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QUESTION 1
A company has a website hosted on AWS The website is behind an Application Load Balancer (ALB) that is configured to handle HTTP and HTTPS separately. The company wants to forward all requests to the website so that the requests will use HTTPS.
What should a solutions architect do to meet this requirement?

A. Update the ALB's network ACL to accept only HTTPS traffic
B. Create a rule that replaces the HTTP in the URL with HTTPS.
C. Create a listener rule on the ALB to redirect HTTP traffic to HTTPS.
D. Replace the ALB with a Network Load Balancer configured to use Server Name Indication (SNI).

Answer:
Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/elb-redirect-http-to-https-using-alb/

QUESTION 2
A company is developing a two-tier web application on AWS. The company's developers have deployed the application on an Amazon EC2 instance that connects directly to a backend Amazon RDS database. The company must not hardcode database credentials in the application. The company must also implement a solution to automatically rotate the database credentials on a regular basis.

Which solution will meet these requirements with the LEAST operational overhead?

A. Store the database credentials in the instance metadata.
Use Amazon EventBridge (Amazon CloudWatch Events) rules to run a scheduled AWS Lambda function that updates the RDS credentials and instance metadata at the same time.
B. Store the database credentials in a configuration file in an encrypted Amazon S3 bucket.
Use Amazon EventBridge (Amazon CloudWatch Events) rules to run a scheduled AWS Lambda function that updates the RDS credentials and the credentials in the configuration file at the same time.
Use S3 Versioning to ensure the ability to fall back to previous values.
C. Store the database credentials as a secret in AWS Secrets Manager.
Turn on automatic rotation for the secret.
Attach the required permission to the EC2 role to grant access to the secret.
D. Store the database credentials as encrypted parameters in AWS Systems Manager Parameter Store.
Turn on automatic rotation for the encrypted parameters.
Attach the required permission to the EC2 role to grant access to the encrypted parameters.

Answer:

QUESTION 3
A company is deploying a new public web application to AWS. The application will run behind an Application Load Balancer (ALB).
The application needs to be encrypted at the edge with an SSL/TLS certificate that is issued by an external certificate authority (CA).
The certificate must be rotated each year before the certificate expires.

What should a solutions architect do to meet these requirements?

A. Use AWS Certificate Manager (ACM) to issue an SSL/TLS certificate.
Apply the certificate to the ALB.
Use the managed renewal feature to automatically rotate the certificate.
B. Use AWS Certificate Manager (ACM) to issue an SSL/TLS certificate.
Import the key material from the certificate. Apply the certificate to the ALB.
Use the managed renewal feature to automatically rotate the certificate.
C. Use AWS Certificate Manager (ACM) Private Certificate Authority to issue an SSL/TLS certificate from the root CA.
Apply the certificate to the ALB.
Use the managed renewal feature to automatically rotate the certificate.
D. Use AWS Certificate Manager (ACM) to import an SSL/TLS certificate.
Apply the certificate to the ALB.
Use Amazon EventBridge (Amazon CloudWatch Events) to send a notification when the certificate is nearing expiration.
Rotate the certificate manually.

Answer:

QUESTION 4
A company runs its Infrastructure on AWS and has a registered base of 700.000 users for res document management application. The company intends to create a product that converts large pdf files to jpg Imago files. The .pdf files average 5 MB in size. The company needs to store the original files and the converted files. A solutions architect must design a scalable solution to accommodate demand that will grow rapidly over lime.
Which solution meets these requirements MOST cost-effectively?

A. Save the pdf files to Amazon S3.
Configure an S3 PUT event to invoke an AWS Lambda function to convert the files to jpg format and store them back in Amazon S3.
B. Save the pdf files to Amazon DynamoDB.
Use the DynamoDB Streams feature to invoke an AWS Lambda function to convert the files to jpg format and store them hack in DynamoDB.
C. Upload the pdf files to an AWS Elastic Beanstalk application that includes Amazon EC2 instances.
Amazon Elastic Block Store (Amazon EBS) storage and an Auto Scaling group.
Use a program In the EC2 instances to convert the files to jpg format Save the .pdf files and the .jpg files In the EBS store.
D. Upload the .pdf files to an AWS Elastic Beanstalk application that includes Amazon EC2 instances, Amazon Elastic File System (Amazon EPS) storage, and an Auto Scaling group.
Use a program in the EC2 instances to convert the file to jpg format Save the pdf files and the jpg files in the EBS store.

Answer:

QUESTION 5
A company has more than 5 TB of file data on Windows file servers that run on premises Users and applications interact with the data each day
The company is moving its Windows workloads to AWS. As the company continues this process, the company requires access to AWS and on-premises file storage with minimum latency. The company needs a solution that minimizes operational overhead and requires no significant changes to the existing file access patterns. The company uses an AWS Site-to-Site VPN connection for connectivity to AWS.
What should a solutions architect do to meet these requirements?

A. Deploy and configure Amazon FSx for Windows File Server on AWS.
Move the on-premises file data to FSx for Windows File Server.
Reconfigure the workloads to use FSx for Windows File Server on AWS.
B. Deploy and configure an Amazon S3 File Gateway on premises.
Move the on-premises file data to the S3 File Gateway.
Reconfigure the on-premises workloads and the cloud workloads to use the S3 File Gateway
C. Deploy and configure an Amazon S3 File Gateway on premises.
Move the on-premises file data to Amazon S3.
Reconfigure the workloads to use either Amazon S3 directly or the S3 File Gateway, depending on each workload's location.
D. Deploy and configure Amazon FSx for Windows File Server on AWS.
Deploy and configure an Amazon FSx File Gateway on premises.
Move the on-premises file data to the FSx File Gateway.
Configure the cloud workloads to use FSx for Windows File Server on AWS.
Configure the on-premises workloads to use the FSx File Gateway.

Answer:

QUESTION 6
A hospital recently deployed a RESTful API with Amazon API Gateway and AWS Lambda. The hospital uses API Gateway and Lambda to upload reports that are in PDF format and JPEG format. The hospital needs to modify the Lambda code to identify protected health information (PHI) in the reports. Which solution will meet these requirements with the LEAST operational overhead?

A. Use existing Python libraries to extract the text from the reports and to identify the PHI from the extracted text.
B. Use Amazon Textract to extract the text from the reports.
Use Amazon SageMaker to identify the PHI from the extracted text.
C. Use Amazon Textract to extract the text from the reports.
Use Amazon Comprehend Medical to identify the PHI from the extracted text.
D. Use Amazon Rekognition to extract the text from the reports.
Use Amazon Comprehend Medical to identify the PHI from the extracted text.

Answer:

QUESTION 7
A company has an application that generates a large number of files, each approximately 5 MB in size. The files are stored in Amazon S3. Company policy requires the files to be stored for 4 years before they can be deleted Immediate accessibility is always required as the files contain critical business data that is not easy to reproduce. The files are frequently accessed in the first 30 days of the object creation but are rarely accessed after the first 30 days

Which storage solution is MOST cost-effective?

A. Create an S3 bucket lifecycle policy to move Mm from S3 Standard to S3 Glacier 30 days from object creation.
Delete the Tiles 4 years after object creation
B. Create an S3 bucket lifecycle policy to move tiles from S3 Standard to S3 One Zone-infrequent Access (S3 One Zone-IA) 30 days from object creation.
Delete the fees 4 years after object creation

C. Create an S3 bucket lifecycle policy to move files from S3 Standard-infrequent Access (S3 Standard -IA) 30 from object creation.
Delete the ties 4 years after object creation
D. Create an S3 bucket Lifecycle policy to move files from S3 Standard to S3 Standard-Infrequent Access (S3 Standard-IA) 30 days from object creation.
Move the files to S3 Glacier 4 years after object carton.

Answer:

QUESTION 8
A company hosts an application on multiple Amazon EC2 instances. The application processes messages from an Amazon SQS queue writes to an Amazon RDS table and deletes the message from the queue Occasional duplicate records are found in the RDS table. The SQS queue does not contain any duplicate messages.

What should a solutions architect do to ensure messages are being processed once only?

A. Use the CreateQueue API call to create a new queue
B. Use the Add Permission API call to add appropriate permissions
C. Use the ReceiveMessage API call to set an appropriate wail time
D. Use the ChangeMessageVisibility APi call to increase the visibility timeout

Answer:
Explanation:
The visibility timeout begins when Amazon SQS returns a message. During this time, the consumer processes and deletes the message. However, if the consumer fails before deleting the message and your system doesn't call the DeleteMessage action for that message before the visibility timeout expires, the message becomes visible to other consumers and the message is received again. If a message must be received only once, your consumer should delete it within the duration of the visibility timeout.
https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/sqs-visibility-timeout.html

Keyword: SQS queue writes to an Amazon RDS From this, Option D best suite & other Options ruled out [Option A -You can't intruduce one more Queue in the existing one; Option B - only Permission & Option C -Only Retrieves Messages] FIF O queues are designed to never introduce duplicate messages. However, your message producer might introduce duplicates in certain scenarios: for example, if the producer sends a message, does not receive a response, and then resends the same message. Amazon SQS APIs provide deduplication functionality that prevents your message producer from sending duplicates. Any duplicates introduced by the message producer are removed within a 5-minute deduplication interval. For standard queues, you might occasionally receive a duplicate copy of a message (at-least-once delivery). If you use a standard queue, you must design your applications to be idempotent (that is, they must not be affected adversely when processing the same message more than once).

QUESTION 9
A solutions architect is designing a new hybrid architecture to extend a company s on-premises infrastructure to AWS. The company requires a highly available connection with consistent low latency to an AWS Region. The company needs to minimize costs and is willing to accept slower traffic if the primary connection fails.
What should the solutions architect do to meet these requirements?

A. Provision an AWS Direct Connect connection to a Region.

Provision a VPN connection as a backup if the primary Direct Connect connection fails.

B. Provision a VPN tunnel connection to a Region for private connectivity.
Provision a second VPN tunnel for private connectivity and as a backup if the primary VPN connection fails.

C. Provision an AWS Direct Connect connection to a Region.
Provision a second Direct Connect connection to the same Region as a backup if the primary Direct Connect connection fails.

D. Provision an AWS Direct Connect connection to a Region.
Use the Direct Connect failover attribute from the AWS CLI to automatically create a backup connection if the primary Direct Connect connection fails.

Answer:
Explanation:
"In some cases, this connection alone is not enough. It is always better to guarantee a fallback connection as the backup of DX. There are several options, but implementing it with an AWS Site-To-Site VPN is a real cost-effective solution that can be exploited to reduce costs or, in the meantime, wait for the setup of a second DX."
https://www.proud2becloud.com/hybrid-cloud-networking-backup-aws-direct-connect-network-connection-with-aws-site-to-site-vpn/

QUESTION 10
A company is running a business-critical web application on Amazon EC2 instances behind an Application Load Balancer. The EC2 instances are in an Auto Scaling group. The application uses an Amazon Aurora PostgreSQL database that is deployed in a single Availability Zone. The company wants the application to be highly available with minimum downtime and minimum loss of data.

Which solution will meet these requirements with the LEAST operational effort?

A. Place the EC2 instances in different AWS Regions.
Use Amazon Route 53 health checks to redirect traffic.
Use Aurora PostgreSQL Cross-Region Replication.

B. Configure the Auto Scaling group to use multiple Availability Zones.
Configure the database as
Multi-AZ. Configure an Amazon RDS Proxy instance for the database.

C. Configure the Auto Scaling group to use one Availability Zone.
Generate hourly snapshots of the database.
Recover the database from the snapshots in the event of a failure.

D. Configure the Auto Scaling group to use multiple AWS Regions.
Write the data from the application to Amazon S3.
Use S3 Event Notifications to launch an AWS Lambda function to write the data to the database.

Answer:

QUESTION 11
A company's HTTP application is behind a Network Load Balancer (NLB). The NLB's target group is configured to use an Amazon EC2 Auto Scaling group with multiple EC2 instances that run the web service.

The company notices that the NLB is not detecting HTTP errors for the application. These errors require a manual restart of the EC2 instances that run the web service. The company needs to improve the application's availability without writing custom scripts or code.

What should a solutions architect do to meet these requirements?

A. Enable HTTP health checks on the NLB. supplying the URL of the company's application.
B. Add a cron job to the EC2 instances to check the local application's logs once each minute. If HTTP errors are detected, the application will restart.
C. Replace the NLB with an Application Load Balancer.
Enable HTTP health checks by supplying the URL of the company's application.
Configure an Auto Scaling action to replace unhealthy instances.
D. Create an Amazon Cloud Watch alarm that monitors the UnhealthyHostCount metric for the NLB.
Configure an Auto Scaling action to replace unhealthy instances when the alarm is in the ALARM state.

Answer:

QUESTION 12
A company runs a shopping application that uses Amazon DynamoDB to store customer information. In case of data corruption, a solutions architect needs to design a solution that meets a recovery point objective (RPO) of 15 minutes and a recovery time objective (RTO) of 1 hour.

What should the solutions architect recommend to meet these requirements?

A. Configure DynamoDB global tables.
For RPO recovery, point the application to a different AWS Region.
B. Configure DynamoDB point-in-time recovery.
For RPO recovery, restore to the desired point in time.
C. Export the DynamoDB data to Amazon S3 Glacier on a daily basis.
For RPO recovery, import the data from S3 Glacier to DynamoDB.
D. Schedule Amazon Elastic Block Store (Amazon EBS) snapshots for the DynamoDB table every 15 minutes.
For RPO recovery, restore the DynamoDB table by using the EBS snapshot.

Answer:

QUESTION 13
A company runs a photo processing application that needs to frequently upload and download pictures from Amazon S3 buckets that are located in the same AWS Region. A solutions architect has noticed an increased cost in data transfer fees and needs to implement a solution to reduce these costs.

How can the solutions architect meet this requirement?

A. Deploy Amazon API Gateway into a public subnet and adjust the route table to route S3 calls through It.
B. Deploy a NAT gateway into a public subnet and attach an end point policy that allows access to the S3 buckets.
C. Deploy the application Into a public subnet and allow it to route through an internet gateway to access the S3 Buckets
D. Deploy an S3 VPC gateway endpoint into the VPC and attach an endpoint policy that allows access to the S3 buckets.

Answer:

QUESTION 14
A company recently launched Linux-based application instances on Amazon EC2 in a private subnet and launched a Linux-based bastion host on an Amazon EC2 instance in a public subnet of a VPC. A solutions architect needs to connect from the on-premises network, through the company's internet connection to the bastion host and to the application servers. The solutions architect must make sure that the security groups of all the EC2 instances will allow that access. Which combination of steps should the solutions architect take to meet these requirements? (Select TWO)

A. Replace the current security group of the bastion host with one that only allows inbound access from the application instances
B. Replace the current security group of the bastion host with one that only allows inbound access from the internal IP range for the company
C. Replace the current security group of the bastion host with one that only allows inbound access from the external IP range for the company
D. Replace the current security group of the application instances with one that allows inbound SSH access from only the private IP address of the bastion host
E. Replace the current security group of the application instances with one that allows inbound SSH access from only the public IP address of the bastion host

Answer:
Explanation:
https://digitalcloud.training/ssh-into-ec2-in-private-subnet/

QUESTION 15
A solutions architect is designing a two-tier web application. The application consists of a public-facing web tier hosted on Amazon EC2 in public subnets. The database tier consists of Microsoft SQL Server running on Amazon EC2 in a private subnet Security is a high priority for the company.
How should security groups be configured in this situation? (Select TWO)

A. Configure the security group for the web tier to allow inbound traffic on port 443 from 0.0.0.0/0.
B. Configure the security group for the web tier to allow outbound traffic on port 443 from 0.0.0.0/0.
C. Configure the security group for the database tier to allow inbound traffic on port 1433 from the security group for the web tier.
D. Configure the security group for the database tier to allow outbound traffic on ports 443 and 1433 to the security group for the web tier.
E. Configure the security group for the database tier to allow inbound traffic on ports 443 and 1433 from the security group for the web tier.

Answer: AC
Explanation:
"Security groups create an outbound rule for every inbound rule." Not completely right. Statefull does NOT mean that if you create an inbound (or outbound) rule, it will create an outbound (or inbound) rule. What it does mean is: suppose you create an inbound rule on port 443 for the X ip. When a request enters on port 443 from X ip, it will allow traffic out for that request in the port 443. However, if you look at the outbound rules, there will not be any outbound rule on port 443 unless explicitly create it. In ACLs, which are stateless, you would have to create an inbound rule to allow incoming requests and an outbound rule to allow your application responds to those incoming requests.

https://docs.aws.amazon.com/vpc/latest/userguide/VPC_SecurityGroups.html#SecurityGroupRules

QUESTION 16
A company wants to move a multi-tiered application from on premises to the AWS Cloud to improve the application's performance. The application consists of application tiers that communicate with each other by way of RESTful services. Transactions are dropped when one tier becomes overloaded. A solutions architect must design a solution that resolves these issues and modernizes the application.

Which solution meets these requirements and is the MOST operationally efficient?

A. Use Amazon API Gateway and direct transactions to the AWS Lambda functions as the application layer.
Use Amazon Simple Queue Service (Amazon SQS) as the communication layer between application services. Most Voted
B. Use Amazon CloudWatch metrics to analyze the application performance history to determine the server's peak utilization during the performance failures.
Increase the size of the application server's Amazon EC2 instances to meet the peak requirements.
C. Use Amazon Simple Notification Service (Amazon SNS) to handle the messaging between application servers running on Amazon EC2 in an Auto Scaling group.
Use Amazon CloudWatch to monitor the SNS queue length and scale up and down as required.
D. Use Amazon Simple Queue Service (Amazon SQS) to handle the messaging between application servers running on Amazon EC2 in an Auto Scaling group.
Use Amazon CloudWatch to monitor the SQS queue length and scale up when communication failures are detected.

Answer:
Explanation:
https://aws.amazon.com/getting-started/hands-on/build-serverless-web-app-lambda-apigateway-s3-dynamodb-cognito/module-4/

QUESTION 17
A company receives 10 TB of instrumentation data each day from several machines located at a single factory. The data consists of JSON files stored on a storage area network (SAN) in an on-premises data center located within the factory. The company wants to send this data to Amazon S3 where it can be accessed by several additional systems that provide critical near-real-lime analytics.
A secure transfer is important because the data is considered sensitive.
Which solution offers the MOST reliable data transfer?

A. AWS DataSync over public internet
B. AWS DataSync over AWS Direct Connect
C. AWS Database Migration Service (AWS DMS) over public internet
D. AWS Database Migration Service (AWS DMS) over AWS Direct Connect

Answer:
Explanation:
These are some of the main use cases for AWS DataSync:
- Data migration
- Move active datasets rapidly over the network into Amazon S3, Amazon EFS, or FSx for Windows File Server.

DataSync includes automatic encryption and data integrity validation to help make sure that your data arrives securely, intact, and ready to use.
DataSync includes encryption and integrity validation to help make sure your data arrives securely, intact, and ready to use.
https://aws.amazon.com/datasync/faqs/

QUESTION 18
A company needs to configure a real-time data ingestion architecture for its application. The company needs an API, a process that transforms data as the data is streamed, and a storage solution for the data.

Which solution will meet these requirements with the LEAST operational overhead?

A. Deploy an Amazon EC2 instance to host an API that sends data to an Amazon Kinesis data stream.
Create an Amazon Kinesis Data Firehose delivery stream that uses the Kinesis data stream as a data source.
Use AWS Lambda functions to transform the data.
Use the Kinesis Data Firehose delivery stream to send the data to Amazon S3.
B. Deploy an Amazon EC2 instance to host an API that sends data to AWS Glue.
Stop source/destination checking on the EC2 instance.
Use AWS Glue to transform the data and to send the data to Amazon S3.
C. Configure an Amazon API Gateway API to send data to an Amazon Kinesis data stream.
Create an Amazon Kinesis Data Firehose delivery stream that uses the Kinesis data stream as a data source.
Use AWS Lambda functions to transform the data.
Use the Kinesis Data Firehose delivery stream to send the data to Amazon S3.
D. Configure an Amazon API Gateway API to send data to AWS Glue.
Use AWS Lambda functions to transform the data.
Use AWS Glue to send the data to Amazon S3.

Answer:

QUESTION 19
A company needs to keep user transaction data in an Amazon DynamoDB table.
The company must retain the data for 7 years.
What is the MOST operationally efficient solution that meets these requirements?

A. Use DynamoDB point-in-time recovery to back up the table continuously.
B. Use AWS Backup to create backup schedules and retention policies for the table.
C. Create an on-demand backup of the table by using the DynamoDB console.
Store the backup in an Amazon S3 bucket.
Set an S3 Lifecycle configuration for the S3 bucket.
D. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to invoke an AWS Lambda function.
Configure the Lambda function to back up the table and to store the backup in an Amazon S3 bucket.
Set an S3 Lifecycle configuration for the S3 bucket.

Answer

QUESTION 20

A company is planning to use an Amazon DynamoDB table for data storage. The company is concerned about cost optimization. The table will not be used on most mornings. In the evenings, the read and write traffic will often be unpredictable. When traffic spikes occur, they will happen very quickly.

What should a solutions architect recommend?

A. Create a DynamoDB table in on-demand capacity mode.
B. Create a DynamoDB table with a global secondary index.
C. Create a DynamoDB table with provisioned capacity and auto scaling.
D. Create a DynamoDB table in provisioned capacity mode, and configure it as a global table.

Answer:

QUESTION 21
A company recently signed a contract with an AWS Managed Service Provider (MSP) Partner for help with an application migration initiative. A solutions architect needs to share an Amazon Machine Image (AMI) from an existing AWS account with the MSP Partner's AWS account. The AMI is backed by Amazon Elastic Block Store (Amazon EBS) and uses a customer managed customer master key (CMK) to encrypt EBS volume snapshots.
What is the MOST secure way for the solutions architect to share the AMI with the MSP Partner's AWS account?

A. Make the encrypted AMI and snapshots publicly available.
Modify the CMK's key policy to allow the MSP Partner's AWS account to use the key
B. Modify the launchPermission property of the AMI.
Share the AMI with the MSP Partner's AWS account only.
Modify the CMK's key policy to allow the MSP Partner's AWS account to use the key.
C. Modify the launchPermission property of the AMI.
Share the AMI with the MSP Partner's AWS account only.
Modify the CMK's key policy to trust a new CMK that is owned by the MSP Partner for encryption.
D. Export the AMI from the source account to an Amazon S3 bucket in the MSP Partner's AWS account.
Encrypt the S3 bucket with a CMK that is owned by the MSP Partner.
Copy and launch the AMI in the MSP Partner's AWS account.

Answer:

QUESTION 22
A solutions architect is designing the cloud architecture for a new application being deployed on AWS. The process should run in parallel while adding and removing application nodes as needed based on the number of jobs to be processed. The processor application is stateless. The solutions architect must ensure that the application is loosely coupled and the job items are durably stored.

Which design should the solutions architect use?

A. Create an Amazon SNS topic to send the jobs that need to be processed.
Create an Amazon Machine Image (AMI) that consists of the processor application.
Create a launch configuration that uses the AMI.
Create an Auto Scaling group using the launch configuration.

Set the scaling policy for the Auto Scaling group to add and remove nodes based on CPU usage.

B. Create an Amazon SQS queue to hold the jobs that need to be processed.
Create an Amazon Machine image (AMI) that consists of the processor application.
Create a launch configuration that uses the AMI.
Create an Auto Scaling group using the launch configuration.
Set the scaling policy for the Auto Scaling group to add and remove nodes based on network usage.

C. Create an Amazon SQS queue to hold the jobs that needs to be processed.
Create an Amazon Machine image (AMI) that consists of the processor application.
Create a launch template that uses the AMI.
Create an Auto Scaling group using the launch template.
Set the scaling policy for the Auto Scaling group to add and remove nodes based on the number of items in the SQS queue.

