AWS Certified Cloud Practitioner (CLF-C01)

Practice Questions

Practice Questions

Intro

I have included questions mainly taken from this website but also from other sources (such as this website).

The answers on the above websites were often incorrect and the discussion sections contained confusing and conflicting information, so I think it is a good idea to compile the correct answers, along with reasoning of why they are the correct answers.

I think a good way of revising for any exam is going over past paper questions, for me when I studied for this exam, I'd do 50 questions a day and it eventually stuck after a few weeks.

I think I have gotten the correct answers for all the questions, though if you notice any errors or otherwise have any ideas for improvements just let me know at cathal.mcguinness@fujitsu.com or cathalmcg@gmail.com

I have also removed most of the duplicate questions I could find, there are definitely some duplicates remaining though but I do not have enough time to search for them all. In some cases I've left some very similar though not identical questions in place, they may be a bit redundant but I think it is worth getting very familiar with the topics they cover e.g. shared responsibility model, basics of cloud computing and best practices.

I've included quoted text often in answers, these are normally directly from some AWS literature but not always, sometimes they are from external sources. I have double-checked any non-AWS sources to ensure they are reliable however.

Occasionally I may update this document with the most recent information so if you do save your own copy of the document be sure to download a new copy every once in a while.

I have also created a guide for the AWS Cloud Practitioner exam, it can be accessed here

Click on the comment icon beside the question to see the answers and explanations:

Example comment icon →

Commented [MC1]: Answers that are correct will be shown in a green outline like this

Answers that are incorrect will be shown in a red outline like this

Further information will be shown in a blue outline like this

Thanks,

Cathal

1. Under the shared responsibility model, which of the following is the customer responsible for?
   - A. Ensuring that disk drives are wiped after use.
   - B. Ensuring that firmware is updated on hardware devices.
   - C. Ensuring that data is encrypted at rest.
   - D. Ensuring that network cables are category six or higher.

2. Which allows companies to track and categorize spending on a detailed level?
   - A. Cost allocation tags
   - B. Consolidated billing
   - C. AWS Budgets
   - D. AWS Marketplace

3. Stores objects, provides real-time access to those objects, and offers versioning and lifecycle capabilities:
   - A. Amazon Glacier
   - B. AWS Storage Gateway
   - C. Amazon S3
   - D. Amazon EBS

4. What AWS team assists customers with accelerating cloud adoption through paid engagements in any of several specialty practice areas?
   - A. AWS Enterprise Support
   - B. AWS Solutions Architects
   - C. AWS Professional Services
   - D. AWS Account Managers

5. A customer would like to design and build a new workload on AWS Cloud but does not have the AWS-related software technical expertise in-house. Which of the following AWS programs can a customer take advantage of to achieve that outcome?
   - A. AWS Partner Network Technology Partners
   - B. AWS Marketplace
   - C. AWS Partner Network Consulting Partners
   - D. AWS Service Catalogue

Commented [MC2]: C

"**Data configuration (i.e. encrypting data at rest and in transit) is responsibility of the customer**"

Commented [MC3]: A

"After you activate cost allocation tags, AWS uses the cost allocation tags to organize your resource costs on your cost allocation report, **to make it easier for you to categorize and track your AWS costs**"

Commented [MC4]: C

Compared to block storage, object storage is much newer. **With object storage, data is bundled with customizable metadata tags and a unique identifier to form objects**. The metadata tags are a key advantage with object storage — they allow for much better identification and classification of data.

Example of object storage: Amazon S3

Versioning in Amazon S3 is a means of keeping multiple variants of an object in the same bucket. You can use the S3 Versioning feature to preserve, retrieve, and restore every version of every object stored in your buckets. With versioning you can recover more easily from both unintended user actions and application failures. After versioning is enabled for a bucket, if Amazon S3 receives multiple write requests for the same object simultaneously, it stores all of those objects.

Answer is NOT EBS because that stores blocks, not objects

Block storage is the oldest and simplest form of data storage. Block storage stores data in fixed-sized chunks [...]

Commented [MC5]: C

"**The AWS Professional Services organization is a global team of experts that can help you realize your desired business outcomes when using the AWS Cloud.** We work together with your team and your chosen member of the AWS Partner Network (APN) to execute your enterprise cloud computing initiatives.

Our team provides assistance through a collection of offerings which help you achieve specific outcomes related to enterprise cloud adoption. We also deliver focused [...]

Commented [MC6]: C

"**APN Consulting Partners are professional services firms that help customers of all types and sizes design, architect, build, migrate, and manage their workloads and applications on AWS, accelerating their journey to the cloud**."

--INCORRECT ANSWERS--
[...]

6. Distributing workloads across multiple Availability Zones supports which cloud architecture design principle?
   - A. Implement automation.
   - B. Design for agility.
   - C. Design for failure.
   - D. Implement elasticity.

7. Which AWS services can host a Microsoft SQL Server database? (choose two)
   - A. Amazon EC2
   - B. Amazon Relational Database Service (Amazon RDS)
   - C. Amazon Aurora
   - D. Amazon Redshift
   - E. Amazon S3

8. Which of the following inspects AWS environments to find opportunities that can save money for users and also improve system performance?
   - A. AWS Cost Explorer
   - B. AWS Trusted Advisor
   - C. Consolidated billing
   - D. Detailed billing

9. Which of the following Amazon EC2 pricing models allow customers to use existing server-bound software licenses?
   - A. Spot Instances
   - B. Reserved Instances
   - C. Dedicated Hosts
   - D. On-Demand Instances

10. Which AWS characteristics make AWS cost effective for a workload with dynamic user demand? (Choose two.)
    - A. High availability
    - B. Shared security model
    - C. Elasticity
    - D. Pay-as-you-go pricing
    - E. Reliability

Commented [MC7]: C

Using multiple-AZs removes single points of failure, which is part of design for failure (part of 'Reliability Design Principles and Best Practices')

Each Availability Zone is engineered to be independent from failures in other Availability Zones.

An example of a implementation designed for failure: A fleet of application servers can be distributed across multiple Availability Zones and be attached to ELB.

When the EC2 instances of a particular Availability Zone fail fail their health checks, ELB stops sending traffic to those nodes.

Commented [MC8]: A, B

EC2 can run any database

RDS can use Amazon Aurora, PostgreSQL, MySQL, MariaDB, Oracle Database, and **Microsoft SQL Server**.

--INCORRECT ANSWERS—

Aurora only supports MySql and PostgreSQL

Commented [MC9]: B

"AWS Trusted Advisor is an application that draws upon best practices learned from AWS' aggregated operational history of serving hundreds of thousands of AWS customers. **Trusted Advisor inspects your AWS environment and makes recommendations for saving money, improving system performance, or closing security gaps.**"

Commented [MC10]: C

"A Dedicated Host is a physical EC2 server dedicated for your use. **Dedicated Hosts can help you reduce costs by allowing you to use your existing server-bound software licenses**, including Windows Server, SQL Server, and SUSE Linux Enterprise Server (subject to your license terms), and can also help you meet compliance requirements."

Commented [MC11]: C, D

"6 Advantages of Cloud Computing

--**Trade capital expense for variable expense (Pay-as-you-go model - make payment based on usage only)**
--Benefit from massive economies of scale
--**Stop guessing about capacity (i.e. elasticity makes it feasible to add/remove required resources as needed)**
--Increased speed and agility
--Stop spending money running and maintaining data centres

11. Which service enables risk auditing by continuously monitoring and logging account activity, including user actions in the AWS Management Console and AWS SDKs?
    - A. Amazon CloudWatch
    - B. AWS CloudTrail
    - C. AWS Config
    - D. AWS Health

12. Which of the following are characteristics of Amazon S3? (Choose two.)
    - A. A global file system
    - B. An object store
    - C. A local file store
    - D. A network file system
    - E. A durable storage system

13. Which services can be used across hybrid AWS Cloud architectures? (Choose two.)
    - A. Amazon Route 53
    - B. Virtual Private Gateway
    - C. Classic Load Balancer
    - D. Auto Scaling
    - E. Amazon CloudWatch default metrics

-

14. What costs are included when comparing AWS Total Cost of Ownership (TCO) with on-premises TCO?
    - A. Project management
    - B. Antivirus software licensing
    - C. Data center security
    - D. Software development

15. A company is considering using AWS for a self-hosted database that requires a nightly shutdown for maintenance and cost-saving purposes. Which service should the company use?
    - A. Amazon Redshift
    - B. Amazon DynamoDB
    - C. Amazon Elastic Compute Cloud (Amazon EC2) with Amazon EC2 instance store
    - D. Amazon EC2 with Amazon Elastic Block Store (Amazon EBS)

Commented [CMG12]: B

"**CloudTrail - Track user activity and API usage. Helps you enable governance, compliance, and operational and risk auditing of your AWS account. Actions taken by a user, role, or an AWS service are recorded as events in CloudTrail**. Events include actions taken in the AWS Management Console, AWS Command Line Interface, and AWS SDKs and APIs."

--INCORRECT ANSWERS—

--CloudWatch Logs - reports on application logs.

...

Commented [MC13]: B, E

"**S3 is a "global" service** (available on every region however it is not truly global because while you can replicate your buckets/objects across regions for reliability & disaster recovery purposes, by default S3 objects sit only in one region though they are stored on multiple devices across multiple Availability Zones.

S3 provides developers and IT teams with secure, durable, highly-scalable binary object storage.

...

Commented [MC14]: A, B

Route 53: Inbound query capability is provided by Route 53 Resolver Endpoints, allowing DNS queries that **originate on-premises to resolve AWS hosted domains.**

Virtual Private Gateway: Its the anchor of a VPN connection on AWS side. This making it possible for a **VPN connection to be established between AWS and on premises.**

...

Commented [MC15]: C

"Security and Compliance is a shared responsibility between AWS and the customer.

This shared model can help relieve the customer's operational burden as AWS operates, manages and controls the components from the host operating system and virtualization layer down to **the physical security of the facilities in which the service operates.**

...

Commented [MC16]: D

"Amazon Elastic Block Store (EBS) is an easy to use, high-performance, block-storage service designed for use with Amazon Elastic Compute Cloud (EC2) for both throughput and transaction intensive workloads at any scale. **A broad range of workloads, such as relational and non-relational databases,** enterprise applications, containerized applications, big data analytics engines, file systems, and media workflows are widely deployed on Amazon EBS.

...

16. Which of the following is a correct relationship between regions, Availability Zones, and edge locations?
    - A. Data centers contain regions.
    - B. Regions contain Availability Zones.
    - C. Availability Zones contain edge locations.
    - D. Edge locations contain regions.

17. Which AWS tools assist with estimating costs? (Choose three.)
    - A. Detailed billing report
    - B. Cost allocation tags
    - C. AWS Pricing Calculator
    - D. AWS Total Cost of Ownership (TCO) Calculator
    - E. Cost Estimator

18. Which of the following are advantages of AWS consolidated billing? (Choose two.)
    - A. The ability to receive one bill for multiple accounts
    - B. Service limits increasing by default in all accounts
    - C. A fixed discount on the monthly bill
    - D. Potential volume discounts, as usage in all accounts is combined
    - E. The automatic extension of the master account's AWS support plan to all accounts

19. Which of the following Reserved Instance (RI) pricing models provides the highest average savings compared to On-Demand pricing?
    - A. One-year, No Upfront, Standard RI pricing
    - B. One-year, All Upfront, Convertible RI pricing
    - C. Three-year, All Upfront, Standard RI pricing
    - D. Three-year, No Upfront, Convertible RI pricing

20. Compared with costs in traditional and virtualized data centers, AWS has:
    - A. greater variable costs and greater upfront costs.
    - B. fixed usage costs and lower upfront costs.
    - C. lower variable costs and greater upfront costs.
    - D. lower variable costs and lower upfront costs.

Commented [MC17]: B

Region is a geographical area that has two or more Availability Zones. Each Region is completely independent.

Availability Zone (AZ) is an area with either one or more discrete Data Centres (building filled with servers), each with redundant power, networking, and connectivity, housed in separate facilities. If there are more than one data centre, they are counted as one AZ because they are located close together. Each Availability Zone is isolated, but the Availability Zones in a Region are connected through low-latency links.

--NOTES--

--Edge Locations are endpoints used for caching content. They are located in most of the major cities around the ...

Commented [MC18]: B, C, D

B - **To forecast your costs, use the AWS Cost Explorer. Use cost allocation tags to divide your resources into groups, and then estimate the costs for each group.**

C - **To estimate a bill, use the AWS Pricing Calculator (formerly AWS Simply Monthly Calculator)**

Commented [MC19]: A, D

AWS Organizations is an account management service that lets you consolidate multiple AWS accounts into an organization that you create and centrally manage.

Allows you to:
--programmatically create new AWS accounts and allocate resources
--group accounts to organize your workflows
--apply policies to accounts or groups for governance
--define central configurations and audit requirements ...

Commented [MC20]: C

"Standard Reserved Instances provide you with a significant discount compared to On-Demand Instance pricing, and can be purchased for a 1-year or 3-year term. Customers have the flexibility to change the Availability Zone, the instance size, and networking type of their Standard Reserved Instances.

Purchase Convertible Reserved Instances if you need additional flexibility, such as the ability to use different ...

Commented [CMG21]: D

"**The cloud allows you to trade high initial CapEx (such as data centers and physical servers) for a variable OpEx model, and only pay for IT as you consume it. Plus, the variable OpEx expenses are much lower than what you would pay to do it yourself because of the massive economies of scale that AWS has created**."

21. A characteristic of edge locations is that they:
    - A. host Amazon EC2 instances closer to users.
    - B. help lower latency and improve performance for users.
    - C. cache frequently changing data without reaching the origin server.
    - D. refresh data changes daily.

22. Which of the following can limit Amazon Storage Service (Amazon S3) bucket access to specific users?
    - A. A public and private key-pair
    - B. Amazon Inspector
    - C. AWS Identity and Access Management (IAM) policies
    - D. Security Groups

23. Which of the following security-related actions are available at no cost?
    - A. Calling AWS Support
    - B. Contacting AWS Professional Services to request a workshop
    - C. Accessing forums, blogs, and whitepapers
    - D. Attending AWS classes at a local university

24. Which of the Reserved Instance (RI) pricing models can change the attributes of the RI as long as the exchange results in the creation of RIs of equal or greater value?
    - A. Dedicated RIs
    - B. Scheduled RIs
    - C. Convertible RIs
    - D. Standard RIs

25. Which AWS feature will reduce the customer's total cost of ownership (TCO)?
    - A. Shared responsibility security model
    - B. Single tenancy
    - C. Elastic computing
    - D. Encryption

26. Which of the following services will automatically scale with an expected increase in web traffic?
    - A. AWS CodePipeline
    - B. Elastic Load Balancing
    - C. Amazon EBS
    - D. AWS Direct Connect

27. Where are AWS compliance documents, such as an SOC 1 report, located?
    - A. Amazon Inspector
    - B. AWS CloudTrail
    - C. AWS Artifact
    - D. AWS Certificate Manager

28. Under the AWS shared responsibility model, which of the following activities are the customer's responsibility? (Choose two.)
    - A. Patching operating system components for Amazon Relational Database Server (Amazon RDS)
    - B. Encrypting data on the client-side
    - C. Training the data center staff
    - D. Configuring Network Access Control Lists (ACL)
    - E. Maintaining environmental controls within a data center

29. Which is a recommended pattern for designing a highly available architecture on AWS?
    - A. Ensure that components have low-latency network connectivity.
    - B. Run enough Amazon EC2 instances to operate at peak load.
    - C. Ensure that the application is designed to accommodate failure of any single component.
    - D. Use a monolithic application that handles all operations.

30. According to best practices, how should an application be designed to run in the AWS Cloud?
    - A. Use tighly coupled components.
    - B. Use loosely coupled components.
    - C. Use infrequently coupled components.
    - D. Use frequently coupled components.

31. AWS supports which of the following methods to add security to Identity and Access Management (IAM) users? (Choose two.)
- A. Implementing Amazon Rekognition
- B. Using AWS Shield-protected resources
- C. Blocking access with Security Groups
- D. Using Multi-Factor Authentication (MFA)
- E. Enforcing password strength and expiration

32. Which AWS services should be used for read/write of constantly changing data? (Choose two.)
- A. Amazon Glacier
- B. Amazon RDS
- C. AWS Snowball
- D. Amazon Redshift
- E. Amazon EFS

33. What is one of the advantages of the Amazon Relational Database Service (Amazon RDS)?(choose three)
- A. It simplifies relational database administration tasks.
- B. It provides 99.99999999999% reliability and durability.
- C. It automatically scales databases for loads.
- D. It enabled users to dynamically adjust CPU and RAM resources.

34. A customer needs to run a MySQL database that easily scales. Which AWS service should they use?
- A. Amazon Aurora
- B. Amazon Redshift
- C. Amazon DynamoDB
- D. Amazon ElastiCache

35. Which of the following components of the AWS Global Infrastructure consists of one or more discrete data centers interconnected through low latency links?
- A. Availability Zone
- B. Edge location
- C. Region
- D. Private networking

36. Which of the following is a shared control between the customer and AWS?
    - A. Providing a key for Amazon S3 client-side encryption
    - B. Configuration of an Amazon EC2 instance
    - C. Environmental controls of physical AWS data centers
    - D. Awareness and training

37. How many Availability Zones should compute resources be provisioned across to achieve high availability?
    - A. A minimum of one
    - B. A minimum of two
    - C. A minimum of three
    - D. A minimum of four or more

38. One of the advantages to moving infrastructure from an on-premises data center to the AWS Cloud is:
    - A. it allows the business to eliminate IT bills.
    - B. it allows the business to put a server in each customer's data center.
    - C. it allows the business to focus on business activities.
    - D. it allows the business to leave servers unpatched.

39. What is the lowest-cost, durable storage option for retaining database backups for immediate retrieval?
    - A. Amazon S3
    - B. Amazon Glacier
    - C. Amazon EBS
    - D. Amazon EC2 Instance Store

40. Which AWS IAM feature allows developers to access AWS services through the AWS CLI?
    - A. API keys
    - B. Access keys
    - C. User names/Passwords
    - D. SSH keys

41. Which of the following is a fast and reliable NoSQL database service?
   - A. Amazon Redshift
   - B. Amazon RDS
   - C. Amazon DynamoDB
   - D. Amazon S3

42. What is an example of agility in the AWS Cloud?
   - A. Access to multiple instance types
   - B. Access to managed services
   - C. Using Consolidated Billing to produce one bill
   - D. Decreased acquisition time for new compute resources

43. Which service should a customer use to consolidate and centrally manage multiple AWS accounts?
   - A. AWS IAM
   - B. AWS Organizations
   - C. AWS Schema Conversion Tool
   - D. AWS Config

44. What approach to transcoding a large number of individual video files adheres to AWS architecture principles?
   - A. Using many instances in parallel
   - B. Using a single large instance during off-peak hours
   - C. Using dedicated hardware
   - D. Using a large GPU instance type

45. For which auditing process does AWS have sole responsibility?
   - A. AWS IAM policies
   - B. Physical security
   - C. Amazon S3 bucket policies
   - D. AWS CloudTrail Logs

Commented [MC42]: C

"Amazon DynamoDB is a **fast and flexible NoSQL database** service for any scale. It is a key-value and document database that delivers single-digit millisecond performance at any scale. It's a fully managed, multiregion, multimaster, **durable database** with built-in security, backup and restore, and in-memory caching for internet-scale applications"

Commented [MC43]: D

"Agility is the practice of "building in" the ability to change quickly and inexpensively.

The cloud not only makes these other practices practical but provides agility on its own. Infrastructure can be provisioned in minutes instead of months, and de-provisioned or changed just as quickly."

Commented [MC44]: B

"**AWS Organizations helps you centrally manage and govern your environment as you grow and scale your AWS resources.** As an administrator of an organization, you can create accounts in your organization and invite existing accounts to join the organization. Allows you to:
--programmatically create new AWS accounts and allocate resources
--group accounts to organize your workflows
--apply policies to accounts or groups for governance
--define central configurations and audit requirements
--simplify billing by centralising it and using a single payment method for all of your account. These account management and consolidated billing capabilities enable you to better meet the budgetary, security, and compliance needs of your business.
--control access, manage compliance, coordinate security mechanisms (including restricting the AWS services, [...]

Commented [MC45]: A

A is correct because it is aligned with the reliability Design Principles and Best Practices of scaling horizontally.

"Reliability Design Principles and Best Practices
...
Scale horizontally: to increase aggregate workload availability. Replace one large resource with multiple small resources to reduce the impact of a single failure on the overall workload. Distribute requests across multipl [...]

Commented [MC46]: B

AWS responsibility "Security of the Cloud" - AWS is responsible for protecting the infrastructure that runs all of the services offered in the AWS Cloud. This infrastructure is composed of the **physical hardware**, software, networking, and facilities that run AWS Cloud services.

46. Which feature of the AWS Cloud will support an international company's requirement for low latency to all of its customers?
- A. Fault tolerance
- B. Global reach
- C. Pay-as-you-go pricing
- D. High availability

47. Which of the following is the customer's responsibility under the AWS shared responsibility model?
- A. Patching underlying infrastructure
- B. Physical security
- C. Patching Amazon EC2 instances
- D. Patching network infrastructure

48. A customer is using multiple AWS accounts with separate billing. How can the customer take advantage of volume discounts with minimal impact to the AWS resources?
- A. Create one global AWS acount and move all AWS resources to that account.
- B. Sign up for three years of Reserved Instance pricing up front.
- C. Use the consolidated billing feature from AWS Organizations.
- D. Sign up for the AWS Enterprise support plan to get volume discounts.

