

BASIC CLOUD COMPUTING DEFINITIONS:

by Atomic Badger

2/1/2025

please provide a list and brief description of the most common definitions in the AWS cloud practitioner certification training material.

ChatGPT response:

“Below is a list of common definitions and concepts frequently encountered in AWS Cloud Practitioner certification training materials:

1. Cloud Computing

- **Definition:** The on-demand delivery of IT resources over the internet with pay-as-you-go pricing.
 - **Key Benefit:** Eliminates the need for owning and maintaining physical data centers and servers.
-

2. AWS Regions and Availability Zones (AZs)

- **Region:** A physical location in the world where AWS has multiple Availability Zones.
 - **Availability Zone:** One or more discrete data centers with redundant power, networking, and connectivity.
 - **Purpose:** High availability, fault tolerance, and disaster recovery.
-

3. Elastic Compute Cloud (EC2)

- **Definition:** A web service that provides resizable compute capacity in the cloud.
 - **Use Case:** Running virtual servers for hosting applications.
-

4. Amazon S3 (Simple Storage Service)

- **Definition:** Scalable object storage for data backup, archiving, and application hosting.
 - **Feature:** Data is stored redundantly across multiple AZs.
-

5. AWS Lambda

- **Definition:** A serverless compute service that automatically runs code in response to events.
 - **Use Case:** Running backend services without managing servers.
-

6. Amazon RDS (Relational Database Service)

- **Definition:** A managed database service for relational databases (e.g., MySQL, PostgreSQL).
 - **Feature:** Automates tasks like backups, patching, and scaling.
-

7. Amazon VPC (Virtual Private Cloud)

- **Definition:** A logically isolated section of the AWS cloud where resources can be launched in a secure network.
 - **Feature:** Customizable network configuration.
-

8. AWS Identity and Access Management (IAM)

- **Definition:** A service to control access to AWS resources securely.
 - **Feature:** Provides fine-grained permissions for users, groups, and roles.
-

9. Elastic Load Balancer (ELB)

- **Definition:** Automatically distributes incoming application traffic across multiple targets (e.g., EC2 instances).
 - **Purpose:** Improves application scalability and fault tolerance.
-

10. Amazon CloudFront

- **Definition:** A content delivery network (CDN) that delivers content with low latency.
 - **Feature:** Distributes data through edge locations worldwide.
-

11. Amazon DynamoDB

- **Definition:** A fully managed NoSQL database service.
 - **Use Case:** High-performance applications requiring low-latency responses.
-

12. AWS CloudFormation

- **Definition:** A service for creating and managing AWS infrastructure using code templates.
 - **Feature:** Enables infrastructure as code (IaC).
-

13. AWS Well-Architected Framework

- **Definition:** A set of best practices for designing reliable, secure, and efficient cloud architectures.
 - **Five Pillars:** Operational excellence, security, reliability, performance efficiency, cost optimization.
-

14. Amazon Elastic Block Store (EBS)

- **Definition:** A block storage service for use with EC2 instances.
 - **Use Case:** Persistent storage for data that requires fast access.
-

15. AWS Billing and Cost Management

- **Definition:** Tools and services to monitor and manage costs associated with AWS usage.
 - **Feature:** Includes cost explorer, budgets, and reports.
-

16. AWS Auto Scaling

- **Definition:** A service that adjusts the number of EC2 instances automatically based on demand.
 - **Benefit:** Ensures application availability while optimizing costs.
-

17. AWS Trusted Advisor

- **Definition:** A tool providing real-time guidance to improve AWS environment security, performance, and cost-efficiency.
 - **Categories:** Cost optimization, security, fault tolerance, performance, and service limits.
-

18. Amazon SNS (Simple Notification Service)

- **Definition:** A fully managed messaging service for pub/sub communication.
 - **Use Case:** Sending notifications or triggering automated workflows.
-

19. Amazon SQS (Simple Queue Service)

- **Definition:** A message queuing service for decoupling application components.
 - **Use Case:** Building highly scalable, distributed systems.
-

20. AWS CloudWatch

- **Definition:** A monitoring service for AWS resources and applications.
 - **Feature:** Tracks metrics, sets alarms, and triggers actions.
-

This list covers fundamental AWS services and concepts critical to understanding AWS and passing the Cloud Practitioner exam. “