1. By default, what is the maximum number of Linked Accounts per Paying Account under Consolidated billing? – 20 –
2. Which of the following is not a fundamental AWS charge? – Data in –
3. Which of the following are criteria affecting your billing for RDS?

* Clock hours of server time
* Number of requests
* Additional storage

1. You are an AWS enterprise costumers with questions about billing and you overall AWS account? Which of the following AWS support personnel should you contact? – AWS concierge –
2. Which of the following are Support Levels offered by AWS?

* Developer
* Basic
* Business

1. Which of the following AWS Support Levels offers 24 \* 7 support via phone or chat? – Business –
2. Which of the following EC2 instance types will realize a savings overtime in exchange for a contracted term-of-service? – Reserved instance –
3. Which of the folloeing are valid EC2 pricing options?

* On demand
* Reserved

1. Which of the following AWS support levels offers the assistance of a Technical Account Manager? – Enterprise –
2. Which of the following services gives you a personalized view into the performance and availability of the AWS services underlying your AWS resources, alerting you and providing remediation guidance when AWS is experiencing events that may affected you? – AWS Personal Health Dashboard –
3. Which of the following features of an Amazon VPC can only exist in one Availability Zones at a time? – a Subnet –
4. With RDS, read-replicas are available for which of the following?

* MySQL
* Aurora
* PostgreSQL
* Oracle
* MariaDB

1. With AWS Relational Database Service (RDS), you are responsible for which of the following? – the optimization of your application using RDS –
2. Which of the following EC2 options is best for long-term workloads with predictable usage patterns? – Reserved instance –
3. In order to comply with regulatory mandates, some of your data needs to be retained in perpetuity. Which of the following AWS storage services offers low-cost, long-term data archival? – Glacier –
4. Which of the following is not database service? – Amazon EBS –
5. You need to re-create an EBS volume that you have used previously. How might you go about doing that? – Be create the volume for a snapshot –
6. When running a relational database on either your hardware or an EC2 instance, you are responsible for which of the following? – All of these –
7. True or False: S3 is object storage suitable for the storage of “flat” files like Word documents, photos, etc. - TRUE –
8. In which of the following is CloudFront content cached? – Edge location –
9. Which of the following best describes EBS? – a virtual harddisk in the cloud –
10. Which of the below can be specified as an origin when creating a CloudFront distribution?

* An in
* An ELB
* A domain name

1. Your application needs fully-managed storage for objects. Which of the following options should you choose? – S3 –
2. True or False: Data stored in Glacier is encrypted by default. – TRUE –
3. Which of the following are steps you should take in securing your AWS account?

* Use roles to delegate access to IAM users
* Activate Multifactor Authentication (MFA)

1. True or False: Identity Access Management (IAM) is a regional services. –FALSE –
2. Which of the following AWS services should you use to migrate an existing database to AWS? – AWS DMS –
3. The load on your application fluctuates by day of the week. Wednesdays have the most traffic; Saturdays have the least traffic. Which AWS service allows you to ensure you have the correct amount of compute capacity while also optimizing on a cost basis? – Auto Scalling –
4. Which of the following services helps you to fasterdeliver your content to your customers? – CloudFront –
5. True or False: By default, all data stored in S3 is viewable by the public. – FALSE –
6. Which AWS services allows you to run code without having to worry about provisioning any underlying resources (such as virtual machines, databases etc.) – Lambda –
7. Which of the following are components of Auto Scalling?

* Auto scalling policy
* Launch configuration
* Auto scalling group

1. What is an AWS region? – A region is a geographical area divided into Availability Zone. Each region contains at least two Availability Zones –
2. Which of the following are advantages of cloud computing?

* The ability to ‘go global’ in minutes
* Variable expense
* Increased speed and agility
* Elasticity – you need not worry about capacity

1. Which of the following are characteristics of cloud computing?

* Pay as you go pricing
* On demand delivery
* Services are delivered via the internet

1. Which of the following are principles of sound cloud design?

* Assume “everything” will fail
* Infrastructure as code
* Scalability
* Disposable resources

1. Which of the following is not part of the AWS Global Infrastructure? – Security Groups –
2. Which of the following best describes a system that will remain operational even in the event of a component failure? – Fault tolerant –
3. Under the shared responsibility model, for which of the following does AWS not assume responsibility? – customer data –
4. Which of the following best describes Availability Zones? – Distinct locations from within an AWS region that are engineered to be isolated from failures –
5. Which of the following are types of cloud computing deployments?

* Hybrid cloud
* Private cloud
* Public cloud

1. Which of the following best describes a system that is always available – without the need for human intervention? – Highly available –
2. You have a mission-critical application which must be globally available at all times. Which deployment strategy should you follow? – Multi region –
3. Which of the following data are a collection of data centers within a specific region? – Availability Zone –
4. Which of the following is correct ? - #of Edge Locations > #of Availability Zones > #of Regions –
5. What do Edge Locations do? – Host a Content Delivery Network called CloudFront –
6. Generally, there are at least \_\_\_\_\_ Availability Zones per AWS Region – 2 –
7. Which of the following support plans features unlimited (customer-side) contacts and unlimited support cases?

