Question 2

An Amazon EC2 instance is part of an Amazon EC2 Auto Scaling group. You want to reboot an instance without Amazon EC2 Auto Scaling terminating it due to a health check failure. What are the suitable options available to reboot an instance in an Auto Scaling group in such circumstances?

* ✓Detach the instance from the group, reboot the instance and reattach the instance to the Auto Scaling groupSelected
* Delete the Auto Scaling Groups and then restart the instances as they are not part of any Auto Scaling group
* ✓Suspend the health check process temporarily and after reboot resume the suspended processSelected
* ✓Put the instance into the Standby state, reboot the instance and return the instance to service in the Auto Scaling group
* Delete the CloudWatch Logs from where the health check status is collectedSelected

Explanation:  
To Reboot an Instance that is in Auto Scaling group, safely turn the Instance into Standby state so that Auto Scaling will not perform Health Checks. Another option is to detach the instance from the Auto Scaling group, complete the reboot and then reattach to the Auto Scaling Group. Finally, another alternative is to temporarily suspend the health check process. Suspending the health check process affects monitoring of all instances in an Auto Scaling group. Until Auto Scaling is resumed, Amazon EC2 Auto Scaling will not replace any unhealthy instances. Deleting the Auto Scaling Group will set the maximum and minimum value to zero and as a result the instances part of ASG will be terminated.

Resources

* [Autoscaling Instance Reboot](https://aws.amazon.com/premiumsupport/knowledge-center/reboot-autoscaling-group-instance/)

Stats

* You spent **00:05** on this question

Question 5

You and your Developer team are building a web application for a real estate company that will include a field for conducting full-text keyword searches. Which of the following AWS services must you choose to provide this type of search experience?

* ✓Amazon Elasticsearch Service
* Amazon Elastic Block Storage (EBS)Selected
* Amazon ElastiCache
* Amazon Elastic File System (EFS)

Explanation:  
Elasticsearch Service is based on a full-text search engine. As a result, developers can use the service to help potential buyers find their desired homes, price ranges, and neighborhood locations with the real estate web application. EBS and EFS are storage tools, and ElastiCache is an in-memory cache service.

Resources

* [Amazon Elasticsearch Service](https://aws.amazon.com/elasticsearch-service/)

Stats

* You spent **00:02** on this question

Question 9

Which of the following statements about an Amazon SQS standard queue is true?

* ✓SQS will deliver your message at least once, but cannot guarantee the order in which the messages will be delivered.
* SQS will deliver your message at least once, and guarantees that it will not create duplicates of that message.Selected
* ✓SQS will deliver your message at least once, but cannot guarantee that it will not create duplicates of that message.Selected
* SQS will deliver your message at least once in FIFO order.

Explanation:  
Understand the fundamental differences between Standard and FiFo, and the volume or capacity differences.

Resources

* [SQS Standard Queues](https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/standard-queues.html)

Stats

* You spent **00:01** on this question

Question 14

You work for a large insurance company that has issued 10,000 insurance policies. These policies are stored as PDFs. You need these policies to be highly available, and company policy says that the data must be able to survive the simultaneous loss of two facilities. What storage solution should you use?

* EBS
* ✓S3
* A single EC2 instance with an EBS volume provisioned as a secondary volume.Selected
* Glacier

Explanation:  
Your best solution would be to use S3, which redundantly stores multiple copies of your data in multiple facilities and on multiple devices within each facility.

Resources

* [S3 - Storage Across Multiple Facilities](https://aws.amazon.com/s3/faqs/#Where_is_my_data_stored)

Stats

* You spent **00:01** on this question

Question 15

You are investigating a performance issue on a MYSQL RDS database and discover that there is only a single DB instance in a single Availability Zone for this database. This goes against your organisation's availability requirements, which specify that the application must automatically remain available during AZ outages and with minimal interruption. This needs to be addressed, along with the performance issue. How would you go about resolving this, while keeping cost to a minimum?

* Modify the database to be Multi-AZ to address the availability requirement. This will also address the performance issue as there will now be 2 instances for reads and writes.
* Deploy a Read Replica for the database into a different AZ. This will address the performance issue, and can be used in case of a AZ outageSelected
* ✓Modify the database to be Multi-AZ to address the availability requirement, and deploy a read replica to improve performance
* Deploy a Read Replica for the database into a different AZ to address the availability requirement. Create another read replica in primary zone to improve performance.

Explanation:  
When in a Multi-AZ configuration, the secondary database instance is not "active" and cannot be read from or written to by clients. This rules out using the secondary instance to address the performance issue. Putting a read replica in a different AZ can help with redundancy, however the read replica will need to be promoted manually in case of a disaster, resulting downtime while this takes place. As this scenario requires that there is minimal interruption to service in case of a AZ outage, any answer using the Read Replica for availability can be discounted. This leaves using a Multi-AZ configuration with a Read Replica as the only valid option.

Resources

* [Amazon RDS Multi-AZ Deployments](https://aws.amazon.com/rds/details/multi-az/)
* [Amazon RDS for MySQL – Promote Read Replica](https://aws.amazon.com/blogs/aws/amazon-rds-for-mysql-promote-read-replica/)

Stats

* You spent **00:01** on this question

Question 17

You have a web application being hosted on EC2 instances in a couple of regions. Users in certain regions have been reporting extreme slowness. How could this be architected better to improve the experience for users?

* Change the Instance Type to a higher type.
* ✓Place the EC2 instance behind CloudFront.
* Add more EC2 instances to support the load.Selected
* Add Route 53 health checks to improve the performance.

Explanation:  
Amazon CloudFront is a service that speeds up distribution of static and some dynamic web content. Such as .html, .css, .js, and image files. CloudFront delivers your content through a worldwide network of facilities called edge locations. When a user requests content that you're serving through CloudFront, the user is routed to the edge location that provides the lowest latency (time delay), so that content is delivered with the best possible performance.

Resources

* [What Is Amazon CloudFront?](https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/Introduction.html)

Stats

* You spent **00:01** on this question

Question 25

Which of the following events would cause Amazon RDS to initiate a failover to the standby replica?

* ✓Loss of network connectivity to the primary instance
* ✓Loss of availability in the primary Availability Zone
* Storage failure on the standby replicaSelected
* ✓Complete failure of the primary instance

Explanation:  
The events would cause Amazon RDS to initiate a failover to the standby replica would be: Loss of availability in primary Availability Zone, Loss of network connectivity to primary, Compute unit failure on primary, Storage failure on primary.

Resources

* [RFS High Availability](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Concepts.MultiAZ.html)

Stats

* You spent **00:01** on this question

Question 26

You have a busy media website that runs on a fleet of EC2 instances behind an application load balancer. You have a number of different target groups for different purposes. One of these target groups is a fleet of EC2 instances which contains the images for your website. When ever a user visits www.yoursite.com/images/ you need your application load balancer to direct the request to the images target group. How do you configure this rule on your application load balancer?

* Using Sticky Sessions.
* Using Query String Parameters.Selected
* Using Cross Zone Load Balancing.
* ✓Using Path Patterns.

Explanation:  
One of the major benefits of teh ALB is that it supports 'path-based' routing which allows you to direct the traffic based on the content of the URL path. In this case /images/ can be directed to a specific target group.

