Managed Cloud Services Managed Aws Managed Azure

This book describes the networks, applications, services of 2030 and beyond, their management. Novel end-to-end network and services architectures using cloud, wired, wireless, and space technologies to support future applications and services are presented. The book ties key concepts together such as cloud, space networking, network slicing, AI/ML, edge computing, burst switching, and optical computing in achieving end-to-end automated future services. Expected future applications, services, and network and data center architectures to support these applications and services in the year 2030 and beyond, along with security, routing, QoS, and management architecture and capabilities are described. The book is written by recognized global experts in the field from both industry and academia.
Master every aspect of orchestrating/managing Docker including creating a Swarm, creating services, using mounts, scheduling, scaling, resource management, rolling updates, load balancing, high availability, logging and monitoring, using multiple zones, and networking. This book also discusses the managed services for Docker Swarm: Docker for AWS and Docker Cloud Swarm mode. Docker Management Design Patterns explains how to use Docker Swarm mode with Docker Engine to create a distributed Docker container cluster and how to scale a cluster of containers, schedule containers on specific nodes, and mount a volume. This book is based on the latest version of Docker (17.0x). You will learn to provision a Swarm on production-ready AWS EC2 nodes, and to link Docker Cloud to Docker for AWS to provision a new Swarm or connect to an existing Swarm. Finally, you will learn to deploy a Docker Stack on Docker Swarm with Docker Compose. What You'll Learn Apply Docker management design patterns Use Docker Swarm mode and other new features Create and scale a Docker service Use mounts including volumes Configure scheduling, load balancing, high availability, logging and monitoring, rolling updates, resource management, and networking Use Docker for AWS managed services including a multi-zone Swarm Build Docker Cloud managed services in Swarm mode Who This Book Is For Docker admins, Docker application developers, and container as a service (CAAS) developers. Some prerequisite knowledge of Linux and Docker is required. Apress Pro Docker is recommended as a companion to this book.
As cloud technology continues to advance and be utilized, many service providers have begun to employ multiple networks, or cloud federations; however, as the popularity of these federations increases, so does potential utilization challenges. Developing Interoperable and Federated Cloud Architecture provides valuable insight into current and emergent research occurring within the field of cloud infrastructures. Featuring barriers, recent developments, and practical applications on the interoperability issues of federated cloud architectures, this book is a focused reference for administrators, developers, and cloud users interested in energy awareness, scheduling, and federation policies and usage.
Delve deep into various security aspects of AWS to build and maintain a secured environment Key Features ●Learn to secure your network, infrastructure, data, and applications in AWS cloud ●Use AWS managed security services to automate security ●Dive deep into various aspects such as the security model, compliance, access management and much more to build and maintain a secured environment ●Explore Cloud Adoption Framework (CAF) and its components ●Embedded with assessments that will help you revise the concepts you have learned in this book Book Description With organizations moving their workloads, applications, and infrastructure to the cloud at an unprecedented pace, security of all these resources has been a paradigm shift for all those who are responsible for security; experts, novices, and apprentices alike. This book focuses on using native AWS security features and managed AWS services to help you achieve continuous security. Starting with an introduction to Virtual

Private Cloud (VPC) to secure your AWS VPC, you will quickly explore various components that make up VPC such as subnets, security groups, various gateways, and many more. You will also learn to protect data in the AWS platform for various AWS services by encrypting and decrypting data in AWS. You will also learn to secure web and mobile applications in AWS cloud. This book is ideal for all IT professionals, system administrators, security analysts, solution architects, and chief information security officers who are responsible for securing workloads in AWS for their organizations. This book is embedded with useful assessments that will help you revise the concepts you have learned in this book. What you will learn ⬮Get familiar with VPC components, features, and benefits ⬮Learn to create and secure your private network in AWS ⬮Explore encryption and decryption fundamentals ⬮Understand monitoring, logging, and auditing in AWS ⬮Ensure data security in AWS ⬮Secure your web and mobile applications in AWS ⬮Learn security best practices for IAM, VPC, shared security responsibility model, and so on Who this book is for This book is for all IT professionals, system administrators, security analysts, solution architects, and chief information security officers who are responsible for securing workloads in AWS for their organizations.

The preservation of private data is a main concern of governments, organizations, and individuals alike. For individuals, a breach in personal information can mean dire consequences for an individual's finances, medical information, and personal property. Identity Theft: Breakthroughs in Research and Practice highlights emerging perspectives and critical insights into the preservation of personal data and the complications that can arise when one's identity is compromised. This critical volume features key research on methods and technologies for protection, the problems associated with identity theft, and outlooks for the future. This publication is an essential resource for information security professionals, researchers, and graduate-level students in the fields of criminal science, business, and computer science.

AWS Security Cookbook

Develop and run your application with Docker containers using DevOps tools for continuous delivery

Big Data, Cloud Computing, Data Science & Engineering

The Managed Services Playbook

Efficiently develop, deploy, and manage your enterprise apps on the Amazon Web Services platform

Implementing AWS: Design, Build, and Manage your Infrastructure

Building Enterprise Blockchain Solutions on AWS

Encyclopedia of Bioinformatics and Computational Biology: ABC of Bioinformatics combines elements of computer science, information technology, mathematics, statistics and biotechnology, providing the methodology and in silico solutions to mine biological data and processes. The book covers Theory, Topics and Applications, with a special focus on Integrative –omics and Systems Biology. The theoretical, methodological underpinnings of BCB, including phylogeny are covered, as are more current areas of focus, such as translational bioinformatics, cheminformatics, and environmental informatics. Finally, Applications provide guidance for commonly asked questions. This major reference work spans basic and cutting-edge methodologies authored by leaders in the field, providing an invaluable resource for students, scientists, professionals in research institutes, and a broad swath of researchers in biotechnology and the biomedical and pharmaceutical industries. Brings

together information from computer science, information technology, mathematics, statistics and biotechnology Written and reviewed by leading experts in the field, providing a unique and authoritative resource Focuses on the main theoretical and methodological concepts before expanding on specific topics and applications Includes interactive images, multimedia tools and crosslinking to further resources and databases