* Enterprise
* Business

1. Which of the following best describes an AWS Region? – A distinct location within a geographic area designed to provide high availability to a specific geography –
2. Which of the following are components of the AWS Risk and Compliance Program?

* Risk Management
* Information Security
* Control Environtment

1. You need to use an AWS services to assess the security and compliance of your EC2 instances. Which of the following services should you use? – AWS Inspector –
2. Which of the following AWS Services can help you assess the fault tolerance of your AWS environment? – AWS Trusted Advisor –
3. True or False: Its safer to use Access Keys than it is to use IAM roles. – FALSE –
4. Which of the following are components of the Security Pillar of the AWS Well-Architected Frame

* Infrastructure protection
* Detective Controls
* IAM

1. True or False: Users are responsible for security in the cloud – TRUE –
2. True or False: Customer responsibility for the security of services in the cloud vary by service – TRUE –
3. True or False: its best practice not to use IAM Roles for applications that run on EC2 instances. – FALSE –
4. Which of the following programmatic access types enabling users to interact with AWS services?

* API
* CLI
* SDK

1. IAM Policy documents are written in which of the following formats? – JSON –
2. Which of the following services will help you optimize your entire AWS environment in real time following AWS best practices? – AWS Trusted Advisor –
3. True or False: Security in the cloud is the responsibility of AWS. – FALSE –
4. Which of the following are components of IAM?

* Permissions
* Roles
* Groups
* Users

1. Which of the following is not a fundamental AWS charge? – Data Out –

**Billing and Pricing**

You are an AWS Enterprise customer with questions about billing and you overall AWS account? Which of the following AWS support personnel should you contact?

* AWS Billing and AccountsSelected

For AWS Enterprise customers, the AWS Concierge is a resource dedicated to answering billing and account questions.

* AWS Concierge
* AWS Technical Account Manager
* AWS Support

Which of the following are Support Levels offered by AWS?

* Individual

The AWS Support levels are Basic, Developer, Business, and Enterprise.

* Start-upSelected
* DeveloperSelected
* Basic
* BusinessSelected

Which of the following support plans feature access to AWS support via email only during business hours ?

The Developer support plan features access to AWS support during business hours via email?. Other plans offer email support but ony Developer is specifically business hours. Therefore it is the most correct answer.

* Business
* Developer
* EnterpriseSelected
* Basic

Which of the following AWS services are free to use?

* Elastic Beanstalk
* RDSSelected
* CloudFormation

The correct answers are VPC, Elastic Beanstalk, CloudFormation, IAM, and Auto-Scaling. Please keep in mind that with VPC, Elastic Beanstalk, CloudFormation, and Auto-Scaling, the underlying provisioned resources will incur charges.

* Route53Selected
* S3Selected
* Auto-Scaling
* IAM
* VPC
* EBS
* EC2

Which of the following are valid EC2 pricing options?

* On-Demand

On-Demand and Reserved are the valid EC2 pricing options.

* Enterprise
* Reserved
* Stop

Which of the following best describes a Resource Group?

* A resource group is a collection of resources that are deployed in the same AWS Region.
* A resource group is a collection of resources of the same type (EC2, S3, etc.) that share one or more tags or portions of tags.
* A resource group is a collection of resources of the same type (EC2, S3, etc.) that are deployed in the same Availability Zone.Selected
* A resource group is a collection of resources that share one or more tags (or portions of tags.)

A resource group is a collection of resources that share one or more tags (or portions of tags.)

Which of the following is not a fundamental AWS charge?

* Storage

In AWS, data-in is always free-of-charge.

* Data-out
* Compute
* Data-in

Which of the following support services do all accounts receive as standard?

* Technical Account Manager

All accounts receive billing support.

* Billing support
* 24/7 support via phone and chat
* Technical support

Which of the following are criteria affecting your billing for RDS?

* Additional storage

Clock hours of server time, additional storage, and number of requests are among the criteria defining charges for RDS.

* Standby time
* Number of requests
* Clock hours of server time
* Data transfer inSelected

**Cloud Concepts**

Which of the following are principles of sound cloud design?

* Treat your servers like pets, not cattle.
* Disposable resources
* ScalabilitySelected

Build your systems to be scalable, use disposable resources, reduce infrastructure to code, and, please, assume EVERYTHING will fail sooner or later.

* Assume \*everything\* will fail.
* Limit the number of 3rd-party services.
* Tightly-coupled components
* Infrastructure as code

Which of the following is not part of the AWS Global infrastructure?

* Availability Zones

Regions, AZs, and Edge Locations are part of the AWS Global Infrastructure.

* Regions
* Security Groups
* Edge Locations

Which of the following best describes a system that will remain operational even in the event of a component failure?

* Fault-tolerant

a fault-tolerant system will remain operational even in the event of a component failure.

* Scalable
* Elastic
* Highly Available

Under the Shared Responsibility model, for which of the following does AWS not assume responsibility?