49. Which of the following is an AWS managed Domain Name System (DNS) web service?
- A. Amazon Route 53
- B. Amazon Neptune
- C. Amazon SageMaker
- D. Amazon Lightsail

50. A customer is deploying a new application and needs to choose an AWS Region. Which of the following factors could influence the customer's decision? (Choose two.)
- A. Reduced latency to users
- B. The application's presentation in the local language
- C. Data sovereignty compliance
- D. Cooling costs in hotter climates
- E. Proximity to the customer's office for on-site visits

51. Which storage service can be used as a low-cost option for hosting static websites?
    - A. Amazon Glacier
    - B. Amazon DynamoDB
    - C. Amazon Elastic File System (Amazon EFS)
    - D. Amazon Simple Storage Service (Amazon S3)

52. Which Amazon EC2 instance pricing model can provide discounts of up to 90%?
    - A. Reserved Instances
    - B. On-Demand
    - C. Dedicated Hosts
    - D. Spot Instances

53. What is the AWS customer responsible for according to the AWS shared responsibility model?
    - A. Physical access controls
    - B. Data encryption
    - C. Secure disposal of storage devices
    - D. Environmental risk management

54. Which of the following AWS Cloud services can be used to run a customer-managed relational database?
    - A. Amazon EC2
    - B. Amazon Route 53
    - C. Amazon ElastiCache
    - D. Amazon DynamoDB

55. A company is looking for a scalable data warehouse solution. Which of the following AWS solutions would meet the company's needs?
    - A. Amazon Simple Storage Service (Amazon S3)
    - B. Amazon DynamoDB
    - C. Amazon Kinesis
    - D. Amazon Redshift

Commented [MC52]: D

"**You can use Amazon S3 to host a static website**. On a static website, individual webpages include static content. They might also contain client-side scripts.

By contrast, a dynamic website relies on server-side processing, including server-side scripts such as PHP, JSP, or ASP.NET. Amazon S3 does not support server-side scripting, but AWS has other resources for hosting dynamic websites."

Commented [MC53]: D

Spot - Up to 90% discount
Reserved - Up to 75% discount
On-demand – Full price
Dedicated hosts – Higher cost than on-demand

Commented [MC54]: B

"The customer:
--assumes responsibility and management of the guest operating system (including updates and security patches), other associated application software as well as the configuration of the AWS provided security group firewall.
--should carefully consider the services they choose as their responsibilities vary depending on the services used, the integration of those services into their IT environment, and applicable laws and regulations.
--**is responsible for data configuration (i.e. encrypting data at rest and in transit)**"

Commented [MC55]: A

Key phrase is '**customer-managed**'

EC2 can be used to run a relational database on whatever operating system the EC2 instance is using e.g. Microsoft SQL Server running on Microsoft Windows Server 2016.

Incorrect Answers:

--DynamoDB is NOSQL type, not a relational database and so is not a correct answer

--Route 53 is a DNS service, nothing related to databases

Commented [MC56]: D

"**With Redshift, you can query and combine exabytes of structured and semi-structured data across your data warehouse**, operational database, and data lake using standard SQL. Redshift lets you easily save the results of your queries back to your S3 data lake using open formats, like Apache Parquet, so that you can do additional analytics from other analytics services like Amazon EMR, Amazon Athena, and Amazon SageMaker."

56. Which statement best describes Elastic Load Balancing?
    - A. It translates a domain name into an IP address using DNS.
    - B. It distributes incoming application traffic across one or more Amazon EC2 instances.
    - C. It collects metrics on connected Amazon EC2 instances.
    - D. It automatically adjusts the number of Amazon EC2 instances to support incoming traffic.

57. Which of the following are valid ways for a customer to interact with AWS services? (Choose two.)
    - A. Command line interface
    - B. On-premises
    - C. Software Development Kits
    - D. Software-as-a-service
    - E. Hybrid

58. The AWS Cloud's multiple Regions are an example of:
    - A. agility.
    - B. global infrastructure.
    - C. elasticity.
    - D. pay-as-you-go pricing.

59. Which of the following AWS services can be used to serve large amounts of online video content with the lowest possible latency? (Choose two.)
    - A. AWS Storage Gateway
    - B. Amazon S3
    - C. Amazon Elastic File System (EFS)
    - D. Amazon Glacier
    - E. Amazom CloudFront

60. Web servers running on Amazon EC2 access a legacy application running in a corporate data center. What term would describe this model?
    - A. Cloud-native
    - B. Partner network
    - C. Hybrid architecture
    - D. Infrastructure as a service

61. What is the benefit of using AWS managed services, such as Amazon ElastiCache and Amazon Relational Database Service (Amazon RDS)?
    - A. They require the customer to monitor and replace failing instances.
    - B. They have better performance than customer-managed services.
    - C. They simplify patching and updating underlying OSs.
    - D. They do not require the customer to optimize instance type or size selections.

62. Which service provides a virtually unlimited amount of online highly durable object storage?
    - A. Amazon Redshift
    - B. Amazon Elastic File System (Amazon EFS)
    - C. Amazon Elastic Container Service (Amazon ECS)
    - D. Amazon S3

63. Which of the following Identity and Access Management (IAM) entities is associated with an access key ID and secret access key when using AWS Command Line Interface (AWS CLI)?
    - A. IAM group
    - B. IAM user
    - C. IAM role
    - D. IAM policy

64. Which of the following security-related services does AWS offer? (Choose two.)
    - A. Multi-factor authentication physical tokens
    - B. AWS Trusted Advisor security checks
    - C. Data encryption
    - D. Automated penetration testing
    - E. Amazon S3 copyrighted content detection

65. Which AWS managed service is used to host databases?
    - A. AWS Batch
    - B. AWS Artifact
    - C. AWS Data Pipeline
    - D. Amazon RDS

66. Which AWS service provides a simple and scalable shared file storage solution for use with Linux-based AWS and on-premises servers?
    - A. Amazon S3
    - B. Amazon Glacier
    - C. Amazon EBS
    - D. Amazon EFS

67. When architecting cloud applications, which of the following are a key design principle?
    - A. Use the largest instance possible
    - B. Provision capacity for peak load
    - C. Use the Scrum development process
    - D. Implement elasticity

68. Which AWS service should be used for long-term, low-cost storage of data backups?
    - A. Amazon RDS
    - B. Amazon Glacier
    - C. AWS Snowball
    - D. AWS EBS

69. Under the shared responsibility model, which of the following is a shared control between a customer and AWS?
    - A. Physical controls
    - B. Patch management
    - C. Zone security
    - D. Data center auditing

70. Which AWS service allows companies to connect an Amazon VPC to an on-premises data center?
    - A. AWS VPN
    - B. Amazon Redshift
    - C. API Gateway
    - D. Amazon Connect

Commented [MC67]: D

"Amazon Elastic File System (Amazon EFS) provides a simple, scalable, fully managed elastic NFS file system for use with AWS Cloud services and on-premises resources. It is built to scale on demand to petabytes without disrupting applications, growing and shrinking automatically as you add and remove files, eliminating the need to provision and manage capacity to accommodate growth. **Amazon EFS is designed to provide the throughput, IOPS, and low latency needed for Linux workloads**. Throughput and IOPS scale as a file system grows and can burst to higher throughput levels for short periods of time to support the unpredictable performance needs of file workloads. For the most demanding workloads, Amazon ...

Commented [MC68]: D

AWS encourages elasticity and not specifically provisioning for peak traffic.

"6 Advantages of Cloud Computing:
--Trade capital expense for variable expense
--Benefit from massive economies of scale
--Stop guessing about capacity (i.e. elasticity)
--Increased speed and agility
--Stop spending money running and maintaining data centres ...

Commented [MC69]: B

"**Amazon S3 Glacier is a secure, durable, and low-cost storage class of S3 for data archiving and long-term backup**. Customers can store large or small amounts of data for as little as $0.004 per gigabyte per month. The S3 Glacier storage class is ideal for archives where data is regularly retrieved and some of the data may be needed in minutes."

Incorrect Answers: ...

Commented [MC70]: B

"Shared Controls:

--Controls which apply to both the infrastructure layer and customer layers, but in completely separate contexts or perspectives. In a shared control, AWS provides the requirements for the infrastructure and the customer must provide their own control implementation within their use of AWS services. Examples include: ...

Commented [MC71]: A

There are two ways to connect on-premises to cloud.
Over internet using VPN connection
Over physical fiber cable using DirectConnect

"**AWS Virtual Private Network (VPN) solutions establish secure connections via the public internet between your on-premises networks, remote offices, client devices, and the AWS global network**." ...

71. A company wants to reduce the physical compute footprint that developers use to run code. Which service would meet that need by enabling serverless architectures?
    - A. Amazon Elastic Compute Cloud (Amazon EC2)
    - B. AWS Lambda
    - C. Amazon DynamoDB
    - D. AWS CodeCommit

72. Which AWS service provides alerts when an AWS event may impact a company's AWS resources?
    - A. AWS Personal Health Dashboard
    - B. AWS Service Health Dashboard
    - C. AWS Trusted Advisor
    - D. AWS Infrastructure Event Management

73. Which of the following are categories of AWS Trusted Advisor? (Choose two.)
    - A. Fault Tolerance
    - B. Instance Usage
    - C. Infrastructure
    - D. Performance
    - E. Storage Capacity

74. Which task is AWS responsible for in the shared responsibility model for security and compliance?
    - A. Granting access to individuals and services
    - B. Encrypting data in transit
    - C. Updating Amazon EC2 host firmware
    - D. Updating operating systems

75. Where should a company go to search software listings from independent software vendors to find, test, buy and deploy software that runs on AWS?
    - A. AWS Marketplace
    - B. Amazon Lumberyard
    - C. AWS Artifact
    - D. Amazon CloudSearch

76. Which of the following is a benefit of using the AWS Cloud?
    - A. Permissive security removes the administrative burden.
    - B. Ability to focus on revenue-generating activities.
    - C. Control over cloud network hardware.
    - D. Choice of specific cloud hardware vendors.

77. When performing a cost analysis that supports physical isolation of a customer workload, which compute hosting model should be accounted for in the Total Cost of Ownership (TCO)?
    - A. Dedicated Hosts
    - B. Reserved Instances
    - C. On-Demand Instances
    - D. No Upfront Reserved Instances

78. Which AWS service provides the ability to manage infrastructure as code?
    - A. AWS CodePipeline
    - B. AWS CodeDeploy
    - C. AWS Direct Connect
    - D. AWS CloudFormation

79. If a customer needs to audit the change management of AWS resources, which of the following AWS services should the customer use?
    - A. AWS Config
    - B. AWS Trusted Advisor
    - C. Amazon CloudWatch
    - D. Amazon Inspector

80. What is Amazon CloudWatch?
    - A. A code repository with customizable build and team commit features.
    - B. A metrics repository with customizable notification thresholds and channels.
    - C. A security configuration repository with threat analytics.
    - D. A rule repository of a web application firewall with automated vulnerability prevention features.

81. Which service allows a company with multiple AWS accounts to combine its usage to obtain volume discounts?
    - A. AWS Server Migration Service
    - B. AWS Organizations
    - C. AWS Budgets
    - D. AWS Trusted Advisor
    - E. Amazon Quicksight
    - F. Amazon Forecast

82. Which of the following services could be used to deploy an application to servers running on-premises? (Choose two.)
    - A. AWS Elastic Beanstalk
    - B. AWS OpsWorks
    - C. AWS CodeDeploy
    - D. AWS Batch
    - E. AWS X-Ray

83. Which Amazon EC2 pricing model adjusts based on supply and demand of EC2 instances?
    - A. On-Demand Instances
    - B. Reserved Instances
    - C. Spot Instances
    - D. Convertible Reserved Instances

84. Which design principles for cloud architecture are recommended when re-architecting a large monolithic application? (Choose two.)
    - A. Use manual monitoring.
    - B. Use fixed servers.
    - C. Implement loose coupling.
    - D. Rely on individual components.
    - E. Design for scalability.

85. Which is the MINIMUM AWS Support plan that allows for one-hour target response time for support cases?
    - A. Enterprise
    - B. Business
    - C. Developer
    - D. Basic

86. Where can AWS compliance and certification reports be downloaded?
    - A. AWS Artifact
    - B. AWS Concierge
    - C. AWS Certificate Manager
    - D. AWS Trusted Advisor

87. Which AWS service provides a customized view of the health of specific AWS services that power a customer's workloads running on AWS?
    - A. AWS Service Health Dashboard
    - B. AWS X-Ray
    - C. AWS Personal Health Dashboard
    - D. Amazon CloudWatch

88. Which of the following is an advantage of consolidated billing on AWS?
    - A. Volume pricing qualification
    - B. Shared access permissions
    - C. Multiple bills per account
    - D. Eliminates the need for tagging

89. Which of the following steps should be taken by a customer when conducting penetration testing on an AWS ?
    - A. Conduct penetration testing using Amazon Inspector, and then notify AWS support.
    - B. Request and wait for approval from the customer's internal security team, and then conduct testing.
    - C. Notify AWS support, and then conduct testing immediately.
    - D. Request and wait for approval from AWS support, and then conduct testing.

90. Which of the following AWS features enables a user to launch a pre-configured Amazon Elastic Compute Cloud (Amazon EC2) instance?
    - A. Amazon Elastic Block Store (Amazon EBS)
    - B. Amazon Machine Image
    - C. Amazon EC2 Systems Manager
    - D. Amazon AppStream 2.0

91. How would an AWS customer easily apply common access controls to a large set of users?
    - A. Apply an IAM policy to an IAM group.
    - B. Apply an IAM policy to an IAM role.
    - C. Apply the same IAM policy to all IAM users with access to the same workload.
    - D. Apply an IAM policy to an Amazon Cognito user pool.

92. What technology enables compute capacity to adjust as loads change?
    - A. Load balancing
    - B. Automatic failover
    - C. Round robin
    - D. Auto Scaling

93. Which AWS services are defined as global instead of regional? (Choose two.)
    - A. Amazon Route 53
    - B. Amazon EC2
    - C. Amazon S3
    - D. Amazon CloudFront
    - E. Amazon DynamoDB

94. Under the shared responsibility model, which of the following tasks are the responsibility of the AWS customer? (Choose two.)
    - A. Ensuring that application data is encrypted at rest
    - B. Ensuring that AWS NTP servers are set to the correct time
    - C. Ensuring that users have received security training in the use of AWS services
    - D. Ensuring that access to data centers is restricted
    - E. Ensuring that hardware is disposed of properly

95. Which AWS service can be used to manually launch instances based on resource requirements?
    - A. Amazon EBS
    - B. Amazon S3
    - C. Amazon EC2
    - D. Amazon ECS

Commented [MC92]: A

Instead of defining permissions for individual IAM users, it's usually more convenient to:
--**create IAM groups** that relate to job functions (administrators, developers, accounting, etc.).
--Next, define the relevant permissions for each group.
--Assign IAM users to those groups.
--All the users in an IAM group inherit the permissions assigned to the group. That way, you can make changes for everyone in a group in just one place.
--As people move around in your company, you can simply change what IAM group their IAM user belongs to.

Notes:
--User: Permanent named operator (human or machine)
--Group: Collection of users
--Role: Authentication method, not permissions. A role is an operator (human or machine). Credentials are temporary

Commented [MC93]: D

"**Load balancers distribute workloads across several instances , it only distribute to instances available (it doesn't add or change) but with auto scaling when the traffic gets too high it automatically add more instances to handle the traffic and vice versa**"

Commented [MC94]: A, D

--A—
"**Using a global anycast network of DNS servers around the world**, Amazon Route 53 is designed to automatically route your users to the optimal location depending on network conditions. As a result, the service offers low query latency for your end users, as well as low update latency for your DNS record management needs."
--D--
"Amazon CloudFront is a fast content delivery network (CDN) service that securely delivers data, videos,

Commented [MC95]: A, C

--A--
"The customer:
--assumes responsibility and management of the guest operating system (including updates and security patches), other associated application software as well as the configuration of the AWS provided security group firewall.
--should carefully consider the services they choose as their responsibilities vary depending on the services used, the integration of those services into their IT environment, and applicable laws and regulations.

Commented [MC96]: C

Keyword is instances.

"Customer can launch from a huge variety of **EC2 instance types** depending on exactly what they require, e.g. OS, RAM, storage space, security controls, etc..."

96. A company is migrating an application that is running non-interruptible workloads for a three-year time frame. Which pricing construct would provide the MOST cost-effective solution?
- A. Amazon EC2 Spot Instances
- B. Amazon EC2 Dedicated Instances
- C. Amazon EC2 On-Demand Instances
- D. Amazon EC2 Reserved Instances

97. The financial benefits of using AWS are: (Choose two.)
- A. reduced Total Cost of Ownership (TCO).
- B. increased capital expenditure (capex).
- C. reduced operational expenditure (opex).
- D. deferred payment plans for startups.
- E. business credit lines for startups.

98. Which AWS Cost Management tool allows you to view the most granular data about your AWS bill?
- A. AWS Cost Explorer
- B. AWS Budgets
- C. AWS Cost and Usage report
- D. AWS Billing dashboard

99. Which of the following can an AWS customer use to launch a new Amazon Relational Database Service (Amazon RDS) cluster? (Choose two.)
- A. AWS Concierge
- B. AWS CloudFormation
- C. Amazon Simple Storage Service (Amazon S3)
- D. Amazon EC2 Auto Scaling
- E. AWS Management Console

100. Which of the following is an AWS Cloud architecture design principle?
- A. Implement single points of failure.
- B. Implement loose coupling.
- C. Implement monolithic design.
- D. Implement vertical scaling.

Commented [MC97]: D

"A Reserved Instance is a reservation of resources and capacity, **for either one or three years,** for a particular Availability Zone within a region. When you purchase a reservation, **you commit to paying for all of the hours of the 1- or 3-year term; in exchange, the hourly rate is lowered significantly.**

Amazon EC2 Reserved Instances (RI) provide **a significant discount (up to 72%)** compared to On-Demand pricing and provide a capacity reservation when used in a specific Availability Zone. AWS Billing automatically applies your RI's discounted rate when attributes of EC2 instance usage match attributes of an active RI."

Incorrect answers:

Commented [MC98]: A, C

"CapEx (capital expenditure) is defined as business expenses incurred in order to create long-term benefits in the future, such as purchasing fixed assets like a building or equipment. Some examples of IT items that fall under this category would be whole systems and servers, printers and scanners, or air conditioners and generators. You buy these items once and they benefit your business for many, many years. Maintenance of such items is also considered CapEx, as it extends their lifetime and usefulness. Capex can also be defined as Total Cost of Ownership (TCO).

Commented [MC99]: C

"**The Cost & Usage Report is your one-stop-shop for accessing the most granular data about your AWS costs and usage.** You can also load your cost and usage information into Amazon Athena, Amazon Redshift, AWS QuickSight, or a tool of your choice."

Commented [MC100]: B, E

--B--
Cloudformation - "Speed up cloud provisioning with infrastructure as code. Gives you an easy way to model a collection of related AWS and third-party resources, provision them quickly and consistently, and manage them throughout their lifecycles, by treating infrastructure as code (IaC)."

--E--

Commented [MC101]: B

Loose coupling is a part of the 'Reliability Design Principles and Best Practices'

"In computing and systems design a loosely coupled system is one in which each of its components has, or makes use of, little or no knowledge of the definitions of other separate components. Subareas include the coupling of classes, interfaces, data, and services.
...

101-150

101. Which of the following security measures protect access to an AWS account? (Choose two.)
- A. Enable AWS CloudTrail.
- B. Grant least privilege access to IAM users.
- C. Create one IAM user and share with many developers and users.
- D. Enable Amazon CloudFront.
- E. Activate multi-factor authentication (MFA) for privileged users.

102. Which service provides a hybrid storage service that enables on-premises applications to seamlessly use cloud storage?
- A. Amazon Glacier
- B. AWS Snowball
- C. AWS Storage Gateway
- D. Amazon Elastic Block Storage (Amazon EBS)

103. Which of the following services falls under the responsibility of the customer to maintain operating system configuration, security patching, and networking?
- A. Amazon RDS
- B. Amazon EC2
- C. Amazon ElastiCache
- D. AWS Fargate

104. Which of the following is an important architectural design principle when designing cloud applications?
- A. Use multiple Availability Zones.
- B. Use tightly coupled components.
- C. Use open source software.
- D. Provision extra capacity.

105. Amazon Relational Database Service (Amazon RDS) offers which of the following benefits over traditional database management?
- A. AWS manages the data stored in Amazon RDS tables.
- B. AWS manages the maintenance of the operating system.
- C. AWS automatically scales up instance types on demand.
- D. AWS manages the database type.