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.
Scale gracefully and maintain outstanding performance with your AWS-based infrastructure using DevOps principles About This Book Implement DevOps principles to take full advantage of the AWS stack and services Take expert look at solving problems faced by real developers and operation teams and learn to overcome them Learn from expert insights of the author who has worked with Silicon Valley's most high-profile companies Who This Book Is For This book is for developers, DevOps engineers and teams who want to build and use AWS for their software infrastructure. Basic computer science knowledge is required for this book. What You Will Learn Find out what it means to practice DevOps and what its principles are Build repeatable infrastructures using templates and configuration management Deploy multiple times a day by implementing continuous integration and continuous deployment pipelines Use the latest technologies, including containers and serverless computing, to scale your infrastructure Collect metrics and logs and implement an alerting strategy Make your system robust and secure In Detail The DevOps movement has transformed the way modern tech companies work. AWS which has been on the forefront of the Cloud computing revolution has also been a key contributor of this DevOps movement creating a huge range of managed services that help you implement the DevOps principles. In this book, you'll see how the most successful tech start-ups launch and scale their services on AWS and how you can too. Written by a lead member of Mediums DevOps team, this book explains how to treat infrastructure as code, meaning you can bring resources online and offline as necessary with the code as easily as you control your software. You will also build a continuous integration and continuous deployment pipeline to keep your app up to date. You'll find out how to scale your applications to offer maximum performance to users anywhere in the world, even when traffic spikes with the latest technologies, such as containers and serverless computing. You will also take a deep dive into monitoring and alerting to make sure your users have the best experience when using your service. Finally, you'll get to grips with ensuring the security of your platform and data. Style and approach This is a practical, hands-on, comprehensive guide to AWS, helping readers understand AWS in a step by step manner.
Although today's job market requires IT professionals to understand cloud computing theories and have hands-on skills for developing real-world database systems, there are few books available that integrate coverage of

both. Filling this void, Cloud Database Development and Management explains how readers can take advantage of the cloud environment to develop their own fully functioning database systems without any additional investment in IT infrastructure. Filled with step-by-step instructions, examples, and hands-on projects, the book begins by providing readers with the required foundation in database systems and cloud-based database development tools. It supplies detailed instructions on setting up data storage on Windows Azure and also explains how readers can develop their own virtual machines with Windows Server 2012 as the guest operating system. The book's wide-ranging coverage includes database design, database implementation, database deployment to the cloud environment, SQL Database, Table Storage service, Blob Storage service, Queue Storage service, and database application development. The text deals with all three aspects of database design: conceptual design, logical design, and physical design. It introduces the SQL language, explains how to use SQL to create database objects, and introduces the migration of the database between Windows Azure and the on-premises SQL Server. It also discusses the management tasks that keep both SQL Database and Windows Azure running smoothly. Detailing how to design, implement, and manage database systems in the cloud, the book provides you with tools that can make your cloud database development much more efficient and flexible. Its easy-to-follow instructions will help you develop the hands-on skills needed to store and manage critical business information and to make that data available anytime through the Internet.

Take your AWS SysOps skills to the next level by learning infrastructure automation techniques using CloudFormation, Terraform, and Boto3 Key FeaturesExplore AWS automation using CloudFormation, Terraform, and Boto3Leverage AWS to make your infrastructure flexible and highly availableDiscover various AWS features for building a secure and reliable environment to host your applicationBook Description Amazon Web Services (AWS) is one of the most popular and efficient cloud platforms for administering and deploying your applications to make them resilient and robust. AWS for System Administrators will help you to learn several advanced cloud administration concepts for deploying, managing, and operating highly available systems on AWS. Starting with the fundamentals of identity and access management (IAM) for securing your environment, this book will gradually take you through AWS networking and monitoring tools. As you make your way through the chapters, you'll get to grips with VPC, EC2, load balancer, Auto Scaling, RDS database, and data management. The book will also show you how to initiate AWS automated backups and store and keep track of log files. Later, you'll work with AWS APIs and understand how to use them along with CloudFormation, Python

Boto3 Script, and Terraform to automate infrastructure. By the end of this AWS book, you'll be ready to build your two-tier startup with all the necessary infrastructure, monitoring, and logging components in place. What you will learnAdopt a security-first approach by giving users minimum access using IAM policiesBuild your first Amazon Elastic Compute Cloud (EC2) instance using the AWS CLI, Boto3, and TerraformSet up your datacenter in AWS Cloud using VPCScale your application based on demand using Auto ScalingMonitor services using CloudWatch and SNSWork with centralized logs for analysis (CloudWatch Logs)Back up your data using Amazon Simple Storage Service (Amazon S3), Data Lifecycle Manager, and AWS BackupWho this book is for This Amazon Web Services book is for system administrators and solution architects who want to build highly available and flexible AWS Cloud platforms for their applications. Software engineers and programmers looking to deploy their applications to AWS Cloud will also find this book useful. Basic knowledge of Linux and AWS is necessary to get started. Leverage AWS features to build highly secure, fault-tolerant, and scalable cloud environments

Expert AWS Development

Spatial Cloud Computing

Effective DevOps with AWS

The Guide to a Successful Managed Services Practice

Practical Solutions for Managing Security Policies, Monitoring, Auditing, and Compliance with AWS

AWS Certified Solutions Architect Official Study Guide

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.

Cloud computing is an emerging technology which is adopted by various institutions and organizations. The new establishing companies might preferring this technology for their office automation and making logs and databases of their employees due to its variant features like pay per use, availability of the services. Cloud computing has become a great solution for providing a flexible, on-demand, and dynamically scalable computing infrastructure for many applications. Cloud computing also presents a significant technology trends, and it is already obvious that it is reshaping information technology processes and the IT marketplace

*The Guide to a Successful Managed Services Practice applies some of the most innovative and highly effective Managed Services techniques ever developed, and proven to increase long-term predictable revenue, thereby increasing an IT Organization's value. Leverage MSP University's successful Managed Services concepts - 3 Killer Managed Services deliverables - A Unique Managed Services Sales Process so successful that Clients can't resist signing your Agreements - Pricing your Managed Services deliverables for Maximum Profit - What to do after your Client is sold - Advanced Annuity-Based revenue philosophies. The Guide to a Successful Managed Services Practice includes everything you'll need to: - Transition to a successful, Annuity-Based Managed Services model and Evaluate your existing Clients and calculate what they'll be worth on a Monthly and Yearly basis when converted to Managed Services - Successfully market and sell Managed Services to new Clients - Increase your organization's overall value by transitioning to an Annuity-based Service Delivery model. *Includes nearly 30 downloadable Managed Services Business, Technical, Sales and Marketing Tools, Forms and Collateral! *Bonus: 4 Business-Winning PowerPoint Presentations! *Extra Special Bonus: Recorded Managed Services Webcast download included!*

