

DEAWP - DevOps Engineering on AWS (Professional)

Overview

Course Code	DEAWP	Duration	3.0 days
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DevOps Engineering on AWS demonstrates how to use the most common DevOps patterns to develop, deploy, and maintain applications on AWS. The course covers the core principles of the DevOps methodology and examines a number of use cases applicable to startup, small- and medium-sized business, and enterprise development scenarios.

Audience

This course is intended for:

- System administrators
- Software developers

Pre-Requisites

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

- Attended [Developing on AWS](#) course
- Attended [System Operations on AWS](#) course
- Working knowledge of one or more high-level programming languages (C#, Java, PHP, Ruby, Python, etc.)
- Intermediate knowledge of administering Linux or Windows systems at the command-line level
- Working experience with AWS using both the AWS Management Console and the AWS Command Line Interface (AWS CLI)

Key Topics

Day 1

1. Introduction to DevOps

2. AWS Command Line Interface
3. Introduction to DevSecOps
4. Deployment Strategies and Developer Tools

Day 2

1. Infrastructure as Code
2. Deep Dive into AWS Developer Tools
3. Automated Testing on AWS

Day 3

1. Configuration Management
2. AMI Building and Amazon EC2 Systems Manager
3. Containers: Docker and Amazon ECS
4. DevOps Customer Case Studies
5. Course Wrap-Up

Objectives

This course is designed to teach you how to:

- Use the principal concepts and practices behind the DevOps methodology.
- Design and implement an infrastructure on AWS that supports one or more DevOps development projects.
- Use AWS CloudFormation and AWS OpsWorks to deploy the infrastructure necessary to create development, test, and production environments for a software development project.
- Use AWS CodeCommit and AWS CodeBuild to understand the array of options for enabling a Continuous Integration environment on AWS.
- Use AWS CodePipeline to design and implement a Continuous Integration and Delivery pipeline on AWS.

- Use AWS CodeStar to manage all software development activities in one place.
- Implement several common Continuous Deployment use cases using AWS technologies, including blue/green deployment and A/B testing.
- Distinguish between the array of application deployment technologies available on AWS (including AWS CodeDeploy, AWS OpsWorks, AWS Elastic Beanstalk, Amazon EC2 Container Service, and Amazon EC2 Container Registry), and decide which technology best fits a given scenario.
- Use Amazon EC2 Systems Manager for patch management.
- Leverage Automated Testing in different stages of a CI/CD pipeline.
- Fine-tune the applications you deliver on AWS for high performance, and use AWS tools and technologies to monitor your application and environment for potential issues.