Resources

* [ALB Listener Rules](https://docs.aws.amazon.com/elasticloadbalancing/latest/application/listener-update-rules.html)
* [What Is an Application Load Balancer?](https://docs.aws.amazon.com/elasticloadbalancing/latest/application/introduction.html)

Stats

* You spent **00:01** on this question

Question 27

Your organisation is planning on storing mission-critical data in Redshift. This data has high value and is frequently used for business decisions, so management has decided that a 99.999% availability SLA is needed. How would you achieve this with RedShift?.

* This level of SLA is built into RedShift so there is no need to do anything extra.
* ✓Deploy a second RedShift Cluster in another AZ and ensure all writes happen to both clusters
* Use a Multi-Region Redshift ClusterSelected
* Use a Multi-AZ Redshift Cluster

Explanation:  
RedShift does not currently support Multi-AZ or Multi-Region deployments, so neither of these are valid options, and with an SLA of 99.9% neither is not doing anything extra. AWS recommends running multiple clusters when true high availability is required, and making sure they are kept in sync. Note that there no automated synchronisation options for RedShift clusters, and this must be handled outside of RedSift (e.g. with Kinesis)

Resources

* [RedShift SLA](https://aws.amazon.com/redshift/sla/)
* [RedShift FAQ](https://aws.amazon.com/redshift/faqs/)
* [Building Multi-AZ or Multi-Region Amazon Redshift Clusters](https://aws.amazon.com/blogs/big-data/building-multi-az-or-multi-region-amazon-redshift-clusters/)

Stats

* You spent **00:01** on this question

Question 31

You have been creating a number of EBS volumes for your EC2 instances. Your company has asked that you to ensure these EBS volumes are available in the event of a disaster. What can be done to help accomplish this?

* ✓Create Snapshots of the EBS volumes.
* Ensure Snapshots are made available in another Availability Zone.Selected
* Ensure Snapshots are made available in another region.
* Configure Amazon Storage Gateway with the source being the EBS volumes, then store the backups on premise.

Explanation:  
You can back up the data on your Amazon EBS volumes to Amazon S3 by taking point-in-time snapshots. Snapshots are constrained to the Region in which they were created. To share a snapshot with another Region, copy the snapshot to that Region.

Resources

* [Amazon EBS Snapshots](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSSnapshots.html)
* [Sharing an Amazon EBS Snapshot](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-modifying-snapshot-permissions.html)

Stats

* You spent **00:01** on this question

Question 37

You work for a games development company who are re-architecting their production environment. They have decided to make all web servers stateless. Which of the following the AWS services will help your company achieve this goal?

* ✓ElastiCache
* ✓RDSSelected
* ✓DynamoDBSelected
* ELBSelected
* EMR

Explanation:  
An Elastic Load Balancer can help you deliver stateful services, but not stateless. Elastic Map Reduce is a data-analysis service and is not related to servicing web traffic.

Resources

* [Managing your Infrastructure at Scale](https://d0.awsstatic.com/whitepapers/managing-your-aws-infrastructure-at-scale.pdf)

Stats

* You spent **00:03** on this question

Question 38

You need to take a snapshot of an EBS volume. You are concerned about the volume and instance becoming unavailable until the snapshot is complete. Which of these statements best describe the facts that will allow you to assess the duration of the outage?

* The duration of the outage is determined by the age of the server.
* The duration of the outage is determined by the number of files changed since the server was commissioned.
* The duration of the outage is determined by the number of files on the disk.Selected
* The duration of the outage is determined by the size of the server.Selected
* ✓The duration of the outage is only related to the initial cataloguing phase.
* The duration of the outage is the time it takes to copy all the files from the disk to the backup.
* ✓The duration of the outage is determined by the number of files changed since the last backup.

Explanation:  
in General terms a snapshot has two parts; the snapshot catalogue, and the copy off of the data. Sometimes called 'the snapshot'. During the catalogue phase all changed files and blocks are catalogued, locked, and a change log is started. This is a relatively fast process for most disk file systems and is the only part of the process during which the disk cannot be accessed. the 2nd phase is the slow part during which the data is copied to the backup system. The system is not locked during this phase. The actual duration when the system is unavailable is most closely related to how many files or blocks have changed since the last backup as this is the only portion of the data that is relevant to the incremental backup (snapshot).

Resources

* [Amazon EBS Snapshots](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSSnapshots.html)
* [Creating an Amazon EBS Snapshot](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-creating-snapshot.html)
* [EBS Snapshot KBs](https://help.acloud.guru/hc/en-us/search?utf8=%E2%9C%93&query=ebs+snapshot)
* [New – Lifecycle Management for Amazon EBS Snapshots](https://aws.amazon.com/blogs/aws/new-lifecycle-management-for-amazon-ebs-snapshots/)

Stats

* You spent **00:02** on this question

Question 39

What type of replication is supported by Multi-AZ RDS instances?

* ✓Synchronous replication
* Continuous replication
* Sequential replicationSelected
* Asynchronous replication

Explanation:  
Multi-AZ deployments utilize synchronous replication, making database writes concurrently on both the primary and standby so that the standby will be up-to-date in the event a failover occurs.

Resources

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

Stats

* You spent **00:01** on this question

Question 42

What type of replication is supported by read replica instances?

* Continuous replication
* ✓Asynchronous replication
* Sequential replicationSelected
* Synchronous replication

Explanation:  
Updates are applied to your Read Replica(s) after they occur on the source DB Instance using asynchronous replication.

Resources

* [RDS Read Replicas - Asynchronous Replication](https://aws.amazon.com/rds/details/read-replicas/)

Stats

* You spent **00:01** on this question

Question 62

Following an acquisition, a company on-boarded a large number of IAM users into their account. What service will allow the account administrator to check if the company is approaching allowed IAM user service limit?

* ✓AWS Trusted Advisor
* AWS Personal Health Dashboard
* AWS Managed ServicesSelected
* AWS Service Catalog
* AWS Systems Manager

Explanation:  
AWS Trusted Advisor provides a service limits recommendation category that performs checks for service usage limits. Number of IAM users is one of the service limit checks performed by AWS Trusted Advisor.

Resources

* [AWS Trusted Advisor Best Practice Checks](https://aws.amazon.com/premiumsupport/technology/trusted-advisor/best-practice-checklist/)

Stats

* You spent **00:01** on this question

Question 1

You've been tasked with replicating your production VPC in another region for disaster recovery purposes. Part of your environment relies on EC2 instances with pre-configured software. What steps would you take to configure the instances in another region?

* ✓Create AMIs of the instances and copy them to the new Region for deployment.Selected
* None of these.
* Write the IAM permissions for the new Region to use the AMIs from the original Region.
* Create AMIs of the instances and deploy them in the new Region

Explanation:  
The AMIs must be copied to the new Region prior to deployment.

Resources

* [Cross Region EC2 AMI Copy](https://aws.amazon.com/premiumsupport/knowledge-center/copy-ami-region/)

Stats

* You spent **00:06** on this question

Question 11

The company you work for has been acquired and you have been tasked with the redirection of all its website traffic to the new company's website. The old one is hosted on S3 as a static website while the target is a self-hosted website. Which of the following options describes the best approach to achieve that as quickly as possible?

* Amazon S3 static website hosting supports only redirects to other AWS S3 buckets but not to external URLs. Therefore, you should set up a redirect to a new bucket with a single HTML file in it that uses client-side scripting (window.location.ref and a 'refresh' http-equiv meta tag) for the redirect to the new domain.
* Amazon S3 does not support website redirects. You will need to contact your domain registrar and ask them to update the target URL to point to the self-hosted website.
* ✓In the Amazon S3 console, configure a redirect to the new domain in the 'Redirect requests: Target bucket or domain' box within the 'Static website hosting' section under the Properties tab of the relevant bucket.Selected
* In the Amazon S3 console, set the website redirect location in the metadata of each object in the relevant public bucket. You can do so by specifying the new domain as the value of the 'Website-Redirect-Location' key within the 'Metadata' section under the Properties tab.

