

Question 1:

Skipped

Which of the following actions does not affect costs when using Amazon S3?

- **Data transfer costs for uploading objects into your S3 bucket.**

(Correct)

- **Moving objects out of your S3 bucket to another bucket**
- **Choosing S3 Standard IA rather than One Zone IA**
- **Making GET requests to your S3 objects**

Explanation

With Amazon S3, you pay only for the storage you use, with no minimum fee. Prices are based on the location of your Amazon S3 bucket. When you begin to estimate the cost of Amazon S3, consider the following:

Storage - Costs vary with the number and size of objects stored in your Amazon S3 buckets as well as the type of storage.

Requests - The number and type of requests. GET requests incur charges at different rates than other requests, such as PUT and COPY requests.

Data transfer - The amount of data transferred out of the Amazon S3 region.

▼ Data Transfer [Info](#)

Inbound Data Transfer

Enter the data you expect to transfer into US East (Ohio)

Internet (free) ▼

1

TB per month ▼

Add inbound data transfer

Outbound Data Transfer

Enter the data you expect to transfer out of US East (Ohio)

US East (N. Virginia) (0.01 USD per GB) ▼

1

TB per month ▼

Add outbound data transfer

▼ Show calculations

Unit conversions

Inbound:

Internet: 1 TB per month x 1024 GB in a TB = 1024 GB per month

Outbound:

US East (N. Virginia): 1 TB per month x 1024 GB in a TB = 1024 GB per month

Pricing calculations

Inbound:

Internet: 1024 GB x 0 USD per GB = 0.00 USD

Outbound:

US East (N. Virginia): 1024 GB x 0.01 USD per GB = 10.24 USD

Data Transfer cost (monthly): 10.24 USD

Given these pricing parameters, data transferred into Amazon S3 are not charged by AWS. The action of uploading objects, therefore, should not incur data transfer costs.

Hence, the correct answer is: **Data transfer costs for uploading objects into your S3 bucket.**

All other options are incorrect because you need to consider the cost of storage, requests, and data transfer when using Amazon S3.

- **Choosing S3 Standard IA rather than One Zone IA.**

- **Making GET requests to your S3 objects.**

- Moving objects out of your S3 bucket to another bucket.

References:

https://d0.awsstatic.com/whitepapers/aws_pricing_overview.pdf

<https://aws.amazon.com/s3/pricing>

Check out this Amazon S3 Cheat Sheet:

<https://tutorialsdojo.com/amazon-s3/>

Amazon S3 and S3 Glacier Overview:

<https://youtu.be/1ymyeN2tki4>

Question 2:

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What cloud computing model deals with services such as EC2 instances?

- DBaaS
- IaaS

(Correct)

- SaaS
- PaaS

Explanation

There are three main models for cloud computing. Each model represents a different part of the cloud computing stack, they are:

- Infrastructure as a Service (IaaS)
- Platform as a Service (PaaS)
- Software as a Service (SaaS)

IaaS	PaaS	SaaS
Applications	Applications	Applications
Data	Data	Data
Runtime	Runtime	Runtime
Middleware	Middleware	Middleware
O/S	O/S	O/S
Virtualization	Virtualization	Virtualization
Servers	Servers	Servers
Storage	Storage	Storage
Networking	Networking	Networking

You Manage
 Vendor Manages

Infrastructure as a Service, sometimes abbreviated as **IaaS**, contains the basic building blocks for cloud IT and typically provides access to networking features, computers (virtual or on dedicated hardware), and data storage space. Amazon EC2 is considered IaaS because you have total control over what could be done within the instances. You are borrowing the server infrastructure of AWS to fulfill your business needs, and you are charged at a rate for this service.

Hence, the correct answer is: **IaaS**.

PaaS, or platform as a service, is incorrect. PaaS services include AWS Elastic Beanstalk, which provides you a platform to launch your applications, while the service prepares all the necessary infrastructure to run your application.

SaaS, or software as a service, is incorrect. Software as a Service provides you with a completed product that is run and managed by the service provider. With a SaaS offering, you do not have to think about how the service is maintained or how the underlying infrastructure is managed; you only need to think about how you will use that particular piece of software.

DBaaS, or database as a service, is incorrect. Amazon EC2 is not a managed database service.

References:

<https://aws.amazon.com/types-of-cloud-computing/>

<https://aws.amazon.com/ec2/>

Amazon EC2 Overview:

https://www.youtube.com/watch?v=7VsGIHT_jQE

Check out this Amazon EC2 Cheat Sheet:

<https://tutorialsdojo.com/amazon-elastic-compute-cloud-amazon-ec2/>

Question 3:

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Which of the following purchase options offers the most significant discount compared to On-Demand instance pricing to process steady-state workloads that will continuously be running for a year and also provide capacity reservation?

- **Dedicated Instance**
- **Savings Plans**
- **Standard Reserved Instance**

(Correct)

- **Convertible Reserved Instance**

Explanation

Reserved Instances provide you with a significant discount compared to On-Demand instance pricing. In addition, when Reserved Instances are assigned to a specific Availability Zone, they provide a capacity reservation, giving you additional confidence in your ability to launch instances when you need them.

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. The average discount off On-Demand instances varies based on your term and chosen payment options. Customers have the flexibility to change the Availability Zone, the instance size, and networking type of their Standard Reserved Instances.

Convertible Reserved Instances provide you with a significant discount compared to On-Demand Instances and can be purchased for a 1-year or 3-year term. Purchase *Convertible Reserved Instances* if you need additional flexibility, such as the ability to use different instance families, operating systems, or tenancies over the Reserved Instance term.

Purchase Reserved Instances

Platform: Linux/UNIX Tenancy: Default Offering class: Any

Instance type: t3.micro Term: Any Payment option: Any

☐ Only show offerings that reserve capacity

Search

Seller	Term	Effective rate	Upfront price	Hourly rate	Payment option	Offering class	Quantity available	Desired quantity	Normalized units per hour	
AWS	12 months	\$0.006	\$53.00	\$0.000	All upfront	Standard	Unlimited	1	0.5	<button>Add to cart</button>
AWS	12 months	\$0.007	\$61.00	\$0.000	All upfront	Convertible	Unlimited	1	0.5	<button>Add to cart</button>
AWS	36 months	\$0.004	\$103.00	\$0.000	All upfront	Standard	Unlimited	1	0.5	<button>Add to cart</button>
AWS	36 months	\$0.005	\$123.00	\$0.000	All upfront	Convertible	Unlimited	1	0.5	<button>Add to cart</button>
AWS	12 months	\$0.007	\$0.00	\$0.007	No upfront	Standard	Unlimited	1	0.5	<button>Add to cart</button>
AWS	12 months	\$0.008	\$0.00	\$0.008	No upfront	Convertible	Unlimited	1	0.5	<button>Add to cart</button>
AWS	36 months	\$0.005	\$0.00	\$0.005	No upfront	Standard	Unlimited	1	0.5	<button>Add to cart</button>
AWS	36 months	\$0.005	\$0.00	\$0.005	No upfront	Convertible	Unlimited	1	0.5	<button>Add to cart</button>
AWS	12 months	\$0.006	\$27.00	\$0.003	Partial upfront	Standard	Unlimited	1	0.5	<button>Add to cart</button>
AWS	12 months	\$0.007	\$31.00	\$0.004	Partial upfront	Convertible	Unlimited	1	0.5	<button>Add to cart</button>
AWS	36 months	\$0.004	\$55.00	\$0.002	Partial upfront	Standard	Unlimited	1	0.5	<button>Add to cart</button>

Your cart: 1 Reserved Instance, total due now: \$27.00
 Monthly recurring cost: \$2.23
 Additional taxes may apply.

Cancel View cart

As a general rule, Standard RI provides more savings than Convertible RI, which means that the former is the cost-effective option. The All Upfront option provides you with the largest discount compared with the other types. Opting for a longer compute reservation, such as the 3-year term, gives us a greater discount as opposed to a shorter 1-year renewable term.

Hence, the correct answer is: **Standard Reserved Instance**.

Savings Plans is incorrect. This particular flexible pricing model offers low prices on EC2 and Fargate usage, in exchange for a commitment to a consistent amount of usage for a 1 or 3-year term. It is a cost-efficient instance pricing option but it does not offer capacity reservation, as required by the given question.

Convertible Reserved Instance is incorrect. Although it is suitable to process steady-state workloads, this is actually more expensive compared with Standard Reserved Instance.

Dedicated Instance is incorrect because this is actually more expensive than Reserved Instances. With a Dedicated Instance, you can pay for instances that run on single-tenant hardware by the hour.

References:

<https://aws.amazon.com/ec2/pricing/reserved-instances/pricing/>

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-reserved-instances.html>

Check out this **Amazon EC2 Cheat Sheet**:

Question 4:

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What action can be taken to strengthen the security of an AWS root account in the event of suspected unauthorized usage?

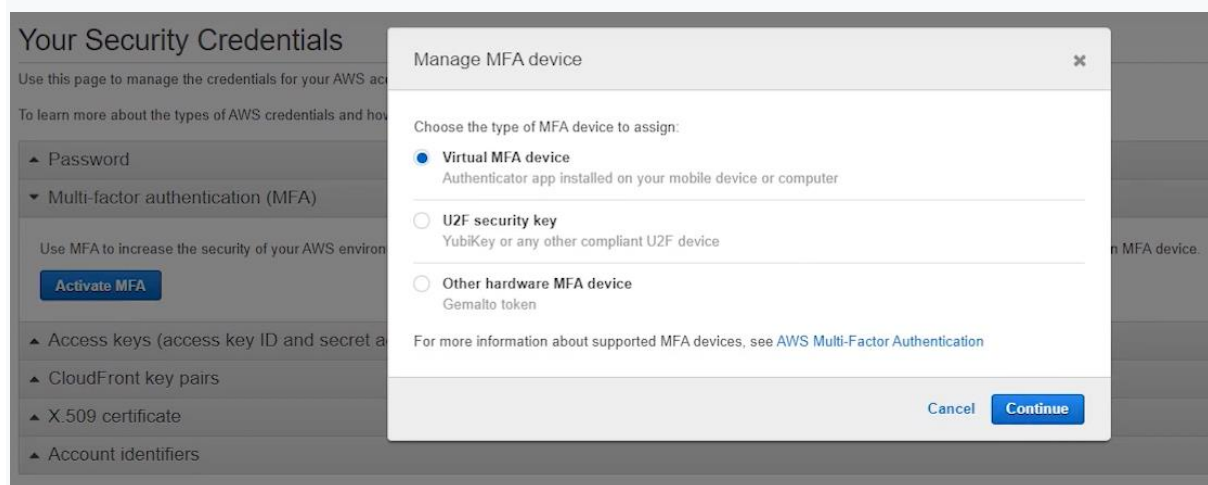
- **Disable root account credentials and use an IAM user with admin privileges instead**
- **Configure MFA for your root account**

(Correct)

- **Enable Cloudtrail to monitor for suspicious logins**
- **Change the root account password often**

Explanation

Multi-Factor Authentication (MFA) is a simple best practice that adds an extra layer of protection on top of your user name and password. It is actually one of the first few steps that you should perform after logging in to your newly created AWS account. With MFA enabled, when a user signs in to an AWS website, they will be prompted for their user name and password, as well as for an authentication response from their AWS MFA device. Taken together, these multiple factors provide increased security for your AWS account settings and resources.



You can enable MFA for your AWS account and for individual IAM users you have created under your account. MFA can be also be used to control access to AWS service APIs. After you've obtained supported hardware or a virtual MFA device, AWS does not charge any additional fees for using MFA.

Hence, the correct answer is: **Configure MFA for your root account.**

The option that says: **Disable root account credentials and use an IAM user with admin privileges instead** is incorrect because there is no actual way to disable root account credentials in AWS.

The option that says: **Change the root account password often** is incorrect. Although changing the password often is a good practice for any kind of account that has a password, this is still not the best option for this scenario. It is better to add an additional layer of protection to your root account via MFA instead.

The option that says: **Enable Cloudtrail to monitor for suspicious logins** is incorrect because enabling Cloudtrail will just give you information on the login event that occurred, but does not necessarily provide any further protection beyond that.

References:

<https://aws.amazon.com/iam/details/mfa/>

<https://docs.aws.amazon.com/IAM/latest/UserGuide/best-practices.html>

Check out this AWS Identity and Access Management (IAM) Cheat Sheet:

<https://tutorialsdojo.com/aws-identity-and-access-management-iam/>

Question 5:

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Which of the following is an example of IaaS in AWS?

- AWS CloudFormation
- AWS IAM
- Amazon EC2

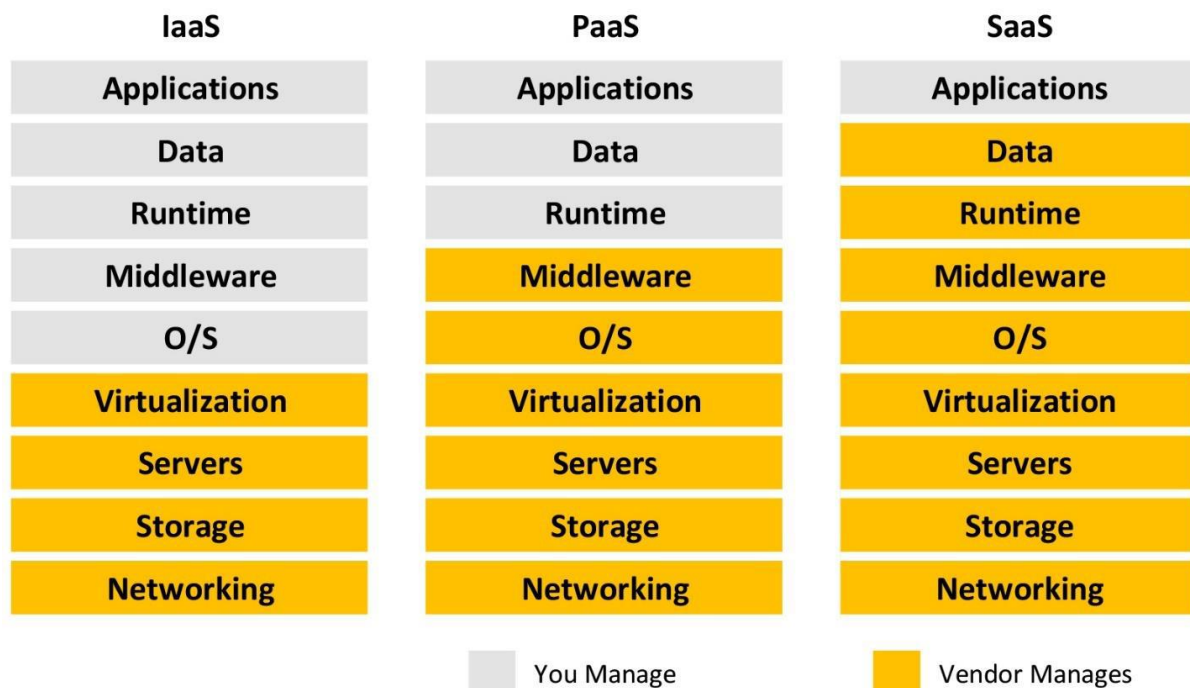
(Correct)

- AWS Elastic Beanstalk

Explanation

There are three main models for cloud computing. Each model represents a different part of the cloud computing stack, they are:

- Infrastructure as a Service (IaaS)
- Platform as a Service (PaaS)
- Software as a Service (SaaS)



Infrastructure as a Service, sometimes abbreviated as IaaS, contains the basic building blocks for cloud IT and typically provides access to networking features, computers (virtual or on dedicated hardware), and data storage space. Infrastructure as a Service provides you with the highest level of flexibility and management control over your IT resources and is most similar to existing IT resources that many IT departments and developers are familiar with today. Amazon EC2 is one of the IaaS solutions offered by AWS.

Hence, the correct answer is: **Amazon EC2**.

AWS CloudFormation is incorrect because this is a service that enables you to turn your infrastructure into code, making it more reusable and modifiable. This service is categorized under automation, not IaaS.

AWS Elastic Beanstalk is incorrect because this is a PaaS solution, not IaaS. It is PaaS since it gives you a platform where you can simply deploy your code, and AWS handles all the necessary infrastructure provisioning for you.

AWS IAM is incorrect because this is just a security service in AWS used for user and account management. It is not IaaS since you are not using any cloud infrastructure with IAM.

References:

<https://aws.amazon.com/ec2/>

<https://aws.amazon.com/types-of-cloud-computing/>

Amazon EC2 Overview:

https://www.youtube.com/watch?v=7VsGIHT_jQE

Check out this Amazon EC2 Cheat Sheet:

<https://tutorialsdojo.com/amazon-elastic-compute-cloud-amazon-ec2/>

Question 6:

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As an AWS customer, what offering do you naturally inherit from AWS after you sign up?

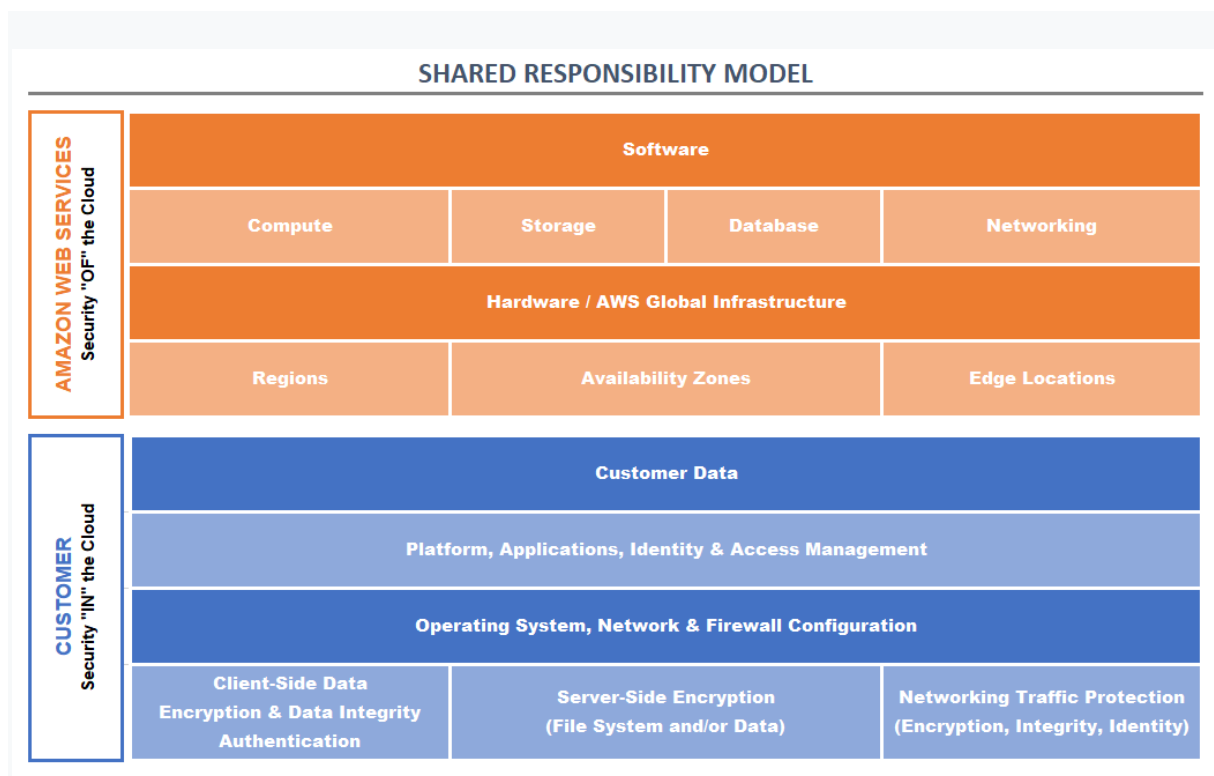
- All the hardware and software that you provision in the AWS cloud
- All the best practices of AWS policies, architecture, and operational processes built to satisfy your requirements

(Correct)

- All the responsibilities in enforcing security and compliance policies of your organization
- All the data you store in and retrieve from AWS

Explanation

Security at AWS is a top priority. Today, AWS protects millions of active customers around the world, from large enterprises and government organizations to start-ups and non-profits. AWS customers inherit all of the benefits of their security controls, including best practices for security policies, architecture, and operational processes validated against external assurance frameworks.



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. While the customer responsibility will be determined by the AWS Cloud services that a customer selects. This determines the amount of configuration work the customer must perform as part of their security responsibilities.

Hence, the correct answer is: **All the best practices of AWS policies, architecture, and operational processes built to satisfy your requirements.**

The option that says: **All the hardware and software that you provision in the AWS cloud** is incorrect because AWS retains full control of their physical infrastructure.

The option that says: **All the data you store in and retrieve from AWS** is incorrect because AWS does not take ownership of your data, to begin with, so there is nothing to inherit for this section.

The option that says: **All the responsibilities in enforcing security and compliance policies of your organization are your responsibilities** is incorrect because AWS handles security of the cloud, while the customer handles security in the cloud. All the responsibilities in enforcing the security and compliance policies of your organization.

References:

<https://aws.amazon.com/compliance/solutions-guide/>

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Tutorials Dojo's AWS Certified Cloud Practitioner Exam Study Guide:

<https://tutorialsdojo.com/aws-certified-cloud-practitioner/>

Question 7:

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Which of the following is not a standard design principle when designing systems in AWS?

- Disposable resources instead of fixed servers
- Loose coupling
- Servers, not services

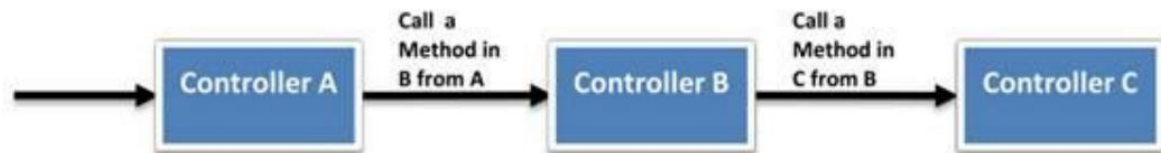
(Correct)

- Design for failure

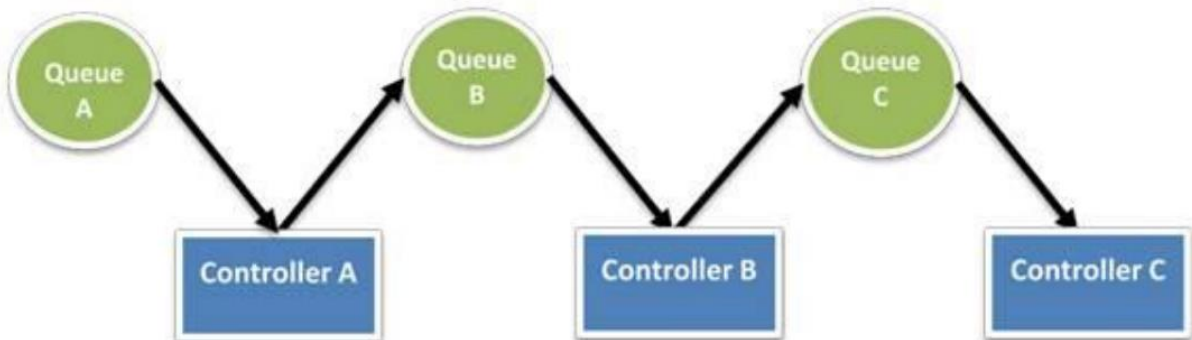
Explanation

There are various best practices that you can follow which can help you build an application in the cloud. The notable ones are:

1. Design for failure
2. Decouple your components
3. Implement elasticity
4. Think parallel



Tight coupling (procedural programming)



Loose coupling (independent phases using queues)

By focusing on concepts and best practices - like designing for failure, decoupling the application components, understanding and implementing elasticity, combining it with parallelization, and integrating security in every aspect of the application architecture - cloud architects can understand the design considerations necessary for building highly scalable cloud applications.

One of the advantages of using the Cloud is that it allows you to focus on services rather than servers or hardware. Since these resources can now be easily provisioned in the Cloud, you can direct your attention to more critical business areas such as your services and products. The option *Servers, not services* is not considered as one of the AWS Cloud design principles.

Hence, the correct answer is: **Servers, not services.**

All other options are incorrect since these are all good design principles that one should follow when designing systems in AWS.

- Loose coupling
- Design for failure
- Disposable resources instead of fixed servers

References:

https://www.slideshare.net/AmazonWebServices/best-practices-for-architecting-in-the-cloud-jeff-barr/9-1_Design_for_Failure_and

<https://docs.aws.amazon.com/wellarchitected/latest/framework/welcome.html>

Check out this AWS Well-Architected Framework - Design Principles Cheat Sheet:

<https://tutorialsdojo.com/aws-well-architected-framework-design-principles/>

Question 8:

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Which of the following is an example of having a highly available application in AWS?

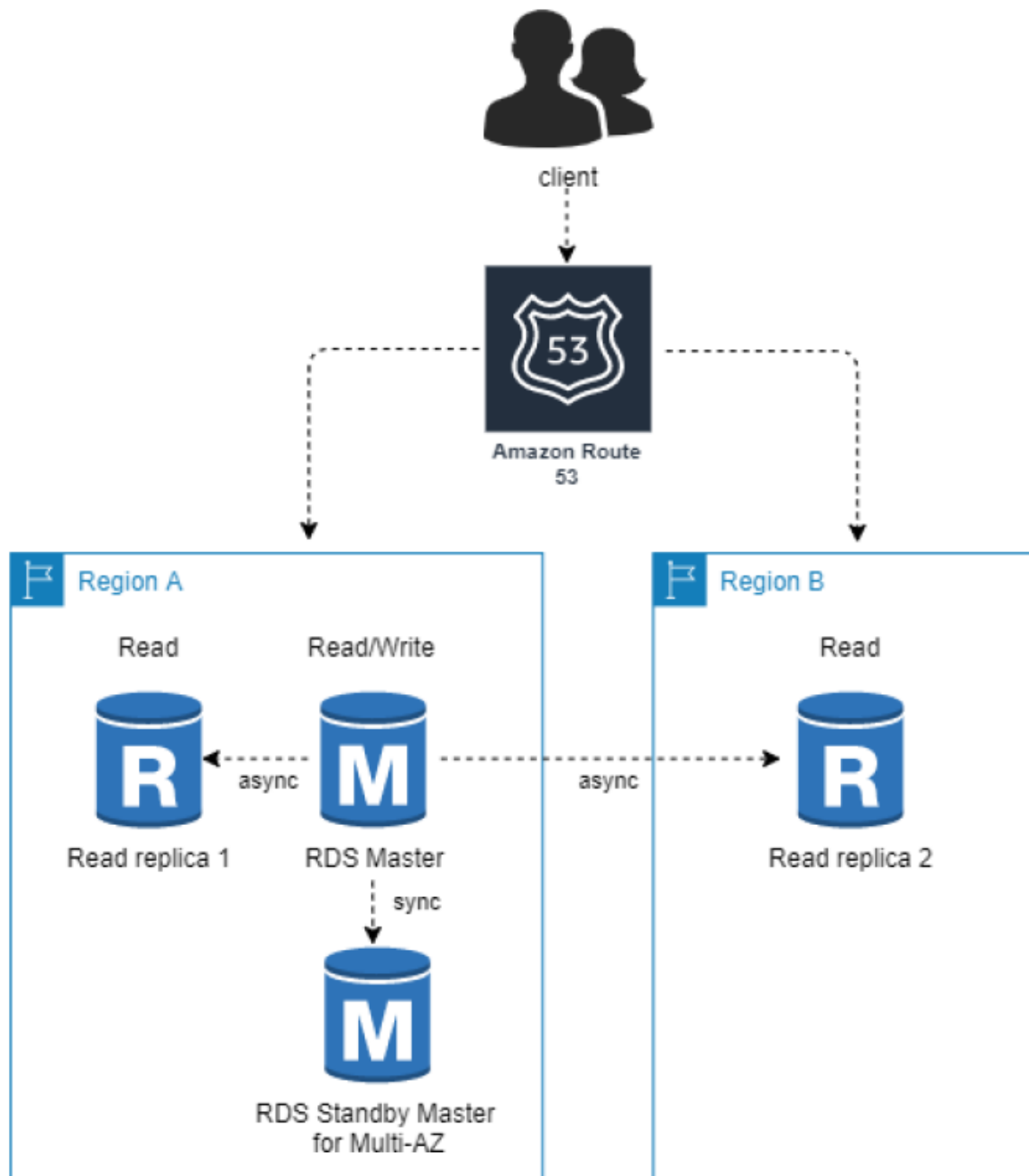
- **Running CloudFront for the static website in your S3 bucket**
- **Running your RDS instance with multi-AZ enabled**

(Correct)

- **Running spot instances for your EC2 workloads**
- **Using Amazon SQS to decouple messages between a sender and a receiver**

Explanation

Amazon RDS Multi-AZ deployments provide enhanced availability and durability for database instances. When you provision a Multi-AZ DB Instance, Amazon RDS automatically creates a primary DB Instance and synchronously replicates the data to a standby instance in a different Availability Zone (AZ). Each AZ runs on its own physically distinct, independent infrastructure, and is engineered to be highly reliable. In case of an infrastructure failure, Amazon RDS performs an automatic failover to the standby, so that you can resume database operations as soon as the failover is complete.



