

## Online Library Advanced Sample Aws Pdf Free Copy

*Applied Machine Learning and High-Performance Computing on AWS Aug 12 2022 Build, train, and deploy large machine learning models at scale in various domains such as computational fluid dynamics, genomics, autonomous vehicles, and numerical optimization using Amazon SageMaker Key Features Understand the need for high-performance computing (HPC) Build, train, and deploy large ML models with billions of parameters using Amazon SageMaker Learn best practices and architectures for implementing ML at scale using HPC Book Description Machine learning (ML) and high-performance computing (HPC) on AWS run compute-intensive workloads across industries and emerging applications. Its use cases can be linked to various verticals, such as computational fluid dynamics (CFD), genomics, and autonomous vehicles. This book provides end-to-end guidance, starting with HPC concepts for storage and networking. It then progresses to working examples on how to process large datasets using SageMaker Studio and EMR. Next, you'll learn how to build, train, and deploy large models using distributed training. Later chapters also guide you through deploying models to edge devices using SageMaker and IoT Greengrass, and performance optimization of ML models, for low*

latency use cases. By the end of this book, you'll be able to build, train, and deploy your own large-scale ML application, using HPC on AWS, following industry best practices and addressing the key pain points encountered in the application life cycle. What you will learn

Explore data management, storage, and fast networking for HPC applications

Focus on the analysis and visualization of a large volume of data using Spark

Train visual transformer models using SageMaker distributed training

Deploy and manage ML models at scale on the cloud and at the edge

Get to grips with performance optimization of ML models for low latency workloads

Apply HPC to industry domains such as CFD, genomics, AV, and optimization

Who this book is for

The book begins with HPC concepts, however, it expects you to have prior machine learning knowledge. This book is for ML engineers and data scientists interested in learning advanced topics on using large datasets for training large models using distributed training concepts on AWS, deploying models at scale, and performance optimization for low latency use cases. Practitioners in fields such as numerical optimization, computation fluid dynamics, autonomous vehicles, and genomics, who require HPC for applying ML models to applications at scale will also find the book useful.

AWS Certified SysOps Administrator Official Study Guide Apr 27 2021 Comprehensive, interactive exam preparation and so much more The

*AWS Certified SysOps Administrator Official Study Guide: Associate Exam is a comprehensive exam preparation resource. This book bridges the gap between exam preparation and real-world readiness, covering exam objectives while guiding you through hands-on exercises based on situations you'll likely encounter as an AWS Certified SysOps Administrator. From deployment, management, and operations to migration, data flow, cost control, and beyond, this guide will help you internalize the processes and best practices associated with AWS. The Sybex interactive online study environment gives you access to invaluable preparation aids, including an assessment test that helps you focus your study on areas most in need of review, and chapter tests to help you gauge your mastery of the material. Electronic flashcards make it easy to study anytime, anywhere, and a bonus practice exam gives you a sneak preview so you know what to expect on exam day. Cloud computing offers businesses a cost-effective, instantly scalable IT infrastructure. The AWS Certified SysOps Administrator - Associate credential shows that you have technical expertise in deployment, management, and operations on AWS. Study exam objectives Gain practical experience with hands-on exercises Apply your skills to real-world scenarios Test your understanding with challenging review questions Earning your AWS Certification is much more than just passing an exam—you must be able to perform the duties*

expected of an AWS Certified SysOps Administrator in a real-world setting. This book does more than coach you through the test: it trains you in the tools, procedures, and thought processes to get the job done well. If you're serious about validating your expertise and working at a higher level, the AWS Certified SysOps Administrator Official Study Guide: Associate Exam is the resource you've been seeking.

Accelerating DevSecOps on AWS May 09 2022 Build high-performance CI/CD pipelines that are powered by AWS and the most cutting-edge tools and techniques Key Features Master the full AWS developer toolchain for building high-performance, resilient, and powerful CI/CD pipelines Get to grips with Chaos engineering, DevSecOps, and AIOps as applied to CI/CD Employ the latest tools and techniques to build a CI/CD pipeline for application and infrastructure Book Description Continuous integration and continuous delivery (CI/CD) has never been simple, but these days the landscape is more bewildering than ever; its terrain riddled with blind alleys and pitfalls that seem almost designed to trap the less-experienced developer. If you're determined enough to keep your balance on the cutting edge, this book will help you navigate the landscape with ease. This book will guide you through the most modern ways of building CI/CD pipelines with AWS, taking you step-by-step from the basics right through to the most advanced topics in this domain. The book starts by covering the basics of

CI/CD with AWS. Once you're well-versed with tools such as AWS CodeStar, Proton, CodeGuru, App Mesh, SecurityHub, and CloudFormation, you'll focus on chaos engineering, the latest trend in testing the fault tolerance of your system. Next, you'll explore the advanced concepts of AIOps and DevSecOps, two highly sought-after skill sets for securing and optimizing your CI/CD systems. All along, you'll cover the full range of AWS CI/CD features, gaining real-world expertise. By the end of this AWS book, you'll have the confidence you need to create resilient, secure, and performant CI/CD pipelines using the best techniques and technologies that AWS has to offer. What you will learn

- Use AWS CodeStar to design and implement a full branching strategy
- Enforce Policy as Code using CloudFormation Guard and HashiCorp Sentinel
- Master app and infrastructure deployment at scale using AWS Proton and review app code using CodeGuru
- Deploy and manage production-grade clusters using AWS EKS, App Mesh, and X-Ray
- Harness AWS Fault Injection Simulator to test the resiliency of your app
- Wield the full arsenal of AWS Security Hub and Systems Manager for infrastructure security automation
- Enhance CI/CD pipelines with the AI-powered DevOps Guru service

Who this book is for This book is for DevOps engineers, engineering managers, cloud developers, and cloud architects. Basic experience with the software development life cycle, DevOps, and AWS is all you need to get

started.

*Natural Language Processing with AWS AI Services*  
Mar 07 2022 Work through interesting real-life business use cases to uncover valuable insights from unstructured text using AWS AI services Key FeaturesGet to grips with AWS AI services for NLP and find out how to use them to gain strategic insightsRun Python code to use Amazon Textract and Amazon Comprehend to accelerate business outcomesUnderstand how you can integrate human-in-the-loop for custom NLP use cases with Amazon A2IBook Description Natural language processing (NLP) uses machine learning to extract information from unstructured data. This book will help you to move quickly from business questions to high-performance models in production. To start with, you'll understand the importance of NLP in today's business applications and learn the features of Amazon Comprehend and Amazon Textract to build NLP models using Python and Jupyter Notebooks. The book then shows you how to integrate AI in applications for accelerating business outcomes with just a few lines of code. Throughout the book, you'll cover use cases such as smart text search, setting up compliance and controls when processing confidential documents, real-time text analytics, and much more to understand various NLP scenarios. You'll deploy and monitor scalable NLP models in production for real-time and batch requirements. As you advance, you'll explore strategies for including humans in the loop for

different purposes in a document processing workflow. Moreover, you'll learn best practices for auto-scaling your NLP inference for enterprise traffic. Whether you're new to ML or an experienced practitioner, by the end of this NLP book, you'll have the confidence to use AWS AI services to build powerful NLP applications. What you will learnAutomate various NLP workflows on AWS to accelerate business outcomesUse Amazon Textract for text, tables, and handwriting recognition from images and PDF filesGain insights from unstructured text in the form of sentiment analysis, topic modeling, and more using Amazon ComprehendSet up end-to-end document processing pipelines to understand the role of humans in the loopDevelop NLP-based intelligent search solutions with just a few lines of codeCreate both real-time and batch document processing pipelines using PythonWho this book is for If you're an NLP developer or data scientist looking to get started with AWS AI services to implement various NLP scenarios quickly, this book is for you. It will show you how easy it is to integrate AI in applications with just a few lines of code. A basic understanding of machine learning (ML) concepts is necessary to understand the concepts covered. Experience with Jupyter notebooks and Python will be helpful.