* Networking

The customer is responsible for her own customer data.

* Hypervisors
* Customer data
* Physical security of AWS facilities

You have a mission-critical application which must be globally available at all times. Which deployment strategy should you follow?

* Deploy to all Availability Zones in your home region.

A Multi-Region deployment will best ensure global availability.

* Multi-Region
* Multi-VPC in two AWS Regions
* Multi-Availability Zone

Which of the following are advantages of cloud computing?

* Requires large amounts of capital

The 'pay-as-you-go' nature of cloud computing ensures that a large up-front capital expense is not required.

* The ability to 'go global' in minutes
* Increased speed and agility
* Elasticity - you need not worry about capacity.Selected
* Variable expense

Which of the following is correct?

* # of Regions > # of Availability Zones > # of Edge Locations
* # of Availability Zones > # of Edge Locations > # of Regions
* # of Availability Zones > # of Regions > # of Edge Locations
* # of Edge Locations > # of Availability Zones > # of Regions

The number of Edge Locations is greater than the number of Availability Zones, which is greater than the number of Regions.

What do Edge Locations do?

* Host a Content Delivery Network called CloudFront
* Provide independent power grids to Availability Zones
* Provide disaster recovery services
* Provide redundant backup to your AWS services

Edge Locations host a Content Delivery Network called CloudFront.

Which of the following support plans features unlimited (customer-side) contacts and unlimited support cases?

* Enterprise
* Business
* Basic
* Developer

What is an AWS region?

* A region is a subset of AWS technologies. For example, the Compute region consists of EC2, ECS, Lambda, etc.
* A region is a geographical area divided into Availability Zones. Each region contains at least two Availability Zones.
* A region is an independent data center, located in different countries around the globe.
* A region is a collection of Edge Locations available in specific countries.

Which of the following best describes the ability to scale computing resources up or down easily, while only paying for the resources used?

* Elasticity
* Fault-tolerance
* Scalability
* High Availability

Which of the following are geographic areas that host two or more Availability Zones?

* Regions
* AWS Origins
* Compute Zones
* Edge Locations

Which of the following are principles of sound design when it comes to performance efficiency?

* Democratize advanced technologies.
* Have your IT staff master all new technologies.
* Deploy into multiple Regions to go global in minutes.
* Mechanical empathy
* Use Serverless architectures.

Which of the following best describes Availability Zones?

* A Content Distribution Network used to deliver content to users
* Restricted areas designed specifically for the creation of Virtual Private Clouds.
* Two zones containing compute resources that are designed to automatically maintain synchronized copies of each other's data.
* Distinct locations from within an AWS region that are engineered to be isolated from failures.

Which of the following are types of cloud computing deployments?

* Public cloud
* Mixed cloud
* Hybrid cloud
* Private cloud

True or False: With AWS Organizations, you can use either just the Consolidated Billing feature, or all the offered features.

* False
* True

Which of the following are characteristics of cloud computing?

* Cloud charges are capital expenditures.
* Services are delivered via the Internet.
* Pay-as-you-go pricing
* On-demand delivery

True or False: There are more Regions than there are Availability Zones.

* True
* False

**Technology**

You need to find an item in a DynamoDB table using an attribute other than the item’s primary key. Which of the following operations should you use?

* **Scan**
* GET
* Query
* POST

In order to comply with regulatory mandates, some of your data needs to be retained in perpetuity. Which of the following AWS storage services offers low-cost, long-term data archival?

* EFS
* **Glacier**
* S3
* Redshift

ou need a “virtual hard disk” for your EC2 instance. Which of the following should you choose?

* S3
* DDB
* RDS
* **EBS**

Which of the following AWS services can assist you with cost optimization?

* AWS Shield
* AWS WAF
* AWS Inspector
* **AWS Trusted Advisor**

Which of the following are key components of Amazon Glacier?

* Table
* Volume
* Bucket
* **Archive**
* **Access Policy**
* **Vault**

Which of the following best describes EBS?

* A bitcoin-mining service
* A managed database service
* **A virtual hard-disk in the cloud**
* A NoSQL database service

Which of the following are steps you should take in securing your AWS account?

* Create a Root IAM role.
* **Create individual IAM users.**
* **Activate Multifactor Authentication (MFA) on your root account.**
* **Use roles to delegate access to IAM users.**

The load on your application fluctuates by day of the week. Wednesdays have the most traffic; Saturdays have the least traffic. Which AWS service allows you to ensure you have the correct amount of compute capacity while also optimizing on a cost basis?

* Trusted Advisor
* EC2 Container Service
* **Auto Scaling**
* CloudWatch

You need to run your code, but you don’t want to worry about provisioning or managing servers. Which of the following AWS services would you choose?

* **Lambda**
* Elastic Container Service
* VMware Cloud
* EC2

You need to implement an automated service that will scan your AWS environment with the goal of both improving security and reducing costs. Which service should you use?

