Cloud Operations on AWS (formerly Systems Operations)

Category: Cloud Platforms | **Vendor:** Amazon Web Services

Duration: 24.00 hours (3 days) **19.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

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.

About This Course

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Who Should Attend

This course is intended for:

- System administrators and operators who are operating in the AWS Cloud
- Informational technology workers who want to increase their cloud operations knowledge

Prerequisites & Entry Requirements

General Prerequisites:

We recommend that attendees of this course have the following prerequisites:

- Successfully completed AWS Technical Essentials (AWSE) course
- Background in either software development or systems administration
- 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)

Learning Outcomes

Upon successful completion of this course, participants will be able to:

In this course, you will learn 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

Detailed Course Outline

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

Skills You Will Learn:

In this course, you will learn to:

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Frequently Asked Questions

Q: What delivery options are available for Cloud Operations on AWS (formerly Systems Operations)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 3-day Cloud Operations on AWS (formerly Systems Operations) course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Cloud Operations on AWS (formerly Systems Operations) training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Cloud Operations on AWS (formerly Systems Operations)?

Yes, we provide corporate training, dedicated training, and closed classes for Cloud Operations on AWS (formerly Systems Operations). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Cloud Operations on AWS (formerly Systems Operations), AWS Operations, AWSSYS

Q: Why choose Nexus Human for Cloud Operations on AWS (formerly Systems Operations)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Cloud Operations on AWS (formerly Systems Operations) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

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