106.   Which service is best for storing common database query results, which helps to alleviate database access load?
- A. Amazon Machine Learning
- B. Amazon SQS
- C. Amazon ElastiCache
- D. Amazon EC2 Instance Store

107.   Which of the following is a component of the shared responsibility model managed entirely by AWS?
- A. Patching operating system software
- B. Encrypting data
- C. Enforcing multi-factor authentication
- D. Auditing physical data center assets

108.   Which options does AWS make available for customers who want to learn about security in the cloud in an instructor-led setting? (Choose two.)
- A. AWS Trusted Advisor
- B. AWS Online Tech Talks
- C. AWS Blog
- D. AWS Forums
- E. AWS Classroom Training

109.   Which of the following features can be configured through the Amazon Virtual Private Cloud (Amazon VPC) Dashboard? (Choose two.)
- A. Amazon CloudFront distributions
- B. Amazon Route 53
- C. Security Groups
- D. Subnets
- E. Elastic Load Balancing

110.   If each department within a company has its own AWS account, what is one way to enable consolidated billing?
- A. Use AWS Budgets on each account to pay only to budget.
- B. Contact AWS Support for a monthly bill.
- C. Create an AWS Organization from the payer account and invite the other accounts to join.
- D. Put all invoices into one Amazon Simple Storage Service (Amazon S3) bucket, load data into Amazon Redshift, and then run a billing report.

Commented [MC107]: C

"**ElastiCache can serve frequently requested items at sub-millisecond response times, and enables you to easily scale for higher loads without growing the costlier backend databases. Database query results caching, persistent session caching, and full-page caching are all popular examples of caching.**"

Commented [MC108]: D

"**Amazon is responsible for auditing physical data center assets and resources since it is the property of Amazon Inc. Customers have no access to physical sites, hence they are not responsible for maintaining physical data center assets.**"

Commented [MC109]: B, E

Key term is instructor-led

--B--
"**Join us for online presentations led by AWS solutions architects and engineers. AWS Online Tech Talks cover a range of topics and expertise levels, and feature technical deep dives, demonstrations, customer examples, and live Q&A with AWS experts.**"

--E--
"**Amazon offer both digital and classroom training including private on-site training. You can choose to learn online at your own pace or learn from an accredited AWS instructor.** Whether you're just starting out, building on existing IT skills, or sharpening your cloud knowledge, AWS Training and Certification can help you be more effective and do more in the cloud."

Commented [MC110]: C, D

"Amazon Virtual Private Cloud (Amazon VPC) lets you provision a logically isolated section of the AWS Cloud where you can launch AWS resources in a virtual network that you define. You have complete control over your virtual networking environment, including selection of your own IP address range, **creation of subnets**, and configuration of route tables and network gateways. You can use both IPv4 and IPv6 in your VPC for secure and easy access to resources and applications.

Commented [MC111]: C

"**AWS Organizations helps you centrally manage and govern your environment as you grow and scale your AWS resources.** As an administrator of an organization, you can create accounts in your organization and invite existing accounts to join the organization. Allows you to:
--programmatically create new AWS accounts and allocate resources
--group accounts to organize your workflows
--apply policies to accounts or groups for governance
--define central configurations and audit requirements

111.   How do customers benefit from Amazon's massive economies of scale?
- A. Periodic price reductions as the result of Amazon's operational efficiencies
- B. New Amazon EC2 instance types providing the latest hardware
- C. The ability to scale up and down when needed
- D. Increased reliability in the underlying hardware of Amazon EC2 instances

112.   Which AWS services can be used to gather information about AWS account activity? (Choose two.)
- A. Amazon CloudFront
- B. AWS Cloud9
- C. AWS CloudTrail
- D. AWS CloudHSM
- E. Amazon CloudWatch

113.   Which of the following common IT tasks can AWS cover to free up company IT resources? (Choose two.)
- A. Patching databases software
- B. Testing application releases
- C. Backing up databases
- D. Creating database schema
- E. Running penetration tests

114.   In which scenario should Amazon EC2 Spot Instances be used?
- A. A company wants to move its main website to AWS from an on-premises web server.
- B. A company has a number of application services whose Service Level Agreement (SLA) requires 99.999% uptime.
- C. A company's heavily used legacy database is currently running on-premises.
- D. A company has a number of infrequent, interruptible jobs that are currently using On-Demand Instances.

115.   Which AWS feature should a customer leverage to achieve high availability of an application?
- A. AWS Direct Connect
- B. Availability Zones
- C. Data centers
- D. Amazon Virtual Private Cloud (Amazon VPC)

Commented [MC112]: A

"Benefit from massive economies of scale – By using cloud computing, you can achieve a lower variable cost than you can get on your own. **Because usage from hundreds of thousands of customers is aggregated in the cloud, providers such as AWS can achieve higher economies of scale, which translates into lower pay as-you-go prices.**"

Commented [MC113]: C, E

--C--
"**AWS Cloudtrail - track user activity and API usage**. Helps you enable governance, compliance, and operational and risk auditing of your AWS account. Actions taken by a user, role, or an AWS service are recorded as events in CloudTrail. Events include actions taken in the AWS Management Console, AWS Command Line Interface, and AWS SDKs and APIs."

--E--
"You can use CloudWatch queries to search API history beyond the last 90 days."

Commented [MC114]: A, C

If taking RDS as example, both patching and backups are covered.

"RDS makes it easy to set up, operate, and scale a relational database in the cloud. **It provides cost-efficient and resizable capacity while automating time-consuming administration tasks such as hardware provisioning, database setup, patching and backups**. It frees you to focus on your applications so you can give them the fast

Commented [MC115]: D

"**Amazon EC2 Spot Instances let you take advantage of unused EC2 capacity in the AWS cloud. Spot Instances are available at up to a 90% discount compared to On-Demand prices. You can use Spot Instances for various stateless, fault-tolerant, or flexible applications** such as big data, containerized workloads, CI/CD, web servers, high-performance computing (HPC), and test & development workloads. Because Spot Instances are tightly integrated with AWS services such as Auto Scaling, EMR, ECS, CloudFormation, Data Pipeline and AWS Batch

Commented [MC116]: B

"**This is to achieve High Availability for any web application deployed in AWS. The following features will be present:**
☞ **High availability across multiple instances/multiple availability zones.**
☞ Auto Scaling of instances (scale up and scale down) based on number of requests coming in
☞ Additional Security to the instances/database that are in production

116. Which is the minimum AWS Support plan that includes Infrastructure Event Management without additional costs?
- A. Enterprise
- B. Business
- C. Developer
- D. Basic

117. Which AWS service can serve a static website?
- A. Amazon S3
- B. Amazon Route 53
- C. Amazon QuickSight
- D. AWS X-Ray

118. How does AWS shorten the time to provision IT resources?
- A. It supplies an online IT ticketing platform for resource requests.
- B. It supports automatic code validation services.
- C. It provides the ability to programmatically provision existing resources.
- D. It automates the resource request process from a company's IT vendor list.

119. What can AWS edge locations be used for? (Choose two.)
- A. Hosting applications
- B. Delivering content closer to users
- C. Running NoSQL database caching services
- D. Reducing traffic on the server by caching responses
- E. Sending notification messages to end users

120. Which of the following can limit Amazon Simple Storage Service (Amazon S3) bucket access to specific users?
- A. A public and private key-pair
- B. Amazon Inspector
- C. AWS Identity and Access Management (IAM) policies
- D. Security Groups

121.   A solution that is able to support growth in users, traffic, or data size with no drop in performance aligns with which cloud architecture principle?
- A. Think parallel
- B. Implement elasticity
- C. Decouple your components
- D. Design for failure

122.   A company will be moving from an on-premises data center to the AWS Cloud. What would be one financial difference after the move?
- A. Moving from variable operational expense (opex) to upfront capital expense (capex).
- B. Moving from upfront capital expense (capex) to variable capital expense (capex).
- C. Moving from upfront capital expense (capex) to variable operational expense (opex).
- D. Elimination of upfront capital expense (capex) and elimination of variable operational expense (opex)

123.   How should a customer forecast the future costs for running a new web application?
- A. Amazon Aurora Backtrack
- B. Amazon CloudWatch Billing Alarms
- C. AWS Pricing Calculator
- D. AWS Cost and Usage report

124.   Which is the MINIMUM AWS Support plan that provides technical support through phone calls?
- A. Enterprise
- B. Business
- C. Developer
- D. Basic

125.   Which of the following tasks is the responsibility of AWS?
- A. Encrypting client-side data
- B. Configuring AWS Identity and Access Management (IAM) roles
- C. Securing the Amazon EC2 hypervisor
- D. Setting user password policies

126.   One benefit of On-Demand Amazon Elastic Compute Cloud (Amazon EC2) pricing is:
- A. the ability to bid for a lower hourly cost.
- B. paying a daily rate regardless of time used.
- C. paying only for time used.
- D. pre-paying for instances and paying a lower hourly rate.

127.   An administrator needs to rapidly deploy a popular IT solution and start using it immediately here can the administrator find assistance?
- A. AWS Well-Architected Framework documentation
- B. Amazon CloudFront
- C. AWS CodeCommit
- D. AWS Quick Start reference deployments

128.   Which of the following services is in the category of AWS serverless platform?
- A. Amazon EMR
- B. Elastic Load Balancing
- C. AWS Lambda
- D. AWS Mobile Hub

129.   Which services are parts of the AWS serverless platform?
- A. Amazon EC2, Amazon S3, Amazon Athena
- B. Amazon Kinesis, Amazon SQS, Amazon EMR
- C. AWS Step Functions, Amazon DynamoDB, Amazon SNS
- D. Amazon Athena, Amazon Cognito, Amazon EC2

130.   According to the AWS shared responsibility model, what is the sole responsibility of AWS?
- A. Application security
- B. Edge location management
- C. Patch management
- D. Client-side data

131. Which AWS IAM feature is used to associate a set of permissions with multiple users?
- A. Multi-factor authentication
- B. Groups
- C. Password policies
- D. Access keys

132. Which of the following are benefits of the AWS Cloud? (Choose two.)
- A. Unlimited uptime
- B. Elasticity
- C. Agility
- D. Colocation
- E. Capital expenses

133. Which of the following can a customer use to enable single sign-on (SSO) to the AWS Console?
- A. Amazon Connect
- B. AWS Directory Service
- C. Amazon Pinpoint
- D. Amazon Rekognition

134. What are the multiple, isolated locations within an AWS Region that are connected by low-latency networks called?
- A. AWS Direct Connects
- B. Amazon VPCs
- C. Edge locations
- D. Availability Zones

135. Which of the following benefits does the AWS Compliance program provide to AWS customers? (Choose two.)
- A. It verifies that hosted workloads are automatically compliant with the controls of supported compliance frameworks.
- B. AWS is responsible for the maintenance of common compliance framework documentation.
- C. It assures customers that AWS is maintaining physical security and data protection.
- D. It ensures the use of compliance frameworks that are being used by other cloud providers.
- E. It will adopt new compliance frameworks as they become relevant to customer workloads.

136. Which of the following services provides on-demand access to AWS compliance reports?

- A. AWS IAM
- B. AWS Artifact
- C. Amazon GuardDuty
- D. AWS KMS

137.   As part of the AWS shared responsibility model, which of the following operational controls do users fully inherit from AWS?
- A. Security management of data center
- B. Patch management
- C. Configuration management
- D. User and access management

138.   When comparing AWS Cloud with on-premises Total Cost of Ownership, which expenses must be considered? (Choose two.)
- A. Software development
- B. Project management
- C. Storage hardware
- D. Physical servers
- E. Antivirus software license

139.   Under the shared responsibility model, which of the following tasks are the responsibility of the customer? (Choose two.)
- A. Maintaining the underlying Amazon EC2 hardware.
- B. Managing the VPC network access control lists.
- C. Encrypting data in transit and at rest.
- D. Replacing failed hard disk drives.
- E. Deploying hardware in different Availability Zones.

140.   Which scenarios represent the concept of elasticity on AWS? (Choose two.)
- A. Scaling the number of Amazon EC2 instances based on traffic.
- B. Resizing Amazon RDS instances as business needs change.
- C. Automatically directing traffic to less-utilized Amazon EC2 instances.
- D. Using AWS compliance documents to accelerate the compliance process.
- E. Having the ability to create and govern environments using code.

141.	When is it beneficial for a company to use a Spot Instance?
- A. When there is flexibility in when an application needs to run
- B. When there are mission-critical workloads.
- C. When dedicated capacity is needed.
- D. When an instance should not be stopped.

142.	A company is considering moving its on-premises data center to AWS. What factors should be included in doing a Total Cost of Ownership (TCO) analysis? (Choose two.)
- A. Amazon EC2 instance availability
- B. Power consumption of the data center
- C. Labor costs to replace old servers
- D. Application developer time
- E. Database engine capacity

143.	How does AWS charge for AWS Lambda?
- A. Users bid on the maximum price they are willing to pay per hour.
- B. Users choose a 1-, 3- or 5-year upfront payment term.
- C. Users pay for the required permanent storage on a file system or in a database.
- D. Users pay based on the number of requests and consumed compute resources.

144.	What function do security groups serve related Amazon Elastic Compute Cloud (Amazon EC2) instance security?
- A. Act as a virtual firewall for the Amazon EC2 instance.
- B. Secure AWS user accounts with AWS identity and Access Management (IAM) policies.
- C. Provide DDoS protection with AWS Shield.
- D. Use Amazon CloudFront to protect the Amazon EC2 instance.

145.	Which disaster recovery scenario offers the lowest probability of down time?
- A. Backup and restore
- B. Pilot light
- C. Warm standby
- D. Multi-site active-active

146.	What will help a company perform a cost benefit analysis of migrating to the AWS Cloud?
- A. Cost Explorer
- B. AWS Total Cost of Ownership (TCO) Calculator
- C. AWS Pricing Calculator
- D. AWS Trusted Advisor

147.	Which of the following provides the ability to share the cost benefits of Reserved Instances across AWS accounts?
- A. AWS Cost Explorer between AWS accounts
- B. Linked accounts and consolidated billing
- C. Amazon Elastic Compute Cloud (Amazon EC2) Reserved Instance Utilization Report
- D. Amazon EC2 Instance Usage Report between AWS accounts

148.	A company has multiple AWS accounts and wants to simplify and consolidate its billing process. Which AWS service will achieve this?
- A. AWS Cost and Usage Reports
- B. AWS Organizations
- C. AWS Cost Explorer
- D. AWS Budgets

149.	A company is designing an application hosted in a single AWS Region serving end-users spread across the world. The company wants to provide the end-users low latency access to the application data. Which of the following services will help fulfill this requirement?
- A. Amazon CloudFront
- B. AWS Direct Connect
- C. Amazon Route 53 global DNS
- D. Amazon Simple Storage Service (Amazon S3) transfer acceleration

150.	Which of the following deployment models enables customers to fully trade their capital IT expenses for operational expenses?
- A. On-premises
- B. Hybrid
- C. Cloud
- D. Platform as a service

151. How is asset management on AWS easier than asset management in a physical data center?
- A. AWS provides a Configuration Management Database that users can maintain.
- B. AWS performs infrastructure discovery scans on the customer's behalf.
- C. Amazon EC2 automatically generates an asset report and places it in the customer's specified Amazon S3 bucket.
- D. Users can gather asset metadata reliably with a few API calls.

152. What feature of Amazon RDS helps to create globally redundant databases?
- A. Snapshots
- B. Automatic patching and updating
- C. Cross-Region read replicas
- D. Provisioned IOPS

153. Which methods can be used to identify AWS costs by departments? (Choose two.)
- A. Enable multi-factor authentication for the AWS account root user.
- B. Create separate accounts for each department.
- C. Use Reserved Instances whenever possible.
- D. Use tags to associate each instance with a particular department.
- E. Pay bills using purchase orders.

154. Under the AWS shared responsibility model, customer responsibilities include which one of the following?
- A. Securing the hardware, software, facilities, and networks that run all products and services.
- B. Providing certificates, reports, and other documentation directly to AWS customers under NDA.
- C. Configuring the operating system, network, and firewall.
- D. Obtaining industry certifications and independent third-party attestations.

155. Which managed AWS service provides real-time guidance on AWS security best practices?
- A. AWS X-Ray
- B. AWS Trusted Advisor
- C. Amazon CloudWatch
- D. AWS Systems Manager

Commented [MC152]: A

"**AWS assets are centrally managed through an inventory management system that stores and tracks owner, location, status, maintenance, and descriptive information for AWS-owned assets. Following procurement, assets are scanned and tracked, and assets undergoing maintenance are checked and monitored for ownership, status, and resolution**
...
To build your own asset management database on AWS here are the prerequisites:
--Configure AWS System Manager to start collecting the software inventory and store in designated Amazon S3 bucket.

Commented [MC153]: C

"**Read Replicas - You can use this feature to implement a cross-region disaster recovery model, scale out globally, or migrate an existing database to a new region**:

Improve Disaster Recovery – You can operate a read replica in a region different from your master database region. In case of a regional disruption, you can promote the replica to be the new master and keep your business in operation.

Commented [MC154]: B, D

--B--
Create separate accounts and join them together using AWS Organizations.

--D--
"**Tags are key-value pairs that allow you to organize your AWS resources into groups. You can use tags to:**
☞ **Visualize information about tagged resources in one place, in conjunction with Resource Groups.**

Commented [MC155]: C

"In EC2, everything from the physical servers to the hypervisor is AWS's responsibility. **A customer's assumes responsibility and management of the guest operating system (including updates and security patches), other associated application software as well as the configuration of the AWS provided security group firewall."**

Incorrect answers:

Commented [MC156]: B

"**AWS Trusted Advisor is an online tool that provides you real time guidance to help you provision your resources following AWS best practices**. Trusted Advisor checks help optimize your AWS infrastructure, increase security and performance, reduce your overall costs, and monitor service limits. Whether establishing new workflows, developing applications, or as part of ongoing improvement, take advantage of the recommendations

156.   Which feature adds elasticity to Amazon EC2 instances to handle the changing demand for workloads?
- A. Resource groups
- B. Lifecycle policies
- C. Application Load Balancer
- D. Amazon EC2 Auto Scaling

157.   Under the AWS shared responsibility model, customers are responsible for which aspects of security in the cloud? (Choose two.)
- A. Visualization management
- B. Hardware management
- C. Encryption management
- D. Facilities management
- E. Firewall management

158.   Which AWS hybrid storage service enables on-premises applications to seamlessly use AWS Cloud storage through standard file-storage protocols?
- A. AWS Direct Connect
- B. AWS Snowball
- C. AWS Storage Gateway
- D. AWS Snowball Edge

159.   What is a responsibility of AWS in the shared responsibility model?
- A. Updating the network ACLs to block traffic to vulnerable ports.
- B. Patching operating systems running on Amazon EC2 instances.
- C. Updating the firmware on the underlying EC2 hosts.
- D. Updating the security group rules to block traffic to the vulnerable ports.

160.   Which architectural principle is used when deploying an Amazon Relational Database Service (Amazon RDS) instance in Multiple Availability Zone mode?
- A. Implement loose coupling.
- B. Design for failure.
- C. Automate everything that can be automated.
- D. Use services, not servers.

161.   What does it mean to grant least privilege to AWS IAM users?
- A. It is granting permissions to a single user only.
- B. It is granting permissions using AWS IAM policies only.
- C. It is granting Administrator Access policy permissions to trustworthy users.
- D. It is granting only the permissions required to perform a given task.

162.   A director has been tasked with investigating hybrid cloud architecture. The company currently accesses AWS over the public internet. Which service will facilitate private hybrid connectivity?
- A. Amazon Virtual Private Cloud (Amazon VPC) NAT Gateway
- B. AWS Direct Connect
- C. Amazon Simple Storage Service (Amazon S3) Transfer Acceleration
- D. AWS Web Application Firewall (AWS WAF)

163.   A company's web application currently has tight dependencies on underlying components, so when one component fails the entire web application fails. Applying which AWS Cloud design principle will address the current design issue?
- A. Implementing elasticity, enabling the application to scale up or scale down as demand changes.
- B. Enabling several EC2 instances to run in parallel to achieve better performance.
- C. Focusing on decoupling components by isolating them and ensuring individual components can function when other components fail.
- D. Doubling EC2 computing resources to increase system fault tolerance.

164.   How can a customer increase security to AWS account logons? (Choose two.)
- A. Configure AWS Certificate Manager
- B. Enable Multi-Factor Authentication (MFA)
- C. Use Amazon Cognito to manage access
- D. Configure a strong password policy
- E. Enable AWS Organizations

165.   What AWS service would be used to centrally manage AWS access across multiple accounts?
- A. AWS Service Catalog
- B. AWS Config
- C. AWS Trusted Advisor
- D. AWS Organizations

166. Which AWS service can a customer use to set up an alert notification when the account is approaching a particular dollar amount?
- A. AWS Cost and Usage reports
- B. AWS Budgets
- C. AWS Cost Explorer
- D. AWS Trusted Advisor

167. What can users access from AWS Artifact?
- A. AWS security and compliance documents
- B. A download of configuration management details for all AWS resources
- C. Training materials for AWS services
- D. A security assessment of the applications deployed in the AWS Cloud

168. Which of the following is an AWS Well-Architected Framework design principle related to reliability?
- A. Deployment to a single Availability Zone
- B. Ability to recover from failure
- C. Design for cost optimization
- D. Perform operations as code

169. Which type of AWS storage is ephemeral and is deleted when an instance is stopped or terminated?
- A. Amazon EBS
- B. Amazon EC2 instance store
- C. Amazon EFS
- D. Amazon S3

170. What is an advantage of using the AWS Cloud over a traditional on-premises solution?
- A. Users do not have to guess about future capacity needs.
- B. Users can utilize existing hardware contracts for purchases.
- C. Users can fix costs no matter what their traffic is.
- D. Users can avoid audits by using reports from AWS.