* Config Rules
* **Trusted Advisor**
* Service Catalog
* CloudTrail

You’ve been tasked with assessing your AWS infrastructure in terms of cost optimization. Which of the following AWS services would help with this task?

* AWS Personal Health Dashboard
* AWS Systems Manager
* Cloud Trail
* **Trusted Advisor**

Which AWS service allows you to run code without having to worry about provisioning any underlying resources (such as virtual machines, databases etc.)

* DynamoDB
* **Lambda**
* EC2 Container Service
* EC2

With RDS, read-replicas are available for which of the following?

* MS SQLServer
* **MariaDB**
* **Oracle**
* **MySQL**
* **PostgreSQL**
* **Aurora**

You need to ensure that you have the correct number of EC2 instances available to handle the load for your application. Which AWS service should you use?

* **Auto Scaling**
* Elastic Load Balancer
* Application Load Balancer
* Route53

True or False: A Distribution is what we call a series of Edge Locations that make up CDN.

* False
* **True**

Which of the following is the document used to grant permissions to users, groups, and roles?

* Paradigm
* **Policy**
* Passbook
* Protocol

Which of the following is AWS' Data Warehousing service?

* Elastic Map Reduce
* Snowball
* **Redshift**
* S3 Big Data

Which of the following is not a compute service?

* Elastic Beanstalk
* **Elastic Block Store**
* Lambda
* EC2

When running a relational database on either your hardware or on an EC2 instance, you are responsible for which of the following?

* Operating system maintenance
* **All of these**
* Database backups and high-availability
* Data security
* Software install and patches

True or False: With DynamoDB, you can specify the amount of throughput you need for read and write operations.

* **True**
* False

Your application needs fully-managed storage for objects. Which of the following options should you choose?

* **S3**
* RDS
* EC2
* EBS

True or False: To restrict access to an entire bucket, you use bucket control lists; and to restrict access to an individual object, you use object policies.

* **False**
* True

our application needs a MySQL database, but you need better performance than you could get running MySQL on EC2. Which of the following AWS services should you consider?

* Redshift
* **Aurora**
* DynamoDB
* Neptune

**Security**

True or False: AWS is responsible for security in the cloud.

* True
* **False**

True or False: It’s best practice not to use IAM Roles for applications that run on EC2 instances.

* False
* **True**

Which of the following acts like built-in firewalls for your virtual servers?

* Route Tables
* **Security Groups**
* Network Access Control Lists
* Availability Zones

Which of the following are principles of sound design when it comes to security?

* Secure your physical resources.
* **Implement the Principle of Least Privilege**
* **Apply security at all layers.**
* **Enable traceability.**
* Apply security to your application only.

Which of the following are components of the AWS Risk and Compliance Program?

* Environment AutomationSelected
* Identity and Access Management
* **Control Environment**
* Physical Security
* Security Principles
* **Risk Management**
* **Information Security**

You need to use an AWS service to assess the security and compliance of your EC2 instances. Which of the following services should you use?

* AWS Trusted Advisor
* **AWS Inspector**
* AWS Shield
* AWS WAF

Which of the following AWS services can help you assess the fault-tolerance of your AWS environment?

* AWS Inspector
* AWS WAF
* AWS Shield
* **AWS Trusted Advisor**

Which of the following are components of IAM?

* Authorizer
* Authenticator
* **Permissions**
* **Roles**
* **Users**
* **Groups**
* Access controls

You are using your corporate directory to grant your users access to AWS services. What is this called?

* Role-based Access
* Multifactor Authentication Access
* **Federated Access**
* User Group Access

True or False: Customer responsibility for the security of services in the cloud vary by service.

* **True**
* False

True or False: Using IAM Groups is the recommended way to manage IAM users’ permissions by job function.

* False
* **True**

Which of the following AWS services controls Authentication and Authorization within an AWS account?

* **IAM**
* Access Control Lists
* AWS Shield
* Security Groups

Which of the following Compliance guarantees attests to the fact that the AWS Platform has met the standard required for the secure storage of medical records in the US?

* **HIPAA**
* HIPPA
* GLBA
* HITECH
* FERPA

Which of the following is AWS' managed DDoS protection service?

* Security Groups
* AWS WAF
* **AWS Shield**
* Access Control Lists

True or False: You use your Access Key and Secret Access Key to log into the AWS Management Console.

* **False**
* True

QUESTION 34

**Which of the following AWS services controls Authentication and Authorization within an AWS account?**

* Access Control Lists
* Security Groups
* **IAM**
* AWS Shield

EXPLANATION:  
IAM controls Authentication and Authorization within an AWS account.

RESOURCES

* [**About IAM**](https://aws.amazon.com/iam/details/)

QUESTION 47

**Which of the following acts like built-in firewalls for your virtual servers?**

* Network Access Control List
* Route Tables
* Availability Zones
* **Security Groups**

EXPLANATION:  
Security Groups act like built-in firewalls for your virtual servers.