D. Create an Amazon SNS topic to send the jobs that need to be processed.
Create an Amazon Machine Image (AMI) that consists of the processor application.
Create a launch template that uses the AMI.
Create an Auto Scaling group using the launch template.
Set the scaling policy for the Auto Scaling group to add and remove nodes based on the number of messages published to the SNS topic

Answer:
Explanation:
"Create an Amazon SQS queue to hold the jobs that needs to be processed. Create an Amazon EC2 Auto Scaling group for the compute application. Set the scaling policy for the Auto Scaling group to add and remove nodes based on the number of items in the SQS queue"
In this case we need to find a durable and loosely coupled solution for storing jobs. Amazon SQS is ideal for this use case and can be configured to use dynamic scaling based on the number of jobs waiting in the queue.To configure this scaling you can use the backlog per instance metric with the target value being the acceptable backlog per instance to maintain. You can calculate these numbers as follows: Backlog per instance: To calculate your backlog per instance, start with the ApproximateNumberOfMessages queue attribute to determine the length of the SQS queue

QUESTION 23
A company hosts its web applications in the AWS Cloud. The company configures Elastic Load Balancers to use certificate that are imported into AWS Certificate Manager (ACM). The company's security team must be notified 30 days before the expiration of each certificate.
What should a solutions architect recommend to meet the requirement?

A. Add a rule m ACM to publish a custom message to an Amazon Simple Notification Service (Amazon SNS) topic every day beginning 30 days before any certificate will expire.

B. Create an AWS Config rule that checks for certificates that will expire within 30 days.
Configure Amazon EventBridge (Amazon CloudWatch Events) to invoke a custom alert by way of Amazon Simple Notification Service (Amazon SNS) when AWS Config reports a noncompliant resource

C. Use AWS trusted Advisor to check for certificates that will expire within to days.
Create an Amazon CloudWatch alarm that is based on Trusted Advisor metrics for check status changes.
Configure the alarm to send a custom alert by way of Amazon Simple rectification Service (Amazon SNS)

D. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to detect any certificates that will expire within 30 days.
Configure the rule to invoke an AWS Lambda function.

Configure the Lambda function to send a custom alert by way of Amazon Simple Notification Service (Amazon SNS).

Answer:
Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/acm-certificate-expiration/

QUESTION 24
A company's dynamic website is hosted using on-premises servers in the United States. The company is launching its product in Europe, and it wants to optimize site loading times for new European users. The site's backend must remain in the United States. The product is being launched in a few days, and an immediate solution is needed.

What should the solutions architect recommend?

A. Launch an Amazon EC2 instance in us-east-1 and migrate the site to it.
B. Move the website to Amazon S3. Use cross-Region replication between Regions.
C. Use Amazon CloudFront with a custom origin pointing to the on-premises servers.
D. Use an Amazon Route 53 geo-proximity routing policy pointing to on-premises servers.

Answer:
Explanation:
https://aws.amazon.com/pt/blogs/aws/amazon-cloudfront-support-for-custom-origins/
You can now create a CloudFront distribution using a custom origin. Each distribution will can point to an S3 or to a custom origin. This could be another storage service, or it could be something more interesting and more dynamic, such as an EC2 instance or even an Elastic Load Balancer

QUESTION 25
A company wants to reduce the cost of its existing three-tier web architecture. The web, application, and database servers are running on Amazon EC2 instances for the development, test, and production environments. The EC2 instances average 30% CPU utilization during peak hours and 10% CPU utilization during non-peak hours.

The production EC2 instances run 24 hours a day. The development and test EC2 instances run for at least 8 hours each day. The company plans to implement automation to stop the development and test EC2 instances when they are not in use.

Which EC2 instance purchasing solution will meet the company's requirements MOST cost-effectively?

A. Use Spot Instances for the production EC2 instances.
Use Reserved Instances for the development and test EC2 instances.
B. Use Reserved Instances for the production EC2 instances.
Use On-Demand Instances for the development and test EC2 instances.
C. Use Spot blocks for the production EC2 instances.
Use Reserved Instances for the development and test EC2 instances.
D. Use On-Demand Instances for the production EC2 instances.
Use Spot blocks for the development and test EC2 instances.

Answer:

QUESTION 26
A company has a production web application in which users upload documents through a web interlace or a mobile app.
According to a new regulatory requirement, new documents cannot be modified or deleted after they are stored.
What should a solutions architect do to meet this requirement?

A. Store the uploaded documents in an Amazon S3 bucket with S3 Versioning and S3 Object Lock enabled
B. Store the uploaded documents in an Amazon S3 bucket.
Configure an S3 Lifecycle policy to archive the documents periodically.
C. Store the uploaded documents in an Amazon S3 bucket with S3 Versioning enabled.
Configure an ACL to restrict all access to read-only.
D. Store the uploaded documents on an Amazon Elastic File System (Amazon EFS) volume.
Access the data by mounting the volume in read-only mode.

Answer:
Explanation:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/object-lock-overview.html

QUESTION 27
A company has several web servers that need to frequently access a common Amazon RDS MySQL Multi-AZ DB instance. The company wants a secure method for the web servers to connect to the database while meeting a security requirement to rotate user credentials frequently.
Which solution meets these requirements?

A. Store the database user credentials in AWS Secrets Manager.
Grant the necessary IAM permissions to allow the web servers to access AWS Secrets Manager.
B. Store the database user credentials in AWS Systems Manager OpsCenter.
Grant the necessary IAM permissions to allow the web servers to access OpsCenter.
C. Store the database user credentials in a secure Amazon S3 bucket.
Grant the necessary IAM permissions to allow the web servers to retrieve credentials and access the database.
D. Store the database user credentials in files encrypted with AWS Key Management Service (AWS KMS) on the web server file system. The web server should be able to decrypt the files and access the database.

Answer:
Explanation:
AWS Secrets Manager helps you protect secrets needed to access your applications, services, and IT resources. The service enables you to easily rotate, manage, and retrieve database credentials, API keys, and other secrets throughout their lifecycle.
https://docs.aws.amazon.com/secretsmanager/latest/userguide/intro.html

QUESTION 28
A company hosts an application on AWS Lambda functions mat are invoked by an Amazon API Gateway API. The Lambda functions save customer data to an Amazon Aurora MySQL database. Whenever the company upgrades the database, the Lambda functions fail to establish database connections until the upgrade is complete. The result is that customer data Is not recorded for some of the event.

A solutions architect needs to design a solution that stores customer data that is created during database upgrades.
Which solution will meet these requirements?

A. Provision an Amazon RDS proxy to sit between the Lambda functions and the database. Configure the Lambda functions to connect to the RDS proxy.
B. Increase the run time of me Lambda functions to the maximum. Create a retry mechanism in the code that stores the customer data in the database.
C. Persist the customer data to Lambda local storage. Configure new Lambda functions to scan the local storage to save the customer data to the database.
D. Store the customer data m an Amazon Simple Queue Service (Amazon SOS) FIFO queue. Create a new Lambda function that polls the queue and stores the customer data in the database.

Answer:
Explanation:
https://www.learnaws.org/2020/12/13/aws-rds-proxy-deep-dive/
RDS proxy can improve application availability in such a situation by waiting for the new database instance to be functional and maintaining any requests received from the application during this time. The end result is that the application is more resilient to issues with the underlying database. This will enable solution to hold data till the time DB comes back to normal. RDS proxy is to optimally utilize the connection between Lambda and DB. Lambda can open multiple connection concurrently which can be taxing on DB compute resources, hence RDS proxy was introduced to manage and leverage these connections efficiently.

QUESTION 29
A survey company has gathered data for several years from areas m\ the United States. The company hosts the data in an Amazon S3 bucket that is 3 TB m size and growing. The company has started to share the data with a European marketing firm that has S3 buckets. The company wants to ensure that its data transfer costs remain as low as possible.
Which solution will meet these requirements?

A. Configure the Requester Pays feature on the company's S3 bucket
B. Configure S3 Cross-Region Replication from the company's S3 bucket to one of the marketing firm's S3 buckets.
C. Configure cross-account access for the marketing firm so that the marketing firm has access to the company's S3 bucket.
D. Configure the company's S3 bucket to use S3 Intelligent-Tiering Sync the S3 bucket to one of the marketing firm's S3 buckets

Answer:

QUESTION 30
A company uses Amazon S3 to store its confidential audit documents. The S3 bucket uses bucket policies to restrict access to audit team IAM user credentials according to the principle of least privilege. Company managers are worried about accidental deletion of documents in the S3 bucket and want a more secure solution.

What should a solutions architect do to secure the audit documents?

A. Enable the versioning and MFA Delete features on the S3 bucket.

B. Enable multi-factor authentication (MFA) on the IAM user credentials for each audit team IAM user account.
C. Add an S3 Lifecycle policy to the audit team's IAM user accounts to deny the s3:DeleteObject action during audit dates.
D. Use AWS Key Management Service (AWS KMS) to encrypt the S3 bucket and restrict audit team IAM user accounts from accessing the KMS key.

Answer:

QUESTION 31
A company is using a SQL database to store movie data that is publicly accessible. The database runs on an Amazon RDS Single-AZ DB instance. A script runs queries at random intervals each day to record the number of new movies that have been added to the database. The script must report a final total during business hours. The company's development team notices that the database performance is inadequate for development tasks when the script is running. A solutions architect must recommend a solution to resolve this issue.
Which solution will meet this requirement with the LEAST operational overhead?

A. Modify the DB instance to be a Multi-AZ deployment
B. Create a read replica of the database.
Configure the script to query only the read replica.
C. Instruct the development team to manually export the entries in the database at the end of each day
D. Use Amazon ElastiCache to cache the common queries that the script runs against the database

Answer:

QUESTION 32
A company has applications that run on Amazon EC2 instances in a VPC. One of the applications needs to call the Amazon S3 API to store and read objects. According to the company's security regulations, no traffic from the applications is allowed to travel across the internet.

Which solution will meet these requirements?

A. Configure an S3 interface endpoint.
B. Configure an S3 gateway endpoint.
C. Create an S3 bucket in a private subnet.
D. Create an S3 bucket in the same Region as the EC2 instance.

Answer:
Explanation:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/privatelink-interface-endpoints.html#types-of-vpc-endpoints-for-s3

QUESTION 33
A company is storing sensitive user information in an Amazon S3 bucket. The company wants to provide secure access to this bucket from the application tier running on Ama2on EC2 instances inside a VPC.
Which combination of steps should a solutions architect take to accomplish this? (Select TWO.)

A. Configure a VPC gateway endpoint for Amazon S3 within the VPC
B. Create a bucket policy to make the objects to the S3 bucket public
C. Create a bucket policy that limits access to only the application tier running in the VPC
D. Create an IAM user with an S3 access policy and copy the IAM credentials to the EC2 instance
E. Create a NAT instance and have the EC2 instances use the NAT instance to access the S3 bucket

Answer:
Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/s3-private-connection-no-authentication/

QUESTION 34
A company runs an on-premises application that is powered by a MySQL database. The company is migrating the application to AWS to Increase the application's elasticity and availability. The current architecture shows heavy read activity on the database during times of normal operation. Every 4 hours the company's development team pulls a full export of the production database to populate a database in the staging environment. During this period, users experience unacceptable application latency. The development team is unable to use the staging environment until the procedure completes.
A solutions architect must recommend replacement architecture that alleviates the application latency issue.
The replacement architecture also must give the development team the ability to continue using the staging environment without delay.
Which solution meets these requirements?

A. Use Amazon Aurora MySQL with Multi-AZ Aurora Replicas for production.
Populate the staging database by implementing a backup and restore process that uses the mysqldump utility.
B. Use Amazon Aurora MySQL with Multi-AZ Aurora Replicas for production.
Use database cloning to create the staging database on-demand
C. Use Amazon RDS for MySQL with a Mufti AZ deployment and read replicas for production.
Use the standby instance tor the staging database.
D. Use Amazon RDS for MySQL with a Multi-AZ deployment and read replicas for production.
Populate the staging database by implementing a backup and restore process that uses the mysqldump utility.

Answer:

QUESTION 35
A company is preparing to store confidential data in Amazon S3. For compliance reasons the data must be encrypted at rest Encryption key usage must be logged tor auditing purposes. Keys must be rotated every year.
Which solution meets these requirements and the MOST operationally efferent?

A. Server-side encryption with customer-provided keys (SSE-C)
B. Server-side encryption with Amazon S3 managed keys (SSE-S3)
C. Server-side encryption with AWS KMS (SSE-KMS) customer master keys (CMKs) with manual rotation
D. Server-side encryption with AWS KMS (SSE-KMS) customer master keys (CMKs) with automate rotation

Answer:
Explanation:
https://docs.aws.amazon.com/kms/latest/developerguide/rotate-keys.html
When you enable automatic key rotation for a customer managed key, AWS KMS generates new cryptographic material for the KMS key every year. AWS KMS also saves the KMS key's older cryptographic material in perpetuity so it can be used to decrypt data that the KMS key encrypted. Key rotation in AWS KMS is a cryptographic best practice that is designed to be transparent and easy to use. AWS KMS supports optional automatic key rotation only for customer managed CMKs. Enable and disable key rotation. Automatic key rotation is disabled by default on customer managed CMKs.
When you enable (or re-enable) key rotation, AWS KMS automatically rotates the CMK 365 days after the enable date and every 365 days thereafter.

QUESTION 36
A bicycle sharing company is developing a multi-tier architecture to track the location of its bicycles during peak operating hours. The company wants to use these data points in its existing analytics platform. A solutions architect must determine the most viable multi-tier option to support this architecture. The data points must be accessible from the REST API.
Which action meets these requirements for storing and retrieving location data?

A. Use Amazon Athena with Amazon S3
B. Use Amazon API Gateway with AWS Lambda
C. Use Amazon QuickSight with Amazon Redshift.
D. Use Amazon API Gateway with Amazon Kinesis Data Analytics

Answer:
Explanation:
https://aws.amazon.com/solutions/implementations/aws-streaming-data-solution-for-amazon-kinesis/

QUESTION 37
A company has an automobile sales website that stores its listings in a database on Amazon RDS. When an automobile is sold the listing needs to be removed from the website and the data must be sent to multiple target systems.
Which design should a solutions architect recommend?

A. Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SQS> queue for the targets to consume
B. Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SQS) FIFO queue for the targets to consume
C. Subscribe to an RDS event notification and send an Amazon Simple Queue Service (Amazon SQS) queue fanned out to multiple Amazon Simple Notification Service (Amazon SNS) topics Use AWS Lambda functions to update the targets
D. Subscribe to an RDS event notification and send an Amazon Simple Notification Service (Amazon SNS) topic fanned out to multiple Amazon Simple Queue Service (Amazon SQS) queues Use AWS Lambda functions to update the targets

Answer:
Explanation:
https://docs.aws.amazon.com/lambda/latest/dg/services-rds.html
https://docs.aws.amazon.com/lambda/latest/dg/with-sns.html

QUESTION 38
A company needs to store data in Amazon S3 and must prevent the data from being changed.
The company wants new objects that are uploaded to Amazon S3 to remain unchangeable for a nonspecific amount of time until the company decides to modify the objects.
Only specific users in the company's AWS account can have the ability to delete the objects.
What should a solutions architect do to meet these requirements?

A. Create an S3 Glacier vault Apply a write-once, read-many (WORM) vault lock policy to the objects.
B. Create an S3 bucket with S3 Object Lock enabled Enable versioning.
Set a retention period of 100 years.
Use governance mode as the S3 bucket's default retention mode for new objects.
C. Create an S3 bucket.
Use AWS CloudTrail to track any S3 API events that modify the objects.
Upon notification, restore the modified objects from any backup versions that the company has.
D. Create an S3 bucket with S3 Object Lock enabled.
Enable versioning.
Add a legal hold to the objects.
Add the s3:PutObjectLegalHold permission to the IAM policies of users who need to delete the objects.

Answer: ●

QUESTION 39
A social media company allows users to upload images to its website. The website runs on Amazon EC2 instances.
During upload requests, the website resizes the images to a standard size and stores the resized images in Amazon S3.
Users are experiencing slow upload requests to the website.

The company needs to reduce coupling within the application and improve website performance.
A solutions architect must design the most operationally efficient process for image uploads.

Which combination of actions should the solutions architect take to meet these requirements?
(Choose two.)

A. Configure the application to upload images to S3 Glacier.
B. Configure the web server to upload the original images to Amazon S3.
C. Configure the application to upload images directly from each user's browser to Amazon S3 through the use of a presigned URL.
D. Configure S3 Event Notifications to invoke an AWS Lambda function when an image is uploaded.
Use the function to resize the image
E. Create an Amazon EventBridge (Amazon CloudWatch Events) rule that invokes an AWS Lambda function on a schedule to resize uploaded images.

Answer: ●

QUESTION 40
A company recently migrated a message processing system to AWS. The system receives

messages into an ActiveMQ queue running on an Amazon EC2 instance. Messages are processed by a consumer application running on Amazon EC2. The consumer application processes the messages and writes results to a MySQL database funning on Amazon EC2. The company wants this application to be highly available with tow operational complexity Which architecture otters the HGHEST availability?

A. Add a second ActiveMQ server to another Availably Zone.
Add an additional consumer EC2 instance in another Availability Zone.
Replicate the MySQL database to another Availability Zone.
B. Use Amazon MO with active/standby brokers configured across two Availability Zones.
Add an additional consumer EC2 instance in another Availability Zone.
Replicate the MySQL database to another Availability Zone.
C. Use Amazon MO with active/standby blotters configured across two Availability Zones.
Add an additional consumer EC2 instance in another Availability Zone.
Use Amazon ROS tor MySQL with Multi-AZ enabled.
D. Use Amazon MQ with active/standby brokers configured across two Availability Zones.d
Add an Auto Scaling group for the consumer EC2 instances across two Availability Zones.
Use Amazon RDS for MySQL with Multi-AZ enabled.

Answer:

QUESTION 41
A company hosts a containerized web application on a fleet of on-premises servers that process incoming requests. The number of requests is growing quickly. The on-premises servers cannot handle the increased number of requests. The company wants to move the application to AWS with minimum code changes and minimum development effort.

Which solution will meet these requirements with the LEAST operational overhead?

A. Use AWS Fargate on Amazon Elastic Container Service (Amazon ECS) to run the containerized web application with Service Auto Scaling.
Use an Application Load Balancer to distribute the incoming requests.
B. Use two Amazon EC2 instances to host the containerized web application.
Use an Application Load Balancer to distribute the incoming requests.
C. Use AWS Lambda with a new code that uses one of the supported languages.
Create multiple Lambda functions to support the load.
Use Amazon API Gateway as an entry point to the Lambda functions.
D. Use a high performance computing (HPC) solution such as AWS ParallelClusterto establish an HPC cluster that can process the incoming requests at the appropriate scale.

Answer:

QUESTION 42
A company uses 50 TB of data for reporting. The company wants to move this data from on premises to AWS A custom application in the company's data center runs a weekly data transformation job. The company plans to pause the application until the data transfer is complete and needs to begin the transfer process as soon as possible.
The data center does not have any available network bandwidth for additional workloads.
A solutions architect must transfer the data and must configure the transformation job to continue to run in the AWS Cloud.
Which solution will meet these requirements with the LEAST operational overhead?

A. Use AWS DataSync to move the data.
Create a custom transformation job by using AWS Glue.
B. Order an AWS Snowcone device to move the data.
Deploy the transformation application to the device.
C. Order an AWS Snowball Edge Storage Optimized device.
Copy the data to the device.
Create a custom transformation job by using AWS Glue.
D. Order an AWS D. Snowball Edge Storage Optimized device that includes Amazon EC2 compute.
Copy the data to the device.
Create a new EC2 instance on AWS to run the transformation application.

Answer:

QUESTION 43
A company has created an image analysis application in which users can upload photos and add photo frames to their images. The users upload images and metadata to indicate which photo frames they want to add to their images. The application uses a single Amazon EC2 instance and Amazon DynamoDB to store the metadata.

The application is becoming more popular, and the number of users is increasing. The company expects the number of concurrent users to vary significantly depending on the time of day and day of week. The company must ensure that the application can scale to meet the needs of the growing user base.

Which solution meats these requirements?

A. Use AWS Lambda to process the photos.
Store the photos and metadata in DynamoDB.
B. Use Amazon Kinesis Data Firehose to process the photos and to store the photos and metadata.
C. Use AWS Lambda to process the photos.
Store the photos in Amazon S3.
Retain DynamoDB to store the metadata.
D. Increase the number of EC2 instances to three.
Use Provisioned IOPS SSD (io2) Amazon Elastic Block Store (Amazon EBS) volumes to store the photos and metadata.

Answe

QUESTION 44
A medical records company is hosting an application on Amazon EC2 instances. The application processes customer data files that are stored on Amazon S3. The EC2 instances are hosted in public subnets. The EC2 instances access Amazon S3 over the internet, but they do not require any other network access.
A new requirement mandates that the network traffic for file transfers take a private route and not be sent over the internet.
Which change to the network architecture should a solutions architect recommend to meet this requirement?

A. Create a NAT gateway.
Configure the route table for the public subnets to send traffic to Amazon S3 through the NAT

gateway.

B. Configure the security group for the EC2 instances to restrict outbound traffic so that only traffic to the S3 prefix list is permitted.

C. Move the EC2 instances to private subnets.
Create a VPC endpoint for Amazon S3, and link the endpoint to the route table for the private subnets

D. Remove the internet gateway from the VPC.
Set up an AWS Direct Connect connection, and route traffic to Amazon S3 over the Direct Connect connection.

Answer:

QUESTION 45
A company uses a popular content management system (CMS) for its corporate website. However, the required patching and maintenance are burdensome. The company is redesigning its website and wants anew solution. The website will be updated four times a year and does not need to have any dynamic content available. The solution must provide high scalability and enhanced security.

Which combination of changes will meet these requirements with the LEAST operational overhead? (Choose two.)

A. Deploy an AWS WAF web ACL in front of the website to provide HTTPS functionality

B. Create and deploy an AWS Lambda function to manage and serve the website content

C. Create the new website and an Amazon S3 bucket Deploy the website on the S3 bucket with static website hosting enabled

D. Create the new website.
Deploy the website by using an Auto Scaling group of Amazon EC2 instances behind an Application Load Balancer.

Answer:

QUESTION 46
A company stores its application logs in an Amazon CloudWatch Logs log group.
A new policy requires the company to store all application logs in Amazon OpenSearch Service (Amazon Elasticsearch Service) in near-real time.

Which solution will meet this requirement with the LEAST operational overhead?

A. Configure a CloudWatch Logs subscription to stream the logs to Amazon OpenSearch Service (Amazon Elasticsearch Service).

B. Create an AWS Lambda function.
Use the log group to invoke the function to write the logs to Amazon OpenSearch Service (Amazon Elasticsearch Service).

C. Create an Amazon Kinesis Data Firehose delivery stream.
Configure the log group as the delivery stream's source.
Configure Amazon OpenSearch Service (Amazon Elasticsearch Service) as the delivery stream's destination.

D. Install and configure Amazon Kinesis Agent on each application server to deliver the logs to Amazon Kinesis Data Streams.
Configure Kinesis Data Streams to deliver the logs to Amazon OpenSearch Service (Amazon Elasticsearch Service)

Answer:

QUESTION 47
A company is building a web-based application running on Amazon EC2 instances in multiple Availability Zones. The web application will provide access to a repository of text documents totaling about 900 TB in size. The company anticipates that the web application will experience periods of high demand. A solutions architect must ensure that the storage component for the text documents can scale to meet the demand of the application at all times. The company is concerned about the overall cost of the solution.

Which storage solution meets these requirements MOST cost-effectively?

A. Amazon Elastic Block Store (Amazon EBS)
B. Amazon Elastic File System (Amazon EFS)
C. Amazon Elasticsearch Service (Amazon ES)
D. Amazon S3

Answer:
Explanation:
Amazon S3 is cheapest and can be accessed from anywhere.