Building and Delivering Microservices on AWS Jul 31 2021 Quickly deliver microservices with CodeCommit, CodeBuild, CodeDeploy, and CodePipeline using software architecture

patterns, microservices, and release pipelines

Purchase of the print or Kindle book includes a free PDF eBook

### Key Features

Learn software architecture and microservices design patterns from an AWS certified professional architect

Develop microservices using Spring Boot and automate the release using CodePipeline

Deploy microservices using CodeDeploy to EC2 instances, containers, and on premises

### Book Description

Reliable automation is crucial for any code change going into production. A release pipeline enables you to deliver features for your users efficiently and promptly. AWS CodePipeline, with its powerful integration and automation capabilities of building, testing, and deployment, offers a unique solution to common software delivery issues such as outages during deployment, a lack of standard delivery mechanisms, and challenges faced in creating sustainable pipelines. You'll begin by developing a Java microservice and using AWS services such as CodeCommit, CodeArtifact, and CodeGuru to manage and review the source code. You'll then learn to use the AWS CodeBuild service to build code and deploy it to AWS infrastructure and container services using the CodeDeploy service. As you advance, you'll find out how to provision cloud infrastructure using CloudFormation templates and Terraform. The concluding chapters will show you how to combine all these AWS services to create a reliable and automated CodePipeline for delivering microservices from



source code check-in to deployment without any downtime. Finally, you'll discover how to integrate AWS CodePipeline with third-party services such as Bitbucket, Blazemeter, Snyk, and Jenkins. By the end of this microservices book, you'll have gained the hands-on skills to build release pipelines for your applications. What you will learn

Understand the basics of architecture patterns and microservice development  
Get to grips with the continuous integration and continuous delivery of microservices  
Delve into automated infrastructure provisioning with CloudFormation and Terraform  
Explore CodeCommit, CodeBuild, CodeDeploy, and CodePipeline services  
Get familiarized with automated code reviews and profiling using CodeGuru  
Grasp AWS Lambda function basics and automated deployment using CodePipeline  
Understand Docker basics and automated deployment to ECS and EKS  
Explore the CodePipeline integration with Jenkins Pipeline and on-premises deployment

Who this book is for  
This book is for software architects, DevOps engineers, SREs, and cloud engineers who want to learn more about automating their release pipelines for modifying features and releasing updates. Prior knowledge of AWS Cloud, Java, Maven, and Git will help you to get the most out of this book.

[AWS Certified Cloud Practitioner Exam Success Guide 1](#) Jan 25 2021 In this guide you're going to learn all about AWS (Amazon Web Services). I'm going to get you prepared and fast-track your AWS

Certified Cloud Practitioner exam success. The great thing about the cloud practitioner exam is it's very suitable for people coming from many different backgrounds. So, it doesn't matter if you have little or no technical experience, or if you do have a technical background and you're looking to transition your skill sets into the cloud. Whatever background you're coming from, this is the right book for you. Everything you need is here to make sure that you do pass your exam. You're not in this alone because I'm going to help you through it. My support link is at the bottom of this book for you to contact me any time if you need further help. Whatever your preferred learning style, I've also got you covered. If you're a visual learner, you'll love my clear diagrams and illustrations throughout this book. You'll enjoy the facts I present to you and the cheat sheets I created because they have exam specific information in them. If you're a practical learner, you'll love my hands-on lessons so that you can get practical with AWS and learn in a hands-on way. About the hands-on lessons, there're two different types of practical lesson in this guide. The first one is a demo. A demo is a pure demonstration in which I show you something but you don't need to follow along. The reason I do that is that there are a few examples of where I want to show you something visually so that I can demonstrate to you some feature of AWS. But the set up might be a bit more complex than the cloud practitioner

exam requires. Although there're just a few of those, they're a useful way to show you some things. Now, the other one is a hands-on lesson. A hands-on lesson is a follow-along, so you can actually go through AWS in your own free tier account and actually build on AWS. It will give you practical experience, which is really the best way to learn and become competent. At the end of many sections of this book, you'll find a lesson with links to my cheat sheets and you'll also find a quiz so you can test yourself as you go through the lessons. There's often an exam cram lesson as well. This is a fast-paced run through of the cool facts ideal for quick revision before you sit your exam. When you finish reading the book, I provide a full-length practice exam so you can test yourself and see if you're ready to sit the real thing. So, everything you need is here in this guide. I really hope you'll enjoy it.

Environmental Challenges Oct 22 2020 In the summer of 1999, an international group of experts convened in Jerusalem, Israel, in order to define the major environmental challenges facing humanity at the dawn of the new millennium and - where possible - propose ways of addressing them. Almost 50 selected articles are collected in the present book, which constitutes a striking interdisciplinary combination of state-of-the-art science with the latest views on environmental law, education, and international cooperation. Whilst a major fraction of the book is devoted to

water-related issues (water quality monitoring, water and wastewater treatment, water-based international cooperation, and more), other sections deal with timely topics relating to air pollution, biodiversity, conservation, and education. The book is intended for environmental scientists, professionals, and students of all disciplines.

Genomics in the AWS Cloud Dec 04 2021 Perform genome analysis and sequencing of data with Amazon Web Services Genomics in the AWS Cloud: Analyzing Genetic Code Using Amazon Web Services enables a person who has moderate familiarity with AWS Cloud to perform full genome analysis and research. Using the information in this book, you'll be able to take a FASTQ file containing raw data from a lab or a BAM file from a service provider and perform genome analysis on it. You'll also be able to identify potentially pathogenic gene sequences. Get an introduction to Whole Genome Sequencing (WGS) Make sense of WGS on AWS Master AWS services for genome analysis Some key advantages of using AWS for genomic analysis is to help researchers utilize a wide choice of compute services that can process diverse datasets in analysis pipelines. Genomic sequencers that generate raw data files are located in labs on premises and AWS provides solutions to make it easy for customers to transfer these files to AWS reliably and securely. Storing Genomics and Medical (e.g., imaging) data at different stages requires

enormous storage in a cost-effective manner. Amazon Simple Storage Service (Amazon S3), Amazon Glacier, and Amazon Elastics Block Store (Amazon EBS) provide the necessary solutions to securely store, manage, and scale genomic file storage. Moreover, the storage services can interface with various compute services from AWS to process these files. Whether you're just getting started or have already been analyzing genomics data using the AWS Cloud, this book provides you with the information you need in order to use AWS services and features in the ways that will make the most sense for your genomic research.

Amazon EC2 Cookbook Oct 02 2021 Over 40 hands-on recipes to develop and deploy real-world applications using Amazon EC2 About This Book Design and build applications using Amazon EC2 and a range of supporting AWS tools Find highly effective solutions to your AWS Cloud-based application development, deployment, and infrastructural issues A comprehensive set of recipes to implement your product's functional and non-functional requirements Who This Book Is For This book is targeted at Cloud-based developers who have prior exposure to AWS concepts and features. Some experience in building small applications and creating some proof-of-concept applications is required. What You Will Learn Select and configure the right EC2 instances Create, configure, and secure a Virtual Private Cloud Create an AWS CloudFormation template Use AWS Identity and Access Management

to secure access to EC2 instances Configure auto-scaling groups using CloudWatch Choose and use the right data service such as SimpleDB and DynamoDB for your cloud applications Access key AWS services using client tools and AWS SDKs Deploy AWS applications using Docker containers In Detail Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides flexible and resizable compute capacity in the cloud. The main purpose of Amazon EC2 is to make web-scale cloud computing easier for the developers. It offers developers and companies the raw building blocks like load balancers, object stores and virtual machines running on general hardware (that is, Amazon runs a multitude of hardware components but presents them as a generic utility to its users) with accessible APIs in order to create scalable software products This book covers designing, developing, and deploying scalable, highly available, and secure applications on the AWS platform. By following the steps in the recipes, you will be able to effectively and systematically resolve issues related to development, deployment, and infrastructure for enterprise-grade cloud applications or products. This book starts with helping you choose and configure the right EC2 instances to meet your application-specific requirements. The book then moves on to creating a CloudFormation template and will teach you how to work with stacks. You will then be introduced to using IAM services to configure users, groups, roles, and multi-factor

authentication. You will also learn how to connect AD to AWS IAM. Next, you will be using AWS data services and accessing other AWS services including Route 53, Amazon S3, and AWS SES (Amazon Simple Email Service). Finally, you will be deploying AWS applications using Docker containers. *Style and approach* This book contains a rich set of recipes that cover not only the full spectrum of real-world cloud application development using Amazon EC2, but also the services and security of the applications. The book contains easy-to-follow recipes with step-by-step instructions to leverage EC2 within your applications.

