AWS Certified DevOps Engineer: Get 3 Certifications 2019

Content Outline / Syllabus

AWS Certified Cloud Practitioner

This exam guide includes weightings, test domains, and objectives only. It is not a comprehensive listing of the content on this examination.

Domain 1: Cloud Concepts	28%
Domain 2: Security	24%
Domain 3: Technology	36%
Domain 4: Billing and Pricing	12%
TOTAL	**100%**

Domain 1: Cloud Concepts
1.1 Define the AWS Cloud and its value proposition
1.2 Identify aspects of AWS Cloud economics
1.3 List the different cloud architecture design principles

Domain 2: Security
2.1 Define the AWS Shared Responsibility model
2.2 Define AWS Cloud security and compliance concepts
2.3 Identify AWS access management capabilities
2.4 Identify resources for security support

Domain 3: Technology
3.1 Define methods of deploying and operating in the AWS Cloud

3.2 Define the AWS global infrastructure
3.3 Identify the core AWS services
3.4 Identify resources for technology support

Domain 4: Billing and Pricing
4.1 Compare and contrast the various pricing models for AWS
4.2 Recognize the various account structures in relation to AWS billing and pricing
4.3 Identify resources available for billing support

AWS Solution Architect - Associate

Content Outline

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Domain 1: Design Resilient Architectures	34%
Domain 2: Define Performant Architectures	24%
Domain 3: Specify Secure Applications and Architectures	26%
Domain 4: Design Cost-Optimized Architectures	10%
Domain 5: Define Operationally Excellent Architectures	6%
TOTAL	100%

Domain 1: Design Resilient Architectures
1.1 Choose reliable/resilient storage.
1.2 Determine how to design decoupling mechanisms using AWS services.
1.3 Determine how to design a multi-tier architecture solution.
1.4 Determine how to design high availability and/or fault tolerant architectures.

Domain 2: Define Performant Architectures
2.1 Choose performant storage and databases.
2.2 Apply caching to improve performance.
2.3 Design solutions for elasticity and scalability.

Domain 3: Specify Secure Applications and Architectures
3.1 Determine how to secure application tiers.

3.2 Determine how to secure data.
3.3 Define the networking infrastructure for a single VPC application.

Domain 4: Design Cost-Optimized Architectures
4.1 Determine how to design cost-optimized storage.
4.2 Determine how to design cost-optimized compute.

Domain 5: Define Operationally-Excellent Architectures
5.1 Choose design features in solutions that enable operational excellence.

AWS Certified DevOps Engineer

The table below lists the domains measured by this examination and the extent to which they are represented.

Domain	
Domain 1: Continuous Delivery and Process Automation	55%
Domain 2: Monitoring, Metrics, and Logging	20%
Domain 3: Security, Governance, and Validation	10%
Domain 4: High Availability and Elasticity	15%
TOTAL	100%

Domain 1: Continuous Delivery and Process Automation
1.1 Demonstrate an understanding of application lifecycle management:
・ Application deployment management strategies such as rolling deployments and A/B.
・ Version control, testing, build tools and bootstrapping.
1.2 Demonstrate an understanding of infrastructure configuration and automation.
1.3 Implement and manage continuous delivery processes using AWS services.
1.4 Develop and manage scripts and tools to automate operational tasks using the AWS SDKs, CLI, and APIs.

Domain 2: Monitoring, Metrics, and Logging
2.1 Monitor availability and performance.
2.2 Monitor and manage billing and cost optimization processes.
2.3 Aggregate and analyze infrastructure, OS and application log files.
2.4 Use metrics to drive the scalability and health of infrastructure and applications.
2.5 Analyze data collected from monitoring systems to discern utilization patterns.
2.6 Manage the lifecycle of application and infrastructure logs

2.7 Leverage the AWS SDKs, CLIs and APIs for metrics and logging.

Domain 3: Security, Governance, and Validation

3.1 Implement and manage Identity and Access Management and security controls.

3.2 Implement and manage protection for data in-flight and at rest.

3.3 Implement, automate and validate cost controls for AWS resources.

3.4 Implement and manage automated network security and auditing.

3.5 Apply the appropriate AWS account and billing set-up options based on business requirements.

3.6 Implement and manage AWS resource auditing and validation.

3.7 Use AWS services to implement IT governance policies.

Domain 4: High Availability and Elasticity

4.1 Determine appropriate use of multi- Availability Zone versus multi-region architectures.

4.2 Implement self-healing application architectures.

4.3 Implement the most appropriate front-end scaling architecture.

4.4 Implement the most appropriate middle-tier scaling architecture.

4.5 Implement the most appropriate data storage scaling architecture.

4.6 Demonstrate an understanding of when to appropriately apply vertical and horizontal scaling concepts.