QUESTION 48
A global company is using Amazon API Gateway to design REST APIs for its loyalty club users in the us-east-1 Region and the ap-southeast-2 Region. A solutions architect must design a solution to protect these API Gateway managed REST APIs across multiple accounts from SQL injection and cross-site scripting attacks.

Which solution will meet these requirements with the LEAST amount of administrative effort?

A. Set up AWS WAF in both Regions.
Associate Regional web ACLs with an API stage.
B. Set up AWS Firewall Manager in both Regions.
Centrally configure AWS WAF rules.
C. Set up AWS Shield in bath Regions.
Associate Regional web ACLs with an API stage.
D. Set up AWS Shield in one of the Regions.
Associate Regional web ACLs with an API stage.

Answer:

QUESTION 49
A company has implemented a self-managed DNS solution on three Amazon EC2 instances behind a Network Load Balancer (NLB) in the us-west-2 Region. Most of the company's users are located in the United States and Europe. The company wants to improve the performance and availability of the solution. The company launches and configures three EC2 instances in the eu-west-1 Region and adds the EC2 instances as targets for a new NLB.

Which solution can the company use to route traffic to all the EC2 instances?

A. Create an Amazon Route 53 geolocation routing policy to route requests to one of the two

NLBs.
Create an Amazon CloudFront distribution.
Use the Route 53 record as the distribution's origin.

B. Create a standard accelerator in AWS Global Accelerator.
Create endpoint groups in us-west-2 and eu-west-1.
Add the two NLBs as endpoints for the endpoint groups.

C. Attach Elastic IP addresses to the six EC2 instances.
Create an Amazon Route 53 geolocation routing policy to route requests to one of the six EC2 instances.
Create an Amazon CloudFront distribution.
Use the Route 53 record as the distribution's origin.

D. Replace the two NLBs with two Application Load Balancers (ALBs).
Create an Amazon Route 53 latency routing policy to route requests to one of the two ALBs.
Create an Amazon CloudFront distribution.
Use the Route 53 record as the distribution's origin.

Answer: ●

QUESTION 50
A company is running an online transaction processing (OLTP) workload on AWS. This workload uses an unencrypted Amazon RDS DB instance in a Multi-AZ deployment. Daily database snapshots are taken from this instance.

What should a solutions architect do to ensure the database and snapshots are always encrypted moving forward?

A. Encrypt a copy of the latest DB snapshot.
Replace existing DB instance by restoring the encrypted snapshot

B. Create a new encrypted Amazon Elastic Block Store (Amazon EBS) volume and copy the snapshots to it.
Enable encryption on the DB instance.

C. Copy the snapshots and enable encryption using AWS Key Management Service (AWS KMS).
Restore encrypted snapshot to an existing DB instance.

D. Copy the snapshots to an Amazon S3 bucket that is encrypted using server-side encryption with AWS Key Management Service (AWS KMS) managed keys (SSE-KMS)

Answer: ●
Explanation:
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_RestoreFromSnapshot.html#US
ER_RestoreFromSnapshot.CON
Under "Encrypt unencrypted resources"
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html

QUESTION 51
A company wants to build a scalable key management Infrastructure to support developers who need to encrypt data in their applications.
What should a solutions architect do to reduce the operational burden?

A. Use multifactor authentication (MFA) to protect the encryption keys.
B. Use AWS Key Management Service (AWS KMS) to protect the encryption keys
C. Use AWS Certificate Manager (ACM) to create, store, and assign the encryption keys

D. Use an IAM policy to limit the scope of users who have access permissions to protect the encryption keys

Answer:

QUESTION 52
A company has a dynamic web application hosted on two Amazon EC2 instances. The company has its own SSL certificate, which is on each instance to perform SSL termination.

There has been an increase in traffic recently, and the operations team determined that SSL encryption and decryption is causing the compute capacity of the web servers to reach their maximum limit.

What should a solutions architect do to increase the application's performance?

A. Create a new SSL certificate using AWS Certificate Manager (ACM) install the ACM certificate on each instance.
B. Create an Amazon S3 bucket Migrate the SSL certificate to the S3 bucket. Configure the EC2 instances to reference the bucket for SSL termination.
C. Create another EC2 instance as a proxy server Migrate the SSL certificate to the new instance and configure it to direct connections to the existing EC2 instances
D. Import the SSL certificate into AWS Certificate Manager (ACM). Create an Application Load Balancer with an HTTPS listener that uses the SSL certificate from ACM.

Answer:
Explanation:
https://aws.amazon.com/certificate-manager/:
"With AWS Certificate Manager, you can quickly request a certificate, deploy it on ACM-integrated AWS resources, such as Elastic Load Balancers, Amazon CloudFront distributions, and APIs on API Gateway, and let AWS Certificate Manager handle certificate renewals. It also enables you to create private certificates for your internal resources and manage the certificate lifecycle centrally."

QUESTION 53
A company has a highly dynamic batch processing job that uses many Amazon EC2 instances to complete it. The job is stateless in nature, can be started and stopped at any given time with no negative impact, and typically takes upwards of 60 minutes total to complete. The company has asked a solutions architect to design a scalable and cost-effective solution that meets the requirements of the job.

What should the solutions architect recommend?

A. Implement EC2 Spot Instances
B. Purchase EC2 Reserved Instances
C. Implement EC2 On-Demand Instances
D. Implement the processing on AWS Lambda

Answer:

QUESTION 54

A company runs its two-tier ecommerce website on AWS. The web tier consists of a load balancer that sends traffic to Amazon EC2 instances. The database tier uses an Amazon RDS DB instance. The EC2 instances and the RDS DB instance should not be exposed to the public internet. The EC2 instances require internet access to complete payment processing of orders through a third-party web service. The application must be highly available.

Which combination of configuration options will meet these requirements? (Choose two.)

A. Use an Auto Scaling group to launch the EC2 instances in private subnets.
Deploy an RDS Multi-AZ DB instance in private subnets.
B. Configure a VPC with two private subnets and two NAT gateways across two Availability Zones.
Deploy an Application Load Balancer in the private subnets.
C. Use an Auto Scaling group to launch the EC2 instances in public subnets across two Availability Zones.
Deploy an RDS Multi-AZ DB instance in private subnets.
D. Configure a VPC with one public subnet, one private subnet, and two NAT gateways across two Availability Zones.
Deploy an Application Load Balancer in the public subnet.
E. Configure a VPC with two public subnets, two private subnets, and two NAT gateways across two Availability Zones.
Deploy an Application Load Balancer in the public subnets.

Answer: [redacted]
Explanation:
Before you begin: Decide which two Availability Zones you will use for your EC2 instances. Configure your virtual private cloud (VPC) with at least one public subnet in each of these Availability Zones. These public subnets are used to configure the load balancer. You can launch your EC2 instances in other subnets of these Availability Zones instead.

QUESTION 55
A solutions architect needs to implement a solution to reduce a company's storage costs. All the company's data is in the Amazon S3 Standard storage class. The company must keep all data for at least 25 years. Data from the most recent 2 years must be highly available and immediately retrievable.

Which solution will meet these requirements?

A. Set up an S3 Lifecycle policy to transition objects to S3 Glacier Deep Archive immediately.
B. Set up an S3 Lifecycle policy to transition objects to S3 Glacier Deep Archive after 2 years.
C. Use S3 Intelligent-Tiering. Activate the archiving option to ensure that data is archived in S3 Glacier Deep Archive.
D. Set up an S3 Lifecycle policy to transition objects to S3 One Zone-Infrequent Access (S3 One Zone-IA) immediately and to S3 Glacier Deep Archive after 2 years.

Answer: [redacted]

QUESTION 56
A company runs its ecommerce application on AWS. Every new order is published as a message in a RabbitMQ queue that runs on an Amazon EC2 instance in a single Availability Zone. These messages are processed by a different application that runs on a separate EC2 instance. This application stores the details in a PostgreSQL database on another EC2 instance. All the EC2 instances are in the same Availability Zone.

The company needs to redesign its architecture to provide the highest availability with the least operational overhead.
What should a solutions architect do to meet these requirements?

A. Migrate the queue to a redundant pair (active/standby) of RabbitMQ instances on Amazon MQ.
Create a Multi-AZ Auto Scaling group (or EC2 instances that host the application.
Create another Multi-AZ Auto Scaling group for EC2 instances that host the PostgreSQL database.
B. Migrate the queue to a redundant pair (active/standby) of RabbitMQ instances on Amazon MQ.
Create a Multi-AZ Auto Scaling group for EC2 instances that host the application.
Migrate the database to run on a Multi-AZ deployment of Amazon RDS for PostgreSQL.
C. Create a Multi-AZ Auto Scaling group for EC2 instances that host the RabbitMQ queue.
Create another Multi-AZ Auto Scaling group for EC2 instances that host the application.
Migrate the database to run on a Multi-AZ deployment of Amazon RDS fqjPostgreSQL.
D. Create a Multi-AZ Auto Scaling group for EC2 instances that host the RabbitMQ queue.
Create another Multi-AZ Auto Scaling group for EC2 instances that host the application.
Create a third Multi-AZ Auto Scaling group for EC2 instances that host the PostgreSQL database.

Answer:

QUESTION 57
A reporting team receives files each day in an Amazon S3 bucket. The reporting team manually reviews and copies the files from this initial S3 bucket to an analysis S3 bucket each day at the same time to use with Amazon QuickSight. Additional teams are starting to send more files in larger sizes to the initial S3 bucket.

The reporting team wants to move the files automatically analysis S3 bucket as the files enter the initial S3 bucket. The reporting team also wants to use AWS Lambda functions to run pattern-matching code on the copied data. In addition, the reporting team wants to send the data files to a pipeline in Amazon SageMaker Pipelines.

What should a solutions architect do to meet these requirements with the LEAST operational overhead?

A. Create a Lambda function to copy the files to the analysis S3 bucket.
Create an S3 event notification for the analysis S3 bucket.
Configure Lambda and SageMaker Pipelines as destinations of the event notification.
Configure s30bjectCreated:Put as the event type.
B. Create a Lambda function to copy the files to the analysis S3 bucket.
Configure the analysis S3 bucket to send event notifications to Amazon EventBridge (Amazon CloudWatch Events).
Configure an ObjectCreated rule in EventBridge (CloudWatch Events).
Configure Lambda and SageMaker Pipelines as targets for the rule.
C. Configure S3 replication between the S3 buckets.
Create an S3 event notification for the analysis S3 bucket.
Configure Lambda and SageMaker Pipelines as destinations of the event notification.
Configure s30bjectCreated:Put as the event type.
D. Configure S3 replication between the S3 buckets.
Configure the analysis S3 bucket to send event notifications to Amazon EventBridge (Amazon CloudWatch Events).
Configure an ObjectCreated rule in EventBridge (CloudWatch Events).
Configure Lambda and SageMaker Pipelines as targets for the rule.

Answer:

QUESTION 58
A solutions architect needs to help a company optimize the cost of running an application on AWS. The application will use Amazon EC2 instances, AWS Fargate, and AWS Lambda for compute within the architecture.

The EC2 instances will run the data ingestion layer of the application. EC2 usage will be sporadic and unpredictable. Workloads that run on EC2 instances can be interrupted at any time. The application front end will run on Fargate, and Lambda will serve the API layer. The front-end utilization and API layer utilization will be predictable over the course of the next year.

Which combination of purchasing options will provide the MOST cost-effective solution for hosting this application? (Choose two.)

A. Use Spot Instances for the data ingestion layer
B. Use On-Demand Instances for the data ingestion layer
C. Purchase a 1-year Compute Savings Plan for the front end and API layer.
D. Purchase 1-year All Upfront Reserved instances for the data ingestion layer.
E. Purchase a 1-year EC2 instance Savings Plan for the front end and API layer.

Answer:

QUESTION 59
A company runs a web-based portal that provides users with global breaking news, local alerts, and weather updates. The portal delivers each user a personalized view by using mixture of static and dynamic content. Content is served over HTTPS through an API server running on an Amazon EC2 instance behind an Application Load Balancer (ALB). The company wants the portal to provide this content to its users across the world as quickly as possible.

How should a solutions architect design the application to ensure the LEAST amount of latency for all users?

A. Deploy the application stack in a single AWS Region.
Use Amazon CloudFront to serve all static and dynamic content by specifying the ALB as an origin.
B. Deploy the application stack in two AWS Regions.
Use an Amazon Route 53 latency routing policy to serve all content from the ALB in the closest Region.
C. Deploy the application stack in a single AWS Region.
Use Amazon CloudFront to serve the static content.
Serve the dynamic content directly from the ALB.
D. Deploy the application stack in two AWS Regions.
Use an Amazon Route 53 geolocation routing policy to serve all content from the ALB in the closest Region.

Answer:
Explanation:
https://aws.amazon.com/blogs/networking-and-content-delivery/deliver-your-apps-dynamic-content-using-amazon-cloudfront-getting-started-template/

QUESTION 60
A gaming company is designing a highly available architecture. The application runs on a modified Linux kernel and supports only UDP-based traffic. The company needs the front-end tier to provide the best possible user experience. That tier must have low latency, route traffic to the nearest edge location, and provide static IP addresses for entry into the application endpoints.

What should a solutions architect do to meet these requirements?

A. Configure Amazon Route 53 to forward requests to an Application Load Balancer. Use AWS Lambda for the application in AWS Application Auto Scaling.
B. Configure Amazon CloudFront to forward requests to a Network Load Balancer. Use AWS Lambda for the application in an AWS Application Auto Scaling group.
C. Configure AWS Global Accelerator to forward requests to a Network Load Balancer. Use Amazon EC2 instances for the application in an EC2 Auto Scaling group.
D. Configure Amazon API Gateway to forward requests to an Application Load Balancer. Use Amazon EC2 instances for the application in an EC2 Auto Scaling group.

Answer:

QUESTION 61
A company wants to migrate its existing on-premises monolithic application to AWS. The company wants to keep as much of the front-end code and the backend code as possible. However, the company wants to break the application into smaller applications. A different team will manage each application. The company needs a highly scalable solution that minimizes operational overhead.
Which solution will meet these requirements?

A. Host the application on AWS Lambda Integrate the application with Amazon API Gateway.
B. Host the application with AWS Amplify. Connect the application to an Amazon API Gateway API that is integrated with AWS Lambda.
C. Host the application on Amazon EC2 instances. Set up an Application Load Balancer with EC2 instances in an Auto Scaling group as targets.
D. Host the application on Amazon Elastic Container Service (Amazon ECS) Set up an Application Load Balancer with Amazon ECS as the target.

Answer:
Explanation:
https://aws.amazon.com/blogs/compute/microservice-delivery-with-amazon-ecs-and-application-load-balancers/

QUESTION 62
A company recently started using Amazon Aurora as the data store for its global ecommerce application.
When large reports are run developers report that the ecommerce application is performing poorly After reviewing metrics in Amazon CloudWatch, a solutions architect finds that the ReadIOPS and CPUUtilization metrics are spiking when monthly reports run.
What is the MOST cost-effective solution?

A. Migrate the monthly reporting to Amazon Redshift.
B. Migrate the monthly reporting to an Aurora Replica
C. Migrate the Aurora database to a larger instance class
D. Increase the Provisioned IOPS on the Aurora instance

Answer:
Explanation:
https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Aurora.Replication.html#Aurora.Replication.Replicas Aurora Replicas have two main purposes. You can issue queries to them to scale the read operations for your application. You typically do so by connecting to the reader endpoint of the cluster. That way, Aurora can spread the load for read-only connections across as many Aurora Replicas as you have in the cluster. Aurora Replicas also help to increase availability. If the writer instance in a cluster becomes unavailable, Aurora automatically promotes one of the reader instances to take its place as the new writer.
https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/Aurora.Overview.html

QUESTION 63
A company hosts a website analytics application on a single Amazon EC2 On-Demand Instance. The analytics software is written in PHP and uses a MySQL database. The analytics software, the web server that provides PHP, and the database server are all hosted on the EC2 instance. The application is showing signs of performance degradation during busy times and is presenting 5xx errors.
The company needs to make the application scale seamlessly.

Which solution will meet these requirements MOST cost-effectively?

A. Migrate the database to an Amazon RDS for MySQL DB instance.
Create an AMI of the web application.
Use the AMI to launch a second EC2 On-Demand Instance.
Use an Application Load Balancer to distribute the load to each EC2 instance.
B. Migrate the database to an Amazon RDS for MySQL DB instance.
Create an AMI of the web application.
Use the AMI to launch a second EC2 On-Demand Instance.
Use Amazon Route 53 weighted routing to distribute the load across the two EC2 instances.
C. Migrate the database to an Amazon Aurora MySQL DB instance.
Create an AWS Lambda function to stop the EC2 instance and change the instance type.
Create an Amazon CloudWatch alarm to invoke the Lambda function when CPU utilization surpasses 75%.
D. Migrate the database to an Amazon Aurora MySQL DB instance.
Create an AMI of the web application.
Apply the AMI to a launch template.
Create an Auto Scaling group with the launch template.
Configure the launch template to use a Spot Fleet.
Attach an Application Load Balancer to the Auto Scaling group.

Answer:

QUESTION 64
A company runs a stateless web application in production on a group of Amazon EC2 On-Demand Instances behind an Application Load Balancer. The application experiences heavy usage during an 8-hour period each business day. Application usage is moderate and steady overnight Application usage is low during weekends.
The company wants to minimize its EC2 costs without affecting the availability of the application.
Which solution will meet these requirements?

A. Use Spot Instances for the entire workload.
B. Use Reserved instances for the baseline level of usage.

Use Spot Instances for any additional capacity that the application needs.

C. Use On-Demand Instances for the baseline level of usage.
Use Spot Instances for any additional capacity that the application needs.

D. Use Dedicated Instances for the baseline level of usage.
Use On-Demand Instances for any additional capacity that the application needs.

Answer: ●

QUESTION 65
A company needs to retain application logs files for a critical application for 10 years. The application team regularly accesses logs from the past month for troubleshooting, but logs older than 1 month are rarely accessed. The application generates more than 10 TB of logs per month. Which storage option meets these requirements MOST cost-effectively?

A. Store the logs in Amazon S3.
Use AWS Backup to move logs more than 1 month old to S3 Glacier Deep Archive.

B. Store the logs in Amazon S3.
Use S3 Lifecycle policies to move logs more than 1 month old to S3 Glacier Deep Archive.

C. Store the logs in Amazon CloudWatch Logs.
Use AWS Backup to move logs more then 1 month old to S3 Glacier Deep Archive.

D. Store the logs in Amazon CloudWatch Logs.
Use Amazon S3 Lifecycle policies to move logs more than 1 month old to S3 Glacier Deep Archive.

Answer: ●
Explanation:
You need S3 to be able to archive the logs after one month. Cannot do that with CloudWatch Logs.

QUESTION 66
A company has a data ingestion workflow that includes the following components:

```
- An Amazon Simple Notation Service (Amazon SNS) topic that receives
notifications about new data deliveries.
- An AWS Lambda function that processes and stores the data
```

The ingestion workflow occasionally fails because of network connectivity issues.
When tenure occurs the corresponding data is not ingested unless the company manually reruns the job.

What should a solutions architect do to ensure that all notifications are eventually processed?

A. Configure the Lambda function for deployment across multiple Availability Zones

B. Modify me Lambda functions configuration to increase the CPU and memory allocations tor the function

C. Configure the SNS topic's retry strategy to increase both the number of retries and the wait time between retries

D. Configure an Amazon Simple Queue Service (Amazon SQS) queue as the on failure destination.
Modify the Lambda function to process messages in the queue.

Answer: ●

QUESTION 67
A company has a service that produces event data. The company wants to use AWS to process the event data as it is received.
The data is written in a specific order that must be maintained throughout processing.
The company wants to implement a solution that minimizes operational overhead.
How should a solutions architect accomplish this?

A. Create an Amazon Simple Queue Service (Amazon SQS) FIFO queue to hold messages. Set up an AWS Lambda function to process messages from the queue.
B. Create an Amazon Simple Notification Service (Amazon SNS) topic to deliver notifications containing payloads to process.
Configure an AWS Lambda function as a subscriber.
C. Create an Amazon Simple Queue Service (Amazon SQS) standard queue to hold messages. Set up an AWS Lambda function to process messages from the queue independently.
D. Create an Amazon Simple Notification Service (Amazon SNS) topic to deliver notifications containing payloads to process.
Configure an Amazon Simple Queue Service (Amazon SQS) queue as a subscriber.

Answer:
Explanation:
The details are revealed in below url:
https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/FIFO-queues.html
FIFO (First-In-First-Out) queues are designed to enhance messaging between applications when the order of operations and events is critical, or where duplicates can't be tolerated. Examples of situations where you might use FIFO queues include the following: To make sure that user-entered commands are run in the right order. To display the correct product price by sending price modifications in the right order. To prevent a student from enrolling in a course before registering for an account.

QUESTION 68
A company is migrating an application from on-premises servers to Amazon EC2 instances. As part of the migration design requirements, a solutions architect must implement infrastructure metric alarms. The company does not need to take action if CPU utilization increases to more than 50% for a short burst of time. However, if the CPU utilization increases to more than 50% and read IOPS on the disk are high at the same time, the company needs to act as soon as possible. The solutions architect also must reduce false alarms.

What should the solutions architect do to meet these requirements?

A. Create Amazon CloudWatch composite alarms where possible.
B. Create Amazon CloudWatch dashboards to visualize the metrics and react to issues quickly.
C. Create Amazon CloudWatch Synthetics canaries to monitor the application and raise an alarm.
D. Create single Amazon CloudWatch metric alarms with multiple metric thresholds where possible.

Answer:

QUESTION 69
A company wants to migrate its on-premises data center to AWS. According to the company's compliance requirements, the company can use only the ap-northeast-3 Region. Company

administrators are not permitted to connect VPCs to the internet.

Which solutions will meet these requirements? (Choose two.)

A. Use AWS Control Tower to implement data residency guardrails to deny internet access and deny access to all AWS Regions except ap-northeast-3.
B. Use rules in AWS WAF to prevent internet access.
Deny access to all AWS Regions except ap-northeast-3 in the AWS account settings.
C. Use AWS Organizations to configure service control policies (SCPS) that prevent VPCs from gaining internet access.
Deny access to all AWS Regions except ap-northeast-3.
D. Create an outbound rule for the network ACL in each VPC to deny all traffic from 0.0.0.0/0.
Create an IAM policy for each user to prevent the use of any AWS Region other than ap-northeast-3.
E. Use AWS Config to activate managed rules to detect and alert for internet gateways and to detect and alert for new resources deployed outside of ap-northeast-3.

Answer: ●

QUESTION 70
A company uses a three-tier web application to provide training to new employees. The application is accessed for only 12 hours every day. The company is using an Amazon RDS for MySQL DB instance to store information and wants to minimize costs.

What should a solutions architect do to meet these requirements?

A. Configure an IAM policy for AWS Systems Manager Session Manager.
Create an IAM role for the policy.
Update the trust relationship of the role.
Set up automatic start and stop for the DB instance.
B. Create an Amazon ElastiCache for Redis cache cluster that gives users the ability to access the data from the cache when the DB instance is stopped.
Invalidate the cache after the DB instance is started.
C. Launch an Amazon EC2 instance.
Create an IAM role that grants access to Amazon RDS.
Attach the role to the EC2 instance.
Configure a cron job to start and stop the EC2 instance on the desired schedule.
D. Create AWS Lambda functions to start and stop the DB instance.
Create Amazon EventBridge (Amazon CloudWatch Events) scheduled rules to invoke the Lambda functions.
Configure the Lambda functions as event targets for the rules

Answer: ●

QUESTION 71
A company sells ringtones created from clips of popular songs. The files containing the ringtones are stored in Amazon S3 Standard and are at least 128 KB in size. The company has millions of files, but downloads are infrequent for ringtones older than 90 days. The company needs to save money on storage while keeping the most accessed files readily available for its users.

