



# Cloud Operations on AWS

**Note:** This course was called "Systems Operations on AWS" until February 2023. It has been renamed. The content remains unchanged.

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.

The final day is an AWS Jam, a gamified event, with teams competing to score points by completing a series of challenges according to established best practices based on concepts covered in the course. You get to experience a wide range of AWS services in a series of real-world scenarios that represent common operational and troubleshooting tasks. The end result is developing, enhancing, and validating your skillsets in the AWS Cloud through real-world problem solving, exploring new services, features, and understanding how they interoperate.

### Course Contents

- Module 1: Introduction to Cloud Operations on AWS
- Module 2: Access Management
- Module 3: System Discovery
- Module 4: Deploy and Update Resources
- Module 5: Automate Resource Deployment
- Module 6: Manage Resources
- Module 7: Configure Highly Available Systems
- Module 8: Automate Scaling
- Module 9: Monitor and Maintain System Health
- Module 10: Data Security and System Auditing
- Module 11: Operate Secure and Resilient Networks
- Module 12: Mountable Storage
- Module 13: Object Storage
- Module 14: Cost Reporting, Alerts, and Optimization

You have access to the labs for another 14 days after the course. This way you can repeat exercises or deepen them individually.

**E-Book** You will receive the original course documentation by Amazon Web Services as an e-book.

### Target Group

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

We recommend that attendees of this course have:

- Successfully completed the AWS Technical Essentials course
- A background in 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)

Practical lab exercises with the AWS environment are part of the training. In order to be able to carry out these successfully, an internet-capable notebook (Windows, Linux, MacOS) is a prerequisite.

**Important:** Therefore, please bring your notebook to the course! If this is not possible, please contact us in advance.

### This Course in the Web



You can find the up-to-date information and options for ordering under the following link:

[www.expertech-training.com/go/AWSO](http://www.expertech-training.com/go/AWSO)

### Reservation

On our Website, you can reserve a course seat for 7 days free of charge and in a non-committal manner. This can also be done by phone under +49 6074/4868-0.

### Guaranteed Course Dates

To ensure reliable planning, we are continuously offering a wide range of guaranteed course dates.

### Your Tailor-Made Course!

We can precisely customize this course to your project and the corresponding requirements.

| Training                  |                        | Prices, excl. of V.A.T. |         |
|---------------------------|------------------------|-------------------------|---------|
| <b>Classes in Germany</b> | <b>3 Days</b>          | <b>€ 2,095</b>          |         |
| <b>Online Training</b>    | <b>3 Days</b>          | <b>€ 2,095</b>          |         |
| <b>Date/course venue</b>  | Course language German |                         |         |
| 22/04-24/04/24            | Online                 | 14/10-16/10/24          | München |
| 18/06-20/06/24            | Düsseldorf             | 14/10-16/10/24          | Online  |
| 18/06-20/06/24            | Online                 |                         |         |

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| <b>Module 1: Introduction to System Operations on AWS</b>                    | Hands-On Lab: Infrastructure as Code                     | Hands-On Lab: Implementing IAM permissions boundaries                              |
| Systems operations   | <b>Module 5: Manage Resources</b>                        | <b>Module 9: Operate Secure and Resilient Networks</b>                             |
| AWS Well-Architected Framework   | AWS Systems Manager                                      | Building a secure Amazon Virtual Private Cloud (Amazon VPC)                        |
| AWS Well-Architected Tool  | Troubleshooting scenario                                 | Networking beyond the VPC  |
| <b>Module 2a: Access Management</b>  | Hands-On Lab: Operations as Code                         | Troubleshooting scenario   |
| Access management  | <b>Module 6a: Configure Highly Available Systems</b>     | <b>Module 10a: Mountable Storage</b>   |
| Resources, accounts, and AWS Organizations                                   | Distributing traffic with Elastic Load Balancing         | Configuring Amazon Elastic Block Storage (Amazon EBS)                              |
| <b>Module 2b: System Discovery</b>   | Amazon Route 53  | Sizing Amazon EBS volumes for performance  |
| Methods to interact with AWS services  | <b>Module 6b: Automate Scaling</b>                       | Using Amazon EBS snapshots   |
| Introduction to monitoring services  | Scaling with AWS Auto Scaling                            | Using Amazon Data Lifecycle Manager to manage your AWS resources                   |
| Tools for automating resource discovery                                      | Scaling with Spot Instances                              | Creating backup and data recovery plans  |
| Inventory with AWS Systems Manager and AWS Config                            | Managing licenses with AWS License Manager               | Configuring shared file system storage   |
| Troubleshooting scenario   | Troubleshooting scenario                                 | <b>Module 10b: Object Storage</b>  |
| Hands-On Lab: Auditing AWS Resources with AWS Systems Manager and AWS Config | <b>Module 7: Monitor and Maintain System Health</b>      | Deploying Amazon Simple Storage Service (Amazon S3) with Access Logs, Cross-Region |
| <b>Module 3: Deploy and Update Resources</b>                                 | Monitoring and maintaining healthy workloads             | Replication, and S3 Intelligent-Tiering  |
| Systems operations in deployments  | Monitoring distributed applications                      | Hands-On Lab: Automating with AWS Backup for Archiving and Recovery                |
| Tagging strategies   | Monitoring AWS infrastructure                            | <b>Module 11: Cost Reporting, Alerts, and Optimization</b>                         |
| Deployment using Amazon Machine Images (AMIs)                                | Monitoring your AWS account                              | Gaining AWS cost awareness   |
| Deployment using AWS Control Tower   | Troubleshooting scenario                                 | Using control mechanisms for cost management                                       |
| Troubleshooting scenario   | Hands-On Lab: Monitoring Applications and Infrastructure | Optimizing your AWS spend and usage  |
| <b>Module 4: Automate Resource Deployment</b>                                | <b>Module 8: Data Security and System Auditing</b>       | Hands-On Lab: Capstone lab for SysOps  |
| Deployment using AWS CloudFormation  | Maintaining a strong identity and access foundation      |  |
| Deployment using AWS Service Catalog   | Implementing detection mechanisms                        |  |
| Troubleshooting scenario   | Automating incident remediation                          |  |
|  | Troubleshooting scenario                                 |  |

