



## DevOps Engineering on AWS (AWSDE)

Amazon

Com certificação

- **Nível:**
  - **Duração:** 21h
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### Sobre o curso

**Learn how to use the combination of tools, practices, and cultural philosophy of DevOps to improve an organization's ability to develop, deliver, and maintain applications and services at high velocity on AWS.**

This course covers Continuous Integration (CI), Continuous Delivery (CD), microservices, infrastructure as code, monitoring and logging, and communication and collaboration.

The labs provide learners hands-on experience building and deploying CloudFormation templates and CI/CD pipelines. Labs for multi-pipeline workflows and pipelines that deploy to multiple environments are also included.

#### **Objetivos:**

- List the advantages of small DevOps teams
- List the roles and responsibilities of the members of a typical small DevOps team
- Leverage AWS Cloud9 to write, run and debug your code as well as share your cloud-based IDE with your dev team
- Build continuous integration/continuous delivery (CI/CD) pipelines including testing and security
- Develop Git branching strategies and integrate with CI/CD pipeline for various environments
- Use AWS CloudFormation to deploy development, test, and production environments for a software development project
- Design and implement an infrastructure on AWS that supports DevOps development projects
- Build a CI/CD pipeline for AWS CloudFormation templates
- Establish collaboration by bringing together the workflows and responsibilities of development and operations
- Host secure, highly scalable private Git repositories with AWS CodeCommit
- Leverage Amazon Elastic Container Registry (Amazon ECR) to securely store Docker container

images and integrate with AWS CodeBuild and Amazon Elastic Container Service (Amazon ECS)

- Automate build, test, and packaging code with AWS CodeBuild
  - Integrate security in the CI/CD pipelines tools and services
  - Implement common deployment strategies such as “all at once,” “rolling,” and “blue/green”
  - Automate software deployments to Amazon Elastic Compute Cloud (Amazon EC2), on-premises computes, AWS ECS (Amazon EC2 /AWS Fargate), and AWS Lambda with AWS CodeDeploy
  - Automate your release pipelines (build, test, deploy) with AWS CodePipeline
  - Monitor an application and environment using AWS tools and technologies
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## Destinatários

- Developers
  - DevOps engineers
  - SysOps engineers
  - DevOps architects
  - System administrators
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## Pré-requisitos

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

- [Systems Operations on AWS](#) or [Developing on AWS](#)
  - Working knowledge of one or more high-level programming languages, such as C#, Java, PHP, Ruby, Python
  - Intermediate knowledge of administering Linux or Windows systems at the command-line level
  - Two or more years of experience provisioning, operating, and managing AWS environments
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## Metodologia

This course is delivered through a mix of:

- Classroom training
  - Hands-on labs: This course allows you to test new skills and apply knowledge to your working environment through a variety of practical exercises
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# Programa

## *Day 1*

- Course Overview
- Introduction to DevOps
- Infrastructure Automation
- AWS Toolsets
- Continuous Integration/Continuous Delivery (CI/CD) with Development Tools

## *Day 2*

- Continuous Integration/Continuous Delivery (CI/CD) with Development Tools
- Introduction to Microservices
- DevOps and Containers
- DevOps and Serverless Computing
- Deployment Strategies
- Automated Testing

## *Day 3*

- Security Automation
- Configuration Management
- Observability
- Reference architectures
- Course Summary