RESOURCES

* [**Amazon EC2 Security Groups**](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-network-security.html)

QUESTION 58

**Which of the following AWS services can help you assess the fault-tolerance of your AWS environment?**

* AWS Inspector
* **AWS Trusted Advisor**
* AWS Shield
* AWS WAF

EXPLANATION:  
AWS Trusted Advisor can help you assess the fault-tolerance of your AWS environment.

RESOURCES

* [**About Trusted Advisor**](https://aws.amazon.com/premiumsupport/trustedadvisor/)

**A purchasing department staff member is setup as an AWS user in the company’s procurement AWS account. At each month-end, the staff member needs access to an application running on EC2 in the company’s accounts payable AWS account to reconcile reports. Which of the following provides the most secure and operationally efficient way to give the staff member access to the accounts payable application?**

* Create a user for the staff member in the accounts payable AWS account
* Configure Active Directory integration so that you can federate the staff member’s access to the accounts payable AWS account
* Invoke an AWS Lambda function to run the application in the accounts payable AWS account
* **Have the user request temporary security credentials for the application by assuming a role**

EXPLANATION:  
The staff member should be given the ability to assume a role programmatically with the permissions necessary to run the accounts payable application. Setting up another AWS user for the staff member in the accounts payable account will require the presentation of hard credentials programmatically. Both federation and Lambda will require the use of a role as well, but with the added overhead of maintaining Active Directory or the Lambda function.

RESOURCES

* [**Common Scenarios for Roles: Users, Applications, and Services**](https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_common-scenarios.html)

QUESTION 5

**True or False: It's safer to use Access Keys than it is to use IAM roles.**

* True
* **False**

EXPLANATION:  
It's safer to use IAM roles than it is to use Access Keys.

RESOURCES

* [**IAM Best Practices**](https://docs.aws.amazon.com/IAM/latest/UserGuide/best-practices.html)

QUESTION 12

**You are using your corporate directory to grant your users access to AWS services. What is this called?**

* User Group Access
* **Federated Access**
* Multifactor Authentication Access
* Role-based Access

EXPLANATION:  
Federated Access uses your corporate directory to grant your users access to AWS services.

RESOURCES

* [**Identity Federation**](https://aws.amazon.com/identity/federation/)

QUESTION 22

**Your company has updated its security policies to include cloud workloads as well as those running on-premises. Your manager would like a report of which technologies will require configuration changes. Which of the following will not be included in the report because they are the responsibility of AWS?**

* Security Group firewalls
* S3 Access Control Lists
* Amazon Aurora data encryption
* **Host operating systems**

EXPLANATION:  
In the AWS Shared Responsibility Model, AWS in responsible for managing host operating systems. Users are responsible for managing guest operating systems, as well as Security Group Firewalls, Amazon Aurora data encryption, and S3 access control lists.

RESOURCES

* [**Shared Responsibility Model**](https://aws.amazon.com/compliance/shared-responsibility-model/)

QUESTION 26

**True or False: Customer responsibility for the security of services in the cloud vary by service.**

* False
* **True**

EXPLANATION:  
AWS is responsible for the security of their Managed Services, and the customer is responsible for the security of applications running on services such as EC2.

RESOURCES

* [**The AWS Shared Responsibility Model**](https://aws.amazon.com/compliance/shared-responsibility-model/)

QUESTION 31

**True or False: It is best practice to store your Access Key and Secret Access Key in the .aws file in your application.**

* **False**
* True

EXPLANATION:  
You should never store your access keys in your application.

RESOURCES

* [**Best Practices for Managing AWS Access Keys**](https://docs.aws.amazon.com/general/latest/gr/aws-access-keys-best-practices.html)

QUESTION 60

**True or False: By default, the Root user of every AWS account has full access to all AWS services. As such, the Root user should never be used for normal daily operations.**

* **True**
* False

EXPLANATION:  
By default, the Root user of every AWS account has full access to all AWS services. As such, the Root user should never be used for normal daily operations.

RESOURCES

* [**The AWS Root User**](https://docs.aws.amazon.com/IAM/latest/UserGuide/id_root-user.html)

QUESTION 6

**A telecommunications company has his hired you as a consultant to develop a business case for moving its IT applications and infrastructure to AWS. The company’s leadership understands the agility value of the cloud, but the finance group is not interested in shifting capital expense to operating expense due to the company’s tax structure. What will you include in the business case to attempt to satisfy everyone at the company?**

* Show the value of an elastic infrastructure for avoiding wasted capacity
* Suggest that the company wait to migrate to AWS until the current infrastructure is fully depreciated
* **Suggest that the company make reserved instance purchases and capitalize them**
* Show the company the TCO value of moving to an operating expense model

EXPLANATION:  
Many companies capitalize reserved instance purchases, especially those with 3-year terms. Waiting for current infrastructure to fully depreciate will cause the company to miss the other cloud benefits that are available. Moving the company to an operating expense model will prove too large a task, and will most likely result in a rejected business case. Elastic infrastructure is definitely a benefit, but doesn't address the capitalization issue.