Explanation:  
Although other listed options are feasible, the quickest way to achieve the desired outcome is to set up a redirect at the S3 bucket level.

Resources

* [(Optional) Configuring a Webpage Redirect](https://docs.aws.amazon.com/AmazonS3/latest/dev/how-to-page-redirect.html)
* [Hosting a Static Website on Amazon S3](https://docs.aws.amazon.com/AmazonS3/latest/dev/WebsiteHosting.html)

Stats

* You spent **00:01** on this question

Question 33

You have chosen to use S3-RRS with your cloud application. Which limitations have you considered in doing so?

* RRS is available only in the US-STANDARD region.
* RRS has a 4-hour data recovery time.
* ✓RRS is not recommended for new projects in some AWS regions.Selected
* ✓RRS offers only 99.99% durability, so you have to design your application to re-create any objects that may be lost.Selected
* RRS requires supplementary Access Control Lists.

Explanation:  
The use of RRS is being phased out. In exchange for a significant cost savings, RRS offers only 99.99% durability.

Resources

* [About S3-RRS](https://aws.amazon.com/s3/reduced-redundancy/)

Stats

* You spent **00:02** on this question

Question 58

You need to find both the Public and Private IP addresses of an instance. Which of the following URLs should you query?

* http://169.254.169.524/latest/user-data/
* http://169.254.169.254/latest/user-data/
* ✓http://169.254.169.254/latest/meta-data/Selected
* http://169.254.169.524/latest/meta-data/

Explanation:  
Be careful on the exam to read the numbers and not assume what they are. The octet 254 is transposed into 524 in two of the answers, and two are user-data and two are meta-data.

Resources

* [Retrieving Instance Meta-Data](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-metadata.html#instancedata-data-retrieval)

Stats

* You spent **00:02** on this question

Question 3

You are operating a popular TV Show news website using a static site generator (SSG) with the resulting HTML pages being served from S3. The vast majority of pages are less than 85 KB in size. After 60 days, new episode page access drops off significantly. Which of the following statements are true?

* ✓Using the STANDARD\_IA storage class, these older pages are stored redundantly across 3 or more geographically separated facilities.Selected
* ✓Using the STANDARD\_IA storage class, Amazon S3 charges you for 128 KB per object if it is less than 128 KB in size.Selected
* While objects in the STANDARD storage class are available for millisecond access, accessing STANDARD\_IA objects is slightly slower.Selected
* ✓The ONEZONE\_IA storage class is as durable as STANDARD\_IA, but it is less available and less resilient.

Explanation:  
Similar to the STANDARD storage class, STANDARD\_IA objects are available for millisecond access.

Resources

* [Storage Classes](https://docs.aws.amazon.com/AmazonS3/latest/dev/storage-class-intro.html)

Stats

* You spent **00:03** on this question

Question 4

What is a spot block?

* A limit on the number of spot instances per AWS region within an account.
* ✓Spot instances that run for the desired duration without interruption.
* A number of spot instances that are launched to meet the target capacity specified.Selected
* A limit on the number of spot instances per AWS availability zone within an account.

Explanation:  
Spot instances with a specified duration are called spot blocks and are designed not to be interrupted and will run continuously for the desired duration. This is ideal for jobs that take a defined time to complete, such as batch processing, encoding and rendering, modeling and analysis, and continuous integration.

Resources

* [Spot Instance Request](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/spot-requests.html)

Stats

* You spent **00:01** on this question

Question 7

You are an employee at a communications firm that is in the process of migrating its data to Amazon S3. The data will be stored in buckets and is sent to customers to do as they see fit. However, certain data is frequently changed when customers request revisions, while the rest of the data is rarely changed. You must be able to immediately access certain data while minimizing costs. Which S3 storage class should you choose?

* S3 Glacier
* S3 One Zone-Infrequent AccessSelected
* ✓S3 Intelligent Tiering
* S3 Standard

Explanation:  
While S3 Glacier is a low-cost storage class, it is for data archiving and thus not ideal for frequent access or changes to data. And S3 One Zone-Infrequent Access is also low-cost, but it does not address the frequently changed data. Although S3 Standard is a suitable choice, since it addresses frequent access, it is not the least expensive choice for the less frequently accessed data. If it was hard to determine which data is frequently changed and which isn’t, S3 Standard might have been the most cost-effective choice. But in this case, S3 Intelligent Tiering is. Intelligent Tiering stores data in two access tiers: one tier is optimized for frequently accessed data while the other is a lower-cost tier for infrequent access.

Resources

* [S3 Storage Classes](https://aws.amazon.com/s3/storage-classes/)

Stats

* You spent **00:01** on this question

Question 21

You have a static HTML website that requires inexpensive, highly available hosting solution that scales automatically to meet traffic demands. Which AWS service would best suit this requirement?

* EC2 with CloudFront
* ✓S3 - Static Website Hosting
* EC2 with EBS behind and Autoscaling Group with a minimum configuration of 2 instancesSelected
* EC2 with EBS behind and Autoscaling Group with a minimum configuration of 1 instance

Explanation:  
S3 Static Website Hosting offers the best solution here: it is highly-available, scales automatically, and is cost-effective.

Resources

* [S3 Static Website Hosting](https://docs.aws.amazon.com/AmazonS3/latest/dev/WebsiteHosting.html)

Stats

* You spent **00:01** on this question

Question 22

What main functions can Route 53 perform? Select the best answer from the following options.

* Amazon Route 53 is a highly available and scalable cloud Domain Name System (DNS) web service that is designed to give developers and businesses an extremely reliable and cost-effective way to route end users to Internet applications. It can be used together with CloudWatch, a service which allows you to monitor and manage applications. While Route 53 is not a domain reseller, it allows customers to bring their own domain names with them.
* Domain registration and DNS routing
* DNS routing and health checking for domains hosted on AWSSelected
* ✓Domain registration, DNS routing, and health checking in any combination

Explanation:  
Route53 is Amazons DNS web service that delivers the domain registration, DNS routing and health checking function in any combination.

Resources

Stats

* You spent **00:01** on this question

Question 35

A company is open from 6 a.m. to 6 p.m. EST, with core business hours specified between 9 a.m. to 3 p.m. EST. It needs an AWS Support plan that provides email access to Cloud Support Associates during core business hours. Which of the following support plans would be most suitable?

* Basic
* BusinessSelected
* Enterprise
* ✓Developer

Explanation:  
Although Business and Enterprise Support plans include email access to the AWS Support team, the company specifically expressed interest in business-hours email support from Cloud Support Associates. The Developer Support plan fulfils this need, and it is ultimately more cost-effective than either the Business or Enterprise option.

Resources

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

Stats

* You spent **00:01** on this question

Question 57

The volume of transactions coming into your online trading application fluctuates each day depending on market events. Log analyses indicate that on the heaviest volume days, compute demand comes in triple that of the average volume days. These heavy volume days occur about 15 days per year. You also have some workloads that need to process before close of business to provide input to daily reporting functions. How would you structure your mix of EC2 General Purpose Linux instances to obtain the highest cost efficiency?

