Cloud Operations on AWS (formerly Systems Operations)

Varighed: 4 Days Kursus Kode: GK4503 Leveringsmetode: Company event (Firmakursus)

Beskrivelse:

This course teaches systems operators and anyone performing cloud operations functions how to manage and operate automatable and repeatable deployments of networks and systems on AWS. You will learn about cloud operations functions, such as installing, configuring, automating, monitoring, securing, maintaining, and troubleshooting these services, networks, and systems. The course also covers specific AWS features, tools, and best practices related to these functions.

Firmakursus

Med et firmakursus bliver jeres it-kompetenceudvikling målrettet jeres behov. Det betyder, at vi hjælper med at finde og sammensætte det helt rigtige kursusindhold og den helt rigtige form. Kurset kan afvikles hos os eller kunden, standard eller virtuelt.

Målgruppe:

This course is intended forSystem administrators and operators who are operating in the AWS Cloud and IT workers who want to increase their cloud operations knowledge.

Agenda:

- **After completing this course you should be able to:**
- Identify the AWS services that support the different phases of Operational Excellence, an AWS Well-Architected Framework pillar
- Manage access to AWS resources using AWS accounts and organizations and AWS Identity and Access Management (IAM)
- Maintain an inventory of in-use AWS resources by using AWS services, such as AWS Systems Manager, AWS CloudTrail, and AWS Config
- Develop a resource deployment strategy using metadata tags, Amazon Machine Images (AMIs), and AWS Control Tower to deploy and maintain an AWS cloud environment
- Automate resource deployment by using AWS services, such as AWS CloudFormation and AWS Service Catalog
- Use AWS services to manage AWS resources through CloudOps lifecycle processes, such as deployments and patches
- Configure a highly available cloud environment that uses AWS services, such as Amazon Route 53 and Elastic Load Balancing, to route traffic for optimal latency and performance
- Configure AWS Auto Scaling and Amazon EC2 Auto Scaling to scale out your cloud environment based on demand
- Use Amazon CloudWatch and associated features, such as alarms, dashboards, and widgets, to monitor your cloud environment
- Manage permissions and track activity in your cloud environment by using AWS services, such as AWS CloudTrail and AWS Config
- Deploy your resources to an Amazon Virtual Private Cloud (Amazon VPC), establish necessary connectivity to your Amazon VPC, and protect your resources from disruptions of service
- State the purpose, benefits, and appropriate use cases for mountable storage in your AWS Cloud environment
- Explain the operational characteristics of object storage in the AWS Cloud, including Amazon Simple Storage Service (Amazon S3) and Amazon S3 Glacier
- Build a comprehensive cost model to help gather, optimize, and predict your cloud costs by using services such as AWS Cost Explorer and the AWS Cost & Usage Report

Forudsætninger:

Attendees should meet the following prerequisites:

- Attended the AWS Technical Essentials course
- Background in either software development or systems administration

Test og certificering

Recommended as preparation for the following exams:

- AWS Certified SysOps Administrator - Associate certification exam.

- Proficiency in maintaining operating systems at the command line, such as shell scripting in Linux environments or cmd/PowerShell in Windows
- Basic knowledge of networking protocols (TCP/IP, HTTP)
- GK4501 - AWS Technical Essentials

Yderligere Kurser:

- GK1979 - DevOps Engineering on AWS

Indhold:

Day 1

Module 1: Introduction to Cloud Operations on AWS

- What is Cloud Operations
- AWS Well-Architected Framework
- AWS Well-Architected Tool

Module 2: Access Management

- AWS Identity and Access Management (IAM)
- Resources, accounts, and AWS Organizations

Module 3: System Discovery

- Methods to interact with AWS services
- Tools for automating resource discovery
- Inventory with AWS Systems Manager and AWS Config
- Hands-On Lab: Auditing AWS Resources with AWS Systems Manager and AWS Config

Module 4: Deploy and Update Resources

- Cloud Operations in deployments
- Tagging strategies
- Deployment using Amazon Machine Images (AMIs)
- Deployment using AWS Control Tower

Module 5: Automate Resource Deployment

- Deployment using AWS CloudFormation
- Deployment using AWS Service Catalog
- Hands-On Lab: Infrastructure as Code

Day 2

Module 6: Manage Resources

- AWS Systems Manager
- Hands-On Lab: Operations as Code

Module 7: Configure Highly Available Systems

- Distributing traffic with Elastic Load Balancing
- Amazon Route 53

Module 8: Automate Scaling

- Scaling with AWS Auto Scaling
- Scaling with Spot Instances
- Managing licenses with AWS License Manager

Module 9: Monitor and Maintain System Health

- Monitoring and maintaining healthy workloads
- Monitoring AWS infrastructure
- Monitoring applications
- Hands-On Lab: Monitor Applications and Infrastructure

Module 10: Data Security and System Auditing

- Maintaining a strong identity and access foundation
- Implementing detection mechanisms
- Automating incident remediation

Day 3

Module 11: Operate Secure and Resilient Networks

- Building a secure Amazon Virtual Private Cloud (Amazon VPC)
- Networking beyond the VPC

Module 12: Mountable Storage

- Configuring Amazon Elastic Block Store (Amazon EBS)
- Sizing Amazon EBS volumes for performance
- Using Amazon EBS snapshots
- Using Amazon Data Lifecycle Manager to manage your AWS resources
- Creating backup and data recovery plans
- Configuring shared file system storage
- Hands-On Lab: Automating with AWS Backup for Archiving and Recovery

Module 13: Object Storage

- Deploying Amazon Simple Storage Service (Amazon S3)
- Managing storage lifecycles on Amazon S3

Module 14: Cost Reporting, Alerts, and Optimization

- Gaining AWS cost awareness
- Using control mechanisms for cost management
- Optimizing your AWS spend and usage
- Hands-On Lab: Capstone lab for CloudOps

Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

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