

uCertify

Course Outline

AWS Certified Developer - Associate



Lesson



Practice test



Lab

Contents

1. Course Objective
2. Pre-Assessment
3. Exercises, Quizzes, Flashcards & Glossary
Number of Questions
4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
6. State of the Art Educator Tools
7. Award Winning Learning Platform (LMS)
8. Chapter & Lessons
Syllabus
Chapter 1: Introduction
Chapter 2: Introduction to AWS Cloud API
Chapter 3: Introduction to Compute and Networking
Chapter 4: Hello, Storage
Chapter 5: Hello, Databases
Chapter 6: Encryption on AWS
Chapter 7: Deployment Strategies
Chapter 8: Deployment as Code
Chapter 9: Infrastructure as Code
Chapter 10: Configuration as Code
Chapter 11: Authentication and Authorization
Chapter 12: Refactor to Microservices
Chapter 13: Serverless Compute
Chapter 14: Serverless Applications

Chapter 15: Stateless Application Patterns

Chapter 16: Monitoring and Troubleshooting

Chapter 17: Optimization

Videos and How To

9. Practice Test

Here's what you get

Features

10. Performance Based Labs

Lab Tasks

Here's what you get

11. Post-Assessment

1. Course Objective

Prepare for the AWS Developer certification exam with the AWS Certified Developer Official Study Guide Associate course. The AWS Developer course completely covers the AWS DVA-C01 exam objectives and helps you master the skills required to use the AWS service APIs, AWS CLI, and SDKs to write applications; identify key features of AWS services, use or interact with AWS services, and a basic understanding of cloud. This AWS training course is equipped with the best learning resources to help you pass the DVA-C01 exam.

2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

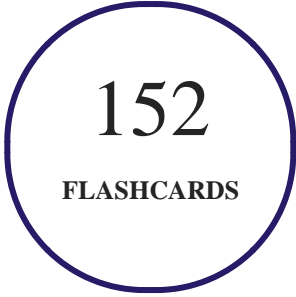
3. Quizzes

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.

232
QUIZZES

4. Flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.



152

FLASHCARDS

5. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



152

GLOSSARY OF
TERMS

6. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

7. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

8. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

9. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- 2014

1. Best Postsecondary Learning Solution

• **2015**

1. Best Education Solution
2. Best Virtual Learning Solution
3. Best Student Assessment Solution
4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

• **2016**

1. Best Virtual Learning Solution
2. Best Education Cloud-based Solution
3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution
6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

• **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

• **2018**

1. Best Higher Education LMS or Learning Platform
2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- 2019
 1. Best Virtual Learning Solution
 2. Best Content Authoring Development or Curation Solution
 3. Best Higher Education Learning Management Solution (LMS)

- 2020
 1. Best College and Career Readiness Solution
 2. Best Cross-Curricular Solution
 3. Best Virtual Learning Solution

10. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

Syllabus

Chapter 1: Introduction

Chapter 2: Introduction to AWS Cloud API

- Introduction to AWS

- Calling an AWS Cloud Service

- Working with Regions
- API Credentials and AWS Identity and Access Management
- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 3: Introduction to Compute and Networking

- Amazon Elastic Compute Cloud
- Running Applications on Instances
- Customizing the Network
- Managing Your Resources
- Developer Tools
- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 4: Hello, Storage

- Introduction to AWS Storage
- Storage Fundamentals
- AWS Block Storage Services
- AWS Object Storage Services
- AWS File Storage Services
- Storage Comparisons

- Cloud Data Migration
- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 5: Hello, Databases

- Introduction to Databases
- Relational Databases
- Nonrelational Databases
- Data Warehouse
- In-Memory Data Stores
- Graph Databases
- Cloud Database Migration
- Running Your Own Database on Amazon Elastic Compute Cloud
- Compliance and Security
- Summary

- Exam Essentials
- Resources to Review
- Exercises

Chapter 6: Encryption on AWS

- Introduction to Encryption
- AWS Key Management Service
- AWS CloudHSM
- Controlling the Access Keys
- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 7: Deployment Strategies

- Deployments on the AWS Cloud
- AWS Elastic Beanstalk
- Deployment Strategies

- Monitoring and Troubleshooting
- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 8: Deployment as Code

- Introduction to AWS Code Services
- Using AWS CodePipeline to Automate Deployments
- Using AWS CodeCommit as a Source Repository
- Using AWS CodeBuild to Create Build Artifacts
- Using AWS CodeDeploy to Deploy Applications
- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 9: Infrastructure as Code

- Introduction to Infrastructure as Code
- Infrastructure as Code
- Using AWS CloudFormation to Deploy Infrastructure
- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 10: Configuration as Code

- Introduction to Configuration as Code
- Using AWS OpsWorks Stacks to Deploy Applications
- Using Amazon Elastic Container Service to Deploy Containers
- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 11: Authentication and Authorization

- Introduction to Authentication and Authorization
- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 12: Refactor to Microservices