Which action should the company take to meet these requirements MOST cost-effectively?

A. Configure S3 Standard-Infrequent Access (S3 Standard-IA) storage for the initial storage tier of the objects.
B. Move the files to S3 Intelligent-Tiering and configure it to move objects to a less expensive storage tier after 90 days.
C. Configure S3 inventory to manage objects and move them to S3 Standard-Infrequent Access (S3 Standard-1A) after 90 days.
D. Implement an S3 Lifecycle policy that moves the objects from S3 Standard to S3 Standard-Infrequent Access (S3 Standard-1A) after 90 days.

Answer:

QUESTION 72
A company needs to save the results from a medical trial to an Amazon S3 repository. The repository must allow a few scientists to add new files and must restrict all other users to read-only access. No users can have the ability to modify or delete any files in the repository. The company must keep every file in the repository for a minimum of 1 year after its creation date.

Which solution will meet these requirements?

A. Use S3 Object Lock In governance mode with a legal hold of 1 year
B. Use S3 Object Lock in compliance mode with a retention period of 365 days.
C. Use an IAM role to restrict all users from deleting or changing objects in the S3 bucket Use an S3 bucket policy to only allow the IAM role
D. Configure the S3 bucket to invoke an AWS Lambda function every tune an object is added Configure the function to track the hash of the saved object to that modified objects can be marked accordingly

Answer:

QUESTION 73
A large media company hosts a web application on AWS. The company wants to start caching confidential media files so that users around the world will have reliable access to the files. The content is stored in Amazon S3 buckets. The company must deliver the content quickly, regardless of where the requests originate geographically.

Which solution will meet these requirements?

A. Use AWS DataSync to connect the S3 buckets to the web application.
B. Deploy AWS Global Accelerator to connect the S3 buckets to the web application.
C. Deploy Amazon CloudFront to connect the S3 buckets to CloudFront edge servers.
D. Use Amazon Simple Queue Service (Amazon SQS) to connect the S3 buckets to the web application.

Answer:
Explanation:
CloudFront uses a local cache to provide the response, AWS Global accelerator proxies requests and connects to the application all the time for the response.
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-restricting-access-to-s3.html#private-content-granting-permissions-to-oai

QUESTION 74

A company produces batch data that comes from different databases. The company also produces live stream data from network sensors and application APIs. The company needs to consolidate all the data into one place for business analytics. The company needs to process the incoming data and then stage the data in different Amazon S3 buckets. Teams will later run one-time queries and import the data into a business intelligence tool to show key performance indicators (KPIs).

Which combination of steps will meet these requirements with the LEAST operational overhead? (Choose two.)

A. Use Amazon Athena foe one-time queries.
Use Amazon QuickSight to create dashboards for KPIs.
B. Use Amazon Kinesis Data Analytics for one-time queries.
Use Amazon QuickSight to create dashboards for KPIs.
C. Create custom AWS Lambda functions to move the individual records from me databases to an Amazon Redshift duster.
D. Use an AWS Glue extract transform, and toad (ETL) job to convert the data into JSON format. Load the data into multiple Amazon OpenSearch Service (Amazon Elasticsearch Service) dusters.
E. Use blueprints in AWS Lake Formation to identify the data that can be ingested into a data lake. Use AWS Glue to crawl the source extract the data and load the data into Amazon S3 in Apache Parquet format.

Answer:

QUESTION 75
A gaming company has a web application that displays scores. The application runs on Amazon EC2 instances behind an Application Load Balancer. The application stores data in an Amazon RDS for MySQL database. Users are starting to experience long delays and interruptions that are caused by database read performance. The company wants to improve the user experience while minimizing changes to the application's architecture.

What should a solutions architect do to meet these requirements?

A. Use Amazon ElastiCache in front of the database.
B. Use RDS Proxy between the application and the database.
C. Migrate the application from EC2 instances to AWS Lambda.
D. Migrate the database from Amazon RDS for MySQL to Amazon DynamoDB.

Answer:

QUESTION 76
A business's backup data totals 700 terabytes (TB) and is kept in network attached storage (NAS) at its data center. This backup data must be available in the event of occasional regulatory inquiries and preserved for a period of seven years. The organization has chosen to relocate its backup data from its on-premises data center to Amazon Web Services (AWS). Within one month, the migration must be completed. The company's public internet connection provides 500 Mbps of dedicated capacity for data transport.

What should a solutions architect do to ensure that data is migrated and stored at the LOWEST possible cost?

A. Order AWS Snowball devices to transfer the data.
Use a lifecycle policy to transition the files to Amazon S3 Glacier Deep Archive.
B. Deploy a VPN connection between the data center and Amazon VPC.
Use the AWS CLI to copy the data from on premises to Amazon S3 Glacier.
C. Provision a 500 Mbps AWS Direct Connect connection and transfer the data to Amazon S3.
Use a lifecycle policy to transition the files to Amazon S3 Glacier Deep Archive.
D. Use AWS DataSync to transfer the data and deploy a DataSync agent on premises.
Use the DataSync task to copy files from the on-premises NAS storage to Amazon S3 Glacier.

Answer: 

QUESTION 77
A company wants to direct its users to a backup static error page if the company's primary website is unavailable. The primary website's DNS records are hosted in Amazon Route 53. The domain is pointing to an Application Load Balancer (ALB). The company needs a solution that minimizes changes and infrastructure overhead.

Which solution will meet these requirements?

A. Update the Route 53 records to use a latency routing policy.
Add a static error page that is hosted in an Amazon S3 bucket to the records so that the traffic is sent to the most responsive endpoints.
B. Set up a Route 53 active-passive failover configuration.
Direct traffic to a static error page that is hosted in an Amazon S3 bucket when Route 53 health checks determine that the ALB endpoint is unhealthy.
C. Set up a Route 53 active-active configuration with the ALB and an Amazon EC2 instance that hosts a static error page as endpoints.
Configure Route 53 to send requests to the instance only if the health checks fail for the ALB.
D. Update the Route 53 records to use a multivalue answer routing policy.
Create a health check.
Direct traffic to the website if the health check passes.
Direct traffic to a static error page that is hosted in Amazon S3 if the health check does not pass.

Answer: 

QUESTION 78
A corporation has recruited a new cloud engineer who should not have access to the CompanyConfidential Amazon S3 bucket. The cloud engineer must have read and write permissions on an S3 bucket named AdminTools.

Which IAM policy will satisfy these criteria?

A.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": "s3:ListBucket",
            "Resource": [
                "arn:aws:s3:::AdminTools",
                "arn:aws:s3:::CompanyConfidential/*"
                ]
        },
        {
            "Effect": "Allow",
            "Action": [ "s3:GetObject", "s3:PutObject", "s3:DeleteObject" ],
            "Resource": "arn:aws:s3:::AdminTools/*"
        },
        {
            "Effect": "Deny",
            "Action": "s3:*",
            "Resource": "arn:aws:s3:::CompanyConfidential"
        }
    ]
}
```

B.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": "s3:ListBucket",
            "Resource": [
                "arn:aws:s3:::AdminTools",
                "arn:aws:s3:::CompanyConfidential/*"
                ]
        },
        {
            "Effect": "Allow",
            "Action": [ "s3:GetObject", "s3:PutObject", "s3:DeleteObject" ],
            "Resource": "arn:aws:s3:::AdminTools/*"
        },
        {
            "Effect": "Deny",
            "Action": "s3:*",
            "Resource": "arn:aws:s3:::CompanyConfidential"
        }
    ]
}
```

C.
```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow"
            "Action": [ "s3:GetObject", "s3:PutObject" ],
            "Resource": "arn:aws:s3:::AdminTools/*"
        },
        {
            "Effect": "Deny",
            "Action": "s3:*",
            "Resource": [
                "arn:aws:s3:::CompanyConfidential/*",
                "arn:aws:s3:::CompanyConfidential"
            ]
        }
    ]
}
```

D.
```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": "s3:ListBucket",
            "Resource": "arn:aws:s3:::AdminTools/*'
        },
        {
            "Effect": "Allow",
            "Action": [ "s3:GetObject", "s3:PutObject", "s3:DeleteObject" ],
            "Resource": "arn:aws:s3:::AdminTools/"
        },
        {
            "Effect": "Deny",
            "Action": "s3:*",
            "Resource": [
                "arn:aws:s3:::CompanyConfidential",
                "arn:aws:s3:::CompanyConfidential/*",
                "arn:aws:s3:::AdminTools/*"
            ]
        }
    ]
}
```

Answer:
Explanation:
https://docs.amazonaws.cn/en_us/IAM/latest/UserGuide/reference_policies_examples_s3_rw-bucket.html

QUESTION 79
A new employee has joined a company as a deployment engineer. The deployment engineer will be using AWS CloudFormation templates to create multiple AWS resources.
A solutions architect wants the deployment engineer to perform job activities while following the

principle of least privilege.

Which steps should the solutions architect do in conjunction to reach this goal? (Select two.)

A. Have the deployment engineer use AWS account roof user credentials for performing AWS CloudFormation stack operations.
B. Create a new IAM user for the deployment engineer and add the IAM user to a group that has the PowerUsers IAM policy attached.
C. Create a new IAM user for the deployment engineer and add the IAM user to a group that has the Administrate/Access IAM policy attached.
D. Create a new IAM User for the deployment engineer and add the IAM user to a group that has an IAM policy that allows AWS CloudFormation actions only.
E. Create an IAM role for the deployment engineer to explicitly define the permissions specific to the AWS CloudFormation stack and launch stacks using Dial IAM role.

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

QUESTION 80
A company runs a high performance computing (HPC) workload on AWS. The workload required low-latency network performance and high network throughput with tightly coupled node-to-node communication. The Amazon EC2 instances are properly sized for compute and storage capacity, and are launched using default options.

What should a solutions architect propose to improve the performance of the workload?

A. Choose a cluster placement group while launching Amazon EC2 instances.
B. Choose dedicated instance tenancy while launching Amazon EC2 instances.
C. Choose an Elastic Inference accelerator while launching Amazon EC2 instances.
D. Choose the required capacity reservation while launching Amazon EC2 instances.

Answer:
Explanation:
https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-resource-ec2-placementgroup.html
A cluster placement group is a logical grouping of instances within a single Availability Zone that benefit from low network latency, high network throughput.

QUESTION 81
A company wants to use the AWS Cloud to make an existing application highly available and resilient. The current version of the application resides in the company's data center. The application recently experienced data loss after a database server crashed because of an unexpected power outage. The company needs a solution that avoids any single points of failure. The solution must give the application the ability to scale to meet user demand.

Which solution will meet these requirements?

A. Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones.
Use an Amazon RDS DB instance in a Multi-AZ configuration.

B. Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group in a single Availability Zone.
Deploy the database on an EC2 instance.
Enable EC2 Auto Recovery.
C. Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones.
Use an Amazon RDS DB instance with a read replica in a single Availability Zone.
Promote the read replica to replace the primary DB instance if the primary DB instance fails.
D. Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones.
Deploy the primary and secondary database servers on EC2 instances across multiple Availability Zones.
Use Amazon Elastic Block Store (Amazon EBS) Multi-Attach to create shared storage between the instances.

Answer:

QUESTION 82
A company wants to run a gaming application on Amazon EC2 instances that are part of an Auto Scaling group in the AWS Cloud. The application will transmit data by using UDP packets. The company wants to ensure that the application can scale out and in as traffic increases and decreases. What should a solutions architect do to meet these requirements?

A. Attach a Network Load Balancer to the Auto Scaling group
B. Attach an Application Load Balancer to the Auto Scaling group.
C. Deploy an Amazon Route 53 record set with a weighted policy to route traffic appropriately
D. Deploy a NAT instance that is configured with port forwarding to the EC2 instances in the Auto Scaling group.

Answer:

QUESTION 83
A solutions architect is designing a customer-facing application for a company. The application's database will have a clearly defined access pattern throughout the year and will have a variable number of reads and writes that depend on the time of year. The company must retain audit records for the database for 7 days. The recovery point objective (RPO) must be less than 5 hours.
Which solution meets these requirements?

A. Use Amazon DynamoDB with auto scaling.
Use on-demand backups and Amazon DynamoDB Streams.
B. Use Amazon Redshift. Configure concurrency scaling.
Activate audit logging.
Perform database snapshots every 4 hours.
C. Use Amazon RDS with Provisioned IOPS.
Activate the database auditing parameter.
Perform database snapshots every 5 hours.
D. Use Amazon Aurora MySQL with auto scaling.
Activate the database auditing parameter

Answer:

QUESTION 84
A company hosts a two-tier application on Amazon EC2 instances and Amazon RDS. The application's demand varies based on the time of day. The load is minimal after work hours and on weekends. The EC2 instances run in an EC2 Auto Scaling group that is configured with a minimum of two instances and a maximum of five instances. The application must be available at all times, but the company is concerned about overall cost.

Which solution meets the availability requirement MOST cost-effectively?

A. Use all EC2 Spot Instances.
Stop the RDS database when it is not in use.
B. Purchase EC2 Instance Savings Plans to cover five EC2 instances.
Purchase an RDS Reserved DB Instance
C. Purchase two EC2 Reserved Instances.
Use up to three additional EC2 Spot Instances as needed.
Stop the RDS database when it is not in use.
D. Purchase EC2 Instance Savings Plans to cover two EC2 instances.
Use up to three additional EC2 On-Demand Instances as needed.
Purchase an RDS Reserved DB Instance.

Answer: ●

QUESTION 85
A company has an ecommerce checkout workflow that writes an order to a database and calls a service to process the payment. Users are experiencing timeouts during the checkout process. When users resubmit the checkout form, multiple unique orders are created for the same desired transaction.

How should a solutions architect refactor this workflow to prevent the creation of multiple orders?

A. Configure the web application to send an order message to Amazon Kinesis Data Firehose.
Set the payment service to retrieve the message from Kinesis Data Firehose and process the order.
B. Create a rule in AWS CloudTrail to invoke an AWS Lambda function based on the logged application path request.
Use Lambda to query the database, call the payment service, and pass in the order information.
C. Store the order in the database.
Send a message that includes the order number to Amazon Simple Notification Service (Amazon SNS).
Set the payment service to poll Amazon SNS. retrieve the message, and process the order.
D. Store the order in the database.
Send a message that includes the order number to an Amazon Simple Queue Service (Amazon SQS) FIFO queue.
Set the payment service to retrieve the message and process the order.
Delete the message from the queue.

Answer: ●

QUESTION 86
A company is planning to build a high performance computing (HPC) workload as a service solution that Is hosted on AWS.
A group of 16 AmazonEC2Ltnux Instances requires the lowest possible latency for node-to-node

communication.
The instances also need a shared block device volume for high-performing storage.
Which solution will meet these requirements?

A. Use a duster placement group.
Attach a single Provisioned IOPS SSD Amazon Elastic Block Store (Amazon EBS) volume to all the instances by using Amazon EBS Multi-Attach.
B. Use a cluster placement group.
Create shared 'lie systems across the instances by using Amazon Elastic File System (Amazon EFS).
C. Use a partition placement group.
Create shared tile systems across the instances by using Amazon Elastic File System (Amazon EFS).
D. Use a spread placement group.
Attach a single Provisioned IOPS SSD Amazon Elastic Block Store (Amazon EBS) volume to all the instances by using Amazon EBS Multi-Attach.

Answer:

QUESTION 87
A company has an event-driven application that invokes AWS Lambda functions up to 800 times each minute with varying runtimes.
The Lambda functions access data that is stored in an Amazon Aurora MySQL OB cluster.
The company is noticing connection timeouts as user activity increases The database shows no signs of being overloaded. CPU, memory, and disk access metrics are all low.
Which solution will resolve this issue with the LEAST operational overhead?

A. Adjust the size of the Aurora MySQL nodes to handle more connections.
Configure retry logic in the Lambda functions for attempts to connect to the database.
B. Set up Amazon ElastiCache tor Redls to cache commonly read items from the database.
Configure the Lambda functions to connect to ElastiCache for reads.
C. Add an Aurora Replica as a reader node.
Configure the Lambda functions to connect to the reader endpoint of the OB cluster rather than lo the writer endpoint.
D. Use Amazon ROS Proxy to create a proxy.
Set the DB cluster as the target database.
Configure the Lambda functions lo connect to the proxy rather than to the DB cluster.

Answer:

QUESTION 88
A company is building a containerized application on premises and decides to move the application to AWS.
The application will have thousands of users soon after li is deployed.
The company Is unsure how to manage the deployment of containers at scale. The company needs to deploy the containerized application in a highly available architecture that minimizes operational overhead.
Which solution will meet these requirements?

A. Store container images In an Amazon Elastic Container Registry (Amazon ECR) repository.
Use an Amazon Elastic Container Service (Amazon ECS) cluster with the AWS Fargate launch type to run the containers.

Use target tracking to scale automatically based on demand.

B. Store container images in an Amazon Elastic Container Registry (Amazon ECR) repository.
Use an Amazon Elastic Container Service (Amazon ECS) cluster with the Amazon EC2 launch type to run the containers.
Use target tracking to scale automatically based on demand.

C. Store container images in a repository that runs on an Amazon EC2 instance.
Run the containers on EC2 instances that are spread across multiple Availability Zones.
Monitor the average CPU utilization in Amazon CloudWatch.
Launch new EC2 instances as needed.

D. Create an Amazon EC2 Amazon Machine Image (AMI) that contains the container image.
Launch EC2 Instances in an Auto Scaling group across multiple Availability Zones.
Use an Amazon CloudWatch alarm to scale out EC2 instances when the average CPU utilization threshold is breached.

Answer: ●

QUESTION 89
A company's application Is having performance issues. The application staleful and needs to complete m-memory tasks on Amazon EC2 instances. The company used AWS CloudFormation to deploy infrastructure and used the M5 EC2 Instance family. As traffic increased, the application performance degraded. Users are reporting delays when the users attempt to access the application.
Which solution will resolve these issues in the MOST operationally efficient way?

A. Replace the EC2 Instances with T3 EC2 instances that run in an Auto Scaling group.
Made the changes by using the AWS Management Console.

B. Modify the CloudFormation templates to run the EC2 instances in an Auto Scaling group.
Increase the desired capacity and the maximum capacity of the Auto Scaling group manually when an increase is necessary.

C. Modify the CloudFormation templates.
Replace the EC2 instances with R5 EC2 instances.
Use Amazon CloudWatch built-in EC2 memory metrics to track the application performance for future capacity planning.

D. Modify the CloudFormation templates.
Replace the EC2 instances with R5 EC2 instances.
Deploy the Amazon CloudWatch agent on the EC2 instances to generate custom application latency metrics for future capacity planning.

Answer: ●

QUESTION 90
An ecommerce company has an order-processing application that uses Amazon API Gateway and an AWS Lambda function.
The application stores data in an Amazon Aurora PostgreSQL database.
During a recent sales event, a sudden surge in customer orders occurred.
Some customers experienced timeouts and the application did not process the orders of those customers.
A solutions architect determined that the CPU utilization and memory utilization were high on the database because of a large number of open connections.
The solutions architect needs to prevent the timeout errors while making the least possible changes to the application.
Which solution will meet these requirements?

A. Configure provisioned concurrency for the Lambda function.
Modify the database to be a global database in multiple AWS Regions.
B. Use Amazon RDS Proxy to create a proxy for the database.
Modify the Lambda function to use the RDS Proxy endpoint instead of the database endpoint.
C. Create a read replica for the database in a different AWS Region.
Use query string parameters in API Gateway to route traffic to the read replica.
D. Migrate the data from Aurora PostgreSQL to Amazon DynamoDB by using AWS Database.
Migration Service (AWS DMS) Modify the Lambda function to use the OynamoDB table.

Answer: [redacted]

QUESTION 91
A company runs a global web application on Amazon EC2 instances behind an Application Load Balancer.
The application stores data in Amazon Aurora.
The company needs to create a disaster recovery solution and can tolerate up to 30 minutes of downtime and potential data loss.
The solution does not need to handle the load when the primary infrastructure is healthy.
What should a solutions architect do to meet these requirements?

A. Deploy the application with the required infrastructure elements in place.
Use Amazon Route 53 to configure active-passive failover.
Create an Aurora Replica in a second AWS Region.
B. Host a scaled-down deployment of the application in a second AWS Region.
Use Amazon Route 53 to configure active-active failover.
Create an Aurora Replica in the second Region.
C. Replicate the primary infrastructure in a second AWS Region.
Use Amazon Route 53 to configure active-active failover.
Create an Aurora database that is restored from the latest snapshot.
D. Back up data with AWS Backup.
Use the backup to create the required infrastructure in a second AWS Region.
Use Amazon Route 53 to configure active-passive failover.
Create an Aurora second primary instance in the second Region.

Answer [redacted]

QUESTION 92
A company wants to measure the effectiveness of its recent marketing campaigns.
The company performs batch processing on csv files of sales data and stores the results in an Amazon S3 bucket once every hour.
The S3 bipetabytes of objects. The company runs one-time queries in Amazon Athena to determine which products are most popular on a particular date for a particular region Queries sometimes fail or take longer than expected to finish.
Which actions should a solutions architect take to improve the query performance and reliability? (Select TWO.)

A. Reduce the S3 object sizes to less than 126 MB
B. Partition the data by date and region in Amazon S3
C. Store the files as large, single objects in Amazon S3.
D. Use Amazon Kinosis Data Analytics to run the Queries as pan of the batch processing operation
E. Use an AWS duo extract, transform, and load (ETL) process to convert the csv files into Apache Parquet format.

Answer:

QUESTION 93
A company is running several business applications in three separate VPCs within me us-east-1 Region.
The applications must be able to communicate between VPCs.
The applications also must be able to consistently send hundreds to gigabytes of data each day to a latency-sensitive application that runs in a single on-premises data center.
A solutions architect needs to design a network connectivity solution that maximizes cost-effectiveness.
Which solution moots those requirements?

A. Configure three AWS Site-to-Site VPN connections from the data center to AWS.
Establish connectivity by configuring one VPN connection for each VPC.
B. Launch a third-party virtual network appliance in each VPC.
Establish an iPsec VPN tunnel between the Data center and each virtual appliance.
C. Set up three AWS Direct Connect connections from the data center to a Direct Connect gateway in us-east-1.
Establish connectivity by configuring each VPC to use one of the Direct Connect connections.
D. Set up one AWS Direct Connect connection from the data center to AWS.
Create a transit gateway, and attach each VPC to the transit gateway.
Establish connectivity between the Direct Connect connection and the transit gateway.

Answer
Explanation:
https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/aws-direct-connect-aws-transit-gateway.html

QUESTION 94
An online photo application lets users upload photos and perform image editing operations. The application offers two classes of service free and paid Photos submitted by paid users are processed before those submitted by free users Photos are uploaded to Amazon S3 and the job information is sent to Amazon SQS.
Which configuration should a solutions architect recommend?

A. Use one SQS FIFO queue.
Assign a higher priority to the paid photos so they are processed first
B. Use two SQS FIFO queues: one for paid and one for free.
Set the free queue to use short polling and the paid queue to use long polling
C. Use two SQS standard queues one for paid and one for free.
Configure Amazon EC2 instances to prioritize polling for the paid queue over the free queue.
D. Use one SQS standard queue.
Set the visibility timeout of the paid photos to zero.
Configure Amazon EC2 instances to prioritize visibility settings so paid photos are processed first

Answer:
Explanation:
Priority: Use separate queues to provide prioritization of work.

QUESTION 95

A company hosts its product information webpages on AWS. The existing solution uses multiple Amazon EC2 instances behind an Application Load Balancer in an Auto Scaling group. The website also uses a custom DNS name and communicates with HTTPS only using a dedicated SSL certificate. The company is planning a new product launch and wants to be sure that users from around the world have the best possible experience on the new website.
What should a solutions architect do to meet these requirements?

