

AWS Certified Developer – Associate (DVA-C02)

Level: Associate

Duration: 40–45 Hours

Course Overview

The **AWS Certified Developer – Associate** course is designed for software developers who want to build, deploy, and manage applications on the AWS platform. It covers **AWS SDKs**, **serverless development**, **CI/CD**, and **cloud-native best practices**, preparing you for the **DVA-C02 certification**.

Course Objectives

- Understand AWS services for application development
 - Write code that interacts with AWS services using SDKs
 - Develop with AWS Lambda, DynamoDB, and S3
 - Implement CI/CD and application monitoring solutions
 - Prepare for the DVA-C02 certification exam
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Course Outline

Module 1: Introduction to AWS Developer Certification

- Overview of DVA-C02 certification
 - AWS services relevant to developers
 - Setting up your development environment
 - Using AWS CLI and SDKs (Python, JavaScript, etc.)
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Module 2: AWS Core Services for Developers

- EC2 and Lightsail for hosting applications
- AWS Elastic Beanstalk overview
- Working with Amazon S3 for storage

- DynamoDB and RDS for databases
 - SQS and SNS for messaging
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Module 3: Serverless Development with AWS

- Introduction to AWS Lambda
 - Creating and deploying Lambda functions
 - Event-driven architecture using Lambda
 - Integrating Lambda with API Gateway and DynamoDB
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Module 4: Developer Tools and CI/CD

- CodeCommit, CodeBuild, CodeDeploy, CodePipeline
 - Implementing automated deployments
 - Infrastructure as Code with AWS CloudFormation
 - Integrating CI/CD with GitHub and third-party tools
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Module 5: Monitoring, Logging, and Debugging

- Amazon CloudWatch for metrics and logs
 - AWS X-Ray for distributed tracing
 - Using CloudTrail to track API calls
 - Setting up alerts and dashboards
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Module 6: Application Security and IAM

- Implementing fine-grained access control with IAM
 - IAM roles, policies, and best practices for developers
 - AWS Cognito for authentication
 - Encryption in transit and at rest
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Module 7: Performance Optimization and Best Practices

- Choosing the right compute and storage solutions
- Handling errors and retries in code
- Application scaling and load balancing

- Using caching and throttling effectively
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Module 8: Exam Preparation and Practice

- Exam format and structure
 - Practice questions by domain
 - Exam tips and strategy
 - Final mock test and Q&A
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Target Audience

- Developers and software engineers deploying applications on AWS
 - Backend engineers looking to build serverless apps
 - Anyone preparing for the **AWS Developer Associate (DVA-C02)** exam
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Prerequisites

- Familiarity with at least one programming language
- Basic understanding of cloud computing concepts