171.   Which of the following is an AWS-managed compute service?
- A. Amazon SWF
- B. Amazon EC2
- C. AWS Lambda
- D. Amazon Aurora

172.   Which of the following is an important architectural principle when designing cloud applications?
- A. Store data and backups in the same region.
- B. Design tightly coupled system components.
- C. Avoid multi-threading.
- D. Design for failure

173.   Which mechanism allows developers to access AWS services from application code?
- A. AWS Software Development Kit
- B. AWS Management Console
- C. AWS CodePipeline
- D. AWS Config

174.   Which Amazon EC2 pricing model is the MOST cost efficient for an uninterruptible workload that runs once a year for 24 hours?
- A. On-Demand Instances
- B. Reserved Instances
- C. Spot Instances
- D. Dedicated Instances

175.   Which of the following services allows running of a MySQL-compatible database that automatically grows storage as needed? (Choose two)
- A. Amazon Elastic Compute Cloud (Amazon EC2)
- B. Amazon Relational Database Service (Amazon RDS) for MySQL
- C. Amazon Lightsail
- D. Amazon Aurora

176. Which Amazon Virtual Private Cloud (Amazon VPC) feature enables users to connect two VPCs together?
- A. Amazon VPC endpoints
- B. Amazon Elastic Compute Cloud (Amazon EC2) ClassicLink
- C. Amazon VPC peering
- D. AWS Direct Connect

177. Which service's PRIMARY purpose is software version control?
- A. Amazon CodeStar
- B. AWS Command Line Interface (AWS CLI)
- C. Amazon Cognito
- D. AWS CodeCommit

178. A company is considering migrating its applications to AWS. The company wants to compare the cost of running the workload on-premises to running the equivalent workload on the AWS platform. Which tool can be used to perform this comparison?
- A. AWS Pricing Calculator
- B. AWS Total Cost of Ownership (TCO) Calculator
- C. AWS Billing and Cost Management console
- D. Cost Explorer

179. Which AWS service provides a secure, fast, and cost-effective way to migrate or transport exabyte-scale datasets into AWS?
- A. AWS Batch
- B. AWS Snowball
- C. AWS Migration Hub
- D. AWS Snowmobile

180. Which of the following BEST describe the AWS pricing model? (Choose two.)
- A. Fixed-term
- B. Pay-as-you-go
- C. Colocation
- D. Planned
- E. Variable cost

Commented [MC177]: C

"**A VPC peering connection is a networking connection between two VPCs that enables you to route traffic between them using private IPv4 addresses or IPv6 addresses**. Instances in either VPC can communicate with each other as if they are within the same network. You can create a VPC peering connection between your own VPCs, or with a VPC in another AWS account. The VPCs can be in different regions (also known as an inter-region VPC peering connection)."

Commented [MC178]: D

"**AWS CodeCommit is a version control service hosted by Amazon Web Services that you can use to privately store and manage assets (such as documents, source code, and binary files) in the cloud**."

Commented [MC179]: B

"**TCO calculator compare the cost of running your applications in an on-premises or colocation environment to AWS**."

Commented [MC180]: D

"**AWS Snowmobile is an exabyte-scale data transfer service that can move extremely large amounts of data to AWS in a fast, secure, and cost-effective manner.**

You can transfer up to 100PB per Snowmobile, a 45-foot long ruggedized shipping container, pulled by a semi-trailer truck. Snowmobile makes it easy to move massive volumes of data to the cloud, including video libraries, image repositories, or even a complete data center migration. All data is encrypted with 256-bit encryption and you can manage your encryption keys with AWS Key Management Service (AWS KMS). Snowmobile includes GPS tracking, alarm monitoring,
24/7 video surveillance and an optional escort security vehicle while in transit."

Commented [MC181]: B, E

Pricing that is used by AWS is pay for what you use which is pay as you go.

Variable cost refers to the cost that changes based on quantity of service consumed

181. Which load balancer types are available with Elastic Load Balancing (ELB)? (Choose two.)
- A. Public load balancers with AWS Application Auto Scaling capabilities
- B. F5 Big-IP and Citrix NetScaler load balancers
- C. Classic Load Balancers
- D. Cross-zone load balancers with public and private IPs
- E. Application Load Balancers

182. Why should a company choose AWS instead of a traditional data center?
- A. AWS provides users with full control over the underlying resources.
- B. AWS does not require long-term contracts and provides a pay-as-you-go model.
- C. AWS offers edge locations in every country, supporting global reach.
- D. AWS has no limits on the number of resources that can be created.

183. Which solution provides the FASTEST application response times to frequently accessed data to users in multiple AWS Regions?
- A. AWS CloudTrail across multiple Availability Zones
- B. Amazon CloudFront to edge locations
- C. AWS CloudFormation in multiple regions
- D. A virtual private gateway over AWS Direct Connect

184. Which of the following AWS services can be used to run a self-managed database?
- A. Amazon Route 53
- B. AWS X-Ray
- C. AWS Snowmobile
- D. Amazon Elastic Compute Cloud (Amazon EC2)

185. What exclusive benefit is provided to users with Enterprise Support?
- A. Access to a Technical Project Manager
- B. Access to a Technical Account Manager
- C. Access to a Cloud Support Engineer
- D. Access to a Solutions Architect

186. How can a user protect against AWS service disruptions if a natural disaster affects an entire geographic area?
- A. Deploy applications across multiple Availability Zones within an AWS Region.
- B. Use a hybrid cloud computing deployment model within the geographic area.
- C. Deploy applications across multiple AWS Regions.
- D. Store application artifacts using AWS Artifact and replicate them across multiple AWS Regions.

187. How does AWS MOST effectively reduce computing costs for a growing start-up company?
- A. It provides on-demand resources for peak usage.
- B. It automates the provisioning of individual developer environments.
- C. It automates customer relationship management.
- D. It implements a fixed monthly computing budget.

188. A startup is working on a new application that needs to go to market quickly. The application requirements may need to be adjusted in the near future. Which of the following is a characteristic of the AWS Cloud that would meet this specific need?
- A. Elasticity
- B. Reliability
- C. Performance
- D. Agility

189. Which AWS Support plan provides a full set of AWS Trusted Advisor checks?
- A. Business and Developer Support
- B. Business and Basic Support
- C. Enterprise and Developer Support
- D. Enterprise and Business Support

190. Which of the following services have Distributed Denial of Service (DDoS) mitigation features through Amazon Shield Standard? (Choose two.)
- A. AWS WAF
- B. Amazon DynamoDB
- C. Amazon EC2
- D. Amazon CloudFront
- E. Amazon Inspector

Commented [MC187]: C

"Disaster Recovery (DR) Using AWS regions:
Most organizations try to implement High Availability (HA) instead of DR to guard them against any downtime of services. In case of HA, we ensure there exists a fallback mechanism for our services. The service that runs in HA is handled by hosts running in different availability zones but in the same geographical region. This approach, however, does not guarantee that our business will be up and running in case the entire region goes down. **DR takes things to a completely new level, wherein you need to be able to recover from a different region that's separated by over 250 miles. Our DR implementation is an Active/Passive model, meaning that we always have** ...

Commented [MC188]: A

"**The cloud allows you to trade fixed expenses (such as data centers and physical servers) for variable expenses, and only pay for IT as you consume it. And, because of the economies of scale, the variable expenses are much lower than what you would pay to do it yourself**"

"**In cloud computing, elasticity is defined as "the degree to which a system is able to adapt to workload changes by provisioning and de-provisioning resources in an autonomic manner, such that at each point in time the** ...

Commented [MC189]: D

"**Agile is a time boxed, iterative approach to software delivery that builds software incrementally from the start of the project, instead of trying to deliver it all at once near the end**."

The requirements might need to change. We are not talking about growth here but a change of way of doing things. May be they started with a static webpage and it turned out they now need a database instead. This is n ...

Commented [MC190]: D

"AWS Basic Support and AWS Developer Support customers get access to 6 security checks (S3 Bucket Permissions, Security Groups - Specific Ports Unrestricted, IAM Use, MFA on Root Account, EBS Public Snapshots, RDS Public Snapshots) and 50 service limit checks. **AWS Business Support and AWS Enterprise Support customers get access to all 115 Trusted Advisor checks** (14 cost optimization, 17 security, 24 fault tolerance, 10 ...

Commented [MC191]: A, D

"AWS provides flexible infrastructure and services that help customers implement strong DDoS mitigations and create highly available application architectures that **follow AWS Best Practices for DDoS Resiliency. These include services such as Amazon Route 53, Amazon CloudFront, Elastic Load Balancing, and AWS WAF to control and absorb traffic, and deflect unwanted requests**. These services integrate with AWS Shield, a managed DDoS protection service that provides always-on detection and automatic inline mitigations to safeguard ...

191.   When building a cloud Total Cost of Ownership (TCO) model, which cost elements should be considered for workloads running on AWS? (Choose three.)
- A. Compute costs
- B. Facilities costs
- C. Storage costs
- D. Data transfer costs
- E. Network infrastructure costs
- F. Hardware lifecycle costs

192.   What time-savings advantage is offered with the use of Amazon Rekognition?
- A. Amazon Rekognition provides automatic watermarking of images.
- B. Amazon Rekognition provides automatic detection of objects appearing in pictures.
- C. Amazon Rekognition provides the ability to resize millions of images automatically.
- D. Amazon Rekognition uses Amazon Mechanical Turk to allow humans to bid on object detection jobs.

193.   When comparing AWS with on-premises Total Cost of Ownership (TCO), what costs are included?
- A. Data center security
- B. Business analysis
- C. Project management
- D. Operating system administration

194.   According to the AWS shared responsibility model, what is AWS responsible for?
- A. Configuring Amazon VPC
- B. Managing application code
- C. Maintaining application traffic
- D. Managing the network infrastructure

195.   Which service should be used to estimate the costs of running a new project on AWS?
- A. AWS TCO Calculator
- B. AWS Pricing Calculator
- C. AWS Cost Explorer API
- D. AWS Budgets

Commented [MC192]: A, C, D

Compute costs, storage costs and data transfer costs are all charges that are incurred by using AWS

"**There are three fundamental drivers of cost with AWS: compute, storage, and outbound data transfer**. These characteristics vary somewhat, depending on the AWS product and pricing model you choose. In most cases, there is no charge for inbound data transfer or for data transfer between other AWS services within the same Region. There are some exceptions, so be sure to verify data transfer rates before beginning. Outbound data transfer is aggregated across services and then charged at the outbound data transfer rate. This charge appears on the monthly statement as AWS Data Transfer Out. The more data you transfer, the less you pay per GB. For compute resources, you pay hourly from the time you launch a resource until the time you terminate it, unless you have made a reservation for which the cost is agreed upon beforehand. For data storage and transfer, you typically pay per GB."

Incorrect answers: [...]

Commented [MC193]: B

"**Amazon Rekognition is an image recognition service that detects objects, scenes, and faces; extracts text; recognizes celebrities; and identifies inappropriate content in images**. It also allows you to search and compare faces. Rekognition Image is based on the same proven, highly scalable, deep learning technology developed by Amazon's computer vision scientists to analyze billions of images daily for Prime Photos."

Commented [MC194]: A

AWS provides Data centre security included in the price, while the other 3 options are customers' costs (regardless if on AWS or on-premises)

Commented [MC195]: D

"**AWS is responsible for protecting the infrastructure that runs all of the services offered in the AWS Cloud**. This infrastructure is composed of the hardware, software, networking, and facilities that run AWS Cloud services."

Commented [MC196]: B

"**AWS Pricing Calculator lets you explore AWS services and create an estimate for the cost of your use cases on AWS.** You can model your solutions before building them, explore the price points and calculations behind your estimate, and find the available instance types and contract terms that meet your needs. This enables you to make informed decisions about using AWS. You can plan your AWS costs and usage or price out setting up a new set of instances and services."   [...]

196.   Which AWS tool will identify security groups that grant unrestricted Internet access to a limited list of ports?
- A. AWS Organizations
- B. AWS Trusted Advisor
- C. AWS Usage Report
- D. Amazon EC2 dashboard

197.   Which AWS service can be used to generate alerts based on an estimated monthly bill?
- A. AWS Config
- B. Amazon CloudWatch
- C. AWS X-Ray
- D. AWS CloudTrail

198.   Which Amazon EC2 pricing model offers the MOST significant discount when compared to On-Demand Instances?
- A. Partial Upfront Reserved Instances for a 1-year term
- B. All Upfront Reserved Instances for a 1-year term
- C. All Upfront Reserved Instances for a 3-year term
- D. No Upfront Reserved Instances for a 3-year term

199.   Which of the following is the responsibility of AWS?
- A. Setting up AWS Identity and Access Management (IAM) users and groups
- B. Physically destroying storage media at end of life
- C. Patching guest operating systems
- D. Configuring security settings on Amazon EC2 instances

200.   Which of the following is an advantage of using AWS?
- A. AWS audits user data.
- B. Data is automatically secure.
- C. There is no guessing on capacity needs.
- D. AWS manages compliance needs.

Commented [MC197]: B

"**Trusted advisor**…**Checks security groups for rules that allow unrestricted access (0.0.0.0/0) to specific ports**. Unrestricted access increases opportunities for malicious activity (hacking, denial-of-service attacks, loss of data). The ports with highest risk are flagged red, and those with less risk are flagged yellow. Ports flagged green are typically used by applications that require unrestricted access, such as HTTP and SMTP"

Commented [MC198]: B

"**You can monitor your estimated AWS charges by using Amazon CloudWatch. When you enable the monitoring of estimated charges for your AWS account, the estimated charges are calculated and sent several times daily to CloudWatch as metric data.**

Billing metric data is stored in the US East (N. Virginia) Region and represents worldwide charges. This data includes the estimated charges for every service in AWS that you use, in addition to the estimated overall total of your AWS charges."

Commented [MC199]: C

Reserved instances savings (up to):
-Standard one-year
---all upfront = approx. 41%
---partial upfront = approx. 40%
---no upfront = approx. 37%

-Standard three-years:
---**all upfront = approx. 62%**
---partial upfront = approx. 60%
---no upfront = approx. 57%

Commented [MC200]: B

"Media storage devices used to store customer data are classified by AWS as Critical and treated accordingly, as high impact, throughout their life-cycles. **AWS has exacting standards on how to install, service, and eventually destroy the devices when they are no longer useful. When a storage device has reached the end of its useful life, AWS decommissions media using techniques detailed in NIST 800-88**. Media that stored customer data is not ...

Commented [MC201]: C

"6 Advantages of Cloud Computing:
--Trade capital expense for variable expense
--Benefit from massive economies of scale
--Stop guessing about capacity (i.e. elasticity)
--Increased speed and agility
--Stop spending money running and maintaining data centres
--Go global in minutes"

201.   Which AWS service would a customer use with a static website to achieve lower latency and high transfer speeds?
- A. AWS Lambda
- B. Amazon DynamoDB Accelerator
- C. Amazon Route 53
- D. Amazon CloudFront

202.   Which services manage and automate application deployments on AWS? (Choose two.)
- A. AWS Elastic Beanstalk
- B. AWS CodeCommit
- C. AWS Data Pipeline
- D. AWS CloudFormation
- E. AWS Config

203.   Which principles are used to architect applications for reliability on the AWS Cloud? (Choose three.)
- A. Design for automated failure recovery
- B. Use multiple Availability Zones
- C. Manage changes via documented processes
- D. Test for moderate demand to ensure reliability
- E. Backup recovery to an on-premises environment

204.   What tasks should a customer perform when that customer suspects an AWS account has been compromised? (Choose two.)
- A. Rotate passwords and access keys.
- B. Remove MFA tokens.
- C. Move resources to a different AWS Region.
- D. Delete AWS CloudTrail Resources.
- E. Contact AWS Support.

205.   What is an example of high availability in the AWS Cloud?
- A. Consulting AWS technical support at any time day or night
- B. Ensuring an application remains accessible, even if a resource fails
- C. Making any AWS service available for use by paying on demand
- D. Deploying in any part of the world using AWS Regions

206.   Which AWS security service protects applications from distributed denial of service attacks with always-on detection and automatic inline mitigations?
- A. Amazon Inspector
- B. AWS Web Application Firewall (AWS WAF)
- C. Elastic Load Balancing (ELB)
- D. AWS Shield

207.   A company wants to monitor the CPU usage of its Amazon EC2 resources. Which AWS service should the company use?
- A. AWS CloudTrail
- B. Amazon CloudWatch
- C. AWS Cost and Usage report
- D. Amazon Simple Notification Service (Amazon SNS)

208.   What is an AWS Identity and Access Management (IAM) role?
- A. A user associated with an AWS resource
- B. A group associated with an AWS resource
- C. An entity that defines a set of permissions for use with an AWS resource
- D. An authentication credential associated with a multi-factor authentication (MFA) token

209.   What are the advantages of Reserved Instances? (Choose two.)
- A. They provide a discount over on-demand pricing.
- B. They provide access to additional instance types.
- C. They provide additional networking capability.
- D. Customers can upgrade instances as new types become available.
- E. Customers can reserve capacity in an Availability Zone.

210.   How do Amazon EC2 Auto Scaling groups help achieve high availability for a web application?
- A. They automatically add more instances across multiple AWS Regions based on global demand of the application.
- B. They automatically add or replace instances across multiple Availability Zones when the application needs it.
- C. They enable the application's static content to reside closer to end users.
- D. They are able to distribute incoming requests across a tier of web server instances.

211. How can one AWS account use Reserved Instances from another AWS account?
- A. By using Amazon EC2 Dedicated Instances
- B. By using AWS Organizations consolidated billing
- C. By using the AWS Cost Explorer tool
- D. By using AWS Budgets

212. A customer runs an On-Demand Amazon Linux EC2 instance for 3 hours, 5 minutes, and 6 seconds. For how much time will the customer be billed?
- A. 3 hours, 5 minutes
- B. 3 hours, 5 minutes, and 6 seconds
- C. 3 hours, 6 minutes
- D. 4 hours

213. Which of the following AWS services provide compute resources? (Choose two.)
- A. AWS Lambda
- B. Amazon Elastic Container Service (Amazon ECS)
- C. AWS CodeDeploy
- D. Amazon Glacier
- E. AWS Organizations

214. Which AWS service enables users to deploy infrastructure as code by automating the process of provisioning resources?
- A. Amazon GameLift
- B. AWS CloudFormation
- C. AWS Data Pipeline
- D. AWS Glue

215. Which AWS services provide a way to extend an on-premises architecture to the AWS Cloud? (Choose two.)
- A. Amazon EBS
- B. AWS Direct Connect
- C. Amazon CloudFront
- D. AWS Storage Gateway
- E. Amazon Connect
- F. AWS VPN
- G. CloudHSM

216.   Which services use AWS edge locations? (Choose two.)
- A. Amazon CloudFront
- B. AWS Shield
- C. Amazon EC2
- D. Amazon RDS
- E. Amazon ElastiCache

217.   Which service would provide network connectivity in a hybrid architecture that includes the AWS Cloud?
- A. Amazon VPC
- B. AWS Direct Connect
- C. AWS Directory Service
- D. Amazon API Gateway

218.   What is the value of using third-party software from AWS Marketplace instead of installing third-party software on Amazon EC2? (Choose two.)
- A. Users pay for software by the hour or month depending on licensing.
- B. AWS Marketplace enables the user to launch applications with 1-Click.
- C. AWS Marketplace data encryption is managed by a third-party vendor.
- D. AWS Marketplace eliminates the need to upgrade to newer software versions.
- E. Users can deploy third-party software without testing.

219.   Which of the following is a cloud architectural design principle?
- A. Scale up, not out.
- B. Loosely couple components.
- C. Build monolithic systems.
- D. Use commercial database software.

220.   Under the shared responsibility model; which of the following areas are the customer's responsibility? (Choose two.)
- A. Firmware upgrades of network infrastructure
- B. Patching of operating systems
- C. Patching of the underlying hypervisor
- D. Physical security of data centers
- E. Configuration of the security group

221.   Which AWS service identifies security groups that allow unrestricted access to a user's AWS resources?
- A. AWS CloudTrail
- B. AWS Trusted Advisor
- C. Amazon CloudWatch
- D. Amazon Inspector

222.   According to the AWS shared responsibility model, who is responsible for configuration management?
- A. It is solely the responsibility of the customer.
- B. It is solely the responsibility of AWS.
- C. It is shared between AWS and the customer.
- D. It is not part of the AWS shared responsibility model.

223.   Which AWS service is a content delivery network that securely delivers data, video, and applications to users globally with low latency and high speeds?
- A. AWS CloudFormation
- B. AWS Direct Connect
- C. Amazon CloudFront
- D. Amazon Pinpoint

224.   Which benefit of the AWS Cloud supports matching the supply of resources with changing workload demands?
- A. Security
- B. Reliability
- C. Elasticity
- D. High availability

225.   A user is running an application on AWS and notices that one or more AWS-owned IP addresses is involved in a distributed denial-of-service (DDoS) attack. Who should the user contact FIRST about this situation?
- A. AWS Premium Support
- B. AWS Technical Account Manager
- C. AWS Solutions Architect
- D. AWS Trust & Safety Team

226. Which of the following are benefits of hosting infrastructure in the AWS Cloud? (Choose two.)
- A. There are no upfront commitments.
- B. AWS manages all security in the cloud.
- C. Users have the ability to provision resources on demand.
- D. Users have access to free and unlimited storage.
- E. Users have control over the physical infrastructure.