In a Multi-AZ deployment, Amazon RDS automatically provisions and maintains a synchronous standby replica in a different Availability Zone. The primary DB instance is synchronously replicated across Availability Zones to a standby replica to provide data redundancy, eliminate I/O freezes, and minimize latency spikes during system backups. Running a DB instance with high availability can enhance availability during planned system maintenance, and help protect your databases against DB instance failure and Availability Zone disruption.

Hence, the correct answer is: **Running your RDS instance with multi-AZ enabled.**

The option that says: **Running spot instances for your EC2 workloads** is incorrect because Spot instances can be terminated anytime without warning which makes it not suitable for workloads that need high availability.

The option that says: **Using Amazon SQS to decouple messages between a sender and a receiver** is incorrect because this is just an example of decoupling systems to make them more fault-tolerant. It also provides better durability for your messages since this is an inherent SQS characteristic. This option does not exactly exhibit high availability practice.

The option that says: **Running CloudFront for the static website in your S3 bucket** is incorrect because this just allows your content to become globally available while at the same time enhancing delivery speeds. This option does not exactly exhibit high availability practice.

References:

<https://aws.amazon.com/rds/details/multi-az/>

<https://aws.amazon.com/marketplace/solutions/infrastructure-software/high-availability>

Check out this Amazon RDS Cheat Sheet:

<https://tutorialsdojo.com/amazon-relational-database-service-amazon-rds/>

Amazon RDS Overview:

<https://youtu.be/aZmpLI8K1UU?si=b9wrS7C5Zmvmauh7>

Question 9:

Skipped

Which of the following perspective includes the foundational capabilities of the AWS Cloud Adoption Framework (AWS CAF)?

- **Security**

(Correct)

- **Reliability**
- **Scalability**
- **Sustainability**

Explanation

Security is a crucial aspect to consider when adopting and operating cloud solutions. It is essential to define security requirements, implement secure architectures, and establish identity and access controls to ensure the secure adoption and operation of cloud solutions. The AWS Cloud Adoption Framework (AWS CAF) recognizes the importance of Security and has made it a critical component of its framework.



Hence, the correct answer is: **Security**.

Sustainability is incorrect because it is not directly related to the foundational capabilities of the AWS Cloud Adoption Framework (AWS CAF), which is to assist organizations in their transition to cloud solutions. While sustainability is important, it primarily pertains to environmental and social responsibility practices, which are not directly connected to AWS CAF's core abilities.

Scalability is incorrect. While this is an important characteristic of cloud computing, it is not one of the foundational capabilities emphasized in the AWS CAF.

Reliability is incorrect. Reliability is a crucial aspect of cloud services, ensuring that applications and systems are available and perform as expected. However, it is not one of the specific foundational capabilities highlighted in the AWS CAF.

Reference:

<https://aws.amazon.com/cloud-adoption-framework/>

<https://docs.aws.amazon.com/whitepapers/latest/overview-aws-cloud-adoption-framework/welcome.html>

Question 10:

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A mobile game startup plans to upgrade its local servers to serve consumers better. However, locally stored data cannot be migrated due to compliance requirements. Which of the following options would you recommend to satisfy this requirement?

- **Utilize AWS web servers but keep your data locally. Setup a hybrid model in which the web servers in AWS will communicate with your local data store.**

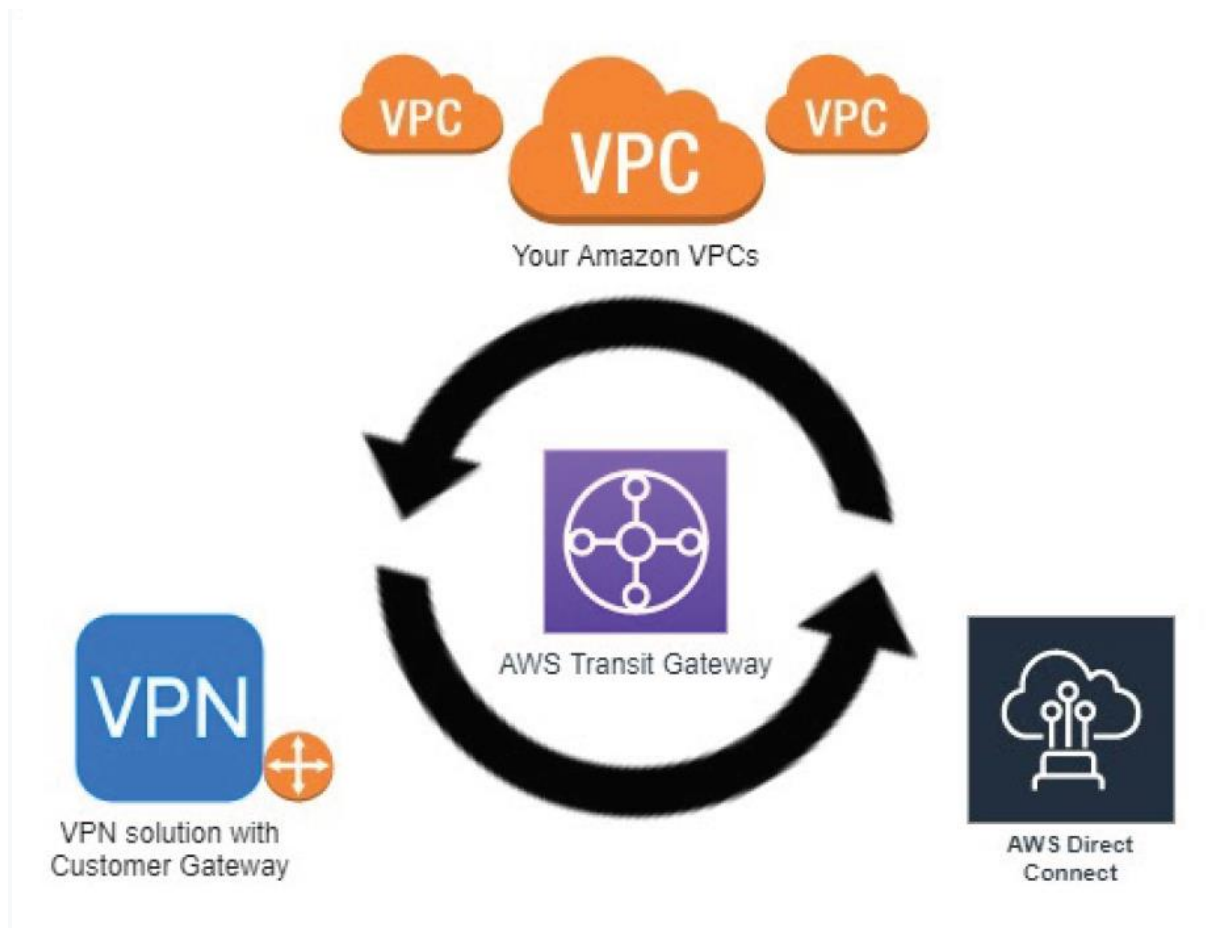
(Correct)

- Slowly migrate your web servers and data into AWS while keeping your budget in check.
- Dispose all of your servers and migrate your data to AWS since it will be cheaper and more durable to store data in the cloud.
- Do not perform any migration for now to save up some capital for a large scale migration in the future.

Explanation

Enterprise environments are often a mix of cloud, on-premises data centers, and edge locations. Hybrid cloud architectures help organizations integrate their on-premises and cloud operations to support a broad spectrum of use cases using a common set of cloud services, tools, and APIs across on-premises and cloud environments.

Customers can seamlessly integrate their on-premises and cloud storage, networking, identity management, and security policies to enable use cases such as data center extension to the cloud, backup, and disaster recovery to the cloud, and hybrid data processing.



The best approach for this scenario is to set up a hybrid environment, where you will use EC2 instances for your servers while keeping data stored locally. By applying this type of setup, you can utilize faster servers at a low cost while still keeping in compliance with your data.

Hence, the correct answer is: **Utilize AWS web servers but keep your data locally. Setup a hybrid model in which the web servers in AWS will communicate with your local data store.**

The option that says: **Dispose all of your servers and migrate your data to AWS since it will be cheaper and more durable to store data in the cloud** is incorrect because this means that you are going fully to the cloud. This is not the best approach since you have a compliance requirement that needs to be met. You should set up a hybrid cloud environment instead to make good use of the AWS Cloud while still fulfilling requirements.

The option that says: **Slowly migrate your web servers and data into AWS while keeping your budget in check** is incorrect. Although the migration is incremental, this solution still doesn't provide a way so that your on-premises data center and your VPC can co-exist.

The option that says: **Do not perform any migration for now to save up some capital for a large-scale migration in the future** is incorrect because not migrating as soon

as possible can affect the quality of service. Amazon EC2 instances are already offered at a low cost. Migration can be simplified using AWS tools as well.

References:

<https://aws.amazon.com/hybrid/>

<https://aws.amazon.com/types-of-cloud-computing/>

Check out this AWS Direct Connect Cheat Sheet:

<https://tutorialsdojo.com/aws-direct-connect/>

Question 11:

Skipped

A company used to experience delays in developing new services due to the time it took to procure and set up on-premises servers. They recently migrated their infrastructure to the AWS Cloud. This change has allowed them to spin up testing environments in just days, accelerating the time to market for their services.

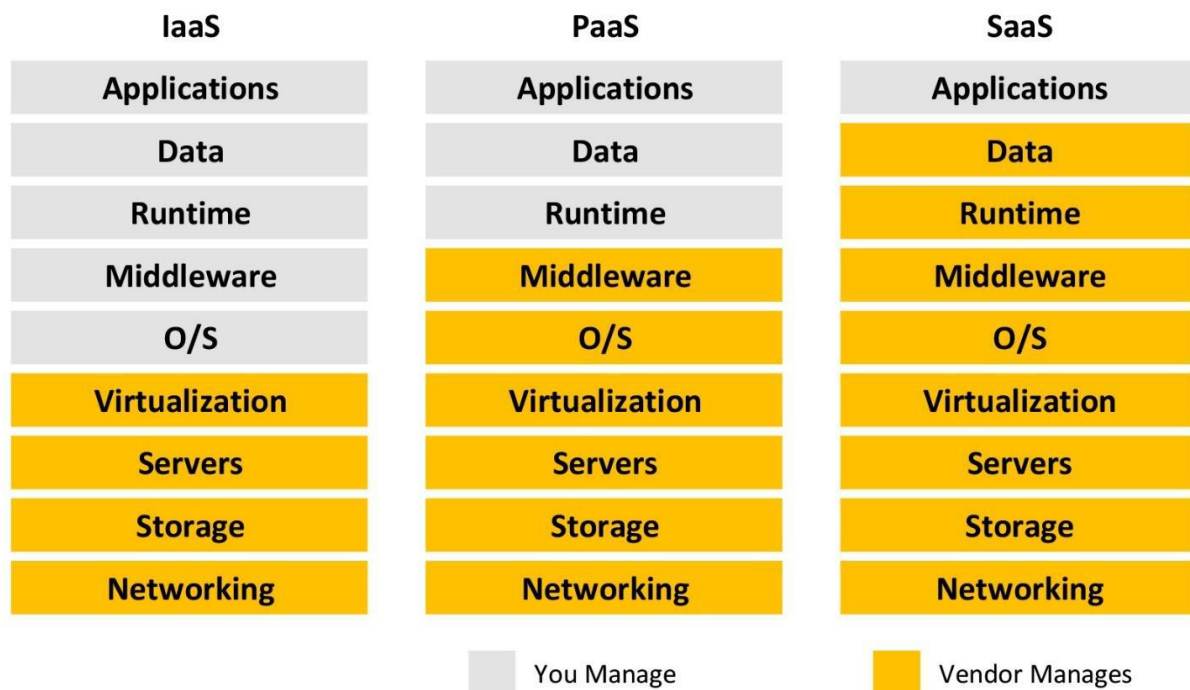
Which of the following AWS Cloud benefits is showcased in this particular scenario?

- **Cost savings**
- **Deploy globally in minutes**
- **Elasticity**
- **Agility**

(Correct)

Explanation

Cloud computing gives you access to servers, storage, databases, and a broad set of application services over the Internet. A cloud services provider such as Amazon Web Services owns and maintains the network-connected hardware required for these application services, while you provision and use what you need via a web application.



There are many benefits of using Cloud Computing, such as:

1. Agility

The cloud allows you to innovate faster because you can focus your valuable IT resources on developing applications that differentiate your business and transform customer experiences rather than managing infrastructure and data centers. With cloud, you can quickly spin up resources as you need them, deploying hundreds or even thousands of servers in minutes. The cloud also makes it easy and fast to access a broad range of technology such as compute, storage, databases, analytics, machine learning, and many other services on an as-needed basis. As a result, you can very quickly develop and roll out new applications, and your teams can experiment and innovate more quickly and frequently. If an experiment fails, you can always de-provision resources without risk.

2. Deploy globally in minutes

Deploy globally in minutes With the cloud, you can easily deploy your application in multiple physical locations around the world with just a few clicks. This means you can provide lower latency and a better experience for your customers simply and at a minimal cost.

3. Elasticity

Before cloud computing, you had to overprovision infrastructure to ensure you had enough capacity to handle your business operations at the peak level of activity. Now, you can provision the number of resources that you actually need, knowing you can instantly scale up or down with the needs of your business. This reduces costs and improves your ability to meet your users' demands.

4. Cost savings

The cloud allows you to trade capital expenses (data centers, physical servers, etc.) for variable expenses and only pay for IT as you consume it. Plus, the variable expense is much lower than what you can do for yourself because of the larger economies of scale.

Agility is crucial for businesses in today's fast-paced market. The cloud allows for quick resource provision, on-demand technology access, and easy resource de-provisioning. This fosters speedy experimentation, innovation, and iteration, enabling teams to adapt quickly and drive business growth. Prioritizing innovative applications and customer experiences over managing infrastructure and data centers keeps businesses ahead of the competition for long-term success.

Hence, the correct answer is: **Agility**.

Deploy globally in minutes is incorrect as it is not a specific aspect highlighted in the scenario. The main emphasis of the scenario is on the company's need to quickly deploy testing environments.

Elasticity is incorrect. Elasticity refers to the ability to scale resources up or down quickly based on demand. While moving to the AWS Cloud likely provided this company with increased elasticity, the scenario specifically focuses on the speed at which they were able to set up testing environments, which is more relevant to agility than elasticity.

Cost savings is incorrect. Though migrating to the cloud can indeed result in cost savings, the scenario didn't provide any specific information about cost reduction. The benefit highlighted is about reducing the time for testing new services, not reducing costs.

References:

<https://aws.amazon.com/what-is-cloud-computing/>

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

<https://aws.amazon.com/blogs/enterprise-strategy/risk-is-lack-of-agility/>

Tutorials Dojo's AWS Certified Cloud Practitioner Exam Study Guide:

<https://tutorialsdojo.com/aws-certified-cloud-practitioner/>

Question 12:

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In the event of a disaster or an outage, AWS recommends that you spread your servers and databases at least in different ____?

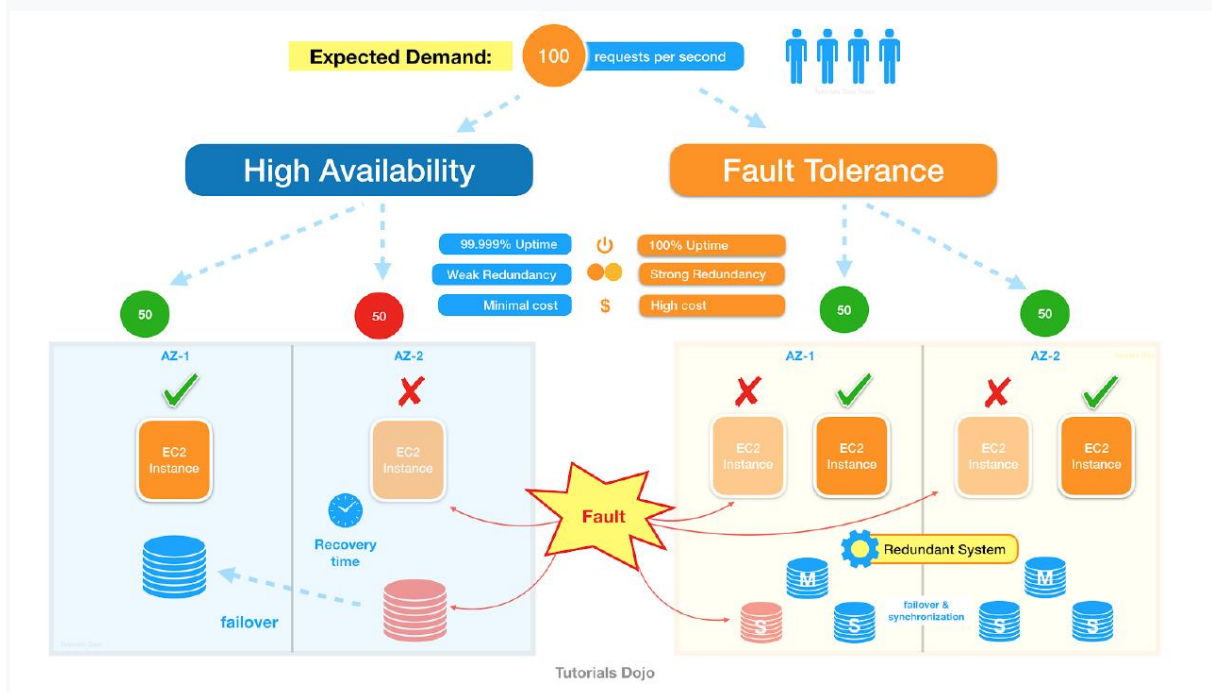
- AWS Accounts
- Regions
- Availability Zones

(Correct)

- VPCs

Explanation

To create a highly available system, AWS recommends that you launch your applications in more than one availability zone. This is to ensure that there is service continuity in case an AZ is struck by a disaster or experiences an outage. Each AWS Region provides full redundancy and connectivity to the network. AWS Regions consist of multiple Availability Zones (AZ), each of which is a fully isolated partition of the AWS infrastructure that consists of discrete data centers, each with redundant power, networking, and connectivity, and each housed in separate facilities.



Creating a highly available infrastructure boosts the reliability of your services. This is heavily emphasized by AWS in their Well-Architected Framework whitepaper. There are multiple services and features provided by AWS to help you construct a highly available environment for your business needs.

Hence, the correct answer is: **Availability Zones**.

Regions is incorrect. At a minimum, your servers and databases should be running in more than one AZ. You can also launch them in a separate region if you are worried about regional outages.

VPCs is incorrect because creating another VPC is not exactly the solution you're looking for in this scenario. It helps if your additional VPC has subnets in other AZs or is running in a different region.

AWS Accounts is incorrect because creating a new account is unnecessary.

References:

https://aws.amazon.com/about-aws/global-infrastructure/regions_az/

<https://docs.aws.amazon.com/wellarchitected/latest/reliability-pillar/welcome.html>

Check out this AWS Global Infrastructure Cheat Sheet:

<https://tutorialsdojo.com/aws-global-infrastructure/>

AWS Global Infrastructure Video Tutorial:

<https://youtu.be/rno8iNfKChM>

Question 13:

Skipped

A company is planning to use AWS Cloud to augment the resources of their on-premises data center to better serve their customers around the world. How does a company benefit from using AWS?

- **Benefit from massive discounts from the Amazon.com shopping website**
- **Benefit from massive economies of scale**

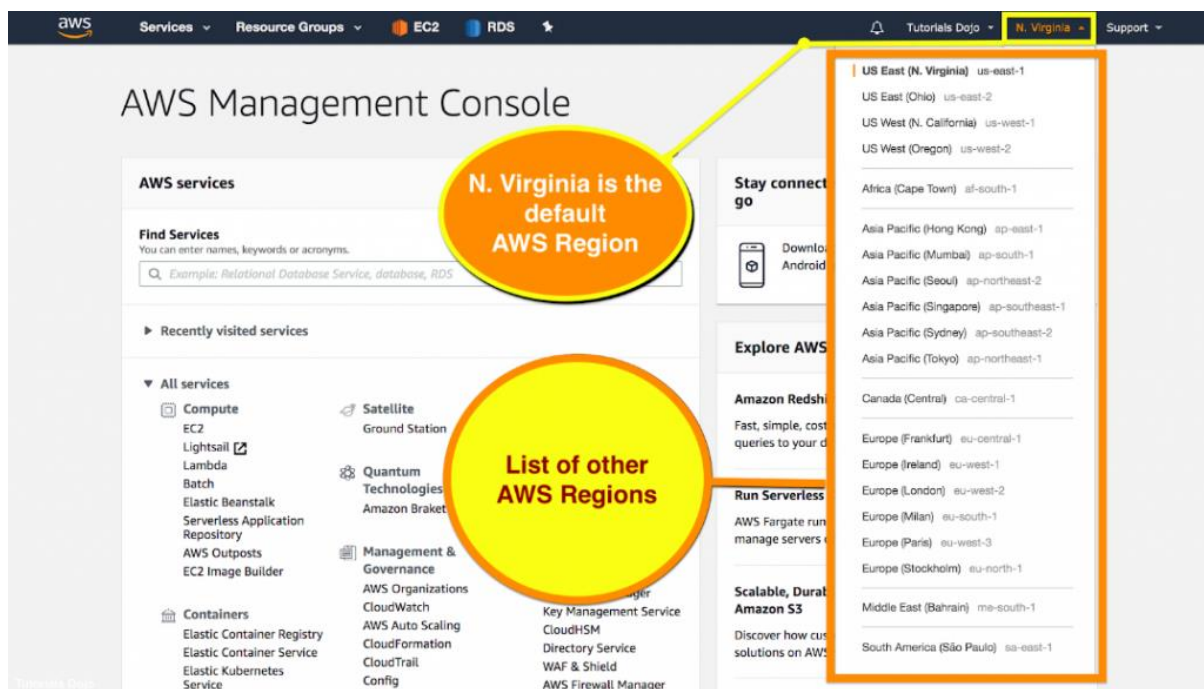
(Correct)

- **Replace low variable costs with upfront capital infrastructure expenses**
- **Replace high variable costs with upfront capital infrastructure expenses**

Explanation

In 2006, Amazon Web Services (AWS) began offering IT infrastructure services to businesses as web services—now commonly known as cloud computing. One of the key benefits of cloud computing is the opportunity to replace upfront capital infrastructure expenses with low variable costs that scale with your business. With

the cloud, businesses no longer need to plan for and procure servers and other IT infrastructure weeks or months in advance. Instead, they can instantly spin up hundreds or thousands of servers in minutes and deliver results faster.



Whether you are using it to run applications that share photos to millions of mobile users or to support business-critical operations, a cloud services platform provides rapid access to flexible and low-cost IT resources. With cloud computing, you don't need to make large upfront investments in hardware and spend a lot of time on the heavy lifting of managing that hardware. Instead, you can provision exactly the right type and size of computing resources you need to power your newest idea or operate your IT department. You can access as many resources as you need, almost instantly, and only pay for what you use.

There are six advantages of using Cloud Computing:

1. Trade capital expense for variable expense

- Instead of having to invest heavily in data centers and servers before you know how you're going to use them, you can pay only when you consume computing resources, and pay only for how much you consume.

2. 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.

3. Stop guessing capacity

– Eliminate guessing on your infrastructure capacity needs. When you make a capacity decision prior to deploying an application, you often end up either sitting on expensive idle resources or dealing with limited capacity. With cloud computing, these problems go away. You can access as much or as little capacity as you need, and scale up and down as required with only a few minutes' notice.

4. Increase speed and agility

– In a cloud computing environment, new IT resources are only a click away, which means that you reduce the time to make those resources available to your developers from weeks to just minutes. This results in a dramatic increase in agility for the organization since the cost and time it takes to experiment and develop is significantly lower.

5. Stop spending money running and maintaining data centers

– Focus on projects that differentiate your business, not the infrastructure. Cloud computing lets you focus on your own customers, rather than on the heavy lifting of racking, stacking, and powering servers.

6. Go global in minutes

– Easily deploy your application in multiple regions around the world with just a few clicks. This means you can provide lower latency and a better experience for your customers at a minimal cost.

Hence, the correct answer is: **Benefit from massive economies of scale.**

The option that says: **Benefit from massive discounts from the Amazon.com shopping website** is incorrect because the Amazon.com platform is different from its Amazon Web Services cloud computing division. This statement is actually not related to Cloud Computing.

The option that says: **Replace low variable costs with upfront capital infrastructure expenses** is incorrect as it should be the other way around. Using AWS allows you to replace upfront capital infrastructure expenses with low variable costs that scale with your business.

The option that says: **Replace high variable costs with upfront capital infrastructure expenses** is incorrect because you are actually replacing upfront capital infrastructure expenses and not high variable costs. Take note that by using AWS, you can actually have low (not high) variable costs.

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

<https://d1.awsstatic.com/whitepapers/aws-overview.pdf>

Tutorials Dojo's AWS Certified Cloud Practitioner Exam Study Guide:

<https://tutorialsdojo.com/aws-certified-cloud-practitioner/>

Question 14:

Skipped

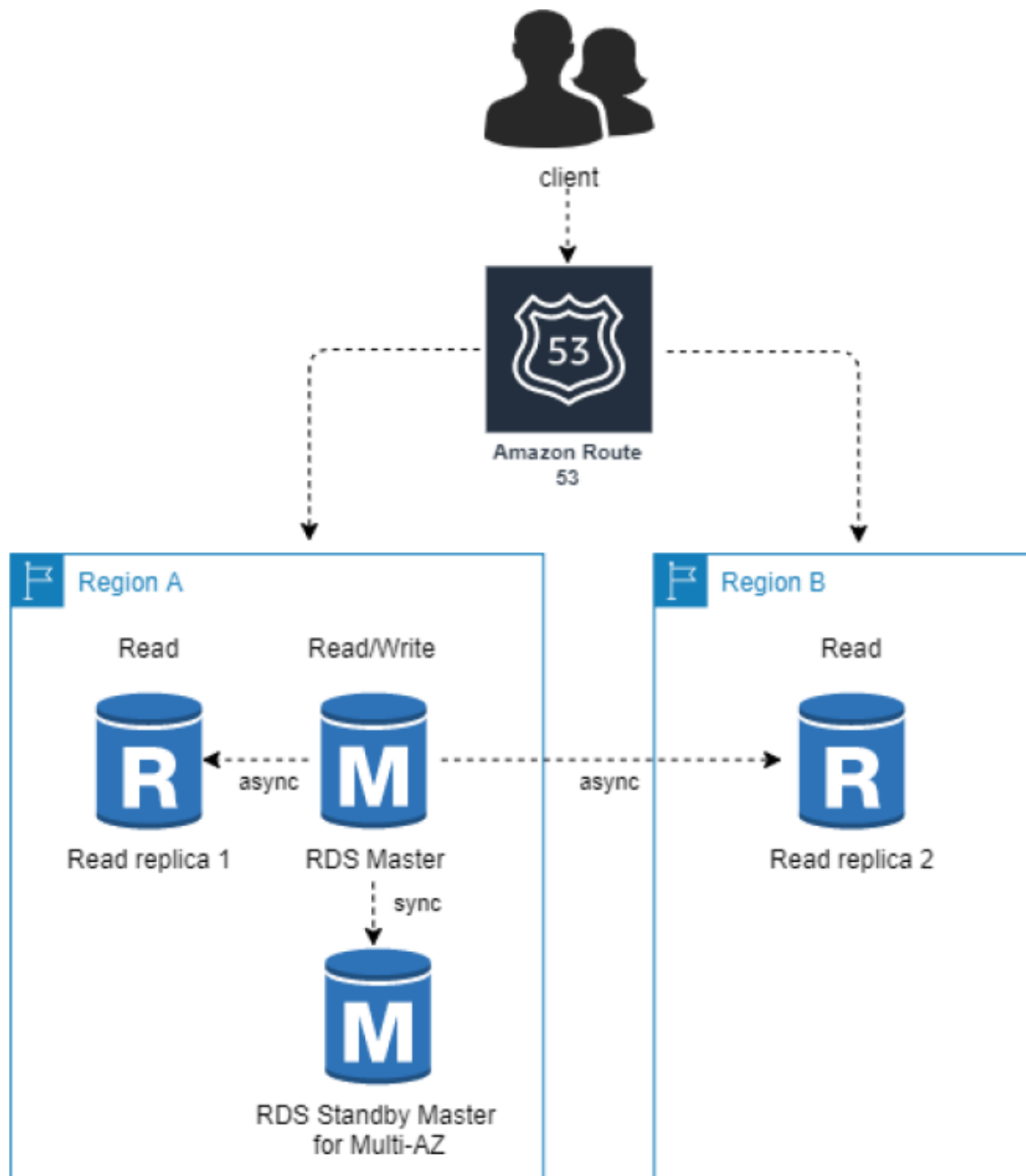
When is using Amazon RDS a better choice than using a local database?

