AWS

Introduction to AWS for Non-Engineers

All Study Questions & Answers

Module 1 – Cloud Concepts

Module 1 Intro:

Q1: Which learning objectives should you have when starting this course?

Answer: to learn about what the cloud is, why it is used, and how it is used

Detailed Feedback: The economics of cloud computing as opposed to legacy IT are a big part of the motivation.

Module 1 Introduction to Cloud Computing:

Q1: Which description best characterizes the cloud?

Answer: the internet

Detailed Feedback: The cloud consists of all connected resources.

Q2: How do you typically pay for the use of cloud resources?

Answer: on a pay-as-you-go basis

Detailed Feedback: You could view the process of paying for cloud usage as similar to dining off of a menu.

Q3: Which technology provides oversight for the cloud?

Answer: hypervising

Detailed feedback: Together with connectivity, hypervising is the enabling technology.

Q4: Why do many people choose to use the cloud for everyday tasks?

Answer: for convenience, collaboration, and sophistication

Detailed Feedback: You can use the latest technology and collaborate from anywhere.

Q5: What marks the origin of cloud computing, and when did it occur?

Answer: the development of mainframe computing in the 1950s

Detailed Feedback: Electronic computing begins here, and the idea of having multiple, dumb terminals started the idea of the cloud.

Module 1 Cloud Computing Concepts

Q1: Which of the below is **not** a "best practice" concept for deploying Cloud infrastructure?

Answer: Hybrid Cloud

Detailed Feedback: Hybrid Cloud is a type of Cloud deployment, not part of the "best practice" concepts for deploying Cloud infrastructure.

Q2: Which cloud concepts are you responsible for knowing for the AWS Certified Cloud Practitioner Exam?

Answer: advantages over legacy IT, models and deployments, and architecture

Detailed Feedback: These topics cover all areas, except perhaps historical ones.

Q3: How do economies of scale provide an advantage for the use of cloud computing over establishing a data center?

Answer: by offering a portion of a large, optimized service

Detailed Feedback: The cost of the accompanying infrastructure as a fraction of the total cost is reduced.

Q4: Your team wants to configure custom applications without worrying as much about security and hardware configurations. Which service model is most appropriate?

Answer: PaaS

Detailed Feedback: A platform is provided on which to build your custom applications.

Q5: MedOpal is an aggregator of personal medical records for professionals who need to travel extensively. Security is paramount. Which type of deployment suits MedOpal best?

    Answer: private

    Detailed Feedback: A private deployment satisfies the security that the business presently needs.

Module 1 Introduction to AWS

Q1: Why did Amazon originally venture into cloud computing?

    Answer: to serve third-party vendors

    Detailed Feedback: AWS made life easier for small, external vendors on Amazon.

Q2: Why do many large organizations use cloud computing?

    Answer: for scalability, rapid deployment, and efficiency

    Detailed Feedback: Doing so allows organizations to focus on the core business.

Module 1: Diving into AWS

Q1: How can you find general documentation and help on the AWS dashboard?

    Answer: from the Support drop-down menu

Q2: How should you use AWS Free Tier?

    Answer: as a way to explore

    Detailed Feedback: The service provides an introduction to AWS, and lets you try various capabilities.

Q3: How can you make the URL for your weblog simpler than the long AWS string?

    Answer: by using the paid AWS domain registrar

    Detailed Feedback: This service is called Route 53.

Q4: Your team has some extensive calculations to conduct for an engineering design. Which type of service would be most helpful?

    Answer: compute

Detailed Feedback: Compute services are core to many scientific and engineering operations.

Q5: What information is necessary for AWS account creation?

Answer: telephone number and credit card credentials

Detailed Feedback: The telephone number can be mobile or other.

Module 1 Chapter Quiz

Q1: What does the acronym SIP PHO stand for?

Answer: Software, Infrastructure, Platform, Public, Hybrid, On-Premises

Detailed Feedback: These terms refer to the models and deployment methods.

Q2: Which areas remain for you to learn about before taking the AWS Certified Cloud Practitioner exam?

Answer: billing and pricing, technology, and security

Detailed Feedback: Technology can be referred to as core services.

Module 2 – Security

Security in the Cloud

Q1: Which statement best exemplifies the principle of least privilege?

Answer: Grant access to the optimal resources required for a job and no more.

Detailed Feedback: You should give people the permissions needed to execute their job but no more.

Q2: How does cloud security differ from security at private data centers?

Answer: Cloud security can be at least as comprehensive as security at private data centers.

Detailed Feedback: Cloud data centers provide all the options that you expect, but you do not have to manage them.

Q3: In the shared responsibility model with AWS Cloud, who should manage identity and access?

Answer: the customer

Detailed Feedback: Only the customer will know which people should have access.

Q4: In a well-architected framework, how should you implement infrastructure protection?

Answer: on all layers

Detailed Feedback: Best practices require automated security on all systems.

Q5: You are engaged in educational record management and want to port your operations to AWS. How should you start examining security issues?

Answer: Peruse the site aws.amazon.com/compliance/programs/.

Detailed Feedback: From there, you may examine the resources at aws.amazon.com/compliance/ferpa/.

Security Services

Q1: How does AWS GuardDuty deal with threats?

Answer: It constantly monitors activity and deploys machine learning techniques for analysis.

Detailed Feedback: AWS GuardDuty is continuously active.

Q2: What does AWS Inspector examine?