* 3-Year Term Standard Reserved Instances for 100% of the average volume days and the reporting workloads, On-Demand instances to handle the spikes from the heavy volume days
* 1-Year Term Standard Reserved Instances for 100% of the average and heavy volume days, and Spot Instances to handle the reporting workloadsSelected
* ✓3-Year Term Standard Reserved Instances for 100% of the average volume days, On-Demand instances to handle the spikes from the heavy volume days, and Spot Instances to handle the reporting workloads
* 3-Year Term Standard Reserved Instances for 100% of the average and heavy volume days, and the reporting workloads

Explanation:  
The most cost effective pricing for EC2 General Purpose Linux instances will usually involve a mix of pricing models. In this scenario, since the number of heavy volume days is limited, using a combination of reserved instances sized for the average volume days, on-demand instances to handle transaction volume increases on the heavy volume days, and spot instances to handle workloads that just need to complete by a certain time is the best option. Spot instances for reporting workloads will cost less than using reserved instances and capacity doesn't need to be guaranteed. 3-year reserved instances are more cost-effective than one-year-term reserved instances. Over-provisioning for all but the 15 heavy volume days each year by using RI to cover heaviest load leaves a lot of underutilised capacity.

Resources

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

Stats

* You spent **00:01** on this question

Question 63

You want to track the amount of money you ideally want your company to spend for EC2 data transfers every month. Which of the following actions will accomplish that?

* Enable AWS Cost Explorer
* Create a Reservation budget with AWS Budgets.
* Create a Cost budget with AWS Budgets.Selected
* ✓Create a Usage budget with AWS Budgets.

Explanation:  
AWS Cost Explorer is for providing information that you can use to track and manage costs, but it doesn’t enable the creation of budgets; that’s what AWS Budgets is for. If the question was strictly addressing cost, then creating a Cost budget with AWS Budgets would have been the correct answer. However, your concern is specifically with a usage type, which is EC2 data transfers. In this case, you would need to create a Usage budget with AWS Budgets and receive alerts when your defined threshold is met.

Resources

* [Managing Your Costs with Budgets](https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/budgets-managing-costs.html)

Stats

* You spent **00:01** on this question

Question 10

You wish to set up a WordPress website consisting of 4 webpages for your client, who recently founded a logo creation business. Based on the client’s specifications, you will create one webpage that gives a summary of the company and its services, a second one that provides a brief professional biography of the founder, a third one that showcases the business owner’s portfolio, and a fourth one that serves as the contact information page and simply contains an email and phone number. Three of the four webpages will include images which the client doesn’t expect will change much, if at all. Using the EC2 service to set up the website, which of the following instance types would be the most cost-effective choice?

* Compute optimized
* ✓General purposeSelected
* Accelerated computing
* Memory optimized
* Storage optimized

Explanation:  
Based on the client’s specifications, it doesn’t seem like this website requires an elevated level of compute, memory, storage, or networking power. So, a general purpose instance would be the most cost-effective choice.

Resources

* [EC2 Instance Types](https://aws.amazon.com/ec2/instance-types/)

Stats

* You spent **00:02** on this question

Question 16

A large company is running multiple Amazon EC2 and Amazon RDS services across several AWS Regions. You are an AWS consultant and the company approaches you to provide recommendations on how to reduce operational cost without any major changes. The company confirms that certain instances are required to be run only during business hours from 8AM to 6PM on weekdays and can be shutdown on weekends and non-business hours. Which of the following automated solutions best matches the requirements?

* Move Instances to Spot Instances
* ✓AWS Instance SchedulerSelected
* AWS Auto Scaling
* Move AWS instances to lesser configuration Instance Type

Explanation:  
AWS offers infrastructure on demand so that customers can control their resource capacity and pay only for what they consume. One simple method to reduce costs is to stop resources that are not in use, and then start those resources again when their capacity is needed. The AWS Instance Scheduler is a simple AWS-provided solution that enables customers to easily configure custom start and stop schedules for their Amazon EC2 and Amazon RDS instances. The solution is easy to deploy and can help reduce operational costs for both development and production environments. Customers who use this solution to run instances during regular business hours can save up to 70% compared to running those instances 24 hours a day. AWS Auto Scaling is not a correct solution as auto-scaling groups can contain Amazon EC2 instances from multiple Availability Zones within the same Region and cannot contain instances from multiple regions. As the company confirms that the instances are required to be run during Business hours, Spot Instance is not a good choice as spot instances may be terminated if the spot price is higher than the bid price. Also, moving AWS Instances to lesser configurations is neither an automated solution nor guarantees saving operational cost if run 24 hours.

Resources

* [AWS Instance Scheduler](https://docs.aws.amazon.com/solutions/latest/instance-scheduler/overview.html)

Stats

* You spent **00:01** on this question

Question 44

What is the minimum billable object size for S3 - IA?

* 0 Bytes
* 1 Byte
* ✓128 KBSelected
* 1 KB

Explanation:  
The minimum object size is 0 bytes, however you will be billed for 128 KB. Objects smaller that 128 can still be stored, but will be billed as if they are 128KB.

Resources

* [S3 Standard - IA Object Size (table)](https://aws.amazon.com/s3/storage-classes/)
* [S3 Standard - IA minimums](https://aws.amazon.com/s3/faqs/?nc=sn&loc=6)

Stats

* You spent **00:01** on this question

Question 50

An online tutoring company used AWS Organizations to create an organization to consolidate and manage its AWS accounts. The organization has three accounts called production, development, and testing. As per company policy, all accounts use identical Linux EC2 instances that are in the same region and configured with default tenancy. The production account has seven Reserved regional EC2 instances to support its production environment. Last month, the testing account used two On-Demand EC2 instances running 24/7, while the development account used three On-Demand EC2 instances running 24/7. Because of a decrease in usage last month, the production account used only five of its reserved EC2 instances. How is the organization billed for EC2 instance usage last month?

* The company is billed for five Reserved instances and, none of the On-Demand instances since this is covered by the excess of Reserved instances.
* ✓The company is billed for seven Reserved instances and three On-Demand instances.Selected
* The company is billed for seven Reserved instances and two On-Demand instances.
* The company is billed for seven Reserved instances and all five On-Demand instances because consolidated billing is not enabled.

Explanation:  
Unused Reserved EC2 instances can offset the cost of equivalent On-Demand EC2 instances. The higher cost of two On-Demand instances is replaced by the lower cost of two unused Reserved instances. Additionally, because AWS Organizations is enabled consolidated billing is enabled as well.

Resources

* [Reserved Instances and AWS Organization](https://docs.aws.amazon.com/whitepapers/latest/cost-optimization-reservation-models/consolidated-billing.html)

Stats

* You spent **00:01** on this question

Question 61

What is the 'first-byte' latency when retrieving data from Glacier?

* ✓3-5 hoursSelected
* > 5 hours
* 1 hour
* 2 hours

Explanation:  
You should expect data retrieval latency of 3-5 hours when retrieving data from Glacier.

Resources

* [Glacier Data Retrieval Policies](https://aws.amazon.com/glacier/faqs/#dataretrievalpolicies)

Stats

* You spent **00:02** on this question

Question 6

You need to add a route to your routing table that will allow connections to the internet from your subnet. Which of the following routes should you add?

