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Learning Style: Virtual Classroom

Technology: Amazon Web Services

Difficulty: Beginner

Course Duration: 3 Days

Developing on AWS (AWS-DODEVA)

About This Course:

This course teaches experienced developers how to programmatically interact with AWS services to build web solutions. It guides you through a high-level architectural discussion on resource selection and dives deep into using the AWS Software Development Kits (AWS SDKs) and Command Line Interface (AWS CLI) to build

and deploy your cloud applications. You will build a sample application during this course, learning how to set up permissions to the development environment, adding business logic to process data using AWS core services, configure user authentications, deploy to AWS cloud, and debug to resolve application issues. The course includes code examples to help you implement the design patterns and solutions discussed in the course. The labs reinforce key course content and help you to implement solutions using the AWS SDK for Python, .Net, and Java, the AWS CLI, and the AWS Management Console.

Course Objectives:

- Build a simple end-to-end cloud application using AWS Software Development Kits (AWS SDKs), Command Line Interface (AWS CLI), and IDEs.

- Configure AWS Identity and Access Management (IAM) permissions to support a development environment.

- Use multiple programming patterns in your applications to access AWS services.

- Use AWS SDKs to perform CRUD (create, read, update, delete) operations on Amazon Simple Storage Service (Amazon S3) and Amazon DynamoDB resources.

- Build AWS Lambda functions with other service integrations for your web applications.

- Understand the benefits of microservices architectures and serverless applications to design.

- Develop API Gateway components and integrate with other AWS services.

- Explain how Amazon Cognito controls user access to AWS resources.

- Build a web application using Cognito to provide and control user access.

- Use DevOps methodology to reduce the risks associated with traditional application releases and identify AWS services that help in implementing DevOps practices.

- Use AWS Serverless Application Model (AWS SAM) to deploy an application.

- Observe your application build using Amazon X-Ray

Audience:

- Software developers

- Solutions architects

- IT workers who want to improve their developing skills using AWS Services

Prerequisites:

We recommend that attendees of this course have the following prerequisites:

- AWS Technical Essentials

- Working knowledge of AWS core services

- Programming experience in any one of the following languages:

- Python

- NET

- Java

Course Outline:

- Module 1: Course Overview

- Module 2: Building a Web Application on AWS

- Module 3: Getting Started with Development on AWS

- Module 4: Getting Started with Permissions

- Lab 1: Configure the Developer Environment

- Module 5: Getting Started with Storage

- Module 6: Processing Your Storage Operations

- Lab 2: Develop Solutions Using Amazon S3

- Module 7: Getting Started with Databases

- Module 8: Processing Your Database Operations

- Lab 3: Develop Solutions Using Amazon DynamoDB

- Module 9: Processing Your Application Logic

- Lab 4: Develop Solutions Using AWS Lambda Functions

- Module 10: Managing the APIs

- Lab 5: Develop Solutions Using Amazon API Gateway

- Module 11: Building a Modern Application

- Module 12: Granting Access to Your Application Users

- Lab 6: Capstone – Complete the Application Build

- Module 13: Deploying Your Application

- Module 14: Observing Your Application

- Lab 7: Observe the Application Using AWS X-Ray

- Module 15: Course Wrap-up