Answer: application security

Detailed Feedback: If you develop your own application, AWS Inspector can help you find any security flaws.

Q3: What action does AWS Trusted Advisor take upon implementation?

Answer: It looks at your setup and suggests changes to meet best practices.

Detailed Feedback: Security is just one issue that Trusted Advisor examines.

Q4: Why would you employ federated users?

Answer: to integrate with external operations and across AWS systems

Detailed Feedback: For example, you might integrate Microsoft Active Directory with AWS IAM.

Q5: What is the purpose of a WAF?

Answer: to protect applications from malicious activity

Detailed Feedback: A WAF, or web application firewall, protects your applications from web exploits.

Q6: Why would you need the advanced instead of the standard AWS Shield?

Answer: to get real-time tools for balancing loads

Detailed Feedback: The advanced AWS Shield provides more dynamic responses and financial protection.

Module 3 – Core Services

Compute

Q1: An hour after Teixeira Gifts posts a 50% off holiday sale, its server goes down from the amount of traffic to the website. How would using elastic load balancing have prevented this issue?

Answer: by automatically distributing traffic across multiple servers

Detailed Feedback: This keeps any one server from being overwhelmed by traffic.

Q2: You are just starting out with AWS but do not have technical know-how. What AWS service can you use to create websites and run your business's software?

Answer: AWS Lightsail

Detailed Feedback: You can also deploy simple web applications and spin up test environments.

Q3: If you want to deploy AWS services by using a variety of popular programming languages, what service would you use?

Answer: AWS Software Development Kits

Detailed Feedback: These let you deploy AWS services and resources using a variety of popular programming languages.

Q4: When would you find it most beneficial to use Elastic Beanstalk?

Answer: when you are spending more time configuring than coding

Detailed Feedback: Elastic Beanstalk handles the deployment process, leaving you time for the more important coding.

Q5: As a general rule, what region should you select to host your AWS cloud infrastructure?

Answer: the closest region to you geographically

Detailed Feedback: Doing this reduces network latency for your end users.

Q6: Why is Amazon Elastic Compute Cloud (EC2) one of the most widely used services in AWS?

Answer: It lets you launch applications and servers without upfront financial commitments.

Detailed Feedback: This capability eliminates the time and expense of purchasing any physical servers that can be obsolete before they are even installed.

Storage

Q1: Which AWS Storage Gateway functions like virtual hard drives that upload files in blocks?

- Volume Gateway

  Detailed Feedback: Files are uploaded as blocks, not as individual files.

Q2: What does it mean that Amazon Simple Storage Service (S3) is scalable?

  Answer: It provides the ability to scale your usage up or down and only pay for what you use.

  Detailed Feedback: Scalability is one of the ways to keep your costs down with AWS.

Q3: What allows Elastic Block Stores (EBS) to be moved between E2 instances?

  Answer: They exist independently of virtual servers.

Q4: IT manager Carlos receives approval to upload all his company's backup data to the AWS cloud. There are 35 terabytes of data. How should he perform the upload?

  Answer: Use the AWS Snowball.

  Detailed Feedback: Carlos uploads the data to the hardware "Snowball" that AWS mails to him, he mails it back, and then AWS uploads the hardware data to S3.

Databases

Q1: What advantage does Amazon Aurora provide when it comes to creating relational databases?

  Answer: It is five times faster than MySQL.

  Detailed Feedback: Not only is Aurora faster, but it is also less expensive than using MySQL.

Q2: Erie Insurance needs a large data warehouse that is compliant with the Health Insurance Portability and Accountability Act (HIPAA). What AWS service would the company use?

> Answer: Redshift

> Detailed Feedback: Redshift is a petabyte-scale data warehouse service using encryption that is fully compatible with legal requirements such as HIPAA data.

Q3: ABC Corp's new app results in far more being sent back and forth than its database solution can handle. How can DynamoDB help ABC Corp?

> Answer: by providing a secure, scalable, and flexible noSQL database

> Detailed Feedback: DynamoDB adapts to needs in order to keep speed and stability high, regardless of how large or small the need is.

Q4: How is the Amazon Relational Database Service (RDS) especially useful for an experienced database user?

> Answer: Database engines, such as MySQL and Microsoft SQL Server, can be used.

> Detailed Feedback: This lets an experienced user dive right into creating a database.

Network and Content Delivery

Q1: What components of an Amazon Virtual Private Cloud (VPC) replicate the components you have in your home internet service?

> Answer: internet gateway, route table, and network access control list

Q2: How do the Edge Locations in CloudFront provide a benefit for users?

> Answer: Users can access cached data from a nearby edge location more rapidly than going all the way back to the origin server.

Management Tools

Q1: Rosa likes the services available with CloudWatch, but sometimes the notifications occur so often that responding to problems keeps her from other work. What can she do?

Answer: Set up alarms to automatically make predefined changes to fix common issues.

Detailed Feedback: Rosa will set triggers so CloudWatch will fix common problems without her having to take action.

Q2: What is the basic building block of CloudFormation?

Answer: templates used for resource deployment

Detailed Feedback: These templates can be run over repeatedly in order to provision and deploy fully configured infrastructure.

Q3: What is one way CloudTrail is used?

Answer: to log and monitor account activities and event history

Detailed Feedback: It can also be used for compliance auditing, and to discover and troubleshoot security and operational issues.

Module 4 – Billing & Pricing

No practice quizzes