*Website Hosting and Migration with Amazon Web Services* Apr 08 2022 Understand the steps necessary to host your website using the Amazon Web Services (AWS) platform. You will be able to set up your website for the first time or migrate your existing website. Explore scenarios, considerations, and steps for three types of websites, including hosting a static website, a content management system (CMS) based website, and a full-featured enterprise level website. Topic areas such as content storage in S3, compute resources in EC2, Route53 DNS Management, email services setup using Simple Email Service as well as strategies for high availability, fault tolerance, and website maintenance are covered. *Website Hosting and Migration with Amazon Web Services* is organized in a way that allows you to start with simple concepts using

AWS core services that allow you to build knowledge and confidence using AWS services while exploring the latest technology on this ever-updating platform. Using AWS to host your website offers you more control over your infrastructure, content delivery, and ability to scale to fit your website needs. It's time to take control and take your website to the next level. This engaging resource: Explains how to use the Amazon Web Services Free Tier to evaluate the platform for hosting your website Walks you through the setup and migration steps for three unique and popular web hosting scenarios Delivers hands-on experience with base concepts that can be built upon to grow and improve your website infrastructure Provides sample resources to test and understand the setup process fully What You'll Learn Evaluate Amazon Web Services (AWS) offered on the platform that may benefit your website Set up and maintain three unique types of websites using AWS core services, enabling you to gain a deeper understanding of what is capable for your website or future projects Select AWS services that can improve performance and control of your website Use AWS RDS to deliver a redundant database solution for your website Manage DNS, domain registration, and transfers in AWS Use CloudFront to deliver content efficiently on a global scale Who This Book Is For Small business owners, webmasters, freelance web designers, and others looking to have more control over their web content, save money by



using a platform that charges for just the services you use, or grow the stability of their website by making it highly available, fault tolerant, and easily deployed; those looking to learn more about AWS Web Hosting options in general.

AWS Certified SysOps Administrator Study Guide Feb 18 2023 Your #1 all-in-one reference and exam Study Guide for the UPDATED AWS SysOps Administrator certification! This comprehensive book guides readers through the role of a SysOps Administrator and helps prepare candidates to take the updated AWS Certified SysOps Administrator-Associate (SOA-C01) Exam. The AWS Certified SysOps Administrator-Associate certification validates technical expertise in deployment, management, and operations on the AWS platform. This Study Guide not only prepares readers for the AWS exam, but it makes sure the reader is ready to perform the duties expected of SysOps Administrators. The book focuses on the skill-set required of AWS professionals by filling in the gap between test preparation and real-world preparedness. Concepts covered include: Monitoring and Reporting High Availability Deployment and Provisioning Storage and Data Management Security and Compliance Networking Automation and Optimization And More Readers will also have one year of free access to the Sybex interactive online learning environment and test bank, providing a suite of robust study tools including an assessment test, chapter

tests, bonus practice exam, electronic flashcards, and a glossary of key terms.

*Expert AWS Development Jan 05 2022 Key concepts, sample applications, best practices, and troubleshooting tips to build highly scalable applications in AWS. Key Features Design highly available, cost efficient, fault tolerant, and scalable distributed systems A practical guide that will help you build, deploy, and manage applications with ease. Develop effective solutions with AWS SDK and Lambda Book*

*Description Continuous deployment and Agile methodology have enabled huge advances in modern applications. This book will enable the reader to make use of this rapidly evolving technology to build highly scalable applications within AWS using different architectures. You will begin with installation of AWS SDK and you will get hands-on experience on creating an application using AWS Management Console and AWS Command Line Interface (CLI). Next you will be integrating Applications with AWS services such as DynamoDB, Amazon Kinesis, AWS Lambda, Amazon SQS and Amazon SWF Following this you will get well versed with CI/CD workflow and work with four major phases in Release processes - Source, Build, Test and Production. Next you will learn to apply AWS developer tools in your Continuous Integration (CI) and Continuous Deployment (CD) WorkFlow. Later you will learn about User Authentication using Amazon Cognito and also how you can evaluate the best architecture as per your*

infrastructure costs. You will learn about Amazon EC2 service and deploy an app using Amazon EC2. You will also get well versed with container service which is Amazon EC2 Container Service (Amazon ECS) and you will learn to deploy an app using Amazon ECS. Along with EC2 and ECS, you will also deploying a practical real-world example of a CI/CD application with the Serverless Application Framework which is known as AWS Lambda. Finally you will learn how to build, develop and deploy the Application using AWS Developer tools like AWS CodeCommit, AWS CodeBuild, AWS CodeDeploy and AWS CodePipeline as per project needs. Also you can develop and deploy applications within minutes using AWS CodeStar from wizard. By the end of this book, the reader will effectively build, deploy, and manage applications on AWS along with scaling and securing applications with best practices and troubleshooting tips. What you will learn Learn how to get up and running with AWS Developer Tools. Integrate the four major phases in the Release Processes. Source, Build, Test and Production. Learn how to integrate Continuous Integration, Continuous Delivery, and Continuous Deployment in AWS. Make secure, scalable and fault tolerant applications. Understand different architectures and deploy complex architectures within minutes Who this book is for This book targets developers who would like to build and manage web and mobile applications and services on the AWS platform. If you are an architect you

will be able to take a deep dive and use examples that can be readily applied to real world scenarios. Some prior programming experience is assumed along with familiarity of cloud computing.

AWS Certified Database Study Guide Apr 20 2023  
Validate your AWS Cloud database skills! AWS Certified Database Study Guide: Specialty (DBS-C01) Exam focuses on helping you to understand the basic job role of a database administrator / architect and to prepare for taking the certification exam. This is your opportunity to take the next step in your career by expanding and validating your skills on the AWS Cloud, and performing a database-focused role. AWS is the frontrunner in cloud computing products and services, and this study guide will help you to gain an understanding of core AWS services, uses, and basic AWS database design and deployment best practices. AWS offers more than relational and nonrelation databases, they offer purpose built databases, which allow you to utilize database services prebuilt to meet your business requirements. If you are looking to take the Specialty (DBS-C01) exam, this Study 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. AWS Certified Database certification offers a great way for IT professionals to achieve industry recognition as cloud experts. This new study guide is perfect for you if you perform a

database-focused role and want to pass the DBS-C01 exam to prove your knowledge of how to design and deploy secure and robust database applications on AWS technologies. IT cloud professionals who hold AWS certifications are in great demand, and this certification could take your career to the next level! Master all the key concepts you need to pass the AWS Certified Database Specialty (DBS-C01) Exam Further your career by demonstrating your cloud computing expertise and your knowledge of databases and database services Understand the concept of purpose built databases, allowing you to pick the right tool for the right job. Review deployment and migration, management and operations, monitoring and troubleshooting, database security, and more Access the Sybex online learning environment and test bank for interactive study aids and practice questions Readers will also get one year of FREE access after activation to Sybex's superior online interactive learning environment and test bank, including hundreds of questions, a practice exam, electronic flashcards, and a glossary of key terms.