- **When you need a fast network connection to your local web servers**
- **When you need full control of your SQL database**
- **When you need a free Enterprise license for your Enterprise databases**
- **When you want to offload administration responsibilities from yourself**

(Correct)

Explanation

Amazon Relational Database Service (Amazon 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.



Instead of managing a local database, Amazon RDS helps you focus on your applications so you can give them the fast performance, high availability, security, and compatibility they need.

Hence, the correct answer is: **When you want to offload administration responsibilities from yourself.**

The option that says: **When you need full control of your SQL database** is incorrect. If you need to have full control of your database servers then Amazon RDS is not for you. You should instead use Amazon EC2 or stick to your on-premises databases.

The option that says: **When you need a fast network connection to your local web servers** is incorrect. Using Amazon RDS does not ensure that your network connections will be better for you.

The option that says: **When you need a free Enterprise license for your Enterprise databases** is incorrect. Licenses do not come free with your databases in Amazon RDS. If you decide to use a database with licensing included, then you are charged at a higher rate for the license package. You also have the option to bring your own license if you are using an Oracle database.

References:

<https://aws.amazon.com/rds/>

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html>

Check out this Amazon RDS Cheat Sheet:

<https://tutorialsdojo.com/amazon-relational-database-service-amazon-rds/>

Amazon RDS Overview:

<https://youtu.be/aZmpLI8K1UU>

Question 15:

Skipped

What is a good disaster recovery precaution if you are launching a dynamic web application with mission-critical workloads that need to be available all the time?

- **Launch applications in two different AWS Regions to prevent downtime during regional outages.**

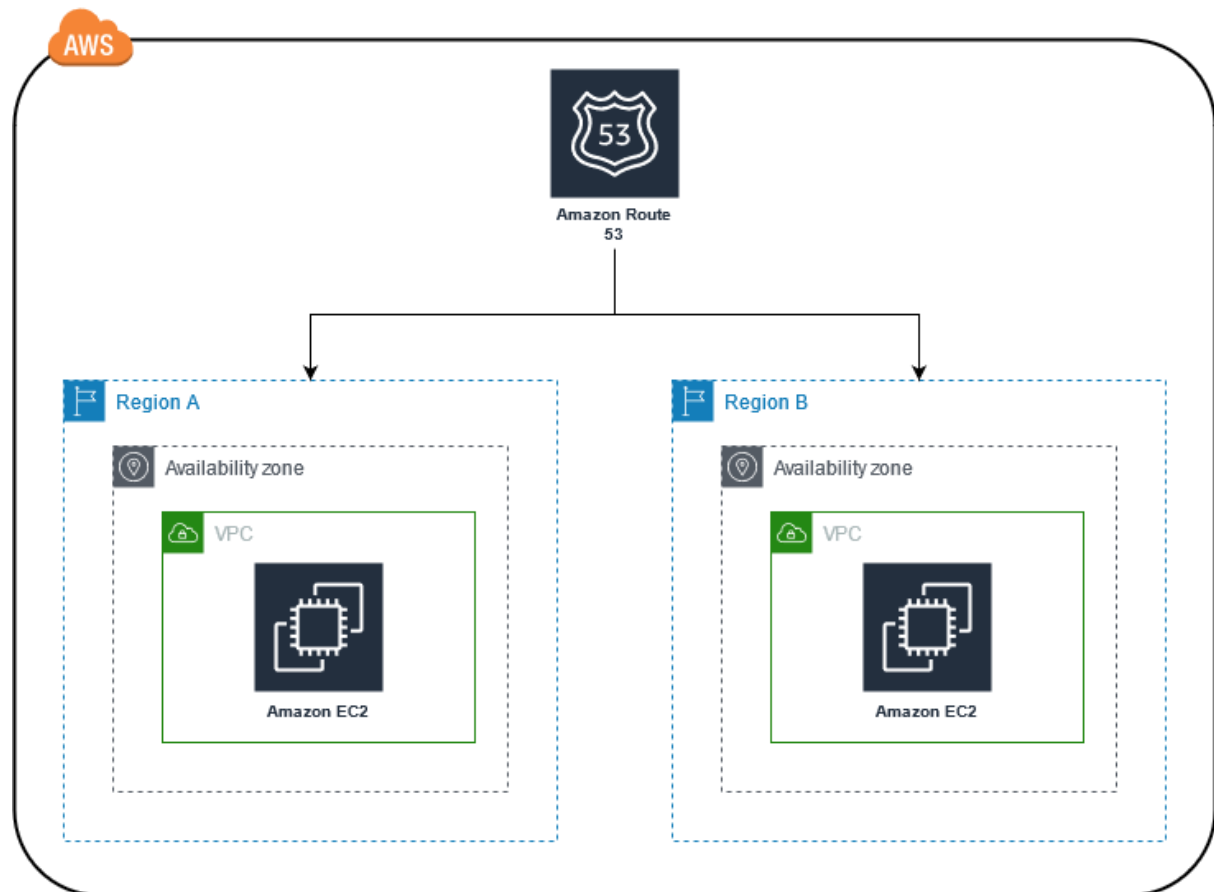
(Correct)

- **Run applications in the cloud but keep all data locally.**
- **Always keep backup data stored in two different S3 buckets.**
- **Launch applications in two different AZs to prevent downtime during regional outages.**

Explanation

Business continuity depends on the efficient, uninterrupted flow of data across an organization – from operations to sales to fulfillment. Even a brief lapse in workload continuity can mean thousands of lost sales opportunities, disruption to production,

and compromised customer trust. The causes of those lapses can range from natural disasters to mechanical failure or human error. You need a proactive cloud disaster recovery strategy that will help you stay up and running in the event that your physical infrastructure is unavailable for any length of time.



You should have a failover plan for every component of your system, and that includes your DNS services. AWS makes it very convenient for us to create solutions that focus on high availability and fault tolerance. In Route 53, AWS handles the availability of the service while you manage the policies that ensure your website's availability. Route 53 uses health checks to monitor the availability of your DNS targets. There are two ways you can approach failovers in Route 53: active-active failover and active-passive failover.

Hence, the correct answer is: **Launch applications in two different AWS Regions to prevent downtime during regional outages.**

The option that says: **Launch applications in two different AZs to prevent downtime during regional outages** is incorrect since regional outages affect all the AZs in it. You cannot launch an application in different AZs of different Regions.

The option that says: **Always keep backup data stored in two different S3 buckets** is incorrect since S3 boasts high durability and availability. There is no need to store backup data in two separate S3 buckets for the sake of disaster recovery.

The option that says: **Run applications in the cloud but keep all data locally** is incorrect since this is not an optimal disaster recovery strategy among the given choices. Keeping your data locally or in your on-premises data center is susceptible to data loss as well.

References:

<https://aws.amazon.com/disaster-recovery/>

<https://docs.aws.amazon.com/autoscaling/ec2/userguide/as-add-availability-zone.html>

Check out this AWS Well-Architected Framework – Disaster Recovery Cheat Sheet:

<https://tutorialsdojo.com/aws-well-architected-framework-disaster-recovery/>

Question 16:

Skipped

Which compliance requirement has AWS achieved that allows handling of medical information?

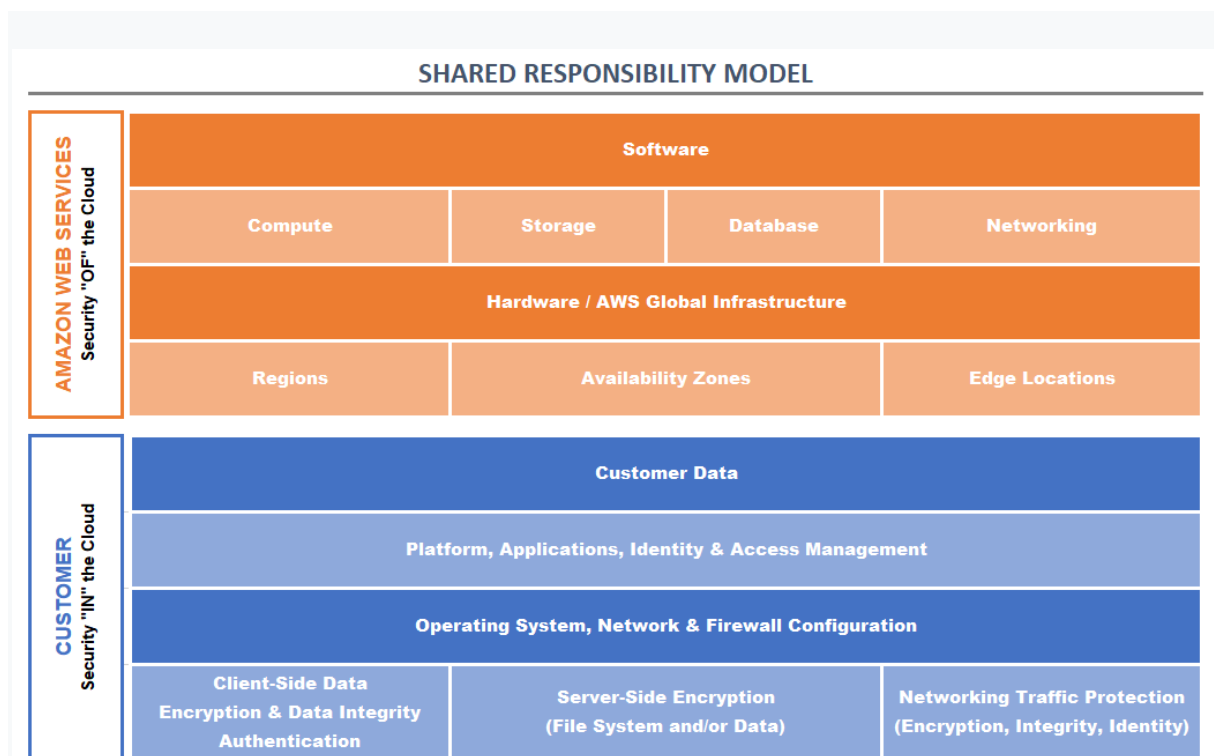
- SOC 1
- HIPAA

(Correct)

- PCI DSS
- SOC 2

Explanation

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. While the customer responsibility will be determined by the AWS Cloud services that a customer selects. This determines the amount of configuration work the customer must perform as part of their security responsibilities.



HIPAA (Health Insurance Portability and Accountability Act of 1996) is United States legislation that provides data privacy and security provisions for safeguarding medical information. AWS enables covered entities and their business associates subject to the HIPAA to use the secure AWS environment to process, maintain, and store protected health information.

Hence, the correct answer is: **HIPAA**.

Payment Card Industry Data Security Standard (PCI DSS) is incorrect because this is a set of security standards designed to ensure that ALL companies that accept, process, store, or transmit credit card information maintain a secure environment. This compliance does not concern medical information.

SOC 1 Report (System and Organization Controls Report) is incorrect because this is a report on Controls at a Service Organization which are relevant to user entities internal control over financial reporting. This compliance does not concern medical information.

SOC 2 is incorrect because this is focused more on making sure that systems are set up so they assure security, availability, processing integrity, confidentiality, and privacy of customer data. This compliance does not concern medical information.

References:

<https://aws.amazon.com/compliance/hipaa-compliance/>

<https://aws.amazon.com/health/healthcare-compliance/>

Tutorials Dojo's AWS Certified Cloud Practitioner Exam Study Guide:

<https://tutorialsdojo.com/aws-certified-cloud-practitioner/>

Question 17:

Skipped

An employee is asking for access to your S3 buckets. What should be the level of access that you should provide to him?

- **Give him read-only access**
- **Give him administrator access levels**
- **Give him S3 full access**
- **Ask what type of access he requires and only provide him those permissions**

(Correct)


Explanation


When you create IAM policies, follow the standard security advice of granting *the least privilege*, or granting only the permissions required to perform a task. Determine what users (and roles) need to do and then craft policies that allow them to perform *only* those tasks.


Add permissions to tutorialsdojo.demo

Grant permissions

Use IAM policies to grant permissions. You can assign an existing policy or create a new one.

 Add user to group








 Copy permissions from existing user

 Attach existing policies directly

Create policy

Filter policies ▾

Q S3

	Policy name ▾	Type
<input type="checkbox"/>	 AmazonDMSRedshiftS3Role	AWS managed
<input type="checkbox"/>	 AmazonS3FullAccess	AWS managed
<input type="checkbox"/>	 AmazonS3ObjectLambdaExecutionRolePolicy	AWS managed
<input type="checkbox"/>	 AmazonS3OutpostsFullAccess	AWS managed
<input type="checkbox"/>	 AmazonS3OutpostsReadOnlyAccess	AWS managed
<input type="checkbox"/>	 AmazonS3ReadOnlyAccess	AWS managed
<input type="checkbox"/>	 QuickSightAccessForS3StorageManagementAnalyticsReadOnly	AWS managed

It is not a good practice to give admin or full access privileges to users to prevent any malicious or unintended actions. It is also not ideal to give users below minimum access since this might affect their work.

Hence, the correct answer is: **Ask what type of access he requires and only provide him those permissions.**

All other options are incorrect it's not a good practice to grant permissions that are not needed by the user. You must follow the standard security advice by starting with a minimum set of permissions and grant additional permissions as necessary.

- Give him administrator access levels
- Give him S3 full access
- Give him read-only access

References:

<https://docs.aws.amazon.com/IAM/latest/UserGuide/best-practices.html#grant-least-privilege>

https://d1.awsstatic.com/whitepapers/AWS_Cloud_Best_Practices.pdf

Check out this AWS Identity and Access Management (IAM) Cheat Sheet:

<https://tutorialsdojo.com/aws-identity-and-access-management-iam/>

Question 18:

Skipped

Where can the customer view his Reserved Instance usage for the past month?

- Amazon EC2
- AWS Billing Console

(Correct)

- Amazon S3
- AWS Organizations

Explanation

AWS provides a free reporting tool called Cost Explorer that enables you to analyze the cost and usage of your EC2 instances and the usage of your Reserved Instances. The Cost Explorer tool is found under the **AWS Billing Console**.

Cost Explorer is a tool that enables you to view and analyze your costs and usage. You can explore your usage and costs using the main graph, the Cost Explorer cost and usage reports, or the Cost Explorer RI reports. You can view data for up to the last 13 months, forecast how much you're likely to spend for the next three months, and get recommendations for what Reserved Instances to purchase. You can use Cost Explorer to identify areas that need further inquiry and see trends that you can use to understand your costs.

Billing & Cost Management Dashboard



Getting Started with AWS Billing & Cost Management

- Manage your costs and usage using [AWS Budgets](#)
 - Visualize your cost drivers and usage trends via [Cost Explorer](#)
 - Dive deeper into your costs using the Cost and Usage Reports with [Athena integration](#)
 - **Learn more:** Check out the [AWS What's New webpage](#)
- Do you have Reserved Instances (RIs)?**
- Access the RI Utilization & Coverage reports—and RI purchase recommendations—via [Cost Explorer](#).

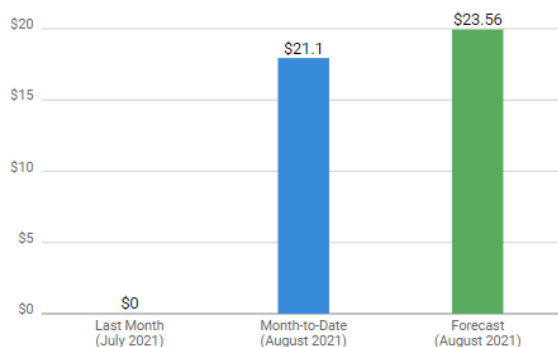
Spend Summary

[Cost Explorer](#)

Welcome to the AWS Billing & Cost Management console. Your last month, month-to-date, and month-end forecasted costs appear below.

Current month-to-date balance for August 2021

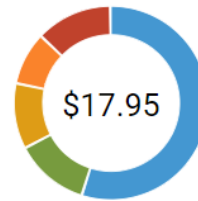
\$21.1



Month-to-Date Spend by Service

[Bill Details](#)

The chart below shows the proportion of costs spent for each service you use.



Key Management Service	\$10.27
Support (Developer)	\$3.51
DynamoDB	\$2.89
Relational Database Service	\$1.87
Other Services	\$2.56
Tax	\$0.00
Total	\$21.1

A forecast is a prediction of how much you will use AWS services over the forecast time period that you selected, based on your past usage. Forecasting provides an estimate of what your AWS bill will be and enables you to use alarms and budgets for amounts that you're predicted to use. Because forecasts are predictions, the forecasted billing amounts are estimated and might differ from your actual charges for each statement period.

Hence, the correct answer is: **AWS Billing Console.**

Amazon S3 is incorrect. Although billing reports are technically stored in an S3 bucket, these reports are not directly accessible by the customer from the service. You should view them in AWS Cost Explorer on your AWS Billing Console instead.

Amazon EC2 is incorrect because this just allows you to purchase Reserved Instances to obtain discounts in pricing. However, to view RI usage, you should visit the Cost Explorer tool instead.

AWS Organizations service is incorrect because this simply helps you configure AWS services and share resources across accounts in your organization. You cannot view your RI usage under this service.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/usage-reports.html>

<https://aws.amazon.com/aws-cost-management/reserved-instance-reporting/>

Check out this AWS Billing and Cost Management Cheat Sheet:

<https://tutorialsdojo.com/aws-billing-and-cost-management/>

Question 19:

Skipped

What type of EBS volume is recommended for most workloads and is also usable as a boot volume?

- **Throughput Optimized HDD**
- **General Purpose SSD**

(Correct)

- **Cold HDD**
- **Provisioned IOPS SSD**

Explanation



Amazon EBS provides the following volume types, which differ in performance characteristics and price, so that you can tailor your storage performance and cost to the needs of your applications:

General Purpose SSD - Recommended for most workloads; Can be used as system boot volumes; Best for development and test environments

Provisioned IOPS SSD - Meant for critical business applications that require sustained IOPS performance; Best used for large database workloads

Throughput Optimized HDD - Meant for streaming workloads requiring consistent, fast throughput at a low price, big data, data warehouses, and log processing. It cannot be a boot volume

Cold HDD - Meant for throughput-oriented storage for large volumes of data that are infrequently accessed or in scenarios where the lowest storage cost is important. It cannot be a boot volume

FEATURES	SSD Solid State Drive	HDD Hard Disk Drive
Best for workloads with:	<i>small, random</i> I/O operations	<i>large, sequential</i> I/O operations
Can be used as a bootable volume?	Yes	No
Suitable Use Cases	<ul style="list-style-type: none"> - Best for transactional workloads - Critical business applications that require sustained IOPS performance - Large database workloads such as MongoDB, Oracle, Microsoft SQL Server and many others... 	<ul style="list-style-type: none"> - Best for large streaming workloads requiring consistent, fast throughput at a low price - Big data, Data warehouses, Log processing - Throughput-oriented storage for large volumes of data that is infrequently accessed
Cost	moderate / high 	low 
Dominant Performance Attribute	IOPS	Throughput (MiB/s)

General Purpose SSD (**gp3**) volumes offer cost-effective storage that is ideal for a broad range of workloads. These volumes deliver a consistent baseline rate of 3,000 IOPS and 125 MiB/s, included with the price of storage. The maximum ratio of provisioned IOPS to provisioned volume size is 500 IOPS per GiB. The maximum ratio of provisioned throughput to provisioned IOPS is .25 MiB/s per IOPS.

Hence, the correct answer is **General Purpose SSD**.

Provisioned IOPS SSD is incorrect because this is primarily used for critical business applications that require sustained IOPS performance.

Throughput Optimized HDD is incorrect because this is mainly used for frequently accessed, throughput-intensive workloads. Although it is a low-cost HDD volume, it cannot be used as a system boot volume.

Cold HDD is incorrect because although it provides a lower cost HDD volume compared to General Purpose SSD, it cannot be used as a system boot volume.

References:

<https://aws.amazon.com/ebs/volume-types/>

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSVolumes.html>

Check out this Amazon EBS Cheat Sheet:

<https://tutorialsdojo.com/amazon-ebs/>

Amazon EBS Overview - SSD vs. HDD:

<https://youtu.be/LW7x8wyLFvw>

Question 20:

Skipped

A leading mobile game company has a mission-critical server that is currently down in AWS. The Systems Administrator needs to bring it back up within 15 minutes for service continuity. Which of the following support plans will allow the Administrator to contact technical support to immediately resolve the issue?

- **Enterprise**

(Correct)

- **Enterprise On-Ramp**
- **Developer**
- **Business**

Explanation

AWS Support offers a range of plans that provide access to tools and expertise that support the success and operational health of your AWS solutions. All support plans provide 24x7 access to customer service, AWS documentation, whitepapers, and support forums. For technical support and more resources to plan, deploy, and improve your AWS environment, you can select a support plan that best aligns with your AWS use case.

	DEVELOPER	BUSINESS	ENTERPRISE ON-RAMP	ENTERPRISE
Case Severity / Response Times*	General guidance: < 24 hours**	General guidance: < 24 hours	General guidance: < 24 hours	General guidance: < 24 hours
	System impaired: < 12 hours**	System impaired: < 12 hours	System impaired: < 12 hours	System impaired: < 12 hours
		Production system impaired: < 4 hours	Production system impaired: < 4 hours	Production system impaired: < 4 hours
		Production system down: < 1 hour	Production system down: < 1 hour	Production system down: < 1 hour
			Business-critical system down: < 30 minutes	Business/Mission-critical system down: < 15 minutes

AWS Enterprise support plan offers:

- Less than 24 hours response time for general guidance support cases.

- Less than 12 hours response time for impaired system support cases.
- Less than 4 hours response time for impaired production system support cases.
- Less than 1 hour response time for downed production system support cases.
- Less than 15 minutes response time for downed business-critical system support cases.

Hence, the correct answer is: **Enterprise.**

All other options are incorrect because these support plans do not offer immediate responses within 15 minutes for critical system downtimes. Be sure to compare which is the most suitable support plan for your company's needs.

- **Enterprise On-Ramp**
- **Developer**
- **Business**

References:

<https://aws.amazon.com/premiumsupport/plans/>

<https://docs.aws.amazon.com/awssupport/latest/user/getting-started.html>

Check out this AWS Support Plans Cheat Sheet:

<https://tutorialsdojo.com/aws-support-plans/>

Question 21:

Skipped

What is the right arrangement of the AWS Global Infrastructure components according to their geographical coverage area size, in descending order?

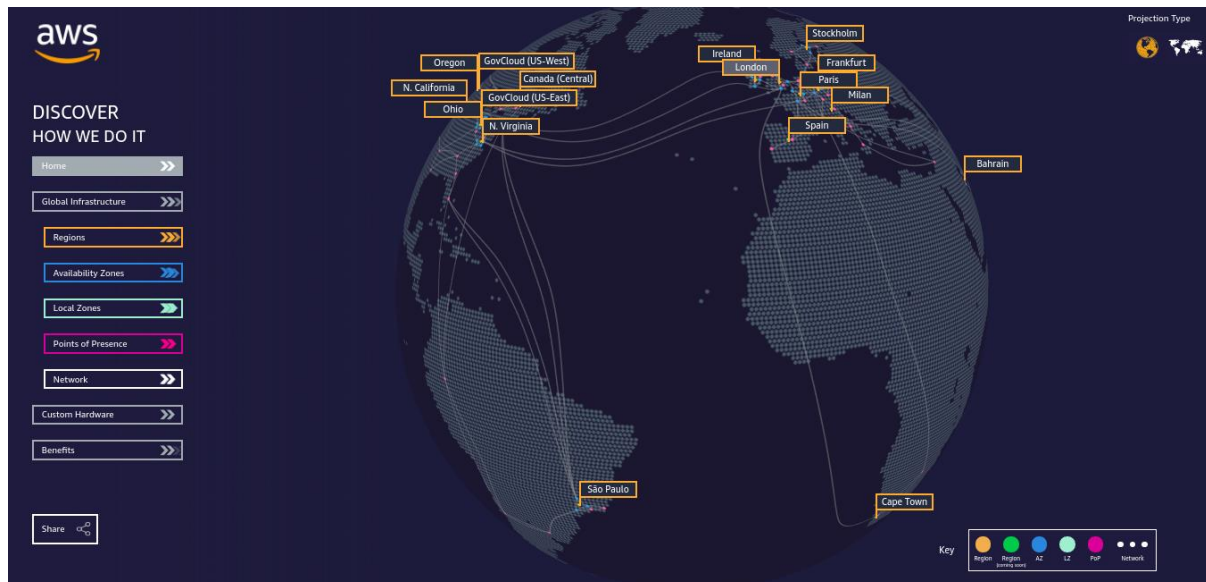
- **Regions, Edge Locations, Availability Zones**
- **Edge Locations, Availability Zones, Regions**
- **Regions, Availability Zones, Edge Locations**

(Correct)

- **Availability Zones, Edge Locations, Regions**

Explanation

The AWS Global Infrastructure delivers a cloud infrastructure companies can depend on—no matter their size, changing needs, or challenges. The AWS Global Infrastructure is designed and built to deliver the most flexible, reliable, scalable, and secure cloud computing environment with the highest quality global network performance available today. Every component of the AWS infrastructure is designed and built for redundancy and reliability, from regions to networking links to load balancers to routers and firmware.



AWS provides a more extensive global footprint than any other cloud provider, and it opens up new Regions faster than other providers. To support its global footprint and ensure customers are served across the world, AWS maintains multiple geographic regions, including Regions in North America, South America, Europe, Asia Pacific, and the Middle East.

Each AWS Region provides full redundancy and connectivity to the network. Unlike other cloud providers, who define a region as a single data center, at AWS Regions consist of multiple Availability Zones, each of which is a fully isolated partition of the AWS infrastructure that consists of discrete data centers, each with redundant power, networking, and connectivity, and each housed in separate facilities.

An Availability Zone gives customers the ability to operate production applications and databases that are more highly available, fault-tolerant, and scalable than would be possible from a single data center. All AZs are interconnected with high-bandwidth, low-latency networking, over fully redundant, dedicated metro fiber providing high-throughput, low-latency networking between AZs. The network performance is sufficient to accomplish synchronous replication between AZs.

Hence, the correct answer is: **Regions, Availability Zones, Edge Locations.**

All other options are incorrect due to their wrong order.

- **Regions, Edge Locations, Availability Zones**

- Availability Zones, Edge Locations, Regions

- Edge Locations, Availability Zones, Regions

References:

<https://infrastructure.aws>

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html>

<https://aws.amazon.com/about-aws/global-infrastructure/?p=ngi&loc=1>

Check out this AWS Global Infrastructure Cheat Sheet:

<https://tutorialsdojo.com/aws-global-infrastructure/>

AWS Global Infrastructure Video Tutorial:

<https://youtu.be/rno8iNfKChM>

Question 22:

Skipped

A startup plans to host a simple WordPress site on AWS. However, due to its developers' limited knowledge on AWS, they seek the easiest method of deploying the site.

Which AWS service should the startup use?

- **Amazon Lightsail**

(Correct)


- AWS Glue
- Amazon Elastic Beanstalk
- Amazon Elastic Compute Cloud (EC2)


Explanation

Amazon Lightsail is a PaaS solution for users who need a simple virtual private server (VPS) solution. Lightsail provides developers compute, storage, and networking capacity and capabilities to deploy and manage websites and web applications in the cloud. Lightsail includes everything you need to launch your project quickly – a virtual machine, SSD-based storage, data transfer, DNS management, and a static IP – for a low, predictable monthly price.

Pick your instance image ?

Select a platform

















 **Linux/Unix**
28 blueprints

 **Microsoft Windows**
4 blueprints

Select a blueprint

Apps + OS

OS Only

 WordPress 5.7.2-34	 WordPress Multisite 5.7.2-39	 LAMP (PHP 7) 7.4.21-0	 Node.js 12.22.3-2
 Joomla 3.9.28-1	 Magento 2.4.2-21	 MEAN 4.4.6-2	 Drupal 9.2.1-0
 GitLab CE 12.5.0	 Redmine 4.2.1-1	 Nginx 1.18.0-65	 Ghost 4.10.1-0
 Django 3.2.5-8	 PrestaShop 1.7.7-5-1	 Plesk Hosting Stack on Ubuntu 18.0.34	 cPanel & WHM for Linux 11.92.0.9

Lightsail offers a range of operating system and application templates that are automatically installed when you create a new Lightsail instance. Application templates include WordPress, Drupal, Joomla!, Magento, Redmine, LAMP, Nginx (LEMP), MEAN, Node.js, and more.

