DevOps Engineering on AWS

Duration: 3 Days Course Code: GK1979

Overview:

This course covers key DevOps practices on AWS, including CI/CD, infrastructure as code, microservices, monitoring, and collaboration.

Through hands-on labs, learners build and deploy CloudFormation templates and CI/CD pipelines for EC2, serverless, and container-based applications, including multi-environment deployments. Start your AWS Developer journey by accessing Official AWS e-Learning for FREE. Learn AWS Development Tools Services Overview, AWS Application Services Overview, Introduction to AWS CodeBuild and more.
- Course Level: Intermediate
- Duration: 3 Days

Updated August 2026

Target Audience:

This course is intended for:- Developers- DevOps Engineers- SysOps Engineers- DevOps Architects- System Administrators

Objectives:

- **In this course, you will:**
- 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
- 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

Prerequisites:

Required:

- Intermediate knowledge of administering Linux or Windows systems at the command-line level
- Two or more years of experience provisioning, operating, and managing AWS environments
- Working knowledge of one or more high-level programming languages (C#, Java, PHP, Ruby, Python, etc.)

Recommended:

- Developing on AWS
- Cloud Operations on AWS

Testing and Certification

The DevOps Engineering on AWS course leads to AWS Certified DevOps Engineer - Professional Certification

Follow-on-Courses:

- GK1980 - Advanced Architecting on AWS
- GK4532 - Migrating to AWS
- GK821495 - AWS Well-Architected Best Practices

Content:

Day 1

Module 1: Introduction to DevOps

- What is DevOps?
- Amazon's DevOps journey
- DevOps foundations

Module 2: Infrastructure Automation

- Infrastructure as Code overview
- AWS CloudFormation templates
- Template updates and drift detection
- Demonstration: Stacks, parameters, and resource imports

Module 3: AWS Toolkits

- AWS CLI and SDKs
- AWS SAM CLI and AWS CDK
- AWS Cloud9
- Demo: CLI ; CDK
- Hands-on lab: Provision infrastructure with CloudFormation

Module 4: CI/CD with AWS Dev Tools

- CI/CD pipeline concepts
- AWS CodeCommit, CodeBuild, CodeDeploy, CodePipeline
- Lab: Deploy application to EC2 using CodeDeploy

Module 5: CI/CD Continued

- AWS CodePipeline
- Jenkins integration demo
- Lab: Automating deployments with CodePipeline

Day 2

Module 6: Introduction to Microservices

- Microservices fundamentals

Module 7: Containers ; DevOps

- Docker deployments
- Amazon ECS, ECR, EKS, and Fargate
- Demo: Container CI/CD pipeline

Module 8: Serverless DevOps

- AWS Lambda and serverless workflows
- AWS SAM ; Serverless Application Repository
- AWS Step Functions
- Demos + Lab: Deploy serverless app with CI/CD

Module 9: Deployment Strategies

- Continuous deployment
- AWS deployment approaches

Module 10: Automated Testing

- Testing fundamentals
- Unit, integration, load, and fault tests
- Service integrations Day 3

Module 11: Security Automation

- DevSecOps fundamentals
- Pipeline security practices
- Threat detection tools
- Demo: Security Hub, GuardDuty, Config, Inspector

Module 12: Configuration Management

- Config management concepts
- AWS tooling
- Lab: Blue/green deployments with ECS

Module 13: Observability

- Observability fundamentals
- AWS monitoring tools
- Lab: CI/CD observability automation

Module 14: Reference Architecture (Optional)

- DevOps reference architectures

Module 15: Course Summary

- DevOps practice review
- CI/CD recap
- AWS certification guidance

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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