

# DevOps Engineering on Aws

## Description

DevOps Engineering on AWS teaches you how to use the combination of DevOps cultural philosophies, practices, and tools to increase your 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), infrastructure as code, microservices, monitoring and logging, and communication and collaboration. Hands-on labs give you experience building and deploying AWS CloudFormation templates and CI/CD pipelines that build and deploy applications on Amazon Elastic Compute Cloud (Amazon EC2), serverless applications, and container-based applications. Labs for multi-pipeline workflows and pipelines that deploy to multiple environments are also included.

## Course Objectives

In this course, you will learn to:

- Use DevOps best practices to develop, deliver, and maintain applications and services at high velocity on AWS
- List the advantages, roles, and responsibilities of small, autonomous DevOps teams
- Design and implement an infrastructure on AWS that supports DevOps development projects
- Leverage AWS Cloud9 to write, run, and debug your code
- Deploy various environments with AWS CloudFormation
- Host secure, highly scalable, and private Git repositories with AWS CodeCommit
- Integrate Git repositories into CI/CD pipelines
- Automate build, test, and packaging code with AWS CodeBuild
- Securely store and leverage Docker images and integrate them into your CI/CD pipelines

- Build CI/CD pipelines to deploy applications on Amazon EC2, serverless applications, and container-based applications
- Implement common deployment strategies such as “all at once,” “rolling,” and “blue/green”
- Integrate testing and security into CI/CD pipelines
- Monitor applications and environments using AWS tools and technologies

## Pre Requisite

- Previous attendance at the system operations on aws or developing on aws course
- Two or more years of experience provisioning,operating,and managing Aws environments
- System operations on Aws
- Developing on Aws

## Course Content

- Introduction to DevOps
- Infrastructure Automation
- AWS Toolsets
- Continuous Integration/Continuous Delivery (CI/CD) with Development Tools
  
- Continuous Integration/Continuous Delivery (CI/CD) with Development Tools
- Introduction to Microservices
- DevOps and Containers
- DevOps and Serverless Computing
- Deployment Strategies
- Automated Testing
  
- Security Automation
- Configuration Management

- Observability
- Reference architectures

## LABS

- This course allows you to test new skills and apply knowledge to your working environment through a variety of practical exercises.

## RELATED CERTIFICATIONS

- AWS Certified DevOps Engineer – Professional

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