Publication date : 01/26/2024

Course : Amazon Web Services (AWS) - DevOps engineering on AWS

Official course, DevOps Engineering on AWS

Practical course - 3d - 21h00 - Ref. AWC
Price : 2570 € E.T.

4,7 / 5

ActionCo

Formation éligible au financement Atlas

With this training course, you'll learn the most common DevOps models for developing, deploying and managing applications on the AWS platform. We cover the essential principles of DevOps methodology and study numerous use cases, applicable to enterprise, SMB and startup development scenarios.

PARTICIPANTS

Software developers, system administrators.

PREREQUISITES

Completion of "System Operations on AWS" or "Developing on AWS" training. Practical knowledge: programming languages, system administration (via CLI) and on AWS (Console and CLI).

TRAINER QUALIFICATIONS

The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

ASSESSMENT TERMS

Assessment of targeted skills prior to training.
Assessment by the participant, at the end of the training course, of the skills acquired during the training course.
Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.
At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.
An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

Teaching objectives

At the end of the training, the participant will be able to:

- Use DevOps methodology concepts and practices
- Design and set up an infrastructure on AWS to support DevOps development projects
- Using AWS Cloudformation and AWS OpsWorks to deploy an infrastructure for creating environments
- Configuring Git on AWS, understanding the terrain of options for enabling a continuous integration environment on AWS
- Implement several CD use cases using AWS technologies ("Blue/Green" deployment and A/B testing)
- Knowledge of AWS deployment technologies (AWS CodeDeploy, AWS OpsWorks, AWS Elastic Beanstalk, etc.)
- Know how to use AWS deployment technologies in a given scenario
- Improve and monitor applications delivered on AWS
- Host secure, highly scalable and private Git repositories with AWS CodeCommit
- Use AWS CodeCommit and AWS CodeBuild to set up a continuous integration (CI) environment on AWS
- Use AWS CodePipeline to implement a continuous integration and delivery (CI/CD) pipeline on AWS
- Use AWS CodeStar to manage all software development activities in one place
- Using Amazon EC2 Systems Manager for patch management
- Use automated testing at different stages of the CI/CD pipeline

TEACHING AIDS AND TECHNICAL RESOURCES

The teaching resources used are the publisher's official materials and practical exercises.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training course.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you have specific accessibility requirements? Contact Ms FOSSE, disability advisor, at the following address: psh-accueil@orsys.fr so that we can assess your request and its feasibility.

Intended audience

Software developers, system administrators.

Prerequisites

Completion of "System Operations on AWS" or "Developing on AWS" training.
Practical knowledge: programming languages, system administration (via CLI) and on AWS (Console and CLI).

Practical details

Teaching methods

Training in French. Official course material in English and digital format. Good understanding of written English.

Course schedule

1 Introduction to DevOps

- What is DevOps?
- Amazon's transition to DevOps
- DevOps fundamentals.

2 Infrastructure automation

- Introduction to infrastructure automation.
- Immersion in the AWS CloudFormation model.
- Modifying an AWS CloudFormation template.

Demonstration
AWS CloudFormation model structure, parameters, stacks, updates, resource import and drift detection.

3 AWS toolbox

- AWS CLI configuration.
- AWS Software Development Kits (AWS SDKs).
- AWS SAM CLI.
- AWS Cloud Development Kit (AWS CDK).
- AWS Cloud9.

Hands-on work
Use AWS CloudFormation to provision and manage a basic infrastructure.

4 Continuous integration and continuous delivery (CI/CD) with Dev tools.

- CI/CD pipeline and development tools.
- AWS CodePipeline.
- CI/CD pipeline displaying certain actions of AWS CodeCommit, AWS CodeBuild, AWS CodeDeploy and AWS CodePipeline.
- Demonstration: AWS integration with Jenkins.

Hands-on work
Deploy an application on an EC2 fleet using AWS CodeDeploy. Automate code deployments using AWS CodePipeline.

5 Introduction to microservices

- Introduction to microservices.

6 DevOps and containers

- Application deployment with Docker.
- Amazon Elastic Container Service and AWS Fargate.
- Amazon Elastic Container Registry and Amazon Elastic Kubernetes service.

Demonstration
CI/CD pipeline deployment in a containerized application.

7 DevOps and serverless computing

- AWS Lambda and AWS Fargate.
- AWS serverless application repository and AWS SAM.
- AWS stage functions.
- Demonstration: AWS Lambda and its features.
- Demonstration: quick start of AWS SAM in AWS Cloud9.

Hands-on work
Deploy a serverless application using AWS Serverless Application Model (AWS SAM) and a CI/CD pipeline.

8 Deployment strategies

- Continuous deployment.
- Deployments with AWS services.

9 Automated testing

- Introduction to testing.
- Tests: unit, integration, fault tolerance, load and synthetic.
- Product and service integrations.

10 Safety automation

- Introduction to DevSecOps.
- Pipeline safety.
- Pipeline safety.
- Threat detection tools.

Demonstration
AWS Security Hub, Amazon GuardDuty, AWS Config and Amazon Inspector.

11 Configuration management

- Introduction to the configuration management process.
- AWS services and tools for configuration management.

Hands-on work
Perform blue/green deployments with CI/CD pipelines and Amazon Elastic Container Service (Amazon ECS).

12 Observability

- AWS tools for observability.
- Introduction to observability.

Hands-on work
Use of AWS DevOps tools for CI/CD pipeline automation.

13 Reference architecture (optional module)

- Reference architectures.

14 Conclusion

- DevOps practice components.
- CI/CD pipeline review.
- AWS certifications.

Options

Certification : 360 € HT

La réussite de l'examen permet d'obtenir la certification AWS Certified DevOps Engineer – niveau Professional. (Prérequis, avoir suivi les formations : AWS Technical Essentials, Systems Operations on AWS ou Developing on AWS, Advanced Developing on AWS et DevOps Engineering on AWS).
Comment passer votre examen ?

The certification option comes in the form of a voucher or invitation that will allow you to take the exam at the end of the training course.

Dates and locations

REMOTE CLASS
2026 : 7 Apr., 26 May, 23 June, 8 Sep., 6 Oct., 24 Nov., 15 Dec.

PARIS LA DÉFENSE
2026 : 26 May, 23 June, 8 Sep., 6 Oct., 24 Nov., 15 Dec.