution to tackle the bottlenecks and other issues in existing processes of traditional systems. The principles of accountability, duty, justice, and transparency are the foundation of shaping the framework in achieving good governance in all institutions — public or private, Islamic or otherwise. Technologies like AI, blockchain, and IoT devices can operationalize the transparency and accountability that is required to eradicate poverty, distribute wealth, enhance micro-, small- and large-scale initiatives for social and economic development, and thus share prosperity for a moral system that enables a more secure and sustainable economy.

- This is the latest practice test to pass the SAA-C02 AWS Amazon Certified Solutions Architect Associate Exam. - It contains 182 Questions and Answers. - All the questions are 100% valid and stable. - You can rely on this practice test to pass the exam with a good mark and in the first attempt.

1,000 practice questions with answers and explanations! With five unique practice tests, covering the five AWS Certified Solutions Architect Associate Exam objective domains, PLUS one additional practice exam, AWS Certified Solutions Architect Practice Tests provides a total of 1,000 practice test questions to make sure you are prepared for exam day. Coverage of all exam objective domains includes: Design Resilient Architectures, Define Performant Architectures, Specify Secure Applications and Architectures, Design Cost-Optimized Architectures, Define Operationally Excellent Architectures. This book will help you: • Gain confidence as you prepare for the SAA-C01 exam • Ensure you are set up for success with 1,000 practice questions • When you are ready, test your knowledge with the Sybex online interactive learning environment • Get that highly desired AWS certification Prepare smarter, not harder, with Sybex's superior study tools.

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

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.

Virtual, hands-on learning labs allow you to apply your technical skills in realistic environments. So Sybex has bundled AWS labs from XtremeLabs with our popular AWS Certified Solutions Architect Study Guide to give you the same experience working in these labs as you prepare for the Certified Solutions Architect Exam that you would face in a real-life application. These labs in addition to the book are a proven way to prepare for the certification and for work as an AWS Solutions Architect. This is your opportunity to take the next step in your career by expanding and validating your skills on the AWS Cloud. AWS has been the frontrunner in cloud computing products and services, and the UPDATED AWS Certified Solutions Architect Study Guide, Third Edition, for the Associate SAA-C02 Exam will get you fully prepared. This study guide covers exam concepts, and provides key review of exam topics, including: Designing resilient architectures Designing high-performing architectures Designing secure applications and architectures Designing cost-optimized architectures If you are looking to take the AWS Certified Solutions Architect Associate exam, this guide is what you need for comprehensive content and robust study tools that will help you gain the edge on exam day and throughout your career. Readers will have access to Sybex's superior online interactive learning environment and test bank, including hundreds of test questions, practice exams, electronic flashcards, and a glossary of key terms. And included with this version of the book, XtremeLabs virtual labs that run from your browser. The registration code is included with the book and gives you 6 months of unlimited access to XtremeLabs AWS Certified Solutions Architect Labs with 12 unique lab modules based on the book.

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 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.

Explore the modern market of data analytics platforms and the benefits of using Snowflake computing, the data

warehouse built for the cloud. With the rise of cloud technologies, organizations prefer to deploy their analytics using cloud providers such as Amazon Web Services (AWS), Microsoft Azure, or Google Cloud Platform. Cloud vendors are offering modern data platforms for building cloud analytics solutions to collect data and consolidate into single storage solutions that provide insights for business users. The core of any analytics framework is the data warehouse, and previously customers did not have many choices of platform to use. Snowflake was built specifically for the cloud and it is a true game changer for the analytics market. This book will help onboard you to Snowflake, present best practices to deploy, and use the Snowflake data warehouse. In addition, it covers modern analytics architecture and use cases. It provides use cases of integration with leading analytics software such as Matillion ETL, Tableau, and Databricks. Finally, it covers migration scenarios for on-premise legacy data warehouses. What You Will Learn Know the key functionalities of Snowflake Set up security and access with cluster Bulk load data into Snowflake using the COPY command Migrate from a legacy data warehouse to Snowflake integrate the Snowflake data platform with modern business intelligence (BI) and data integration tools Who This Book Is For Those working with data warehouse and business intelligence (BI) technologies, and existing and potential Snowflake users

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.