RESOURCES

* [**How AWS Pricing Works**](https://d1.awsstatic.com/whitepapers/aws_pricing_overview.pdf)

QUESTION 9

**Which of the following best describes the ability to scale computing resources up or down easily, while only paying for the resources used?**

* High Availability
* **Elasticity**
* Fault-tolerance
* Scalability

EXPLANATION:  
Elasticity describes the ability to scale computing resources up or down easily, while only paying for the resources used.

RESOURCES

* [**Architecting for The Cloud: Best Practices**](https://d1.awsstatic.com/whitepapers/AWS_Cloud_Best_Practices.pdf)

QUESTION 21

**A mobile shopping list app needs to be able to add, delete, and update items on specific lists anytime a user desires. The backend for the app will run on Amazon EC2 instances with Auto Scaling to manage fluctuations in user demand. Many times, a user will perform maintenance on many list items in a single session. What design characteristic must be incorporated into the app for these requirements to be met?**

* Use bootstrapping on the EC2 instances
* Leverage load balancing to distribute transactions to multiple nodes
* **Make sure the app doesn’t need knowledge of previous transactions**
* Implement session affinity

EXPLANATION:  
In order for horizontal scaling to be effective, you'll want to make sure the app doesn't store previous transaction or session information on specific EC2 instances. That way, any EC2 instance provisioned by Auto Scaling can process the request. Leveraging load balancing is also a good practice, but doesn't address the need for a stateless app. Session affinity goes the other direction, directing a load balancer to route transactions to a specific instance each time. Bootstrapping runs scripts each time an EC2 instance is provisioned.

RESOURCES

* [**Architecting for the Cloud - AWS Best Practices**](https://d1.awsstatic.com/whitepapers/AWS_Cloud_Best_Practices.pdf)

QUESTION 42

**Which of the following best describes a system that is always available — without the need for human intervention?**

* Scalable
* **Highly Available**
* Elastic
* Fault tolerant

EXPLANATION:  
A highly available system is one that is always available — without the need for human intervention

RESOURCES

* [**Fault Tolerance and High Availability Infographic**](https://media.amazonwebservices.com/architecturecenter/AWS_ac_ra_ftha_04.pdf)

QUESTION 51

**Which of the following are a collection of data centers within a specific region?**

* AWS Origins
* **Availability Zones**
* Regions
* Edge Locations

EXPLANATION:  
Availability Zones are a collection of data centers within a specific region.

RESOURCES

* [**AWS Global Infrastructure**](https://aws.amazon.com/about-aws/global-infrastructure/)

QUESTION 16

**Which of the following is not part of the AWS Global infrastructure?**

* Regions
* **Security Groups**
* Availability Zones
* Edge Locations

EXPLANATION:  
Regions, AZs, and Edge Locations are part of the AWS Global Infrastructure.

RESOURCES

* [**AWS Global Infrastructure**](https://aws.amazon.com/about-aws/global-infrastructure/)

QUESTION 17

**The Chief Marketing Officer of the hotel chain you work for would like to implement voice recognition capabilities in rooms so customers can request services without picking up the phone. Competitors have already begun rolling out these technologies in an attempt to improve their customers’ experience. Which benefit of the AWS cloud would you most emphasize to the CMO in your business case for creating an AWS-based solution?**

* **Agility**
* Cost Savings
* Deploy Globally in Minutes
* Elasticity

EXPLANATION:  
The AWS cloud provides instant access to new technologies. Companies can move with agility to satisfy new business requirements and meet competitive demands. There is a very low barrier of entry for innovation. If a solution is not meeting expectations, services can be instantly de-provisioned. The other three options will also prove to be benefits of deploying in the AWS cloud, but the use case emphasizes the need to move quickly against competitive threats.

RESOURCES

* [**What is Cloud Computing?**](https://aws.amazon.com/what-is-cloud-computing/)

QUESTION 20

**Which of the following best describes a system that will remain operational even in the event of a component failure?**

* **Fault-tolerant**
* Scalable
* Highly Available
* Elastic

EXPLANATION:  
a fault-tolerant system will remain operational even in the event of a component failure.

RESOURCES

* [**Building Fault-Tolerant Applications in the AWS Cloud**](https://aws.amazon.com/whitepapers/designing-fault-tolerant-applications/)

QUESTION 28

**Which of the following is a Shared Control of the AWS Shared Responsibility Model?**

* Hardware Maintanence
* Security Group Configuration
* Firmware Upgrades
* **Patch Management**

EXPLANATION:  
Shared Controls are elements of the Shared Responsibility Model where both AWS and the customer have shared responsibilities within their own contexts. Patch Management is a Shared Control, since AWS is responsible for patching and fixing flaws within the infrastructure, including managed services like RDS, but customers are responsible for patching their guest OS and applications. Firmware Upgrades, and other Hardware maintenance processes are solely the responsibility of AWS. Configuration of Security Groups remain the responsibility of the customer

RESOURCES

* [**AWS Shared Responsibility Model**](https://aws.amazon.com/compliance/shared-responsibility-model/)

QUESTION 3

**An online education company has customers on four continents. They need to run software functions to customize offerings for students in various locations around the globe based on parameters that each student enters. Which AWS service will provide this capability with the highest performance efficiency?**

* Amazon Elastic Container Service
* Amazon CloudFront
* Amazon API Gateway
* **Lambda@Edge**

EXPLANATION:  
Lambda@Edge provides the capability to run Lambda functions at Edge Locations based on events generated by the CloudFront content delivery network, allowing customers to extend their web applications globally. Amazon Elastic Container Service and Amazon API Gateway would require implementations in each desired region.

