

[CCP Exam Overview](#)

Exam Domains

Domain	% of Exam
Domain 1: Cloud Concepts	26%
Domain 2: Security and Compliance	25%
Domain 3: Technology	33%
Domain 4: Billing and Pricing	16%
Total	100%

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[AWS Certified Cloud Practitioner Official Practice Question Set](#)

Module 1: [Introduction to Amazon Web Services](#)

Objectives:

1. [Describe three cloud computing deployment models](#)
 - Cloud
 - On-Premises (aka Private Cloud)
 - Hybrid
2. [Describe six benefits of cloud computing](#)
 - Trade capital expense for variable expense
 - Stop spending money on running and maintaining data centers
 - Stop guessing your capacity needs
 - Benefit from massive economies of scale
 - Increase speed and agility
 - Go global in minutes

Module 2: Compute in the Cloud

Objectives:

1. [Describe Amazon EC2 benefits](#)
 - Use secure, sizable compute capacity
 - Boot server instances in minutes
 - Pay only for what you use
2. [Identify the Amazon EC2 instance types](#)
 - General purpose
 - Compute optimized
 - Memory optimized
 - Accelerated computing
 - Storage optimized

3. [Differentiate among Amazon EC2 billing options](#)
 - On-Demand instances
 - Spot instances
 - Reserved instances
 - Compute savings plans
 - Dedicated hosts
 - Dedicated instances
4. [Summarize Amazon EC2 Auto Scaling benefits](#)
 - [What is auto scaling](#)
 - Better fault tolerance
 - Better availability
 - Better cost management
5. [Summarize Elastic Load Balancing benefits](#)
 - Increase availability and fault tolerance of applications
 - Add and remove compute resources (working with auto scaling) as needs change, without disrupting overall flow of requests to applications
 - Configure health checks and sends requests only to healthy compute resources
 - Offload the work of encryption and decryption so that compute resources can focus on their main work
6. [Provide examples of Elastic Load Balancing uses](#)
 - Scalability and load balancing (Elastic load balancing and auto scaling together)
7. Describe differences between [Amazon SNS](#) and [Amazon SQS](#)
 - [What are microservices](#)
 - [Amazon SNS](#) is a distributed publish-subscribe system. Messages are pushed to subscribers as and when they are sent by publishers to SNS.
 - [Amazon SQS](#) is distributed queuing system. Messages are not pushed to receivers. Receivers have to poll SQS to receive messages. Messages can be stored in SQS for short duration of time (max 14 days).
8. Summarize additional AWS compute options
 - [Serverless compute: Lambda](#)
 - [What are containers](#)
 - AWS Container services:
 - [Elastic container service](#)
 - [Elastic Kubernetes service](#)
 - [AWS Fargate](#)

Module 3: Global Infrastructure and Reliability

Objectives:

1. [Summarize the AWS Global Infrastructure benefits](#)
 - Security
 - Availability
 - Performance
 - Global footprint
 - Scalability
 - Flexibility
2. [Describe Availability Zones](#)
 - Regions
 - Availability zones
3. [Describe the benefits of Amazon CloudFront and edge locations](#)
 - Get closer to your customers:
 - [What is Amazon CloudFront](#)
 - Edge locations
 - Points of presence
 - [AWS Outposts](#)
4. Compare methods for provisioning AWS services
 - [AWS management console](#)
 - [AWS command line interface \(CLI\)](#)
 - [Software development kits \(SDKs\)](#)

Module 4: Networking

Objectives:

1. [Describe the basic concepts of networking](#)
2. [Describe the differences between public and private networking resources](#)
3. [Explain a virtual private gateway using a real life scenario](#)
4. [Explain a virtual private network \(VPN\) using a real life scenario](#)
5. [Describe AWS Direct Connect benefits](#)
6. [Describe hybrid deployment benefits](#)
7. Describe the layers of security in an IT strategy
 - [Compare Network access control lists \(ACLs\) and security groups](#)