A. Redesign the application to use Amazon CloudFront
B. Redesign the application to use AWS Elastic Beanstalk
C. Redesign the application to use a Network Load Balancer.
D. Redesign the application to use Amazon S3 static website hosting

Answer:
Explanation:
as CloudFront can help provide the best experience for global users. CloudFront integrates seamlessly with ALB and provides and option to use custom DNS and SSL certs.

QUESTION 96
A company has 150 TB of archived image data stored on-premises that needs to be moved to the AWS Cloud within the next month.
The company's current network connection allows up to 100 Mbps uploads for this purpose during the night only.
What is the MOST cost-effective mechanism to move this data and meet the migration deadline?

A. Use AWS Snowmobile to ship the data to AWS.
B. Order multiple AWS Snowball devices to ship the data to AWS.
C. Enable Amazon S3 Transfer Acceleration and securely upload the data.
D. Create an Amazon S3 VPC endpoint and establish a VPN to upload the data

Answer:
Explanation:
eg.6 hrs night
6 hrs*60min/hr=360 min
360 min*60 sec/min=21600 sec
100 Mbps*21600 s=2160000Mb
or 2160 Gb or 2.1 TB can only be done

So, for 150 TB, we can use 2 X Snowball Edge Storage Optimised devices.

Size of Snowball Edge Storage Optimised device=80 TB Size of Snowball Edge Compute Optimised device= 40 TB Size of Snowcone =8 TB
Size of Snowmobile =100 PB (1 PB=1000 TB)

Q: How should I choose between Snowmobile and Snowball?
To migrate large datasets of 10PB or more in a single location, you should use Snowmobile. For datasets less than 10PB or distributed in multiple locations, you should use Snowball. In addition, you should evaluate the amount of available bandwidth in your network backbone. If you have a high speed backbone with hundreds of Gb/s of spare throughput, then you can use Snowmobile to migrate the large datasets all at once. If you have limited bandwidth on your backbone, you should consider using multiple Snowballs to migrate the data incrementally.

QUESTION 97
A company hosts its web application on AWS using seven Amazon EC2 instances. The company

requires that the IP addresses of all healthy EC2 instances be returned in response to DNS queries. Which policy should be used to meet this requirement?

A. Simple routing policy
B. Latency routing policy
C. Multivalue routing policy
D. Geolocation routing policy

Answer:
Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/multivalue-versus-simple-policies/
"Use a multivalue answer routing policy to help distribute DNS responses across multiple resources.
For example, use multivalue answer routing when you want to associate your routing records with a Route 53 health check."
https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-policy.html#routing-policy-multivalue

QUESTION 98
A company wants to use AWS Systems Manager to manage a fleet ol Amazon EC2 instances. According to the company's security requirements, no EC2 instances can have internet access. A solutions architect needs to design network connectivity from the EC2 instances to Systems Manager while fulfilling this security obligation.
Which solution will meet these requirements?

A. Deploy the EC2 instances into a private subnet with no route to the internet.
B. Configure an interface VPC endpoint for Systems Manager.
Update routes to use the endpoint.
C. Deploy a NAT gateway into a public subnet.
Configure private subnets with a default route to the NAT gateway.
D. Deploy an internet gateway.
Configure a network ACL to deny traffic to all destinations except Systems Manager.

Answer:
Explanation:
VPC Peering connections
VPC interface endpoints can be accessed through both intra-Region and inter-Region VPC peering connections.
VPC Gateway Endpoint connections can't be extended out of a VPC. Resources on the other side of a VPC peering connection in your VPC can't use the gateway endpoint to communicate with resources in the gateway endpoint service.
Reference: https://docs.aws.amazon.com/systems-manager/latest/userguide/setup-create-vpc.html

QUESTION 99
A company needs to build a reporting solution on AWS. The solution must support SQL queries that data analysts run on the data.
The data analysts will run lower than 10 total queries each day. The company generates 3 GB of new data daily in an on-premises relational database. This data needs to be transferred to AWS to perform reporting tasks.
What should a solutions architect recommend to meet these requirements at the LOWEST cost?

A. Use AWS Database Migration Service (AWS DMS) to replicate the data from the on-premises database into Amazon S3.
Use Amazon Athena to query the data.
B. Use an Amazon Kinesis Data Firehose delivery stream to deliver the data into an Amazon Elasticsearch Service (Amazon ES) cluster Run the queries in Amazon ES.
C. Export a daily copy of the data from the on-premises database.
Use an AWS Storage Gateway file gateway to store and copy the export into Amazon S3.
Use an Amazon EMR cluster to query the data.
D. Use AWS Database Migration Service (AWS DMS) to replicate the data from the on-premises database and load it into an Amazon Redshift cluster.
Use the Amazon Redshift cluster to query the data.

Answer:
Explanation:
https://docs.aws.amazon.com/dms/latest/userguide/CHAP_Target.Redshift.html
AWS DMS cannot migrate or replicate changes to a schema with a name that begins with underscore (_). If you have schemas that have a name that begins with an underscore, use mapping transformations to rename the schema on the target.
Amazon Redshift doesn't support VARCHARs larger than 64 KB. LOBs from traditional databases can't be stored in Amazon Redshift.
Applying a DELETE statement to a table with a multi-column primary key is not supported when any of the primary key column names use a reserved word. Go here to see a list of Amazon Redshift reserved words.
You may experience performance issues if your source system performs UPDATE operations on the primary key of a source table. These performance issues occur when applying changes to the target. This is because UPDATE (and DELETE) operations depend on the primary key value to identify the target row. If you update the primary key of a source table, your task log will contain messages like the following:
Update on table 1 changes PK to a PK that was previously updated in the same bulk update.
DMS doesn't support custom DNS names when configuring an endpoint for a Redshift cluster, and you need to use the Amazon provided DNS name. Since the Amazon Redshift cluster must be in the same AWS account and Region as the replication instance, validation fails if you use a custom DNS endpoint.

QUESTION 100
A company wants to monitor its AWS costs for financial review. The cloud operations team is designing an architecture in the AWS Organizations management account to query AWS Cost and Usage Reports for all member accounts.
The team must run this query once a month and provide a detailed analysis of the bill.
Which solution is the MOST scalable and cost-effective way to meet these requirements?

A. Enable Cost and Usage Reports in the management account.
Deliver reports to Amazon Kinesis.
Use Amazon EMR for analysis.
B. Enable Cost and Usage Reports in the management account.
Deliver the reports to Amazon S3.
Use Amazon Athena for analysis.
C. Enable Cost and Usage Reports for member accounts.
Deliver the reports to Amazon S3.
Use Amazon Redshift for analysis.
D. Enable Cost and Usage Reports for member accounts.
Deliver the reports to Amazon Kinesis.
Use Amazon QuickSight for analysis.

Answer:
Explanation:
https://docs.aws.amazon.com/cur/latest/userguide/what-is-cur.html
If you are an administrator of an AWS Organizations management account and do not want any of the member accounts in your Organization to set-up a CUR you can do one of the following:
(Recommended) If you've opted into Organizations with all features enabled, you can apply a Service Control Policy (SCP). Note that SCPs only apply to member accounts and if you want to restrict any IAM users associated with the management account from setting up a CUR, you'll need to adjust their specific IAM permissions. SCPs also are not retroactive, so they will not de-activate any CURs a member account may have set-up prior to the SCP being applied.
Submit a customer support case to block access to billing data in the Billing console for member accounts. This is a list of organizations where the payer account prevents member accounts in its organization from viewing billing data on the Bills and Invoices pages. This also prevents those accounts from setting up Cost and Usage Reports. This option is only available for organizations without all features enabled. Please note that if you have already opted into this to prevent member accounts from viewing bills and invoices in the Billing Console, you do not need to request this access again. Those same member accounts will also be prevented from setting up a Cost and Usage Report.

QUESTION 101
A company collects temperature, humidity, and atmospheric pressure data in cities across multiple continents. The average volume of data collected per site each day is 500 GB. Each site has a high-speed internet connection. The company's weather forecasting applications are based in a single Region and analyze the data daily.
What is the FASTEST way to aggregate data from all of these global sites?

A. Enable Amazon S3 Transfer Acceleration on the destination bucket.
Use multipart uploads to directly upload site data to the destination bucket.
B. Upload site data to an Amazon S3 bucket in the closest AWS Region.
Use S3 cross-Region replication to copy objects to the destination bucket.
C. Schedule AWS Snowball jobs daily to transfer data to the closest AWS Region.
Use S3 cross-Region replication to copy objects to the destination bucket.
D. Upload the data to an Amazon EC2 instance in the closest Region.
Store the data in an Amazon Elastic Block Store (Amazon EBS) volume.
Once a day take an EBS snapshot and copy it to the centralized Region.
Restore the EBS volume in the centralized Region and run an analysis on the data daily.

Answer:
Explanation:
You might want to use Transfer Acceleration on a bucket for various reasons, including the following:
- You have customers that upload to a centralized bucket from all over the world.
- You transfer gigabytes to terabytes of data on a regular basis across continents.
- You are unable to utilize all of your available bandwidth over the Internet when uploading to Amazon S3.

https://docs.aws.amazon.com/AmazonS3/latest/dev/transfer-acceleration.html
https://aws.amazon.com/s3/transfer-acceleration/#:~:text=S3%20Transfer%20Acceleration%20(S3TA)%20reduces,to%20S3%20for%20remote%20applications
"Amazon S3 Transfer Acceleration can speed up content transfers to and from Amazon S3 by as much as 50-500% for long-distance transfer of larger objects. Customers who have either web or mobile applications with widespread users or applications hosted far away from their S3 bucket can experience long and variable upload and download speeds over the Internet"

https://docs.aws.amazon.com/AmazonS3/latest/userguide/mpuoverview.html
"Improved throughput -You can upload parts in parallel to improve throughput."

QUESTION 102
A company needs the ability to analyze the log files of its proprietary application. The logs are stored in JSON format in an Amazon S3 bucket Queries will be simple and will run on-demand. A solutions architect needs to perform the analysis with minimal changes to the existing architecture.
What should the solutions architect do to meet these requirements with the LEAST amount of operational overhead?

A. Use Amazon Redshift to load all the content into one place and run the SQL queries as needed
B. Use Amazon CloudWatch Logs to store the logs
Run SQL queries as needed from the Amazon CloudWatch console
C. Use Amazon Athena directly with Amazon S3 to run the queries as needed
D. Use AWS Glue to catalog the logs
Use a transient Apache Spark cluster on Amazon EMR to run the SQL queries as needed

Answer:
Explanation:
Amazon Athena can be used to query JSON in S3.

QUESTION 103
A company uses AWS Organizations to manage multiple AWS accounts for different departments. The management account has an Amazon S3 bucket that contains project reports. The company wants to limit access to this S3 bucket to only users of accounts within the organization in AWS Organizations.
Which solution meets these requirements with the LEAST amount of operational overhead?

A. Add the aws:PrincipalOrgID global condition key with a reference to the organization ID to the S3 bucket policy.
B. Create an organizational unit (OU) for each department.
Add the aws:PrincipalOrgPaths global condition key to the S3 bucket policy.
C. Use AWS CloudTrail to monitor the CreateAccount, InviteAccountToOrganization, LeaveOrganization, and RemoveAccountFromOrganization events.
Update the S3 bucket policy accordingly.
D. Tag each user that needs access to the S3 bucket.
Add the aws:PrincipalTag global condition key to the S3 bucket policy.

Answer:
Explanation:
https://aws.amazon.com/blogs/security/control-access-to-aws-resources-by-using-the-aws-organization-of-iam-principals/

The aws:PrincipalOrgID global key provides an alternative to listing all the account IDs for all AWS accounts in an organization.
For example, the following Amazon S3 bucket policy allows members of any account in the XXX organization to add an object into the examtopics bucket.

```
{"Version": "2020-09-10",
"Statement": {
"Sid": "AllowPutObject",
```

```
"Effect": "Allow",
"Principal": "*",
"Action": "s3:PutObject",
"Resource": "arn:aws:s3:::examtopics/*",
"Condition": {"StringEquals":
{"aws:PrincipalOrgID":["XXX"]}}}}
```

https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_policies_condition-keys.html

QUESTION 104
An application runs on an Amazon EC2 instance in a VPC. The application processes logs that are stored in an Amazon S3 bucket. The EC2 instance needs to access the S3 bucket without connectivity to the internet.

Which solution will provide private network connectivity to Amazon S3?

A. Create a gateway VPC endpoint to the S3 bucket.
B. Stream the logs to Amazon CloudWatch Logs. Export the logs to the S3 bucket.
C. Create an instance profile on Amazon EC2 to allow S3 access.
D. Create an Amazon API Gateway API with a private link to access the S3 endpoint.

Answer: A

QUESTION 105
A company is hosting a web application on AWS using a single Amazon EC2 instance that stores user-uploaded documents in an Amazon EBS volume. For better scalability and availability, the company duplicated the architecture and created a second EC2 instance and EBS volume in another Availability Zone placing both behind an Application Load Balancer. After completing this change, users reported that, each time they refreshed the website, they could see one subset of their documents or the other, but never all of the documents at the same time.
What should a solutions architect propose to ensure users see all of their documents at once?

A. Copy the data so both EBS volumes contain all the documents.
B. Configure the Application Load Balancer to direct a user to the server with the documents
C. Copy the data from both EBS volumes to Amazon EFS.
Modify the application to save new documents to Amazon EFS
D. Configure the Application Load Balancer to send the request to both servers.
Return each document from the correct server.

Answer: C
Explanation:
Amazon EFS provides file storage in the AWS Cloud. With Amazon EFS, you can create a file system, mount the file system on an Amazon EC2 instance, and then read and write data to and from your file system. You can mount an Amazon EFS file system in your VPC, through the Network File System versions 4.0 and 4.1 (NFSv4) protocol. We recommend using a current generation Linux NFSv4.1 client, such as those found in the latest Amazon Linux, Redhat, and Ubuntu AMIs, in conjunction with the Amazon EFS Mount Helper. For instructions, see Using the amazon-efs-utils Tools.
For a list of Amazon EC2 Linux Amazon Machine Images (AMIs) that support this protocol, see NFS Support. For some AMIs, you'll need to install an NFS client to mount your file system on your Amazon EC2 instance. For instructions, see Installing the NFS Client. You can access your Amazon EFS file system concurrently from multiple NFS clients, so applications that scale beyond a single connection can access a file system. Amazon EC2 instances running in multiple

Availability Zones within the same AWS Region can access the file system, so that many users can access and share a common data source.

QUESTION 106
A company uses NFS to store large video files in on-premises network attached storage. Each video file ranges in size from 1MB to 500 GB. The total storage is 70 TB and is no longer growing. The company decides to migrate the video files to Amazon S3. The company must migrate the video files as soon as possible while using the least possible network bandwidth.
Which solution will meet these requirements?

A. Create an S3 bucket.
Create an IAM role that has permissions to write to the S3 bucket.
Use the AWS CLI to copy all files locally to the S3 bucket.
B. Create an AWS Snowball Edge job.
Receive a Snowball Edge device on premises.
Use the Snowball Edge client to transfer data to the device.
Return the device so that AWS can import the data into Amazon S3.
C. Deploy an S3 File Gateway on premises.
Create a public service endpoint to connect to the S3 File Gateway.
Create an S3 bucket.
Create a new NFS file share on the S3 File Gateway.
Point the new file share to the S3 bucket.
Transfer the data from the existing NFS file share to the S3 File Gateway.
D. Set up an AWS Direct Connect connection between the on-premises network and AWS.
Deploy an S3 File Gateway on premises.
Create a public virtual interlace (VIF) to connect to the S3 File Gateway.
Create an S3 bucket.
Create a new NFS file share on the S3 File Gateway.
Point the new file share to the S3 bucket.
Transfer the data from the existing NFS file share to the S3 File Gateway.

Answer: ●

QUESTION 107
A company has an application that ingests incoming messages. These messages are then quickly consumed by dozens of other applications and microservices. The number of messages varies drastically and sometimes spikes as high as 100,000 each second. The company wants to decouple the solution and increase scalability.
Which solution meets these requirements?

A. Persist the messages to Amazon Kinesis Data Analytics.
All the applications will read and process the messages.
B. Deploy the application on Amazon EC2 instances in an Auto Scaling group, which scales the number of EC2 instances based on CPU metrics.
C. Write the messages to Amazon Kinesis Data Streams with a single shard.
All applications will read from the stream and process the messages.
D. Publish the messages to an Amazon Simple Notification Service (Amazon SNS) topic with one or more Amazon Simple Queue Service (Amazon SQS) subscriptions.
All applications then process the messages from the queues.

Answer: ●
Explanation:
"SNS Standard Topic"

Maximum throughput: Standard topics support a nearly unlimited number of messages per second.
https://aws.amazon.com/sns/features/
"SQS Standard Queue"
Unlimited Throughput: Standard queues support a nearly unlimited number of transactions per second (TPS) per API action.
https://aws.amazon.com/sqs/features/

QUESTION 108
A company is migrating a distributed application to AWS The application serves variable workloads. The legacy platform consists of a primary server trial coordinates jobs across multiple compute nodes. The company wants to modernize the application with a solution that maximizes resiliency and scalability.
How should a solutions architect design the architecture to meet these requirements?

A. Configure an Amazon Simple Queue Service (Amazon SQS) queue as a destination for the jobs.
Implement the compute nodes with Amazon EC2 instances that are managed in an Auto Scaling group.
Configure EC2 Auto Scaling to use scheduled scaling.
B. Configure an Amazon Simple Queue Service (Amazon SQS) queue as a destination for the jobs.
Implement the compute nodes with Amazon EC2 Instances that are managed in an Auto Scaling group.
Configure EC2 Auto Scaling based on the size of the queue.
C. Implement the primary server and the compute nodes with Amazon EC2 instances that are managed in an Auto Scaling group.
Configure AWS CloudTrail as a destination for the fobs .
Configure EC2 Auto Scaling based on the load on the primary server.
D. implement the primary server and the compute nodes with Amazon EC2 instances that are managed in an Auto Scaling group.
Configure Amazon EventBridge (Amazon CloudWatch Events) as a destination for the jobs.
Configure EC2 Auto Scaling based on the load on the compute nodes.

Answer:

QUESTION 109
A company is running an SMB file server in its data center. The file server stores large files that are accessed frequently for the first few days after the files are created. After 7 days the files are rarely accessed.

The total data size is increasing and is close to the company's total storage capacity. A solutions architect must increase the company's available storage space without losing low-latency access to the most recently accessed files. The solutions architect must also provide file lifecycle management to avoid future storage issues.

Which solution will meet these requirements?

A. Use AWS DataSync to copy data that is older than 7 days from the SMB file server to AWS.
B. Create an Amazon S3 File Gateway to extend the company's storage space.
Create an S3 Lifecycle policy to transition the data to S3 Glacier Deep Archive after 7 days.
C. Create an Amazon FSx for Windows File Server file system to extend the company's storage space.

D. Install a utility on each user's computer to access Amazon S3.
Create an S3 Lifecycle policy to transition the data to S3 Glacier Flexible Retrieval after 7 days.

Answer:

QUESTION 110
A company is building an ecommerce web application on AWS. The application sends information about new orders to an Amazon API Gateway REST API to process. The company wants to ensure that orders are processed in the order that they are received.

Which solution will meet these requirements?

A. Use an API Gateway integration to publish a message to an Amazon Simple Notification Service (Amazon SNS) topic when the application receives an order.
Subscribe an AWS Lambda function to the topic to perform processing.
B. Use an API Gateway integration to send a message to an Amazon Simple Queue Service (Amazon SQS) FIFO queue when the application receives an order.
Configure the SQS FIFO queue to invoke an AWS Lambda function for processing.
C. Use an API Gateway authorizer to block any requests while the application processes an order.
D. Use an API Gateway integration to send a message to an Amazon Simple Queue Service (Amazon SQS) standard queue when the application receives an order.
Configure the SQS standard queue to invoke an AWS Lambda function for processing.

Answer:

QUESTION 111
A company has an application that runs on Amazon EC2 instances and uses an Amazon Aurora database. The EC2 instances connect to the database by using user names and passwords that are stored locally in a file. The company wants to minimize the operational overhead of credential management.
What should a solutions architect do to accomplish this goal?

A. Use AWS Secrets Manager.
Turn on automatic rotation.
B. Use AWS Systems Manager Parameter Store.
Turn on automatic rotation.
C. Create an Amazon S3 bucket lo store objects that are encrypted with an AWS Key.
Management Service (AWS KMS) encryption key.
Migrate the credential file to the S3 bucket.
Point the application to the S3 bucket.
D. Create an encrypted Amazon Elastic Block Store (Amazon EBS) volume or each EC2 instance.
Attach the new EBS volume to each EC2 instance.
Migrate the credential file to the new EBS volume.
Point the application to the new EBS volume.

Answer:

QUESTION 112
A global company hosts its web application on Amazon EC2 instances behind an Application Load Balancer (ALB). The web application has static data and dynamic data. The company stores its static data in an Amazon S3 bucket. The company wants to improve performance and

reduce latency for the static data and dynamic data. The company is using its own domain name registered with Amazon Route 53.
What should a solutions architect do to meet these requirements?

A. Create an Amazon CloudFront distribution that has the S3 bucket and the ALB as origins.
Configure Route 53 to route traffic to the CloudFront distribution.
B. Create an Amazon CloudFront distribution that has the ALB as an origin.
Create an AWS Global Accelerator standard accelerator that has the S3 bucket as an endpoint.
Configure Route 53 to route traffic to the CloudFront distribution.
C. Create an Amazon CloudFront distribution that has the S3 bucket as an origin.
Create an AWS Global Accelerator standard accelerator that has the ALB and the CloudFront distribution as endpoints.
Create a custom domain name that points to the accelerator DNS name.
Use the custom domain name as an endpoint for the web application.
D. Create an Amazon CloudFront distribution that has the ALB as an origin.
Create an AWS Global Accelerator standard accelerator that has the S3 bucket as an endpoint.
Create two domain names.
Point one domain name to the CloudFront DNS name for dynamic content.
Point the other domain name to the accelerator DNS name for static content.
Use the domain names as endpoints for the web application.

Answer:
Explanation:
https://stackoverflow.com/questions/52704816/how-to-properly-disable-cloudfront-caching-for-api-requests

QUESTION 113
A company performs monthly maintenance on its AWS infrastructure. During these maintenance activities, the company needs to rotate the credentials tor its Amazon ROS tor MySQL databases across multiple AWS Regions.
Which solution will meet these requirements with the LEAST operational overhead?

A. Store the credentials as secrets in AWS Secrets Manager.
Use multi-Region secret replication for the required Regions.
Configure Secrets Manager to rotate the secrets on a schedule.
B. Store the credentials as secrets in AWS Systems Manager by creating a secure string parameter.
Use multi-Region secret replication for the required Regions.
Configure Systems Manager to rotate the secrets on a schedule.
C. Store the credentials in an Amazon S3 bucket that has server-side encryption (SSE) enabled.
Use Amazon EventBridge (Amazon CloudWatch Events) to invoke an AWS Lambda function to rotate the credentials.
D. Encrypt the credentials as secrets by using AWS Key Management Service (AWS KMS) multi-Region customer managed keys.
Store the secrets in an Amazon DynamoDB global table.
Use an AWS Lambda function to retrieve the secrets from DynamoDB.
Use the RDS API to rotate the secrets.

Answer:

QUESTION 114
A company is planning to run a group of Amazon EC2 instances that connect to an Amazon Aurora database. The company has built an AWS CloudFormation template to deploy the EC2

instances and the Aurora DB cluster. The company wants to allow the instances to authenticate to the database in a secure way. The company does not want to maintain static database credentials.
Which solution meets these requirements with the LEAST operational effort?

