Course Outline

Developing on AWS (AWS-DEV)

Course Summary

Description

In this course, you will learn how to use the AWS SDK to develop secure and scalable cloud applications. We will explore how to interact with AWS using code and discuss key concepts, best practices, and troubleshooting tips.

Objectives

After taking this course, students will learn to:
- Set up the AWS SDK and developer credentials for Java, C#/.NET, Python, and JavaScript
- Interact with AWS services and develop solutions by using the AWS SDK
- Use AWS Identity and Access Management (IAM) for service authentication
- Use Amazon Simple Storage Service (Amazon S3) and Amazon DynamoDB as data stores
- Integrate applications and data by using AWS Lambda, Amazon API Gateway, Amazon Simple Queue Service (Amazon SQS), Amazon Simple Notification Service (Amazon SNS), and AWS Step Functions
- Use Web Identity Framework and Amazon Cognito for user authentication
- Use Amazon ElastiCache to improve application scalability
- Use containers in the development process
- Leverage the CI/CD pipeline to deploy applications on AWS

Topics

- Introduction to AWS
- Introduction to Developing on AWS
- Introduction to AWS Identity and Access Management
- Developing Storage Solutions with Amazon S3
- Developing Flexible NoSQL Solutions with Amazon DynamoDB
- Developing Solutions with AWS Lambda
- Developing Solutions with Amazon API Gateway
- Developing Solutions with Amazon SQS and Amazon SNS
- Developing Event-Driven Solutions with AWS Step Functions
- Caching Information for Scalability
- Getting Started with Containers
- Developing Secure Solutions
- Deploying Applications

Audience

This course is intended for Intermediate-level software developers.

Prerequisites

We recommend that attendees of this course have the following prerequisites:
- In-depth knowledge of at least one high-level programming language
- Working knowledge of core AWS services and public cloud implementation

Duration

Three Days