* Destination: 192.168.1.258/0 --> Target: your Internet gateway
* Destination: 0.0.0.0/0 --> Target: 0.0.0.0/24
* Destination: 0.0.0.0/33 --> Target: your virtual private gatewaySelected
* ✓Destination: 0.0.0.0/0 --> Target: your Internet gateway

Explanation:  
When setting a Custom Route Table, the destination should be 0.0.0.0/0, and the target should be the Internet gateway.

Resources

* [Custom Route Tables](https://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Route_Tables.html#CustomRouteTables)

Stats

* You spent **00:01** on this question

Question 28

You need to implement a new web application that allows users to store family photos online in such a way that only invited guests will be able to view the images. Which type of S3 encryption should you choose to maintain full end-to-end control of the encryption/decryption of objects and assure that only encrypted objects are transmitted over the Internet to Amazon S3.

* SSE-S3
* SSE-CSelected
* SSE-KMS
* ✓Provide a client-side master key to the Amazon S3 Encryption Client

Resources

* [Using a Client-Side Master Key](https://docs.aws.amazon.com/AmazonS3/latest/dev/UsingClientSideEncryption.html)

Stats

* You spent **00:01** on this question

Question 30

As a junior Cloud Engineer, you receive a CloudWatch alarm indicating that there might be a layer 7 attack of your environment. You recall that your company has an AWS Shield Advanced subscription. Which of the following options is the best response?

* Do nothing; it is an AWS issue that will resolve itself.
* Investigate and mitigate the attack on your own.Selected
* Request assistance from tech lead.
* ✓Contact AWS Support Center.

Explanation:  
You \*can\* investigate and mitigate the DDoS attack on your own, so that is a potentially correct answer. Similarly, requesting internal assistance is another possible answer because of your tech lead’s expertise. However, the best course of action is to take advantage of your AWS Shield Advanced subscription, which routes you to true DDoS experts. In this case the \*most correct\* answer is to work with AWS Support. Doing nothing should never be considered as an answer.

Resources

* [Responding to DDoS Attacks](https://docs.aws.amazon.com/waf/latest/developerguide/ddos-responding.html)

Stats

* You spent **00:01** on this question

Question 41

You must encrypt all incoming and outgoing traffic between your AWS environment and your customers. Your fleet of EC2 instances lives inside a public subnet and behind an elastic load balancer. Your application is very CPU intensive, and you want to minimize the processing load these EC2 instances must bear. What should you do?

* Configure a NAT and install the EC2 instance on that NAT so that you offload SSL termination to a third party EC2 instance and not your production environment.
* Use API Gateway to offload the SSL certificate, reducing the amount of load on both your ELB and EC2 instances.Selected
* ✓Install the SSL certificates on your ELBs so that there is less load on the EC2 instances.
* Install the SSL certificates on each EC2 instance and allow them to do the encryption/decryption with your customers.

Explanation:  
The best answer would be to offload your SSL decryption to an Elastic Load Balancer.

Resources

* [SSL on Classic Load Balancers](https://docs.aws.amazon.com/elasticloadbalancing/latest/classic/introduction.html#classic-load-balancer-overview)
* [SSL on Application Load Balancers](https://aws.amazon.com/blogs/aws/new-application-load-balancer-sni/)

Stats

* You spent **00:01** on this question

Question 45

Which types of server-side encryption are available for S3??

* ✓Server Side Encryption Using S3 (SSE-S3)
* ✓Server Side Encryption Using KMS (SSE-KMS)Selected
* Client Side Encryption Using Amazon Provided Keys (CSE-AWS)Selected
* ✓Server Side Encryption with Customer-Provided Keys (SSE-C)Selected

Explanation:  
You can choose to encrypt data using SSE-S3, SSE-C, SSE-KMS, or a client library such as the Amazon S3 Encryption Client. All four enable you to store sensitive data encrypted at rest in Amazon S3.

Resources

* [Protecting Data Using Encryption](https://docs.aws.amazon.com/AmazonS3/latest/dev/UsingEncryption.html)

Stats

* You spent **00:04** on this question

Question 47

You are trying to establish a VPC peering connection with another VPC, and you discover that there seem to be a lot of limitations and rules when it comes to VPC peering. Which of the following is not a VPC peering limitation or rule?

* ✓You cannot create a VPC peering connection between VPCs in different regions.
* You cannot have more than one VPC peering connection between the same VPCs at the same time.Selected
* You cannot create a VPC peering connection between VPCs with matching or overlapping CIDR blocks.Selected
* ✓A cluster placement group cannot span peered VPCs.

Explanation:  
Cluster Placement Groups can span VPCs, but not AZs. In Jan 2018 AWS introduced inter-Region VPC Peering.

Resources

* [Invalid VPC Peering Connection Configurations](https://docs.aws.amazon.com/AmazonVPC/latest/PeeringGuide/invalid-peering-configurations.html)
* [Placement Groups & VPC Peering](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html)
* [VPC Peering Basics](https://docs.aws.amazon.com/vpc/latest/peering/vpc-peering-basics.html)

Stats

* You spent **00:02** on this question

Question 48

You want to enable EC2 instances in your AWS environment to download software updates over HTTP (Port 80) from the internet. What Security Group settings will enable this?

* ✓Outbound: Allow HTTP (Port 80) to 0.0.0.0/0
* Inbound: Allow HTTP (Port 80) from 0.0.0.0/0 Outbound: HTTP (Port 80) to IP address of Software Repo
* Inbound: Allow ALL Ports from 0.0.0.0/0, Outbound: Allow HTTP (Port 80) to 0.0.0.0/0Selected
* Inbound: Allow HTTP (Port 80) from 0.0.0.0/0
* Inbound: Allow HTTP (Port 80) from 0.0.0.0/0 Outbound: HTTP (Port 80) to 0.0.0.0/0

Explanation:  
Security Groups are stateful, so you only need to define the Outbound rule in the Security Group for this example as the EC2 instance is initiating the connection. Answers with inbound rules are incorrect, which leaves the answer with the Outbound rule allowing HTTP to 0.0.0.0/0. Once the EC2 instance has established valid HTTP connection with an Internet service, the target systems response is allowed.

Resources

* [Security Groups for Your VPC](https://docs.aws.amazon.com/vpc/latest/userguide/VPC_SecurityGroups.html)

Stats

* You spent **00:01** on this question

Question 52

You work for a security company that stores highly sensitive documents on S3. One of your customers has had a security breach and, as a precaution, they have asked you to remove a sensitive PDF from their S3 bucket. You log in to the AWS console using your account and attempt to delete the object. You notice that versioning is turned on, and when you dig a little deeper you discover that you cannot delete the object. What may be the cause of this?

* ✓You cannot delete the object because you are not the bucket owner.
* You must be logged in as a Super User to delete objects.Selected
* S3 server-side encryption is preventing you from doing this.
* You can never permanently delete an object on S3 after versioning is enabled.

Explanation:  
Only the owner of an Amazon S3 bucket can permanently delete a version.

Resources

* [Deleting and Emptying S3 Buckets](https://docs.aws.amazon.com/AmazonS3/latest/dev/delete-or-empty-bucket.html)

Stats

* You spent **00:01** on this question

Question 56

You work in the security industry for a large consultancy. One of your customers runs a production environment in AWS, and they require a log of all API calls made to their Elastic Load Balancer. How can you achieve this?

* Enable Cloud Audit on the ELB when first creating the instance.
* ✓Enable Cloud Trail on the ELB.
* Enable Detailed Monitoring on the ELB when first creating the instance.Selected
* Enable CloudWatch on the ELB.

Explanation:  
Enabling CloudTrail on the ELB will allow you to log all API calls.