Based on the given scenario, Amazon Lightsail is the ideal choice for the startup to deploy their WordPress site. Its user-friendly interface, pre-configured server options, and predictable pricing make it the top recommendation. Even those with limited AWS knowledge can benefit from Lightsail's easy setup and virtual private server management, complete with the necessary LAMP stack for WordPress, without the need for manual configuration. In addition, Lightsail integrates seamlessly with other AWS services, offering more functionality as needed.

Hence, the correct answer is: **Amazon Lightsail**.

Amazon Elastic Beanstalk is incorrect. Elastic Beanstalk is a Platform as a Service (PaaS) that can indeed be used to deploy and run applications. However, it's not necessarily simple, especially for a company with only basic AWS knowledge. Although it does abstract away some of the underlying infrastructure management, it still requires knowledge of infrastructure management in AWS. Lightsail, on the other

hand, is easier to use. It's designed for those who are just starting out with AWS and want to get their applications up and running quickly.

Amazon Elastic Compute Cloud EC2 is incorrect. With Amazon EC2, users can access virtual servers in the cloud and have full control over their server environment. Compared to AWS Lightsail, EC2 requires more setup, configuration, and ongoing management, making it more suitable for advanced use cases that require flexibility and customization. For startups seeking simplicity, EC2 may not be the easiest option.

AWS Glue is incorrect because this is a serverless ETL (extract, transform, and load) service and is not suitable for website hosting.

References:

<https://aws.amazon.com/lightsail/>

<https://aws.amazon.com/lightsail/projects/wordpress/>

Check out this Amazon Lightsail Cheat Sheet:

<https://tutorialsdojo.com/amazon-lightsail/>

Question 23:

Skipped

What is an advantage of cloud computing when it comes to equipment expenditures?

- **You can easily scale and manage the number of resources running in your cloud environment.**
- **AWS introduces cost reductions each year in their services.**

(Correct)

- **AWS uses the cheapest possible equipment for their data centers so that they do not charge expensive fees.**
- **AWS makes sure that physical devices are continuously secured and monitored.**

Explanation

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 while the customer responsibility will be determined by the AWS Cloud services that a customer selects. This determines the amount of configuration work the customer must perform as part of their security responsibilities.

SHARED RESPONSIBILITY MODEL

AMAZON WEB SERVICES Security "OF" the Cloud	Software			
	Compute	Storage	Database	Networking
	Hardware / AWS Global Infrastructure			
	Regions	Availability Zones	Edge Locations	
CUSTOMER Security "IN" the Cloud	Customer Data			
	Platform, Applications, Identity & Access Management			
	Operating System, Network & Firewall Configuration			
	Client-Side Data Encryption & Data Integrity Authentication	Server-Side Encryption (File System and/or Data)	Networking Traffic Protection (Encryption, Integrity, Identity)	

AWS does its best to reduce the cost of its operations and infrastructures each year. This reduction in cost translates to the customer such that the customer also receives lower prices for using AWS resources. Research also shows that it is almost always cheaper to run your workloads in the cloud because of the flexibility of the cloud and pricing discounts than to run them locally. It is always one of the priorities of AWS to remain cost-effective in the market while offering quality services to its customers.

Hence, the correct answer is: **AWS introduces cost reductions each year in their services.**

All other options are incorrect because these do not specifically tackle equipment expenditures or are unproven statements.

- You can easily scale and manage the number of resources running in your cloud environment.
- AWS makes sure that physical devices are continuously secured and monitored.
- AWS uses the cheapest possible equipment for their data centers so that they do not charge expensive fees.

References:

<https://aws.amazon.com/blogs/apn/new-research-from-tso-logic-shows-aws-costs-get-lower-every-year/>

https://d0.awsstatic.com/whitepapers/aws_pricing_overview.pdf

Tutorials Dojo's AWS Certified Cloud Practitioner Exam Study Guide:

<https://tutorialsdojo.com/aws-certified-cloud-practitioner/>

Question 24:

Skipped

A company recently migrated its e-commerce application to AWS in order to handle a surge in customer traffic. The application is hosted on Amazon EC2 instances and uses Amazon RDS to manage the product catalog and inventory.

Which of the following options provides disaster recovery solutions for Amazon EC2?

- Amazon RDS Snapshots
- AWS Security Hub
- Amazon EC2 AMI

(Correct)

- AWS Health Dashboard
- Amazon EBS Snapshots

(Correct)

Explanation

Amazon Elastic Block Store (Amazon EBS) is a block storage service provided by AWS. It allows you to create persistent block storage volumes that can be attached to Amazon EC2 instances. Amazon EBS volumes provide highly available and reliable storage that can be used for a variety of use cases, such as database storage, application file storage, and backup and disaster recovery solutions. Amazon EBS supports multiple volume types, including SSD and HDD options, and provides features such as snapshots, encryption, and automated backup and recovery.

Create snapshot [Info](#)

Create a point-in-time snapshot of an EBS volume and use it as a baseline for new volumes or for data backup. You can create snapshots from an individual volume, or you can create multi-volume snapshots from all of the volumes attached to an instance.

Snapshot settings

Resource type [Info](#)

☒ Volume
Create a snapshot from a specific volume.

☐ Instance
Create multi-volume snapshots from an instance.

Volume ID

The volume from which to create the snapshot.

Select a volume ▼



Description

Add a description for your snapshot.

tutorialsdojo-demo-ebs-snapshot

255 characters maximum

In AWS, EBS snapshots can be used as part of a disaster recovery solution. EBS snapshots are point-in-time copies of Amazon S3-stored EBS volumes that can be used to restore EBS volumes to a previous state in the event of a failure or disaster. To ensure data resilience, snapshots can be automated and stored in multiple locations.

You can also create an AMI of your EC2 instance, then copy it to another region or create a launch configuration or auto-scaling group that uses the AMI, which can help automate the process of launching new instances in the secondary region.

Hence, the correct answers are:

- **Amazon EBS Snapshots**

- **Amazon EC2 AMI**

The option that says: **Amazon RDS Snapshots** is incorrect because the requirement in the given scenario is only for Amazon EC2, and there is no option in the EC2 console to create an RDS snapshot.

The option that says: **AWS Security Hub** is incorrect because this is just a security service that provides a comprehensive view of security alerts and compliance status across your AWS accounts.

The option that says: **AWS Health Dashboard** is incorrect because this is mainly used for monitoring service disruptions, outage events, or other incidents that may impact your infrastructure. You can't create a backup of your EC2 instance using this service.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSSnapshots.html>

<https://docs.aws.amazon.com/toolkit-for-visual-studio/latest/user-guide/tkv-create-ami-from-instance.html>

Check out this Amazon EC2 and Amazon EBS Cheat Sheet:

<https://tutorialsdojo.com/amazon-elastic-compute-cloud-amazon-ec2/>

<https://tutorialsdojo.com/amazon-ebs/>

Question 25:

Skipped

Which among the following is the most cost-effective and scalable choice for object storage?

- Amazon EFS
- AWS Storage Gateway
- Amazon S3

(Correct)

- Amazon EBS

Explanation

Amazon Simple Storage Service (Amazon S3) is an object storage service that offers industry-leading scalability, data availability, security, and performance. It is the most cost-effective choice for storing objects since this is its primary purpose. Another advantage you receive from Amazon S3 is volume discounts.

S3 North Virginia		Storage pricing
S3 Standard - General purpose storage for any type of data, typically used for frequently accessed data		
First 50 TB / Month		\$0.023 per GB
Next 450 TB / Month		\$0.022 per GB
Over 500 TB / Month		\$0.021 per GB
Volume Type	EBS North Virginia	Price
General Purpose SSD (gp3) - Storage		\$0.08/GB-month
EFS North Virginia		Price
Standard Storage (GB-Month)		\$0.30
Amazon S3 File Gateway pricing		
Region: <input type="text" value="US East (N. Virginia)"/>		
Storage Pricing		
Storage Pricing		Stored and billed as Amazon S3 objects.
Request Pricing		
Data written to AWS storage by your gateway		\$0.01 per GB†
File storage in S3		Billed as Amazon S3 requests.

Amazon S3 provides a simple web service interface that you can use to store and retrieve any amount of data, at any time, from anywhere on the web. Using this web service, you can easily build applications that make use of Internet storage. Since Amazon S3 is highly scalable and you only pay for what you use, you can start small and grow your application as you wish, with no compromise on performance or reliability.

Hence, the correct answer is: **Amazon S3**.

Amazon EFS is incorrect because this is an NFS file storage solution used together with EC2 instances or other virtual servers. It is definitely not a cheap service given its pricing mechanics.

Amazon EBS is incorrect because this is a volume storage solution that requires a running EC2 instance, and so is not easily scalable. Although EBS volumes can be used for object storage, they need to be attached to instances for you to store and retrieve objects. This can also add unnecessary charges to your billing.

AWS Storage Gateway is incorrect because this is a hybrid cloud storage service that gives you on-premises access to virtually unlimited cloud storage. It lets you connect your local data storage to Amazon S3 using an appliance for a cost and hence, is not as cost effective as using Amazon S3 alone.

References:

<https://aws.amazon.com/s3/>

<https://docs.aws.amazon.com/AmazonS3/latest/dev/Introduction.html>

<https://www.youtube.com/watch?v=OgRT88DjQos>

Check out these AWS Cheat Sheets:

<https://tutorialsdojo.com/amazon-s3/>

<https://tutorialsdojo.com/amazon-s3-vs-ebs-vs-efs/>

Amazon S3 and S3 Glacier Overview:

<https://youtu.be/1ymyeN2tki4>

Question 26:

Skipped

Which of the following is part of the best practices in securing your AWS account?

- **Always manually define permissions to each and every individual IAM user**
- **Grant Most Privilege**
- **Enable MFA only on the root account**
- **Create an IAM user with admin privileges instead of using root**

(Correct)

Explanation

You use an access key (an access key ID and secret access key) to make programmatic requests to AWS. However, do not use your AWS account root user access key. The access key for your AWS account root user gives full access to all your resources for all AWS services, including your billing information. You cannot reduce the permissions associated with your AWS account root user access key. Therefore, protect your root user access key like you would your credit card numbers or any other sensitive secret.

Summary

Delete user



User ARN arn:aws:iam::081918611225:user/tutorialsdojo-demo

Path /

Creation time 2021-06-15 15:04 UTC+0800

Permissions

Groups (1)

Tags

Security credentials

Access Advisor

▼ Permissions policies (5 policies applied)

Add permissions

+ Add inline policy

Policy name ▼	Policy type ▼	
Attached directly		
▶ IAMUserChangePassword	AWS managed policy	×
Attached from group		
▶ AWSCodeCommitPowerUser	AWS managed policy from group Admin	×
▶ AdministratorAccess	AWS managed policy from group Admin	×
▶ PowerUserAccess	AWS managed policy from group Admin	×
▶ OwnCredentialsManagement	Managed policy from group Admin	×

As indicated in the Security Best Practices whitepaper, you should not use your root account to administer your account. You should instead create an IAM user with administrative privileges that will be used as the administrator of your AWS account.

Hence, the correct answer is: **Create an IAM user with admin privileges instead of using root.**

The option that says: **Enable MFA only on the root account** is incorrect because MFA should be enabled as much as possible for every account to prevent others from maliciously logging in to your account.

The option that says: **Grant Most Privilege** is incorrect because when you create IAM policies, you should follow the standard security advice of granting the least *privilege*, or granting only the permissions required to perform a task.

The option that says: **Always manually define permissions to each and every individual IAM user** is incorrect because you should use IAM Groups to make it easier to manage the permissions for multiple users.

References:

https://d0.awsstatic.com/whitepapers/Security/AWS_Security_Best_Practices.pdf

<https://docs.aws.amazon.com/IAM/latest/UserGuide/best-practices.html>

Check out this AWS Identity and Access Management (IAM) Cheat Sheet:

<https://tutorialsdojo.com/aws-identity-and-access-management-iam/>

Question 27:

Skipped

Which of the following instances is it better to use IAM roles rather than IAM users? (Select TWO.)

- **When you need a GUI to interact with your AWS environment**
- **When you want to provide AWS services permissions to do certain actions**

(Correct)

- **When you need an administrator to handle the AWS account for you**
- **If you have employees who will constantly need access to your AWS resources**
- **When you have outside entities that need to perform specific actions in your AWS account**

(Correct)

Explanation

You can use IAM roles to delegate access to users, applications, or services that don't normally have access to your AWS resources. For example, you might want to grant users in your AWS account access to resources they don't usually have, or grant users in one AWS account access to resources in another account. Sometimes you want to give AWS access to users who already have identities defined outside of AWS, such as in your corporate directory.

Create role

1 2 3 4

Review

Provide the required information below and review this role before you create it.

Role name*

TD-Serverless-Demo

Use alphanumeric and '+, @, _' characters. Maximum 64 characters.

Role description

Allows Lambda functions to call AWS services on your behalf.

Maximum 1000 characters. Use alphanumeric and '+, @, _' characters.

Trusted entities

AWS service: lambda.amazonaws.com

Policies



AmazonS3FullAccess



AmazonDynamoDBFullAccess



AmazonSNSFullAccess

Permissions boundary

Permissions boundary is not set

* Required

Cancel

Previous

Create role

If you need constant access to your AWS account or a GUI such as the AWS Management Console, it is better to use IAM users instead since they provide long-term credentials for logging in to your account. Entities such as account handlers and administrators should have their own IAM accounts instead as well to be more efficient in their work.

Hence, the correct answers are:

- When you want to provide AWS services permissions to do certain actions.
- When you have outside entities that need to perform specific actions in your AWS account.

All the other options are incorrect since these are more suitable for IAM users:

- If you have employees who will constantly need access to your AWS resources.
- When you need a GUI to interact with your AWS environment.
- When you need an administrator to handle the AWS account for you.

References:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles.html

<https://docs.aws.amazon.com/IAM/latest/UserGuide/id.html>

Check out this AWS Identity and Access Management (IAM) Cheat Sheet:

<https://tutorialsdojo.com/aws-identity-and-access-management-iam/>

Question 28:

Skipped

A customer is choosing the best AWS support plan which includes a designated Technical Account Manager. Which of the following should they choose?

- Business
- Enterprise On-Ramp
- Enterprise

(Correct)

- Developer

Explanation

AWS Support offers a range of plans that provide access to tools and expertise that support the success and operational health of your AWS solutions. All support plans provide 24x7 access to customer service, AWS documentation, whitepapers, and support forums. For technical support and more resources to plan, deploy, and improve your AWS environment, you can select a support plan that best aligns with your AWS use case.

	DEVELOPER	BUSINESS	ENTERPRISE ON-RAMP	ENTERPRISE
Use Case	Recommended if you are experimenting or testing in AWS.	Recommended if you have production workloads in AWS.	Recommended if you have business and/or mission critical workloads in AWS.	Recommended if you have business and/or mission critical workloads in AWS.
AWS Trusted Advisor Best Practice Checks	Service Quota and basic Security checks	Full set of checks	Full set of checks	Full set of checks
Architectural Guidance	General	Contextual to your use-cases	Consultative review and guidance based on your applications	Consultative review and guidance based on your applications
Technical Account Management	×	×	A pool of Technical Account Managers to provide proactive guidance, and coordinate access to programs and AWS experts	Designated Technical Account Manager (TAM) to proactively monitor your environment and assist with optimization and coordinate access to programs and
Training	×	×	×	Access to online self-paced labs
Account Assistance	×	×	Concierge Support Team	Concierge Support Team
Enhanced Technical Support	Business hours** email access to Cloud Support Associates. Unlimited cases / 1 primary contact Prioritized responses on AWS re Post	24x7 phone, email, and chat access to Cloud Support Engineers Unlimited cases / unlimited contacts (IAM supported) Prioritized responses on AWS re Post	24x7 phone, email, and chat access to Cloud Support Engineers Unlimited cases / unlimited contacts (IAM supported) Prioritized responses on AWS re Post	24x7 phone, email, and chat access to Cloud Support Engineers Unlimited cases / unlimited contacts (IAM supported) Prioritized responses on AWS re Post
Programmatic Case Management	×	AWS Support API	AWS Support API	AWS Support API
Third-Party Software Support	×	Interoperability and configuration guidance and troubleshooting	Interoperability and configuration guidance and troubleshooting	Interoperability and configuration guidance and troubleshooting
Proactive Programs	Access to Support Automation Workflows with prefixes AWSsupport	Access to Infrastructure Event Management for additional fee Access to Support Automation Workflows with prefixes AWSsupport and AWSPremiumSupport	Infrastructure Event Management (one-per-year) Access to Support Automation Workflows with prefixes AWSsupport and AWSPremiumSupport	Infrastructure Event Management Access to proactive reviews, workshops, and deep dives Access to Support Automation Workflows with prefixes AWSsupport and AWSPremiumSupport

AWS Support offers five support plans: Basic, Developer, Business, Enterprise On-Ramp, and Enterprise. The Basic plan is free of charge and offers support for account and billing questions and service limit increases. The other plans offer an unlimited number of technical support cases with pay-by-the-month pricing and no long-term contracts, providing the level of support that meets your needs.

All AWS customers automatically have around-the-clock access to these features of the Basic support plan:

- Customer Service: one-on-one responses to account and billing questions
- Support forums
- Service health checks
- Documentation, whitepapers, and best-practice guides

Customers with an Enterprise support plan have more access since they are eligible for these additional features unlike the Developer or Business plans:

- Application architecture guidance: consultative partnership supporting specific use cases and applications.
- Infrastructure event management: short-term engagement with AWS Support to get a deep understanding of your use case—and after analysis, provide architectural and scaling guidance for an event.
- Technical account manager
- White-glove case routing
- Management business reviews
- Concierge Support Team

Hence, the correct answer is: **Enterprise** support plan.

Enterprise On-Ramp is incorrect because this support plan provides a pool of Technical Account Managers and not a designated TAM.

Developer and **Business** are incorrect because these support plans do not include a Technical Account Manager.

References:

<https://aws.amazon.com/premiumsupport/plans/>

<https://docs.aws.amazon.com/awssupport/latest/user/getting-started.html>

<https://aws.amazon.com/premiumsupport/plans/enterprise/>

Check out this AWS Support Plans Cheat Sheet:

<https://tutorialsdojo.com/aws-support-plans/>

Question 29:

Skipped

A customer has recently experienced an SQL injection attack on their web application's database hosted in EC2. They submitted a complaint ticket to AWS. What should be the response from AWS?

- AWS and the customer should contact a third party auditor to verify the incident.
- AWS should secure their infrastructure better to reduce these kinds of incidents.
- AWS should not be liable for the damages since the customer should have properly patched the EC2 instance.
- AWS should reiterate that the customer is responsible for the security of their applications in the Cloud.

(Correct)

Explanation

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. While the customer responsibility will be determined by the AWS Cloud services that a customer selects. This determines the amount of configuration work the customer must perform as part of their security responsibilities.

SHARED RESPONSIBILITY MODEL

AMAZON WEB SERVICES Security "OF" the Cloud	Software			
	Compute	Storage	Database	Networking
	Hardware / AWS Global Infrastructure			
	Regions	Availability Zones		Edge Locations

CUSTOMER Security "IN" the Cloud	Customer Data		
	Platform, Applications, Identity & Access Management		
	Operating System, Network & Firewall Configuration		
	Client-Side Data Encryption & Data Integrity Authentication	Server-Side Encryption (File System and/or Data)	Networking Traffic Protection (Encryption, Integrity, Identity)

It is the customer's responsibility to secure their infrastructure through various available security services. Customers can use different network and firewall configurations such as Security Groups, Network ACLs, AWS WAF, AWS Shield Advanced, Client/Server-Side encryption, and many others.

Hence, the correct answer is: **AWS should reiterate that the customer is responsible for the security of their applications in the Cloud.**

The option that says: **AWS should secure their infrastructure better to reduce these kinds of incidents** is an incorrect choice since the customer is at fault for not securing their applications against the SQL injection attack. AWS continuously secures and updates its infrastructure, but this does not include customer applications.

The option that says: **AWS and the customer should contact a third-party auditor to verify the incident** is incorrect because this is not the responsibility of AWS. The customer can do this for an audit of their own system if they wish to.

The option that says: **AWS should not be liable for the damages since the customer should have properly patched the EC2 instance** is incorrect. Although it is true that AWS is not responsible for the damages incurred, it is not the best answer among the options. AWS should reiterate to the customer how the responsibilities in the Cloud are shared between them.

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

<https://docs.aws.amazon.com/whitepapers/latest/aws-security-incident-response-guide/shared-responsibility.html>

Tutorials Dojo's AWS Certified Cloud Practitioner Exam Study Guide:

<https://tutorialsdojo.com/aws-certified-cloud-practitioner/>

Question 30:

Skipped

What are the benefits of using Amazon DynamoDB as your database? (Select TWO.)

- **DynamoDB is self-healing, which means your data is scanned for errors and is repaired continuously**
- **You can store different kinds of unstructured data that would normally not be suitable for relational databases**

(Correct)

- Database size scales automatically so you won't have to worry about capacity

(Correct)

- DynamoDB offers 11 9's in terms of durability, according to the SLA
- You can perform very complex queries and joins without deterioration in performance

Explanation

Amazon DynamoDB is a fast, scalable NoSQL-managed database service. You can build applications with virtually unlimited throughput and storage. You can use DynamoDB to store structured documents, JSON data, key-value pairs, and many more items that you would not be able to store on a relational database.

Create DynamoDB table

Tutorial ?

DynamoDB is a schema-less database that only requires a table name and primary key. The table's primary key is made up of one or two attributes that uniquely identify items, partition the data, and sort data within each partition.

Table name*

TutorialsDojo-Demo

i

Primary key*

Partition key

id

String

v

i

☒ Add sort key

name

String

v

i

Table settings

Default settings provide the fastest way to get started with your table. You can modify these default settings now or after your table has been created.

☒ Use default settings

- No secondary indexes.
- Auto Scaling capacity set to 70% target utilization, at minimum capacity of 5 reads and 5 writes.
- Encryption at Rest with DEFAULT encryption type.

[+ Add tags](#) **NEW!**

Additional charges may apply if you exceed the AWS Free Tier levels for CloudWatch or Simple Notification Service. Advanced alarm settings are available in the CloudWatch management console.

Cancel

Create

DynamoDB supports some of the world's largest scale applications by providing consistent, single-digit millisecond response times at any scale. You can build applications with virtually unlimited throughput and storage. DynamoDB global tables replicate your data across multiple AWS Regions to give you fast, local access to data for your globally distributed applications. For use cases that require even

faster access with microsecond latency, DynamoDB Accelerator (DAX) provides a fully managed in-memory cache.

Hence, the correct answers are:

- **Database size scales automatically so you won't have to worry about capacity**
- **You can store different kinds of unstructured data that would normally not be suitable for relational databases**

The option that says: **DynamoDB is self-healing, which means your data is scanned for errors and is repaired continuously** is incorrect because DynamoDB is not a self-healing database and it doesn't automatically scan or repair your data. An example of a self-healing database in AWS is Amazon Aurora in which the concept of "self-healing" relates to the underlying infrastructure.

The option that says: **DynamoDB offers 11 9's in terms of durability, according to the SLA** is incorrect because it does not offer 11 9's in durability, unlike Amazon S3.

The option that says: **You can perform very complex queries and joins without deterioration in performance** is incorrect because usually, with NoSQL databases, you would not perform complex queries due to the unstructured formatting of your data. Complex queries are better performed in SQL databases due to predictable structuring.

References:

<https://aws.amazon.com/dynamodb/>

<https://aws.amazon.com/blogs/database/amazon-dynamodb-auto-scaling-performance-and-cost-optimization-at-any-scale/>

Check out these AWS Cheat Sheets:

<https://tutorialsdojo.com/amazon-dynamodb/>

<https://tutorialsdojo.com/amazon-rds-vs-dynamodb/>

Amazon DynamoDB Overview:

<https://youtu.be/3ZOyUNleorU>

Question 31:

Skipped

Which of the following services combine 5G networks with AWS compute and storage services for the benefit of high-performance mobile applications?

- **AWS Wavelength**

(Correct)

- AWS Cloud9
- AWS Control Tower
- AWS Amplify

Explanation

AWS Wavelength combines the high bandwidth and ultra-low latency of 5G networks with AWS compute and storage services to enable developers to innovate and build a whole new class of applications. Wavelength Zones are AWS infrastructure deployments that embed AWS compute and storage services within telecommunications providers' datacenters at the edge of the 5G network, so application traffic can reach application servers running in Wavelength Zones without leaving the mobile providers' network.

The screenshot shows the AWS Management Console interface for managing Wavelength Zones. The breadcrumb navigation at the top reads 'VPC > Settings > Zones > Manage Zones'. The main heading is 'Manage US East (Verizon) / us-east-1-wl1' with an 'Info' link. Below the heading is a subtitle: 'List of available zones and status for this zone group.' A section titled 'Wavelength Zones' lists eight zones: us-east-1-wl1-atl-wlz-1, us-east-1-wl1-bos-wlz-1, us-east-1-wl1-chi-wlz-1, us-east-1-wl1-dfw-wlz-1, us-east-1-wl1-iah-wlz-1, us-east-1-wl1-mia-wlz-1, us-east-1-wl1-nyc-wlz-1, and us-east-1-wl1-was-wlz-1. Below the list are two radio buttons: 'Opted in' (unselected) and 'Opted out' (selected). At the bottom, there is a blue information box with an 'i' icon containing the text: 'These zones may contain resources. Before opting out, make sure you remove all associated resources.' At the very bottom right, there are two buttons: 'Cancel' and 'Update zones'.

You use Wavelength when you need to deploy high-performance applications that can be accessed by mobile end-users and devices that require single-digit millisecond latency.

Hence, the correct answer is: **AWS Wavelength**.

AWS Cloud9 is incorrect because this service is a cloud-based IDE that lets you write, run, and debug your code with just a browser.

AWS Amplify is incorrect because this is just a set of tools and frameworks that accelerate the development of mobile and web applications on AWS.

AWS Control Tower is incorrect because this is a service that makes it easy to set up and govern a secure, multi-account AWS environment based on industry best practices.

References:

<https://aws.amazon.com/wavelength/>

<https://docs.aws.amazon.com/wavelength/latest/developerguide/what-is-wavelength.html>

Question 32:

Skipped

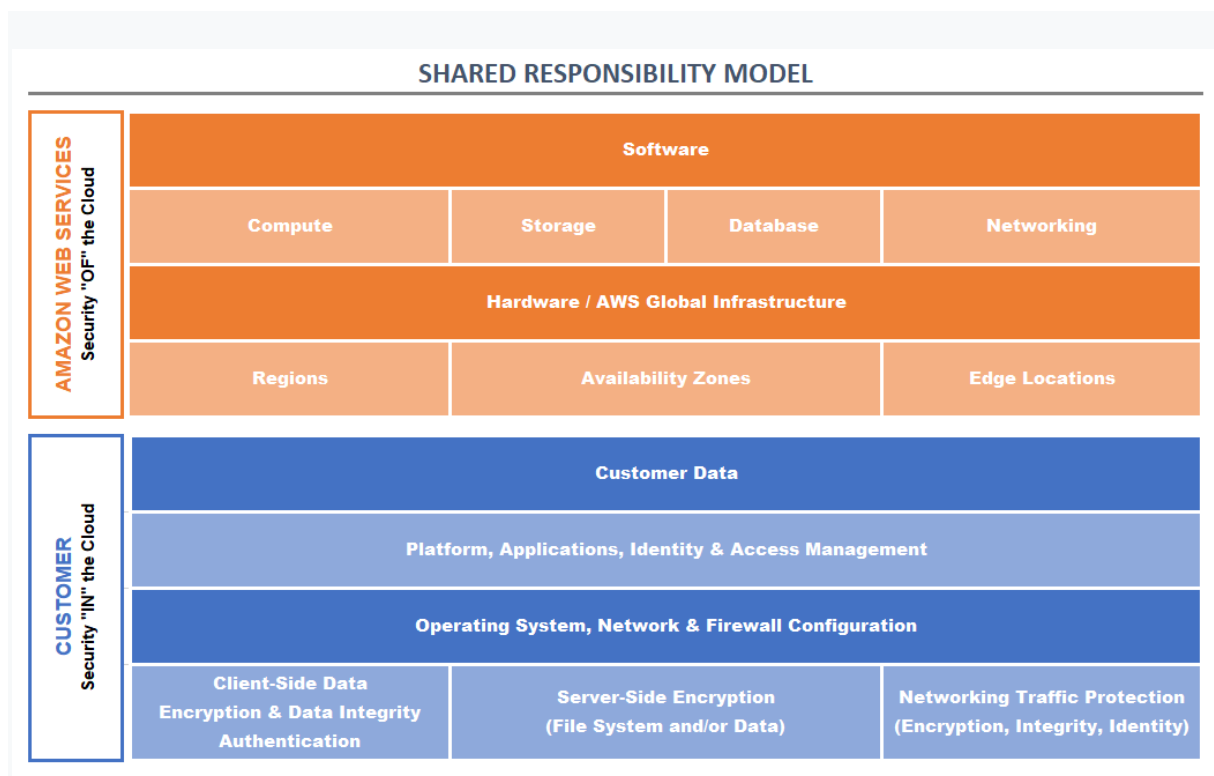
What does AWS do when a storage device reaches the end of its lifespan?