Work through exciting recipes to administer your AWS cloud Key Features Build secure environments using AWS components and services Explore core AWS features with real-world applications and best practices Design and build Lambda functions using real-world examples Book Description With this Learning Path, you'll explore techniques to easily manage applications on the AWS cloud. You'll begin with an introduction to

serverless computing, its advantages, and the fundamentals of AWS. The following chapters will guide you on how to manage multiple accounts by setting up consolidated billing, enhancing your application delivery skills, with the latest AWS services such as CodeCommit, CodeDeploy, and CodePipeline to provide continuous delivery and deployment, while also securing and monitoring your environment's workflow. It'll also add to your understanding of the services AWS Lambda provides to developers. To refine your skills further, it demonstrates how to design, write, test, monitor, and troubleshoot Lambda functions. By the end of this Learning Path, you'll be able to create a highly secure, fault-tolerant, and scalable environment for your applications. This Learning Path includes content from the following Packt products: AWS Administration: The Definitive Guide, Second Edition by Yohan Wadia AWS Administration Cookbook by Rowan Udell, Lucas Chan Mastering AWS Lambda by Yohan Wadia, Udita Gupta What you will learn Explore the benefits of serverless computing and applications Deploy apps with AWS Elastic Beanstalk and Amazon Elastic File System Secure environments with AWS CloudTrail, AWSConfig, and AWS Shield Run big data analytics with Amazon EMR and Amazon Redshift Back up and safeguard data using AWS Data Pipeline Create monitoring and alerting dashboards using CloudWatch Effectively monitor and troubleshoot serverless applications with AWS Design serverless apps via AWS Lambda, DynamoDB, and API Gateway Who this book is for This Learning Path is specifically designed for IT system and network administrators, AWS architects, and DevOps engineers who want to effectively implement AWS in their organization and easily manage daily activities. Familiarity with Linux, web services, cloud computing platforms, virtualization, networking, and other administration-related tasks will assist in understanding the concepts in the book. Prior hands-on experience with AWS core services such as EC2, IAM, S3, and programming languages, such as Node.Js, Java, and C#, will also prove beneficial.

This book presents the outcomes of the 3rd IEEE/ACIS International Conference on Big Data, Cloud Computing, Data Science & Engineering (BCD 2018), which was held on July 10–12, 2018 in Kanazawa. The aim of the conference was to bring together researchers and scientists, businesspeople and entrepreneurs, teachers, engineers, computer users, and students to discuss the various fields of computer science, to share their experiences, and to exchange new ideas and information in a meaningful way. All aspects (theory, applications and tools) of computer and information science, the practical challenges encountered along the way, and the solutions adopted to solve them are all explored here. The conference organizers selected the best papers from among those accepted for presentation. The papers were chosen on the basis of review scores submitted by members of the program committee and subsequently

underwent further rigorous review. Following this second round of review, 13 of the conference's most promising papers were selected for this Springer (SCI) book. We eagerly await the important contributions that we know these authors will make to the field of computer and information science.

Docker for Developers

Learning Amazon Web Services (AWS)

Real-World Skills for the CompTIA Cloud+ Certification and Beyond: Exam CV0-001

Solutions Architect's Handbook

Developing Interoperable and Federated Cloud Architecture

A Hands-On Guide to the Fundamentals of AWS Cloud

A Guide to Building Greener Digital Products and Services

Cloud Computing: Theory and Practice provides students and IT professionals with an in-depth analysis of the cloud from the ground up. The third edition updates content throughout the book while retaining the popular features and organization of the second edition. After an introduction to network-centric computing and network-centric content in Chapter One, the book is organized into four sections. Section One reviews basic concepts of concurrency and parallel and distributed systems. Section Two presents such critical components of the cloud ecosystem as cloud service providers, cloud access, cloud data storage, and cloud hardware and software. Section Three covers cloud applications and cloud security, while Section Four presents research topics in cloud computing. Specific topics covered include resource virtualization, resource management and scheduling, and advanced topics like the impact of scale on efficiency, cloud scheduling subject to deadlines, alternative cloud architectures, and vehicular clouds. An included glossary covers terms grouped in several categories, from general to services, virtualization, desirable attributes and security. Includes updated content throughout chapters on concurrency, cloud hardware and software, challenges posed by big data and mobile applications and advanced topics Expanded appendix that presents several cloud computing projects Presents more than 400 references in the text, including recent research results in several areas related to cloud computing

This book focuses on Elastic Compute Cloud (EC2) and Simple Storage Service (S3) for developers writing in Python.

Learn in-demand cloud computing skills from industry experts Deploying and Managing a Cloud Infrastructure is an excellent resource for IT professionals seeking to tap into the demand for cloud administrators. This book helps prepare candidates for the CompTIA Cloud+ Certification (CV0-001) cloud computing certification exam. Designed for IT professionals with 2-3 years of networking experience, this certification provides validation of your cloud infrastructure knowledge. With over 30 years of combined experience in cloud computing, the author team provides the latest expert perspectives on enterprise-level mobile computing, and covers the most essential topics for building and maintaining cloud-based systems, including: Understanding basic cloud-related computing concepts, terminology, and characteristics Identifying cloud delivery solutions and deploying new infrastructure Managing cloud technologies, services, and networks Monitoring hardware and software performance Featuring real-world examples and interactive exercises, Deploying and Managing Cloud Infrastructure delivers practical knowledge you can apply immediately. And, in addition, you also get

access to a full set of electronic study tools including: Interactive Test Environment Electronic Flashcards Glossary of Key Terms Now is the time to learn the cloud computing skills you need to take that next step in your IT career.