Resources

* [Logging API Calls Using AWS CloudTrail](https://docs.aws.amazon.com/AWSEC2/latest/APIReference/using-cloudtrail.html)

Stats

* You spent **00:01** on this question

Question 59

To enable your Lambda function to access resources inside your private VPC, you must provide additional VPC-specific configuration information. Select all correct statements about that.

* ✓When you add VPC configuration to a Lambda function, it can only access resources in that VPC. However, you can specify multiple VPC using the VpcConfig parameter. Simply comma separate the VPC subnet and security group IDs
* If your Lambda function needs to access both VPC resources and the public Internet, the VPC needs to have a NAT instance inside your VPC, you can use the Amazon VPC NAT gateway or you can use an Internet gateway attached to your VPC.Selected
* AWS Lambda does also support connecting to resources within Dedicated Tenancy VPCs.
* ✓AWS Lambda uses the provided VPC-specific configuration information to set up elastic network interfaces. Therefore, your Lambda function execution role must have permissions to create, describe and delete these.

Explanation:  
AWS Lambda does not support connecting to resources within Dedicated Tenancy VPCs. If your Lambda function requires Internet access, you cannot use an Internet gateway attached to your VPC since that requires the ENI to have public IP addresses.

Resources

* [Configuring a Lambda Function to Access Resources in an Amazon VPC](https://docs.aws.amazon.com/lambda/latest/dg/vpc.html)

Stats

* You spent **00:01** on this question

Question 8

You need to restore an object from Glacier class in S3. Which of the following will help you do that?

* Using the Glacier API
* Using the S3 sub-command from the AWS CLI
* ✓Using the S3 REST APISelected
* ✓Using the AWS S3 ConsoleSelected

Explanation:  
When discussing GLACIER it is important to distinguish between the storage-class 'Glacier' use by S3, and the 'S3-Glacier' service. When using Glacier Tier in S3, objects moved into Glacier storage are still managed by S3. Meaning S3 management interfaces, such as the API and Console, need to be used to interact with the objects in question. However, when using the S3-Glacier service, objects placed in the Glacier storage are managed via the S3-Glacier service, meaning it's management interfaces need to be used

Resources

* [Restoring objects from Glacier class in S3](https://docs.aws.amazon.com/AmazonS3/latest/dev/restoring-objects.html)
* [Restoring S3 Archived objects](https://docs.aws.amazon.com/AmazonS3/latest/user-guide/restore-archived-objects.html)
* [Restoring S3 Archived objects with CLI (s3api not s3)](https://aws.amazon.com/premiumsupport/knowledge-center/restore-s3-object-glacier-storage-class/)

Stats

* You spent **00:03** on this question

Question 20

You are a managed services company who hosts websites on AWS for a number of different customers. The websites are on a fleet of EC2 instances and many websites share the same EC2 instance. You need to enable SSL for these websites but want to minimize costs. You decide to use an application load balancer. How can you enable SSL using your ALB?

* Create an ALB for each website requiring SSL. Load each SSL certificate on to each ALB.
* Create a single ALB for the EC2 fleet. Use an SSL Wild Card certificate to enable SSL termination on the ALB.
* ✓Create a single ALB for the EC2 fleet. Use Server Name Indication (SNI) with the ALB.Selected
* Create an ALB for each website requiring SSL. Use Server Name Indication (SNI) with each website requiring SSL.

Explanation:  
The ability to terminate multiple different SSL certs on a single ELB is a big improvement over the previous requirement to terminate on the web server, or have multiple ELBs

Resources

* [ALB now supports Server Name Indication (SNI)](https://aws.amazon.com/about-aws/whats-new/2017/10/elastic-load-balancing-application-load-balancers-now-support-multiple-ssl-certificates-and-smart-certificate-selection-using-server-name-indication-sni/)

Stats

* You spent **00:01** on this question

Question 23

From the command line, which of the following should you run to get the public hostname of an EC2 instance?

* curl http://254.169.254.169/latest/user-data/public-hostname
* curl http://169.254.169.254/latest/user-data/public-hostname
* ✓curl http://169.254.169.254/latest/meta-data/public-hostnameSelected
* curl http://254.169.254.169/latest/meta-data/public-hostname

Explanation:  
You would use the command: curl http://169.254.169.254/latest/meta-data/public-hostname

Resources

* [Instance Metadata and User Data](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-metadata.html)

Stats

* You spent **00:02** on this question

Question 46

Which of the following services allows you to access the service's underlying operating system?

* DynamoDB
* ✓Elastic BeanstalkSelected
* ✓EMRSelected
* RDS

Explanation:  
Access to the underlying operating system is granted for Elastic Map Reduce and Elastic Beanstalk. The others are managed services.

Resources

* [About Elastic Beanstalk](https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/Welcome.html)
* [About EMR](https://docs.aws.amazon.com/emr/latest/ManagementGuide/emr-what-is-emr.html)

Stats

* You spent **00:01** on this question

Question 60

Your company currently has a Test Account with 2 VPCs. VPC 1 has a CIDR Block of 10.0.0.0/16 and is running some EC2 instances in a subnet with the range 10.0.1.0/24. VPC 2 has a CIDR Block of 10.0.0.0/16, and has some RDS databases on subnet 10.0.2.0/24. You have been asked to connect EC2 instances in VPC1. What is your response?

* This can be achieved by setting up VPC peering between the VPC1 subnet 10.0.1.0/24 and VPC2 subnet 10.0.2.0/24, and updating the route tables for the specific subnets.
* This can be done since the EC2 and RDS DB instances reside within the same account we just need to update the route tables.
* ✓This cannot be done since both VPCs have the same CIDR allocated. VPC peering is not possible when VPCs have overlapping CIDR ranges.Selected
* This can be achieved by setting up VPC peering between VPC1 and VPC2, and updating the route tables for each VPC to enable connectivity.

Explanation:  
You cannot peer two VPCs if they have overlapping CIDR ranges assigned. Although the subnets that contain the EC2 and RDS instances do not have overlapping CIDR ranges, the two VPCs have identical CIDR and therefore you cannot achieve connectivity through Peering. You would need to create another VPC with a different CIDR such as 10.1.0.0/16 to enable peering.

Resources

* [Unsupported VPC Peering Configurations](https://docs.aws.amazon.com/vpc/latest/peering/invalid-peering-configurations.html)

Stats

* You spent **00:01** on this question

Question 13

You have a small database workload with infrequent I/O. Which storage medium would the most cost-effective way to meet these requirements?

* Amazon RDS Provisioned IOPS (SSD) Storage
* ✓Amazon RDS Magnetic Storage
* Amazon RDS General Purpose (SSD) StorageSelected
* Amazon RDS Cold Storage

Explanation:  
The question is specific that you are evaluating for RDS. Cold Storage is not a valid option for RDS. of the three valid types for RDS, Magnetic is still the cheapest

Resources

* [RDS Storage Types](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_Storage.html)
* [RDS pricing](https://aws.amazon.com/rds/pricing/)
* [AWS pricing calculator](http://calculator.s3.amazonaws.com/index.html#s=RDS)

Stats

* You spent **00:01** on this question

Question 18

You are currently designing a log processing application that requires an EBS volume that can support throughput-intensive workloads of up to 500 MB/s while keeping costs relatively low. Which of the following EBS volume types is the best choice?