- **AWS simply wipes the device and disposes it**
- **AWS archives the device in case customers request their data again**
- **AWS wipes the drives and sends it back to the manufacturer to procure a new one**
- **AWS follows a strict decommissioning process as described in compliance procedures**

(Correct)

Explanation

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 removed from AWS control until it has been securely decommissioned.

Hence, the correct answer is: **AWS follows a strict decommissioning process as described in compliance procedures.**

All other options are incorrect because AWS makes sure that the devices are properly handled according to procedures. They do not send it back to manufacturers and archive it longer than its lifespan.

- AWS wipes the drives and sends it back to the manufacturer to procure a new one.
- AWS archives the device in case customers request their data again.
- AWS simply wipes the device and disposes it.

References:

<https://aws.amazon.com/compliance/data-center/controls/>

<https://d0.awsstatic.com/whitepapers/aws-security-whitepaper.pdf>

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Tutorials Dojo's AWS Certified Cloud Practitioner Exam Study Guide:

<https://tutorialsdojo.com/aws-certified-cloud-practitioner/>

Question 33:

Skipped

Which AWS well-architected pillar stresses the importance of selecting the most appropriate and right number of resource types for your requirements?

- **Cost optimization**

(Correct)

- **Reliability**
- **Operational Excellence**
- **Performance Efficiency**

Explanation

The **Well-Architected Framework** has been developed to help cloud architects build secure, high-performing, resilient, and efficient infrastructure for their applications. This is based on six pillars namely:

1. Operational Excellence
2. Security
3. Reliability
4. Performance Efficiency
5. Cost Optimization
6. Sustainability

AWS Well- Architected Framework: Six Pillars



 Tutorials Dojo

Cost Optimization focuses on avoiding un-needed costs. Key topics include understanding and controlling where money is being spent, selecting the most

appropriate and right number of resource types, analyzing spending over time, and scaling to meet business needs without overspending.

Hence, the correct answer is: **Cost optimization**.

Performance Efficiency is incorrect because this pillar focuses on using IT and computing resources efficiently. Key topics include selecting the right resource types and sizes based on workload requirements, monitoring performance, and making informed decisions to maintain efficiency as business needs evolve.

Operational Excellence is incorrect because this pillar focuses on running and monitoring systems to deliver business value, and continually improving processes and procedures.

Reliability is incorrect because this pillar focuses on the ability to prevent and quickly recover from failures to meet business and customer demand.

References:

<https://aws.amazon.com/architecture/well-architected/>

<https://docs.aws.amazon.com/wellarchitected/latest/framework/welcome.html>

Check out this **AWS Well-Architected Framework - Six Pillars Cheat Sheet**:

<https://tutorialsdojo.com/aws-well-architected-framework-five-pillars>

Question 34:

Skipped

In implementing continuous integration and continuous delivery (CI/CD) in your cloud architecture, which service will make it easy for you to set up your entire development and continuous delivery toolchain for coding, building, testing, and deploying your application code?

- AWS CodePipeline
- AWS CodeStar

(Correct)

- AWS CodeBuild
- AWS CodeCommit

Explanation

AWS CodeStar enables you to quickly develop, build, and deploy applications on AWS. AWS CodeStar provides a unified user interface, enabling you to easily manage


your software development activities in one place. With AWS CodeStar, you can set up your entire continuous delivery toolchain in minutes, allowing you to start releasing code faster. AWS CodeStar makes it easy for your whole team to work together securely, allowing you to easily manage access and add owners, contributors, and viewers to your projects. Each AWS CodeStar project comes with a project management dashboard, including an integrated issue tracking capability powered by Atlassian JIRA Software. With the AWS CodeStar project dashboard, you can easily track progress across your entire software development process, from your backlog of work items to teams' recent code deployments.

CodeStar > Projects > Create project

Step 1
Choose a project template

Step 2
Set up your project

Step 3
Review

**Create service role**
AWS CodeStar uses an IAM service role to manage resources on your behalf. You must create a service role in order to create and delete projects.

Create service role


Choose a project template [Info](#)

Templates


Clear filters


Filter by AWS service, application type, and programming language.

< 1 2 3 4 5 6 > ⚙


 **Hello World Skill** ☒


Application type
☒ Alexa skill

AWS service
 **AWS Lambda**
Runs serverless


 **Hello World Skill** ☐


Application type
☐ Alexa skill

AWS service
 **AWS Lambda**
Runs serverless


 **Go** ☐


Application type
Web application

AWS service
 **AWS Lambda**
Runs serverless


 **Node.js** ☐


Application type
Web application

AWS service
 **AWS Lambda**
Runs serverless


 **Python** ☐

Application type
Web service

AWS service
 **AWS Lambda**
Runs serverless

 **Express.js** ☐

Application type
Web service

AWS service
 **AWS Lambda**
Runs serverless

Cancel

Next

AWS CodeStar makes it easy for you to set up your entire development and continuous delivery toolchain for coding, building, testing, and deploying your application code. To start a project, you can choose from a variety of AWS CodeStar templates for Amazon EC2, AWS Lambda, and AWS Elastic Beanstalk. You have the option to choose AWS CodeCommit or GitHub to use as your project's source control. You also have the option to edit your source code using one of several options including AWS Cloud9, Microsoft Visual Studio, or Eclipse. After you make your selections the underlying AWS services are provisioned in minutes, allowing you to quickly start coding and deploying your applications.

Hence, the correct answer is **AWS CodeStar**.

AWS CodeBuild is incorrect because this is just a fully managed build service that compiles source code, runs tests, and produces software packages that are ready to deploy.

AWS CodeCommit is incorrect because this is simply a fully-managed source control service that makes it easy for companies to host secure and highly scalable private Git repositories.

AWS CodePipeline is incorrect because this basically helps you automate your release pipelines for fast and reliable application and infrastructure updates. It doesn't provide an entire development and continuous delivery toolchain for coding, building, testing, and deploying your application code, unlike AWS CodeStar.

References:

<https://aws.amazon.com/codestar/>

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/developer-tools.html>

Check out this **AWS CodeStar Cheat Sheet**:

<https://tutorialsdojo.com/aws-codestar/>

Question 35:

Skipped

What infrastructure does Amazon CloudFront utilize to speed up content delivery to customers?

- **Local Zones**
- **Availability Zones**
- **Direct Connect**
- **Edge Locations**

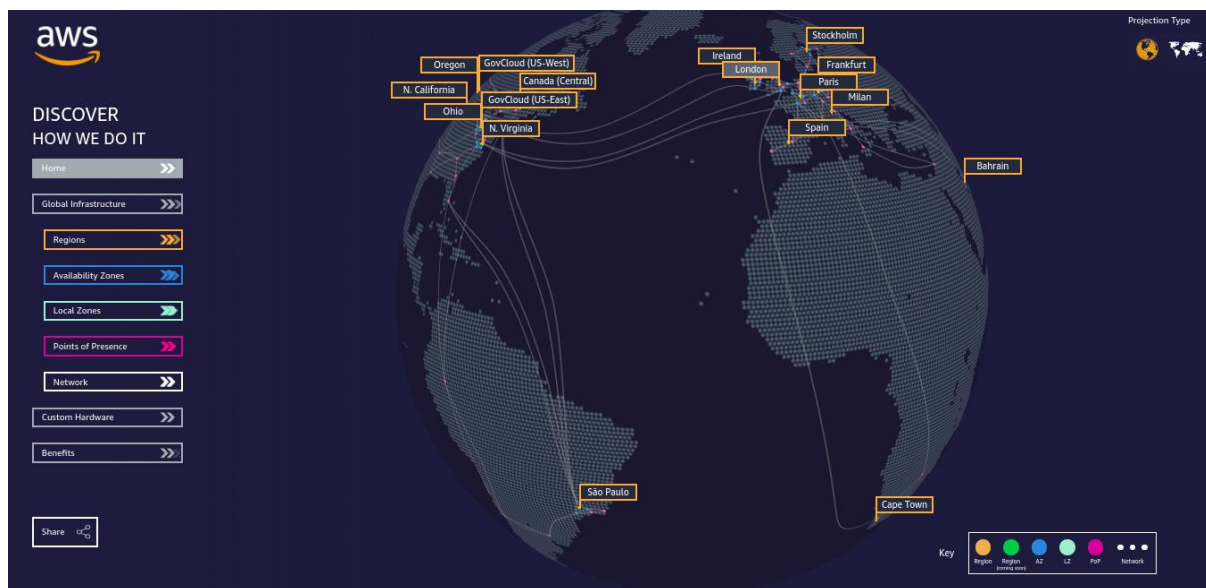
(Correct)

Explanation

Amazon CloudFront is a fast content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to customers globally with low latency, high transfer speeds, all within a developer-friendly environment. CloudFront is integrated with AWS – both physical locations that are directly connected to the AWS global infrastructure, as well as other AWS services. CloudFront works seamlessly with services including AWS Shield for DDoS mitigation, Amazon S3,

Elastic Load Balancing, or Amazon EC2 as origins for your applications, and Lambda@Edge to run custom code closer to customers' users and to customize the user experience. Lastly, if you use AWS origins such as Amazon S3, Amazon EC2, or Elastic Load Balancing, you don't pay for any data transferred between these services and CloudFront.

You can get started with the Content Delivery Network in minutes, using the same AWS tools that you're already familiar with: APIs, AWS Management Console, AWS CloudFormation, CLIs, and SDKs. Amazon's CDN offers a simple, pay-as-you-go pricing model with no upfront fees or required long-term contracts, and support for the CDN is included in your existing AWS Support subscription.



Amazon CloudFront uses Edge Locations (Points of Presence) in every Region to speed up content delivery to customers. Edge locations cache copies of your content on their local storage.

Hence, the correct answer is: **Edge Locations**.

AWS Direct Connect is incorrect because it is a cloud service solution that allows you to establish a dedicated network connection from your premises to AWS. Using AWS Direct Connect, you can establish private connectivity between AWS and your data center, office, or colocation environment. Since this is a private dedicated line, it would be impractical for CloudFront to use this.

Availability Zones are incorrect because these zones are where the data centers are located. These are not the main infrastructure CloudFront uses to speed up content delivery.

AWS Local Zones is incorrect because this is just an extension of an AWS Region where you can run latency-sensitive applications in geographic proximity to end-users.

References:

<https://aws.amazon.com/cloudfront/features/>

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/Introduction.html>

Check out this Amazon CloudFront Cheat Sheet:

<https://tutorialsdojo.com/amazon-cloudfront/>

Question 36:

Skipped

Which payment plan will give you the largest discount when purchasing EC2 reserved instances?

- All upfront payment for a 1-year term purchase
- Partial upfront payment for a 3-year term purchase
- All upfront payment for a 3-year term purchase

(Correct)

- Partial upfront payment for a 1-year term purchase

Explanation

Reserved Instances provide you with a significant discount compared to On-Demand instance pricing. In addition, when Reserved Instances are assigned to a specific Availability Zone, they provide a capacity reservation, giving you additional confidence in your ability to launch instances when you need them.

You can choose between three payment options when you purchase a Standard or Convertible Reserved Instance:

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.

Partial Upfront option: You make a low upfront payment and are then charged a discounted hourly rate for the instance for the duration of the Reserved Instance term.

No Upfront option: Does not require any upfront payment and provides a discounted hourly rate for the duration of the term.

Purchase Reserved Instances

☒ Only show offerings that reserve capacity

Platform

Linux/UNIX

Tenancy

Default

Offering class

Any

Instance type

t3.micro

Term

Any

Payment option

Any

Search

Your cart: 1 Reserved Instance, total due now: \$27.00
Monthly recurring cost: \$2.23
Additional taxes may apply.

Cancel
View cart

As a general rule, Standard RI provides more savings than Convertible RI, which means that the former is the cost-effective option. The All Upfront option provides you with the largest discount compared with the other types. Opting for a longer compute reservation, such as the 3-year term, gives us a greater discount as opposed to a shorter 1-year renewable term.

Hence, the correct answer is: **All upfront payment for a 3-year term purchase.**

All other options are incorrect because in order to get large discounts, you need to pay all the upfront costs with a 3-year reservation term.

- Partial upfront payment for a 1-year term purchase.
- All upfront payment for a 1-year term purchase.
- Partial upfront payment for a 3-year term purchase.

References:

<https://aws.amazon.com/ec2/pricing/reserved-instances/pricing/>

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-reserved-instances.html>

Amazon EC2 Overview:

https://www.youtube.com/watch?v=7VsGIHT_jQE

Check out this Amazon EC2 Cheat Sheet:

<https://tutorialsdojo.com/amazon-elastic-compute-cloud-amazon-ec2/>

Question 37:

Skipped

Which of the following services should you provision if your local data center requires additional storage space without having to migrate data?

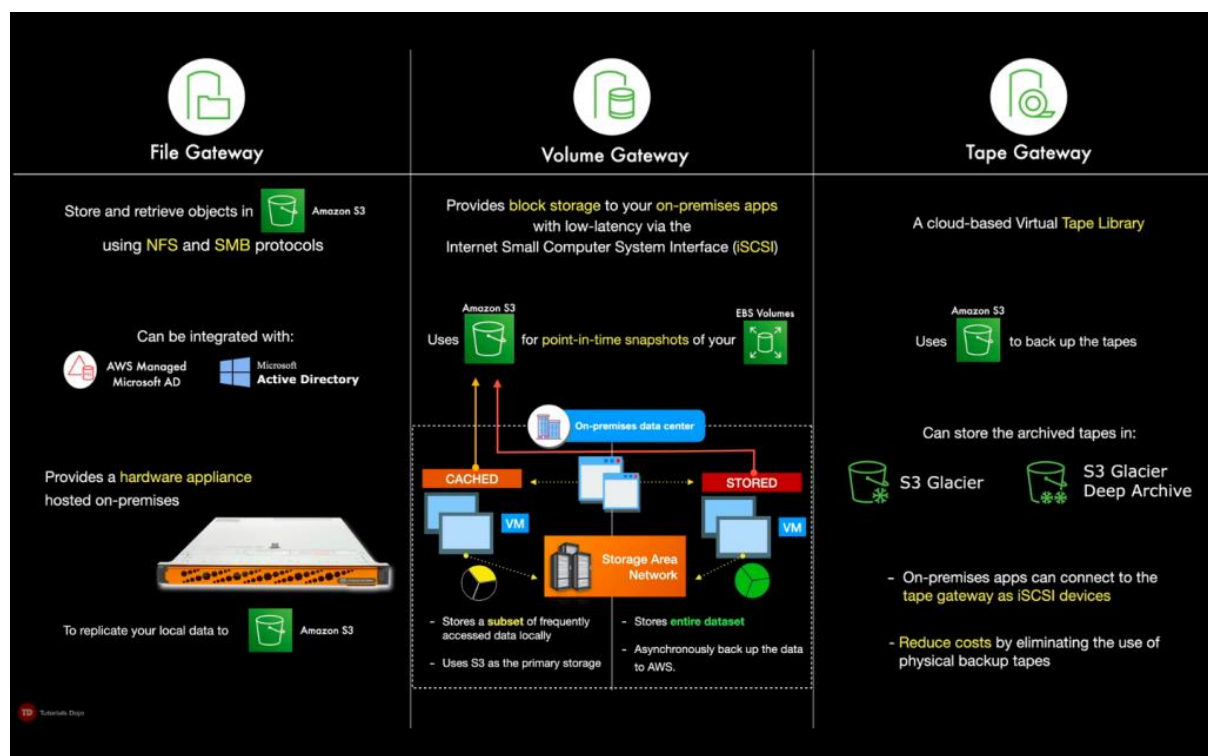
- AWS Snowball Edge
- AWS Direct Connect
- AWS Storage Gateway

(Correct)

- AWS Backup

Explanation

AWS Storage Gateway is a hybrid cloud storage service that gives you on-premises access to virtually unlimited cloud storage. Your applications connect to the service through a virtual machine or hardware gateway appliance using standard storage protocols, such as NFS, SMB, and iSCSI. The gateway connects to AWS storage services, such as Amazon S3, Amazon S3 Glacier, Amazon S3 Glacier Deep Archive, Amazon EBS, and AWS Backup, providing storage for files, volumes, snapshots, and virtual tapes in AWS.



Hybrid cloud storage means your data can be used on-premises and stored durably in AWS Cloud storage services, including Amazon S3, Amazon S3 Glacier, Amazon S3 Glacier Deep Archive, and Amazon EBS. Once data is moved to AWS, you can apply AWS compute, machine learning, and big data analytics services to it.

Additionally, you can leverage the full AWS portfolio of security and management services including AWS Backup, AWS KMS, AWS Identity and Access Management (IAM), SNS workflows, Amazon CloudWatch and AWS CloudTrail.

Hence, the correct answer is: **AWS Storage Gateway**.

AWS Direct Connect is incorrect because this is primarily used in order for you to establish private connectivity between AWS and your datacenter, office, or colocation environment. Although it provides a more consistent network connection to AWS, it does not extend your storage capability, unlike Storage Gateway.

AWS Snowball Edge is incorrect because this is just an edge computing and data transfer device provided by the AWS Snowball service. It has onboard storage and compute power that provides select AWS services for use in edge locations. Since it is stated in the scenario that no migration will be done, this is not the best solution to go for.

AWS Backup is incorrect. Although this service can allow your local data center to free up additional storage space, the data must first be migrated to AWS Cloud since AWS Backup doesn't have any local components running on-premises. You can integrate AWS Backup with AWS Storage Gateway to meet the requirements, but using the former alone is not enough.

References:

<https://aws.amazon.com/storagegateway>

<https://aws.amazon.com/blogs/aws/the-aws-storage-gateway-integrate-your-existing-on-premises-applications-with-aws-cloud-storage/>

Check out this **AWS Storage Gateway Cheat Sheet**:

<https://tutorialsdojo.com/aws-storage-gateway/>

AWS Storage Gateway Overview:

<https://youtu.be/pNb7xOBJjHE>

Question 38:

Skipped

A customer has a popular website that has millions of viewers from all over the world and has read-heavy database workloads. Which of the following is the best option to use to increase the read throughput on their database?

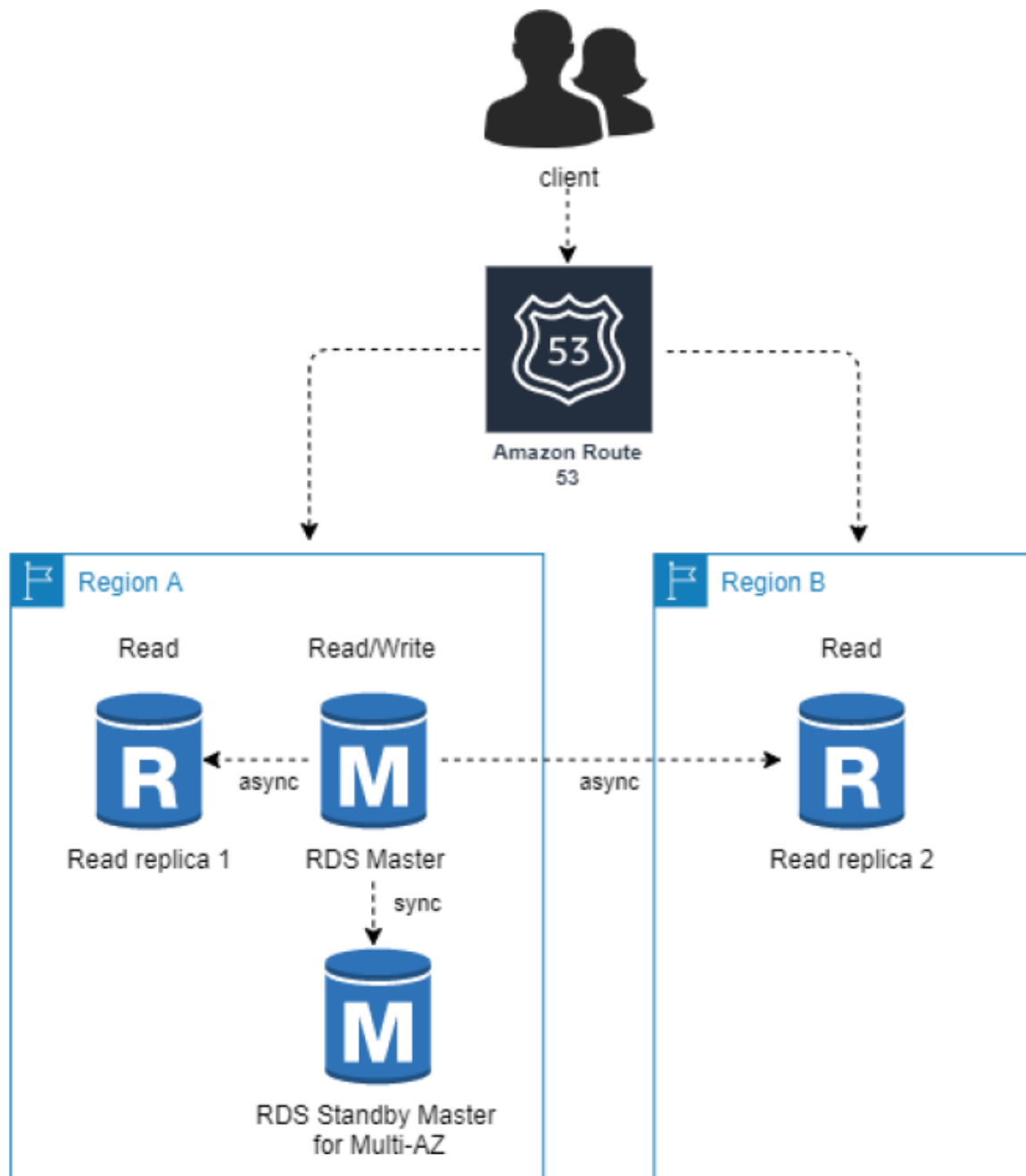
- **Enable Multi-AZ deployments**
- **Use Amazon SQS to queue up the requests**
- **Enable Amazon RDS Read Replicas**

(Correct)

- **Enable Amazon RDS Standby Replicas**

Explanation

Amazon RDS Read Replicas provide enhanced performance and durability for database (DB) instances. This feature makes it easy to elastically scale out beyond the capacity constraints of a single DB instance for read-heavy database workloads.



You can create one or more replicas of a given source DB Instance and serve high-volume application read traffic from multiple copies of your data, thereby increasing aggregate read throughput. Read replicas can also be promoted when needed to become standalone DB instances. Read replicas are available in Amazon RDS for MySQL, MariaDB, Oracle, and PostgreSQL as well as Amazon Aurora.

Hence, the correct answer is: **Enable Amazon RDS Read Replicas**.

The option that says: **Enable Multi-AZ deployments** is incorrect because the Multi-AZ deployments feature is mainly used to achieve high availability and failover support for your database.

The option that says: **Enable Amazon RDS Standby Replicas** is incorrect because a Standby replica is used in Multi-AZ deployments and hence, it is not a solution to reduce read-heavy database workloads.

The option that says: **Use Amazon SQS to queue up the requests** is incorrect. Although an SQS queue can effectively manage the requests, it won't be able to entirely improve the read-throughput of the database by itself.

References:

<https://aws.amazon.com/rds/details/read-replicas/>

<https://aws.amazon.com/premiumsupport/knowledge-center/create-read-replica-rds/>

Check out this Amazon RDS Cheat Sheet:

<https://tutorialsdojo.com/amazon-relational-database-service-amazon-rds/>

Amazon RDS Overview:

https://youtu.be/aZmpLI8K1UU?si=5ZJR_MJP9RMnL_AI

Question 39:

Skipped

Which of the following is a benefit of using AWS Config?

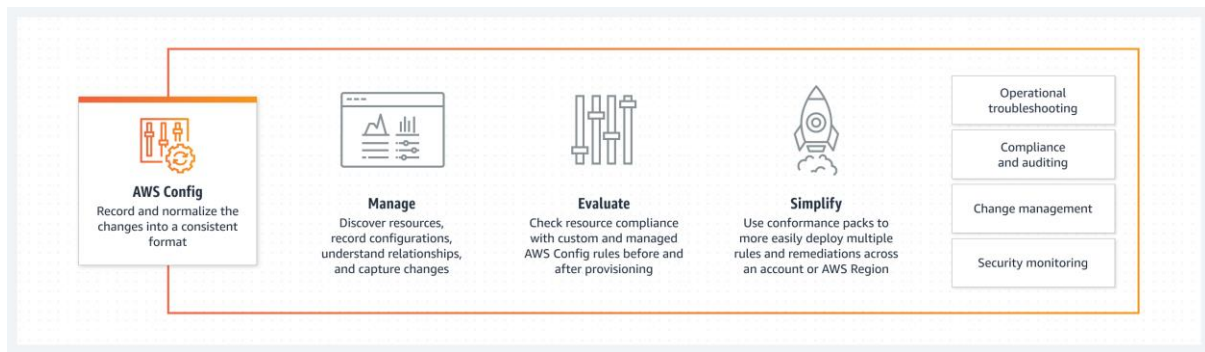
- **Facilitates the management of user access to AWS resources.**
- **Facilitates adherence to regulatory requirements and best practices.**

(Correct)

- **Facilitates the real-time monitoring of AWS resources for security threats.**
- **Facilitates the automation of AWS resource deployment.**

Explanation

AWS Config is a service that allows you to keep a record of your AWS resources' configuration history and assesses it for compliance with your internal policies and best practices. This data can be utilized for operational issue diagnosis, audit, and compliance-related purposes.



One of the primary benefits of using AWS Config is that it helps you ensure compliance with best practices and regulatory requirements. AWS Config enables you to monitor and evaluate the configurations of your AWS resources over time, making it easier to troubleshoot and manage your AWS infrastructure. This helps you identify potential issues before they become problems and helps you stay compliant with industry standards and regulations.

Hence, the correct answer is: **Facilitates adherence to regulatory requirements and best practices.**

The option that says: **Facilitates the automation of AWS resource deployment** is incorrect because AWS Config is not specifically designed to automate the deployment of AWS resources.

The option that says: **Facilitates the management of user access to AWS resources** is incorrect because user identity and access to AWS resources are managed by AWS Identity and Access Management (IAM), not AWS Config.

The option that says: **Facilitates the real-time monitoring of AWS resources for security threats** is incorrect because it is a serverless computing service that runs code in response to events. While Lambda can be used to run a wide range of workloads, including data processing, it is not specifically designed for ETL tasks.

References:

<https://docs.aws.amazon.com/config/index.html>

<https://aws.amazon.com/config/>

Check out this AWS Config Cheat Sheet:

<https://tutorialsdojo.com/aws-config/>

Question 40:

Skipped

A company has a customized EC2 instance running in their latest web application. How can they create an exact copy of this instance in another region?

- **Create backups of all EBS volumes and copy them to another region.**
- **Create a golden AMI of the instance and copy it to the other region.**

(Correct)

- **There is no way to do this in AWS. You will have to perform the transfer manually.**
- **Create a load balancer with an auto scaling group that is linked between two regions. Scale up to have another instance running in the other region.**

Explanation

AMIs provide the information required to launch an Amazon EC2 instance, which is a virtual server in the AWS Cloud. A golden AMI is an AMI that contains the latest security patches, software, configuration, and software agents that you need to install for logging, security maintenance, and performance monitoring.

Copy AMI

AMI ami-16fc660825617783e will be copied to a new AMI. Set the new AMI settings below.

Destination region* Asia Pacific (Singapore) ▼

Name tutorialsdojo-ami

Description [Copied ami-16fc660825617783e from us-east-1] tutorialsdojc

Encryption ☐ Encrypt target EBS snapshots ⓘ

[Cancel](#) [Copy AMI](#)

An AMI includes the following:

- One or more EBS snapshots, or, for instance-store-backed AMIs, a template for the root volume of the instance (for example, an operating system, an application server, and applications).
- Launch permissions that control which AWS accounts can use the AMI to launch instances.

- A block device mapping that specifies the volumes to attach to the instance when it's launched.

Hence, the correct answer is: **Create a golden AMI of the instance and copy it to the other Region.**

The option that says: **Create backups of all EBS volumes and copy them to another region** is incorrect. This approach will simply capture the data on the volumes, but it won't capture the instance configuration. Thus, while you could restore the data in another region, you would still need to manually recreate and configure a new instance.

