

# Amazon Web Services (AWS) Certified Developer (CC103)

## 24 Hours

### Outline

The AWS Certified Developer – Associate exam validates technical expertise in developing and maintaining applications on the AWS platform.

Exam concepts you should understand for this exam include:

- Picking the right AWS services for the application
- Leveraging AWS SDKs to interact with AWS services from your application
- Writing code that optimizes performance of AWS services used by your application
- Code-level application security (IAM roles, credentials, encryption, etc.)

AWS Foundations:

Learn to recognize and explain AWS compute and storage fundamentals, and to recognize and explain the family of AWS services relevant to the certified developer exam.

Designing and Developing:

An introduction to the AWS components that help us develop highly available, cost efficient solutions In this course we will Understand the core AWS services, uses, and basic architecture best practices Identify and recognize cloud architecture considerations, such as fundamental components and effective designs.

Working with DynamoDB:

An introduction to working with Amazon DynamoDB, a fully-managed NoSQL database service provided by Amazon Web Services.

Deployment and Security:

Learn to Recognize and implement secure procedures for optimum cloud deployment and maintenance.

Monitoring and Debugging:

Identify and implement best practices for monitoring and debugging in AWS, and to understand the core AWS services,

## Objectives

On completing this learning path you will be able to:

- Understand the core AWS services, uses, and basic architecture best practices.
- Design, develop, and deploy cloud based solutions using AWS.
- Identify and recognize cloud architecture considerations, such as fundamental components and effective designs.
- Identify the appropriate techniques required to code a proper cloud solution.
- Recognize and implement secure procedures for optimal cloud deployment and maintenance.
- Demonstrate ability to implement the right architecture for development, testing, and staging environments.
- Develop and maintain applications written for Amazon Simple Storage Services (S3), Amazon DynamoDB, Amazon Simple Queue Service (SQS), Amazon Simple Notification Service (SNS), Amazon Simple Workflow Service (SWS), AWS Elastic Beanstalk, and AWS CloudFormation.
- Identify and implement best practices for debugging in AWS.

## Contents

### Module 1

Identify and recognize cloud architecture considerations, such as fundamental components and effective designs.

- What is cloud computing?
- Cloud Computing models: SaaS, PaaS, IaaS
- Cloud implementation models: Public, Private, Hybrid
- What's AWS?
- Main services overview (Compute, Storage, DB, Network )
- How to design cloud services?
- Planning and design
- Amazon S3, Amazon Simple Workflow Service (SWS), and Messaging
- Configure an Amazon Machine Image (AMI)

- DynamoDB, AWS Elastic Beanstalk, AWS CloudFormation
- Elasticity and scalability
- Database concepts
- Familiarity with architectural trade-off decisions (high availability vs. cost, Amazon Relational Database Service (RDS) vs. installing your own database on Amazon Elastic Compute Cloud (EC2))

## Module 2

Recognize and implement secure procedures for optimum cloud deployment and maintenance. Demonstrate ability to implement the right architecture for development, testing, and staging environments.

- Cloud Security Best Practices
- Shared Security Responsibility Model
- AWS Platform Compliance
- AWS security attributes (customer workloads down to physical layer)
- Security Services
- AWS Identity and Access Management (IAM)
- Amazon Virtual Private Cloud (VPC)
- CIA and AAA models, ingress vs. egress filtering, and which AWS services and features fit

## Module 3

Identify the appropriate techniques to code a cloud solution.

- Programming with AWS APIs
- General troubleshooting information and questions
- Best Practices in debugging