

AWS Certified DevOps Engineer – Professional (DevOps Engineering on AWS) Course

Course Duration: 24 Hours

Course Code: DOP-C02

1. Course Overview

The **AWS Certified DevOps Engineer – Professional (DevOps Engineering on AWS)** course is designed to help professionals master advanced DevOps practices using Amazon Web Services. This training focuses on automation, continuous integration and delivery (CI/CD), infrastructure as code, monitoring, and security.

2. What You'll Learn

- Implement and manage CI/CD pipelines using AWS tools
- Automate infrastructure using Infrastructure as Code (IaC)
- Monitor applications and infrastructure using AWS monitoring services
- Improve system reliability, availability, and fault tolerance
- Implement logging, auditing, and security best practices
- Manage configuration and deployments using DevOps tools
- Optimize performance and cost in AWS environments

3. Target Audience

- DevOps Engineers
- Cloud Engineers & Cloud Architects
- System Administrators
- Software Developers

- IT Professionals working with AWS
- Professionals preparing for AWS DevOps Engineer – Professional certification

4. Pre-Requisites

- Basic understanding of cloud computing concepts
- Prior experience with AWS services (EC2, S3, IAM, etc.)
- Knowledge of Linux/Unix systems
- Familiarity with scripting (Python, Bash, or PowerShell)
- Understanding of CI/CD concepts and DevOps practices
- Recommended: AWS Certified Developer or SysOps Administrator – Associate level knowledge

5. Course Content

Module 1: Introduction to DevOps on AWS

- DevOps principles and lifecycle
- AWS DevOps tools overview
- CI/CD concepts

Module 2: Infrastructure as Code (IaC)

- AWS CloudFormation
- AWS CDK (Cloud Development Kit)
- Infrastructure automation best practices

Module 3: Continuous Integration & Continuous Delivery

- AWS CodeCommit
- AWS CodeBuild

- AWS CodeDeploy
- AWS CodePipeline

Module 4: Configuration Management

- AWS Systems Manager
- Parameter Store & Secrets Manager
- Automation and patch management

Module 5: Monitoring and Logging

- Amazon CloudWatch
- AWS CloudTrail
- Log management and analysis

Module 6: Security and Compliance

- IAM policies and roles
- Security best practices in DevOps
- Compliance and auditing

Module 7: High Availability and Disaster Recovery

- Auto Scaling
- Load Balancing
- Backup and recovery strategies

Module 8: Containers and Serverless

- Docker basics
- Amazon ECS & EKS
- AWS Lambda and serverless deployment

Module 9: Performance Optimization

- Monitoring performance metrics
- Cost optimization strategies

- Resource utilization

Module 10: Exam Preparation

- Practice tests
- Real-world scenarios
- Certification tips and strategies