Cloud computing has created a shift from the use of physical hardware and locally managed software-enabled platforms to that of virtualized cloud-hosted services. Cloud assembles large networks of virtual services, including hardware (CPU, storage, and network) and software resources (databases, message queuing systems, monitoring systems, and load-balancers). As Cloud continues to revolutionize applications in academia, industry, government, and many other fields, the transition to this efficient and flexible platform presents serious challenges at both theoretical and practical levels—ones that will often require new approaches and practices in all areas. Comprehensive and timely, Cloud Computing: Methodology, Systems, and Applications summarizes progress in state-of-the-art research and offers step-by-step instruction on how to implement it. Summarizes Cloud Developments, Identifies Research Challenges, and Outlines Future Directions Ideal for a broad audience that includes researchers, engineers, IT professionals, and graduate students, this book is designed in three sections: Fundamentals of Cloud Computing: Concept, Methodology, and Overview Cloud Computing Functionalities and Provisioning Case Studies, Applications, and Future Directions It addresses the obvious technical aspects of using Cloud but goes beyond, exploring the cultural/social and regulatory/legal challenges that are quickly coming to the forefront of discussion. Properly applied as part of an overall IT strategy, Cloud can help small and medium business enterprises (SMEs) and governments in optimizing expenditure on application-hosting infrastructure. This material outlines a strategy for using Cloud to exploit opportunities in areas including, but not limited to, government, research, business, high-performance computing, web hosting, social networking, and multimedia. With contributions from a host of internationally recognized researchers, this reference delves into everything from necessary changes in users' initial mindset to actual physical requirements for the successful integration of Cloud into existing in-house infrastructure. Using case studies throughout to reinforce concepts, this book also addresses recent advances and future directions in methodologies, taxonomies, IaaS/SaaS, data management and processing, programming models, and applications.

Learn how to deploy and test Linux-based Docker containers with the help of real-world use cases Key FeaturesUnderstand how to make a deployment workflow run smoothly with Docker containersLearn Docker and DevOps concepts such as continuous integration and continuous deployment (CI/CD)Gain insights into using various Docker tools and librariesBook Description Docker is the de facto standard for containerizing apps, and with an increasing number of software projects migrating to containers, it is crucial for engineers and DevOps teams to understand how to build, deploy, and secure Docker environments effectively. Docker for Developers will help you understand Docker containers from scratch while taking you through best practices and showing you how to address security concerns. Starting with an introduction to Docker, you'll learn how to use containers and VirtualBox for development. You'll explore how containers work and develop projects within them after you've explored different ways to deploy and run containers. The book will also show you how to use Docker containers in production in both single-host set-ups and in clusters and deploy them using Jenkins, Kubernetes, and Spinnaker. As you advance, you'll get to grips with monitoring, securing, and scaling Docker using tools such as Prometheus and Grafana. Later, you'll be able to deploy Docker containers to a variety of environments, including the cloud-native Amazon Elastic Kubernetes Service (Amazon EKS), before finally

delving into Docker security concepts and best practices. By the end of the Docker book, you'll be able to not only work in a container-driven environment confidently but also use Docker for both new and existing projects. What you will learnGet up to speed with creating containers and understand how they workPackage and deploy your containers to a variety of platformsWork with containers in the cloud and on the Kubernetes platformDeploy and then monitor the health and logs of running containersExplore best practices for working with containers from a security perspectiveBecome familiar with scanning containers and using third-party security tools and librariesWho this book is for If you're a software engineer new to containerization or a DevOps engineer responsible for deploying Docker containers in the cloud and building DevOps pipelines for container-based projects, you'll find this book useful. This Docker containers book is also a handy reference guide for anyone working with a Docker-based DevOps ecosystem or interested in understanding the security implications and best practices for working in container-driven environments.

Associate Exam

ABC of Bioinformatics

A comprehensive and practical guide to implementing end-to-end IoT solutions

Disruptive Cloud Computing and IT

CLF-C01 Exam

AWS: Security Best Practices on AWS

What Every SMB IT Service Provider Should Know about Managed Services

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.

"Ed has taken thirty years of battle-hardened experience running managed services businesses as a systems integrator, communications provider, equipment manufacturer, offshore provider and an independent start-up and put

it in a highly readable, yet incredibly detailed and indispensable book." Bob Boles CEO, Hostway Corporation "The Managed Services Playbook is the blueprint for building and running a successful managed services business. The explosion in managed services at Avaya was fueled by many of the strategies and plans Ed has outlined in this book." Mike Runda President, Avaya Client Services "Successfully running a managed services business is a difficult task with many nuances which make it very different from other IT services. Ed has unlocked these secrets which have eluded so many businesses. The advice in The Managed Services Playbook is priceless." Chris Formant President, Verizon Enterprise Solutions "Ed's proven ability to build high growth, high profit managed services businesses has made him one of the top managed services executive in the industry. The Managed Services Playbook details the keys to success for all those involved in managed and cloud businesses and can be mapped to proven, measurable results." George Humphrey Senior Director, Research and Advisory - Managed Services, Technology Services Industry Association (TSIA) "As IT vendors of all shapes and sizes rush to move their businesses to the cloud and managed services, The Managed Services Playbook should be required reading for anyone involved in those businesses." Dave D'Aprano Group Executive - IT Outsourcing, Dimension Data

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

AWS access management capabilities Define methods of deploying the AWS Cloud and operating within Define the AWS global infrastructure and identify core AWS services Recognize and compare AWS pricing models and account structures Identify support resources for security, AWS cloud technology, and billing

Pixels use electricity, and a lot of it. If the Internet were a country, it would be the sixth largest in terms of electricity use. That's because today's average web page has surpassed two megabytes in size, leading to slow load times, frustrated users, and a lot of wasted energy. With this practical guide, your web design team will learn how to apply sustainability principles for creating speedy, user-friendly, and energy-efficient digital products and services. Author Tim Frick introduces a web design framework that focuses on four key areas where these principles can make a difference: content strategy, performance optimization, design and user experience, and green hosting. You'll discover how to provide users with a streamlined experience, while reducing the environmental impact of your products and services. Learn why 90% of the data that ever existed was created in the last year Use sustainability principles to innovate, reduce waste, and function more efficiently Explore green hosting, sustainable business practices, and lean/agile workflows Put the right things in front of users at precisely the moment they need them—and nothing more Increase site search engine visibility, streamline user experience, and make streaming video more efficient Use Action Items to explore concepts outlined in each chapter