*Python Essentials for AWS Cloud Developers* May 29 2021 A comprehensive guide to implementing Python applications in AWS while learning about key AWS services Purchase of the print or Kindle book includes a free PDF eBook Key Features Gain hands-on experience in AWS services to effectively implement Python programming Utilize

Python with open source libraries to develop data pipelines, APIs, and database applications

Leverage the power of AWS to create a cloud-based server and use monitoring and logging features

Book Description AWS provides a vast variety of services for implementing Python applications, which can pose a challenge for those without an AWS background. This book addresses one of the more predominant problems of choosing the right service and stepping into the implementation of exciting Python apps using AWS. The book begins by showing you how to install Python and create an AWS account, before helping you explore AWS Lambda, EC2, Elastic Beanstalk, and S3 for Python programming. You'll then gain hands-on experience in using these services to build the Python application. As you advance, you'll discover how to debug Python apps using PyCharm, and then start deploying the Python applications on Elastic Beanstalk. You'll also learn how to monitor Python applications using the CloudWatch service, along with creating and publishing APIs on AWS to access the Python application. The concluding chapters will help you get to grips with storing unstructured and semi-structured data using NoSQL and DynamoDB, as well as advance your knowledge using the Glue serverless data integration service in AWS. By the end of this Python book, you'll be able to take your application development skills up a notch with AWS services and advance in your career. What you will learn

Understand the fundamentals of AWS

services for Python programming Find out how to configure AWS services to build Python applications Run and deploy Python applications using Lambda, EC2, and Elastic Beanstalk Provision EC2 servers on AWS and run Python applications Debug and monitor Python applications using PyCharm and CloudWatch Understand database operations on AWS by learning about DynamoDB and RDS Explore the API gateway service on AWS using Python to grasp API programming Who this book is for This book is for cloud developers, software developers, and IT specialists who want to develop Python applications on AWS as well as learn the concepts underlying AWS services for implementing the applications. Experience in Python programming is needed to be able to implement the applications on AWS.

Expert AWS Development Jun 29 2021 Key concepts, sample applications, best practices, and troubleshooting tips to build highly scalable applications in AWS. Key Features Design highly available, cost efficient, fault tolerant, and scalable distributed systems A practical guide that will help you build, deploy, and manage applications with ease. Develop effective solutions with AWS SDK and Lambda Book Description Continuous deployment and Agile methodology have enabled huge advances in modern applications. This book will enable the reader to make use of this rapidly evolving technology to build highly scalable applications within AWS

using different architectures. You will begin with installation of AWS SDK and you will get hands-on experience on creating an application using AWS Management Console and AWS Command Line Interface (CLI). Next you will be integrating Applications with AWS services such as DynamoDB, Amazon Kinesis, AWS Lambda, Amazon SQS and Amazon SWF Following this you will get well versed with CI/CD workflow and work with four major phases in Release processes - Source, Build, Test and Production. Next you will learn to apply AWS developer tools in your Continuous Integration (CI) and Continuous Deployment (CD) WorkFlow. Later you will learn about User Authentication using Amazon Cognito and also how you can evaluate the best architecture as per your infrastructure costs. You will learn about Amazon EC2 service and deploy an app using Amazon EC2. You will also get well versed with container service which is Amazon EC2 Container Service (Amazon ECS) and you will learn to deploy an app using Amazon ECS. Along with EC2 and ECS, you will also deploying a practical real-world example of a CI/CD application with the Serverless Application Framework which is known as AWS Lambda. Finally you will learn how to build, develop and deploy the Application using AWS Developer tools like AWS CodeCommit, AWS CodeBuild, AWS CodeDeploy and AWS CodePipeline as per project needs. Also you can develop and deploy applications within minutes using AWS CodeStar from wizard. By the end of this book,



the reader will effectively build, deploy, and manage applications on AWS along with scaling and securing applications with best practices and troubleshooting tips. What you will learn Learn how to get up and running with AWS Developer Tools. Integrate the four major phases in the Release Processes. Source, Build, Test and Production. Learn how to integrate Continuous Integration, Continuous Delivery, and Continuous Deployment in AWS. Make secure, scalable and fault tolerant applications. Understand different architectures and deploy complex architectures within minutes Who this book is for This book targets developers who would like to build and manage web and mobile applications and services on the AWS platform. If you are an architect you will be able to take a deep dive and use examples that can be readily applied to real world scenarios. Some prior programming experience is assumed along with familiarity of cloud computing.

[AWS Automation Cookbook](#) Mar 27 2021 Automate release processes, deployment, and continuous integration of your application as well as infrastructure automation with the powerful services offered by AWS About This Book Accelerate your infrastructure's productivity by implementing a continuous delivery pipeline within your environment Leverage AWS services and Jenkins 2.0 to perform complete application deployments on Linux servers This recipe-based guide that will help you minimize application

deployment downtime

*Who This Book Is For* This book is for developers and system administrators who are responsible for hosting their application and managing instances in AWS. It's also ideal for DevOps engineers looking to provide continuous integration, deployment, and delivery. A basic understanding of AWS, Jenkins, and some scripting knowledge is needed.

*What You Will Learn* Build a sample Maven and NodeJS Application using CodeBuild Deploy the application in EC2/Auto Scaling and see how CodePipeline helps you integrate AWS services Build a highly scalable and fault tolerant CI/CD pipeline Achieve the CI/CD of a microservice architecture application in AWS ECS using CodePipeline, CodeBuild, ECR, and CloudFormation Automate the provisioning of your infrastructure using CloudFormation and Ansible Automate daily tasks and audit compliance using AWS Lambda Deploy microservices applications on Kubernetes using Jenkins Pipeline 2.0

*In Detail* AWS CodeDeploy, AWS CodeBuild, and CodePipeline are scalable services offered by AWS that automate an application's build and deployment pipeline. In order to deliver tremendous speed and agility, every organization is moving toward automating an entire application pipeline. This book will cover all the AWS services required to automate your deployment to your instances. You'll begin by setting up and using one of the AWS services for automation - CodeCommit. Next, you'll learn how to build a sample Maven and NodeJS Application

using CodeBuild. After you've built the application, you'll see how to use CodeDeploy to deploy the application in EC2/Autoscaling. You'll also build a highly scalable and fault tolerant continuous integration (CI)/continuous deployment (CD) pipeline using some easy-to-follow recipes. Following this, you'll achieve CI/CD for Microservices application and reduce the risk within your software development lifecycle. You'll also learn to set up an infrastructure using CloudFormation Template and Ansible, and see how to automate AWS resources using AWS Lambda. Finally, you'll learn to automate instances in AWS and automate the deployment lifecycle of applications. By the end of this book, you'll be able to minimize application downtime and implement CI/CD, gaining total control over your software development lifecycle.

*Style and approach* This book takes a "How to do it" approach, providing with easy solutions to automate common maintenance and deployment tasks.

*Amazon S3 Cookbook* Mar 19 2023 Over 30 hands-on recipes that will get you up and running with Amazon Simple Storage Service (S3) efficiently

*About This Book* Learn how to store, manage, and access your data with AWS SDKs Study the Amazon S3 pricing model and learn how to calculate costs by simulating practical scenarios Optimize your Amazon S3 bucket by following step-by-step instructions of how to deliver your content with CloudFront, secure the S3 bucket with IAM, and lower costs with object life cycle management Who

*This Book Is For This book is for cloud developers who have experience of using Amazon S3 and are also familiar with Amazon S3. What You Will Learn Host a static website on Amazon S3 Calculate costs with AWS Simple Monthly Calculators Deploy a static website via CloudFormation Distribute your content via CloudFront Secure resources with bucket policies and IAM Protect objects using server-side and client-side encryption Enable Cross-Origin Resource Sharing Manage objects' life cycles to lower costs Optimize performance for uploading as well as downloading objects Enable S3 event notifications and create Lambda functions Manage common operations with AWS SDKs In Detail Amazon S3 is one of the most famous and trailblazing cloud object storage services, which is highly scalable, low-latency, and economical. Users only pay for what they use and can store and retrieve any amount of data at any time over the Internet, which attracts Hadoop users who run clusters on EC2. The book starts by showing you how to install several AWS SDKs such as iOS, Java, Node.js, PHP, Python, and Ruby and shows you how to manage objects. Then, you'll be taught how to use the installed AWS SDKs to develop applications with Amazon S3. Furthermore, you will explore the Amazon S3 pricing model and will learn how to annotate S3 billing with cost allocation tagging. In addition to this, the book covers several practical recipes about how to distribute your content with CloudFront, secure*

your content with IAM, optimize Amazon S3 performance, and notify S3 events with Lambda. By the end of this book, you will be successfully implementing pro-level practices, techniques, and solutions in Amazon S3. *Style and approach* A step-by-step practical guide that will show you how to efficiently store, manage, and control your data in Amazon S3.