The option that says: **Create a load balancer with an auto scaling group that is linked between two regions. Scale up to have another instance running in the other region** is incorrect because elastic load balancers and auto-scaling groups cannot span different regions. Only availability zones.

The option that says: **There is no way to do this in AWS. You will have to perform the transfer manually** is incorrect. This statement is not true. It is actually possible to create an exact copy of this instance in another region using AMI.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AMIs.html>

<https://aws.amazon.com/premiumsupport/knowledge-center/copy-ami-region/>

Amazon EC2 Overview:

https://youtu.be/7VsGIHT_jQE?si=ab0mgIEaGiX_U4EO

Check out this Amazon EC2 Cheat Sheet:

<https://tutorialsdojo.com/amazon-elastic-compute-cloud-amazon-ec2>

Question 41:

Skipped

Which of the following do you need to programmatically interact with your AWS environment? (Select TWO.)

- **AWS Management Console**
- **AWS Lambda**
- **AWS SDK**

(Correct)

- **Access keys**

(Correct)

- **Account username and password**

Explanation

You can use AWS SDKs to programmatically interact with your AWS resources. Using access keys, which are unique identifiers for your IAM user, you can connect to your resources in a secure manner.

The AWS Access Key ID and AWS Secret Access Key are your AWS credentials. They are associated with an AWS Identity and Access Management (IAM) user or role that determines what permissions you have.

Access keys

Use access keys to make programmatic calls to AWS from the AWS CLI, Tools for PowerShell, AWS SDKs, or direct AWS API calls. You can have a maximum of two access keys (active or inactive) at a time.

For your protection, you should never share your secret keys with anyone. As a best practice, we recommend frequent key rotation. **If you lose or forget your secret key, you cannot retrieve it. Instead, create a new access key and make the old key inactive.** [Learn more](#)

Create access key

Access key ID	Created	Last used	Status	
AKCFWUKOEVNIAU87JDV3	2021-03-12 14:35 UTC+0800	N/A	Active	Make inactive ✕

Access keys are long-term credentials for an IAM user or the AWS account root user. You can use access keys to sign programmatic requests to the AWS CLI or AWS API (directly or using the AWS SDK). If you don't have access keys, you can create them from the AWS Management Console. As a best practice, do not use the AWS account root user access keys for any task where it's not required. Instead, create a new administrator IAM user with access keys for yourself.

Hence, the correct answers are:

- **AWS SDK**

- **Access keys**

AWS Management Console is incorrect because when you are programmatically interacting with AWS, you use APIs (and not your web browser) to send and receive messages.

Account username and password is incorrect because you only need your credentials if you are accessing the AWS Management Console on your web browser.

AWS Lambda is incorrect. Although you can control your other AWS resources using Lambda via their respective APIs, you still need to set up the required IAM role in order for your function to work.

References:

<https://docs.aws.amazon.com/general/latest/gr/aws-sec-cred-types.html#access-keys-and-secret-access-keys>

<https://aws.amazon.com/getting-started/tools-sdks/>

Check out this AWS Identity and Access Management (IAM) Cheat Sheet:

<https://tutorialsdojo.com/aws-identity-and-access-management-iam/>

Question 42:

Skipped

Which of the following RDS engines allows you to bring your own license (BYOL)?

- Oracle

(Correct)

- MS SQL
- PostgreSQL
- MySQL

Explanation

Amazon Relational Database Service (Amazon RDS) is a managed service that makes it easy to set up, operate, and scale a relational database in the cloud. It provides cost-efficient and resizable capacity while managing time-consuming database administration tasks, freeing you up to focus on your applications and business.

Engine options

Engine type [Info](#)

☐ Amazon Aurora



☐ MySQL



☐ MariaDB



☐ PostgreSQL



☒ Oracle

ORACLE®

☐ Microsoft SQL Server



Architecture settings [Info](#)

☐ Use multitenant architecture

In the multitenant architecture, an Oracle database is a container database (CDB). It contains one pluggable database (PDB).

Edition

☒ Oracle Enterprise Edition

Efficient, reliable, and secure database management system that delivers comprehensive high-end capabilities for mission-critical applications and demanding database workloads.

☐ Oracle Standard Edition Two

Affordable and full-featured database management system supporting up to 16 vCPUs. Oracle Database Standard Edition Two is a replacement for Standard Edition and Standard Edition One.

License

bring-your-own-license

Version

Oracle 19.0.0.0.ru-2021-04.rur-2021-04.r1

You can run Amazon RDS for Oracle under two different licensing models – “License Included” and “Bring-Your-Own-License (BYOL)”. The “BYOL” model is designed for customers who prefer to use existing Oracle database licenses or purchase new licenses directly from Oracle.

Hence, the correct answer is: **Oracle**.

All other options are incorrect because these database engines do not currently support the BYOL model.

- **PostgreSQL**

- **MS SQL**

- MySQL

References:

<https://aws.amazon.com/rds/oracle/?nc=sn&loc=3&dn=5>

<https://docs.aws.amazon.com/whitepapers/latest/oracle-database-aws-best-practices/oracle-licensing-considerations.html>

Check out this Amazon RDS Cheat Sheet:

<https://tutorialsdojo.com/amazon-relational-database-service-amazon-rds/>

Question 43:

Skipped

Which service offers volume discounts when you enable Consolidated Billing?

- **AWS CloudTrail**
- **Amazon SNS**
- **Amazon CloudFront**
- **Amazon S3**

(Correct)

Explanation

Consolidated Billing enables you to see a combined view of AWS costs incurred by all accounts in your department or company, as well as obtain a detailed cost report for each individual AWS account associated with your paying account. Consolidated Billing may also lower your overall costs since the rolled-up usage across all of your accounts could help you reach lower-priced volume tiers more quickly.

Settings

Organization details

Organization ID

o-lm7oxlavx1

Management account name

TutorialsDojo-Demo

Management account email address

support@tutorialsdojo.com

Feature set

Your organization has all features enabled. You can access the advanced central governance and management capabilities in AWS Organizations. You can control access to AWS services, resources, and regions by any member account. You can also configure AWS services across the multiple accounts in your organization. You can pay for the organization's accounts through consolidated billing.

For billing purposes, AWS treats all the accounts in the organization as if they were one account. Some services, such as Amazon EC2 and Amazon S3, have volume pricing tiers across certain usage dimensions that give you lower prices the more you use the service. With consolidated billing, AWS combines the usage from all accounts to determine which volume pricing tiers to apply, giving you a lower overall price whenever possible. AWS then allocates each linked account a portion of the overall volume discount based on the account's usage.

Hence, the correct answer is: **Amazon S3**.

AWS CloudTrail, Amazon CloudFront, and Amazon SNS are not supported under the Consolidated Billing volume discount feature since they do not have volume pricing tiers of their own in the first place.

References:

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/useconsolidatedbilling-discounts.html>

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/consolidated-billing.html>

Check out this **AWS Organizations Cheat Sheet**:

<https://tutorialsdojo.com/aws-organizations/>

Question 44:

Skipped

What AWS service can monitor the compliance status of your AWS resources against a set of compliance guidelines?

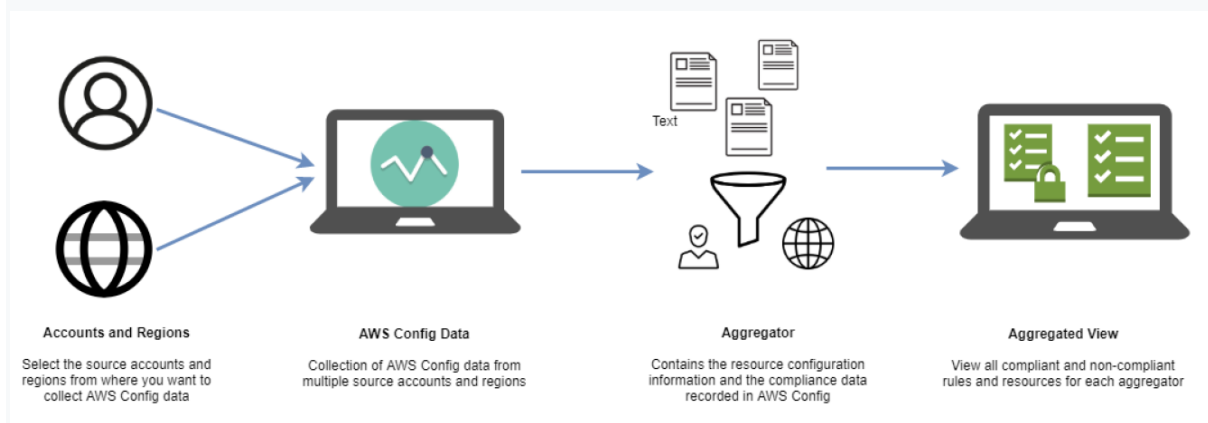
- **AWS Config**

(Correct)

- **Amazon CloudWatch**
- **AWS IAM**
- **AWS Artifact**

Explanation

AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources. Config continuously monitors and records your AWS resource configurations and allows you to automate the evaluation of recorded configurations against desired configurations.



With AWS Config, you are able to continuously monitor and record configuration changes of your AWS resources. Config also enables you to inventory your AWS resources, the configurations of your AWS resources, as well as software configurations within EC2 instances at any point in time. Once change from a previous state is detected, an Amazon Simple Notification Service (SNS) notification can be delivered for you to review and take action.

Hence, the correct answer is: **AWS Config**.

Amazon CloudWatch is incorrect because this service is just a monitoring tool for your AWS resources. CloudWatch provides you with data and actionable insights to monitor your applications, respond to system-wide performance changes, optimize resource utilization, and get a unified view of operational health. It does not check for resource compliance, unlike AWS Config.

AWS Artifact is incorrect because this simply acts as a central resource for compliance-related information. It provides on-demand access to AWS' security and compliance reports and select online agreements. It does not, however, monitor the

compliance status of your AWS resources and alerts you when there are deviations from your set guidelines.

AWS IAM is incorrect since this is a security service for your AWS account, user, and access management.

References:

<https://aws.amazon.com/config/>

<https://docs.aws.amazon.com/config/latest/developerguide/WhatIsConfig.html>

Check out this AWS Config Cheat Sheet:

<https://tutorialsdojo.com/aws-config/>

Question 45:

Skipped

Availability Zones are physically separated by a meaningful distance from any other AZ, although all are within 100 km or 60 miles of each other. What is the primary reason why Availability Zones are set up the way they are now?

- To maximize area coverage in a Region
- Price of the land is cheaper in those locations
- To keep them as far apart from each other in case of a disaster

(Correct)

- To achieve better network connectivity to users in the location

Explanation

AWS has identified critical system components required to maintain the availability of their system and recover service in the event of outage. Critical system components are backed up across multiple, isolated locations known as Availability Zones. Each Availability Zone is engineered to operate independently with high reliability.

Availability Zones are connected to enable you to easily architect applications that automatically fail-over between Availability Zones without interruption. All AZs are interconnected with high-bandwidth, low-latency networking, over fully redundant, dedicated metro fiber providing high-throughput, low-latency networking between AZs.



Availability Zones (AZs) give customers the ability to operate production applications and databases that are more highly available, fault-tolerant, and scalable than would be possible from a single data center. AWS maintains 69 AZ around the world and we continue to add at a fast pace. Each AZ can be multiple data centers (typically 3), and at full scale can be hundreds of thousands of servers. They are fully isolated partitions of the AWS Global Infrastructure. With their own power infrastructure, the AZs are physically separated by a meaningful distance, many kilometers, from any other AZ, although all are within 100 km (60 miles of each other).

All AZs are interconnected with high-bandwidth, low-latency networking, over fully redundant, dedicated metro fiber providing high-throughput, low-latency networking between AZs. The network performance is sufficient to accomplish synchronous replication between AZs. AWS Availability Zones are also powerful tools for helping build highly available applications. AZs make partitioning applications about as easy as it can be. If an application is partitioned across AZs, companies are better isolated and protected from issues such as lightning strikes, tornadoes, earthquakes and more.

Hence, the correct answer is: **To keep them as far apart from each other in case of a disaster.**

All other options are incorrect since these are all false information about Availability Zones.

- **To maximize area coverage in a Region.**
- **To achieve better network connectivity to users in the location.**
- **Price of the land is cheaper in those locations.**

References:

<https://aws.amazon.com/compliance/data-center/controls/>

https://aws.amazon.com/about-aws/global-infrastructure/regions_az/

Check out this AWS Global Infrastructure Cheat Sheet:

<https://tutorialsdojo.com/aws-global-infrastructure/>

AWS Global Infrastructure Video Tutorial:

<https://youtu.be/rno8iNfKChM>

Question 46:

Skipped

A number of servers in your on-premises data center have been collecting dust over the past few years. What is the benefit of moving to the Cloud in this case?

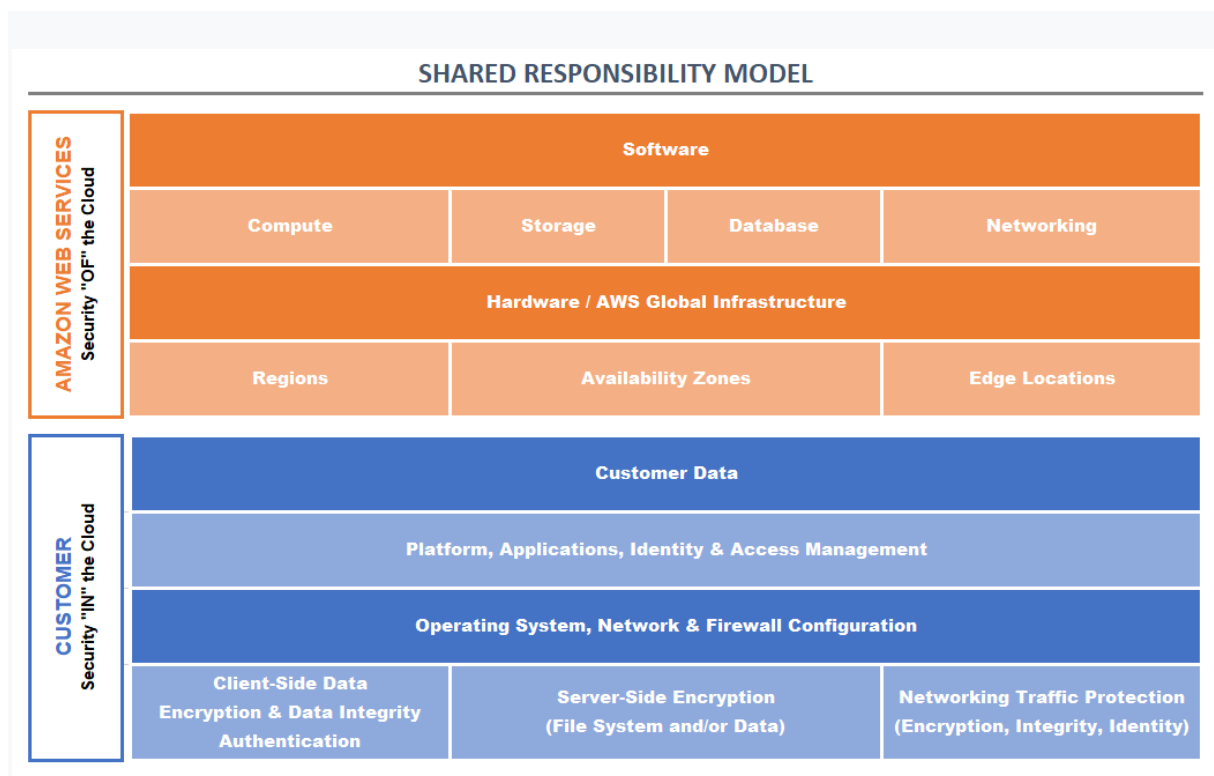
- The ability to pay for only what you use
- AWS has automated services for you
- The ability to provision resources only when you need them

(Correct)

- Physical servers are managed and maintained by AWS for you

Explanation

In 2006, Amazon Web Services (AWS) began offering IT infrastructure services to businesses as web services—now commonly known as cloud computing. One of the key benefits of cloud computing is the opportunity to replace upfront capital infrastructure expenses with low variable costs that scale with your business. With the cloud, businesses no longer need to plan for and procure servers and other IT infrastructure weeks or months in advance. Instead, they can instantly spin up hundreds or thousands of servers in minutes and deliver results faster.



Whether you are using it to run applications that share photos to millions of mobile users or to support business-critical operations, a cloud services platform provides rapid access to flexible and low-cost IT resources. With cloud computing, you don't need to make large upfront investments in hardware and spend a lot of time on the heavy lifting of managing that hardware. Instead, you can provision exactly the right type and size of computing resources you need to power your newest idea or operate your IT department. You can access as many resources as you need, almost instantly, and only pay for what you use.

One of the best practices to perform in the Cloud is to have disposable resources instead of fixed servers. Therefore, you can easily provision resources when you need them and take them down when you don't in the Cloud, and this is the advantage you receive compared to having servers on-premises.

Hence, the correct answer is: **The ability to provision resources only when you need them.**

The option that says: **Physical servers are managed by AWS for you** is incorrect because this is not the main compelling advantage on why you should shift to the cloud rather than have your unused servers sit in your data center collecting dust.

The option that says: **The ability to pay for only what you use** is incorrect because cost optimization is not the requirement in the scenario.

The option that says: **AWS has automated services for you** is incorrect since this option is not related to the concerns of the given scenario. Also, moving your resources to AWS enables you to deploy additional resources only when you need them.

References:

https://d1.awsstatic.com/whitepapers/AWS_Cloud_Best_Practices.pdf

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

Tutorials Dojo's AWS Certified Cloud Practitioner Exam Study Guide:

<https://tutorialsdojo.com/aws-certified-cloud-practitioner/>

Question 47:

Skipped

Which of the following does the Enterprise support plan provide to customers in AWS? (Select TWO.)

- **Limited access to the 7 Core Trusted Advisor checks**
- **15-minute response time support if your production system goes down**
- **Proactive Technical Account Management**

(Correct)

- **5-minute response time support if your business-critical system goes down**
- **Access to online self-paced labs**

(Correct)

Explanation

AWS Enterprise Support provides you with a concierge-like service where the main focus is helping you achieve your outcomes and find success in the cloud.

With Enterprise Support, you get 24x7 technical support from high-quality engineers, tools, and technology to automatically manage the health of your environment, consultative architectural guidance delivered in the context of your applications and use-cases, and a designated Technical Account Manager (TAM) to coordinate access to proactive/preventative programs and AWS subject matter experts.

	DEVELOPER	BUSINESS	ENTERPRISE ON-RAMP	ENTERPRISE
Use Case	Recommended if you are experimenting or testing in AWS.	Recommended if you have production workloads in AWS.	Recommended if you have business and/or mission critical workloads in AWS.	Recommended if you have business and/or mission critical workloads in AWS.
AWS Trusted Advisor Best Practice Checks	Service Quota and basic Security checks	Full set of checks	Full set of checks	Full set of checks
Architectural Guidance	General	Contextual to your use-cases	Consultative review and guidance based on your applications	Consultative review and guidance based on your applications
Technical Account Management	✗	✗	A pool of Technical Account Managers to provide proactive guidance, and coordinate access to programs and AWS experts	Designated Technical Account Manager (TAM) to proactively monitor your environment and assist with optimization and coordinate access to programs and
Training	✗	✗	✗	Access to online self-paced labs
Account Assistance	✗	✗	Concierge Support Team	Concierge Support Team
Enhanced Technical Support	Business hours** email access to Cloud Support Associates.	24x7 phone, email, and chat access to Cloud Support Engineers	24x7 phone, email, and chat access to Cloud Support Engineers	24x7 phone, email, and chat access to Cloud Support Engineers
	Unlimited cases / 1 primary contact	Unlimited cases / unlimited contacts (IAM supported)	Unlimited cases / unlimited contacts (IAM supported)	Unlimited cases / unlimited contacts (IAM supported)
	Prioritized responses on AWS re:Post	Prioritized responses on AWS re:Post	Prioritized responses on AWS re:Post	Prioritized responses on AWS re:Post
Programmatic Case Management	✗	AWS Support API	AWS Support API	AWS Support API
Third-Party Software Support	✗	Interoperability and configuration guidance and troubleshooting	Interoperability and configuration guidance and troubleshooting	Interoperability and configuration guidance and troubleshooting
Proactive Programs	Access to Support Automation Workflows with prefixes AWSsupport	Access to Infrastructure Event Management for additional fee	Infrastructure Event Management (one-per-year)	Infrastructure Event Management
		Access to Support Automation Workflows with prefixes AWSsupport and AWSPremiumSupport	Access to Support Automation Workflows with prefixes AWSsupport and AWSPremiumSupport	Access to proactive reviews, workshops, and deep dives
				Access to Support Automation Workflows with prefixes AWSsupport and AWSPremiumSupport

In addition to what is available with Basic Support, Enterprise Support provides:

AWS Trusted Advisor - Access to the full set of Trusted Advisor checks and guidance to provision your resources following best practices to help reduce costs, increase performance and fault tolerance, and improve security.

AWS Health - View the health of AWS services and sends you alerts when your resources are impacted. Also includes the Health API for integration with your existing management systems.

AWS Support API - Programmatic access to AWS Support Center features to create, manage, and close your support cases and operationally manage your Trusted Advisor check requests and status.

Proactive Technical Account Management - A Technical Account Manager (TAM) is your designated technical point of contact who provides advocacy and guidance to help plan and build solutions using best practices, coordinate access to subject matter experts and product teams, and proactively keep your AWS environment operationally healthy.

Architecture Support – Contextual guidance on how services fit together to meet your specific use case, workload, or application.

Third-Party Software Support - Guidance, configuration, and troubleshooting of AWS interoperability with many common operating systems, platforms, and application stack components.

Proactive Support Programs – Included access to Well-Architected Reviews, Operations Reviews, and Infrastructure Event Management.

Support Concierge - the Concierge Team are AWS billing and account experts that specialize in working with enterprise accounts. They will quickly and efficiently assist you with your billing and account inquiries and work with you to implement

billing and account best practices so that you can focus on what matters: running your business.

Enhanced Technical Support – 24x7 access to Cloud Support Engineers via phone, chat, and email. You can have an unlimited number of contacts that can open an unlimited amount of cases. Response times are as follows:

General Guidance - < 24 hours

System Impaired - < 12 hours

Production System Impaired - < 4 hours

Production System Down - < 1 hour

Business Critical System Down - <15 min

Hence, the correct answers are:

- **Proactive Technical Account Management**

- **Access to online self-paced labs**

The option that says: **Limited access to the 7 Core Trusted Advisor checks** is incorrect because the Enterprise support plan has access to the full set of Trusted Advisor checks.

The option that says: **15-minute response time support if your production system goes down** is incorrect because the Enterprise support plan actually provides a 1-hour response time for this kind of incident.

The option that says: **5-minute response time support if your business-critical system goes down** is incorrect because the Enterprise support plan actually provides a 15-minute response time for this type of outage.

References:

<https://aws.amazon.com/premiumsupport/plans/>

<https://docs.aws.amazon.com/awssupport/latest/user/getting-started.html>

<https://aws.amazon.com/premiumsupport/plans/enterprise/>

Check out this AWS Support Plans Cheat Sheet:

<https://tutorialsdojo.com/aws-support-plans/>

Question 48:

Skipped

Which AWS service allows me to patch my Windows EC2 instances without having to RDP into them?

- Amazon Simple Workflow
- AWS CloudFormation
- AWS Systems Manager

(Correct)

- AWS CodeDeploy

Explanation

AWS Systems Manager allows you to centralize operational data from multiple AWS services and automate tasks across your AWS resources. You can create logical groups of resources such as applications, different layers of an application stack, or production versus development environments.

AWS Systems Manager > Patch Manager

Patch Manager

Configure patching Patch now

Dashboard Reporting Patch baselines Patches Patch groups Settings

Patch baselines

View details Edit Delete Actions Create patch baseline

Q < 1 2 > ⚙

	Baseline ID	Baseline name	Description	Operating system	Default baseline
<input type="radio"/>	pb-03e3f588eec25344c	AWS-CentOSDefaultPatchBaseline	Default Patch Baseline for CentOS Provided by AWS.	CentOS	✔ Yes
<input type="radio"/>	pb-06bff38e95fe85c02	AWS-OracleLinuxDefaultPatchBaseline	Default Patch Baseline for Oracle Linux Server Provided by AWS.	Oracle Linux	✔ Yes
<input type="radio"/>	pb-07d8884178197b66b	AWS-SuseDefaultPatchBaseline	Default Patch Baseline for Suse Provided by AWS.	SUSE	✔ Yes
<input type="radio"/>	pb-096d816473f2bdb03	AWS-WindowsPredefinedPatchBaseline-OS	Approves all Windows Server operating system patches that are classified as CriticalUpdates or SecurityUpdates and that have an MSRC severity of Critical or Important. Patches are auto-approved seven days after release.	Windows	✘ No
<input type="radio"/>	pb-09a5f8eb62bde80b1	AWS-DebianDefaultPatchBaseline	Default Patch Baseline for Debian Provided by AWS.	Debian	✔ Yes

Patch Manager allows you to automate the process of patching managed instances with security and non-security updates. Patch Manager can also be used to apply patches to both operating systems and applications. Patch Manager makes use of patch baselines, which include rules for automatically approving patches within days of their release, as well as a list of approved and rejected patches.

Hence, the correct answer is: **AWS Systems Manager**.

AWS CodeDeploy is incorrect because this is a deployment service that automates application deployments to Amazon EC2 instances, on-premises instances, serverless Lambda functions, or Amazon ECS services. These deployments do not support Windows patches so the service cannot be used to patch Windows instances.

AWS CloudFormation is incorrect because this is an infrastructure as a code service. Instead of building your infrastructure manually, you can automate the process in a controlled and predictable manner. It also allows you to reuse your infrastructure and launch it in other AWS regions.

Amazon SWF is incorrect because this service helps developers build, run, and scale background jobs that have parallel or sequential steps. You can think of Amazon SWF as a fully managed state tracker and task coordinator in the Cloud. This service does not automate nor handle Windows patching for you.

References:

<https://docs.aws.amazon.com/systems-manager/latest/userguide/systems-manager-patch.html>

<https://aws.amazon.com/blogs/mt/patching-your-windows-ec2-instances-using-aws-systems-manager-patch-manager/>

AWS Systems Manager Overview:

<https://www.youtube.com/watch?v=KVFKyMAHxqY>

Check out this AWS Systems Manager Cheat Sheet:

<https://tutorialsdojo.com/aws-systems-manager/>

AWS Secrets Manager vs Systems Manager Parameter Store Comparison:

<https://tutorialsdojo.com/aws-secrets-manager-vs-systems-manager-parameter-store/>

Question 49:

Skipped

A Software Engineer is having trouble migrating and configuring a licensed application on an EC2 instance. Which of the following options would you recommend to quickly get the applications up and running in AWS?

- **Setup a VPN connection from her local network to her AWS VPC, which essentially means that her work is now running in the Cloud.**
- **Use AWS Application Discovery Service to create an exact copy of the application in EC2.**
- **Create a Docker image of the application and launch Docker in the EC2 instances.**
- **Try to look for an AMI in the AWS Marketplace that provides a similar setup to her application stack.**

(Correct)

Explanation

AWS Marketplace is a curated digital catalog that makes it easy for customers to find, buy, deploy, and manage third-party software and services that customers need to build solutions and run their businesses. AWS Marketplace includes thousands of software listings from popular categories such as security, networking, storage, machine learning, business intelligence, database, and DevOps. AWS Marketplace also simplifies software licensing and procurement with flexible pricing options and multiple deployment methods.

AWS Marketplace > Discover products > Search results

Refine results

Categories

- Infrastructure Software (5314)
- DevOps (3840)
- Data Products (3645)
- Business Applications (1837)
- Machine Learning (1338)
- Professional Services (1268)
- Industries (1025)
- IoT (400)

▼ Delivery methods

- ☐ Amazon Machine Image (5423)
- ☐ Data Exchange (3645)
- ☐ SaaS (1455)
- ☐ Professional Services (1268)
- ☐ SageMaker Model (704)
- ☐ CloudFormation Template (488)
- ☐ Container (480)
- ☐ SageMaker Algorithm (96)
- ☐ Private Image Build (19)

▼ Publisher

- ☐ Cognosys Inc. (553)
- ☐ CE ResearchHub (447)

Search AWS Marketplace products

Search for any product via AWS Marketplace...

All products (Over 10000 results) showing 1 - 20

Sort By: Relevance

Amazon Linux 2 AMI (HVM), SSD Volume Type (64-bit x86)
By Amazon Web Services | Ver 2.0.20210721.2
Amazon Linux 2 is a supported and maintained Linux image provided by Amazon Web Services for use on Amazon Elastic Compute Cloud (Amazon EC2). It is designed to provide a stable, secure, and high performance execution environment for applications running on Amazon EC2. It also includes packages...