The one-stop-source powering Managed Service Provider success, jam-packed with ready to use insights for results, loaded with all the data you need to decide how to gain and move ahead. Based on extensive research, this lays out the thinking of the most successful Managed Service Provider knowledge experts, those who are adept at continually innovating and seeing opportunities. This is the first place to go for Managed Service Provider innovation - INCLUDED are numerous real-world Managed Service Provider blueprints, presentations and templates ready for you to access and use. Also, if you are looking for answers to one or more of these questions then THIS is the title for you: How will cloud computing impact IT managed service providers? What is a good managed service provider for AWS or a provider that works across all the major cloud providers? How reliable are property management service providers like renteazy or realtykart in Bangalore? Is there a postal management service provider in Australia? What are some of the best resources for starting a managed services provider business? Are you a Managed Services Provider (MSP) or Value Added Reseller (VAR)? Which is the best hotel management service provider in frisco, Texas, USA? How will cloud providers adapt to provide effective solutions for IO intensive (network and or disk) systems? Do these types of systems belong in managed service providers, co-lo's, or private data centers? What is the difference between an IT managed services provider and a virtual CIO? Who is the best asset management service provider in sg? What are the best ways to

evaluate pricing competitiveness of managed service providers? Especially in situations where switching costs are high? What are the critical success factors that need to be closely managed when transforming a business from an IT consulting organization to an IT managed service provider (MSP)? How safe is it to invest in stocks and mutual funds given the general lack of trust and self interest driven financial management services provided by financial firms/wall street? What are some managed service providers to consider for an ISV offering cloud hosted versions of their enterprise application? What is a good way to find IT Managed Service Providers that serve large enterprises and government agencies? Is there any cloud-based software which would be good for managing inventory and billing for IT MSP (Managed Service Providers)? What new/disruptive business models are good bolt ons for existing data center facilities and managed service providers? What are examples of ones that have found recent success at them? Is it necessary to have my own data center for a cloud managed services provider? Which is the most renowned service provider, if any? Are managed service providers (MSP) and cloud service providers (CSP) the same? Do they generally offer the same services? What are the differences if any? Are there any suggestions for a corporate library management service provider who can manage a range of services such as subscriptions, licences, patents, books, corporate magazines, etc.? ...and much more...

Docker Management Design Patterns

Designing for Sustainability

Cloud Computing for Machine Learning and Cognitive Applications

A Practical Approach

Cloud Database Development and Management

CompTIA Cloud Essentials+ Study Guide

Mastering AWS Security

In depth informative guide to implement and use AWS security services effectively. About This Book Learn to secure your network, infrastructure, data and applications in AWS cloud Log, monitor and audit your AWS resources for continuous security and continuous compliance in AWS cloud Use AWS managed security services to automate security. Focus on increasing your business rather than being diverged onto security risks and issues with AWS security. Delve deep into various aspects such as the security model, compliance, access management and much more to build and maintain a secure environment. Who This Book Is For This book is for all IT professionals, system administrators and security analysts, solution architects and Chief Information Security Officers who are responsible for securing workloads in AWS for their organizations. It is helpful for all Solutions Architects who want to design and implement secure architecture on AWS by the following security by design principle. This book is helpful for personnel in Auditors and Project Management role to understand how they can audit AWS workloads and how they can manage security in AWS respectively. If you are learning AWS or championing AWS adoption in your organization, you should read this book to build security in all your workloads. You will benefit from knowing about security footprint of all major AWS services for multiple domains, use cases, and scenarios. What You Will Learn Learn about AWS Identity Management and Access control Gain knowledge to create and secure your private network in AWS Understand and

secure your infrastructure in AWS Understand monitoring, logging and auditing in AWS Ensure Data Security in AWS Learn to secure your applications in AWS Explore AWS Security best practices In Detail Mastering AWS Security starts with a deep dive into the fundamentals of the shared security responsibility model. This book tells you how you can enable continuous security, continuous auditing, and continuous compliance by automating your security in AWS with the tools, services, and features it provides. Moving on, you will learn about access control in AWS for all resources. You will also learn about the security of your network, servers, data and applications in the AWS cloud using native AWS security services. By the end of this book, you will understand the complete AWS Security landscape, covering all aspects of end - to -end software and hardware security along with logging, auditing, and compliance of your entire IT environment in the AWS cloud. Lastly, the book will wrap up with AWS best practices for security. Style and approach The book will take a practical approach delving into different aspects of AWS security to help you become a master of it. It will focus on using native AWS security features and managed AWS services to help you achieve continuous security and continuous compliance.

An exploration of the benefits of cloud computing in geoscience research and applications as well as future research directions, Spatial Cloud Computing: A Practical Approach discusses the essential elements of cloud computing and their advantages for geoscience. Using practical examples, it details the geoscience requirements of cloud computing, covers general procedures and considerations when migrating geoscience applications onto cloud services, and demonstrates how to deploy different applications. The book discusses how to choose cloud services based on the general cloud computing measurement criteria and cloud computing cost models. The authors examine the readiness of cloud computing to support geoscience applications using open source cloud software solutions and commercial cloud services. They then review future research and developments in data, computation, concurrency, and spatiotemporal intensities of geosciences and how cloud service can be leveraged to meet the challenges. They also introduce research directions from the aspects of technology, vision, and social dimensions. Spatial Cloud Computing: A Practical Approach a common workflow for deploying geoscience applications and provides references to the concepts, technical details, and operational guidelines of cloud computing. These features and more give developers, geoscientists, and IT professionals the information required to make decisions about how to select and deploy cloud services.

Get to grips with key IoT aspects along with modern trends, architectures, and technologies that support IoT solutions, such as cloud computing, modern app architecture paradigms, and data analytics Key Features • Understand the big picture of designing production-grade IoT solutions from an industry expert • Get up and running with the development and designing aspects of the Internet of Things • Solve business problems specific to your domain using different IoT platforms and technologies Book Description With the rising demand for and recent enhancements in IoT, a developer with sound knowledge of IoT is the need of the hour. This book will help you design, build, and operate large-scale E2E IoT solutions to transform your business and products, increase revenue, and reduce operational costs. Starting with an overview of how IoT technologies can help you solve your business problems, this book will be a useful guide to helping you implement end-to-end IoT solution architecture. You'll learn to select IoT devices; real-time operating systems; IoT Edge covering Edge location, software, and hardware; and the best IoT connectivity for your IoT solution. As you progress, you'll work with IoT device management, IoT data analytics, IoT platforms, and put these components to work as part of your IoT solution. You'll also be able to build IoT backend cloud from scratch by leveraging the modern app architecture paradigms and cloud-native technologies such as containers and microservices. Finally, you'll discover best practices for different operational excellence pillars, including high