A. Create a database user with a user name and password.
Add parameters for the database user name and password to the CloudFormation template.
Pass the parameters to the EC2 instances when the instances are launched.
B. Create a database user with a user name and password.
Store the user name and password in AWS Systems Manager Parameter Store.
Configure the EC2 instances to retrieve the database credentials from Parameter Store.
C. Configure the DB cluster to use IAM database authentication.
Create a database user to use with IAM authentication.
Associate a role with the EC2 instances to allow applications on the instances to access the database.
D. Configure the DB cluster to use IAM database authentication with an IAM user.
Create a database user that has a name that matches the IAM user.
Associate the IAM user with the EC2 instances to allow applications on the instances to access the database.

Answer:
Explanation:
Finally, you need a way to instruct CloudFormation to complete stack creation only after all the services (such as Apache and MySQL) are running and not after all the stack resources are created. In other words, if you use the template from the earlier section to launch a stack, CloudFormation sets the status of the stack as CREATE_COMPLETE after it successfully creates all the resources. However, if one or more services failed to start, CloudFormation still sets the stack status as CREATE_COMPLETE. To prevent the status from changing to CREATE_COMPLETE until all the services have successfully started, you can add a CreationPolicy attribute to the instance. This attribute puts the instance's status in CREATE_IN_PROGRESS until CloudFormation receives the required number of success signals or the timeout period is exceeded, so you can control when the instance has been successfully created.
Reference:
https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/deploying.applications.html

QUESTION 115
A solutions architect is designing a shared storage solution for a web application that is deployed across multiple Availability Zones. The web application runs on Amazon EC2 instances that are in an Auto Scaling group. The company plans to make frequent changes to the content.
The solution must have strong consistency in returning the new content as soon as the changes occur.
Which solutions meet these requirements? (Select TWO.)

A. Use AWS Storage Gateway Volume Gateway Internet Small Computer Systems Interface (ISCSI) block storage that is mounted to the individual EC2 instances.
B. Create an Amazon Elastic File System (Amazon EFS) file system.
Mount the EFS file system on the individual EC2 instances.
C. Create a shared Amazon Elastic Block Store (Amazon EBS) volume.
Mount the EBS volume on the individual EC2 instances.
D. Use AWS DataSync to perform continuous synchronization of data between EC2 hosts in the Auto Scaling group.
E. Create an Amazon S3 bucket to store the web content.

Set the metadata for the Cache-Control header to no-cache.
Use Amazon CloudFront to deliver the content.

Answer:
Explanation:
Reference:
https://docs.aws.amazon.com/storagegateway/latest/userguide/WhatIsStorageGateway.html
https://docs.aws.amazon.com/efs/latest/ug/how-it-works.html
In this example, the EC2 instance in the us-west-2c Availability Zone will pay EC2 data access charges for accessing a mount target in a different Availability Zone. Creating this setup works as follows:
1. Create your Amazon EC2 resources and launch your Amazon EC2 instance. For more information about Amazon EC2, see Amazon EC2.
2. Create your Amazon EFS file system with One Zone storage.
3. Connect to each of your Amazon EC2 instances, and mount the Amazon EFS file system using the same mount target for each instance.

QUESTION 116
A company that operates a web application on premises is preparing to launch a newer version of the application on AWS. The company needs to route requests to either the AWS-hosted or the on-premises-hosted application based on the URL query string. The on-premises application is not available from the internet, and a VPN connection is established between Amazon VPC and the company's data center. The company wants to use an Application Load Balancer (ALB) for this launch.
Which solution meets these requirements?

A. Use two ALBs: one for on-premises and one for the AWS resource.
Add hosts to each target group of each ALB.
Route with Amazon Route 53 based on the URL query string.
B. Use two ALBs: one for on-premises and one for the AWS resource.
Add hosts to the target group of each ALB.
Create a software router on an EC2 instance based on the URL query string.
C. Use one ALB with two target groups: one for the AWS resource and one for on premises.
Add hosts to each target group of the ALB.
Configure listener rules based on the URL query string.
D. Use one ALB with two AWS Auto Scaling groups: one for the AWS resource and one for on premises.
Add hosts to each Auto Scaling group.
Route with Amazon Route 53 based on the URL query string.

Answer:
Explanation:
https://aws.amazon.com/blogs/aws/new-advanced-request-routing-for-aws-application-load-balancers/
The host-based routing feature allows you to write rules that use the Host header to route traffic to the desired target group.
Today we are extending and generalizing this feature, giving you the ability to write rules (and route traffic) based on standard and custom HTTP headers and methods, the query string, and the source IP address.

QUESTION 117
A company wants to move from many standalone AWS accounts to a consolidated, multi-account architecture. The company plans to create many new AWS accounts for different business units.

The company needs to authenticate access to these AWS accounts by using a centralized corporate directory service
Which combination of actions should a solutions architect recommend to meet these requirements? (Select TWO)

A. Create a new organization in AWS Organizations with all features turned on.
Create the new AWS accounts in the organization.
B. Set up an Amazon Cognito identity pool.
Configure AWS Single Sign-On to accept Amazon Cognito authentication.
C. Configure a service control policy (SCP) to manage the AWS accounts.
Add AWS Single Sign-On to AWS Directory Service.
D. Create a new organization in AWS Organizations.
Configure the organization's authentication mechanism to use AWS Directory Service directly.
E. Set up AWS Single Sign-On (AWS SSO) in the organization.
Configure AWS SSO and integrate it with the company's corporate directory service.

Answer:
Explanation:
SCPs affect only IAM users and roles that are managed by accounts that are part of the organization. SCPs don't affect resource-based policies directly. They also don't affect users or roles from accounts outside the organization. For example, consider an Amazon S3 bucket that's owned by account A in an organization. The bucket policy (a resource-based policy) grants access to users from account B outside the organization. Account A has an SCP attached. That SCP doesn't apply to those outside users in account B. The SCP applies only to users that are managed by account A in the organization.

An SCP restricts permissions for IAM users and roles in member accounts, including the member account's root user. Any account has only those permissions permitted by every parent above it. If a permission is blocked at any level above the account, either implicitly (by not being included in an Allow policy statement) or explicitly (by being included in a Deny policy statement), a user or role in the affected account can't use that permission, even if the account administrator attaches the AdministratorAccess IAM policy with */* permissions to the user.

Reference:
https://aws.amazon.com/cognito/
https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps.html

QUESTION 118
An entertainment company is using Amazon DynamoDB to store media metadata.
The application is read intensive and experiencing delays.
The company does not have staff to handle additional operational overhead and needs to improve the performance efficiency of DynamoDB without reconfiguring the application.
What should a solutions architect recommend to meet this requirement?

A. Use Amazon ElastiCache for Redis
B. Use Amazon DynamoDB Accelerate (DAX)
C. Replicate data by using DynamoDB global tables
D. Use Amazon ElastiCache for Memcached with Auto Discovery enabled

Answer:
Explanation:
Though DynamoDB offers consistent single-digit-millisecond latency, DynamoDB + DAX takes performance to the next level with response times in microseconds for millions of requests per

second for read-heavy workloads. With DAX, your applications remain fast and responsive, even when a popular event or news story drives unprecedented request volumes your way. No tuning required.

QUESTION 119
A company has an application that provides marketing services to stores. The services are based on previous purchases by store customers. The stores upload transaction data to the company through SFTP, and the data is processed and analyzed to generate new marketing offers. Some of the files can exceed 200 GB in size.

Recently, the company discovered that some of the stores have uploaded files that contain personally identifiable information (PII) that should not have been included. The company wants administrators to be alerted if PII is shared again. The company also wants to automate remediation.

What should a solutions architect do to meet these requirements with the LEAST development effort?

A. Use an Amazon S3 bucket as a secure transfer point.
Use Amazon Inspector to scan me objects in the bucket.
If objects contain Pll, trigger an S3 Lifecycle policy to remove the objects that contain Pll.
B. Use an Amazon S3 bucket as a secure transfer point.
Use Amazon Macie to scan the objects in the bucket.
If objects contain Pll, use Amazon Simple Notification Service (Amazon SNS) to trigger a notification to the administrators to remove the objects mat contain Pll.
C. Implement custom scanning algorithms in an AWS Lambda function.
Trigger the function when objects are loaded into the bucket.
If objects contain Rll, use Amazon Simple Notification Service (Amazon SNS) to trigger a notification to the administrators to remove the objects that contain Pll.
D. Implement custom scanning algorithms in an AWS Lambda function.
Trigger the function when objects are loaded into the bucket.
If objects contain Pll, use Amazon Simple Email Service (Amazon STS) to trigger a notification to the administrators and trigger on S3 Lifecycle policy to remove the objects mot contain PII.

Answer:

QUESTION 120
A company needs guaranteed Amazon EC2 capacity in three specific Availability Zones in a specific AWS Region for an upcoming event that will last 1 week.

What should the company do to guarantee the EC2 capacity?

A. Purchase Reserved instances that specify the Region needed
B. Create an On Demand Capacity Reservation that specifies the Region needed
C. Purchase Reserved instances that specify the Region and three Availability Zones needed
D. Create an On-Demand Capacity Reservation that specifies the Region and three Availability Zones needed

Answer:
Explanation:
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-capacity-reservations.html
"When you create a Capacity Reservation, you specify:
The Availability Zone in which to reserve the capacity"

QUESTION 121
A company's website uses an Amazon EC2 instance store for its catalog of items. The company wants to make sure that the catalog is highly available and that the catalog is stored in a durable location.

What should a solutions architect do to meet these requirements?

A. Move the catalog to Amazon ElastiCache for Redis.
B. Deploy a larger EC2 instance with a larger instance store.
C. Move the catalog from the instance store to Amazon S3 Glacier Deep Archive.
D. Move the catalog to an Amazon Elastic File System (Amazon EFS) file system.

Answer:

QUESTION 122
A company stores call transcript files on a monthly basis. Users access the files randomly within 1 year of the call, but users access the files infrequently after 1 year. The company wants to optimize its solution by giving users the ability to query and retrieve files that are less than 1-year-old as quickly as possible. A delay in retrieving older files is acceptable.

Which solution will meet these requirements MOST cost-effectively?

A. Store individual files with tags in Amazon S3 Glacier Instant Retrieval.
Query the tags to retrieve the files from S3 Glacier Instant Retrieval.
B. Store individual files in Amazon S3 Intelligent-Tiering.
Use S3 Lifecycle policies to move the files to S3 Glacier Flexible Retrieval after 1 year.
Query and retrieve the files that are in Amazon S3 by using Amazon Athena.
Query and retrieve the files that are in S3 Glacier by using S3 Glacier Select.
C. Store individual files with tags in Amazon S3 Standard storage.
Store search metadata for each archive in Amazon S3 Standard storage.
Use S3 Lifecycle policies to move the files to S3 Glacier Instant Retrieval after 1 year.
Query and retrieve the files by searching for metadata from Amazon S3.
D. Store individual files in Amazon S3 Standard storage.
Use S3 Lifecycle policies to move the files to S3 Glacier Deep Archive after 1 year.
Store search metadata in Amazon RDS. Query the files from Amazon RDS.
Retrieve the files from S3 Glacier Deep Archive.

Answer:

QUESTION 123
A company has a production workload that runs on 1,000 Amazon EC2 Linux instances. The workload is powered by third-party software. The company needs to patch the third-party software on all EC2 instances as quickly as possible to remediate a critical security vulnerability.

What should a solutions architect do to meet these requirements?

A. Create an AWS Lambda function to apply the patch to all EC2 instances.
B. Configure AWS Systems Manager Patch Manager to apply the patch to all EC2 instances.
C. Schedule an AWS Systems Manager maintenance window to apply the patch to all EC2 instances.

D. Use AWS Systems Manager Run Command to run a custom command that applies the patch to all EC2 instances.

Answer: [redacted]

QUESTION 124
A company is developing an application that provides order shipping statistics for retrieval by a REST API. The company wants to extract the shipping statistics, organize the data into an easy-to-read HTML format, and send the report to several email addresses at the same time every morning.

Which combination of steps should a solutions architect take to meet these requirements? (Choose two.)

A. Configure the application to send the data to Amazon Kinesis Data Firehose.
B. Use Amazon Simple Email Service (Amazon SES) to format the data and to send the report by email.
C. Create an Amazon EventBridge (Amazon CloudWatch Events) scheduled event that invokes an AWS Glue job to query the application's API for the data.
D. Create an Amazon EventBridge (Amazon CloudWatch Events) scheduled event that invokes an AWS Lambda function to query the application's API for the data.
E. Store the application data in Amazon S3. Create an Amazon Simple Notification Service (Amazon SNS) topic as an S3 event destination to send the report by

Answer: [redacted]

QUESTION 125
A company wants to migrate its on-premises application to AWS. The application produces output files that vary in size from tens of gigabytes to hundreds of terabytes The application data must be stored in a standard file system structure. The company wants a solution that scales automatically, is highly available, and requires minimum operational overhead.
Which solution will meet these requirements?

A. Migrate the application to run as containers on Amazon Elastic Container Service (Amazon ECS).
Use Amazon S3 for storage.
B. Migrate the application to run as containers on Amazon Elastic Kubernetes Service (Amazon EKS).
Use Amazon Elastic Block Store (Amazon EBS) for storage.
C. Migrate the application to Amazon EC2 instances in a Multi-AZ Auto Scaling group.
Use Amazon Elastic File System (Amazon EFS) for storage.
D. Migrate the application to Amazon EC2 instances in a Multi-AZ Auto Scaling group.
Use Amazon Elastic Block Store (Amazon EBS) for storage.

Answer: [redacted]

QUESTION 126
A company needs to store its accounting records in Amazon S3. The records must be immediately accessible for 1 year and then must be archived for an additional 9 years. No one at the company, including administrative users and root users, can be able to delete the records during the entire 10-year period. The records must be stored with maximum resiliency.

Which solution will meet these requirements?

A. Store the records in S3 Glacier for the entire 10-year period.
Use an access control policy to deny deletion of the records for a period of 10 years.
B. Store the records by using S3 Intelligent-Tiering.
Use an IAM policy to deny deletion of the records.
After 10 years, change the IAM policy to allow deletion.
C. Use an S3 Lifecycle policy to transition the records from S3 Standard to S3 Glacier Deep Archive after 1 year.
Use S3 Object Lock in compliance mode for a period of 10 years.
D. Use an S3 Lifecycle policy to transition the records from S3 Standard to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 1 year. Use S3 Object Lock in governance mode for a period of 10 years.

Answer: ●

QUESTION 127
A company runs multiple Windows workloads on AWS. The company's employees use Windows file shares that are hosted on two Amazon EC2 instances. The file shares synchronize data between themselves and maintain duplicate copies. The company wants a highly available and durable storage solution that preserves how users currently access the files.

What should a solutions architect do to meet these requirements?

A. Migrate all the data to Amazon S3.
Set up IAM authentication for users to access files
B. Set up an Amazon S3 File Gateway.
Mount the S3 File Gateway on the existing EC2 Instances.
C. Extend the file share environment to Amazon FSx for Windows File Server with a Multi-AZ configuration.
Migrate all the data to FSx for Windows File Server.
D. Extend the file share environment to Amazon Elastic File System (Amazon EFS) with a Multi-AZ configuration.
Migrate all the data to Amazon EFS.

Answer: ●

QUESTION 128
A solutions architect is developing a multiple-subnet VPC architecture. The solution will consist of six subnets in two Availability Zones. The subnets are defined as public, private and dedicated for databases. Only the Amazon EC2 instances running in the private subnets should be able to access a database.
Which solution meets these requirements?

A. Create a now route table that excludes the route to the public subnets' CIDR blocks.
Associate the route table to the database subnets.
B. Create a security group that denies ingress from the security group used by instances in the public subnets.
Attach the security group to an Amazon RDS DB instance.
C. Create a security group that allows ingress from the security group used by instances in the private subnets.

Attach the security group to an Amazon RDS DB instance.

D. Create a new peering connection between the public subnets and the private subnets. Create a different peering connection between the private subnets and the database subnets.

Answer:

Explanation:

Security groups are stateful. All inbound traffic is blocked by default. If you create an inbound rule allowing traffic in, that traffic is automatically allowed back out again. You cannot block specific IP address using Security groups (instead use Network Access Control Lists).

"You can specify allow rules, but not deny rules." "When you first create a security group, it has no inbound rules. Therefore, no inbound traffic originating from another host to your instance is allowed until you add inbound rules to the security group."

Source:
https://docs.aws.amazon.com/vpc/latest/userguide/VPC_SecurityGroups.html#VPCSecurityGroups

QUESTION 129

A company has registered its domain name with Amazon Route 53. The company uses Amazon API Gateway in the ca-central-1 Region as a public interface for its backend microservice APIs. Third-party services consume the APIs securely. The company wants to design its API Gateway URL with the company's domain name and corresponding certificate so that the third-party services can use HTTPS.

Which solution will meet these requirements?

A. Create stage variables in API Gateway with Name="Endpoint-URL" and Value="Company Domain Name" to overwrite the default URL. Import the public certificate associated with the company's domain name into AWS Certificate Manager (ACM).

B. Create Route 53 DNS records with the company's domain name. Point the alias record to the Regional API Gateway stage endpoint. Import the public certificate associated with the company's domain name into AWS Certificate Manager (ACM) in the us-east-1 Region.

C. Create a Regional API Gateway endpoint. Associate the API Gateway endpoint with the company's domain name. Import the public certificate associated with the company's domain name into AWS Certificate Manager (ACM) in the same Region. Attach the certificate to the API Gateway endpoint.
Configure Route 53 to route traffic to the API Gateway endpoint.

D. Create a Regional API Gateway endpoint. Associate the API Gateway endpoint with the company's domain name. Import the public certificate associated with the company's domain name into AWS Certificate Manager (ACM) in the us-east-1 Region. Attach the certificate to the API Gateway APIs.
Create Route 53 DNS records with the company's domain name. Point an A record to the company's domain name.

Answer:

QUESTION 130

A company is running a popular social media website. The website gives users the ability to upload images to share with other users. The company wants to make sure that the images do not contain inappropriate content. The company needs a solution that minimizes development effort. What should a solutions architect do to meet these requirements?

A. Use Amazon Comprehend to detect inappropriate content. Use human review for low-confidence predictions.
B. Use Amazon Rekognition to detect inappropriate content. Use human review for low-confidence predictions.
C. Use Amazon SageMaker to detect inappropriate content. Use ground truth to label low-confidence predictions.
D. Use AWS Fargate to deploy a custom machine learning model to detect inappropriate content. Use ground truth to label low-confidence predictions.

Answer:

QUESTION 131
A company wants to run its critical applications in containers to meet requirements tor scalability and availability The company prefers to focus on maintenance of the critical applications. The company does not want to be responsible for provisioning and managing the underlying infrastructure that runs the containerized workload.
What should a solutions architect do to meet those requirements?

A. Use Amazon EC2 Instances, and Install Docker on the Instances
B. Use Amazon Elastic Container Service (Amazon ECS) on Amazon EC2 worker nodes
C. Use Amazon Elastic Container Service (Amazon ECS) on AWS Fargate
D. Use Amazon EC2 instances from an Amazon Elastic Container Service (Amazon ECS)-op6mized Amazon Machine Image (AMI).

Answer:
Explanation:
using AWS ECS on AWS Fargate since they requirements are for scalability and availability without having to provision and manage the underlying infrastructure to run the containerized workload.
https://docs.aws.amazon.com/AmazonECS/latest/userguide/what-is-fargate.html

QUESTION 132
A company hosts more than 300 global websites and applications. The company requires a platform to analyze more than 30 TB of clickstream data each day. What should a solutions architect do to transmit and process the clickstream data?

A. Design an AWS Data Pipeline to archive the data to an Amazon S3 bucket and run an Amazon EMR duster with the data to generate analytics
B. Create an Auto Scaling group of Amazon EC2 instances to process the data and send it to an Amazon S3 data lake for Amazon Redshift to use tor analysis
C. Cache the data to Amazon CloudFron.
Store the data in an Amazon S3 bucket.
When an object is added to the S3 bucket, run an AWS Lambda function to process the data tor analysis.
D. Collect the data from Amazon Kinesis Data Streams.
Use Amazon Kinesis Data Firehose to transmit the data to an Amazon S3 data lake Load the data in Amazon Redshift for analysis

Answer:

QUESTION 133

A company is running a multi-tier ecommerce web application in the AWS Cloud.
The web application is running on Amazon EC2 instances.
The database tier Is on a provisioned Amazon Aurora MySQL DB cluster with a writer and a reader in a Multi-AZ environment.
The new requirement for the database tier is to serve the application to achieve continuous write availability through an Instance failover.
What should a solutions architect do to meet this new requirement?

A. Add a new AWS Region to the DB cluster for multiple writes
B. Add a new reader In the same Availability Zone as the writer.
C. Migrate the database tier to an Aurora multi-master cluster.
D. Migrate the database tier to an Aurora DB cluster with parallel query enabled.

Answer:
Explanation:
Bring-your-own-shard (BYOS)
A situation where you already have a database schema and associated applications that use sharding. You can transfer such deployments relatively easily to Aurora multi-master clusters. In this case, you can devote your effort to investigating the Aurora benefits such as server consolidation and high availability. You don't need to create new application logic to handle multiple connections for write requests.
Global read-after-write (GRAW)
A setting that introduces synchronization so that any read operations always see the most current state of the data. By default, the data seen by a read operation in a multi-master cluster is subject to replication lag, typically a few milliseconds. During this brief interval, a query on one DB instance might retrieve stale data if the same data is modified at the same time by a different DB instance. To enable this setting, change aurora_mm_session_consistency_level from its default setting of INSTANCE_RAW to REGIONAL_RAW. Doing so ensures cluster-wide consistency for read operations regardless of the DB instances that perform the reads and writes.
Reference: https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/aurora-multi-master.html

QUESTION 134
A company has developed a database in Amazon RDS for MySQL.
Due to increased support team is reporting slow reads against the DB instance and recommends adding a read replica.
Which combination of actions should a solutions architect take before implementing this change? (Select TWO.)

A. Enable binlog replication on the RDS master.
B. Choose a failover priority for the source DB instance.
C. Allow long-running transactions to complete on the source DB instance.
D. Create a global table and specify the AWS Regions where the table will be available.
E. Enable automatic backups on the source instance by settings the backup retention period to a value other than 0.

Answer:
Explanation:
There are two versions of DynamoDB global tables available: Version 2019.11.21 (Current) and Version 2017.11.29. We recommend using Version 2019.11.21 (Current) of global tables, which enables you to dynamically add new replica tables from a table populated with data. Version 2019.11.21 (Current) is more efficient and consumes less write capacity than Version 2017.11.29. Region support for global tables Version 2017.11.29 is limited to US East (N. Virginia), US East

(Ohio), US West (N. California), US West (Oregon), Europe (Ireland), Europe (London), Europe (Frankfurt), Asia Pacific (Singapore), Asia Pacific (Sydney), Asia Pacific (Tokyo), and Asia Pacific (Seoul).
If you are using Version 2019.11.21 (Current) of global tables and you also use the Time to Live feature, DynamoDB replicates TTL deletes to all replica tables. The initial TTL delete does not consume write capacity in the region in which the TTL expiry occurs. However, the replicated TTL delete to the replica table(s) consumes a replicated write capacity unit when using provisioned capacity, or replicated write when using on-demand capacity mode, in each of the replica regions and applicable charges will apply.
Reference:
https://hevodata.com/learn/aws-rds-postgres-replication/
https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/GlobalTables.html

QUESTION 135
A company runs an application in the AWS Cloud and uses Amazon DynamoDB as the database. The company deploys Amazon EC2 instances to a private network to process data from the database.
The company uses two NAT instances to provide connectivity to DynamoDB.
The company wants to retire the NAT instances.
A solutions architect must implement a solution that provides connectivity to DynamoDB and that does not require ongoing management.
What is the MOST cost-effective solution that meets these requirements?