CentOS 7 (x86_64) - with Updates HVM
By CentOS.org | Ver 2002_01
★★★★☆ 68 AWS reviews | 257 external reviews
This is the Official CentOS 7 x86_64 HVM image that has been built with a minimal profile, suitable for use in HVM instance types only. The image contains just enough packages to run within AWS, bring up an SSH Server and allow users to login. Please note that this is the default CentOS-7 image...

WordPress Certified by Bitnami and Automattic
By Bitnami | Ver 5.8.0-14-r05 on Debian 10
★★★★☆ 129 AWS reviews
WordPress powers over 25% of all websites on the internet, making it the world's most popular blogging and content management platform. It is free and open source software developed entirely by its community, who have contributed over 45,000 themes, plugins, and widgets that enable an unlimited...

If you need a specific stack or business solution for your application, then there is a good chance that someone already offers it in the AWS Marketplace. This migration strategy is known as **Repurchasing**.

Hence, the correct answer is: **Try to look for an AMI in the AWS Marketplace that provides a similar setup to her application stack.**

The option that says: **Create a Docker image of the application and launch Docker in the EC2 instances** is incorrect because this approach is not the best way to go if you're having trouble with configuration and initialization. The licensing may also affect how quickly you can migrate your stack onto AWS. Search for an AMI in the Marketplace and see if there is any available. Doing so might relieve the customer of her troubles in the migration process.

The option that says: **Use AWS Application Discovery Service to create an exact copy of the application in EC2** is incorrect because this option does not automatically migrate your applications onto AWS for you.

Setup a VPN connection from her local network to her AWS VPC, which essentially means that her work is now running in the Cloud is incorrect because this option is not the best solution for this scenario. There might be reasons why the customer wants to migrate the applications onto Amazon EC2, such as reduced costs, higher availability, etc.

References:

<https://docs.aws.amazon.com/marketplace/latest/userguide/what-is-marketplace.html>

<https://d1.awsstatic.com/Migration/migrating-to-aws-ebook.pdf>

Tutorials Dojo's AWS Certified Cloud Practitioner Exam Study Guide:

<https://tutorialsdojo.com/aws-certified-cloud-practitioner/>

Question 50:

Skipped

A startup is in need of a database that is capable of self-healing and has a high throughput. Which of the following services fits these criteria?

- **Amazon Aurora**

(Correct)

- **Amazon Redshift**
- **Amazon RDS**
- **Amazon DynamoDB**

Explanation

Amazon Aurora is a relational database engine that combines the speed and reliability of high-end commercial databases with the simplicity and cost-effectiveness of open source databases. It is designed to transparently handle the loss of up to two copies of data without affecting database write availability and up

to three copies without affecting read availability. Amazon Aurora storage is also self-healing. Data blocks and disks are continuously scanned for errors and repaired automatically.

Engine options

Engine type [Info](#)

☒ Amazon Aurora



☐ MySQL



☐ MariaDB



☐ PostgreSQL



☐ Oracle



☐ Microsoft SQL Server



Edition

☒ Amazon Aurora with MySQL compatibility

☐ Amazon Aurora with PostgreSQL compatibility

Capacity type [Info](#)

☒ Provisioned

You provision and manage the server instance sizes.

☐ Serverless

You specify the minimum and maximum amount of resources needed, and Aurora scales the capacity based on database load. This is a good option for intermittent or unpredictable workloads.

▼ Replication features [Info](#)

Single-master replication is currently selected

☒ Single-master

Supports multiple reader instances connected to the same storage volume as a single writer instance. This is a good general-purpose option for most workloads.

☐ Multi-master

Supports multiple writer instances connected to the same storage volume. This is a good option for when continuous writer availability is required.

Amazon Aurora is fully managed by Amazon Relational Database Service (RDS), which automates time-consuming administration tasks like hardware provisioning, database setup, patching, and backups.

It also features a distributed, fault-tolerant, self-healing storage system that auto-scales up to 64TB per database instance. It delivers high performance and availability with up to 15 low-latency read replicas, point-in-time recovery, continuous backup to Amazon S3, and replication across three Availability Zones (AZs).

Hence, the correct answer is **Amazon Aurora**.

Amazon RDS is incorrect. Although it is similar to Amazon Aurora such that they are both SQL databases, RDS does not have self-healing capabilities.

Amazon DynamoDB and **Amazon Redshift** are both incorrect since these services are not self-healing databases. Amazon Redshift is considered more as a data warehouse rather than a database.

References:

<https://aws.amazon.com/rds/aurora/>

https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/CHAP_GettingStartedAurora.html

Check out this Amazon Aurora Cheat Sheet:

<https://tutorialsdojo.com/amazon-aurora/>

Amazon Aurora Overview:

<https://youtu.be/iwS1h7rLNbQ>

Amazon Aurora vs Amazon RDS:

<https://tutorialsdojo.com/amazon-aurora-vs-amazon-rds/>

Question 51:

Skipped

Which cloud computing advantage describes how you can easily deploy your application in multiple AWS regions with just a few clicks?

- **Benefit from massive economies of scale**
- **Go global in minutes**

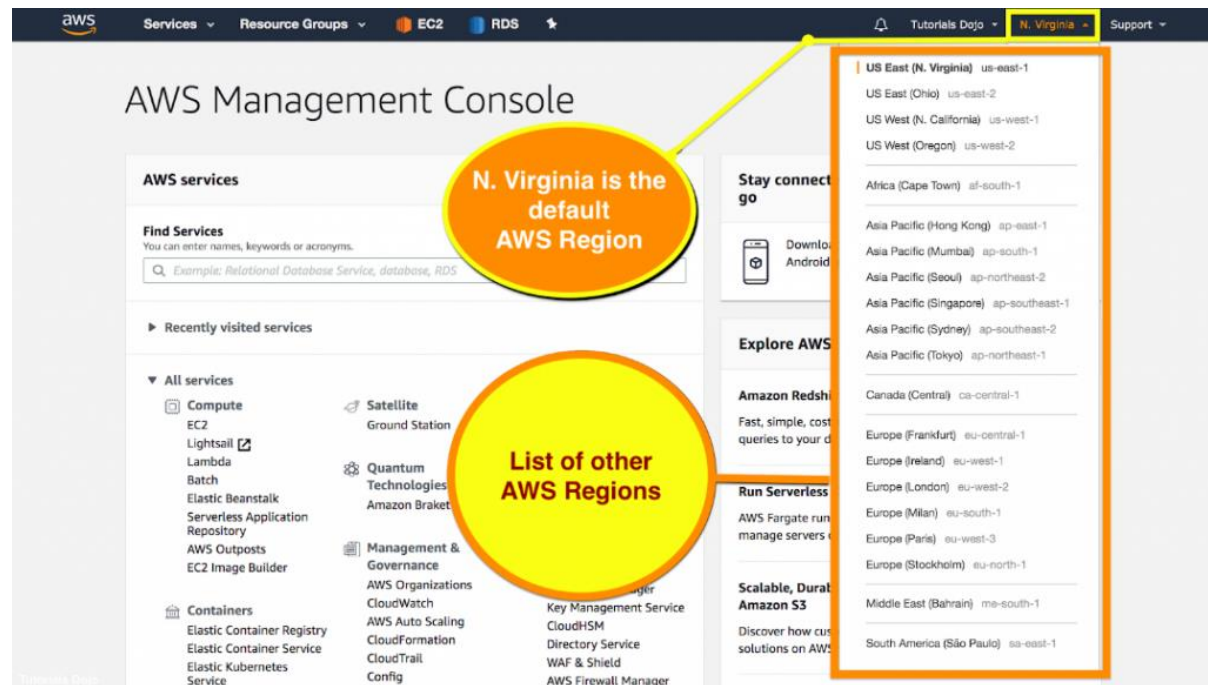
(Correct)

- **Stop guessing capacity**
- **Stop spending money running and maintaining data centers**

Explanation

Cloud Computing provides a plethora of helpful services that small and big companies can leverage on. Its services include domain registration, Internet of

Things (IoT), data analytics, machine learning, gaming, mobile development, Desktop-as-a-Service (DaaS), quantum computing, and many more. Companies and even startups leveraging its power to launch their products faster, save on operating costs, and scale globally with ease.



Going global in minutes is a cloud advantage that discusses how you can easily deploy your application in multiple regions around the world with just a few clicks. This means you can provide lower latency and a better experience for your customers at a minimal cost.

Hence, the correct answer is: **Going global in minutes.**

The option that says: **Benefit from massive economies of scale** is incorrect. This advantage discusses how you can achieve a lower variable cost with cloud computing than you can get on your own. Because usage from hundreds of thousands of customers is aggregated in the cloud, AWS can achieve higher economies of scale, which translates into lower pay-as-you-go prices.

The option that says: **Stop guessing capacity** is incorrect. This advantage discusses how the cloud allows you to provision resources with no commitments. You can easily spin up and tear down servers and storage devices as needed. You also benefit from the scalability of the cloud which reduces your overall cost, compared to when leaving your physical servers in idle or having limited capacity.

The option that says: **Stop spending money running and maintaining data centers** is incorrect. This advantage discusses more on how you can reduce costs and management overhead by using fully managed, low-cost services in the AWS cloud. Furthermore, it allows you to focus more on your products and services, rather than worry about all the heavy lifting jobs.

References:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

<https://d1.awsstatic.com/whitepapers/aws-overview.pdf>

Check out these AWS Cheat Sheets:

<https://tutorialsdojo.com/aws-cheat-sheets-overview/>

Question 52:

Skipped

Which of the following AWS services are considered to be global services? (Select TWO.)

- AWS Lambda
- AWS WAF

(Correct)

- Amazon VPC
- AWS CloudTrail
- Amazon Route 53

(Correct)

Explanation

An AWS resource can be a Global, Regional, or Zonal service. A Global service means that it covers all of the AWS Regions across the globe, while a regional service means that a resource is only applicable to one specific region at a time. A regional service may or may not have the ability to replicate the same resource in another region. Lastly, a Zonal service can only exist in one Availability Zone.

You don't need to memorize the scope of all of the AWS services as long as you know the pattern. There are actually only a handful of services that are considered global services such as IAM, STS, Route 53, CloudFront, and WAF. For Zonal services, the examples are EC2 Instance and EBS Volumes which are tied to the Availability Zone where they were launched. Take note that although EBS Volumes are considered a zonal service, the EBS snapshots are considered regional since it is not tied to a specific Availability Zone. The rest of the services are regional in scope.

aws Services Search for services, features, marketplace [Alt+S] manila @ tutorialsdojo Global Support

Route 53 > Hosted zones > Create hosted zone

Create hosted zone [Info](#)

Hosted zone configuration

A hosted zone is a container that holds information about how you want to route traffic for a domain, such as example.com, and its subdomains.

Domain name [Info](#)
This is the name of the domain that you want to route traffic for.

tutorialsdojo.com

Valid characters: a-z, 0-9, ! " # \$ % & ' () * + , - / : ; < = > ? @ [\] ^ _ ` { | } . ~

Description - optional [Info](#)
This value lets you distinguish hosted zones that have the same name.

The hosted zone is used for...

The description can have up to 256 characters. 0/256

Type [Info](#)
The type indicates whether you want to route traffic on the internet or in an Amazon VPC.

☒ **Public hosted zone**
A public hosted zone determines how traffic is routed on the internet.

☐ **Private hosted zone**
A private hosted zone determines how traffic is routed within an Amazon VPC.

Amazon Route 53 and AWS WAF are both global services such that they are not dependent on the Region in which they were launched. This can be verified by signing in to an AWS Console and viewing the area where the Regions are typically located.

Hence, the correct answers are:

- **Amazon Route 53**

- **AWS WAF**

AWS Lambda, **AWS CloudTrail**, and **Amazon VPC** are all incorrect because these are region-specific services. You can only find your resources in the regions in which you created them. This means that the location you select matters when creating these resources.

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/resources.html>

<https://aws.amazon.com/about-aws/global-infrastructure/regional-product-services/>

<https://docs.aws.amazon.com/awscloudtrail/latest/userguide/cloudtrail-concepts.html#cloudtrail-concepts-global-service-events>

Check out these Amazon Route 53 and AWS WAF Cheat Sheets:

<https://tutorialsdojo.com/amazon-route-53/>

<https://tutorialsdojo.com/aws-waf/>

Amazon Route 53 Overview:

<https://youtu.be/Su308t19ubY>

Question 53:

Skipped

Which AWS storage service offers faster disk read and write performance and provides temporary block-level storage for your instance?

- EFS
- EBS Provisioned IOPS SSD
- EBS Throughput Optimized HDD
- Instance Store

(Correct)

Explanation

An **instance store** provides temporary block-level storage for your instance. This storage is located on disks that are physically attached to the host computer. Instance store is ideal for temporary storage of information that changes frequently, such as buffers, caches, scratch data, and other temporary content, or for data that is replicated across a fleet of instances, such as a load-balanced pool of web servers.

An instance store consists of one or more instance store volumes exposed as block devices. The size of an instance store, as well as the number of devices available, varies by instance type.

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type ⓘ	Device ⓘ	Snapshot ⓘ	Size (GiB) ⓘ	Volume Type ⓘ	IOPS ⓘ	Throughput (MB/s) ⓘ	Delete on Termination ⓘ	Encryption ⓘ
Root	/dev/xvda	snap-090e9376979c86d7b	8	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted
Instance Store 0	/dev/sdb	N/A	40	SSD	N/A	N/A	N/A	Not Encrypted

Add New Volume

The virtual devices for instance store volumes are `ephemeral[0-23]`. Instance types that support one instance store volume have `ephemeral0`. Instance types that support two instance store volumes have `ephemeral0` and `ephemeral1`, and so on.

Since the disk is physically attached to the instance, disk read and writes are faster than EBS volumes or EFS systems which are virtually attached.

Hence, the correct answer is: **Instance Store**.

All other options are incorrect because these are persistent storage.

- EBS Provisioned IOPS SSD
- EFS
- EBS Throughput Optimized HDD

References:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html>

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Storage.html>

Check out this **Amazon EC2 Cheat Sheet**:

<https://tutorialsdojo.com/amazon-elastic-compute-cloud-amazon-ec2/>

Question 54:

Skipped

What is the lowest support plan that allows an unlimited number of technical support cases to be opened?

- Business
- Developer

(Correct)

- **Enterprise**
- **Basic**

Explanation

AWS Support offers a range of plans that provide access to tools and expertise that support the success and operational health of your AWS solutions. All support plans provide 24x7 access to customer service, AWS documentation, whitepapers, and support forums. For technical support and more resources to plan, deploy, and improve your AWS environment, you can select a support plan that best aligns with your AWS use case.

	DEVELOPER	BUSINESS	ENTERPRISE ON-RAMP	ENTERPRISE
Use Case	Recommended if you are experimenting or testing in AWS.	Recommended if you have production workloads in AWS.	Recommended if you have business and/or mission critical workloads in AWS.	Recommended if you have business and/or mission critical workloads in AWS.
AWS Trusted Advisor Best Practice Checks	Service Quota and basic Security checks	Full set of checks	Full set of checks	Full set of checks
Architectural Guidance	General	Contextual to your use-cases	Consultative review and guidance based on your applications	Consultative review and guidance based on your applications
Technical Account Management	×	×	A pool of Technical Account Managers to provide proactive guidance, and coordinate access to programs and AWS experts	Designated Technical Account Manager (TAM) to proactively monitor your environment and assist with optimization and coordinate access to programs and
Training	×	×	×	Access to online self-paced labs
Account Assistance	×	×	Concierge Support Team	Concierge Support Team
Enhanced Technical Support	Business hours** email access to Cloud Support Associates.	24x7 phone, email, and chat access to Cloud Support Engineers	24x7 phone, email, and chat access to Cloud Support Engineers	24x7 phone, email, and chat access to Cloud Support Engineers
	Unlimited cases / 1 primary contact	Unlimited cases / unlimited contacts (IAM supported)	Unlimited cases / unlimited contacts (IAM supported)	Unlimited cases / unlimited contacts (IAM supported)
	Prioritized responses on AWS re:Post	Prioritized responses on AWS re:Post	Prioritized responses on AWS re:Post	Prioritized responses on AWS re:Post
Programmatic Case Management	×	AWS Support API	AWS Support API	AWS Support API
Third-Party Software Support	×	Interoperability and configuration guidance and troubleshooting	Interoperability and configuration guidance and troubleshooting	Interoperability and configuration guidance and troubleshooting
Proactive Programs	Access to Support Automation Workflows with prefixes AWSsupport	Access to Infrastructure Event Management for additional fee	Infrastructure Event Management (one-per-year)	Infrastructure Event Management
		Access to Support Automation Workflows with prefixes AWSsupport and AWSPremiumSupport	Access to Support Automation Workflows with prefixes AWSsupport and AWSPremiumSupport	Access to proactive reviews, workshops, and deep dives
				Access to Support Automation Workflows with prefixes AWSsupport and AWSPremiumSupport

AWS Support offers five support plans: Basic, Developer, Business, Enterprise On-Ramp, and Enterprise. The Basic plan is free of charge and offers support for account and billing questions and service limit increases. The other plans offer an unlimited number of technical support cases with pay-by-the-month pricing and no long-term contracts, providing the level of support that meets your needs.

All AWS customers automatically have around-the-clock access to these features of the Basic support plan:

- Customer Service: one-on-one responses to account and billing questions
- Support forums
- Service health checks
- Documentation, whitepapers, and best-practice guides

The cheapest support plan that offers technical support with an unlimited amount of cases that can be opened is the Developer support plan. Additionally, it provides you access to the 7 core Trusted Advisor checks and the Personal Health Dashboard, where you get a personalized view of the health of AWS services, and alerts when your resources are impacted.

Hence, the correct answer is: **Developer**.

Basic is incorrect because this support plan does not offer Technical Support cases.

Business and **Enterprise** are both incorrect because these support plans are more expensive than the Developer plan.

References:

<https://aws.amazon.com/premiumsupport/plans/>

<https://docs.aws.amazon.com/awssupport/latest/user/getting-started.html>

<https://aws.amazon.com/premiumsupport/plans/enterprise/>

Check out this AWS Support Plans Cheat Sheet:

<https://tutorialsdojo.com/aws-support-plans/>

Question 55:

Skipped

A customer is using Amazon S3 to store sprites of game characters. When players retrieve these sprites, they are temporarily stored on the player's computer. The sprites are currently stored in the S3 Standard storage class. Which of the following options would you recommend to optimize storage costs?

- **Have the customer directly upload the sprites to S3 Standard - Infrequent Access.**

(Correct)

- **Add a lifecycle policy to move sprites to S3 Glacier Flexible Retrieval after the customer uploads them.**
- **Add a lifecycle policy to move sprites to S3 Standard - Infrequent Access after the customer uploads them.**
- **Have the customer compress the sprites to reduce storage consumption.**

Explanation

Amazon S3 offers a range of storage classes designed for different use cases. These include S3 Standard for general-purpose storage of frequently accessed data; S3 Intelligent-Tiering for data with unknown or changing access patterns; S3 Standard-Infrequent Access (S3 Standard-IA) and S3 One Zone-Infrequent Access (S3 One Zone-IA) for long-lived, but less frequently accessed data. Amazon S3 Glacier Flexible Retrieval, Amazon S3 Glacier Instant Retrieval, and Amazon S3 Glacier Deep Archive for long-term archive and digital preservation. Amazon S3 also

offers capabilities to manage your data throughout its lifecycle. Once an S3 Lifecycle policy is set, your data will automatically transfer to a different storage class without any changes to your application.

Storage Class	Designed for	Availability	Availability Zones	Min Storage Duration	Min Billable Object Size	Monitoring and Auto-Tiering Fees	Retrieval Fees
Standard	Frequently accessed data with milliseconds access	99.99%	≥ 3	-	-	-	-
Intelligent-Tiering	Data with changing or unknown access patterns	99.9%	≥ 3	-	-	Per-object fees apply for objects >= 128 KB	-
Standard-IA	Infrequently accessed data with milliseconds access	99.9%	≥ 3	30 days	128 KB	-	Per-GB fees apply
One Zone-IA	Infrequently accessed data stored in a single AZ with milliseconds access	99.5%	1	30 days	128 KB	-	Per-GB fees apply
Glacier Instant Retrieval	Long-lived archive data with instant retrieval in milliseconds	99.9%	≥ 3	90 days	128 KB	-	Per-GB fees apply
Glacier Flexible Retrieval	Long-lived archive data with retrieval of minutes to hours	99.99%	≥ 3	90 days	-	-	Per-GB fees apply
Glacier Deep Archive	Long-lived archive data with retrieval of hours	99.99%	≥ 3	180 days	-	-	Per-GB fees apply

S3 Standard-IA is for data that is accessed less frequently but requires rapid access when needed. S3 Standard-IA offers high durability, high throughput, and low latency of S3 Standard, with a low per GB storage price and per GB retrieval fee.

Since sprites are rarely accessed (and after accessing them they are stored on the user's phone), using the S3 Standard-IA storage class is the best storage type to use.

Hence, the correct answer is: **Have the customer directly upload the sprites to S3 Standard - Infrequent Access.**

The option that says: **Add a lifecycle policy to move sprites to after the S3 Glacier Flexible Retrieval customer uploads them** is incorrect because this storage is more suited for archival and it takes a long time to retrieve objects from this storage type.

The option that says: **Add a lifecycle policy to move sprites to S3 Standard - Infrequent Access after the customer uploads them** is not necessary since you can store the objects directly to S3 Standard-IA.

The option that says: **Have the customer compress the sprites to reduce storage consumption** is not the best solution for this scenario since you will still be charged for the bucket price of S3 Standard.

References:

<https://aws.amazon.com/s3/storage-classes/>

<https://aws.amazon.com/s3>

Amazon S3 and S3 Glacier Overview:

<https://youtu.be/1ymyeN2tki4>

Check out this Amazon S3 Cheat Sheet:

<https://tutorialsdojo.com/amazon-s3/>

S3 Standard vs S3 Standard-IA vs S3 One Zone-IA vs S3 Intelligent Tiering Comparison:

<https://tutorialsdojo.com/s3-standard-vs-s3-standard-ia-vs-s3-one-zone-ia/>

Question 56:

Skipped

How is expense shifted when moving from traditional servers to the Cloud?

- **Capital expense is traded for variable expense**

(Correct)

- **Operational expense is traded for variable expense**
- **Variable expense is traded for capital expense**
- **Capital expense is traded for operational expense**

Explanation

Cloud computing is the on-demand delivery of compute power, database storage, applications, and other IT resources through a cloud services platform via the Internet with pay-as-you-go pricing. Whether you are running applications that share photos to millions of mobile users or you're supporting the critical operations of your business, a cloud services platform provides rapid access to flexible and low-cost IT resources. With cloud computing, you don't need to make large upfront investments in hardware and spend a lot of time on the heavy lifting of managing that hardware. Instead, you can provision exactly the right type and size of computing resources you need to power your newest bright idea or operate your IT department. You can access as many resources as you need, almost instantly, and only pay for what you use.

IaaS	PaaS	SaaS
Applications	Applications	Applications
Data	Data	Data
Runtime	Runtime	Runtime
Middleware	Middleware	Middleware
O/S	O/S	O/S
Virtualization	Virtualization	Virtualization
Servers	Servers	Servers
Storage	Storage	Storage
Networking	Networking	Networking

You Manage
 Vendor Manages

One of the advantages of cloud computing is that instead of having to invest heavily in data centers and servers before you know how you're going to use them, you can pay only when you consume computing resources, and pay only for how much you consume.

Hence, the correct answer is: **Trade capital expense for variable expense.**

The option that says: **Capital expense is traded for operational expense** is incorrect because capital expense is actually not traded for operational expense, since you still handle operations.

The option that says: **Variable expense is traded for capital expense** is incorrect because it should be the other way around.

The option that says: **Operational expense is traded for variable expense** is incorrect because you do not trade operational expense for variable expense since you still handle the operations of your company.

Reference:

<https://docs.aws.amazon.com/whitepapers/latest/aws-overview/six-advantages-of-cloud-computing.html>

<https://aws.amazon.com/types-of-cloud-computing/>

Check out this AWS Well-Architected Framework – Six Pillars Cheat Sheet:

<https://tutorialsdojo.com/aws-well-architected-framework-five-pillars/>

Question 57:

Skipped

You have an Amazon Linux EC2 instance running for an hour and thirty minutes. How will AWS bill you in terms of usage?

- **You will be billed for one hour and thirty minutes according to the hourly billing rule**
- **You will be billed for an hour and thirty minutes according to the per-second billing rule**

(Correct)

- **You will be billed for an hour and twenty-nine minutes according to the per second billing rule**
- **You will only be billed for an hour according to the hourly billing rule**

Explanation

Amazon Linux instances are now billed in a per-second duration. With per-second billing, you pay for only what you use. It takes the cost of unused minutes and seconds in an hour off of the bill, so you can focus on improving your applications instead of maximizing usage to the hour. Especially, if you manage instances running for irregular periods of time, such as dev/testing, data processing, analytics, batch processing, and gaming applications, can benefit.

EC2 instance specifications [Info](#)

Operating system

Choose which operating system you'd like to run Amazon EC2 instances on.

Linux ▼

Instance type

t3.micro

On-Demand hourly cost

0.0104

vCPUs

2

GPUs

NA

1YR Std reserved hourly cost

0.0065

Memory (GiB)

1 GiB

Network performance

Up to 5 Gigabit

Pricing strategy [Info](#)

Pricing model

- ☐ EC2 Instance Savings Plans
- ☐ Compute Savings Plans
- ☐ Standard Reserved Instances
- ☐ Convertible Reserved Instances
- ☒ On-Demand Instances

Reservation term

- ☐ 1 Year
- ☐ 3 Year

Payment options

- ☐ No Upfront
- ☐ Partial Upfront
- ☐ All Upfront

▼ Show calculations

1 instances x 0.0104 USD x 730 hours in a month = 7.59 USD (monthly onDemand cost)

Amazon EC2 On-Demand instances (monthly): 7.59 USD

EC2 usage is billed in one-second increments, with a minimum of 60 seconds. Similarly, provisioned storage for EBS volumes will be billed per-second increments, with a 60-second minimum. It is in your best interest to understand the billing structure of your commonly used service to avoid budgeting concerns.

You can also set your billing to hourly if you wish. In this case, even a fraction of an hour of usage will cost you the equivalent of a full hour's usage. You will NOT be billed for only an hour if you choose to follow hourly billing.

Hence, the correct answer is: **You will be billed for an hour and thirty minutes according to the per-second billing rule.**

All other options are incorrect because these are false statements about EC2 Usage pricing.

- **You will only be billed for an hour according to the hourly billing rule.**

- You will be billed for one hour and thirty minutes according to the hourly billing rule.
- You will be billed for an hour and twenty-nine minutes according to the per second billing rule.

References:

<https://aws.amazon.com/ec2/pricing/>

https://d0.awsstatic.com/whitepapers/aws_pricing_overview.pdf

<https://aws.amazon.com/about-aws/whats-new/2017/10/announcing-amazon-ec2-per-second-billing/>

Check out this Amazon EC2 Cheat Sheet:

<https://tutorialsdojo.com/amazon-elastic-compute-cloud-amazon-ec2/>

Question 58:

Skipped

A company has a large amount of data stored in multiple sources such as S3, Redshift, and RDS, and they need to extract, transform and load this data into a data warehouse.

Which AWS service can help automate this process?

- AWS Lambda
- AWS Glue

(Correct)

- Amazon Athena
- Amazon EC2

Explanation

AWS Glue orchestrates your ETL (extract, transform, and load) activities to build data warehouses and data lakes and generate output streams using other AWS services. AWS Glue uses API activities to modify your data, generate runtime logs, save your job logic, and generate notifications to assist you in monitoring your task runs. The AWS Glue console binds these services together into a managed application, allowing you to focus on generating and monitoring your ETL work. The console manages administrative and job development tasks for you. You provide AWS Glue with credentials and other properties to access your data sources and write to your data targets.



AWS Glue lets you read and write data from a variety of systems and databases, including:

- Amazon S3
- Amazon DynamoDB
- Amazon Redshift
- Amazon Relational Database Service (Amazon RDS)
- Third-party JDBC-accessible databases
- MongoDB and Amazon DocumentDB (with MongoDB compatibility)
- Other marketplace connectors and Apache Spark plugins

Hence, the correct answer is: **AWS Glue**.

Amazon EC2 is incorrect because it is an infrastructure-as-a-service offering that provides virtual machines for running applications, and it is not designed for ETL tasks.

Amazon Athena is incorrect because it is an interactive query service that allows users to analyze data stored in Amazon S3 using SQL. While Athena can be used to query data stored in S3, it does not provide a full-fledged ETL solution for extracting, transforming, and loading data into a data warehouse or data lake.