availability, resiliency, reliability, security, cost optimization, and high performance, which should be applied for large-scale production-grade IoT solutions. By the end of this IoT book, you'll be confident in designing, building, and operating IoT solutions. What you will learn • Understand the detailed anatomy of IoT solutions and explore their building blocks • Explore IoT connectivity options and protocols used in designing IoT solutions • Understand the value of IoT platforms in building IoT solutions • Explore real-time operating systems used in microcontrollers • Automate device administration tasks with IoT device management • Master different architecture paradigms and decisions in IoT solutions • Build and gain insights from IoT analytics solutions • Get an overview of IoT solution operational excellence pillars Who this book is for This book is for E2E solution architects, systems and technical architects, and IoT developers looking to design, build, and operate E2E IoT applications and solutions. Basic knowledge of cloud computing, software engineering, and distributed system design will help you get the most out of this book.

The Managed Services PlaybookiUniverse

Getting familiar with cloud computing features from scratch to advanced. KEY FEATURES ● Detailed coverage on Cloud fundamentals, Cloud Service Models, and deployment models. ● Easy, detailed, and practical approach to develop skills on working with Cloud Computing. ● Includes charts, diagrams, and graphical illustrations for better visual learning on complex topics of cloud computing. DESCRIPTION Cloud computing is a technology that allows you to store, access data and programs over the internet instead of the hard drive or a server. In this book, you will gain knowledge about the fundamentals of cloud computing. This book includes a detailed description of the features of the cloud, the importance of cloud in today's era, and uses of cloud computing. This book provides you with a deep knowledge of the basics of cloud computing. You will learn about the characteristics, architecture, and uses and importance of cloud computing. This book also explores the concept of scalability and redundancy regarding cloud computing. You will learn about the various cloud deployment and service models. You will also gain knowledge of virtualization technology. You will also have a guided tour of concepts related to cloud management, data storage and security, and cloud operations and technologies. At the end of the book, you will learn about the advanced concepts of cloud computing and also learn about mobile cloud computing. WHAT YOU WILL LEARN ● In-depth understanding on the fundamentals of cloud computing. ● Explore the role and importance of cloud computing across businesses and enterprises. ● Learn about cloud deployment models and service models. ● Gain knowledge on cloud storage, cloud security, administration of cloud and mobile cloud computing. WHO THIS BOOK IS FOR This book is open to all graduates, beginners and working professionals to help them understand everything about cloud computing and how to operate in a cloud environment. TABLE OF CONTENTS 1. Introduction 2. Architecture and Applications 3. Scalability and Redundancy 4. Cloud Services 5. Cloud Deployment Models 6. Virtualization 7. Management 8. Data Storage and Security 9. Operations and Challenges 10. Technologies and Service Providers 11. Cloud Cube Model 12. Mobile Cloud Computing

Deploying and Managing a Cloud Infrastructure

AWS for System Administrators

Learning AWS IoT

Methodology, Systems, and Applications

Breakthroughs in Research and Practice

Explore Application of Cloud, Cloud Deployment Models, Service Models and Mobile Cloud Computing (English Edition)

Learn to secure your data, servers, and applications with AWS

How do you start? How should you build a plan for cloud migration for your entire portfolio? How will your organization be affected by these changes? This book,

based on real-world cloud experiences by enterprise IT teams, seeks to provide the answers to these questions. Here, you'll see what makes the cloud so compelling to enterprises; with which applications you should start your cloud journey; how your organization will change, and how skill sets will evolve; how to measure progress; how to think about security, compliance, and business buy-in; and how to exploit the ever-growing feature set that the cloud offers to gain strategic and competitive advantage.

Cloud computing is the most significant technology development of our lifetimes. It has made countless new businesses possible and presents a massive opportunity for large enterprises to innovate like startups and retire decades of technical debt. But making the most of the cloud requires much more from enterprises than just a technology change. Stephen Orban led Dow Jones's journey toward digital agility as their CIO and now leads AWS's Enterprise Strategy function, where he helps leaders from the largest companies in the world transform their businesses. As he demonstrates in this book, enterprises must re-train their people, evolve their processes, and transform their cultures as they move to the cloud. By bringing together his experiences and those of a number of business leaders, Orban shines a light on what works, what doesn't, and how enterprises can transform themselves using the cloud.

Cloud Computing is a "daily spoken" and most commonly used terminology in every forum. Every conversation with a CIO has a reference to cloud computing. The objective of this book is to simplify cloud computing, explain what is cloud computing's impact on Enterprise IT and how business should be prepared to leverage the benefits of cloud in the right way. THIS BOOK WILL BE YOUR KNOWLEDGE GATEWAY TO CLOUD COMPUTING AND NEXT GENERATION INFORMATION TECHNOLOGY MANAGEMENT. Besides core cloud computing concepts and process you will also be presented with latest technologies and tools available today to onboard your assets to cloud and manage cloud better. A cloud computing professional who has worked with several cloud providers and organizations of varied sizes writes this book so expect real life examples, techniques, process and working models for every scenario in strategizing, migrating and managing IT infrastructure in the cloud. The book is carefully structured to gradually take the readers through the basics of cloud computing concepts, terminologies, implementation and management techniques through traditional IT management so that readers can easily connect ends. Several transformational, working models and best practices are discussed throughout the book. If you are looking for a book on cloud computing, #thecloudbook is the right book for you. If you have already purchased any books on cloud computing, read #thecloudbook and then go through the other books, you will understand the other books better. #thecloudbook is a must for every IT professional.