A. Create a gateway VPC endpoint to provide connectivity to DynamoDB
B. Configure a managed NAT gateway to provide connectivity to DynamoDB
C. Establish an AWS Direct Connect connection between the private network and DynamoDB
D. Deploy an AWS PrivateLink endpoint service between the private network and DynamoDB

Answer:
Explanation:
AWS recommends changing from NAT Gateway to VPC endpoints to access S3 or DynamoDB.
"Determine whether the majority of your NAT gateway charges are from traffic to Amazon Simple Storage Service or Amazon DynamoDB in the same Region. If they are, set up a gateway VPC endpoint. Route traffic to and from the AWS resource through the gateway VPC endpoint, rather than through the NAT gateway. There's no data processing or hourly charges for using gateway VPC endpoints."
https://aws.amazon.com/premiumsupport/knowledge-center/vpc-reduce-nat-gateway-transfer-costs/

QUESTION 136
A company has an on-premises business application that generates hundreds of files each day. These files are stored on an SMB file share and require a low-latency connection to the application servers.
A new company policy states all application-generated files must be copied to AWS.
There is already a VPN connection to AWS.
The application development team does not have time to make the necessary code modifications to move the application to AWS.
Which service should a solutions architect recommend to allow the application to copy files to AWS?

A. Amazon Elastic File System (Amazon EFS)
B. Amazon FSx for Windows File Server
C. AWS Snowball

D. AWS Storage Gateway

Answer:
Explanation:
The files will be on the storgare gateway with low latency and copied to AWS as a second copy.
FSx in AWS will not provide low latency for the on prem apps over a vpn to the FSx file system.

QUESTION 137
A company has an automobile sales website that stores its listings in an database on Amazon RDS.
When an automobile is sold, the listing needs to be removed from the website and the data must be sent to multiple target systems.
Which design should a solutions architect recommend?

A. Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SOS) queue for the targets to consume.
B. Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SQS) FIFO queue for the targets to consume.
C. Subscribe to an RDS event notification and send an Amazon Simple Queue Service (Amazon SQS) queue fanned out to multiple Amazon Simple Notification Service (Amazon SNS) topics. Use AWS Lambda functions to update the targets.
D. Subscribe to an RDS event notification and send an Amazon Simple Notification Service (Amazon SNS) topic fanned out to multiple Amazon Simple Queue Service (Amazon SQS) queues.
Use AWS Lambda functions to update the targets.

Answer:
Explanation:
You can use AWS Lambda to process event notifications from an Amazon Relational Database Service (Amazon RDS) database. Amazon RDS sends notifications to an Amazon Simple Notification Service (Amazon SNS) topic, which you can configure to invoke a Lambda function. Amazon SNS wraps the message from Amazon RDS in its own event document and sends it to your function.
https://docs.aws.amazon.com/lambda/latest/dg/with-sns.html
https://aws.amazon.com/blogs/compute/messaging-fanout-pattern-for-serverless-architectures-using-amazon-sns/

QUESTION 138
A company is developing a video conversion application hosted on AWS.
The application will be available in two tiers: a free tier and a paid tier.
Users in the paid tier will have their videos converted first and then the tree tier users will have their videos converted.
Which solution meets these requirements and is MOST cost-effective?

A. One FIFO queue for the paid tier and one standard queue for the free tier
B. A single FIFO Amazon Simple Queue Service (Amazon SQS) queue for all file types
C. A single standard Amazon Simple Queue Service (Amazon SQS) queue for all file types
D. Two standard Amazon Simple Queue Service (Amazon SQS) queues with one for the paid tier and one for the free tier

Answer:

Explanation:
In AWS, the queue service is the Simple Queue Service (SQS). Multiple SQS queues may be prepared to prepare queues for individual priority levels (with a priority queue and a secondary queue). Moreover, you may also use the message Delayed Send function to delay process execution.

QUESTION 139
A company runs an ecommerce application on Amazon EC2 instances behind an Application Load Balancer. The instances run in an Amazon EC2 Auto Scaling group across multiple Availability Zones. The Auto Scaling group scales based on CPU utilization metrics. The ecommerce application stores the transaction data in a MySQL 8.0 database that is hosted on a large EC2 instance.

The database's performance degrades quickly as application load increases. The application handles more read requests than write transactions. The company wants a solution that will automatically scale the database to meet the demand of unpredictable read workloads while maintaining high availability.

Which solution will meet these requirements?

A. Use Amazon Redshift with a single node for leader and compute functionality.
B. Use Amazon RDS with a Single-AZ deployment.
Configure Amazon RDS to add reader instances in a different Availability Zone.
C. Use Amazon Aurora with a Multi-AZ deployment.
Configure Aurora Auto Scaling with Aurora Replicas.
D. Use Amazon ElastiCache for Memcached with EC2 Spot Instances.

Answer:

QUESTION 140
A company recently migrated to AWS and wants to implement a solution to protect the traffic that flows in and out of the production VPC. The company had an inspection server in its on-premises data center. The inspection server performed specific operations such as traffic flow inspection and traffic filtering. The company wants to have the same functionalities in the AWS Cloud.
Which solution will meet these requirements?

A. Use Amazon GuardDuty for traffic inspection and traffic filtering in the production VPC
B. Use Traffic Mirroring to mirror traffic from the production VPC for traffic inspection and filtering.
C. Use AWS Network Firewall to create the required rules for traffic inspection and traffic filtering for the production VPC.
D. Use AWS Firewall Manager to create the required rules for traffic inspection and traffic filtering for the production VPC.

Answer:

QUESTION 141
A company hosts a data lake on AWS. The data lake consists of data in Amazon S3 and Amazon RDS for PostgreSQL. The company needs a reporting solution that provides data visualization and includes all the data sources within the data lake. Only the company's management team should have full access to all the visualizations. The rest of the company should have only limited access.

Which solution will meet these requirements?

A. Create an analysis in Amazon QuickSight.
Connect all the data sources and create new datasets.
Publish dashboards to visualize the data.
Share the dashboards with the appropriate IAM roles.
B. Create an analysis in Amazon OuickSighl.
Connect all the data sources and create new datasets.
Publish dashboards to visualize the data.
Share the dashboards with the appropriate users and groups.
C. Create an AWS Glue table and crawler for the data in Amazon S3.
Create an AWS Glue extract, transform, and load (ETL) job to produce reports.
Publish the reports to Amazon S3.
Use S3 bucket policies to limit access to the reports.
D. Create an AWS Glue table and crawler for the data in Amazon S3.
Use Amazon Athena Federated Query to access data within Amazon RDS for PoslgreSQL.
Generate reports by using Amazon Athena.
Publish the reports to Amazon S3.
Use S3 bucket policies to limit access to the reports.

Answer:

QUESTION 142
A company is implementing a new business application. The application runs on two Amazon EC2 instances and uses an Amazon S3 bucket for document storage. A solutions architect needs to ensure that the EC2 instances can access the S3 bucket.

What should the solutions architect do to meet this requirement?

A. Create an IAM role that grants access to the S3 bucket.
Attach the role to the EC2 instances.
B. Create an IAM policy that grants access to the S3 bucket.
Attach the policy to the EC2 instances.
C. Create an IAM group that grants access to the S3 bucket.
Attach the group to the EC2 instances.
D. Create an IAM user that grants access to the S3 bucket.
Attach the user account to the EC2 instances.

Answer:

QUESTION 143
An application development team is designing a microservice that will convert large images to smaller, compressed images. When a user uploads an image through the web interface, the microservice should store the image in an Amazon S3 bucket, process and compress the image with an AWS Lambda function, and store the image in its compressed form in a different S3 bucket.

A solutions architect needs to design a solution that uses durable, stateless components to process the images automatically.

Which combination of actions will meet these requirements? (Choose two.)

A. Create an Amazon Simple Queue Service (Amazon SQS) queue.
Configure the S3 bucket to send a notification to the SQS queue when an image is uploaded to the S3 bucket.
B. Configure the Lambda function to use the Amazon Simple Queue Service (Amazon SQS) queue as the invocation source.
When the SQS message is successfully processed, delete the message in the queue
C. Configure the Lambda function to monitor the S3 bucket for new uploads.
When an uploaded image is detected write the file name to a text file in memory and use the text file to keep track of the images that were processed.
D. Launch an Amazon EC2 instance to monitor an Amazon Simple Queue Service (Amazon SQS) queue.
When items are added to the queue log the file name in a text file on the EC2 instance and invoke the Lambda function.
E. Configure an Amazon EventBridge (Amazon CloudWatch Events) event to monitor the S3 bucket.
When an image is uploaded send an alert to an Amazon Simple Notification Service (Amazon SNS) topic with the application owner's email address for further processing

Answer:

QUESTION 144
A company has a three-tier web application that is deployed on AWS. The web servers are deployed in a public subnet in a VPC. The application servers and database servers are deployed in private subnets in the same VPC. The company has deployed a third-party virtual firewall appliance from AWS Marketplace in an inspection VPC. The appliance is configured with an IP interface that can accept IP packets.
A solutions architect needs to Integrate the web application with the appliance to inspect all traffic to the application before the traffic teaches the web server.

Which solution will moot these requirements with the LEAST operational overhead?

A. Create a Network Load Balancer the public subnet of the application's VPC to route the traffic to the appliance for packet inspection.
B. Create an Application Load Balancer in the public subnet of the application's VPC to route the traffic to the appliance for packet inspection.
C. Deploy a transit gateway m the inspection VPC.
Configure route tables to route the incoming pockets through the transit gateway.
D. Deploy a Gateway Load Balancer in the inspection VPC.
Create a Gateway Load Balancer endpoint to receive the incoming packets and forward the packets to the appliance.

Answer:

QUESTION 145
A company wants to improve its ability to clone large amounts of production data into a test environment in the same AWS Region. The data is stored in Amazon EC2 instances on Amazon Elastic Block Store (Amazon EBS) volumes. Modifications to the cloned data must not affect the production environment. The software that accesses this data requires consistently high I/O performance.

A solutions architect needs to minimize the time that is required to clone the production data into the test environment.

Which solution will meet these requirements?

A. Take EBS snapshots of the production EBS volumes.
Restore the snapshots onto EC2 instance store volumes in the test environment.
B. Configure the production EBS volumes to use the EBS Multi-Attach feature.
Take EBS snapshots of the production EBS volumes.
Attach the production EBS volumes to the EC2 instances in the test environment.
C. Take EBS snapshots of the production EBS volumes.
Create and initialize new EBS volumes.
Attach the new EBS volumes to EC2 instances in the test environment before restoring the volumes from the production EBS snapshots.
D. Take EBS snapshots of the production EBS volumes.
Turn on the EBS fast snapshot restore feature on the EBS snapshots.
Restore the snapshots into new EBS volumes.
Attach the new EBS volumes to EC2 instances in the test environment.

Answer:

QUESTION 146
An ecommerce company wants to launch a one-deal-a-day website on AWS. Each day will feature exactly one product on sale for a period of 24 hours. The company wants to be able to handle millions of requests each hour with millisecond latency during peak hours.

Which solution will meet these requirements with the LEAST operational overhead?

A. Use Amazon S3 to host the full website in different S3 buckets.
Add Amazon CloudFront distributions.
Set the S3 buckets as origins for the distributions.
Store the order data in Amazon S3.
B. Deploy the full website on Amazon EC2 instances that run in Auto Scaling groups across multiple Availability Zones.
Add an Application Load Balancer (ALB) to distribute the website traffic.
Add another ALB for the backend APIs.
Store the data in Amazon RDS for MySQL.
C. Migrate the full application to run in containers.
Host the containers on Amazon Elastic Kubernetes Service (Amazon EKS).
Use the Kubernetes Cluster Autoscaler to increase and decrease the number of pods to process bursts in traffic.
Store the data in Amazon RDS for MySQL.
D. Use an Amazon S3 bucket to host the website's static content.
Deploy an Amazon CloudFront distribution.
Set the S3 bucket as the origin.
Use Amazon API Gateway and AWS Lambda functions for the backend APIs.
Store the data in Amazon DynamoDB.

Answer:

QUESTION 147
A solutions architect is using Amazon S3 to design the storage architecture of a new digital media application. The media files must be resilient to the loss of an Availability Zone Some files are accessed frequently while other files are rarely accessed in an unpredictable pattern. The solutions architect must minimize the costs of storing and retrieving the media files.

Which storage option meets these requirements?

A. S3 Standard
B. S3 Intelligent-Tiering
C. S3 Standard-Infrequent Access {S3 Standard-IA)
D. S3 One Zone-Infrequent Access (S3 One Zone-IA)

Answer:
Explanation:
S3 Intelligent-Tiering -Perfect use case when you don't know the frequency of access or irregular patterns of usage.
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; and Amazon S3 Glacier (S3 Glacier) and Amazon S3 Glacier Deep Archive (S3 Glacier Deep Archive) for long-term archive and digital preservation. If you have data residency requirements that can't be met by an existing AWS Region, you can use the S3 Outposts storage class to store your S3 data on-premises. 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.

QUESTION 148
A company has an on-premises MySQL database used by the global sales team with infrequent access patterns.
The sales team requires the database to have minimal downtime.
A database administrator wants to migrate this database to AWS without selecting a particular instance type in anticipation of more users in the future.
Which service should a solution architect recommend?

A. Amazon Aurora MySQL
B. Amazon Aurora Serverless for MySQL
C. Amazon Redshift Spectrum
D. Amazon RDS for MySQL

Answer:
Explanation:
A database administrator wants to migrate this database to AWS without selecting a particular instance type in anticipation of more users in the future" Serverless sounds right, and it's compatible with MySQL and PostgreSQL.
https://aws.amazon.com/rds/aurora/serverless/

QUESTION 149
A company is building an application on Amazon EC2 instances that generates temporary transactional data.
The application requires access to data storage that can provide configurable and consistent IOPS.

What should a solutions architect recommend?

A. Provision an EC2 instance with a Throughput Optimized HDD (st1) root volume and a Cold HDD (sc1) data volume.

B. Provision an EC2 instance with a Throughput Optimized HDD (st1) volume that will serve as the root and data volume.
C. Provision an EC2 instance with a General Purpose SSD (gp2) root volume and Provisioned IOPS SSD (io1) data volume.
D. Provision an EC2 instance with a General Purpose SSD (gp2) root volume. Configure the application to store its data in an Amazon S3 bucket.

Answer: ●
Explanation:
Only gp3, io1, or io2 Volumes have configurable IOPS.
You cannot add HDD in root volume. SSD needs to be selected as root volume and HDD as Data Volume.
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volumes.html

QUESTION 150
A company is hosting 60 TB of production-level data in an Amazon S3 bucket. A solution architect needs to bring that data on premises for quarterly audit requirements. This export of data must be encrypted while in transit. The company has low network bandwidth in place between AWS and its on-premises data center.

What should the solutions architect do to meet these requirements?

A. Deploy AWS Migration Hub with 90-day replication windows for data transfer.
B. Deploy an AWS Storage Gateway volume gateway on AWS. Enable a 90-day replication window to transfer the data.
C. Deploy Amazon Elastic File System (Amazon EFS), with lifecycle policies enabled, on AWS. Use it to transfer the data.
D. Deploy an AWS Snowball device in the on-premises data center after completing an export job request in the AWS Snowball console.

Answer: ●
Explanation:
AWS Snowball with the Snowball device has the following features:
80 TB and 50 TB models are available in US Regions; 50 TB model available in all other AWS Regions.
https://docs.aws.amazon.com/snowball/latest/ug/whatissnowball.html

QUESTION 151
A solutions architect is designing the cloud architecture for a company that needs to host hundreds of machine learning models for its users. During startup, the models need to load up to 10 GB of data from Amazon S3 into memory, but they do not need disk access. Most of the models are used sporadically, but the users expect all of them to be highly available and accessible with low latency.

Which solution meets the requirements and is MOST cost-effective?

A. Deploy models as AWS Lambda functions behind an Amazon API Gateway for each model.
B. Deploy models as Amazon Elastic Container Service (Amazon ECS) services behind an Application Load Balancer for each model.
C. Deploy models as AWS Lambda functions behind a single Amazon API Gateway with path-based routing where one path corresponds to each model.
D. Deploy models as Amazon Elastic Container Service (Amazon ECS) services behind a single

Application Load Balancer with path-based routing where one path corresponds to each model.

Answer:
Explanation:
AWS just update Lambda to support 10G memory and helping compute intensive applications like machine learning.
No disk access, lowest cost.
https://aws.amazon.com/about-aws/whats-new/2020/12/aws-lambda-supports-10gb-memory-6-vcpu-cores-lambda-functions/

QUESTION 152
A company is developing an ecommerce application that will consist of a load-balanced front end, a container-based application, and a relational database. A solutions architect needs to create a highly available solution that operates with as little manual intervention as possible.

Which solutions meet these requirements? (Choose two.)

A. Create an Amazon RDS DB instance in Multi-AZ mode.
B. Create an Amazon RDS DB instance and one or more replicas in another Availability Zone.
C. Create an Amazon EC2 instance-based Docker cluster to handle the dynamic application load.
D. Create an Amazon Elastic Container Service (Amazon ECS) cluster with a Fargate launch type to handle the dynamic application load.
E. Create an Amazon Elastic Container Service (Amazon ECS) cluster with an Amazon EC2 launch type to handle the dynamic application load.

Answer:
Explanation:
https://docs.aws.amazon.com/AmazonECS/latest/developerguide/Welcome.html
1. Relational database: RDS
2. Container-based applications: ECS
"Amazon ECS enables you to launch and stop your container-based applications by using simple API calls.
You can also retrieve the state of your cluster from a centralized service and have access to many familiar Amazon EC2 features."
3. Little manual intervention: Fargate
You can run your tasks and services on a serverless infrastructure that is managed by AWS Fargate. Alternatively, for more control over your infrastructure, you can run your tasks and services on a cluster of Amazon EC2 instances that you manage.

QUESTION 153
A company has an ecommerce application that stores data in an on-premises SQL database. The company has decided to migrate this database to AWS. However, as part of the migration, the company wants to find a way to attain sub-millisecond responses to common read requests.

A solutions architect knows that the increase in speed is paramount and that a small percentage of stale data returned in the database reads is acceptable.

What should the solutions architect recommend?

A. Build Amazon RDS read replicas.
B. Build the database as a larger instance type.
C. Build a database cache using Amazon ElastiCache.

D. Build a database cache using Amazon Elasticsearch Service (Amazon ES).

Answer:
Explanation:
To attain sub-millisecond responses to common read requests.
https://aws.amazon.com/redis/
REDIS (REmote DIctionary Server) delivers sub-millisecond response times enabling millions of requests per second for real-time applications.

QUESTION 154
A company is designing an application where users upload small files into Amazon S3.
After a user uploads a file, the file requires one-time simple processing to transform the data and save the data in JSON format for later analysis.

Each file must be processed as quickly as possible after it is uploaded. Demand will vary.
On some days, users will upload a high number of files. On other days, users will upload a few files or no files.

Which solution meets these requirements with the LEAST operational overhead?

A. Configure Amazon EMR to read text files from Amazon S3.
Run processing scripts to transform the data.
Store the resulting JSON file in an Amazon Aurora DB cluster.
B. Configure Amazon S3 to send an event notification to an Amazon Simple Queue Service (Amazon SQS) queue.
Use Amazon EC2 instances to read from the queue and process the data.
Store the resulting JSON file in Amazon DynamoDB.
C. Configure Amazon S3 to send an event notification to an Amazon Simple Queue Service (Amazon SQS) queue.
Use an AWS Lambda function to read from the queue and process the data.
Store the resulting JSON file in Amazon DynamoDB. Most Voted
D. Configure Amazon EventBridge (Amazon CloudWatch Events) to send an event to Amazon Kinesis Data Streams when a new file is uploaded.
Use an AWS Lambda function to consume the event from the stream and process the data.
Store the resulting JSON file in Amazon Aurora DB cluster.

Answer:
Explanation:
Amazon S3 sends event notifications about S3 buckets (for example, object created, object removed, or object restored) to an SNS topic in the same Region.
The SNS topic publishes the event to an SQS queue in the central Region.
The SQS queue is configured as the event source for your Lambda function and buffers the event messages for the Lambda function.
The Lambda function polls the SQS queue for messages and processes the Amazon S3 event notifications according to your application's requirements.

https://docs.aws.amazon.com/prescriptive-guidance/latest/patterns/subscribe-a-lambda-function-to-event-notifications-from-s3-buckets-in-different-aws-regions.html

QUESTION 155
An application allows users at a company's headquarters to access product data. The product data is stored in an Amazon RDS MySQL DB instance. The operations team has isolated an application performance slowdown and wants to separate read traffic from write traffic.

A solutions architect needs to optimize the application's performance quickly.
What should the solutions architect recommend?

A. Change the existing database to a Multi-AZ deployment.
Serve the read requests from the primary Availability Zone.
B. Change the existing database to a Multi-AZ deployment.
Serve the read requests from the secondary Availability Zone.
C. Create read replicas for the database.
Configure the read replicas with half of the compute and storage resources as the source database.
D. Create read replicas for the database.
Configure the read replicas with the same compute and storage resources as the source database.