227. What is AWS Trusted Advisor?
- A. It is an AWS staff member who provides recommendations and best practices on how to use AWS.
- B. It is a network of AWS partners who provide recommendations and best practices on how to use AWS.
- C. It is an online tool with a set of automated checks that provides recommendations on cost optimization, performance, and security.
- D. It is another name for AWS Technical Account Managers who provide recommendations on cost optimization, performance, and security.

228. Which AWS service or feature allows a company to visualize, understand, and manage AWS costs and usage over time?
- A. AWS Budgets
- B. AWS Cost Explorer
- C. AWS Organizations
- D. Consolidated billing

229. Which AWS service offers on-demand access to AWS security and compliance reports?
- A. AWS CloudTrail
- B. AWS Artifact
- C. AWS Health
- D. Amazon CloudWatch

230. Which of the following are features of Amazon CloudWatch Logs? (Select TWO.)
- A. Summaries by Amazon Simple Notification Service (Amazon SNS)
- B. Free Amazon Elasticsearch Service analytics
- C. Provided at no charge
- D. Real-time monitoring
- E. Adjustable retention

Commented [MC227]: A, C

--There are no upfront commitments (AWS is on-demand)

--Users can provision resources as and how they see fit.

"6 Advantages of Cloud Computing:
--**Trade capital expense for variable expense**
--Benefit from massive economies of scale
--Stop guessing about capacity (i.e. elasticity)
--**Increased speed and agility**
--Stop spending money running and maintaining data centres
--Go global in minutes"

Incorrect answers:
--AWS does not manage all security in the cloud, it is a shared responsibility model ...

Commented [MC228]: C

"**AWS Trusted Advisor is an online tool that provides you real time guidance to help you provision your resources following AWS best practices.** Whether establishing new workflows, developing applications, or as part of ongoing improvement, take advantage of the recommendations provided by Trusted Advisor on a regular basis to help keep your solutions provisioned optimally."

Checks are for:
--**Performance** ...

Commented [MC229]: B

"**AWS Cost Explorer has an easy-to-use interface that lets you visualize, understand, and manage your AWS costs and usage over time**."

Commented [MC230]: B

"**AWS Artifact is your go-to, central resource for compliance-related information that matters to you. It provides on-demand access to AWS' security and compliance reports and select online agreements**. Reports available in AWS Artifact include our Service Organization Control (SOC) reports, Payment Card Industry (PCI) reports, and certifications from accreditation bodies across geographies and compliance verticals that validate the implementation and operating effectiveness of AWS security controls. Agreements available in AWS ...

Commented [MC231]: D, E

"CloudWatch Logs Features:
- Query Your Log Data
- Monitor Logs from Amazon EC2 Instances
- Monitor AWS CloudTrail Logged Events
-**Log Retention – By default, logs are kept indefinitely and never expire. You can adjust the retention policy for each log group, keeping the indefinite retention, or choosing a retention period between 10 years and one day.**
-Archive Log Data
-Log Route 53 DNS Queries" ...

231. Which of the following are valid ways for a customer to interact with AWS services? (Select TWO.)
- A. Command line interface
- B. On-premises
- C. Software Development Kits
- D. Software-as-a-service
- E. Hybrid

232. Which of the following AWS services can be used to serve large amounts of online video content with the lowest possible latency? (Select TWO.)
- A. AWS Storage Gateway
- B. Amazon S3
- C. Amazon Elastic File System (EFS)
- D. Amazon Glacier
- E. Amazom CloudFront

233. Which of the following security-related services does AWS offer? (Select TWO.)
- A. Multi-factor authentication physical tokens
- B. AWS Trusted Advisor security checks
- C. Data encryption
- D. Automated penetration testing
- E. Amazon S3 copyrighted content detection

234. Which of the following are categories of AWS Trusted Advisor? (Select TWO.)
- A. Fault Tolerance
- B. Instance Usage
- C. Infrastructure
- D. Performance
- E. Storage Capacity

235. Which of the following services could be used to deploy an application to servers running on-premises? (Select TWO.)
- A. AWS Elastic Beanstalk
- B. AWS OpsWorks
- C. AWS CodeDeploy
- D. AWS Batch
- E. AWS X-Ray

236.   Which design principles for cloud architecture are recommended when re-architecting a large monolithic application? (Select TWO.)
- A. Use manual monitoring.
- B. Use fixed servers.
- C. Implement loose coupling.
- D. Rely on individual components.
- E. Design for scalability.

237.   Which AWS services are defined as global instead of regional? (Select TWO.)
- A. Amazon Route 53
- B. Amazon EC2
- C. Amazon S3
- D. Amazon CloudFront
- E. Amazon DynamoDB

238.   The financial benefits of using AWS are: (Select TWO.)
- A. reduced Total Cost of Ownership (TCO).
- B. increased capital expenditure (capex).
- C. reduced operational expenditure (opex).
- D. deferred payment plans for startups.
- E. business credit lines for stratups.

239.   Which of the following can an AWS customer use to launch a new Amazon Relational Database Service (Amazon RDS) cluster? (Select TWO.)
- A. AWS Concierge
- B. AWS CloudFormation
- C. Amazon Simple Storage Service (Amazon S3)
- D. Amazon EC2 Auto Scaling
- E. AWS Management Console

240.   Which of the following security measures protect access to an AWS account? (Select TWO.)
- A. Enable AWS CloudTrail.
- B. Grant least privilege access to IAM users.
- C. Create one IAM user and share with many developers and users.
- D. Enable Amazon CloudFront.
- E. Activate multi-factor authentication (MFA) for privileged users.

241. Which of the following features can be configured through the Amazon Virtual Private Cloud (Amazon VPC) Dashboard? (Select TWO.)
- A. Amazon CloudFront distributions
- B. Amazon Route 53
- C. Security Groups
- D. Subnets
- E. Elastic Load Balancing

242. Which AWS services can be used to gather information about AWS account activity? (Select TWO.)
- A. Amazon CloudFront
- B. AWS Cloud9
- C. AWS CloudTrail
- D. AWS CloudHSM
- E. Amazon CloudWatch

243. What can AWS edge locations be used for? (Select TWO.)
- A. Hosting applications
- B. Delivering content closer to users
- C. Running NoSQL database caching services
- D. Reducing traffic on the server by caching responses
- E. Sending notification messages to end users

244. Access keys in AWS Identity and Access Management (IAM) are used to:
- A. log in to the AWS Management Console.
- B. make programmatic calls to AWS from AWS APIs.
- C. log in to Amazon EC2 instances.
- D. authenticate to AWS CodeCommit repositories.

245. What are the benefits of using the AWS Cloud for companies with customers in many countries around the world? (Choose two.)
- A. Companies can deploy applications in multiple AWS Regions to reduce latency.
- B. Amazon Translate automatically translates third-party website interfaces into multiple languages.
- C. Amazon CloudFront has multiple edge locations around the world to reduce latency.
- D. Amazon Comprehend allows users to build applications that can respond to user requests in many languages.
- E. Elastic Load Balancing can distribute application web traffic to multiple AWS Regions around the world, which reduces latency.

246. Which AWS service handles the deployment details of capacity provisioning, load balancing, Auto Scaling, and application health monitoring?
- A. AWS Config
- B. AWS Elastic Beanstalk
- C. Amazon Route 53
- D. Amazon CloudFront

247. Which AWS service provides inbound and outbound network ACLs to harden external connectivity to Amazon EC2?
- A. AWS IAM
- B. Amazon Connect
- C. Amazon VPC
- D. Amazon API Gateway

248. When a company provisions web servers in multiple AWS Regions, what is being increased?
- A. Coupling
- B. Availability
- C. Security
- D. Durability

249. The pay-as-you-go pricing model for AWS services (choose two):
- A. reduces capital expenditures.
- B. requires payment up front for AWS services.
- C. is relevant only for Amazon EC2, Amazon S3, and Amazon RDS.
- D. reduces operational expenditures.

250. Under the AWS shared responsibility model, AWS is responsible for which security-related task?
- A. Lifecycle management of IAM credentials
- B. Physical security of global infrastructure
- C. Encryption of Amazon EBS volumes
- D. Firewall configuration

251. Under the AWS shared responsibility model, which of the following is an example of security in the AWS Cloud?
- A. Managing edge locations
- B. Physical security
- C. Firewall configuration
- D. Global infrastructure

252. How can an AWS user with an AWS Basic Support plan obtain technical assistance from AWS (chose two)?
- A. AWS Senior Support Engineers
- B. AWS Technical Account Managers
- C. AWS Trusted Advisor
- D. AWS Discussion Forums

253. Which of the following are pillars of the AWS Well-Architected Framework? (Choose two.)
- A. Multiple Availability Zones
- B. Performance efficiency
- C. Security
- D. Encryption usage
- E. High availability

254. After selecting an Amazon EC2 Dedicated Host reservation, which pricing option would provide the largest discount?
- A. No upfront payment
- B. Hourly on-demand payment
- C. Partial upfront payment
- D. All upfront payment

255. What is an advantage of deploying an application across multiple Availability Zones?
- A. There is a lower risk of service failure if a natural disaster causes a service disruption in a given AWS Region.
- B. The application will have higher availability because it can withstand a service disruption in one Availability Zone.
- C. There will be better coverage as Availability Zones are geographically distant and can serve a wider area.
- D. There will be decreased application latency that will improve the user experience.

Commented [MC252]: C

'Security **in** the Cloud' relates to customer security like configuring firewalls.
'Security **of** the Cloud' relates to AWS security such as physical access to infrastructure.

"Security and Compliance is a shared responsibility between AWS and the customer. This shared model can help relieve the customer's operational burden as AWS operates, manages and controls the components from the host operating system and virtualization layer down to the physical security of the facilities in which the service operates. **The customer assumes responsibility and management of the guest operating system (including updates and security patches), other associated application software as well as the configuration of the AWS provided security group firewall**. Customers should carefully consider the services they choose as their responsibilities vary depending on the services used, the ...

Commented [MC253]: C, D

Basic Support is included for all AWS customers and includes:
--Customer Service and Communities - 24x7 access to customer service, documentation, whitepapers, and **support forums**.
--**AWS Trusted Advisor** - Access to the 7 core Trusted Advisor checks and guidance to provision your resources following best practices to increase performance and improve security. ...

Commented [MC254]: B, C

5 basic pillars according to AWS are:
1- Operational excellence
2- **Security**
3- Reliability
4- **Performance efficiency**
5- Cost optimization

Commented [MC255]: D

"You can choose between three payment options when you purchase a Standard or Convertible Reserved Instance. **With the All Upfront option, you pay for the entire Reserved Instance term with one upfront payment. This option provides you with the largest discount compared to On-Demand Instance pricing**"

Commented [MC256]: B

"Unlike other technology infrastructure providers, each AWS Region has multiple AZ's. As we've learned from running the leading cloud infrastructure technology platform since 2006, **customers who care about the availability and performance of their applications want to deploy these applications across multiple AZ's in the same region for fault tolerance and low latency.** AZ's are connected to each other with fast, private fiber-optic networking, enabling you to easily architect applications ...

256.	A Cloud Practitioner is asked how to estimate the cost of using a new application on AWS. What is the MOST appropriate response?
- A. Inform the user that AWS pricing allows for on-demand pricing.
- B. Direct the user to the AWS Pricing Calculator for an estimate.
- C. Use Amazon QuickSight to analyze current spending on-premises.
- D. Use Amazon AppStream 2.0 for real-time pricing analytics.

257.	A company wants to migrate its applications to a VPC on AWS. These applications will need to access on-premises resources. What combination of actions will enable the company to accomplish this goal? (Choose two.)
- A. Use the AWS Service Catalog to identify a list of on-premises resources that can be migrated.
- B. Build a VPN connection between an on-premises device and a virtual private gateway in the new VPC.
- C. Use Amazon Athena to query data from the on-premises database servers.
- D. Connect the company's on-premises data center to AWS using AWS Direct Connect.
- E. Leverage Amazon CloudFront to restrict access to static web content provided through the company's on-premises web servers.

258.	A web application running on AWS has been spammed with malicious requests from a recurring set of IP addresses. Which AWS service can help secure the application and block the malicious traffic?
- A. AWS IAM
- B. Amazon GuardDuty
- C. Amazon Simple Notification Service (Amazon SNS)
- D. AWS WAF

259.	Treating infrastructure as code in the AWS Cloud allows users to:
- A. automate migration of on-premises hardware to AWS data centers.
- B. let a third party automate an audit of the AWS infrastructure.
- C. turn over application code to AWS so it can run on the AWS infrastructure.
- D. automate the infrastructure provisioning process.

260.	A company requires a dedicated network connection between its on-premises servers and the AWS Cloud. Which AWS service should be used?
- A. AWS VPN
- B. AWS Direct Connect
- C. Amazon API Gateway
- D. Amazon Connect

261.   Which AWS service can be used to query stored datasets directly from Amazon S3 using standard SQL?
- A. AWS Glue
- B. AWS Data Pipeline
- C. Amazon CloudSearch
- D. Amazon Athena

262.   AWS CloudFormation is designed to help the user:
- A. model and provision resources.
- B. update application code.
- C. set up data lakes.
- D. create reports for billing.

263.   A Cloud Practitioner must determine if any security groups in an AWS account have been provisioned to allow unrestricted access for specific ports. What is the SIMPLEST way to do this?
- A. Review the inbound rules for each security group in the Amazon EC2 management console to check for port 0.0.0.0/0.
- B. Run AWS Trusted Advisor and review the findings.
- C. Open the AWS IAM console and check the inbound rule filters for open access.
- D. In AWS Config, create a custom rule that invokes an AWS Lambda function to review rules for inbound access.

264.   What are the benefits of developing and running a new application in the AWS Cloud compared to on-premises? (Choose two.)
- A. AWS automatically distributes the data globally for higher durability.
- B. AWS will take care of operating the application.
- C. AWS makes it easy to architect for high availability.
- D. AWS can easily accommodate application demand changes.
- E. AWS takes care application security patching.

265.   A user needs an automated security assessment report that will identify unintended network access to Amazon EC2 instances and vulnerabilities on those instances. Which AWS service will provide this assessment report?
- A. EC2 security groups
- B. AWS Config
- C. Amazon Macie
- D. Amazon Inspector

Commented [MC262]: D

"**Amazon Athena is defined as "an interactive query service that makes it easy to analyse data directly in Amazon Simple Storage Service (Amazon S3) using standard SQL**." This is very similar to other SQL query engines, such as Apache Drill. But unlike Apache Drill, Athena is limited to data only from Amazon's own S3 storage service. However, Athena is able to query a variety of file formats, including, but not limited to CSV, Parquet, JSON, etc…"

Commented [MC263]: A

"**AWS CloudFormation provides a common language for you to model and provision AWS and third party application resources in your cloud environment.** AWS CloudFormation allows you to use programming languages or a simple text file to model and provision, in an automated and secure manner, all the resources needed for your applications across all regions and accounts. This gives you a single source of truth for your AWS and third party resources."

Commented [MC264]: B

"**Trusted Advisor Security Summary - Improve the security of your application by closing gaps, enabling various AWS security features, and examining your permissions:**
--Security groups - Specific ports unrestricted (free)
----**Checks security groups for rules that allow unrestricted access (0.0.0.0/0) to specific ports.**
----Unrestricted access increases opportunities for malicious activity (hacking, denial-of-service attacks, loss of data). …

Commented [MC265]: C, D

Key benefits of cloud computing include:

--C--
High availability - "**AWS delivers the highest network availability of any cloud provider. Each region is fully isolated and comprised of multiple AZs, which are fully isolated partitions of our infrastructure. To better isolate any issues and achieve high availability, you can partition applications across multiple AZs in the same region.** In addition, AWS control planes and the AWS management …

Commented [MC266]: D

"Amazon Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS. Amazon Inspector automatically assesses applications for exposure, vulnerabilities, and deviations from best practices. After performing an assessment, Amazon Inspector produces a detailed list of security findings prioritized by level of severity. These findings can be reviewed directly or as part of detailed assessment reports which are available via the Amazon Inspector console or API. **Amazon Inspector** …

266. How can a company isolate the costs of production and non-production workloads on AWS?
- A. Create Identity and Access Management (IAM) roles for production and non-production workloads.
- B. Use different accounts for production and non-production expenses.
- C. Use Amazon EC2 for non-production workloads and other services for production workloads.
- D. Use Amazon CloudWatch to monitor the use of services.

267. Where can users find a catalog of AWS-recognized providers of third-party security solutions?
- A. AWS Service Catalog
- B. AWS Marketplace
- C. AWS Quick Start
- D. AWS CodeDeploy

268. A Cloud Practitioner needs to store data for 7 years to meet regulatory requirements. Which AWS service will meet this requirement at the LOWEST cost?
- A. Amazon S3
- B. AWS Snowball
- C. Amazon Redshift
- D. Amazon S3 Glacier

269. What are the immediate benefits of using the AWS Cloud? (Choose two.)
- A. Increased IT staff.
- B. Capital expenses are replaced with variable expenses.
- C. User control of infrastructure.
- D. Increased agility.
- E. AWS holds responsibility for security in the cloud.

270. Which security service automatically recognizes and classifies sensitive data or intellectual property on AWS?
- A. Amazon GuardDuty
- B. Amazon Macie
- C. Amazon Inspector
- D. AWS Shield

271.	What is the purpose of AWS Storage Gateway?
- A. It ensures on-premises data storage is 99.999999999% durable.
- B. It transports petabytes of data to and from AWS.
- C. It connects to multiple Amazon EC2 instances.
- D. It connects on-premises data storage to the AWS Cloud.

272.	What should users do if they want to install an application in geographically isolated locations?
- A. Install the application using multiple internet gateways.
- B. Deploy the application to an Amazon VPC.
- C. Deploy the application to multiple AWS Regions.
- D. Configure the application using multiple NAT gateways.

273.	A system in the AWS Cloud is designed to withstand the failure of one or more components. What is this an example of?
- A. Elasticity
- B. High Availability
- C. Scalability
- D. Agility

274.	A Cloud Practitioner needs a consistent and dedicated connection between AWS resources and an on-premises system. Which AWS service can fulfill this requirement?
- A. AWS Direct Connect
- B. AWS VPN
- C. Amazon Connect
- D. AWS Data Pipeline

275.	Within the AWS shared responsibility model, who is responsible for security and compliance?
- A. The customer is responsible.
- B. AWS is responsible.
- C. AWS and the customer share responsibility.
- D. AWS shares responsibility with the relevant governing body.

276.   To use the AWS CLI, users are required to generate:
- A. a password policy.
- B. an access/secret key.
- C. a managed policy.
- D. an API key.

277.   Which AWS service is used to provide encryption for Amazon EBS?
- A. AWS Certificate Manager
- B. AWS Systems Manager
- C. AWS KMS
- D. AWS Config

278.   How does AWS charge for AWS Lambda usage once the free tier has been exceeded? (Choose two.)
- A. By the time it takes for the Lambda function to execute.
- B. By the number of versions of a specific Lambda function.
- C. By the number of requests made for a given Lambda function.
- D. By the programming language that is used for the Lambda function.
- E. By the total number of Lambda functions in an AWS account.

279.   Which of the following describes the relationships among AWS Regions, Availability Zones, and edge locations? (Choose two.)
- A. There are more AWS Regions than Availability Zones.
- B. There are more edge locations than AWS Regions.
- C. An edge location is an Availability Zone.
- D. There are more AWS Regions than edge locations.
- E. There are more Availability Zones than AWS Regions.

280.   What does AWS Shield Standard provide?
- A. WAF rules
- B. DDoS protection
- C. Identity and Access Management (IAM) permissions and access to resources
- D. Data encryption

281. A company wants to build its new application workloads in the AWS Cloud instead of using on-premises resources. What expense can be reduced using the AWS Cloud?
- A. The cost of writing custom-built Java or Node .js code
- B. Penetration testing for security
- C. hardware required to support new applications
- D. Writing specific test cases for third-party applications.

282. What does AWS Marketplace allow users to do? (Choose two.)
- A. Sell unused Amazon EC2 Spot Instances.
- B. Sell solutions to other AWS users.
- C. Buy third-party software that runs on AWS.
- D. Purchase AWS security and compliance documents.
- E. Order AWS Snowball.

283. What does it mean if a user deploys a hybrid cloud architecture on AWS?
- A. All resources run using on-premises infrastructure.
- B. Some resources run on-premises and some run in a colocation center.
- C. All resources run in the AWS Cloud.
- D. Some resources run on-premises and some run in the AWS Cloud.

284. Which AWS service allows users to identify the changes made to a resource over time?
- A. Amazon Inspector
- B. AWS Config
- C. AWS Service Catalog
- D. AWS IAM

285. How can a company reduce its Total Cost of Ownership (TCO) using AWS?
- A. By minimizing large capital expenditures
- B. By having no responsibility for third-party license costs
- C. By having no operational expenditures
- D. By having AWS manage applications

286.   Which activity is a customer responsibility in the AWS Cloud according to the AWS shared responsibility model?
- A. Ensuring network connectivity from AWS to the internet
- B. Patching and fixing flaws within the AWS Cloud infrastructure
- C. Ensuring the physical security of cloud data centers
- D. Ensuring Amazon EBS volumes are backed up

287.   What are the advantages of the AWS Cloud? (Choose two.)
- A. Fixed rate monthly cost
- B. No need to guess capacity requirements
- C. Increased speed to market
- D. Increased upfront capital expenditure
- E. Physical access to cloud data centers

288.   When comparing the total cost of ownership (TCO) of an on-premises infrastructure to a cloud architecture, what costs should be considered? (Choose two.)
- A. The credit card processing fees for application transactions in the cloud.
- B. The cost of purchasing and installing server hardware in the on-premises datacentre.
- C. The cost of administering the infrastructure, including operating system and software installations, patches, backups, and recovering from failures.
- D. The costs of third-party penetration testing.
- E. The advertising costs associated with an ongoing enterprise-wide campaign.

