

DevOps Engineering on AWS

Course Summary

Description

Learn the core principles of DevOps methodology and use cases. In this course, you will learn how to use the most common DevOps patterns to develop, deploy, and maintain applications on AWS. You will learn about the core principles of the DevOps methodology and examine a number of use cases applicable to startup, small-medium business, and enterprise development scenarios.

Objectives

At the end of this course, students will be able 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 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
- 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
- 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

Topics

- What is DevOps?
- Infrastructure as Code, Part 1: Design and Security
- Infrastructure as Code, Part 2: CloudFormation and Configuration Management
- Continuous Integration in the Cloud
- Continuous Delivery on AWS
- Deploying Applications on AWS, Part 1
- Deploying Applications on AWS, Part 2
- Putting It All Together
- Performance-Tuning Your Deployments
- Administering and Automating Your Infrastructure

Audience

This course is designed for Systems Administrators and Software Developers.

Prerequisites

Before taking this course, students should have: 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, and working experience with AWS using both the AWS Management Console and the AWS Command Line Interface (AWS CLI).

Duration

Three days