*AWS Certified Developer - Associate Guide May 21 2023* 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.

Learning Amazon Web Services (AWS) Aug 24 2023  
The Practical, Foundational Technical  
Introduction to the World's #1 Cloud Platform  
Includes access to several hours of online  
training video: Mark Wilkins' expert training  
video library guides you through setting up core

services and prepares you to deploy your own apps and resources. Learning Amazon Web Services (AWS) is the perfect foundational resource for all administrators, developers, project managers, and other IT professionals who want to plan and deploy AWS services and/or earn AWS certification. Top cloud trainer and evangelist Mark Wilkins teaches best practices that align with Amazon's Well-Architected Framework, introduces key concepts in the context of a running case study, carefully explains how core AWS services operate and integrate, and offers extensively tested tips for maximizing flexibility, security, and value. Companion online videos guide you step-by-step through setting AWS compute, storage, networking, scale, security, automation, and more. Balance cost, compliance, and latency in your service designs Choose the right networking options for your virtual private cloud (VPC) Build, host, launch, manage, and budget for EC2 compute services Plan for scale and resiliency, and make informed decisions about AWS storage Enforce strict security, and automate to improve operational efficiency This book with companion training videos is a valuable learning tool for anyone seeking to demonstrate expertise through formal certification. WEB EDITION: All buyers of the book or ebook can register your book for access to a free online Web Edition of this title, which included videos embedded within the text, plus updates as they become available.

Amazon Web Services Sep 01 2021 Evaluate your Cloud requirements and successfully migrate your .NET Enterprise Application to the Amazon Web Services Platform.

Data Wrangling on AWS Feb 06 2022 Revamp your data landscape and implement highly effective data pipelines in AWS with this hands-on guide Purchase of the print or Kindle book includes a free PDF eBook Key Features Execute extract, transform, and load (ETL) tasks on data lakes, data warehouses, and databases Implement effective Pandas data operation with data wrangler Integrate pipelines with AWS data services Book Description Data wrangling is the process of cleaning, transforming, and organizing raw, messy, or unstructured data into a structured format. It involves processes such as data cleaning, data integration, data transformation, and data enrichment to ensure that the data is accurate, consistent, and suitable for analysis. Data Wrangling on AWS equips you with the knowledge to reap the full potential of AWS data wrangling tools. First, you'll be introduced to data wrangling on AWS and will be familiarized with data wrangling services available in AWS. You'll understand how to work with AWS Glue DataBrew, AWS data wrangler, and AWS Sagemaker. Next, you'll discover other AWS services like Amazon S3, Redshift, Athena, and Quicksight. Additionally, you'll explore advanced topics such as performing Pandas data operation with AWS data wrangler, optimizing ML data with



*AWS SageMaker, building the data warehouse with Glue DataBrew, along with security and monitoring aspects. By the end of this book, you'll be well-equipped to perform data wrangling using AWS services. What you will learn*

- Explore how to write simple to complex transformations using AWS data wrangler*
- Use abstracted functions to extract and load data from and into AWS datastores*
- Configure AWS Glue DataBrew for data wrangling*
- Develop data pipelines using AWS data wrangler*
- Integrate AWS security features into Data Wrangler using identity and access management (IAM)*
- Optimize your data with AWS SageMaker*

*Who this book is for* This book is for data engineers, data scientists, and business data analysts looking to explore the capabilities, tools, and services of data wrangling on AWS for their ETL tasks. Basic knowledge of Python, Pandas, and a familiarity with AWS tools such as AWS Glue, Amazon Athena is required to get the most out of this book.

*Political Candidate Selection* Dec 24 2020 The "secret garden of politics", where some win and others lose their candidate selection bids, and why some aspirant candidates are successful while others fail have been enduring puzzles within political science. This book solves this puzzle by proposing and applying a universally applicable multistage approach to discover the relationship between selection rules, selectors' biases, aspirants' attributes, and selection outcomes. Rare party and survey data on winning

and losing candidates and insider views on what it takes to win a selection contest at multiple selection stages are compared and used to reveal the inner workings of the secret garden. With a primary focus on the British Labour party over several elections, the findings challenge many long-held assumptions about why some aspirant candidate types are successful over others and provides real-world and controversial solutions to addressing women's and other marginalised groups' descriptive underrepresentation. As such, it provides a much-needed fresh look at party selection processes and draws new conclusions as to why political underrepresentation occurs and should inform policies to remedy it. This text will be of key interest to scholars and students of gender and ethnicity in politics, political parties and candidate selection, and more broadly to the study of political elites, comparative politics, sociology, labour studies, gender, race, and disability studies, and to practitioners.

Data Science on AWS Jun 10 2022 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

Mastering Elastic Kubernetes Service on AWS Dec 16 2022 Leverage AWS EKS to optimally manage Kubernetes deployment, scaling, and monitoring for your containerized applications Purchase of the print or Kindle book includes a free eBook in the PDF format. Key Features Seamlessly deploy and run Kubernetes applications on AWS Overcome security and networking issues in Kubernetes to improve the performance of your apps Scale and provision resources to meet the dynamic needs of the cluster using AWS EKS Book Description Kubernetes has emerged as the de facto standard

for container orchestration, with recent developments making it easy to deploy and handle a Kubernetes cluster. However, a few challenges such as networking, load balancing, monitoring, and security remain. To address these issues, Amazon EKS offers a managed Kubernetes service to improve the performance, scalability, reliability, and availability of AWS infrastructure and integrate with AWS networking and security services with ease. You'll begin by exploring the fundamentals of Docker, Kubernetes, Amazon EKS, and its architecture along with different ways to set up EKS. Next, you'll find out how to manage Amazon EKS, encompassing security, cluster authentication, networking, and cluster version upgrades. As you advance, you'll discover best practices and learn to deploy applications on Amazon EKS through different use cases, including pushing images to ECR and setting up storage and load balancing. With the help of several actionable practices and scenarios, you'll gain the know-how to resolve scaling and monitoring issues. Finally, you will overcome the challenges in EKS by developing the right skill set to troubleshoot common issues with the right logic. By the end of this Kubernetes book, you'll be able to effectively manage your own Kubernetes clusters and other components on AWS. What you will learn Understand Amazon EKS architecture and how every component works Effectively manage Kubernetes cluster on AWS with Amazon EKS Build a Docker image and push

it to AWS ECR Efficiently scale and provision resources leveraging Amazon EKS Dive deep into security and networking with Amazon EKS Understand Fargate serverless and apply it to the workload Who this book is for This book is for cloud architects and cloud engineers who want to efficiently manage Kubernetes with Amazon EKS. Basic knowledge of containerization, Kubernetes, Docker, and AWS services is needed to grasp the content present in this book.

