

Module Title : **Developing on AWS**

Duration : **3 days**

Course Description

Developing on AWS helps developers understand how to use the AWS SDK to develop secure scalable cloud applications. The course provides in-depth knowledge about how to interact with AWS using code and covers key concepts, best practices, and troubleshooting tips.

Course Objectives

This course is designed to teach you how to:

- Set up the AWS SDK and developer credentials for Java, C#/Net, Python, and JavaScript
- Use the AWS SDK to interact with AWS services and develop solutions
- Use Amazon Simple Storage Service (Amazon S3) and Amazon DynamoDB as data stores
- Integrate applications and data by using Amazon Kinesis, AWS Lambda, Amazon Simple Queue Service (Amazon SQS), Amazon Simple Notification Services (Amazon SNS), and Amazon Simple Workflow Service (Amazon SWF)
- Use AWS Identity and Access Management (IAM) for service authentication
- Use Web Identity Framework and Amazon Cognito for user authentication
- Use Amazon ElastiCache and Amazon CloudFront to improve application scalability
- Deploy applications by using AWS Elastic Beanstalk and AWS CloudFormation

Intended Audience

This course is intended for:

- Intermediate-level software developers

Prerequisites

Attendees should have the following prerequisites:

- Familiarity with AWS services
- A working knowledge of Java, C#/.Net, or Python

Delivery Method

This course is delivered through a mix of:

- Instructor-led Training
- Hands-on Labs

Course Outline

Note: course outline may vary slightly based on the regional location and/or language in which the class is delivered.

This course covers the following concepts:

Day 1: Building the Foundation

- Introduction to Developing on AWS
- Choosing a Data Store
- Developing Storage Solutions with Amazon S3
- Developing Flexible NoSQL

Day 2: Connecting Applications and Data with Event-Driven Processing

- Working with Events
- Developing Event-Driven Solutions with Amazon Kinesis Stream
- Developing Event-Driven Solutions with Amazon SWF, Amazon SQS, and Amazon SNS
- Developing Event-Driven Solutions with AWS Lambda

Day 3: Developing and Deploying Secure, Scalable Applications

- Developing Secure Applications
- Caching Information for Scalability
- Monitoring Your Application and AWS Resources with Amazon CloudWatch
- Deploying Applications with AWS Elastic Beanstalk and AWS Formation