Introduction

The AWS Certified DevOps Engineer – Professional (DOP-CO1) exam validates technical expertise in provisioning, operating, and managing distributed application systems on the AWS platform. It is intended for individuals who perform a DevOps Engineer role.

It validates an examinee's ability to:

- Implement and manage continuous delivery systems and methodologies on AWS
- Implement and automate security controls, governance processes, and compliance validation
- Define and deploy monitoring, metrics, and logging systems on AWS
- Implement systems that are highly available, scalable, and self-healing on the AWS platform
- Design, manage, and maintain tools to automate operational processes

Recommended AWS Knowledge

- Two or more years' experience provisioning, operating, and managing AWS environments
- Experience developing code in at least one high-level programming language
- Experience building highly automated infrastructures
- Experience administering operating systems
- Understanding of modern development and operations processes and methodologies

Exam Preparation

These training courses and materials may be helpful for examination preparation:

AWS Training (aws.amazon.com/training)

- DevOps Engineering on AWS - https://aws.amazon.com/training/course-descriptions/devops-engineering/

AWS Whitepapers (aws.amazon.com/whitepapers) Kindle and .pdf

- Running Containerized Microservices on AWS whitepaper, November 2017
- Microservices on AWS whitepaper, September 2017
- Infrastructure as Code whitepaper, July 2017
- Practicing Continuous Integration and Continuous Delivery on AWS whitepaper, June 2017
- Jenkins on AWS whitepaper, May 2017
- Import Windows Server to Amazon EC2 with PowerShell whitepaper, February 2017
- Blue/Green Deployments on AWS whitepaper, August 2016
- Introduction to DevOps on AWS whitepaper, December 2014
- Development and Test on AWS whitepaper, November 2012

Exam Content

Response Types
There are two types of questions on the examination:

- **Multiple-choice:** Has one correct response option and three incorrect responses (distractors).
- **Multiple-response:** Has two or more correct responses out of five or more options.

Select one or more responses that best complete the statement or answer the question. Distractors, or incorrect answers, are response options that an examinee with incomplete knowledge or skill would likely choose. However, they are generally plausible responses that fit in the content area defined by the test objective.

Unanswered questions are scored as incorrect; there is no penalty for guessing.

Unscored Content
Your examination may include unscored items that are placed on the test to gather statistical information. These items are not identified on the form and do not affect your score.

Exam Results
The AWS Certified DevOps Engineer Professional (DOP-C01) is a pass or fail exam. The examination is scored against a minimum standard established by AWS professionals who are guided by certification industry best practices and guidelines.

Your results for the examination are reported as a score from 100-1000, with a minimum passing score of 750. Your score shows how you performed on the examination as a whole and whether or not you passed. Scaled scoring models are used to equate scores across multiple exam forms that may have slightly different difficulty levels.

Your score report contains a table of classifications of your performance at each section level. This information is designed to provide general feedback concerning your examination performance. The examination uses a compensatory scoring model, which means that you do not need to "pass" the individual sections, only the overall examination. Each section of the examination has a specific weighting, so some sections have more questions than others. The table contains general information, highlighting your strengths and weaknesses. Exercise caution when interpreting section-level feedback.

Content Outline
This exam guide includes weightings, test domains, and objectives only. It is not a comprehensive listing of the content on this examination. The table below lists the main content domains and their weightings.

Domain	% of Examination
Domain 1: SDLC Automation	22%
Domain 2: Configuration Management and Infrastructure as Code	19%
Domain 3: Monitoring and Logging	15%
Domain 4: Policies and Standards Automation	10%
Domain 5: Incident and Event Response	18%
Domain 6: High Availability, Fault Tolerance, and Disaster Recovery	16%
TOTAL	**100%**

Domain 1: SDLC Automation
1.1 Apply concepts required to automate a CI/CD pipeline
1.2 Determine source control strategies and how to implement them
1.3 Apply concepts required to automate and integrate testing
1.4 Apply concepts required to build and manage artifacts securely
1.5 Determine deployment/delivery strategies (e.g., A/B, Blue/green, Canary, Red/black) and how to implement them using AWS Services

Domain 2: Configuration Management and Infrastructure as Code
2.1 Determine deployment services based on deployment needs
2.2 Determine application and infrastructure deployment models based on business needs
2.3 Apply security concepts in the automation of resource provisioning
2.4 Determine how to implement lifecycle hooks on a deployment
2.5 Apply concepts required to manage systems using AWS configuration management tools and services

Domain 3: Monitoring and Logging
3.1 Determine how to set up the aggregation, storage, and analysis of logs and metrics
3.2 Apply concepts required to automate monitoring and event management of an environment
3.3 Apply concepts required to audit, log, and monitor operating systems, infrastructures, and applications
3.4 Determine how to implement tagging and other metadata strategies

Domain 4: Policies and Standards Automation
4.1 Apply concepts required to enforce standards for logging, metrics, monitoring, testing, and security
4.2 Determine how to optimize cost through automation
4.3 Apply concepts required to implement governance strategies

Domain 5: Incident and Event Response
5.1 Troubleshoot issues and determine how to restore operations
5.2 Determine how to automate event management and alerting
5.3 Apply concepts required to implement automated healing
5.4 Apply concepts required to set up event-driven automated actions

Domain 6: High Availability, Fault Tolerance, and Disaster Recovery
6.1 Determine appropriate use of multi-AZ versus multi-region architectures
6.2 Determine how to implement high availability, scalability, and fault tolerance
6.3 Determine the right services based on business needs (e.g., RTO/RPO, cost)
6.4 Determine how to design and automate disaster recovery strategies
6.5 Evaluate a deployment for points of failure