AWS Certified Cloud Practitioner Study Guide with Online Labs Jul 11 2022 Virtual, hands-on learning labs allow you to apply your technical skills in realistic environments. So Sybex has bundled AWS labs from XtremeLabs with our popular AWS Certified Cloud Practitioner Study Guide to give you the same experience working in these labs as you prepare for the Certified Cloud Practitioner Exam that you would face in a real-life application. These labs in addition to the book are a proven way to prepare for the certification and for work as an AWS Cloud Practitioner. The AWS Certified Cloud Practitioner Study Guide: Exam CLF-C01 provides a solid introduction to this industry-leading technology, relied upon by thousands of businesses across the globe, as well as the resources you need to prove your knowledge in the AWS Certification Exam. This guide offers complete and thorough treatment of all topics included in the exam, beginning with a discussion of what the AWS cloud is and its basic global

infrastructure and architectural principles. Other chapters dive into the technical, exploring core characteristics of deploying and operating in the AWS Cloud Platform, as well as basic security and compliance aspects and the shared security model. In addition, the text identifies sources of documentation or technical assistance, such as white papers or support tickets. To complete their coverage, the authors discuss the AWS Cloud value proposition and define billing, account management, and pricing models. This includes describing the key services AWS can provide and their common use cases (e.g., compute, analytics, etc.). Distinguish yourself as an expert by obtaining a highly desirable certification in a widely used platform Hone your skills and gain new insights on AWS whether you work in a technical, managerial, sales, purchasing, or financial field Fully prepare for this new exam using expert content and real-world knowledge, key exam essentials, chapter review questions, and other textual resources Benefit from access to the Sybex online interactive learning environment and test bank, including chapter tests, practice exams, key term glossary, and electronic flashcards XtremeLabs virtual labs that run from your browser. The registration code is included with the book and gives you 6 months unlimited access to XtremeLabs AWS Certified Cloud Practitioner Labs with 8 unique lab modules based on the book. The AWS Certified Cloud Practitioner Study Guide is essential reading for

any professional in IT or other fields that work directly with AWS, soon-to-be graduates studying in those areas, or anyone hoping to prove themselves as an AWS Certified Cloud Practitioner.

Amazon S3 Cookbook Jul 23 2023 Over 30 hands-on recipes that will get you up and running with Amazon Simple Storage Service (S3) efficiently About This Book Learn how to store, manage, and access your data with AWS SDKs Study the Amazon S3 pricing model and learn how to calculate costs by simulating practical scenarios Optimize your Amazon S3 bucket by following step-by-step instructions of how to deliver your content with CloudFront, secure the S3 bucket with IAM, and lower costs with object life cycle management Who This Book Is For This book is for cloud developers who have experience of using Amazon S3 and are also familiar with Amazon S3. What You Will Learn Host a static website on Amazon S3 Calculate costs with AWS Simple Monthly Calculators Deploy a static website via CloudFormation Distribute your content via CloudFront Secure resources with bucket policies and IAM Protect objects using server-side and client-side encryption Enable Cross-Origin Resource Sharing Manage objects' life cycles to lower costs Optimize performance for uploading as well as downloading objects Enable S3 event notifications and create Lambda functions Manage common operations with AWS SDKs In Detail Amazon S3 is one of the most famous and trailblazing

cloud object storage services, which is highly scalable, low-latency, and economical. Users only pay for what they use and can store and retrieve any amount of data at any time over the Internet, which attracts Hadoop users who run clusters on EC2. The book starts by showing you how to install several AWS SDKs such as iOS, Java, Node.js, PHP, Python, and Ruby and shows you how to manage objects. Then, you'll be taught how to use the installed AWS SDKs to develop applications with Amazon S3. Furthermore, you will explore the Amazon S3 pricing model and will learn how to annotate S3 billing with cost allocation tagging. In addition to this, the book covers several practical recipes about how to distribute your content with CloudFront, secure your content with IAM, optimize Amazon S3 performance, and notify S3 events with Lambda. By the end of this book, you will be successfully implementing pro-level practices, techniques, and solutions in Amazon S3. *Style and approach* A step-by-step practical guide that will show you how to efficiently store, manage, and control your data in Amazon S3.

*AWS Lambda in Action Nov 15 2022 Summary* AWS Lambda in Action is an example-driven tutorial that teaches you how to build applications that use an event-driven approach on the back end. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. *About the Technology* With AWS Lambda, you write your code and upload it to the



AWS cloud. AWS Lambda responds to the events triggered by your application or your users, and automatically manages the underlying computer resources for you. Back-end tasks like analyzing a new document or processing requests from a mobile app are easy to implement. Your application is divided into small functions, leading naturally to a reactive architecture and the adoption of microservices. About the Book AWS Lambda in Action is an example-driven tutorial that teaches you how to build applications that use an event-driven approach on the back-end. Starting with an overview of AWS Lambda, the book moves on to show you common examples and patterns that you can use to call Lambda functions from a web page or a mobile app. The second part of the book puts these smaller examples together to build larger applications. By the end, you'll be ready to create applications that take advantage of the high availability, security, performance, and scalability of AWS. What's Inside Create a simple API Create an event-driven media-sharing application Secure access to your application in the cloud Use functions from different clients like web pages or mobile apps Connect your application with external services About the Reader Requires basic knowledge of JavaScript. Some examples are also provided in Python. No AWS experience is assumed. About the Author Danilo Poccia is a technical evangelist at Amazon Web Services and a frequent speaker at public events and workshops. Table of Contents PART 1 - FIRST

*STEPS Running functions in the cloud Your first Lambda function Your function as a web API PART 2 - BUILDING EVENT-DRIVEN APPLICATIONS Managing security Using standalone functions Managing identities Calling functions from a client Designing an authentication service Implementing an authentication service Adding more features to the authentication service Building a media-sharing application Why event-driven? PART 3 - FROM DEVELOPMENT TO PRODUCTION Improving development and testing Automating deployment Automating infrastructure management PART 4 - USING EXTERNAL SERVICES Calling external services Receiving events from other services*

*Learning AWS Jun 22 2023 Discover techniques and tools for building serverless applications with AWS Key Features Get well-versed with building and deploying serverless APIs with microservices Learn to build distributed applications and microservices with AWS Step Functions A step-by-step guide that will get you up and running with building and managing applications on the AWS platform Book Description Amazon Web Services (AWS) is the most popular and widely-used cloud platform. Administering and deploying application on AWS makes the applications resilient and robust. The main focus of the book is to cover the basic concepts of cloud-based development followed by running solutions in AWS Cloud, which will help the solutions run at scale. This book not only guides you through the trade-offs and ideas behind efficient cloud applications, but is*

a comprehensive guide to getting the most out of AWS. In the first section, you will begin by looking at the key concepts of AWS, setting up your AWS account, and operating it. This guide also covers cloud service models, which will help you build highly scalable and secure applications on the AWS platform. We will then dive deep into concepts of cloud computing with S3 storage, RDS and EC2. Next, this book will walk you through VPC, building realtime serverless environments, and deploying serverless APIs with microservices. Finally, this book will teach you to monitor your applications, and automate your infrastructure and deploy with CloudFormation. By the end of this book, you will be well-versed with the various services that AWS provides and will be able to leverage AWS infrastructure to accelerate the development process. What you will learn

Set up your AWS account and get started with the basic concepts of AWS  
Learn about AWS terminology and identity access management  
Acquaint yourself with important elements of the cloud with features such as computing, ELB, and VPC  
Back up your database and ensure high availability by having an understanding of database-related services in the AWS cloud  
Integrate AWS services with your application to meet and exceed non-functional requirements  
Create and automate infrastructure to design cost-effective, highly available applications

Who this book is for  
If you are an I.T. professional or a system architect who wants to improve infrastructure

using AWS, then this book is for you. It is also for programmers who are new to AWS and want to build highly efficient, scalable applications.