RESOURCES

* [**Lambda@Edge**](https://aws.amazon.com/lambda/edge/)

QUESTION 11

**You want to run your application on a PaaS infrastructure, and you need to be able to select both your instance type and your database. Which of the following services should you choose?**

* Lambda
* **Elastic Beanstalk**
* Lightsail
* EC2

EXPLANATION:  
Elastic Beanstalk will allow you to select both your instance type and your database type.

RESOURCES

* [**About Elastic Beanstalk**](https://aws.amazon.com/elasticbeanstalk/)

QUESTION 19

**Amazon Lightsail is an example of which of the following?**

* **Platform as a Service**
* Functions as a Service
* Software as a Service
* Infrastructure as a Service

EXPLANATION:  
Lightsail is AWS' Platform-as-a-Service offering.

RESOURCES

* [**About Lightsail**](https://aws.amazon.com/lightsail/)

QUESTION 24

**In order to comply with regulatory mandates, some of your data needs to be retained in perpetuity. Which of the following AWS storage services offers low-cost, long-term data archival?**

* Redshift
* **Glacier**
* EFS
* S3

EXPLANATION:  
Glacier is your best choice for deeply-discounted, long-term object archival.

RESOURCES

* [**About Glacier**](https://aws.amazon.com/glacier/)

QUESTION 32

**True or False: Objects stored in S3 are stored in a single, central location within AWS.**

* **False**
* True

EXPLANATION:  
Objects stored in S3 are stored in multiple servers in multiple facilities across AWS.

RESOURCES

* [**About S3**](https://aws.amazon.com/s3/?nc2=h_m1)

QUESTION 40

**In which of the following is CloudFront content cached?**

* Data Center
* **Edge Location**
* Availability Zone
* Region

EXPLANATION:  
CloudFront content is cached in Edge Locations.

RESOURCES

* [**About CloudFront**](https://aws.amazon.com/cloudfront/)

QUESTION 46

**Which of the below can be specified as an origin when creating a CloudFront distribution?**

* **An ELB**
* An RDS instance
* **A domain name**
* **An S3 Bucket**

EXPLANATION:  
A CloudFront Origin can be an S3 bucket, an Elastic Load Balancer, or a valid domain name.

RESOURCES

* [**CloudFront Origins**](https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/DownloadDistS3AndCustomOrigins.html)

QUESTION 50

**Which of the following are Migration services?**

* AWS Config
* **AWS Snowball**
* **AWS Application Discovery Service**
* AWS OpsWorks

EXPLANATION:  
AWS Config and AWS OpsWorks are Management Tools.

RESOURCES

* [**Migrating to AWS**](https://aws.amazon.com/cloud-migration/)

QUESTION 52

**Which of the following Load Balancers uses Listeners, Targets, and Target Groups?**

* Classic Load Balancer
* **Application Load Blancer**

EXPLANATION:  
The ALB uses Listeners, Targets, and Target Groups.

RESOURCES

* [**About the ALB**](https://aws.amazon.com/elasticloadbalancing/details/#details)

QUESTION 59

**For a subnet to be public and send non-local traffic to the Internet, we must update the Route Table of the public subnet and attach which of the following to the VPC that contains the subnet?**

* **Internet Gateway**
* NAT Gateway
* Network Access Control List
* Route 53

EXPLANATION:  
an Internet Gateway must be attached to the VPC.

RESOURCES

* [**About Internet Gateways**](https://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Internet_Gateway.html)

QUESTION 61

**Your application needs a MySQL database, but you need better performance than you could get running MySQL on EC2. Which of the following AWS services should you consider?**

* DynamoDB
* Redshift
* Neptune
* **Aurora**

EXPLANATION:  
Aurora is AWS' managed MySQL database. It delivers up to 5X the performance of a MySQL database running on EC2.

RESOURCES

* [**About Aurora**](https://aws.amazon.com/rds/aurora/)

QUESTION 65

**You have a variable and intermittent workload, so you want to use a compute service that allows you to pay only for the compute resources you use, without paying for compute time when your code isn’t running. Which of the following services should you use?**

* Lightsail
* ECS
* **Lambda**
* EC2

EXPLANATION:  
Lambda allows you to run a variable and intermittent workload without paying for compute time when your code isn’t running.

RESOURCES

* [**About Lambda**](https://aws.amazon.com/lambda/)

QUESTION 14

**True or False: To complete the process of creating a Multi-AZ RDS instance, you must copy the primary instance to a public subnet in a second Availability Zone.**

* **False**
* True

EXPLANATION:  
To complete the process of creating a Multi-AZ RDS instance, you must copy the primary instance to a private subnet. AWS generates a standby, and transactions are synchronously replicated.

