

1. Describe Elastic Compute Cloud (EC2) (1p)

EC2 is a web service that provides scalable computing capacity in the cloud. It allows users to launch virtual servers (known as instances) on which they can run applications without having to manage physical hardware. EC2 instances come in different types to suit different workloads, and users can scale them up or down based on demand.

2. What do we mean when we say “Buckets” in relation to AWS? (1p)

In AWS, "buckets" refer to containers for storing objects in Amazon Simple Storage Service (S3). These buckets are used to store and organize files (or "objects"), which could be anything from images to data backups. Each bucket has a globally unique name and can have specific permissions and configurations for access.

3. What is CloudFront? (1p)

CloudFront is AWS's Content Delivery Network (CDN) service. It speeds up the delivery of content (like videos, images, or web pages) by caching them at multiple edge locations around the world. This ensures that users access data from the closest server, reducing latency and improving the overall experience.

4. What is the Principle of Least Privilege? (1p)

The Principle of Least Privilege (PoLP) in AWS is a security concept where users, applications, or systems are given the minimum level of access or permissions necessary to perform their tasks. By limiting access, this reduces the risk of unauthorized actions or data breaches.

5. What is RedShift? (1p)

Amazon Redshift is a fully managed data warehousing service designed for large-scale data analytics. It enables users to run complex SQL queries on massive datasets to generate insights. Redshift is highly scalable and integrates with other AWS services, making it suitable for data-driven applications.

6. What is a Security Group in the AWS world? (1p)

A Security Group in AWS acts as a virtual firewall for controlling incoming and outgoing traffic to EC2 instances. It allows users to define rules to permit or restrict specific types of traffic, such as only allowing SSH connections from a certain IP address range.

7. What is a Subnet ? (1p)

A subnet in AWS is a range of IP addresses in a Virtual Private Cloud (VPC). Subnets allow users to organize and isolate resources within a VPC. They can be either public (accessible from the internet) or private (only accessible within the VPC), depending on how they are configured.

8. What is VPC in the AWS ecosystem? (1p)

VPC is a logically isolated network within AWS where users can launch and manage AWS resources. It gives users complete control over their network settings, such as IP address ranges, subnets, and route tables. VPCs allow for secure communication between resources and the internet or other networks.

9. What is AWS Certificate Manager? (1p)

AWS Certificate Manager (ACM) is a service that simplifies the process of obtaining, deploying, and managing SSL/TLS certificates for securing websites and applications. ACM automates certificate renewals, making it easier to maintain secure communications over the internet.

10. Describe OpsWorks? (1p)

AWS OpsWorks is a configuration management service that helps users automate server deployments and manage applications. It uses Chef and Puppet automation platforms to help with configuration, management, and scaling of AWS resources, making it easier to manage complex environments.