

Course Agenda

AWS DevOps Engineer

Course Overview

The AWS DevOps Engineer course is designed to provide in-depth knowledge and hands-on experience with AWS services and DevOps practices. This course aims to enhance your skills in deploying, managing, and operating scalable, highly available, and fault-tolerant systems on AWS.

Lesson 01 - Introduction to AWS and DevOps

- Overview of AWS Cloud Platform
- Introduction to DevOps and its principles
- DevOps lifecycle and tools
- AWS global infrastructure and services overview

Lesson 02 - AWS IAM and Security Management

- Introduction to Identity and Access Management (IAM)
- Setting up users, groups, and roles
- Implementing security policies
- Best practices for securing AWS environments

Lesson 03 - Continuous Integration and Continuous Deployment (CI/CD)

- Introduction to CI/CD pipelines
- AWS CodePipeline and CodeBuild
- Automated testing with AWS CodeBuild
- Deployment strategies and AWS CodeDeploy

Lesson 04 - Infrastructure as Code (IaC) with AWS

- Introduction to Infrastructure as Code
- AWS CloudFormation basics
- Creating and managing stacks with CloudFormation
- Automating infrastructure provisioning

Lesson 05 - Monitoring, Logging, and Performance Tuning

- Monitoring AWS resources with CloudWatch
- Setting up alarms and notifications
- AWS CloudTrail for auditing
- Performance tuning and cost optimization

Lesson 06 - Configuration Management with AWS

- Introduction to configuration management
- AWS OpsWorks and Chef basics
- Automating configuration management with OpsWorks
- Managing instances and layers in OpsWorks

Lesson 07 - Containerization and Orchestration

- Introduction to Docker and containerization
- Running containers on AWS with ECS
- Kubernetes on AWS with EKS
- Best practices for container management

Lesson 08 - Serverless Computing and Automation

- Introduction to serverless architecture
- AWS Lambda and API Gateway
- Automating workflows with AWS Step Functions
- Event-driven architecture with AWS services

Lesson 09 - High Availability, Fault Tolerance, and Disaster Recovery

- Designing highly available and fault-tolerant architectures
- Multi-region and multi-AZ deployments
- Disaster recovery planning and implementation
- Backup and restore strategies

Lesson 10 - Exam Preparation and Real-World Scenarios

- AWS Certified DevOps Engineer Professional exam overview
- Practice exams and sample questions
- Real-world scenarios and case studies
- Tips and tricks for exam success