



# Devops Engineering on AWS

## Devops Fundamentals

### Learning Objective

- ❖ Use the principal concepts and practices behind the DevOps methodology

### Topics Covered

- ❑ What is DevOps?
- ❑ Devops Toolchains

## AWS Cloud Formation and OpsWork

### Learning Objective

- ❖ 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**

## Topics Covered

- ❑ **Infrastructure as Code, Part 1 - Design and Security**
- ❑ **Infrastructure as Code, Part 2 - CloudFormation and Configuration Management**

## Continuous Development and Integration

### Learning Objective

- ❖ **Set up Git on AWS and understand the array of options for enabling a Continuous Integration environment on AWS**

## Topics Covered

- ❑ **Continuous development**
- ❑ **Continuous Integration in the Cloud**

# Pipeline CI/CD

## Learning Objective

- ❖ Use the core principles of Continuous Integration and Continuous Deployment

## Topics Covered

- ❑ Continuous Delivery on AWS

# Continuous Deployment Techniques

## Learning Objective

- ❖ 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, and Amazon EC2 Container Service), and decide which technology best fits a given scenario

## Topics Covered

- ❑ Deploying Applications on AWS and Putting It All Together

# Monitoring Applications in Pipeline

## Learning Objective

- ❖ 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 Covered

- ❑ Performance-Tuning Your Deployments
- ❑ Administering and Automating Your Infrastructure