- Introduction to Refactor to Microservices
- Amazon Simple Queue Service
- Amazon Simple Notification Service
- Amazon Kinesis Data Streams
- Amazon Kinesis Data Firehose
- Amazon Kinesis Data Analytics
- Amazon Kinesis Video Streams
- Amazon DynamoDB Streams
- AWS IoT Device Management
- Amazon MQ
- AWS Step Functions

- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 13: Serverless Compute

- Introduction to Serverless Compute
- AWS Lambda
- AWS Lambda Functions
- Inside the AWS Lambda Function
- Configuring the AWS Lambda Function
- Invoking AWS Lambda Functions
- Monitoring AWS Lambda Functions
- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 14: Serverless Applications

- Introduction to Serverless Applications
- Web Server with Amazon Simple Storage Service (Presentation Tier)
- Dynamic Data with Amazon API Gateway (Logic or App Tier)
- User Authentication with Amazon Cognito

- Standard Three-Tier vs. the Serverless Stack
- Amazon Aurora Serverless
- AWS Serverless Application Model
- AWS SAM CLI
- AWS Serverless Application Repository
- Serverless Application Use Cases
- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 15: Stateless Application Patterns

- Introduction to the Stateless Application Pattern
- Amazon DynamoDB
- Amazon ElastiCache
- Amazon Simple Storage Service
- Amazon Elastic File System

- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 16: Monitoring and Troubleshooting

- Introduction to Monitoring and Troubleshooting
- Amazon CloudWatch
- AWS CloudTrail
- AWS X-Ray
- Summary
- Exam Essentials
- Resources to Review
- Exercises

Chapter 17: Optimization

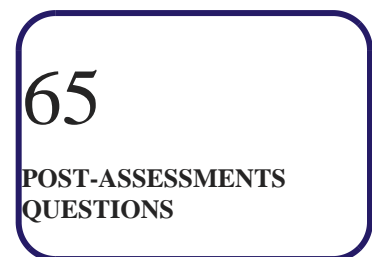
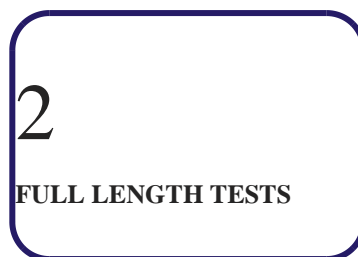
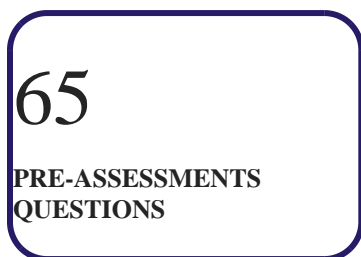
- Introduction to Optimization
- Cost Optimization: Everyone's Responsibility

- Right Sizing
- Using Instance Reservations
- Using Spot Instances
- Using AWS Auto Scaling
- Using Containers
- Using Serverless Approaches
- Optimizing Storage
- Optimizing Data Transfer
- Relational Databases and Amazon DynamoDB
- Monitoring Costs
- Monitoring Performance
- Summary
- Exam Essentials
- Resources to Review
- Exercises

11. Practice Test

uCertify provides full length practice tests. These tests closely follow the exam objectives and are designed to simulate real exam conditions. Each course has a number of test sets consisting of hundreds of items to ensure that learners are prepared for the certification exam.

Here's what you get



Features

Full Remediation

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Learn, Test and Review Mode

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

12. Performance Based Labs

uCertify's performance-based labs are Live Labs. Learn the real world skills using Live Labs. uCertify Labs are cloud-based, device-enabled and can be easily integrated with an LMS. Features of uCertify labs:

- Provide hands-on experience in a safe, online environment
- Labs simulate real world, hardware, software & CLI environment
- Flexible and inexpensive alternative to physical Labs
- Comes with well-organized component library for every task
- Highly interactive - learn by doing
- Explanations and remediation available
- Videos on how to perform

Lab Tasks

- Creating an IAM Role
- Creating an IAM Policy
- Creating an IAM Group
- Creating an IAM User Using the AWS Management Console
- Creating an Amazon EC2 Key Pair
- Launching an EC2 Instance
- Creating a Security Group
- Creating an Internet Gateway
- Creating a VPC and the Private and Public Subnets

- Creating an Encrypted EBS Volume
- Hosting an S3 Static Website
- Creating an S3 Bucket and Enabling Versioning on it
- Creating a DynamoDB Table and Putting Items in it
- Configuring Amazon ElastiCache
- Creating and Disabling an AWS KMS Key
- Configuring an AWS Elastic Beanstalk Application
- Creating a CodeCommit Repository
- Creating an AWS CodeBuild Project
- Creating an Application and Deployment Group in AWS CodeDeploy
- Creating a CloudFormation Template
- Creating a Task Definition
- Creating an ECS Cluster
- Setting Up a Simple AD
- Creating an SQS queue
- Creating an SNS topic
- Creating an AWS Step Functions State Machine
- Creating the AWS Lambda Function and Invoking it
- Creating a CloudWatch Alarm
- Creating a CloudWatch Dashboard
- Creating a Trail Using CloudTrail

Here's what you get




13. Post-Assessment


After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

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