8. [Describe the services customers use to interact with the AWS global network](#)
 - Route53

Module 5: Storage and Databases

Objectives:

1. Summarize the basic concept of storage and databases
 - [Types of storage:](#)
 - Block storage
 - Object storage
 - [Instance store](#)
 - File storage
 - [Relational vs non-relational databases](#)
2. [Describe Amazon Elastic Block Store \(Amazon EBS\) benefits](#)
 - Data availability
 - Data persistence
 - Data encryption
 - Data security
 - Snapshots
 - Flexibility
3. [Describe Amazon Simple Storage Service \(Amazon S3\) benefits](#)
 - Store objects in buckets
 - Set permissions to control access to objects
 - [Choose from a range of storage classes for different use cases:](#)
 - S3 standard
 - S3 standard-IA
 - S3 One Zone-IA
 - S3 Intelligent Tiering
 - S3 Glacier
 - S3 Glacier Deep Archive
4. [Describe Amazon Elastic File System \(Amazon EFS\) benefits](#)
 - Store data in a scalable file system
 - Provide data to thousands of Amazon EC2 instances concurrently
 - Store data in and across multiple AZs
5. Summarize various storage solutions
 - [Types of storage:](#)
 - Block storage
 - Object storage
 - [Instance store](#)

- File storage
- 6. [Describe Amazon Relational Database Service \(Amazon RDS\) benefits](#)
 - Operate and scale a relational database in the AWS cloud
 - Automate time-consuming administrative tasks
 - Store and transmit data securely
 - Six RDS DB engines:
 - [Amazon Aurora](#)
 - PostgreSQL
 - MySQL
 - MariaDB
 - Oracle Database
 - Microsoft SQL Server
- 7. [Describe Amazon DynamoDB benefits](#)
 - serverless key-value database
 - It automatically scales to adjust for capacity changes and maintain consistent performance
 - It is designed to handle over 10 trillion requests per day
- 8. Summarize various database services
 - [AWS database migration service \(DMS\)](#)
 - [Amazon Redshift](#): Query and analyze data across a data warehouse
 - [Amazon DocumentDB](#): Run MongoDB workloads in a document database service
 - [Amazon Neptune](#): Run applications that use highly connected datasets
 - [Amazon Quantum ledger database \(QLDB\)](#): Review a complete history of changes to your application data
 - [Amazon Managed Blockchain](#): Run a decentralized ledger database
 - [Amazon ElastiCache](#): Add caching layers to improve database read times
 - [Amazon DynamoDB Accelerator \(DAX\)](#): Improve DynamoDB response times from single-digit milliseconds to microseconds

Module 6: Security

Objectives:

1. [Explain the benefits of the shared responsibility model](#)
 - Customer: Security IN the cloud
 - AWS: Security OF the cloud
2. [Describe multi-factor authentication \(MFA\)](#)
3. Differentiate among the AWS Identity and Access Management (IAM) security levels
 - [AWS Identity and Access Management \(IAM\)](#)

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- [Identities:](#)
 - AWS account root user
 - IAM users
 - IAM groups
 - IAM roles
- 4. [Explain AWS Organizations benefits](#)
- 5. [Describe security policies](#)
- 6. [Summarize the benefits of compliance with AWS](#)
 - [AWS Artifact](#)
 - [Customer Compliance Center](#)
- 7. Explain additional AWS security services
 - [AWS Web Application Firewall \(WAF\)](#)
 - [AWS Shield](#)
 - [Amazon Inspector](#)
 - [AWS Key Management Service \(KMS\)](#)
 - [Amazon GuardDuty](#)

Module 7: Monitoring and Analytics

Objectives:

1. Summarize approaches to monitoring in AWS
2. [Describe Amazon CloudWatch benefits:](#)
 - Monitor your AWS and on-premises infrastructure and resources in real time
 - Access all of your metrics from a single location
 - Configure automatic alerts and actions in response to metrics
3. [Describe AWS CloudTrail benefits](#)
 - Track user activities and API requests throughout your AWS infrastructure
 - Filter logs generated by API calls to assist with operational analysis and troubleshooting
 - Automatically detect unusual account activity
4. [Describe AWS Trusted Advisor benefits](#)
 - Receive real-time guidance for improving your AWS environment
 - Compare your infrastructure to AWS best practices in five categories
 - Cost optimization
 - Performance
 - Security
 - Fault tolerance
 - Service limits
 - Evaluate and implement guidance at all stages of deployment

Module 8: Pricing and Support

Objectives:

1. Describe AWS pricing and support models
 - Pay as you go
 - Pay less when you reserve
 - Pay less with volume-based discounts
 - [Lambda pricing](#)
 - Pay only for the compute time you use
 - Pay for the number of requests for your functions
 - Save by signing up for Compute Savings Plans
 - [Amazon EC2 pricing](#)
 - Pay only for the time that your On-Demand Instances run
 - Reduce costs by using Spot Instances for recommended use cases
 - Save by signing up for Compute Savings Plans
 - [Amazon S3 pricing is based on four factors:](#)
 - Storage
 - Requests and data retrievals
 - Data transfer
 - Management and replication
2. [Describe the AWS Free Tier](#)
 - Always free
 - 12 months free
 - Trials
3. [Describe key benefits of AWS Organizations and consolidated billing](#)
 - Receive a single bill for all the AWS accounts in your organization
 - Review itemized charges that have been incurred by each account
 - Share savings across the accounts in your organization
4. [Explain AWS Budgets benefits](#)
 - create budgets to plan your service usage, service costs, and instance reservations
5. [Explain AWS Cost Explorer benefits](#)
 - Visualize, understand, and manage your AWS costs and usage over time
6. [Explain AWS Pricing Calculator benefits:](#)
 - Explore AWS services and create an estimate for the cost of your use cases on AWS.
 - Organize your AWS estimates by groups that you define. A group can reflect how your company is organized, such as provide estimates by cost center.
 - When you create an estimate, you can save it and generate a link to share with others.
7. [Distinguish among the AWS Support plans](#)

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- Basic
 - Developer
 - Business
 - Enterprise
8. Describe AWS Marketplace benefits
- Discover thousands of software products that run on AWS
 - Access detailed information and reviews for each product listing
 - Explore software solutions by industry and use case

Module 9: Migration and Innovation

Objectives:

1. Describe migration and innovation in the AWS Cloud
2. [Summarize the AWS Cloud Adoption Framework \(AWS CAF\)](#)
 - 6 perspectives across business and technical capabilities
 - Business capabilities:
 - Business
 - People
 - Governance
 - Technical Capabilities:
 - Platform
 - Security
 - Operations
3. [Summarize the six key factors of a cloud migration strategy](#)
 - Rehost
 - Replatform
 - Refactor/Rearchitect
 - Repurchase
 - Retain
 - Retire
 - Relocate (not in scope)
4. [Describe the benefits of AWS data migration solutions](#)
 - AWS Snowcone
 - AWS Snowball devices
 - AWS Snowball Edge Storage Optimized
 - AWS Snowball Edge Compute Optimized
 - AWS Snowmobile
5. Summarize the broad scope of innovative solutions that AWS offers
 - Serverless applications
 - Artificial Intelligence (AI)

- Machine Learning (ML)
6. [Summarize the five pillars of the AWS Well-Architected Framework](#)
- Operational excellence: Run and monitor systems to deliver business value and to continually improve supporting processes and procedures
 - Security: Protect information, systems, and assets while delivering business value through risk assessments and mitigation strategies
 - Reliability: Test recovery procedures, scale horizontally to increase aggregate system availability, and automatically recover from failure
 - Performance efficiency: Use computing resources efficiently to meet system requirements and maintain that efficiency as demand changes and technologies evolve
 - Cost optimization: Run systems to deliver business value at the lowest price point