* Cold HDD
* General Purpose SSD
* Provisioned IOPS SSDSelected
* ✓Throughput Optimized HDD

Explanation:  
A Throughput Optimized HDD is the correct answer because it is designed for throughput-intensive workloads, such as: log processing, big data, MapReduce, Kafka, data warehouse and ETL; which have large data sets and I/O sizes and support up to 500 MB/s. Although both the General Purpose SSD and the Provisioned IOPS SSD could easily meet the required IOPS, they are more costly options. Cold HDD is a low-cost solution, it is more suitable for less frequently accessed workloads.

Resources

* [Amazon EBS Features](https://aws.amazon.com/ebs/features/)

Stats

* You spent **00:01** on this question

Question 24

You are working on a research project for a healthcare insurer and your first task is to ingest 6 months of trial data collected by about 30 participating physicians around the country. Each data set is about 15 GB in size and contains protected health information. You are proposing to use S3 Transfer Acceleration for the data upload to an S3 bucket but a colleague raises some concerns about that. Which of the following statements are valid?

* Because S3 Transfer Acceleration is not a HIPAA eligible service, you can't use it to transfer protected health information between the physicians and your Amazon S3 bucket.
* Most physicians have only about 40 to 50Mbps of available bandwidth. S3 Transfer Acceleration is therefore not a good option.Selected
* ✓The name of your bucket used for Transfer Acceleration must be DNS-compliant and must not contain periods ('.').
* It will take a long time because S3 Transfer Acceleration does not support all bucket level features including multipart uploads.

Explanation:  
S3 TA supports all bucket level features including multipart uploads. AWS has expanded its HIPAA compliance program to include Amazon S3 Transfer Acceleration as a HIPAA eligible service. In general; if there are recurring transfer jobs, and there is more than 25Mbps of available bandwidth, and it will not take more than a week to transfer over the Internet, S3 Transfer Acceleration is an acceptable option.

Resources

* [Amazon S3 Transfer Acceleration FAQ](https://aws.amazon.com/s3/faqs/#s3ta)
* [Amazon S3 Transfer Acceleration](https://docs.aws.amazon.com/AmazonS3/latest/dev/transfer-acceleration.html)

Stats

* You spent **00:02** on this question

Question 32

Your employer, a publishing company, wants the images of its various websites to be resized so that they can be optimally viewed on any electronic device. Which of the following AWS services will be most suitable for this type of processing?

* Amazon S3
* AWS CloudTrail
* Amazon RDSSelected
* ✓AWS Lambda

Explanation:  
Although Amazon S3 is used to store the image files, it is an AWS Lambda function that would be used to resize them for optimal viewing on any device, such as a desktop computer, tablet, or smartphone. CloudTrail is used for captured AWS API calls and RDS is a Database service, so neither would be suitable for this application.

Resources

* [Tutorial - Using AWS Lambda with Amazon S3](https://docs.aws.amazon.com/lambda/latest/dg/with-s3-example.html)

Stats

* You spent **00:01** on this question

Question 34

You work as a Cloud Engineer for a healthcare company that would like to archive patients’ records after 30 days. In addition, the company wants the records to be accessible from the archive within 12 hours. Which of the following storage services will fulfill this company’s requirements?

* ✓S3 Glacier
* Amazon Simple Storage Service (S3)
* Amazon Elastic File Service (EFS)Selected
* AWS Storage Gateway

Explanation:  
Although Response B would have been the correct answer, this question demands the answer to be more specific. S3 Glacier is the S3 storage class that you need to archive the records. Storage Gateway is for connecting an on-premises software appliance with cloud-based storage to the company’s AWS storage infrastructure, which can include S3. And Amazon EFS is ideal for providing simple, scalable file storage – not data archival.

Resources

* [Amazon S3 Storage Classes](https://aws.amazon.com/s3/storage-classes/)

Stats

* You spent **00:01** on this question

Question 36

You are developing a video conferencing service that translates spoken language to sign language in near real time using AWS Lambda. One of your functions does the heavy video/audio lifting by using common utilities including FFmpeg, Sound eXchange (SoX) and ImageMagick - each provided as a separate layer. Your function is also connected to nltk, the Python Natural Language Toolkit library and your own custom archive with some shared code - both provided as additional layers. You encounter a problem after you've updated your function's configuration to change to the latest version of your code. What are possible reasons for that and how can you resolve that issue?

* ✓You have gone over the 250MB unzipped deployment package size limit. Remove some unused libraries from your own archive.
* You reached the 50MB zipped deployment package size limit for direct uploads. Refactor your function and move some code into a new layer.Selected
* ✓Layers are extracted to the /opt directory in the function execution environment and applied in the order that's specified, merging any folders with the same name. If the same file appears in multiple layers, the version in the last applied layer is used. Rename the conflicting file in your archive.Selected
* ✓When you added the last layer to your function, the previous list was overwritten by the new one. Include all layers every time you update the layer configuration.Selected

Explanation:  
You can specify up to 5 layers in your function's configuration, during or after function creation.

Resources

* [AWS Lambda Layers](https://docs.aws.amazon.com/lambda/latest/dg/configuration-layers.html)

Stats

* You spent **00:02** on this question

Question 43

You are auditing your RDS estate and you discover an RDS production database that is not encrypted at rest. This violates company policy and you need to rectify this immediately. What should you do to encrypt the database as quickly and as easy as possible.

* Take a snapshot of your unencrypted DB Instance and then restore it making sure you select to encrypt the new instance.
* ✓Create a new DB Instance with encryption enabled and then manually migrate your data into it.
* Use the RDS Import/Export Wizard to migrate the unencrypted RDS instance across to a new encrypted database.Selected
* Use AWS Database Migration Service

Explanation:  
At the present time, encrypting an existing DB Instance is not supported. To use Amazon RDS encryption for an existing database, create a new DB Instance with encryption enabled and migrate your data into it. Alternately you can encrypt a copy of a Snapshot and restore the encrypted copy. However you cannot encrypt as you are restoring from a snapshot. A key point is that an outage will be required either way.

Resources

* [Encrypting RDS Resources](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Overview.Encryption.html)
* [Encrypting RDS Resources - Limitations](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Overview.Encryption.html#Overview.Encryption.Limitations)

Stats

* You spent **00:02** on this question

Question 49

You have an RDS database that has high performance OLTP workloads. Which storage medium would be best to accommodate these requirements?

* Amazon RDS Magnetic Storage
* Amazon RDS Cold Storage
* Amazon RDS General Purpose (SSD) StorageSelected
* ✓Amazon RDS Provisioned IOPS (SSD) Storage

Explanation:  
Amazon RDS Provisioned IOPS (SSD) Storage would be the most suitable.

Resources

* [RDS Provisioned IOPS for OLTP Workloads](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_Storage.html#USER_PIOPS)

Stats

* You spent **00:01** on this question

Question 55

You have a requirement to host a database on an EC2 instance and the EBS volume should be able to support 17,000 IOPS. Which Amazon EBS volume type meets the requirements for this database?

* EBS Throughput Optimized HDD
* EBS Cold HDD
* EBS General Purpose SSDSelected
* EBS General Purpose SSD volumes in a RAID-0 configuration
* ✓EBS Provisioned IOPS SSD

Explanation:  
Provisioned IOPS SSD drives should be used when IOPS of over 16,000 IOPS is required. RAID should be avoided except in special conditions.

Resources

* [Amazon EBS Volume Types](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSVolumeTypes.html)

Stats

* You spent **00:01** on this question

Question 64

EC2 includes instances like i3.xlarge, which are designed to provide high sequential read and write access to very large data sets on local storage. Which of the following EC2 instance types does i3.xlarge fall under?