RESOURCES

* [**Amazon RDS Multi-AZ Deployments**](https://aws.amazon.com/rds/details/multi-az/)

QUESTION 33

**Which of the following AWS services is a fast, fully managed data warehouse that makes it simple and cost-effective to analyze all your data using standard SQL and your existing Business Intelligence tools.**

* Elastic Map Reduce
* **Redshift**
* DynamoDB
* Kinesis

EXPLANATION:  
Redshift is AWS' fully-managed data warehouse solution.

RESOURCES

* [**About Redshift**](https://aws.amazon.com/redshift/)

QUESTION 37

**You need to allow resources in a private subnet to access the internet. Which of the following must be present to enable this access?**

* **NAT Gateway**
* Route Tables
* Network Access Control Lists
* Security Groups

EXPLANATION:  
A NAT Gateway is required to allow resources in a private subnet to access the internet.

RESOURCES

* [**About NAT Gateways**](https://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/vpc-nat-gateway.html)

QUESTION 39

**True or False: S3 is object storage suitable for the storage of 'flat' files like Word documents, photos, etc.**

* False
* **True**

EXPLANATION:  
S3 is object storage suitable for the storage of 'flat' files like Word documents, photos, etc.

RESOURCES

* [**About S3**](https://aws.amazon.com/s3/?nc2=h_m1)

QUESTION 41

**Which of the following AWS services can assist you with cost optimization?**

* AWS WAF
* AWS Shield
* AWS Inspector
* **AWS Trusted Advisor**

EXPLANATION:  
Trusted Advisor can assist you with the cost optimization of your AWS environment.

RESOURCES

* [**About Trusted Advisor**](https://aws.amazon.com/premiumsupport/trustedadvisor/)

QUESTION 44

**The Solutions Architect leading your project tells you the application your team is working on requires a managed NoSQL database. Which of the following AWS services best fits that description?**

* Redshift
* **DynamoDB**
* RDS
* ElastiCache

EXPLANATION:  
DynamoDB is AWS' managed NoSQL database.

RESOURCES

* [**About DynamoDB**](https://aws.amazon.com/dynamodb/)

QUESTION 48

**True or False: Data stored in Glacier is encrypted by default.**

* **True**
* False

EXPLANATION:  
Data stored in Glacier is encrypted by default.

RESOURCES

* [**Glacier Security**](https://aws.amazon.com/glacier/faqs/#security)

QUESTION 54

**True or False: By default, all subnets within a VPC can communicate with each other.**

* False
* **True**

EXPLANATION:  
By default, all subnets within a VPC can communicate with each other.

RESOURCES

* [**VPCs and Subnets**](https://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Subnets.html)

QUESTION 57

**An EC2 instance in your VPC needs which of the following for the Internet Gateway to route its traffic to the Internet?**

* C-Name
* A-Name
* **Public IP address**
* Private IP address

EXPLANATION:  
An EC2 instance in your VPC needs a Public IP address for the Internet Gateway to route its traffic to the Internet

RESOURCES

* [**Amazon EC2 Instance IP Addressing**](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-instance-addressing.html)

QUESTION 64

**Regarding Amazon Glacier, what is a Vault?**

* The rules that determine who may (or may not) access archives.
* **A container for storing Archives**
* An object — like photos, videos, files, or documents

EXPLANATION:  
A Vault is a container for storing Archives.

RESOURCES

* [**Glacier Vaults and Archives**](https://aws.amazon.com/glacier/faqs/#vaultsandarchives)

QUESTION 18

**Which of the following EC2 instance types will realize a savings over time in exchange for a contracted term-of-service?**

* On-demand instances
* **Reserved instances**
* Spot instances
* Discount instances

EXPLANATION:  
EC2 Reserved Instances offer significant discounts for a contracted term-of-service.

RESOURCES

* [**Amazon EC2 Pricing**](https://aws.amazon.com/ec2/pricing/)

QUESTION 36

**Which of the following AWS Support levels offers the assistance of a Technical Account Manager?**

* Developer
* Premium
* Business
* **Enterprise**

EXPLANATION:  
Only Enterprise support offers the services of a Technical Account Manager.

RESOURCES

* [**Compare AWS Support Plans**](https://aws.amazon.com/premiumsupport/compare-plans/)

QUESTION 35

**For a fixed monthly rate, you can choose detailed, once-a-minute monitoring of your EC2 instances.**

* **True**
* False

RESOURCES

* [**Enable or Disable Detailed Monitoring for Your Instances**](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-cloudwatch-new.html)

STATS

QUESTION 53

**Which of the following is not a fundamental AWS charge?**

* Compute
* Data-out
* Storage
* **Data-in**

EXPLANATION:  
In AWS, data-in is always free-of-charge.

RESOURCES

* [**AWS Pricing**](https://aws.amazon.com/pricing/)