289.   Which AWS feature allows a company to take advantage of usage tiers for services across multiple member accounts?
- A. Service control policies (SCPs)
- B. Consolidated billing
- C. All Upfront Reserved Instances
- D. AWS Cost Explorer

290.   What is one of the customer's responsibilities according to the AWS shared responsibility model?
- A. Virtualization infrastructure
- B. Network infrastructure
- C. Application security
- D. Physical security of hardware

291.   What helps a company provide a lower latency experience to its users globally?
- A. Using an AWS Region that is central to all users
- B. Using a second Availability Zone in the AWS Region that is using used
- C. Enabling caching in the AWS Region that is being used
- D. Using edge locations to put content closer to all users

292.   How can the AWS Cloud increase user workforce productivity after migration from an on-premises data center?
- A. Users do not have to wait for infrastructure provisioning.
- B. The AWS Cloud infrastructure is much faster than an on-premises data center infrastructure.
- C. AWS takes over application configuration management on behalf of users.
- D. Users do not need to address security and compliance issues.

293.   Which AWS service provides a quick and automated way to create and manage AWS accounts?
- A. AWS QuickSight
- B. Amazon Lightsail
- C. AWS Organizations
- D. Amazon Connect

294.   Which Amazon RDS feature can be used to achieve high availability?
- A. Multiple Availability Zones
- B. Amazon Reserved Instances
- C. Provisioned IOPS storage
- D. Enhanced monitoring

295.   Where should users report that AWS resources are being used for malicious purposes?
- A. AWS Trust & Safety team
- B. AWS Shield
- C. AWS Support
- D. AWS Developer Forums

296.   Which AWS service needs to be enabled to track all user account changes within the AWS Management Console?
- A. AWS CloudTrail
- B. Amazon Simple Notification Service (Amazon SNS)
- C. VPC Flow Logs
- D. AWS CloudHSM

297.   What is an AWS Cloud design best practice?
- A. Tight coupling of components
- B. Single point of failure
- C. High availability
- D. Overprovisioning of resources

298.   Which of the following is an example of how moving to the AWS Cloud reduces upfront cost?
- A. By replacing large variable costs with lower capital investments
- B. By replacing large capital investments with lower variable costs
- C. By allowing the provisioning of compute and storage at a fixed level to meet peak demand
- D. By replacing the repeated scaling of virtual servers with a simpler fixed-scale model

299.   When designing a typical three-tier web application, which AWS services and/or features improve availability and reduce the impact failures? (Choose two.)
- A. AWS Auto Scaling for Amazon EC2 instances
- B. Amazon VPC subnet ACLs to check the health of a service
- C. Distributed resources across multiple Availability Zones
- D. AWS Server Migration Service (AWS SMS) to move Amazon EC2 instances into a different Region
- E. Distributed resources across multiple AWS points of presence

300.   Which cloud design principle aligns with AWS Cloud best practices?
- A. Create fixed dependencies among application components
- B. Aggregate services on a single instance
- C. Deploy applications in a single Availability Zone
- D. Distribute the compute load across multiple resources

Commented [MC297]: A

"**AWS CloudTrail is a service that enables governance, compliance, operational auditing, and risk auditing of your AWS account. With CloudTrail, you can log, continuously monitor, and retain account activity related to actions across your AWS infrastructure. CloudTrail provides event history of your AWS account activity, including actions taken through the AWS Management Console, AWS SDKs, command line tools, and other AWS services**. This event history simplifies security analysis, resource change tracking, and troubleshooting. In addition, you can use CloudTrail to detect unusual activity in your ...

Commented [MC298]: C

"**Availability refers to the percentage of time that the infrastructure, system or a solution remains operational under normal circumstances in order to serve its intended purpose.** For cloud infrastructure solutions, availability relates to the time that the datacenter is accessible or delivers the intended IT service as a proportion of the duration for which the service is purchased. The mathematical formula for Availability is as follows: Percentage of availability = (total elapsed time – sum of downtime)/total elapsed time ...

Commented [MC299]: B

"**The key benefit between traditional computing deployments and cloud computing deployments is that the customer no longer needs to expend large sums for hardware, infrastructure, building space and other up-front expenses, i.e. with cloud computing the CapEx (capital expense) is reduced to zero.**

Another associated benefit is that OpEx (operational expense) is greatly reduced as the cost of administering the infrastructure is also greatly reduced due to the clou ...

Commented [MC300]: A, C

--A--
"**Amazon EC2 Auto Scaling helps to maintain your Amazon EC2 instance availability. Whether you are running one Amazon EC2 instance or thousands, you can use Amazon EC2 Auto Scaling to detect impaired Amazon EC2 instances, and replace the instances without intervention. This ensures that your application has the compute capacity that you expect**"

--C--

Commented [MC301]: D

This is horizontal scaling by other words.

"**A "horizontally scalable" system is one that can increase capacity by adding more resources (i.e. computers) to the system. This is in contrast to a "vertically scalable" system, which is constrained to running its processes on only one computer**.

301. Which of the following are recommended practices for managing IAM users? (Choose two.)
- A. Require IAM users to change their passwords after a specified period of time
- B. Prevent IAM users from reusing previous passwords
- C. Recommend that the same password be used on AWS and other sites
- D. Require IAM users to store their passwords in raw text
- E. Disable multi-factor authentication (MFA) for IAM users

302. A company is migrating from on-premises data centers to the AWS Cloud and is looking for hands-on help with the project. How can the company get this support? (Choose two.)
- A. Ask for a quote from the AWS Marketplace team to perform a migration into the company's AWS account.
- B. Contact AWS Support and open a case for assistance
- C. Use AWS Professional Services to provide guidance and to set up an AWS Landing Zone in the company's AWS account
- D. Select a partner from the AWS Partner Network (APN) to assist with the migration
- E. Use Amazon Connect to create a new request for proposal (RFP) for expert assistance in migrating to the AWS Cloud.

303. How does the AWS Enterprise Support Concierge team help users?
- A. Supporting application development
- B. Providing architecture guidance
- C. Answering billing and account inquires
- D. Answering questions regarding technical support cases

304. An application designed to span multiple Availability Zones is described as:
- A. being highly available
- B. having global reach
- C. using an economy of scale
- D. having elasticity

305. A new service using AWS must be highly available. Yet, due to regulatory requirements, all of its Amazon EC2 instances must be located in a single geographic area. According to best practices, to meet these requirements, the EC2 instances must be placed in at least two:
- A. AWS Regions
- B. Availability Zones
- C. subnets
- D. placement groups

Commented [MC302]: A, B

"Security best practices in IAM:
--Lock away your AWS account root user access keys
--Create individual IAM users
--Use groups to assign permissions to IAM users
--Grant least privilege
--Get started using permissions with AWS managed policies
--Validate your policies
--Use customer managed policies instead of inline policies
--Use access levels to review IAM permissions
--**Configure a strong password policy for your users**
--Enable MFA
--Use roles for applications that run on Amazon EC2 instances

Commented [MC303]: C, D

"**The AWS Professional Services organization is a global team of experts that can help you realize your desired business outcomes when using the AWS Cloud**.

We work together with your team and your chosen member of the AWS Partner Network (APN) to execute your enterprise cloud computing initiatives. Some AWS partners specialize in migrating to AWS and can assist th

Commented [MC304]: C

"Your AWS Concierge is a senior customer service agent who is assigned to your account when you subscribe to an Enterprise or qualified Reseller Support plan. **This Concierge agent is your primary point of contact for billing or account inquiries**; when you don't know whom to call, they will find the right people to help. In most cases, the AWS Concierge is available during regular business hours in your headquarters' geography. Outside of business hours, the global customer service team can

Commented [MC305]: A

"**High availability. Protect against data center, availability zone, server, network and storage subsystem failures to keep your business running without downtime**."

"Availability Zones are connected to each other with fast, private fiber-optic networking, **enabling you to architect applications that automatically fail-over between AZs without interruption**. These AZs offer AWS customers an easier and more effective way to design and operate applications and databases, making them more highly

Commented [MC306]: B

"**Each Region is a separate geographic area**. **Each Region has multiple, isolated locations known as Availability Zones**."

"**To have high availability and protect against data center, availability zone, server, network and storage subsystem failures to keep your business running without downtime it is necessary to be deployed to multiple availability zones**."

306. A company has multiple AWS accounts within AWS Organizations and wants to apply the Amazon EC2 Reserved Instances benefit to a single account only. Which action should be taken?
- A. Purchase the Reserved Instances from master payer account and turn off Reserved Instance sharing.
- B. Enable billing alerts in the AWS Billing and Cost Management console.
- C. Purchase the Reserved Instances in individual linked accounts and turn off Reserved Instance sharing from the payer level.
- D. Enable Reserved Instance sharing in the AWS Billing and Cost Management console.

307. Which situation should be reported to the AWS Trust & Safety team?
- A. In Availability Zone has a service disruption
- B. An intrusion attempt is made from an AWS IP address
- C. A user has trouble accessing an Amazon S3 bucket from an AWS IP address
- D. A user needs to change payment methods due to a compromise

308. A company is planning to launch an ecommerce site in a single AWS Region to a worldwide user base. Which AWS services will allow the company to reach users and provide low latency and high transfer speeds? (Choose two.)
- A. Application Load Balancer
- B. AWS Global Accelerator
- C. AWS Direct Connect
- D. Amazon CloudFront
- E. AWS Lambda

309. Which AWS service or resource is serverless?
- A. AWS Lambda
- B. Amazon EC2 instances
- C. Amazon Lightsail
- D. Amazon ElastiCache

310. Which of the following are components of Amazon VPC? (Choose two.)
- A. Objects
- B. Subnets
- C. Buckets
- D. Internet gateways
- E. Access key

311.   AWS Budgets can be used to:
- A. prevent a given user from creating a resource
- B. send an alert when the utilization of Reserved Instances drops below a certain percentage
- C. set resource limits in AWS accounts to prevent overspending
- D. split an AWS bill across multiple forms of payment

312.   Which of the following will enhance the security of access to the AWS Management Console? (Choose two.)
- A. AWS Secrets Manager
- B. AWS Certificate Manager
- C. AWS Multi-Factor Authentication (AWS MFA)
- D. Security groups
- E. Password policies

313.   The AWS Trusted Advisor checks include recommendations regarding which of the following? (Choose two.)
- A. Information on Amazon S3 bucket permissions
- B. AWS service outages
- C. Multi-factor authentication enabled on the AWS account root user
- D. Available software patches
- E. Number of users in the account

314.   Which functions can users perform using AWS KMS?
- A. Create and manage AWS access keys for the AWS account root user
- B. Create and manage AWS access keys for an AWS account IAM user
- C. Create and manage keys for encryption and decryption of data
- D. Create and manage keys for multi-factor authentication

315.   How does AWS Trusted Advisor provide guidance to users of the AWS Cloud? (Choose two.)
- A. It identifies software vulnerabilities in applications running on AWS
- B. It provides a list of cost optimization recommendations based on current AWS usage
- C. It detects potential security vulnerabilities caused by permissions settings on account resources
- D. It automatically corrects potential security issues caused by permissions settings on account resources
- E. It provides proactive alerting whenever an Amazon EC2 instance has been compromised

316. Which of the following are advantages of the AWS Cloud? (Choose two.)
- A. AWS manages the maintenance of the cloud infrastructure
- B. AWS manages the security of applications built on AWS
- C. AWS manages capacity planning for physical servers
- D. AWS manages the development of applications on AWS
- E. AWS manages cost planning for virtual servers

317. A user deploys an Amazon RDS DB instance in multiple Availability Zones. This strategy involves which pillar of the AWS Well-Architected Framework?
- A. Performance efficiency
- B. Reliability
- C. Cost optimization
- D. Security

318. Which AWS services provide a user with connectivity between the AWS Cloud and on-premises resources? (Choose two.)
- A. AWS VPN
- B. Amazon Connect
- C. Amazon Cognito
- D. AWS Direct Connect
- E. AWS Managed Services

319. Which AWS service is used to pay AWS bills, and monitor usage and budget costs?
- A. AWS Billing and Cost Management
- B. Consolidated billing
- C. Amazon CloudWatch
- D. Amazon QuickSight

320. Which element of the AWS global infrastructure consists of one or more discrete data centers, each with redundant power, networking, and connectivity, which are housed in separate facilities?
- A. AWS Regions
- B. Availability Zones
- C. Edge locations
- D. Amazon CloudFront

321.   Which Amazon VPC feature enables users to capture information about the IP traffic that reaches Amazon EC2 instances?
- A. Security groups
- B. Elastic network interfaces
- C. Network ACLs
- D. VPC Flow Logs

322.   Which AWS service can be used to automatically scale an application up and down without making capacity planning decisions?
- A. Amazon AutoScaling
- B. Amazon Redshift
- C. AWS CloudTrail
- D. AWS Lambda

323.   AWS Enterprise Support users have access to which service or feature that is not available to users with other AWS Support plans?
- A. AWS Trusted Advisor
- B. AWS Support case
- C. Concierge team
- D. Amazon Connect

324.   A company wants to migrate a MySQL database to AWS but does not have the budget for Database Administrators to handle routine tasks including provisioning, patching, and performing backups. Which AWS service will support this use case?
- A. Amazon RDS
- B. Amazon DynamoDB
- C. Amazon DocumentDB
- D. Amazon ElastiCache

325.   A company wants to expand from one AWS Region into a second AWS Region. What does the company need to do to start supporting the new Region?
- A. Contact an AWS Account Manager to sign a new contract
- B. Move an Availability Zone to the new Region
- C. Begin deploying resources in the second Region
- D. Download the AWS Management Console for the new Region

326. A user must meet compliance and software licensing requirements that state a workload must be hosted on a physical server. Which Amazon EC2 instance pricing option will meet these requirements?
- A. Dedicated Hosts
- B. Dedicated Instances
- C. Spot Instances
- D. Reserved Instances

327. Which AWS service will provide a way to generate encryption keys that can be used to encrypt data? (Choose two.)
- A. Amazon Macie
- B. AWS Certificate Manager
- C. AWS Key Management Service (AWS KMS)
- D. AWS Secrets Manager
- E. AWS CloudHSM

328. A company is planning to migrate from on-premises to the AWS Cloud. Which AWS tool or service provides detailed reports on estimated cost savings after migration?
- A. AWS Total Cost of Ownership (TCO) Calculator
- B. Cost Explorer
- C. AWS Budgets
- D. AWS Migration Hub

329. What can assist in evaluating an application for migration to the cloud? (Choose two.)
- A. AWS Trusted Advisor
- B. AWS Professional Services
- C. AWS Systems Manager
- D. AWS Partner Network (APN)
- E. AWS Secrets Manager

330. Which AWS service helps users meet contractual and regulatory compliance requirements for data security by using dedicated hardware appliances within the AWS Cloud?
- A. AWS Secrets Manager
- B. AWS CloudHSM
- C. AWS Key Management Service (AWS KMS)
- D. AWS Directory Service

Commented [MC327]: A

"**Amazon EC2 Dedicated Hosts allow you to use your eligible software licenses from vendors such as Microsoft and Oracle on Amazon EC2, so that you get the flexibility and cost effectiveness of using your own licenses, but with the resiliency, simplicity and elasticity of AWS**. An Amazon EC2 Dedicated Host is a physical server fully dedicated for your use, so you can help address corporate compliance requirements. A dedicated host is a complete physical machine with a single partition."

Notes:
--Dedicated instances and dedicated hosts are separate offerings.

--Dedicated Instances are Amazon EC2 instances that run in a VPC on hardware that's dedicated to a single customer.

Commented [MC328]: C, E

--C--
"**AWS Key Management Service (KMS) is an Amazon Web Services product that allows administrators to create, delete and control keys that encrypt data stored in AWS databases and products**"

--E--

Commented [MC329]: A

"**Use AWS Total Cost of Ownership (TCO) Calculator to compare the cost of running your applications in an on-premises or colocation environment to AWS**. Describe your on-premises or colocation configuration to produce a detailed cost comparison with AWS."

Incorrect answers:

Commented [MC330]: B, D

"**AWS Professional Services helps you automate and accelerate the migration of large numbers of workloads to the AWS Cloud**.
...
We work together with your team and your chosen member of the AWS Partner Network (APN) to execute your enterprise cloud computing initiatives. Some AWS partners specialize in migrating to AWS and can assist th

Commented [MC331]: B

"**(AWS) CloudHSM (Hardware Security Module) service helps you meet corporate, contractual, and regulatory compliance requirements for data security by using dedicated Hardware Security Module (HSM) instances within the AWS cloud.** AWS and AWS Marketplace partners offer a variety of solutions for protecting sensitive data within the AWS platform, but for some applications and data subject to contractual or regulatory mandates for managing cryptographic keys, additional protection may be necessary.

331. Under the AWS shared responsibility model, the customer manages which of the following? (Choose two.)
- A. Decommissioning of physical storage devices
- B. Security group and ACL configuration
- C. Patch management of an Amazon RDS instance operating system
- D. Controlling physical access to data centers
- E. Patch management of an Amazon EC2 instance operating system

332. Which AWS service is suitable for an event-driven workload?
- A. Amazon EC2
- B. AWS Elastic Beanstalk
- C. AWS Lambda
- D. Amazon Lumberyard

333. What is a value proposition of the AWS Cloud?
- A. AWS is responsible for security in the AWS Cloud
- B. No long-term contract is required
- C. Provision new servers in days
- D. AWS manages user applications in the AWS Cloud

334. What is a characteristic of Amazon S3 cross-region replication?
- A. Both source and destination S3 buckets must have versioning disabled
- B. The source and destination S3 buckets cannot be in different AWS Regions
- C. S3 buckets configured for cross-region replication can be owned by a single AWS account or by different accounts
- D. The source S3 bucket owner must have the source and destination AWS Regions disabled for their account

335. What is a user responsible for when running an application in the AWS Cloud?
- A. Managing physical hardware
- B. Updating the underlying hypervisor
- C. Providing a list of users approved for data center access
- D. Managing application software updates

336. A company that does business online needs to quickly deliver new functionality in an iterative manner, minimizing the time to market. Which AWS Cloud feature can provide this?
- A. Elasticity
- B. High availability
- C. Agility
- D. Reliability

337. Which features or services can be used to monitor costs and expenses for an AWS account? (Choose two.)
- A. AWS Cost and Usage report
- B. AWS product pages
- C. AWS Pricing Calculator
- D. Billing alerts and Amazon CloudWatch alarms
- E. AWS Price List API

338. Amazon Route 53 enables users to:
- A. encrypt data in transit
- B. register DNS domain names
- C. generate and manage SSL certificates
- D. establish a dedicated network connection to AWS

339. Which AWS service helps identify malicious or unauthorized activities in AWS accounts and workloads?
- A. Amazon Rekognition
- B. AWS Trusted Advisor
- C. Amazon GuardDuty
- D. Amazon CloudWatch

340. A company wants to try a third-party ecommerce solution before deciding to use it long term. Which AWS service or tool will support this effort?
- A. AWS Marketplace
- B. AWS Partner Network (APN)
- C. AWS Managed Services
- D. AWS Service Catalog

341. Which AWS service is a managed NoSQL database?
- A. Amazon Redshift
- B. Amazon DynamoDB
- C. Amazon Aurora
- D. Amazon RDS for MariaDB

342. Which AWS service should be used to create a billing alarm?
- A. AWS Trusted Advisor
- B. AWS CloudTrail
- C. Amazon CloudWatch
- D. Amazon QuickSight

343. A company is hosting a web application in a Docker container on Amazon EC2. AWS is responsible for which of the following tasks?
- A. Scaling the web application and services developed with Docker
- B. Provisioning or scheduling containers to run on clusters and maintain their availability
- C. Performing hardware maintenance in the AWS facilities that run the AWS Cloud
- D. Managing the guest operating system, including updates and security patches

344. Users are reporting latency when connecting to a website with a global customer base. Which AWS service will improve the customer experience by reducing latency?
- A. Amazon CloudFront
- B. AWS Direct Connect
- C. Amazon EC2 Auto Scaling
- D. AWS Transit Gateway

345. Which actions represent best practices for using AWS IAM? (Choose two.)
- A. Configure a strong password policy
- B. Share the security credentials among users of AWS accounts who are in the same Region
- C. Use access keys to log in to the AWS Management Console
- D. Rotate access keys on a regular basis
- E. Avoid using IAM roles to delegate permissions

346.	Which AWS feature or service can be used to capture information about incoming and outgoing traffic in an AWS VPC infrastructure?
- A. AWS Config
- B. VPC Flow Logs
- C. AWS Trusted Advisor
- D. AWS CloudTrail

347.	A company wants to use an AWS service to monitor the health of application endpoints, with the ability to route traffic to healthy regional endpoints to improve application availability. Which service will support these requirements?
- A. Amazon Inspector
- B. Amazon CloudWatch
- C. AWS Global Accelerator
- D. Amazon CloudFront

348.	According to the AWS Well-Architected Framework, what change management steps should be taken to achieve reliability in the AWS Cloud? (Choose two.)
- A. Use AWS Config to generate an inventory of AWS resources
- B. Use service limits to prevent users from creating or making changes to AWS resources
- C. Use AWS CloudTrail to record AWS API calls into an auditable log file
- D. Use AWS Certificate Manager to whitelist approved AWS resources and services
- E. Use Amazon GuardDuty to validate configuration changes made to AWS resources

349.	Which service can be used to monitor and receive alerts for AWS account root user AWS Management Console sign-in events?
- A. Amazon CloudWatch
- B. AWS Config
- C. AWS Trusted Advisor
- D. AWS IAM

350.	Which design principle should be considered when architecting in the AWS Cloud?
- A. Think of servers as non-disposable resources
- B. Use synchronous integration of services
- C. Design loosely coupled components
- D. Implement the least permissive rules for security groups

351. Which AWS services can be used to move data from on-premises data centers to AWS? (Choose two.)
- A. AWS Snowball
- B. AWS Lambda
- C. AWS ElastiCache
- D. AWS Database Migration Service (AWS DMS)
- E. Amazon API Gateway

352. A batch workload takes 5 hours to finish on an Amazon EC2 instance. The amount of data to be processed doubles monthly and the processing time is proportional. What is the best cloud architecture to address this consistently growing demand?
- A. Run the application on a bigger EC2 instance size.
- B. Switch to an EC2 instance family that better matches batch requirements.
- C. Distribute the application across multiple EC2 instances and run in parallel.
- D. Run the application on a bare metal EC2 instance.