* ✓Storage Optimized
* Compute Optimized
* General PurposeSelected
* Memory Optimized
* Accelerated Computing

Explanation:  
An EC2 instance like i3.xlarge delivers high sequential read and write access, a characteristic that is ideal for large data sets. Data is stored in the instance’s solid-state drive, a type of storage renowned for quick access time and low latency. As a result, i3.xlarge is classified as a storage optimized instance.

Resources

* [Amazon EC2 Instance Types](https://aws.amazon.com/ec2/instance-types/)

Stats

* You spent **00:02** on this question

Question 65

You are auditing your company's RDS estate, and you discover a database that is in a single Availability Zone which is a violation of company policy. You decide to convert this to a multi-AZ deployment. Which of the following things will happen?

* ✓A snapshot of your primary instance is taken
* ✓Synchronous replication is configured between primary and standby instancesSelected
* ✓A new standby instance is created in a different Availability Zone, from the snapshotSelected
* Asynchronous replication is configured between primary and standby instancesSelected

Explanation:  
For the RDS MySQL, MariaDB, PostgreSQL and Oracle database engines, when you elect to convert your RDS instance from Single-AZ to Multi-AZ, the following happens: A snapshot of your primary instance is taken, A new standby instance is created in a different Availability Zone, from the snapshot, synchronous replication is configured between primary and standby instances.

Resources

* [Modifying a DB Instance to be a Multi-AZ Deployment](https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Concepts.MultiAZ.html#Concepts.MultiAZ.Migrating)

Stats

* You spent **00:03** on this question

Question 12

You have been tasked with implementing a globally accessible storage solution that will scale from a few terabytes (now) to an unknown, but significantly greater, volume of data in three years time. Which AWS service would best meet your current and projected storage needs?

* DynamoDB
* RDS
* ✓S3Selected
* EC2 with EBS

Explanation:  
Amazon S3 is highly scalable, secure storage for 'flat' files. S3 will scale to any projected volume of data. In this case, it's your best bet.

Resources

* [Benefits of Object Storage](https://aws.amazon.com/what-is-cloud-object-storage/#benefits)

Stats

* You spent **00:01** on this question

Question 19

As a Cloud Engineer, you have been tasked to create many EC2 instances in three availability zones to deploy software that indexes web content. This software program does so with integrated crawlers to significantly improve search performance. Your Team Lead has strongly recommended choosing an EC2 instance type that provides low latency, incredibly high random I/O performance, and high sequential read throughput. Which of the following instance types is best suited for this application?

* c5.large
* ✓i3.2xlargeSelected
* t2.micro
* t3.medium
* p3.2xlarge

Explanation:  
IOPS, latency, and throughput are essential metrics for measuring storage performance. Therefore a storage-optimized EC2 instance is what you would need. The i3.2xlarge type is storage-optimized, with the root volume configured to 1 TB.

Resources

* [EC2 Instance Types](https://aws.amazon.com/ec2/instance-types/)

Stats

* You spent **00:01** on this question

Question 29

In the event that you need customers to send you files to go into S3, but want to minimize the time take to upload them. Which options will help you?

* use CloudFormation to create Direct Connect connection with a large dedicated bandwidth pipe.
* Make use of Lambda@Edge to intercept the uploads and redirect them via S3 Transfer Acceleration.
* ✓Make use of S3 Transfer Acceleration.Selected
* Create an S3 bucket in each region and use cross region replication to collate all the objects.

Explanation:  
It is possible to expedite uploads from the Internet to S3 by writing directly to an Edge Location.

Resources

* [S3 Transfer Acceleration via Edge Locations](https://docs.aws.amazon.com/AmazonS3/latest/dev/transfer-acceleration.html)

Stats

* You spent **00:01** on this question

Question 40

You need to develop an infrastructure that can be replicated and deployed in another AWS Region in a matter of minutes. Which AWS service might you use to build a reproducible, version-controlled infrastructure?

* CloudWatch Template
* EC2 AMIs with EBS snapshots
* ✓CloudFormationSelected
* Elastic Beanstalk

Explanation:  
AWS CloudFormation gives developers and systems administrators an easy way to create and manage a collection of related AWS resources, provisioning and updating them in an orderly and predictable fashion.

Resources

* [About CloudFormation](https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/Welcome.html)

Stats

* You spent **00:01** on this question

Question 51

You need a network interface to connect your Amazon Elastic Compute Cloud (EC2) instances to file systems created with the Amazon Elastic File System (EFS) service. What is the name of this interface?

* Customer gateway
* Endpoint
* ✓Mount targetSelected
* Internet gateway

Explanation:  
The network interface needed to be created for mounting an EFS file system on an EC2 instance is called a mount target. After the system is mounted, you can work with the files and directories it contains. An Internet gateway is for enabling communication between instances in your VPC and the Internet; it is not for connecting EC2 instances to EFS file systems. Customer gateways are for providing information to AWS about your Customer Gateway Device, which is a software application or physical device on your side of a Site-to-Site VPN connection. An endpoint is the URL of the entry point for the EC2 service, rather than the connection to file systems.

Resources

* [Creating Mount Targets](https://docs.aws.amazon.com/efs/latest/ug/accessing-fs.html#create-mount-target-console)

Stats

* You spent **00:01** on this question

Question 53

You are attempting to move data from one EBS volume to a duplicate volume in a separate region. Which of the following methods will do this best?

* Allow a VPC peering connection to pull the data over.
* Use a Linux tool like rsync to sync the volume to the other region.
* ✓Take a snapshot of the EBS volume and copy it to the desired region.Selected
* Move the data to S3 and enable cross-region replication.

Explanation:  
After you've created a snapshot and it has finished copying to Amazon S3, you can copy it from one AWS region to another, or within the same region.

Resources

* [Copying an EBS Snapshot](https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-copy-snapshot.html)

Stats

* You spent **00:01** on this question

Question 54

A financial market dashboard needs to update asset values almost instantaneously for customers across the United States. Updates will be written to the primary application instance which resides in the AWS us-east-1 region. Which database architecture will provide the best performance for consumers of the dashboard's information?

* Implement Amazon Aurora MySQL with Aurora Replicas using cross-region physical replication. Create the replicas in the AWS us-east-2 and us-west-2 regions.
* Deploy Amazon Aurora PostgreSQL with Aurora Replicas using cross-region logical replication. Create the replicas in the AWS us-east-2 and us-west-1 regions.
* ✓Deploy Amazon Aurora MySQL with Aurora Replicas using cross-region logical replication. Create the replicas in the AWS us-east-2 and us-west-2 regions.Selected
* Use Amazon RDS PostgreSQL with read replicas. Create the replicas in the AWS us-east-1, us-east-2, and us-west-2 regions.

Explanation:  
With Aurora MySQL you can configure cross-region Aurora Replicas using logical replication to up to five secondary AWS regions. Aurora PostgreSQL currently does not support cross-region replicas. Aurora Replica physical replication can only replicate to one secondary region. Using Aurora over RDS provides multiple read replicas in the deployment region and other benefits automatically without having to configure them.

Resources

* [Amazon Aurora](https://aws.amazon.com/rds/aurora/?nc=sn&loc=0)
* [Amazon Aurora FAQs - High Availability and Replication](https://aws.amazon.com/rds/aurora/faqs/?nc=sn&loc=6)

Stats

* You spent **00:01** on this question