*Intelligent Document Processing with AWS AI/ML*  
Jul 19 2020 Build real-world artificial intelligence applications across industries with the help of intelligent document processing  
**Key Features**  
Tackle common document processing problems to extract value from any type of document  
Unlock deeper levels of insights on IDP in a more structured and accelerated way using AWS AI/ML  
Apply your knowledge to solve real document analysis problems in various industry applications  
**Book Description**  
With the volume of data growing exponentially in this digital era, it has become paramount for professionals to process this data in an accelerated and cost-effective manner to get value out of it. Data that organizations receive is usually in raw document format, and being able to process these documents is critical to meeting growing business needs. This book is a comprehensive guide to helping you get to grips with AI/ML fundamentals and their application in document processing use cases. You'll begin by understanding the challenges faced in legacy document processing and discover how you can build end-to-end document processing pipelines with AWS AI services. As you advance, you'll get hands-on experience with popular Python libraries to process and extract insights from documents. This book starts with the basics, taking you through

real industry use cases for document processing to deliver value-based care in the healthcare industry and accelerate loan application processing in the financial industry. Throughout the chapters, you'll find out how to apply your skillset to solve practical problems. By the end of this AWS book, you'll have mastered the fundamentals of document processing with machine learning through practical implementation. What you will learn

Understand the requirements and challenges in deriving insights from a document

Explore common stages in the intelligent document processing pipeline

Discover how AWS AI/ML can successfully automate IDP pipelines

Find out how to write clean and elegant Python code by leveraging AI

Get to grips with the concepts and functionalities of AWS AI services

Explore IDP across industries such as insurance, healthcare, finance, and the public sector

Determine how to apply business rules in IDP

Build, train, and deploy models with serverless architecture for IDP

Who this book is for

This book is for technical professionals and thought leaders who want to understand and solve business problems by leveraging insights from their documents. If you want to learn about machine learning and artificial intelligence, and work with real-world use cases such as document processing with technology, this book is for you. To make the most of this book, you should have basic knowledge of AI/ML and python programming concepts. This book is also especially useful for

developers looking to explore AI/ML with industry use cases.

*Data Analytics in the AWS Cloud* Nov 22 2020 A comprehensive and accessible roadmap to performing data analytics in the AWS cloud In *Data Analytics in the AWS Cloud: Building a Data Platform for BI and Predictive Analytics on AWS*, accomplished software engineer and data architect Joe Minichino delivers an expert blueprint to storing, processing, analyzing data on the Amazon Web Services cloud platform. In the book, you'll explore every relevant aspect of data analytics—from data engineering to analysis, business intelligence, DevOps, and MLOps—as you discover how to integrate machine learning predictions with analytics engines and visualization tools. You'll also find: Real-world use cases of AWS architectures that demystify the applications of data analytics Accessible introductions to data acquisition, importation, storage, visualization, and reporting Expert insights into serverless data engineering and how to use it to reduce overhead and costs, improve stability, and simplify maintenance A can't-miss for data architects, analysts, engineers and technical professionals, *Data Analytics in the AWS Cloud* will also earn a place on the bookshelves of business leaders seeking a better understanding of data analytics on the AWS cloud platform.

*AWS for Non-Engineers* Apr 15 2020 This book is for anyone just starting with Amazon Web Services

or cloud computing in general--whether you're in customer service, marketing, or management. It's written by Hiroko Nishimura, and is based on her video courses that have been taken by over 300,000 learners. In this reader-friendly book, you'll learn how to talk about cloud concepts with engineers, what the cloud could do for your business, and how to start using AWS's services for your own IT tasks. When you're finished, you'll be comfortable with the basics of cloud computing on AWS and you'll be prepared to take the AWS Certified Cloud Practitioner Exam.

AWS Certified SysOps Administrator Study Guide with Online Labs Jan 17 2023 Virtual, hands-on learning labs allow you to apply your technical skills in realistic environments. So Sybex has bundled AWS labs from XtremeLabs with our popular AWS Certified SysOps Administrator Study Guide to give you the same experience working in these labs as you prepare for the Certified SysOps Administrator Exam that you would face in a real-life application. These labs in addition to the book are a proven way to prepare for the certification and for work as an AWS SysOps Administrator. This comprehensive book guides readers through the role of a SysOps Administrator and helps prepare candidates to take the updated AWS Certified SysOps Administrator-Associate (SOA-C01) Exam. The AWS Certified SysOps Administrator-Associate certification validates technical expertise in deployment, management, and operations on the AWS

platform. This Study Guide not only prepares readers for the AWS exam, but it makes sure the reader is ready to perform the duties expected of SysOps Administrators. The book focuses on the skill-set required of AWS professionals by filling in the gap between test preparation and real-world preparedness. Concepts covered include: Monitoring and Reporting High Availability Deployment and Provisioning Storage and Data Management Security and Compliance Networking Automation and Optimization And More Readers will also have one year of free access to the Sybex interactive online learning environment and test bank, providing a suite of robust study tools including an assessment test, chapter tests, bonus practice exam, electronic flashcards, and a glossary of key terms. And included with this version of the book, XtremeLabs virtual labs that run from your browser. The registration code is included with the book and gives you 6 months unlimited access to XtremeLabs AWS Certified SysOps Administrator Labs with 6 unique lab modules based on the book.

Amazon Web Services in Action, Third Edition Jun 17 2020 Master essential best practices for deploying and managing applications on Amazon Web Services. This revised bestseller is packed with techniques for building highly available and scalable architectures and automating deployment with Infrastructure as Code. Leverage globally distributed data centers to launch virtual machines with EC2 Store and archive large volumes



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

introduction to deploying and managing applications on the AWS cloud platform. With a sharp focus on the most important AWS tasks and services, they will save you hours of unproductive time. You'll learn hands-on as you complete real-world projects like hosting a WordPress site, setting up a private cloud, and deploying an app on containers. What's Inside Leverage globally distributed data centers to launch virtual machines Enhance performance with caching data in-memory Secure workloads running in the cloud with VPC and IAM Build fault-tolerant web applications with ALB and SQS About the Reader Written for mid-level developers, DevOps or platform engineers, architects, and system administrators. About the Author Andreas Wittig and Michael Wittig are software engineers and consultants focused on AWS. Together, they migrated the first bank in Germany to AWS in 2013.

[AWS Cloud Computing Concepts and Tech Analogies](#)  
Sep 20 2020 Overcome common issues and find answers to cloud-related questions through real enterprise scenarios, characters, and dialogue Purchase of the print or Kindle book includes a free PDF eBook Key Features Learn cloud concepts from AWS certified trainers using common analogies from real life Get to grips with the most commonly used services in the AWS cloud Understand how your knowledge from classical on premises IT can be applied to the Cloud Book Description This book makes understanding cloud

computing easy by providing relatable examples that simplify the complex technology. By drawing parallels between cloud concepts and everyday scenarios, we will demystify cloud tech, and once you start to understand it, learning cloud computing will be more enjoyable. This book will help you learn about cloud computing in general and AWS specifically, as you follow the journey of TrendyCorp—a fictitious company gearing up to move from traditional IT to cloud computing. You'll shape your understanding of the cloud through scenarios of interactions between TrendyCorp's new hires, seasoned IT professionals, external consultants, and the board of directors engaged in modernizing their applications. These characters' discussions and actions are focused on learning about cloud services by drawing comparisons between the technology and examples taken from real life. Through this book, you'll realize that cloud computing concepts have more in common with your day-to-day scenarios and situations than you've ever imagined. This book offers a conversational and entertaining narrative that anyone working in IT and looking to understand how the cloud works will be able to follow. By the end of it, you'll have developed a clear and simplified perspective of cloud technologies. What you will learn

- Implement virtual servers in the cloud
- Identify the best cloud storage options for a specific solution
- Explore best practices for networking and databases in the cloud
- Enforce security with

authentication and authorization in the cloud  
Effectively monitor applications in the cloud  
Leverage scalability and automation in the cloud  
Get the hang of decoupled and serverless  
architecture Grasp the fundamentals of containers  
and Blockchain in the cloud Who this book is for  
This book is for anyone who wants to learn AWS  
cloud computing. It explains all the foundational  
concepts and mechanisms in detail. So basic  
knowledge of IT systems or terminologies (like  
server, storage, IP address, and web  
applications) is all that you need to get started  
with this book.