353. Each department in a company has its own independent AWS account and its own payment method. New company leadership wants to centralize departmental governance and consolidate payments. How can this be achieved using AWS services & features?
- A. Forward monthly invoices for each account. Then create IAM roles to allow cross-account access.
- B. Create a new AWS account. Then configure AWS Organizations and invite all existing accounts to join.
- C. Configure AWS Organizations in each of the existing accounts. Then link all accounts together.
- D. Use Cost Explorer to combine costs from all accounts. Then replicate IAM policies across accounts.

354. The ability to horizontally scale Amazon EC2 instances based on demand is an example of which concept in the AWS Cloud value proposition?
- A. Economy of scale
- B. Elasticity
- C. High availability
- D. Agility

355. An ecommerce company anticipates a huge increase in web traffic for two very popular upcoming shopping holidays. Which AWS service or feature can be configured to dynamically adjust resources to meet this change in demand?
- A. AWS CloudTrail
- B. Amazon EC2 Auto Scaling
- C. Amazon Forecast
- D. AWS Config

Commented [MC352]: A, D

--A--
"**AWS Snowball:**
Petabyte-scale data transport with on-board storage and compute capabilities
part of the AWS Snow Family, is an edge computing, data migration, and edge storage device.
--You can use these devices for data collection, machine learning and processing, and storage in environments with intermittent connectivity (like manufacturing, industrial, and transportation) or in extremely remote locations (like military or maritime operations) before shipping them back to AWS.

Commented [MC353]: C

"**Scale horizontally: to increase aggregate workload availability. Replace one large resource with multiple small resources to reduce the impact of a single failure on the overall workload. Distribute requests across multiple, smaller resources to ensure that they don't share a common point of failure.**"

Commented [MC354]: B

"(AWS) Organizations helps you centrally manage and govern your environment as you grow and scale your AWS resources. As an administrator of an organization, you can create accounts in your organization and invite existing accounts to join the organization. Allows you to:
--programmatically create new AWS accounts and allocate resources
--group accounts to organize your workflows
--**apply policies to accounts or groups for governance**
--**define central configurations and audit requirements**

Commented [MC355]: B

"**In cloud computing, elasticity is defined as "the degree to which a system is able to adapt to workload changes by provisioning and de-provisioning resources in an autonomic manner, such that at each point in time the available resources match the current demand as closely as possible.**

Some cloud solutions can also be automatically adjusted to meet these needs. This means you can set them up to scale up or down automatically based on certain

Commented [MC356]: B

"**The goal of an Auto Scaling Group (ASG) is to:**
--**Scale out (add EC2 instances) to match an increased load**
--**Scale in (remove EC2 instances) to match a decreased load**
--**Ensure we have a minimum and a maximum number of machines running**
--**Automatically register new instances to a load balancer**
--**Replace unhealthy instances**

356. Which AWS service enables users to securely connect to AWS resources over the public internet?
- A. Amazon VPC peering
- B. AWS Direct Connect
- C. AWS VPN
- D. Amazon Pinpoint

357. Which tool is used to forecast AWS spending?
- A. AWS Trusted Advisor
- B. AWS Organizations
- C. Cost Explorer
- D. Amazon Inspector

358. A company is running an ecommerce application hosted in Europe. To decrease latency for users who access the website from other parts of the world, the company would like to cache frequently accessed static content closer to the users. Which AWS service will support these requirements?
- A. Amazon ElastiCache
- B. Amazon CloudFront
- C. Amazon Elastic File System (Amazon EFS)
- D. Amazon Elastic Block Store (Amazon EBS)

359. Which of the following is a component of the AWS Global Infrastructure?
- A. Amazon Alexa
- B. AWS Regions
- C. Amazon Lightsail
- D. AWS Organizations

360. Which AWS service will help users determine if an application running on an Amazon EC2 instance has sufficient CPU capacity?
- A. Amazon CloudWatch
- B. AWS Config
- C. AWS CloudTrail
- D. Amazon Inspector

361.   Why is it beneficial to use Elastic Load Balancers with applications?
- A. They allow for the conversion from Application Load Balancers to Classic Load Balancers.
- B. They are capable of handling constant changes in network traffic patterns.
- C. They automatically adjust capacity.
- D. They are provided at no charge to users.

362.   Which tasks are the customer's responsibility in the AWS shared responsibility model? (Choose two.)
- A. Infrastructure facilities access management
- B. Cloud infrastructure hardware lifecycle management
- C. Configuration management of user's applications
- D. Networking infrastructure protection
- E. Security groups configuration

363.   IT systems should be designed to reduce interdependencies, so that a change or failure in one component does not cascade to other components. This is an example of which principle of cloud architecture design?
- A. Scalability
- B. Loose coupling
- C. Automation
- D. Automatic scaling

364.   Which AWS service or feature can enhance network security by blocking requests from a particular network for a web application on AWS? (Choose two.)
- A. AWS WAF
- B. AWS Trusted Advisor
- C. AWS Direct Connect
- D. AWS Organizations
- E. Network ACLs

365.   An application runs on multiple Amazon EC2 instances that access a shared file system simultaneously. Which AWS storage service should be used?
- A. Amazon EBS
- B. Amazon EFS
- C. Amazon S3
- D. AWS Artifact
- E. Amazon EC2 instance store

366.   A web application is hosted on AWS using an Elastic Load Balancer, multiple Amazon EC2 instances, and Amazon RDS. Which security measures fall under the responsibility of AWS? (Choose two.)
- A. Running a virus scan on EC2 instances
- B. Protecting against IP spoofing and packet sniffing
- C. Installing the latest security patches on the RDS instance
- D. Encrypting communication between the EC2 instances and the Elastic Load Balancer
- E. Configuring a security group and a network access control list (NACL) for EC2

367.   What is the benefit of elasticity in the AWS Cloud?
- A. Ensure web traffic is automatically spread across multiple AWS Regions.
- B. Minimize storage costs by automatically archiving log data.
- C. Enable AWS to automatically select the most cost-effective services.
- D. Automatically adjust the required compute capacity to maintain consistent performance.

368.   The continual reduction of AWS Cloud pricing is due to:
- A. pay-as-you go pricing
- B. the AWS global infrastructure
- C. economies of scale
- D. reserved storage pricing

369.   A company needs an Amazon S3 bucket that cannot have any public objects due to compliance requirements. How can this be accomplished?
- A. Enable S3 Block Public Access from the AWS Management Console.
- B. Hold a team meeting to discuss the importance if only uploading private S3 objects.
- C. Require all S3 objects to be manually approved before uploading.
- D. Create a service to monitor all S3 uploads and remove any public uploads.

370.   A Cloud Practitioner identifies a billing issue after examining the AWS Cost and Usage report in the AWS Management Console. Which action can be taken to resolve this?
- A. Open a detailed case related to billing and submit it to AWS Support for help.
- B. Upload data describing the issue to a new object in a private Amazon S3 bucket.
- C. Create a pricing application and deploy it to a right-sized Amazon EC2 instance for more information.
- D. Proceed with creating a new dashboard in Amazon QuickSight.

371.   What does the AWS Pricing Calculator do?
- A. Compares on-premises costs to colocation environments
- B. Estimates monthly billing based on projected usage
- C. Estimates power consumption at existing data centers
- D. Estimates CPU utilization

372.   Who is responsible for patching the guest operating system for Amazon RDS?
- A. The customer Database Administrator
- B. Managed partners
- C. AWS

373.   Which AWS services may be scaled using AWS Auto Scaling? (Choose two.)
- A. Amazon EC2
- B. Amazon DynamoDB
- C. Amazon S3
- D. Amazon Route 53
- E. Amazon Redshift

374.   Which of the following are benefits of AWS Global Accelerator? (Choose two.)
- A. Reduced cost to run services on AWS
- B. Improved availability of applications deployed on AWS
- C. Higher durability of data stored on AWS
- D. Decreased latency to reach applications deployed on AWS
- E. Higher security of data stored on AWS

375.   A user who wants to get help with billing and reactivate a suspended account should submit an account and billing request to:
- A. the AWS Support forum
- B. AWS Abuse
- C. an AWS Solutions Architect
- D. AWS Support

376. Which AWS Cloud best practice uses the elasticity and agility of cloud computing?
- A. Provision capacity based on past usage and theoretical peaks
- B. Dynamically and predictively scale to meet usage demands
- C. Build the application and infrastructure in a data center that grants physical access
- D. Break apart the application into loosely coupled components

377. Which method helps to optimize costs of users moving to the AWS Cloud?
- A. Paying only for what is used
- B. Purchasing hardware before it is needed
- C. Manually provisioning cloud resources
- D. Purchasing for the maximum possible load

378. Under the AWS shared responsibility model, which of the following is a customer responsibility?
- A. Installing security patches for the Xen and KVM hypervisors
- B. Installing operating system patches for Amazon DynamoDB
- C. Installing operating system security patches for Amazon EC2 database instances
- D. Installing operating system security patches for Amazon RDS database instances

379. The AWS Cost Management tools give users the ability to do which of the following? (Choose two.)
- A. Terminate all AWS resources automatically if budget thresholds are exceeded.
- B. Break down AWS costs by day, service, and linked AWS account.
- C. Create budgets and receive notifications if current of forecasted usage exceeds the budgets.
- D. Switch automatically to Reserved Instances or Spot Instances, whichever is most cost-effective.
- E. Move data stored in Amazon S3 to a more cost-effective storage class.

380. Under the AWS shared responsibility model, the security and patching of the guest operating system is the responsibility of:
- A. AWS Support
- B. the customer
- C. AWS Systems Manager
- D. AWS Config

Commented [MC377]: B

"**In cloud computing, elasticity is defined as "the degree to which a system is able to adapt to workload changes by provisioning and de-provisioning resources in an autonomic manner, such that at each point in time the available resources match the current demand as closely as possible**

Some cloud solutions can also be automatically adjusted to meet these needs. This means you can set them up to scale up or down automatically based on certain conditions, like when your cloud solution is running out of processing power."

Commented [MC378]: A

"**AWS offers you a pay-as-you-go approach for pricing for over 160 cloud services. With AWS you pay only for the individual services you need, for as long as you use them, and without requiring long-term contracts or complex licensing**. AWS pricing is similar to how you pay for utilities like water and electricity. You only pay for the services you consume, and once you stop using them, there are no additional costs or termination fees."

Commented [MC379]: C

"Security and Compliance is a shared responsibility between AWS and the customer. This shared model can help relieve the customer's operational burden as AWS operates, manages and controls the components from the host operating system and virtualization layer down to the physical security of the facilities in which the service operates. The nature of this shared responsibility also provides the flexibility and customer control that permits the deployment. This differentiation of responsibility is

Commented [MC380]: B, C

"AWS has a set of solutions to help you with cost management and optimization. This includes services, tools, and resources to organize and track cost and usage data, enhance control through consolidated billing and access permission, enable better planning through budgeting and forecasts, and further lower cost with resources and pricing optimizations."

"The AWS Cost and Usage Reports contains the most comprehensive set of cost and usage data available.

Commented [MC381]: B

"Security and Compliance is a shared responsibility between AWS and the customer. This shared model can help relieve the customer's operational burden as AWS operates, manages and controls the components from the host operating system and virtualization layer down to the physical security of the facilities in which the service operates. The nature of this shared responsibility also provides the flexibility and customer control that permits the deployment. This differentiation of responsibility is

381. Which AWS service makes it easy to create and manage AWS users and groups, and provide them with secure access to AWS resources at no charge?
- A. AWS Direct Connect
- B. Amazon Connect
- C. AWS Identity and Access Management (IAM)
- D. AWS Firewall Manager

382. Which AWS service can be used to turn text into life-like speech?
- A. Amazon Polly
- B. Amazon Transcribe
- C. Amazon Rekognition
- D. Amazon Lex

383. What is one of the core principles to follow when designing a highly available application in the AWS Cloud?
- A. Design using a serverless architecture
- B. Assume that all components within an application can fail
- C. Design AWS Auto Scaling into every application
- D. Design all components using open-source code

384. A user needs to generate a report that outlines the status of key security checks in an AWS account. The report must include:
☞ The status of Amazon S3 bucket permissions.
☞ Whether multi-factor authentication is enabled for the AWS account root user.
☞ If any security groups are configured to allow unrestricted access.
Where can all this information be found in one location?
- A. Amazon QuickSight dashboard
- B. AWS CloudTrail trails
- C. AWS Trusted Advisor report
- D. IAM credential report

385. Which Amazon EC2 pricing model should be used to comply with per-core software license requirements?
- A. Dedicated Hosts
- B. On-Demand Instances
- C. Spot Instances
- D. Reserved Instances

386. Which of the AWS global infrastructure is used to cache copies of content for faster delivery to users across the globe?
- A. AWS Regions
- B. Availability Zones
- C. Edge locations
- D. Data centers

387. Using AWS Config to record, audit, and evaluate changes to AWS resources to enable traceability is an example of which AWS Well-Architected Framework pillar?
- A. Security
- B. Operational excellence
- C. Performance efficiency
- D. Cost optimization

388. A user needs to quickly deploy a non-relational database on AWS. The user does not want to manage the underlying hardware or the database software. Which AWS service can be used to accomplish this?
- A. Amazon RDS
- B. Amazon DynamoDB
- C. Amazon Aurora
- D. Amazon Redshift

389. A Cloud Practitioner is developing a disaster recovery plan and intends to replicate data between multiple geographic areas. Which of the following meets these requirements?
- A. AWS Accounts
- B. AWS Regions
- C. Availability Zones
- D. Edge locations

390. Which features and benefits does the AWS Organizations service provide? (Choose two.)
- A. Establishing real-time communications between members of an internal team
- B. Facilitating the use of NoSQL databases
- C. Providing automated security checks
- D. Implementing consolidated billing
- E. Enforcing the governance of AWS accounts

391.   Which AWS service is used to automate configuration management using Chef and Puppet?
- A. AWS Config
- B. AWS OpsWorks
- C. AWS CloudFormation
- D. AWS Systems Manager

392.   Which tool is best suited for combining the billing of AWS accounts that were previously independent from one another?
- A. Detailed billing report
- B. Consolidated billing
- C. AWS Cost and Usage report
- D. Cost allocation report

393.   The AWS Total Cost of Ownership (TCO) Calculator is used to:
- A. receive reports that break down AWS Cloud compute costs by duration, resource, or tags
- B. estimate savings when comparing the AWS Cloud to an on-premises environment
- C. estimate a monthly bill for the AWS Cloud resources that will be used
- D. enable billing alerts to monitor actual AWS costs compared to estimated costs

394.   Under the AWS shared responsibility model, which of the following are customer responsibilities? (Choose two.)
- A. Setting up server-side encryption on an Amazon S3 bucket
- B. Amazon RDS instance patching
- C. Network and firewall configurations
- D. Physical security of data center facilities
- E. Compute capacity availability

395.   What is the MINIMUM AWS Support plan level that will provide users with access to the AWS Support API?
- A. Developer
- B. Enterprise
- C. Business
- D. Basic

396.   A company has deployed several relational databases on Amazon EC2 instances. Every month, the database software vendor releases new security patches that need to be applied to the databases. What is the MOST efficient way to apply the security patches?
- A. Connect to each database instance on a monthly basis, and download and apply the necessary security patches from the vendor.
- B. Enable automatic patching for the instances using the Amazon RDS console.
- C. In AWS Config, configure a rule for the instances and the required patch level.
- D. Use AWS Systems Manager to automate database patching according to a schedule.

397.   A company wants to use Amazon Elastic Compute Cloud (Amazon EC2) to deploy a global commercial application. The deployment solution should be built with the highest redundancy and fault tolerance. Based on this situation, the Amazon EC2 instances should be deployed:
- A. in a single Availability Zone in one AWS Region
- B. with multiple Elastic Network Interfaces belonging to different subnets
- C. across multiple Availability Zones in one AWS Region
- D. across multiple Availability Zones in two AWS Regions

398.   A company has an application with users in both Australia and Brazil. All the company infrastructure is currently provisioned in the Asia Pacific (Sydney) Region in Australia, and Brazilian users are experiencing high latency. What should the company do to reduce latency?
- A. Implement AWS Direct Connect for users in Brazil
- B. Provision resources in the South America (Sao Paulo) Region in Brazil
- C. Use AWS Transit Gateway to quickly route users from Brazil to the application
- D. Launch additional Amazon EC2 instances in Sydney to handle the demand

399.   An Amazon EC2 instance runs only when needed yet must remain active for the duration of the process. What is the most appropriate purchasing option?
- A. Dedicated Instances
- B. Spot Instances
- C. On-Demand Instances
- D. Reserved Instances

400.   Which AWS dashboard displays relevant and timely information to help users manage events in progress, and provides proactive notifications to help plan for scheduled activities?
- A. AWS Service Health Dashboard
- B. AWS Personal Health Dashboard
- C. AWS Trusted Advisor dashboard
- D. Amazon CloudWatch dashboard

401.   Which AWS hybrid storage service enables a user's on-premises applications to seamlessly use AWS Cloud storage?
- A. AWS Backup
- B. Amazon Connect
- C. AWS Direct Connect
- D. AWS Storage Gateway

402.   Which of the following acts as a virtual firewall at the Amazon EC2 instance level to control traffic for one or more instances?
- A. Access keys
- B. Virtual private gateways
- C. Security groups
- D. Access Control Lists (ACL)

403.   What is the most efficient way to establish network connectivity from on-premises to multiple VPCs in different AWS Regions?
- A. Use AWS Direct Connect
- B. Use AWS VPN
- C. Use AWS Client VPN
- D. Use an AWS Transit Gateway

404.   Which AWS Support plan provides access to architectural and operational reviews, as well as 24/7 access to Senior Cloud Support Engineers through email, online chat, and phone?
- A. Basic
- B. Business
- C. Developer
- D. Enterprise

405.   Which AWS service or feature helps restrict the AWS services, resources, and individual API actions the users and roles in each member account can access?
- A. Amazon Cognito
- B. AWS Organizations
- C. AWS Shield
- D. AWS Firewall Manager

Commented [MC402]: D

"**AWS Storage Gateway is a hybrid cloud storage service that gives you on-premises access to virtually unlimited cloud storage**.
--Customers use Storage Gateway to simplify storage management and reduce costs for key hybrid cloud storage use cases. These include moving backups to the cloud, using on-premises file shares backed by cloud storage, and providing low latency access to data in AWS for on-premises applications, as well as various migration, backup, archiving, processing, moving data to S3 for in-cloud workloads and tiered storage; and disaster recovery use cases.

Commented [MC403]: C

"**A security group acts as a virtual firewall for your instance to control inbound and outbound traffic.** When you launch an instance in a VPC, you can assign up to five security groups to the instance. **Security groups act at the instance level, not the subnet level**. Therefore, each instance in a subnet in your VPC can be assigned to a different set of security groups."

Commented [MC404]: D

"Transit Gateway is for having transitive peering between thousands of VPC and on-premises, hub-and-spoke (star) connection.

Transit Gateway abstracts away the complexity of maintaining VPN connections with hundreds of VPCs."

"**AWS Transit Gateway now supports the ability to establish peering connections between Transit Gateways in different AWS Regions**. Transit Gateway is a service th...

Commented [MC405]: D

"**Only with Business and Enterprise support do you get 24x7 phone, email, and chat access to Cloud Support Engineers**"

Architectural and operational reviews are only included with an Enterprise support plan:
--"**AWS Infrastructure Event Management (IEM) offers architecture and scaling guidance and operational support during the preparation and execution of planne...