Learn to use AWS IoT services to build your connected applications with the help of this comprehensive guide. Key Features Gets you started with AWS IoT and its functionalities Learn different modules of AWS IoT with practical use cases. Learn to secure your IoT communication Book Description The Internet of Things market increased a lot in the past few years and IoT development and its adoption have showed an upward trend. Analysis and predictions say that Enterprise IoT platforms

are the future of IoT. AWS IoT is currently leading the market with its wide range of device support SDKs and versatile management console. This book initially introduces you to the IoT platforms, and how it makes our IoT development easy. It then covers the complete AWS IoT Suite and how it can be used to develop secure communication between internet-connected things such as sensors, actuators, embedded devices, smart applications, and so on. The book also covers the various modules of AWS: AWS Greengrass, AWS device SDKs, AWS IoT Platform, AWS Button, AWS Management consoles, AWS-related CLI, and API references, all with practical use cases. Near the end, the book supplies security-related best practices to make bi-directional communication more secure. When you've finished this book, you'll be up-and-running with the AWS IoT Suite, and building IoT projects. What you will learn Implement AWS IoT on IoT projects Learn the technical capabilities of AWS IoT and IoT devices Create IoT-based AWS IoT projects Choose IoT devices and AWS IoT platforms to use based on the kind of project you need to build Deploy AWS Greengrass and AWS Lambda Develop program for AWS IoT Button Visualize IoT AWS data Build predictive analytics using AWS IoT and AWS Machine Learning Who this book is for This book is for anyone who wants to get started with the AWS IoT Suite and implement it with practical use cases. This book acts as an extensive guide, on completion of which you will be in a position to start building IoT projects using AWS IoT platform and using cloud services for your projects.

From fundamentals and design patterns to the different strategies for creating secure and reliable architectures in AWS cloud, learn everything you need to become a successful solutions architect Endorsements "For new or existing solutions architects looking to keep their skills sharp in the cloud era, this book hits all the key areas." -Rajesh Sheth, GM, Messaging and Streaming, AWS "...the go-to guide for understanding various functions in the age of cloud computing." -Rohan Karmarkar, Director, Solutions Architecture, AWS "...you will find very important nuggets of knowledge that will help you be a successful solutions architect, and open up a new world of infinite possibilities!" -Kamal Arora, Senior Manager, Solutions Architecture, AWS Book Description Becoming a solutions architect requires a hands-on approach, and this edition of the Solutions Architect's Handbook brings exactly that. This handbook will teach you how to create robust, scalable, and fault-tolerant solutions and next-generation architecture designs in a cloud environment. It will also help you build effective product strategies for your business and implement them from start to finish. This new edition features additional chapters on disruptive technologies, such as Internet of Things (IoT), quantum computing, data engineering, and machine learning. It also includes updated discussions on cloud-native architecture, blockchain data storage, and mainframe modernization with public cloud. The Solutions Architect's Handbook provides an understanding of solution architecture and how it fits into an agile enterprise environment. It will take you through the journey of solution architecture design by providing detailed knowledge of design pillars, advanced design patterns, anti-patterns, and the cloud-native aspects of modern software design. By the end of this handbook, you'll have learned the techniques needed to create efficient architecture designs that meet your business requirements. What you will learnExplore the various roles of a solutions architect in the enterprise

landscapeImplement key design principles and patterns to build high-performance cost-effective solutionsChoose the best strategies to secure your architectures and increase their availabilityModernize legacy applications with the help of cloud integrationUnderstand how big data processing, machine learning, and IoT fit into modern architectureIntegrate a DevOps mindset to promote collaboration, increase operational efficiency, and streamline productionWho this book is for This book is for software developers, system engineers, DevOps engineers, architects, and team leaders who already work in the IT industry and aspire to become solutions architect professionals. Existing solutions architects who want to expand their skillset or get a better understanding of new technologies will also learn valuable new skills. To get started, you'll need a good understanding of the real-world software development process and general programming experience in any language.

Best Practices for Navigating the Future of Enterprise It

AWS Certified Cloud Practitioner (CLF-C01) Cert Guide

Swarm Mode on Amazon Web Services

Ahead in the Cloud

Enterprise Cloud epUB _1

Kick-start your career as a solutions architect by learning architecture design principles and strategies

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.

Written in a tutorial style, this comprehensive guide follows a structured approach explaining cloud techniques, models and platforms. Popular cloud services such as Amazon, Google and Microsoft Azure are explained in the text. The security risks and challenges of cloud computing are discussed in detail with useful examples. Emerging trends including mobile cloud computing and internet of things are discussed in the book for the benefit of the readers. Numerous review questions, multiple choice exercises and case studies facilitate enhanced understanding. This textbook is ideal for undergraduate and graduate students of computer science engineering, and information technology.

Prepare for success on the New Cloud Essentials+ Exam (CLO-002) The latest title in the popular Sybex Study Guide series, CompTIA Cloud Essentials+ Study Guide helps candidates prepare for taking the NEW CompTIA Cloud Essentials+ Exam (CLO-002). Ideal for non-technical professionals in IT environments, such as marketers, sales people, and business analysts, this guide introduces cloud technologies at a foundational level. This book is also an excellent resource for those with little previous knowledge of cloud computing who are looking to start their careers as cloud administrators. The book covers all the topics needed to succeed on the Cloud Essentials+ exam and provides knowledge and skills that any cloud computing professional will need to be familiar with. This skill set is in high demand, and excellent careers await in the field of cloud computing. Gets you up to speed on fundamental cloud computing concepts and

technologies Prepares IT professionals and those new to the cloud for the CompTIA Cloud Essentials+ exam objectives Provides practical information on making decisions about cloud technologies and their business impact Helps candidates evaluate business use cases, financial impacts, cloud technologies, and deployment models Examines various models for cloud computing implementation, including public and private clouds Identifies strategies for implementation on tight budgets Inside is everything candidates need to know about cloud concepts, the business principles of cloud environments, management and technical operations, cloud security, and more. Readers will also have access to Sybex's superior online interactive learning environment and test bank, including chapter tests, practice exams, electronic flashcards, and a glossary of key terms. Define your enterprise blockchain system using the AWS blockchain managed service. KEY FEATURES ● Practical implementation of blockchain applications across Healthcare, Banking, and Finance. ● Covers complete solutions, including writing smart contracts, executing chain codes, and deploying blockchain private networks. ● Best practices to write smart contracts, add authentication, manage security, and create Ethereum wallets. DESCRIPTION Building Enterprise Blockchain Solutions on AWS is a step-by-step guide for building, deploying, and managing decentralized applications on the AWS Blockchain. You will learn to build real-world decentralized applications for the Healthcare supply chain, Asset Tracker, and bank auditing applications with Hyperledger Fabric and Ethereum. The first section introduces you to the world of blockchain, AWS Blockchain offerings, and the Quantum Ledger Database. The second section introduces the concepts of Hyperledger Fabric, building the Hyperledger Fabric network with the Amazon Managed Blockchain, running the chaincode for the healthcare supply chain, building the API and UI using the Fabric node.js SDK, and adding members to the Fabric network on AWS. The third section focuses on Ethereum concepts, writing smart contracts with Solidity and deploying to the Ethereum private network on AWS with Blockchain templates, building and running the Asset Tracker dApp with Web3js and Truffle on AWS, and testing smart contracts. This book will help you to master Ethereum, Hyperledger Fabric, and the AWS Blockchain. You will be able to develop dApps for any domain, build private networks, and run your dApps on the AWS Blockchain. You will be an expert in writing and running smart contracts with Solidity and node.js chaincodes. WHAT YOU WILL LEARN ● Learn Hyperledger Fabric to build your private blockchain network. ● Write and deploy smart contracts on both Ethereum and Hyperledger Fabric. ● Add