AWS Lambda is incorrect because it is a serverless computing service that runs code in response to events. While Lambda can be used to run a wide range of workloads, including data processing, it is not specifically designed for ETL tasks.

References:

<https://docs.aws.amazon.com/glue/latest/dg/how-it-works.html>

<https://aws.amazon.com/glue/>

Check out this AWS Glue Cheat Sheet:

<https://tutorialsdojo.com/aws-glue/>

Question 59:

Skipped

An organization plans to build an online application form with a detection capability to recognize attributes appearing in the images. This feature will remove forms that contain inappropriate photos uploaded by users. However, the development team has no experience building machine-learning models.

Which of the following services would you recommend?

- **Amazon Kendra**
- **Amazon Detective**
- **Amazon SageMaker**
- **Amazon Rekognition**

(Correct)

Explanation

Amazon Rekognition makes it easy to add image and video analysis to your applications. You just provide an image or video to the Amazon Rekognition API, and the service can identify objects, people, text, scenes, and activities. It can detect any inappropriate content as well. Amazon Rekognition also provides highly accurate facial analysis, face comparison, and face search capabilities. You can detect, analyze, and compare faces for a wide variety of use cases, including user verification, cataloging, people counting, and public safety.

The screenshot displays the Amazon Rekognition website. On the left is a navigation sidebar with the following sections: 'Custom Labels' (with a sub-link 'Use Custom Labels'), 'Demos' (with links for 'Label detection', 'Image properties' (marked 'New'), 'Image moderation', 'Facial analysis', 'Celebrity recognition', 'Face comparison', 'Text in image', and 'PPE detection'), 'Video Demos' (with links for 'Stored Video Analysis' and 'Streaming Video Events'), 'Metrics' (with a link for 'Metrics'), and 'Additional Resources' (with links for 'Getting started guide' and 'Download SDKs'). The main content area has a dark blue header with the title 'Amazon Rekognition' and the tagline 'Deep learning-based visual analysis service. Search, verify, and organize millions of images and videos.' Below this are buttons for 'Try Demo' and 'Download SDKs'. A 'FEATURED SERVICE' section highlights 'Amazon Rekognition Custom Labels' with the description 'Quickly build custom machine learning models to detect objects and scenes unique to your business.' and a 'Learn More' button. Below this are three columns of featured services: 1. 'Leverage proven image and video analysis' with an icon of stacked layers and text explaining that Rekognition removes the complexity of building visual recognition capabilities. 2. 'Detect objects unique to your business' with an icon of a circuit board and text explaining that Custom Labels allow building a custom ML model without machine learning experience. 3. 'Integrated with AWS Services' with an icon of puzzle pieces and text explaining that Rekognition integrates with Amazon S3 and AWS Lambda for scalable, affordable, and reliable visual analysis applications.

Amazon Rekognition provides computer vision (CV) capabilities that are pre-trained and customizable, allowing you to extract information and insights from your images and videos. In the given scenario, the organization needs to add a detection capability to detect images uploaded in the application form.

The feature that you can use for this requirement is the face and detection analysis since it can detect faces appearing in images and videos and recognize attributes such as open eyes, glasses, and facial hair for each. So if a user uploads an image that has no human face, it will not be saved in the cloud storage.

Hence, the correct answer is: **Amazon Rekognition**.

Amazon Kendra is incorrect because this is an enterprise service that allows developers to add a search capability to their applications. Remember that in the scenario, you need a detection feature and not a search feature.

Amazon Detective is incorrect because this service is primarily used to identify the root cause of potential security issues or suspicious activities and not for detection capability.

Amazon SageMaker is incorrect because this is a machine learning service to build and train machine learning models. Take note that the development team has no experience building ML models. Therefore, using Amazon SageMaker won't satisfy the requirement.

References:

<https://aws.amazon.com/rekognition/faqs/>

<https://docs.aws.amazon.com/rekognition/latest/dg/what-is.html>

Check out this Amazon Rekognition Cheat Sheet:

<https://tutorialsdojo.com/amazon-rekognition/>

Question 60:

Skipped

Which of the following does AWS automatically handle for you? (Select TWO.)

- **Introduce updates and patches to EC2 guest operating systems**
- **Makes sure your data is safely kept and replicated between AZs**
- **Provide web application firewall protection to your public endpoints.**

- **Introduce updates and patches to EC2 hypervisors**

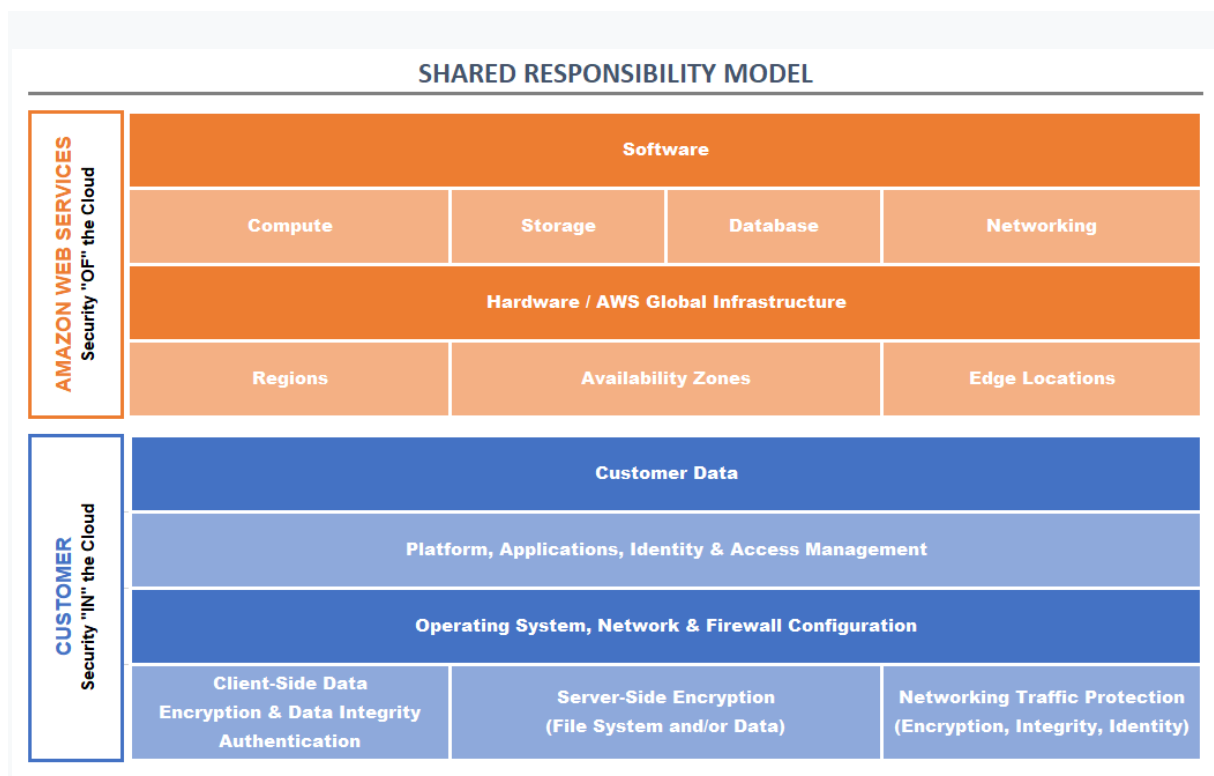
(Correct)

- **Secure AWS data centers from environmental hazards**

(Correct)

Explanation

The responsibility shouldered by AWS is on the security of the cloud. This includes protecting data centers from environmental hazards and ensuring that the latest security patches have been applied to their hardware.



Patching guest operating systems and managing customer data in and out of AWS is the responsibility of the customer. Web application firewalls, or WAF, are launched at the customer's choice and are attached to services such as Amazon CloudFront or AWS Application Load Balancer.

These responsibilities are defined in the AWS Shared Responsibility Model.

Hence, the correct answers are:

- **Secure AWS data centers from environmental hazards.**
- **Introduce updates and patches to EC2 hypervisors.**

All other options are incorrect because these are the responsibilities of the customer.

- **Introduce updates and patches to EC2 guest operating systems.**
- **Makes sure your data is safely kept and replicated between AZs.**
- **Provide web application firewall protection to your public endpoints.**

References:

<https://aws.amazon.com/compliance/shared-responsibility-model/>

<https://docs.aws.amazon.com/whitepapers/latest/aws-security-incident-response-guide/shared-responsibility.html>

Tutorials Dojo's AWS Certified Cloud Practitioner Exam Study Guide:

<https://tutorialsdojo.com/aws-certified-cloud-practitioner/>

Question 61:

Skipped

Which AWS service will allow you to serve your dynamic web content to users globally?

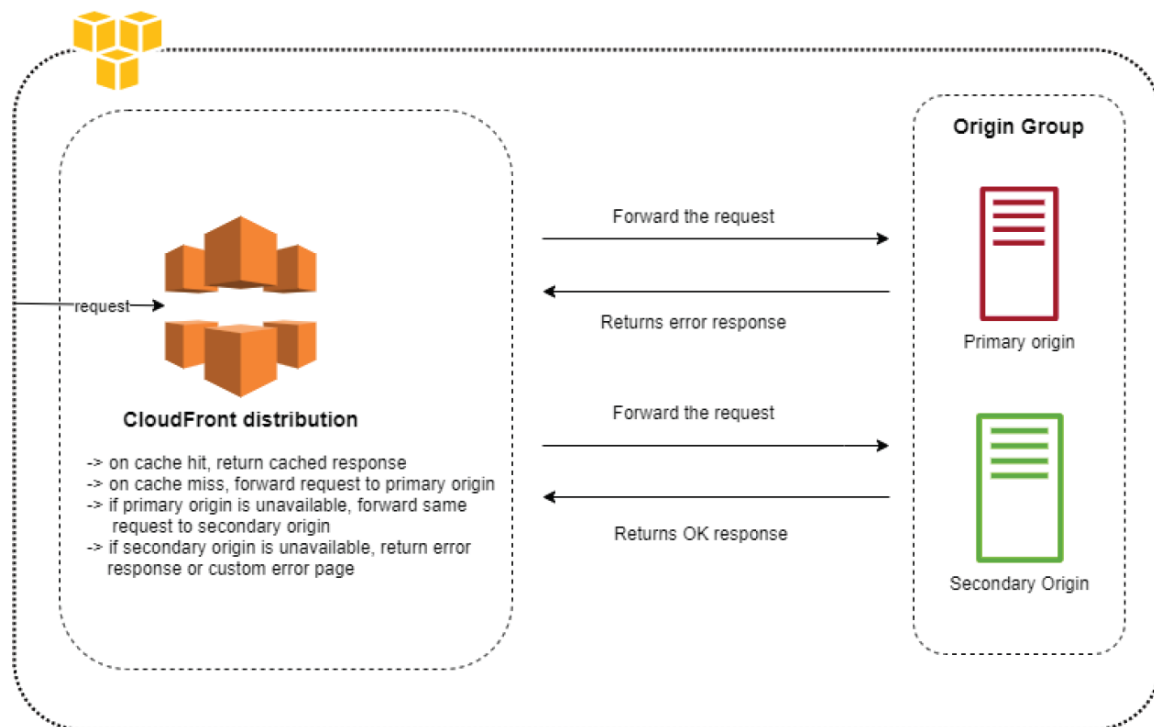
- **Amazon CloudFront**

(Correct)

- **Amazon Route 53**
- **AWS Elastic Load Balancer**
- **Amazon S3**

Explanation

Amazon CloudFront is a fast content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to customers globally with low latency, high transfer speeds, all within a developer-friendly environment. CloudFront is integrated with AWS – both physical locations that are directly connected to the AWS global infrastructure, as well as other AWS services. CloudFront works seamlessly with services including AWS Shield for DDoS mitigation, Amazon S3, Elastic Load Balancing, or Amazon EC2 as origins for your applications, and Lambda@Edge to run custom code closer to customers' users and to customize the user experience. Lastly, if you use AWS origins such as Amazon S3, Amazon EC2, or Elastic Load Balancing, you don't pay for any data transferred between these services and CloudFront.



You can get started with the Content Delivery Network in minutes, using the same AWS tools that you're already familiar with: APIs, AWS Management Console, AWS CloudFormation, CLIs, and SDKs. Amazon's CDN offers a simple, pay-as-you-go pricing model with no upfront fees or required long-term contracts, and support for the CDN is included in your existing AWS Support subscription.

Hence, the correct answer is: **Amazon CloudFront**.

Amazon S3 is incorrect because this can only directly serve static objects. This means that you can't use this service to serve dynamic web content to users globally.

Amazon Route 53 is incorrect because this is just a DNS service offered by AWS and hence, it is not a suitable service to use for this scenario.

AWS Elastic Load Balancer is incorrect because this just automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, IP addresses, and Lambda functions. It cannot serve content to users globally without a source behind it.

References:

<https://aws.amazon.com/cloudfront/>

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/HowCloudFrontWorks.html>

Check out this Amazon CloudFront Cheat Sheet:

<https://tutorialsdojo.com/amazon-cloudfront/>

Question 62:

Skipped

An e-commerce company is considering migrating its website to the AWS Cloud to improve its scalability and reduce costs.

Which statements explain the business value of migration to the AWS Cloud? (Select TWO.)

- **The migration of enterprise applications to the AWS Cloud makes these applications automatically available on mobile devices.**
- **Companies that migrate to the AWS Cloud eliminate the need to plan for high availability and disaster recovery.**

(Correct)

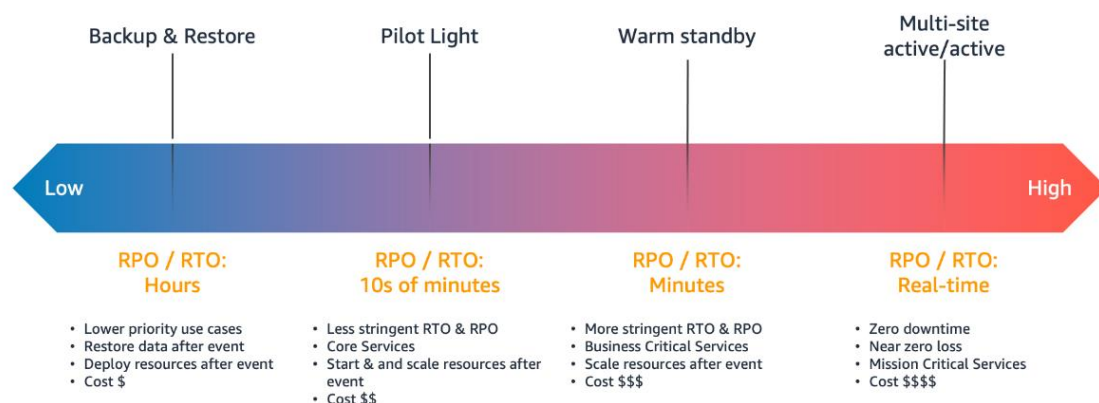
- **Applications are modernized because migration to the AWS Cloud requires companies to rearchitect and rewrite all enterprise applications.**
- **Companies that migrate to the AWS Cloud reduce IT costs related to infrastructure, freeing the budget for reinvestment in other areas.**

(Correct)

- **Migrating to AWS Cloud offers the e-commerce company access to advanced analytics and machine learning capabilities.**

Explanation

Migration to the AWS Cloud is the process of moving data, programs, and other resources from an organization's on-premises infrastructure to the AWS cloud environment. Organizations may make use of AWS's advantages, like its adaptability, scalability, security, and affordability, thanks to this shift.



Companies that migrate to the AWS Cloud can eliminate the need to plan for high availability and disaster recovery because AWS offers built-in redundancy and disaster recovery options. This can save companies time and money in planning and implementing these measures themselves.



Companies that migrate to the AWS Cloud can reduce IT costs related to infrastructure because AWS offers a pay-as-you-go pricing model and eliminates the need for companies to maintain their own physical servers and infrastructure. This can free up the budget for reinvestment in other business areas.

Hence, the correct answers are:

- Companies that migrate to the AWS Cloud eliminate the need to plan for high availability and disaster recovery.

- **Companies that migrate to the AWS Cloud reduce IT costs related to infrastructure, freeing the budget for reinvestment in other areas.**

The option that says: **The migration of enterprise applications to the AWS Cloud makes these applications automatically available on mobile devices** is incorrect because migrating enterprise applications to the AWS Cloud does not automatically make them available on mobile devices. While AWS does offer services that allow for mobile app development and deployment, this is not directly related to migrating enterprise applications to the cloud.

The option that says: **Migrating to AWS Cloud offers the e-commerce company access to advanced analytics and machine learning capabilities** is incorrect because it doesn't specifically specify how moving to AWS Cloud would help the e-commerce company in terms of scalability or cost savings, even though AWS Cloud does offer advanced analytics and machine learning capabilities.

The option that says: **Applications are modernized because migration to the AWS Cloud requires companies to rearchitect and rewrite all enterprise applications** is incorrect. While migration to the AWS Cloud may require companies to rearchitect and rewrite some enterprise applications, this is not a requirement for all applications. Additionally, this statement does not directly explain the business value of migration to the AWS Cloud.

References:

<https://aws.amazon.com/cloud-migration/>

<https://aws.amazon.com/campaigns/migrating-to-the-cloud/>

Check out this AWS Migration Services Cheat Sheet:

<https://tutorialsdojo.com/aws-cheat-sheets-migration-services/>

<https://aws.amazon.com/campaigns/migrating-to-the-cloud/>

AWS Migration Services Overview Video Tutorial:

<https://youtu.be/yqNBkFMnsL8>

Question 63:

Skipped

A company needs to run its workloads in a hybrid cloud. Due to regulatory compliance, some parts of the overall infrastructure need to be on-premises. The company wants to leverage the same API calls for both their AWS cloud and on-premises workloads.

Which AWS service or offering should the company use to meet these requirements?

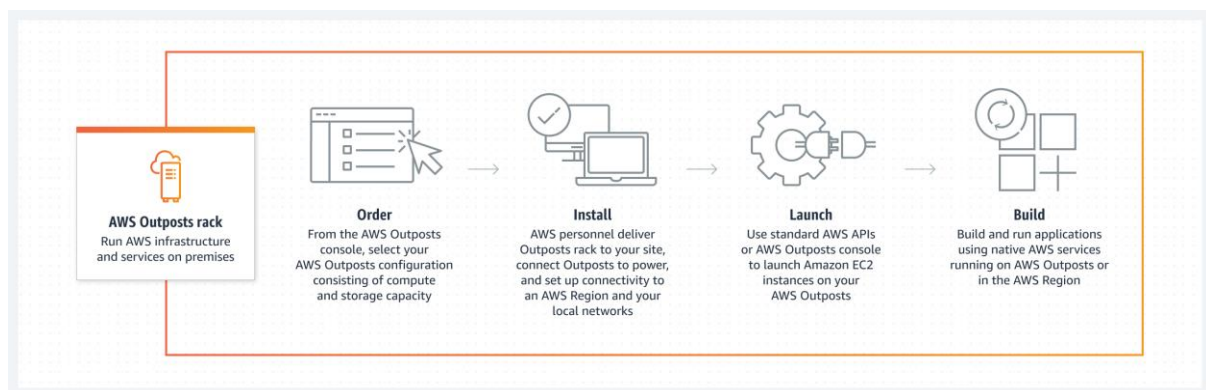
- **AWS Outposts**

(Correct)

- **AWS Wavelength**
- **AWS Local Zones**
- **Dedicated Hosts**

Explanation

AWS Outposts is an offering from AWS that provides a fully managed service extending AWS's infrastructure, services, APIs, and tools to virtually any data center, co-location space, or on-premises facility. This offering basically enables consumers to run AWS infrastructure on-premises. Even though the infrastructure is hosted on-premises or in a specific location, it still utilizes the same APIs used in the AWS cloud. Moreover, this API



The AWS Outposts offering has two family members:

AWS Outpost racks — It provides the same AWS infrastructure, services, APIs, and tools to virtually any data center or co-location space. Outposts rack provides AWS compute, storage, database, and other services locally while still allowing you to access the full range of AWS services available in the Region for a truly consistent hybrid experience. Locally supported services include:

- Amazon EC2
- Amazon ECS
- Amazon EKS
- Amazon EBS

- Amazon EBS Snapshots
- Amazon S3
- Amazon RDS
- Amazon ElastiCache
- Amazon EMR
- Amazon ALB
- Amazon Route 53 Resolver
- VMware Cloud

AWS Outpost servers — They provide the same AWS infrastructure, services, APIs, and tools to on-premises and edge locations with limited space or smaller capacity requirements, such as retail stores, branch offices, healthcare provider locations, or factory floors. Outpost servers provide local computing and networking services. Locally supported services include:

- Amazon EC2
- Amazon ECS
- AWS IoT Greengrass
- Amazon Sagemaker Edge Manager

Both seamlessly extend Amazon Virtual Private Cloud on-premises, run select AWS services locally, and connect to a broad range of services available in the AWS Region.

Hence, the answer is: **AWS Outposts**.

Dedicated Hosts is incorrect because this is an offering in the EC2 service that allows you to purchase a physical server. This physical server, however, is still being accessed through the cloud. If your compliance regulation states that data should reside on your on-premises, then this offering is unsuitable for that use case.

AWS Local Zones is incorrect because this is just an extension and a limited version of an Availability Zone. Local Zones are designed to bring the core services needed for the latency-sensitive portions of your workload closer to end-users. If you plan to host infrastructure in a Local Zone, you still are not compliant with the regulatory compliance of hosting infrastructure on-premises.

AWS Wavelength is incorrect because this is an infrastructure offering that embeds AWS compute and storage services to communication service providers' 5G network. AWS Services such as Amazon EC2 and EBS volumes can be hosted in Wavelength Zones, allowing customers to take full advantage of the latency and bandwidth benefits of modern 5G networks. And just like the other incorrect options, this offering still does not meet the regulatory compliance of hosting infrastructure on-premises.

References:

<https://aws.amazon.com/outposts/>

<https://aws.amazon.com/outposts/rack/>

<https://aws.amazon.com/outposts/servers/>

Check out this AWS Outposts Cheat Sheet:

<https://tutorialsdojo.com/aws-outposts/>

Question 64:

Skipped

Which of the following is true regarding the AWS Cost and Usage report? (Select TWO.)

- Allows you to load your cost and usage information into Amazon Athena, Amazon Redshift, and AWS QuickSight

(Correct)

- Provides you with granular data about your AWS costs and usage

(Correct)

- Provides you a dashboard that lets you view the status of your month-to-date AWS expenditure and provides access to a number of other cost management products that can help you dig deeper into your AWS costs and usage
- Lets you set custom cost and usage budgets that alert you when those thresholds are exceeded
- Helps you visualize, understand, and manage your AWS costs and usage over time via an intuitive interface that enables you to quickly create custom reports

Explanation

The **Cost and 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.

[AWS Cost Management](#) > [Reports](#) > [Create new report](#)

Create new report [Info](#)

Select a report type

☒ **Cost and usage (recommended)**

The cost and usage report visualizes your aggregate costs across all AWS services. Use the filter dimensions to analyze all aspects of your AWS costs and usage.

Savings Plans reports

☐ **Savings Plans utilization**

The Savings Plans utilization report visualizes your aggregate Savings Plans utilization and allows you to set a custom Savings Plans utilization target. This report helps you understand how well you are using your resources.

☐ **Savings Plans coverage**

The Savings Plans coverage report visualizes your overall Savings Plans coverage and allows you to set a custom Savings Plans coverage target. This report helps you identify opportunities for savings.

Reservation reports

☐ **Reservation utilization**

The reservation utilization report visualizes your aggregate reservation utilization and allows you to set a custom reservation utilization target. This report helps you understand how well you are using your resources.

☐ **Reservation coverage**

The reservation coverage report visualizes your overall reservation coverage and allows you to set a custom reservation coverage target. This report helps you identify opportunities for savings.

[Create Report](#)

It lists AWS usage for each service category used by an account and its IAM users in hourly or daily line items, as well as any tags that you have activated for cost allocation purposes. You can also customize the AWS Cost & Usage Report to aggregate your usage data to the daily or hourly level.

With the AWS Cost & Usage Report, you can do the following:

Access comprehensive AWS cost and usage information

- The AWS Cost & Usage Report gives you the ability to delve deeply into your AWS cost and usage data, understand how you are using your AWS implementation, and identify opportunities for optimization.

Track your Amazon EC2 Reserved Instance (RI) usage

- Each line item of usage that receives an RI discount contains information about where the discount was allocated. This makes it easier to trace which instances are benefitting from specific reservations.

Leverage strategic data integrations

- Using the Amazon Athena data integration feature, you can quickly query your cost and usage information using standard SQL queries. You can also upload your data directly into Amazon Redshift or Amazon QuickSight.

One of the core benefits of the AWS Cost & Usage Report is the wealth of RI-related data that is made available to you. It can be customized to collect cost and usage data at the daily and monthly levels of detail and is updated at least once per day. Each line item of usage that receives an RI discount contains information about where the discount came from. This makes it easier to trace which instances are benefitting from specific reservations. If desired, the AWS Cost & Usage Report can even be ingested directly into Amazon Athena, Amazon QuickSight, or your Amazon Redshift cluster.

Hence, the correct answers in this scenario are the following:

- **Provides you with granular data about your AWS costs and usage**

- **Allows you to load your cost and usage information into Amazon Athena, Amazon Redshift, and AWS QuickSight**

The option that says: **Lets you set custom cost and usage budgets that alert you when those thresholds are exceeded** is incorrect because this refers to AWS Budgets. This service allows you to set up event-driven alert notifications for when actual or forecasted cost or usage exceeds your budget limit, or when the coverage or utilization of your RI and Savings Plans falls below your threshold.

The option that says: **Helps you visualize, understand, and manage your AWS costs and usage over time via an intuitive interface that enables you to quickly create custom reports** is incorrect because this refers to AWS Cost Explorer. This service provides a dashboard to help you visualize, understand, and manage your AWS costs and usage on a daily or monthly basis.

The option that says: **Provides you a dashboard that lets you view the status of your month-to-date AWS expenditure and provides access to a number of other cost management products that can help you dig deeper into your AWS costs and usage** is incorrect because this refers to the AWS Cost Management dashboard that allows you to quickly access comprehensive information about your AWS costs and usage.

References:

<https://aws.amazon.com/aws-cost-management/>

<https://aws.amazon.com/aws-cost-management/aws-cost-and-usage-reporting/>

Check out this AWS Billing and Cost Management:

<https://tutorialsdojo.com/aws-billing-and-cost-management/>

Question 65:

Skipped

A company has game servers hosted in the US East (N. Virginia) Region. However, players from Europe and Asia experience high latency, impacting their gaming experience.

How can the company reduce latency and improve the gaming experience for players in these regions?

- **Deploy additional game servers in Europe and Asia**

(Correct)

- **Implement Amazon CloudFront as a content delivery solution.**
- **Utilize AWS Direct Connect to establish dedicated network connectivity.**
- **Use autoscaling for the game servers in the US East (N. Virginia) Region.**

Explanation

AWS Global Cloud infrastructure is built around AWS Regions and Availability Zones. An AWS Region is a physical location in the world where we have multiple Availability Zones. Availability Zones consist of one or more discrete data centers, each with redundant power, networking, and connectivity housed in separate facilities. Whether you need to deploy your application workloads across the globe in a single click or you want to build and deploy specific applications closer to your end-users with single-digit millisecond latency, AWS provides you with the cloud infrastructure where and when you need it.



In the scenario, by hosting game servers geographically close to the user base, the company can significantly reduce latency for players in those regions. This approach minimizes the distance data needs to travel, resulting in faster response times and a smoother gaming experience.

Hence, the correct answer is: **Deploy additional game servers in Europe and Asia**

The option that says: **Implement Amazon CloudFront as a content delivery solution** is incorrect. CloudFront primarily focuses on caching and delivering static content such as images, videos, and web pages from edge locations closer to the end-users. In the context of gaming, where real-time data is exchanged between players and game servers, reducing latency for server interactions requires servers to be physically closer to the players.

The option that says: **Use autoscaling for the game servers in the US East (N. Virginia) Region** is incorrect. It's important to note that while autoscaling can improve the overall performance and handle varying player loads, it won't solve the latency issues experienced by players in Europe and Asia. The physical distance between the game servers and users is the biggest factor contributing to latency.

The option that says: **Utilize AWS Direct Connect to establish dedicated network connectivity** is incorrect. Although this can optimize network routing and reduce latency, it may not be enough for latency-sensitive applications. Deploying additional game servers in Europe and Asia would be a more direct and effective solution. This approach reduces data travel distance and enhances responsiveness for players in these regions.

References:

<https://aws.amazon.com/about-aws/global-infrastructure/>

https://aws.amazon.com/about-aws/global-infrastructure/regions_az/