Commented [MC406]: B

"AWS Organizations helps you centrally manage and govern your environment as you grow and scale your AWS resources. As an administrator of an organization, you can create accounts in your organization and invite existing accounts to join the organization. Allows you to:
--programmatically create new AWS accounts and allocate resources
--group accounts to organize your workflows
--apply policies to accounts or groups for governance
--define central configurations and audit requirements

406.   Which Amazon S3 storage class is optimized to provide access to data with lower resiliency requirements, but rapid access when needed such as duplicate backups?
- A. Amazon S3 Standard
- B. Amazon S3 Glacier Deep Archive
- C. Amazon S3 One Zone-Infrequent Access
- D. Amazon S3 Glacier

407.   What is an Availability Zone in AWS?
- A. One or more physical data centers
- B. A completely isolated geographic location
- C. One or more edge locations based around the world
- D. A data center location with a single source of power and networking

408.   Which AWS services can be used as infrastructure automation tools? (Choose two.)
- A. AWS CloudFormation
- B. Amazon CloudFront
- C. AWS Batch
- D. AWS OpsWorks
- E. Amazon QuickSight

409.   Which AWS service enables users to create copies of resources across AWS Regions?
- A. Amazon ElastiCache
- B. AWS CloudFormation
- C. AWS CloudTrail
- D. AWS Systems Manager

410.   A user would like to encrypt data that is received, stored, and managed by AWS CloudTrail. Which AWS service will provide this capability?
- A. AWS Secrets Manager
- B. AWS Systems Manager
- C. AWS Key Management Service (AWS KMS)
- D. AWS Certificate Manager

411. Which AWS Cloud benefit eliminates the need for users to try estimating future infrastructure usage?
- A. Easy and fast deployment of applications in multiple Regions around the world
- B. Security of the AWS Cloud
- C. Elasticity of the AWS Cloud
- D. Lower variable costs due to massive economies of scale

412. What credential components are required to gain programmatic access to an AWS account? (Choose two.)
- A. An access key ID
- B. A primary key
- C. A secret access key
- D. A user ID
- E. A secondary key

413. Which of the following are AWS compute services? (Select two.)
- A. Amazon Lightsail
- B. AWS Systems Manager
- C. AWS CloudFormation
- D. AWS Batch
- E. Amazon Inspector
-

414. Which AWS service provides the ability to detect inadvertent data leaks of personally identifiable information (PII) and user credential data?
- A. Amazon GuardDuty
- B. Amazon Inspector
- C. Amazon Macie
- D. AWS Shield

415. Which tool can be used to monitor AWS service limits?
- A. AWS Total Cost of Ownership (TCO) Calculator
- B. AWS Trusted Advisor
- C. AWS Personal Health Dashboard
- D. AWS Cost and Usage report

416.   Which of the following describes a security best practice that can be implemented using AWS IAM?
- A. Disable AWS Management Console access for all users
- B. Generate secret keys for every IAM user
- C. Grant permissions to users who are required to perform a given task only
- D. Store AWS credentials within Amazon EC2 instances

417.   What can be used to automate and manage secure, well-architected, multi-account AWS environments?
- A. AWS shared responsibility model
- B. AWS Control Tower
- C. AWS Security Hub
- D. AWS Well-Architected Tool

418.   Which AWS service or feature allows a user to easily scale connectivity among thousands of VPCs?
- A. VPC peering
- B. AWS Transit Gateway
- C. AWS Direct Connect
- D. AWS Global Accelerator

419.   A company needs protection from expanded distributed denial of service (DDoS) attacks on its website and assistance from AWS experts during such events. Which AWS managed service will meet these requirements?
- A. AWS Shield Advanced
- B. AWS Firewall Manager
- C. AWS WAF
- D. Amazon GuardDuty

420.   Under the AWS shared responsibility model, what are the customer's responsibilities? (Choose two.)
- A. Physical and environmental security
- B. Physical network devices including firewalls
- C. Storage device decommissioning
- D. Security of data in transit
- E. Data integrity authentication

421.   A cloud practitioner has a data analysis workload that is infrequently executed and can be interrupted without harm. To optimize for cost, which Amazon EC2 purchasing option should be used?
- A. On-Demand Instances
- B. Reserved Instances
- C. Spot Instances
- D. Dedicated Hosts

422.   Which AWS container service will help a user install, operate, and scale the cluster management infrastructure?
- A. Amazon Elastic Container Registry (Amazon ECR)
- B. AWS Elastic Beanstalk
- C. Amazon Elastic Container Service (Amazon ECS)
- D. Amazon Elastic Block Store (Amazon EBS)

423.   Which of the following allows an application running on an Amazon EC2 instance to securely write data to an Amazon S3 bucket without using long term credentials?
- A. Amazon Cognito
- B. AWS Shield
- C. AWS IAM role
- D. AWS IAM user access key

424.   A company with a Developer-level AWS Support plan provisioned an Amazon RDS database and cannot connect to it. Who should the developer contact for this level of support?
- A. AWS Support using a support case
- B. AWS Professional Services
- C. AWS technical account manager
- D. AWS consulting partners

425.   What is the purpose of having an internet gateway within a VPC?
- A. To create a VPN connection to the VPC
- B. To allow communication between the VPC and the Internet
- C. To impose bandwidth constraints on internet traffic
- D. To load balance traffic from the Internet across Amazon EC2 instances

426.   A company must ensure that its endpoint for a database instance remains the same after a single Availability Zone service interruption. The application needs to resume database operations without the need for manual administrative intervention. How can these requirements be met?
- A. Use multiple Amazon Route 53 routes to the standby database instance endpoint hosted on AWS Storage Gateway.
- B. Configure Amazon RDS Multi-Availability Zone deployments with automatic failover to the standby.
- C. Add multiple Application Load Balancers and deploy the database instance with AWS Elastic Beanstalk.
- D. Deploy a single Network Load Balancer to distribute incoming traffic across multiple Amazon CloudFront origins.

427.   Which AWS managed service can be used to distribute traffic between one or more Amazon EC2 instances?
- A. NAT gateway
- B. Elastic Load Balancing
- C. Amazon Athena
- D. AWS PrivateLink

428.   AWS Trusted Advisor provides recommendations on which of the following? (Choose two.)
- A. Cost optimization
- B. Auditing
- C. Serverless architecture
- D. Performance
- E. Scalability

429.   Which of the following tasks can only be performed after signing in with AWS account root user credentials? (Choose two.)
- A. Closing an AWS account
- B. Creating a new IAM policy
- C. Changing AWS Support plans
- D. Attaching a role to an Amazon EC2 instance
- E. Generating access keys for IAM users

430.   Fault tolerance refers to:
- A. the ability of an application to accommodate growth without changing design
- B. how well and how quickly an application's environment can have lost data restored
- C. how secure your application is
- D. the built-in redundancy of an application's components

431.   A company operating in the AWS Cloud requires separate invoices for specific environments, such as development, testing, and production. How can this be achieved?
- A. Use multiple AWS accounts
- B. Use resource tagging
- C. Use multiple VPCs
- D. Use Cost Explorer

432.   Which AWS service can be used in the application deployment process?
- A. AWS AppSync
- B. AWS Batch
- C. AWS CodePipeline
- D. AWS DataSync

433.   What can be used to reduce the cost of running Amazon EC2 instances? (Choose two.)
- A. Spot Instances for stateless and flexible workloads
- B. Memory optimized instances for high-compute workloads
- C. On-Demand Instances for high-cost and sustained workloads
- D. Reserved Instances for sustained workloads
- E. Spend limits set using AWS Budgets

434.   Which AWS service or feature allows the user to manager cross-region application traffic?
- A. Amazon AppStream 2.0
- B. Amazon VPC
- C. Elastic Load Balancer
- D. Amazon Route 53

435.   Which AWS service can be used to track unauthorized API calls?
- A. AWS Config
- B. AWS CloudTrail
- C. AWS Trusted Advisor
- D. Amazon Inspector

436.	A user needs to regularly audit and evaluate the setup of all AWS resources, identify non-compliant accounts, and be notified when a resource changes. Which AWS service can be used to meet these requirements?
- A. AWS Trusted Advisor
- B. AWS Config
- C. AWS Resource Access Manager
- D. AWS Systems Manager

437.	A user is planning to launch two additional Amazon EC2 instances to increase availability. Which action should the user take?
- A. Launch the instances across multiple Availability Zones in a single AWS Region.
- B. Launch the instances as EC2 Reserved Instances in the same AWS Region and the same Availability Zone.
- C. Launch the instances in multiple AWS Regions, but in the same Availability Zone.
- D. Launch the instances as EC2 Spot Instances in the same AWS Region, but in different Availability Zones.

438.	A company must store critical business data in Amazon S3 with a backup to another AWS Region. How can this be achieved?
- A. Use an Amazon CloudFront Content Delivery Network (CDN) to cache data globally
- B. Set up Amazon S3 cross-region replication to another AWS Region
- C. Configure the AWS Backup service to back up to the data to another AWS Region
- D. Take Amazon S3 bucket snapshots and copy that data to another AWS Region

439.	Which AWS Cloud service can send alerts to customers if custom spending thresholds are exceeded?
- A. AWS Budgets
- B. AWS Cost Explorer
- C. AWS Cost Allocation Tags
- D. AWS Organizations

440.	Which components are required to build a successful site-to-site VPN connection on AWS? (Choose two.)
- A. Internet gateway
- B. NAT gateway
- C. Customer gateway
- D. Virtual private gateway

441. Which Amazon EC2 pricing option is best suited for applications with short-term, spiky, or unpredictable workloads that cannot be interrupted?
- A. Spot Instances
- B. Dedicated Hosts
- C. On-Demand Instances
- D. Reserved Instances

442. What is the MOST effective resource for staying up to date on AWS security announcements?
- A. AWS Personal Health Dashboard
- B. AWS Secrets Manager
- C. AWS Security Bulletins
- D. Amazon Inspector

443. Which AWS service offers persistent storage for a file system?
- A. Amazon S3
- B. Amazon EC2 instance store
- C. Amazon Elastic Block Store (Amazon EBS)
- D. Amazon ElastiCache

444. Which of the following allows AWS users to manage cost allocations for billing?
- A. Tagging resources
- B. Limiting who can create resources
- C. Adding a secondary payment method
- D. Running all operations on a single AWS account

445. Which requirement must be met for a member account to be unlinked from an AWS Organizations account?
- A. The linked account must be actively compliant with AWS System and Organization Controls (SOC).
- B. The payer and the linked account must both create AWS Support cases to request that the member account be unlinked from the organization.
- C. The member account must meet the requirements of a standalone account.
- D. The payer account must be used to remove the linked account from the organization.

446.　　What AWS benefit refers to a customer's ability to deploy applications that scale up and down the meet variable demand?
- A. Elasticity
- B. Agility
- C. Security
- D. Scalability

447.　　During a compliance review, one of the auditors requires a copy of the AWS SOC 2 report. Which service should be used to submit this request?
- A. AWS Personal Health Dashboard
- B. AWS Trusted Advisor
- C. AWS Artifact
- D. Amazon S3

448.　　A company wants to set up a highly available workload in AWS with a disaster recovery plan that will allow the company to recover in case of a regional service interruption. Which configuration will meet these requirements?
- A. Run on two Availability Zones in one AWS Region, using the additional Availability Zones in the AWS Region for the disaster recovery site.
- B. Run on two Availability Zones in one AWS Region, using another AWS Region for the disaster recovery site.
- C. Run on two Availability Zones in one AWS Region, using a local AWS Region for the disaster recovery site.
- D. Run across two AWS Regions, using a third AWS Region for the disaster recovery site.

449.　　Which AWS service can run a managed PostgreSQL database that provides online transaction processing (OLTP)?
- A. Amazon DynamoDB
- B. Amazon Athena
- C. Amazon RDS
- D. Amazon EMR

450.　　Which of the following assist in identifying costs by department? (Choose two.)
- A. Using tags on resources
- B. Using multiple AWS accounts
- C. Using an account manager
- D. Using AWS Trusted Advisor
- E. Using Consolidated Billing

451. A company wants to allow full access to an Amazon S3 bucket for a particular user. Which element in the S3 bucket policy holds the user details that describe who needs access to the S3 bucket?
- A. Principal
- B. Action
- C. Resource
- D. Statement

452. A company is piloting a new customer-facing application on Amazon Elastic Compute Cloud (Amazon EC2) for one month. What pricing model is appropriate?
- A. Reserved Instances
- B. Spot Instances
- C. On-Demand Instances
- D. Dedicated Hosts

453. Under the AWS shared responsibility model, which of the following is a responsibility of AWS?
- A. Enabling server-side encryption for objects stored in S3
- B. Applying AWS IAM security policies
- C. Patching the operating system on an Amazon EC2 instance
- D. Applying updates to the hypervisor

454. Performing operations as code is a design principle that supports which pillar of the AWS Well-Architected Framework?
- A. Performance efficiency
- B. Operational excellence
- C. Reliability
- D. Security

455. Which design principle is achieved by following the reliability pillar of the AWS Well-Architected Framework?
- A. Vertical scaling
- B. Manual failure recovery
- C. Testing recovery procedures
- D. Changing infrastructure manually

Commented [MC452]: A

"In its most basic sense, a policy contains the following elements:
--Resources – Buckets, objects, access points, and jobs are the Amazon S3 resources for which you can allow or deny permissions. In a policy, you use the Amazon Resource Name (ARN) to identify the resource.
--Actions – For each resource, Amazon S3 supports a set of operations. You identify resource operations that you will allow (or deny) by using action keywords. For example, the s3:ListBucket permission allows the user to use the Amazon S3 GET Bucket (List Objects) operation.

Commented [MC453]: C

"On-Demand Instances let you pay for compute capacity by the hour or second (minimum of 60 seconds) **with no long-term commitments**. You have full control over its lifecycle—you decide when to launch, stop, hibernate, start, reboot, or terminate it. This frees you from the costs and complexities of planning, purchasing, and maintaining hardware and transforms what are commonly large fixed costs into much smaller variable costs.

Commented [MC454]: D

"**With AWS everything from the physical servers to the hypervisor layer is AWS's responsibility,** anything below that layer is the customer's responsibility. A customer's poorly coded applications, misconfigured operating systems, or insecure firewall settings will not affect the hypervisor, it will only affect the customer's virtual machines running on that hypervisor. It remains the customer's responsibility to ensure the integrity, confidentiality, and availability of the systems, applications, and data that they host on EC2."

Commented [MC455]: B

"**Operational Excellence Design Principles and Best Practices**
…
Perform operations as code: In the cloud, you can apply the same engineering discipline that you use for application code to your entire environment. You can define your entire workload (applications, infrastructure) as code and update it with code. You can implement your operations procedures as code and automate their execution by triggering them in response to events. **By**

Commented [MC456]: C

"**Reliability Design Principles and Best Practices**
…
Failure Management / automatically recover from failure: In any system of reasonable complexity, it is expected that failures will occur. Reliability requires that your workload be aware of failures as they occur and take action to avoid impact on availability. Workloads must be able to both withstand failures and automatically repair issues:
--With AWS, you can take advantage of automation to react to monitoring data. For example, when a particular

456. What is a characteristic of Convertible Reserved Instances (RIs)?
- A. Users can exchange Convertible RIs for other Convertible RIs from a different instance family.
- B. Users can exchange Convertible RIs for other Convertible RIs in different AWS Regions.
- C. Users can sell and buy Convertible RIs on the AWS Marketplace.
- D. Users can shorten the term of their Convertible RIs by merging them with other Convertible RIs.

457. The user is fully responsible for which action when running workloads on AWS?
- A. Patching the infrastructure components
- B. Implementing controls to route application traffic
- C. Maintaining physical and environmental controls
- D. Maintaining the underlying infrastructure components

458. Which are benefits of using Amazon RDS over Amazon EC2 when running relational databases on AWS? (Choose two.)
- A. Automated backups
- B. Schema management
- C. Indexing of tables
- D. Software patching
- E. Extract, transform, and load (ETL) management

459. What does the Amazon S3 Intelligent-Tiering storage class offer?
- A. Payment flexibility by reserving storage capacity
- B. Long-term retention of data by copying the data to an encrypted Amazon Elastic Block Store (Amazon EBS) volume
- C. Automatic cost savings by moving objects between tiers based on access pattern changes
- D. Secure, durable, and lowest cost storage for data archival

460. A company has multiple data sources across the organization and wants to consolidate data into one data warehouse. Which AWS service can be used to meet this requirement?
- A. Amazon DynamoDB
- B. Amazon Redshift
- C. Amazon Athena
- D. Amazon QuickSight

461.　　A user has underutilized on-premises resources. Which AWS Cloud concept can BEST address this issue?
- A. High availability
- B. Elasticity
- C. Security
- D. Loose coupling

462.　　A user has a stateful workload that will run on Amazon EC2 for the next 3 years. What is the MOST cost-effective pricing model for this workload?
- A. On-Demand Instances
- B. Reserved Instances
- C. Dedicated Instances
- D. Spot Instances

463.　　A cloud practitioner needs an Amazon EC2 instance to launch and run for 7 hours without interruptions. What is the most suitable and cost-effective option for this task?
- A. On-Demand Instance
- B. Reserved Instance
- C. Dedicated Host
- D. Spot Instance

464.　　Which of the following are benefits of using AWS Trusted Advisor? (Choose two.)
- A. Providing high-performance container orchestration
- B. Creating and rotating encryption keys
- C. Detecting underutilized resources to save costs
- D. Improving security by proactively monitoring the AWS environment
- E. Implementing enforced tagging across AWS resources

465.　　A developer has been hired by a large company and needs AWS credentials. Which are security best practices that should be followed? (Choose two.)
- A. Grant the developer access to only the AWS resources needed to perform the job.
- B. Share the AWS account root user credentials with the developer.
- C. Add the developer to the administrator's group in AWS IAM.
- D. Configure a password policy that ensures the developer's password cannot be changed.
- E. Ensure the account password policy requires a minimum length.

Commented [MC462]: B

"In cloud computing, elasticity is defined as "the degree to which a system is able to adapt to workload changes by provisioning and de-provisioning resources in an autonomic manner, such that at each point in time the available resources match the current demand as closely as possible

Some cloud solutions can also be automatically adjusted to meet these needs. **This means you can set them up to scale up or down automatically based on certain conditions, like when your cloud solution is has too many resources of which some are being under-utilised** or if y…

Commented [MC463]: B

"A Reserved Instance is a reservation of resources and capacity, for either one or three years, for a particular Availability Zone within a region. When you purchase a reservation, you commit to paying for all of the hours of the 1- or **3-year term**; in exchange, the hourly rate is lowered significantly."

"**Amazon EC2 Reserved Instances (RI) provide a significant discount (up to 72%) compared to On-Demand pricing** …

Commented [MC464]: A

"On-Demand Instances let you pay for compute capacity by the hour or second (minimum of 60 seconds) **with no long-term commitments**. You have full control over its lifecycle—you decide when to launch, stop, hibernate, start, reboot, or terminate it. This frees you from the costs and complexities of planning, purchasing, and maintaining hardware and transforms what are commonly large fixed costs into much smaller variable costs.

Commented [MC465]: C, D

"AWS Trusted Advisor analyzes your AWS environment and provides best practice recommendations in five categories:
--Performance: AWS Trusted Advisor can improve the performance of your service by checking your service limits, ensuring you take advantage of provisioned throughput, and monitoring for overutilized instances.
--Service Quotas: AWS Trusted Advisor checks for service usage that is more than 80% of the service quota. …

Commented [MC466]: A, E

"To help secure your AWS resources, follow these recommendations for the AWS Identity and Access Management (IAM) service.
--Lock away your AWS account root user access keys
--Create individual IAM users
--Use groups to assign permissions to IAM users
--**Grant least privilege**
--Get started using permissions with AWS managed policies
--Use customer managed policies instead of inline policie… …

466.　　A user is planning to migrate an application workload to the AWS Cloud. Which control becomes the responsibility of AWS once the migration is complete?

- A. Patching the guest operating system
- B. Maintaining physical and environmental controls
- C. Protecting communications and maintaining zone security
- D. Patching specific applications

Todo

- Duplicated questions for:
  - ➤ AWS Artifact
  - ➤ AWS Organizations
  - ➤ Shared responsibility model
- Questions to revisit:
  - ➤ CMDB question
- Other:
  - ➤ <u>Large Scale</u> Disaster Recovery remove
  - ➤ DR = disaster recovery
  - ➤ AWS Abuse team -> AWS Trust & Safety Team
  - ➤ Ensure answers both bold & underlined
  - ➤ Ensure removed bullet points are replaced
  - ➤ Is MFA physical or virtual always
  - ➤ Search for badly worded answers/questions
  - ➤ Were any changes lost during change tracking issues
    1. Some items lost bold & underlining
    2. Recheck tagging
    3. Incorrect comment hightlighting
    4. Other?

Change Log

v1.0 - November 2020 – Completed first version. Approximately 515 questions in total, though many are duplicates and answers are very limited

v1.1. – Mon 19 April 2021 – Improved answers, removed duplicate questions, tidied everything a bit

v1.2 – Fri 07 May 2021 - Improved answers further. Color coded answers. Bold & underlined relevant parts of answers. Resolved all tracked changes & disabled change tracking for future. (Note: I think I will not update the document much further in the near future, perhaps though if I get enough free time, I can return to update it and add more questions, no promises though). I haven't completed any other exams for AWS as of yet or compiled any resources for them, though I hope to do so in future eventually.

V1.3 – Mon 21 Jun 2021 – Some changes made, notably to Q70 (thanks Jano Broos) and Q190 (thanks Pravat Kumar Pala). Thanks also to Dred for your contribution. Also, I got a few emails asking how I did, 958/1000 if anyone else is curious. Thanks for all kind words as well, the emails are nice to read. Work wants me to do Azure AZ900 next, will get back to AWS exams in future hopefully tho. I've completed an Outsystems Reactive Web Developer guide also, so I'll try to upload that somewhere too.