security, authentication, and keep monitoring the performance of dApps. ● Practical exposure of blockchain explorer, Truffle, Web3js, Ganache, Etherscan, Metamask, Ethereum wallet, and Remix. ● Explore the Amazon Quantum Ledger Database and ready Ethereum templates. WHO THIS BOOK IS FOR This book is well-crafted for software developers, system architects, application developers, and aspiring blockchain developers who want to create decentralized applications (dApps) at speed without wasting time in concepts and making complete use of Amazon-managed blockchains. Readers with some understanding of Ethereum and smart contracts would be helpful to speed up the learning of the concepts although it not an essential requirement. TABLE OF CONTENTS 1. An Introduction to a Blockchain 2. Exploring a Blockchain on AWS 3. Exploring the Amazon Quantum Ledger Database 4. Exploring Hyperledger Fabric 5. The AWS Managed Blockchain to Create a Fabric Network 6. Developing the Chaincode, API, and UI with the Fabric SDK on AWS 7. Adding Members to the Fabric Network on AWS 8. Deep Dive into the Ethereum Blockchain 9. The AWS Blockchain Template to Create a Private Ethereum Network 10. The Solidity Smart Contract Language 11. Creating and Deploying the Asset Tracker Contract on AWS 12. Testing and Interacting with the Asset Tracker on AWS The first textbook to teach students how to build data analytic solutions on large data sets using cloud-based technologies. This is the first textbook to teach students how to build data analytic solutions on large data sets (specifically in Internet of Things applications) using cloud-based technologies for data storage, transmission and mashup, and AI techniques to analyze this data. This textbook is designed to train college students to master modern cloud computing systems in operating principles, architecture design, machine learning algorithms, programming models and software tools for big data mining, analytics, and cognitive applications. The book will be suitable for use in one-semester computer science or electrical engineering courses on cloud computing, machine learning, cloud programming, cognitive computing, or big data science. The book will also be very useful as a reference for professionals who want to work in cloud computing and data science. Cloud and Cognitive Computing begins with two introductory chapters on fundamentals of cloud computing, data science, and adaptive computing that lay the foundation for the rest of the book. Subsequent chapters cover topics including cloud architecture, mashup services, virtual machines, Docker containers, mobile clouds, IoT and AI, inter-cloud mashups, and cloud performance and benchmarks, with a focus on Google's Brain Project, DeepMind, and X-Lab programs, IBKai HwangM SyNapse, Bluemix

programs, cognitive initiatives, and neurocomputers. The book then covers machine learning algorithms and cloud programming software tools and application development, applying the tools in machine learning, social media, deep learning, and cognitive applications. All cloud systems are illustrated with big data and cognitive application examples.

Create and maintain a secure cloud ecosystem

Future Networks, Services and Management

Theory and Practice

A Developer's Guide to Build, Deploy, and Managed Apps Using Ethereum, Hyperledger Fabric, and AWS Blockchain (English Edition)

Build, automate, and manage your infrastructure on the most popular cloud platform - AWS

Effectively manage connected devices on the AWS cloud using services such as AWS Greengrass, AWS button, predictive analytics and machine learning

Briggs

Secure your Amazon Web Services (AWS) infrastructure with permission policies, key management, and network security, along with following cloud security best practices Key Features Explore useful recipes for implementing robust cloud security solutions on AWS Monitor your AWS infrastructure and workloads using CloudWatch, CloudTrail, config, GuardDuty, and Macie Prepare for the AWS Certified Security-Specialty exam by exploring various security models and compliance offerings Book Description As a security consultant, securing your infrastructure by implementing policies and following best practices is critical. This cookbook discusses practical solutions to the most common problems related to safeguarding infrastructure, covering services and features within AWS that can help you implement security models such as the CIA triad (confidentiality, integrity, and availability), and the AAA triad (authentication, authorization, and availability), along with non-repudiation. The book begins with IAM and S3 policies and later gets you up to speed with data security, application security, monitoring, and compliance. This includes everything from using firewalls and load balancers to secure endpoints, to leveraging Cognito for managing users and authentication. Over the course of this book, you'll learn to use AWS security services such as Config for monitoring, as well as maintain compliance with GuardDuty, Macie, and Inspector. Finally, the book covers cloud security best practices and demonstrates how you can integrate additional security services such as Glacier Vault Lock and Security Hub to further strengthen your infrastructure. By the end of this book, you'll be well versed in the techniques required for securing AWS deployments, along with having the knowledge to prepare for the AWS Certified Security - Specialty certification. What you will learn Create and manage users, groups, roles, and policies across accounts Use AWS Managed Services for logging, monitoring, and auditing Check compliance with AWS Managed Services that use machine learning Provide security and availability for EC2 instances and applications Secure data using symmetric and asymmetric encryption Manage user pools and identity

pools with federated login Who this book is for If you are an IT security professional, cloud security architect, or a cloud application developer working on security-related roles and are interested in using AWS infrastructure for secure application deployments, then this Amazon Web Services book is for you. You will also find this book useful if you're looking to achieve AWS certification. Prior knowledge of AWS and cloud computing is required to get the most out of this book.

Encyclopedia of Bioinformatics and Computational Biology

Cloud Computing

Managed Service Provider - Simple Steps to Win, Insights and Opportunities for Maxing Out Success

Cloud Computing Simplified

Designing Production-Grade and Large-Scale IoT Solutions

Underlay and Overlay, Edge, Applications, Slicing, Cloud, Space, AI/ML, and Quantum Computing

Cloud Computing SIMPLIFIED for every IT Professional