AWS Cloud Practitioner Exam Questions Nov 03  
2021 AWS Cloud Practitioner Exam Questions. It  
contains also description of how exactly was the  
experience of going to the exam, how to stay, how  
to behave, how the results will come and please  
mind that you need to have some networking  
experience or read well about it to take this  
exam. The Certificate in my case had to be  
downloaded from an Account, but I didn't got the  
link. I had to open an AWS ticket to ask from  
where I can download the diploma after I've got  
the confirmation that I took the Exam. this book  
should help, and please read carefully "For the  
Reader" part. The book has also explanations how  
to get free access for 1 year to the Amazon Cloud  
so you can practice hands on and prepare for this  
exam.

Time Series Analysis on AWS Feb 23 2021 Leverage  
AWS AI/ML managed services to generate value from

*your time series data* **Key Features** *Solve modern time series analysis problems such as forecasting and anomaly detection* *Gain a solid understanding of AWS AI/ML managed services and apply them to your business problems* *Explore different algorithms to build applications that leverage time series data*

**Book Description** *Being a business analyst and data scientist, you have to use many algorithms and approaches to prepare, process, and build ML-based applications by leveraging time series data, but you face common problems, such as not knowing which algorithm to choose or how to combine and interpret them. Amazon Web Services (AWS) provides numerous services to help you build applications fueled by artificial intelligence (AI) capabilities. This book helps you get to grips with three AWS AI/ML-managed services to enable you to deliver your desired business outcomes. The book begins with Amazon Forecast, where you'll discover how to use time series forecasting, leveraging sophisticated statistical and machine learning algorithms to deliver business outcomes accurately. You'll then learn to use Amazon Lookout for Equipment to build multivariate time series anomaly detection models geared toward industrial equipment and understand how it provides valuable insights to reinforce teams focused on predictive maintenance and predictive quality use cases. In the last chapters, you'll explore Amazon Lookout for Metrics, and automatically detect and diagnose outliers in your business and operational data.*

By the end of this AWS book, you'll have understood how to use the three AWS AI services effectively to perform time series analysis. What you will learn Understand how time series data differs from other types of data Explore the key challenges that can be solved using time series data Forecast future values of business metrics using Amazon Forecast Detect anomalies and deliver forewarnings using Lookout for Equipment Detect anomalies in business metrics using Amazon Lookout for Metrics Visualize your predictions to reduce the time to extract insights Who this book is for If you're a data analyst, business analyst, or data scientist looking to analyze time series data effectively for solving business problems, this is the book for you. Basic statistics knowledge is assumed, but no machine learning knowledge is necessary. Prior experience with time series data and how it relates to various business problems will help you get the most out of this book. This guide will also help machine learning practitioners find new ways to leverage their skills to build effective time series-based applications.

[AWS for Solutions Architects](#) May 17 2020 Become a master Solutions Architect with this comprehensive guide, featuring cloud design patterns and real-world solutions for building scalable, secure, and highly available systems Purchase of the print or Kindle book includes a free eBook in PDF format. Key Features Gain expertise in automating, networking, migrating,

and adopting cloud technologies using AWS Use streaming analytics, big data, AI/ML, IoT, quantum computing, and blockchain to transform your business Upskill yourself as an AWS solutions architect and explore details of the new AWS certification Book Description Are you excited to harness the power of AWS and unlock endless possibilities for your business? Look no further than the second edition of AWS for Solutions Architects! Packed with all-new content, this book is a must-have guide for anyone looking to build scalable cloud solutions and drive digital transformation using AWS. This updated edition offers in-depth guidance for building cloud solutions using AWS. It provides detailed information on AWS well-architected design pillars and cloud-native design patterns. You'll learn about networking in AWS, big data and streaming data processing, CloudOps, and emerging technologies such as machine learning, IoT, and blockchain. Additionally, the book includes new sections on storage in AWS, containers with ECS and EKS, and data lake patterns, providing you with valuable insights into designing industry-standard AWS architectures that meet your organization's technological and business requirements. Whether you're an experienced solutions architect or just getting started with AWS, this book has everything you need to confidently build cloud-native workloads and enterprise solutions. What you will learn Optimize your Cloud Workload using

the AWS Well-Architected Framework Learn methods to migrate your workload using the AWS Cloud Adoption Framework Apply cloud automation at various layers of application workload to increase efficiency Build a landing zone in AWS and hybrid cloud setups with deep networking techniques Select reference architectures for business scenarios, like data lakes, containers, and serverless apps Apply emerging technologies in your architecture, including AI/ML, IoT and blockchain 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, highly tolerant, and cost-effective solutions in the cloud. Existing AWS users are bound to learn the most, but it will also help those curious about how leveraging AWS can benefit their organization. Prior knowledge of any computing language is not needed, and there's little to no code. Prior experience in software architecture design will prove helpful.

AWS Certified Developer Official Study Guide Sep 13 2022 Foreword by Werner Vogels, Vice President and Corporate Technology Officer, Amazon The AWS exam has been updated. Your study guide should be, too. The AWS Certified Developer Official Study Guide-Associate Exam is your ultimate preparation resource for the latest exam! Covering all exam objectives, this invaluable



resource puts a team of AWS experts at your side with expert guidance, clear explanations, and the wisdom of experience with AWS best practices. You'll master core services and basic architecture, and equip yourself to develop, deploy, and debug cloud-based applications using AWS. The AWS Developer certification is earned by those who demonstrate the technical knowledge and skill associated with best practices for building secure, reliable cloud-based applications using AWS technology. This book is your official exam prep companion, providing everything you need to know to pass with flying colors. Study the AWS Certified Developer Exam objectives Gain expert insight on core AWS services and best practices Test your understanding of key concepts with challenging chapter questions Access online study tools including electronic flashcards, a searchable glossary, practice exams, and more Cloud computing offers businesses the opportunity to replace up-front capital infrastructure expenses with low, variable costs that scale as they grow. This customized responsiveness has negated the need for far-future infrastructure planning, putting thousands of servers at their disposal as needed—and businesses have responded, propelling AWS to the number-one spot among cloud service providers. Now these businesses need qualified AWS developers, and the AWS certification validates the exact skills and knowledge they're looking for. When you're ready to get serious about your cloud credentials, the

*AWS Certified Developer Official Study Guide-Associate Exam is the resource you need to pass the exam with flying colors. NOTE: As of October 7, 2019, the accompanying code for hands-on exercises in the book is available for downloading from the secure Resources area in the online test bank. You'll find code for Chapters 1, 2, 11, and 12.*

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your website needs. It's time to take control and take your website to the next level. This engaging resource: Explains how to use the Amazon Web Services Free Tier to evaluate the platform for hosting your website Walks you through the setup and migration steps for three unique and popular web hosting scenarios Delivers hands-on experience with base concepts that can be built upon to grow and improve your website infrastructure Provides sample resources to test and understand the setup process fully What You'll Learn Evaluate Amazon Web Services (AWS) offered on the platform that may benefit your website Set up and maintain three unique types of websites using AWS core services, enabling you to gain a deeper understanding of what is capable for your website or future projects Select AWS services that can improve performance and control of your website Use AWS RDS to deliver a redundant database solution for your website Manage DNS, domain registration, and transfers in AWS Use CloudFront to deliver content efficiently on a global scale Who This Book Is For Small business owners, webmasters, freelance web designers, and others looking to have more control over their web content, save money by using a platform that charges for just the services you use, or grow the stability of their website by making it highly available, fault tolerant, and easily deployed; those looking to learn more about AWS Web Hosting options in general.

*AWS Certified SysOps Administrator Associate All-in-One-Exam Guide (Exam SOA-C01) Aug 20 2020*

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- Systems operations*
- Signing up, working with the AWS Management Console, and the AWS CLI*
- AWS Identity and Access Management (IAM) and AWS service security*
- AWS compute services and the Elastic Compute Cloud (EC2)*
- Amazon ECS, 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*
- Application*

integration with Amazon SQS and Amazon SNS•AWS high availability strategies•Monitoring with Amazon CloudWatch, logging, and managing events•Managing AWS costs and billing•Infrastructure provisioning through AWS CloudFormation and AWS OpsWorks, application deployment, and creating scalable infrastructures  
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