From the Foreword: "Big Data Management and Processing is [a] state-of-the-art book that deals with a wide range of topical themes in the field of Big Data. The book, which probes many issues related to this exciting and rapidly growing field, covers processing, management, analytics, and applications... [It] is a very valuable addition to the literature. It will serve as a source of up-to-date research in this continuously developing area. The book also provides an opportunity for researchers to explore the use of advanced computing technologies and their impact on enhancing our capabilities to conduct more sophisticated studies." ---Sartaj Sahni, University of Florida, USA "Big Data Management and Processing covers the latest Big Data research results in processing, analytics, management and applications. Both fundamental insights and representative applications are provided. This book is a timely and valuable resource for students, researchers and seasoned practitioners in Big Data fields. --Hai Jin, Huazhong University of Science and Technology, China Big Data Management and Processing explores a range of big data related issues and their impact on the design of new computing systems. The twenty-one chapters were carefully selected and feature contributions from several outstanding researchers. The book endeavors to strike a balance between theoretical and practical coverage of innovative problem solving techniques for a range of platforms. It serves as a repository of paradigms, technologies, and

applications that target different facets of big data computing systems. The first part of the book explores energy and resource management issues, as well as legal compliance and quality management for Big Data. It covers In-Memory computing and In-Memory data grids, as well as co-scheduling for high performance computing applications. The second part of the book includes comprehensive coverage of Hadoop and Spark, along with security, privacy, and trust challenges and solutions. The latter part of the book covers mining and clustering in Big Data, and includes applications in genomics, hospital big data processing, and vehicular cloud computing. The book also analyzes funding for Big Data projects.

The AWS Certified Solutions Architect - Associate examination is intended for individuals who perform a solutions architect role and have one or more years of hands-on experience designing available, cost-efficient, fault-tolerant, and scalable distributed systems on AWS. Preparing for the AWS Certified Solutions Architect Associate Exam (AWS CSAA) to become an AWS Certified Solutions Architect? Here we've brought 500+ AWS Solutions Architect Associate Exam Questions for you so that you can prepare well for the AWS Solution Architect Associate exam. This AWS Certified Solutions Architect - Associate exam practice test of AWS Web Services has been advanced to test your knowledge before taking the official exam. Unlike other online simulation practice tests, you get an eBook version easy to read & remember these questions. You can simply rely on these 500+ questions for successfully certifying this exam.

This book presents the main theoretical foundations behind smart services as well as specific guidelines and practically proven methods on how to design them. Furthermore, it gives an overview of the possible implementation architectures and shows how the designed smart services can be realized with specific technologies. Finally, it provides four specific use cases that show how smart services have been realized in practice and what impact they have within the businesses. The first part of the book defines the basic concepts and aims to establish a shared understanding of terms, such as smart services, service systems, smart service systems or cyber-physical systems. On this basis, it provides an analysis of existing work and includes insights on how an organization incorporating smart services could enhance and adjust their management and business processes. The second part on the design of smart services elaborates on what constitutes a successful smart service and describes experiences in the area of interdisciplinary teams, strategic partnerships, the overall service systems and the common data basis. In the third part, technical reference architectures are presented in detail, encompassing topics on the design of digital twins in cyber physical systems, the communication between entities and sensors in the age of Industry 4.0 as well as data management and integration. The fourth part then highlights a number of analytical possibilities that can be realized and that can constitute or be part of smart services, including machine learning and artificial intelligence methods. Finally, the applicability of the introduced design and

development method is demonstrated by considering specific real-world use cases. These include services in the industrial and mobility sector, which were developed in direct cooperation with industry partners. The main target audience of this book is industry-focused readers, especially practitioners from industry, who are involved in supporting and managing digital business. These include professionals working in business development, product management, strategy, and development, ranging from middle management to Chief Digital Officers. It conveys all the basics needed for developing smart services and successfully placing them on the market by explaining technical aspects as well as showcasing practical use cases.

Before you can build analytics tools to gain quick insights, you first need to know how to process data in real time. With this practical guide, developers familiar with Apache Spark will learn how to put this in-memory framework to use for streaming data. You'll discover how Spark enables you to write streaming jobs in almost the same way you write batch jobs. Authors Gerard Maas and François Garillot help you explore the theoretical underpinnings of Apache Spark. This comprehensive guide features two sections that compare and contrast the streaming APIs Spark now supports: the original Spark Streaming library and the newer Structured Streaming API. Learn fundamental stream processing concepts and examine different streaming architectures Explore Structured Streaming through practical examples; learn different aspects of stream processing in detail Create and operate streaming jobs and applications with Spark Streaming; integrate Spark Streaming with other Spark APIs Learn advanced Spark Streaming techniques, including approximation algorithms and machine learning algorithms Compare Apache Spark to other stream processing projects, including Apache Storm, Apache Flink, and Apache Kafka Streams

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