Answer: ●
Explanation:
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_MySQL.Replication.ReadReplicas.html

QUESTION 156
An Amazon EC2 administrator created the following policy associated with an IAM group containing several users.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": "ec2:TerminateInstances",
            "Resource": "*",
            "Condition": {
                "IpAddress": {
                    "aws:SourceIp": "10.100.100.0/24"
                }
            }
        },
        {
            "Effect": "Deny",
            "Action": "ec2:*",
            "Resource": "*",
            "Condition": {
                "StringNotEquals": {
                    "ec2:Region": "us-east-1"
                }
            }
        }
    ]
}
```

What is the effect of this policy?

A. Users can terminate an EC2 instance in any AWS Region except us-east-1.
B. Users can terminate an EC2 instance with the IP address 10 100 100 1 in the us-east-1 Region
C. Users can terminate an EC2 instance in the us-east-1 Region when the user's source IP is 10.100.100.254.
D. Users cannot terminate an EC2 instance in the us-east-1 Region when the user's source IP is 10.100 100 254

Answer:
Explanation:
as the policy prevents anyone from doing any EC2 action on any region except us-east-1 and allows only users with source ip 10.100.100.0/24 to terminate instances. So user with source ip 10.100.100.254 can terminate instances in us-east-1 region.

QUESTION 157
A company has a large Microsoft SharePoint deployment running on-premises that requires Microsoft Windows shared file storage. The company wants to migrate this workload to the AWS Cloud and is considering various storage options. The storage solution must be highly available and integrated with Active Directory for access control.

Which solution will satisfy these requirements?

A. Configure Amazon EFS storage and set the Active Directory domain for authentication
B. Create an SMB Me share on an AWS Storage Gateway tile gateway in two Availability Zones
C. Create an Amazon S3 bucket and configure Microsoft Windows Server to mount it as a volume
D. Create an Amazon FSx for Windows File Server file system on AWS and set the Active Directory domain for authentication

Answer:

QUESTION 158
An image-processing company has a web application that users use to upload images. The application uploads the images into an Amazon S3 bucket. The company has set up S3 event notifications to publish the object creation events to an Amazon Simple Queue Service (Amazon SQS) standard queue. The SQS queue serves as the event source for an AWS Lambda function that processes the images and sends the results to users through email.

Users report that they are receiving multiple email messages for every uploaded image. A solutions architect determines that SQS messages are invoking the Lambda function more than once, resulting in multiple email messages.

What should the solutions architect do to resolve this issue with the LEAST operational overhead?

A. Set up long polling in the SQS queue by increasing the ReceiveMessage wait time to 30 seconds.
B. Change the SQS standard queue to an SQS FIFO queue.
Use the message deduplication ID to discard duplicate messages.
C. Increase the visibility timeout in the SQS queue to a value that is greater than the total of the function timeout and the batch window timeout.
D. Modify the Lambda function to delete each message from the SQS queue immediately after the message is read before processing.

Answer:

QUESTION 159
A company is implementing a shared storage solution for a media application that is hosted in the AWS Cloud.
The company needs the ability to use SMB clients to access data. The solution must he fully managed.
Which AWS solution meets these requirements?

A. Create an AWS Storage Gateway volume gateway.
Create a file share that uses the required client protocol.
Connect the application server to the tile share.
B. Create an AWS Storage Gateway tape gateway.
Configure tapes to use Amazon S3.
Connect the application server lo the tape gateway
C. Create an Amazon EC2 Windows instance.
Install and configure a Windows file share role on the instance.
Connect the application server to the file share.
D. Create an Amazon FSx for Windows File Server tile system.
Attach the fie system to the origin server.
Connect the application server to the tile system

Answer:

QUESTION 160
A company's containerized application runs on an Amazon EC2 instance. The application needs to download security certificates before it can communicate with other business applications. The company wants a highly secure solution to encrypt and decrypt the certificates in near real time. The solution also needs to store data in highly available storage after the data is encrypted.

Which solution will meet these requirements with the LEAST operational overhead?

A. Create AWS Secrets Manager secrets for encrypted certificates.
Manually update the certificates as needed.
Control access to the data by using fine-grained IAM access.
B. Create an AWS Lambda function that uses the Python cryptography library to receive and perform encryption operations.
Store the function in an Amazon S3 bucket.
C. Create an AWS Key Management Service (AWS KMS) customer managed key.
Allow the EC2 role to use the KMS key for encryption operations.
Store the encrypted data on Amazon S3.
D. Create an AWS Key Management Service (AWS KMS) customer managed key.
Allow the EC2 role to use the KMS key for encryption operations.
Store the encrypted data on Amazon Elastic Block Store (Amazon EBS) volumes.

Answer:

QUESTION 161
A solutions architect is designing a VPC with public and private subnets. The VPC and subnets use IPv4 CIDR blocks. There is one public subnet and one private subnet in each of three Availability Zones (AZs) for high availability. An internet gateway is used to provide internet

access for the public subnets. The private subnets require access to the internet to allow Amazon EC2 instances to download software updates.

What should the solutions architect do to enable Internet access for the private subnets?

A. Create three NAT gateways, one for each public subnet in each AZ.
Create a private route table for each AZ that forwards non-VPC traffic to the NAT gateway in its AZ.
B. Create three NAT instances, one for each private subnet in each AZ.
Create a private route table for each AZ that forwards non-VPC traffic to the NAT instance in its AZ.
C. Create a second internet gateway on one of the private subnets.
Update the route table for the private subnets that forward non-VPC traffic to the private internet gateway.
D. Create an egress-only internet gateway on one of the public subnets.
Update the route table for the private subnets that forward non-VPC traffic to the egress-only internet gateway.

Answer: ●

QUESTION 162
A company wants to migrate an on-premises data center to AWS. The data canter hosts an SFTP server that stores its data on an NFS-based file system. The server holds 200 GB of data that needs to be transferred. The server must be hosted on an Amazon EC2 instance that uses an Amazon Elastic File System (Amazon EFS) file system.

When combination of steps should a solutions architect take to automate this task? (Select TWO)

A. Launch the EC2 instance into the same Avalability Zone as the EFS fie system
B. install an AWS DataSync agent m the on-premises data center
C. Create a secondary Amazon Elastic Block Store (Amazon EBS) volume on the EC2 instance tor the data
D. Manually use an operating system copy command to push the data to the EC2 instance
E. Use AWS DataSync to create a suitable location configuration for the onprermises SFTP server

Answer: ●

QUESTION 163
A company has an AWS Glue extract. transform, and load (ETL) job that runs every day at the same time. The job processes XML data that is in an Amazon S3 bucket. New data is added to the S3 bucket every day. A solutions architect notices that AWS Glue is processing all the data during each run.
What should the solutions architect do to prevent AWS Glue from reprocessing old data?

A. Edit the job to use job bookmarks.
B. Edit the job to delete data after the data is processed
C. Edit the job by setting the NumberOfWorkers field to 1.
D. Use a FindMatches machine learning (ML) transform.

Answer: ●

QUESTION 164
A solutions architect must design a highly available infrastructure for a website.
The website is powered by Windows web servers that run on Amazon EC2 instances.
The solutions architect must implement a solution that can mitigate a large-scale DDoS attack that originates from thousands of IP addresses. Downtime is not acceptable for the website.
Which actions should the solutions architect take to protect the website from such an attack? (Select TWO.)

A. Use AWS Shield Advanced to stop the DDoS attack.
B. Configure Amazon GuardDuty to automatically block the attackers.
C. Configure the website to use Amazon CloudFront for both static and dynamic content.
D. Use an AWS Lambda function to automatically add attacker IP addresses to VPC network ACLs.
E. Use EC2 Spot Instances in an Auto Scaling group with a target tracking scaling policy that is set to 80% CPU utilization

Answer:

QUESTION 165
A company is preparing to deploy a new serverless workload.
A solutions architect must use the principle of least privilege to configure permissions that will be used to run an AWS Lambda function.
An Amazon EventBridge (Amazon CloudWatch Events) rule will invoke the function.

Which solution meets these requirements?

A. Add an execution role to the function with lambda:InvokeFunction as the action and * as the principal.
B. Add an execution role to the function with lambda:InvokeFunction as the action and Service:amazonaws.com as the principal.
C. Add a resource-based policy to the function with lambda:'* as the action and Service:events.amazonaws.com as the principal.
D. Add a resource-based policy to the function with lambda:InvokeFunction as the action and Service:events.amazonaws.com as the principal.

Answer:
Explanation:
https://docs.aws.amazon.com/eventbridge/latest/userguide/resource-based-policies-eventbridge.html#lambda-permissions

QUESTION 166
A company has an image processing workload running on Amazon Elastic Container Service (Amazon ECS) in two private subnets. Each private subnet uses a NAT instance for internet access. All images are stored in Amazon S3 buckets.
The company is concerned about the data transfer costs between Amazon ECS and Amazon S3.

What should a solutions architect do to reduce costs?

A. Configure a NAT gateway to replace the NAT instances.
B. Configure a gateway endpoint for traffic destined to Amazon S3.
C. Configure an interface endpoint for traffic destined to Amazon S3.

D. Configure Amazon CloudFront for the S3 bucket storing the images.

Answer:
Explanation:
S3 and Dynamo DB does not support interface endpoints. Both S3 and DynamoDB are routed via Gateway endpoint.
https://docs.aws.amazon.com/vpc/latest/userguide/vpc-endpoints.html
Interface Endpoint only supports services which are integrated with PrivateLink.
https://docs.aws.amazon.com/vpc/latest/userguide/integrated-services-vpce-list.html

QUESTION 167
A company is moving Its on-premises Oracle database to Amazon Aurora PostgreSQL.
The database has several applications that write to the same tables.
The applications need to be migrated one by one with a month in between each migration
Management has expressed concerns that the database has a high number of reads and writes.
The data must be kept in sync across both databases throughout tie migration.
What should a solutions architect recommend?

A. Use AWS DataSync tor the initial migration.
Use AWS Database Migration Service (AWS DMS) to create a change data capture (CDC) replication task and a table mapping to select all cables.
B. UseAVVS DataSync for the initial migration.
Use AWS Database Migration Service (AWS DMS) to create a full load plus change data capture (CDC) replication task and a table mapping to select ail tables.
C. Use the AWS Schema Conversion led with AWS DataBase Migration Service (AWS DMS) using a memory optimized replication instance.
Create a tui load plus change data capture (CDC) replication task and a table mapping lo select all tables.
D. Use the AWS Schema Conversion Tool with AWS Database Migration Service (AWS DMS) using a compute optimized implication instance.
Create a full load plus change data capture (CDC) replication task and a table mapping to select the largest tables.

Answer:
Explanation:
As you can see, we have three important memory buffers in this architecture for CDC in AWS DMS. If any of these buffers experience memory pressure, the migration can have performance issues that can potentially cause failures.
https://docs.aws.amazon.com/dms/latest/userguide/CHAP_ReplicationInstance.Types.html

QUESTION 168
A company wants to migrate a high performance computing (HPC) application and data from on-premises to the AWS Cloud.
The company uses tiered storage on-premises with hoi high-performance parallel storage to support the application during periodic runs of the application, and more economical cold storage to hold the data when the application is not actively running.
Which combination of solutions should a solutions architect recommend to support the storage needs of the application? (Select TWO)

A. Amazon S3 for cold data storage
B. Amazon EFS for cold data storage
C. Amazon S3 for high-performance parallel storage

D. Amazon FSx for clustre tor high-performance parallel storage
E. Amazon FSx for Windows for high-performance parallel storage

Answer:
Explanation:
https://aws.amazon.com/fsx/lustre/
Amazon FSx for Lustre makes it easy and cost effective to launch and run the world's most popular high-performance file system. Use it for workloads where speed matters, such as machine learning, high performance computing (HPC), video processing, and financial modeling.

QUESTION 169
A company is experiencing growth as demand for its product has increased. The company's existing purchasing application is slow when traffic spikes. The application is a monolithic three tier application that uses synchronous transactions and sometimes sees bottlenecks in the application tier. A solutions architect needs to design a solution that can meet required application response times while accounting for traffic volume spikes.

Which solution will meet these requirements?

A. Vertically scale the application instance using a larger Amazon EC2 instance size.
B. Scale the application's persistence layer horizontally by introducing Oracle RAC on AWS
C. Scale the web and application tiers horizontally using Auto Scaling groups and an Application Load Balancer
D. Decouple the application and data tiers using Amazon Simple Queue Service (Amazon SQS) with asynchronous AWS Lambda calls.

Answer:
Explanation:
The Application uses synchronous transactions each operation is dependent on the previous one. Using asynchronous lambda calls may not work here.

QUESTION 170
A solutions architect needs to ensure that all Amazon Elastic Block Store (Amazon EBS) volumes restored from unencrypted EBS snapshots are encrypted.

What should the solutions architect do to accomplish this?

A. Enable EBS encryption by default for the AWS Region
B. Enable EBS encryption by default for the specific volumes
C. Create a new volume and specify the symmetric customer master key (CMK) to use for encryption
D. Create a new volume and specify the asymmetric customer master key (CMK) to use for encryption.

Answer:
Explanation:
Question asked is to ensure that all volumes restored are encrypted. So have to be "Enable encryption by default".
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html#encryption-by-default

QUESTION 171
A company is storing backup files by using Amazon S3 Standard storage. The files are accessed frequently for 1 month. However, the files are not accessed after 1 month. The company must keep the files indefinitely.

Which storage solution will meet these requirements MOST cost-effectively?

A. Configure S3 Intelligent-Tiering to automatically migrate objects.
B. Create an S3 Lifecycle configuration to transition objects from S3 Standard to S3 Glacier Deep Archive after 1 month.
C. Create an S3 Lifecycle configuration to transition objects from S3 Standard to S3 Standard-Infrequent Access (S3 Standard-IA) after 1 month.
D. Create an S3 Lifecycle configuration to transition objects from S3 Standard to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 1 month.

Answer:

QUESTION 172
A company observes an increase in Amazon EC2 costs in its most recent bill. The billing team notices unwanted vertical scaling of instance types for a couple of EC2 instances. A solutions architect needs to create a graph comparing the last 2 months of EC2 costs and perform an in-depth analysis to identify the root cause of the vertical scaling.
How should the solutions architect generate the information with the LEAST operational overhead?

A. Use AWS Budgets to create a budget report and compare EC2 costs based on instance types
B. Use Cost Explorer's granular filtering feature to perform an in-depth analysis of EC2 costs based on instance types
C. Use graphs from the AWS Billing and Cost Management dashboard to compare EC2 costs based on instance types for the last 2 months
D. Use AWS Cost and Usage Reports to create a report and send it to an Amazon S3 bucket. Use Amazon QuickSight with Amazon S3 as a source to generate an interactive graph based on instance types..

Answer:
Explanation:
AWS 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 12 months, forecast how much you're likely to spend for the next 12 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.
https://docs.aws.amazon.com/cost-management/latest/userguide/ce-what-is.html

QUESTION 173
A company is designing an application. The application uses an AWS Lambda function to receive information through Amazon API Gateway and to store the information in an Amazon Aurora PostgreSQL database.
During the proof-of-concept stage, the company has to increase the Lambda quotas significantly to handle the high volumes of data that the company needs to load into the database. A solutions architect must recommend a new design to improve scalability and minimize the configuration effort.
Which solution will meet these requirements?

A. Refactor the Lambda function code to Apache Tomcat code that runs on Amazon EC2 instances.
Connect the database by using native Java Database Connectivity (JDBC) drivers.
B. Change the platform from Aurora to Amazon DynamoDB.
Provision a DynamoDB Accelerator (DAX) cluster.
Use the DAX client SDK to point the existing DynamoDB API calls at the DAX cluster.
C. Set up two Lambda functions.
Configure one function to receive the information.
Configure the other function to load the information into the database.
Integrate the Lambda functions by using Amazon Simple Notification Service (Amazon SNS).
D. Set up two Lambda functions. Configure one function to receive the information.
Configure the other function to load the information into the database.
Integrate the Lambda functions by using an Amazon Simple Queue Service (Amazon SQS) queue.

Answer: [redacted]
Explanation:
bottlenecks can be avoided with queues (SQS).

QUESTION 174
A company needs to review its AWS Cloud deployment to ensure that its Amazon S3 buckets do not have unauthorized configuration changes.

What should a solutions architect do to accomplish this goal?

A. Turn on AWS Config with the appropriate rules.
B. Turn on AWS Trusted Advisor with the appropriate checks.
C. Turn on Amazon Inspector with the appropriate assessment template.
D. Turn on Amazon S3 server access logging.
Configure Amazon EventBridge (Amazon Cloud Watch Events).

Answer: [redacted]

QUESTION 175
A company is launching a new application and will display application metrics on an Amazon CloudWatch dashboard. The company's product manager needs to access this dashboard periodically. The product manager does not have an AWS account. A solution architect must provide access to the product manager by following the principle of least privilege.
Which solution will meet these requirements?

A. Share the dashboard from the CloudWatch console.
Enter the product manager's email address, and complete the sharing steps.
Provide a shareable link for the dashboard to the product manager.
B. Create an IAM user specifically for the product manager.
Attach the CloudWatch Read Only Access managed policy to the user.
Share the new login credential with the product manager.
Share the browser URL of the correct dashboard with the product manager.
C. Create an IAM user for the company's employees.
Attach the View Only Access AWS managed policy to the IAM user.
Share the new login credentials with the product manager.
Ask the product manager to navigate to the CloudWatch console and locate the dashboard by

name in the Dashboards section.

D. Deploy a bastion server in a public subnet.
When the product manager requires access to the dashboard, start the server and share the RDP credentials.
On the bastion server, ensure that the browser is configured to open the dashboard URL with cached AWS credentials that have appropriate permissions to view the dashboard.

Answer:

QUESTION 176
A company is migrating applications to AWS. The applications are deployed in different accounts. The company manages the accounts centrally by using AWS Organizations. The company's security team needs a single sign-on (SSO) solution across all the company's accounts.
The company must continue managing the users and groups in its on-premises self-managed Microsoft Active Directory.

Which solution will meet these requirements?

A. Enable AWS Single Sign-On (AWS SSO) from the AWS SSO console.
Create a one-way forest trust or a one-way domain trust to connect the company's self-managed Microsoft Active Directory with AWS SSO by using AWS Directory Service for Microsoft Active Directory.
B. Enable AWS Single Sign-On (AWS SSO) from the AWS SSO console.
Create a two-way forest trust to connect the company's self-managed Microsoft Active Directory with AWS SSO by using AWS Directory Service for Microsoft Active Directory.
C. Use AWS Directory Service.
Create a two-way trust relationship with the company's self-managed Microsoft Active Directory.
D. Deploy an identity provider (IdP) on premises.
Enable AWS Single Sign-On (AWS SSO) from the AWS SSO console.

Answer:

QUESTION 177
A company provides a Voice over Internet Protocol (VoIP) service that uses UDP connections. The service consists of Amazon EC2 instances that run in an Auto Scaling group. The company has deployments across multiple AWS Regions.

The company needs to route users to the Region with the lowest latency. The company also needs automated failover between Regions.

Which solution will meet these requirements?

A. Deploy a Network Load Balancer (NLB) and an associated target group.
Associate the target group with the Auto Scaling group.
Use the NLB as an AWS Global Accelerator endpoint in each Region.
B. Deploy an Application Load Balancer (ALB) and an associated target group.
Associate the target group with the Auto Scaling group.
Use the ALB as an AWS Global Accelerator endpoint in each Region.
C. Deploy a Network Load Balancer (NLB) and an associated target group.
Associate the target group with the Auto Scaling group.
Create an Amazon Route 53 latency record that points to aliases for each NLB.
Create an Amazon CloudFront distribution that uses the latency record as an origin.

D. Deploy an Application Load Balancer (ALB) and an associated target group.
Associate the target group with the Auto Scaling group.
Create an Amazon Route 53 weighted record that points to aliases for each ALB.
Deploy an Amazon CloudFront distribution that uses the weighted record as an origin.

Answer:

QUESTION 178
A development team runs monthly resource-intensive tests on its general purpose Amazon RDS for MySQL DB instance with Performance Insights enabled. The testing lasts for 48 hours once a month and is the only process that uses the database. The team wants to reduce the cost of running the tests without reducing the compute and memory attributes of the DB instance.

Which solution meets these requirements MOST cost-effectively?

A. Stop the DB instance when tests are completed.
Restart the DB instance when required.
B. Use an Auto Scaling policy with the DB instance to automatically scale when tests are completed.
C. Create a snapshot when tests are completed.
Terminate the DB instance and restore the snapshot when required.
D. Modify the DB instance to a low-capacity instance when tests are completed.
Modify the DB instance again when required.

Answer:

QUESTION 179
A company that hosts its web application on AWS wants to ensure all Amazon EC2 instances. Amazon RDS DB instances and Amazon Redshift clusters are configured with tags. The company wants to minimize the effort of configuring and operating this check.

What should a solutions architect do to accomplish this?

A. Use AWS Config rules to define and detect resources that are not properly tagged.
B. Use Cost Explorer to display resources that are not properly tagged.
Tag those resources manually.
C. Write API calls to check all resources for proper tag allocation.
Periodically run the code on an EC2 instance.
D. Write API calls to check all resources for proper tag allocation.
Schedule an AWS Lambda function through Amazon CloudWatch to periodically run the code.

Answer:

QUESTION 180
A development team needs to host a website that will be accessed by other teams. The website contents consist of HTML, CSS, client-side JavaScript, and images.
Which method is the MOST cost-effective for hosting the website?

A. Containerize the website and host it in AWS Fargate.
B. Create an Amazon S3 bucket and host the website there
C. Deploy a web server on an Amazon EC2 instance to host the website.

D. Configure an Application Loa d Balancer with an AWS Lambda target that uses the Express js framework.

Answer:
Explanation:
In Static Websites, Web pages are returned by the server which are prebuilt.
They use simple languages such as HTML, CSS, or JavaScript.
There is no processing of content on the server (according to the user) in Static Websites. Web pages are returned by the server with no change therefore, static Websites are fast.
There is no interaction with databases.
Also, they are less costly as the host does not need to support server-side processing with different languages.
==========
In Dynamic Websites, Web pages are returned by the server which are processed during runtime means they are not prebuilt web pages but they are built during runtime according to the user's demand.
These use server-side scripting languages such as PHP, Node.js, ASP.NET and many more supported by the server.
So, they are slower than static websites but updates and interaction with databases are possible.

QUESTION 181
A company runs an online marketplace web application on AWS. The application serves hundreds of thousands of users during peak hours. The company needs a scalable, near-real-time solution to share the details of millions of financial transactions with several other internal applications Transactions also need to be processed to remove sensitive data before being stored in a document database for low-latency retrieval.

What should a solutions architect recommend to meet these requirements?

A. Store the transactions data into Amazon DynamoDB.
Set up a rule in DynamoDB to remove sensitive data from every transaction upon write.
Use DynamoDB Streams to share the transactions data with other applications
B. Stream the transactions data into Amazon Kinesis Data.
Firehose to store data in Amazon DynamoDB and Amazon S3.
Use AWS Lambda integration with Kinesis Data Firehose to remove sensitive data.
Other applications can consume the data stored in Amazon S3.
C. Stream the transactions data into Amazon Kinesis Data Streams.
Use AWS Lambda integration to remove sensitive data from every transaction and then store the transactions data in Amazon DynamoDB.
Other applications can consume the transactions data off the Kinesis data stream.
D. Store the batched transactions data in Amazon S3 as files.
Use AWS Lambda to process every file and remove sensitive data before updating the files in Amazon S3.
The Lambda function then stores the data in Amazon DynamoDB.
Other applications can consume transaction files stored in Amazon S3.

Answer:
Explanation:
The destination of your Kinesis Data Firehose delivery stream. Kinesis Data Firehose can send data records to various destinations, including Amazon Simple Storage Service (Amazon S3), Amazon Redshift, Amazon OpenSearch Service, and any HTTP endpoint that is owned by you or any of your third-party service providers. The following are the supported destinations:
* Amazon OpenSearch Service
* Amazon S3

* Datadog
* Dynatrace
* Honeycomb
* HTTP Endpoint
* Logic Monitor
* MongoDB Cloud
* New Relic
* Splunk
* Sumo Logic

https://docs.aws.amazon.com/firehose/latest/dev/create-name.html
https://aws.amazon.com/kinesis/data-streams/
Amazon Kinesis Data Streams (KDS) is a massively scalable and durable real-time data streaming service. KDS can continuously capture gigabytes of data per second from hundreds of thousands of sources such as website clickstreams, database event streams, financial transactions, social media feeds, IT logs, and location-tracking events.

QUESTION 182
A company hosts its multi-tier applications on AWS. For compliance, governance, auditing, and security, the company must track configuration changes on its AWS resources and record a history of API calls made to these resources.

What should a solutions architect do to meet these requirements?

A. Use AWS CloudTrail to track configuration changes and AWS Config to record API calls
B. Use AWS Config to track configuration changes and AWS CloudTrail to record API calls
C. Use AWS Config to track configuration changes and Amazon CloudWatch to record API calls
D. Use AWS CloudTrail to track configuration changes and Amazon CloudWatch to record API calls

Answer:

QUESTION 183
A company is preparing to launch a public-facing web application in the AWS Cloud. The architecture consists of Amazon EC2 instances within a VPC behind an Elastic Load Balancer (ELB). A third-party service is used for the DNS. The company's solutions architect must recommend a solution to detect and protect against large-scale DDoS attacks.

Which solution meets these requirements?

A. Enable Amazon GuardDuty on the account.
B. Enable Amazon Inspector on the EC2 instances.
C. Enable AWS Shield and assign Amazon Route 53 to it.
D. Enable AWS Shield Advanced and assign the ELB to it.

Answer:
Explanation:
https://aws.amazon.com/shield/faqs/

QUESTION 184
A company is building an application in the AWS Cloud. The application will store data in Amazon S3 buckets in two AWS Regions. The company must use an AWS Key Management Service (AWS KMS) customer managed key to encrypt all data that is stored in the S3 buckets. The data

in both S3 buckets must be encrypted and decrypted with the same KMS key. The data and the key must be stored in each of the two Regions.
Which solution will meet these requirements with the LEAST operational overhead?

A. Create an S3 bucket in each Region.
Configure the S3 buckets to use server-side encryption with Amazon S3 managed encryption keys (SSE-S3).
Configure replication between the S3 buckets.
B. Create a customer managed multi-Region KMS key.
Create an S3 bucket in each Region.
Configure replication between the S3 buckets.
Configure the application to use the KMS key with client-side encryption.
C. Create a customer managed KMS key and an S3 bucket in each Region.
Configure the S3 buckets to use server-side encryption with Amazon S3 managed encryption keys (SSE-S3).
Configure replication between the S3 buckets.
D. Create a customer managed KMS key and an S3 bucket m each Region.
Configure the S3 buckets to use server-side encryption with AWS KMS keys (SSE-KMS).
Configure replication between the S3 buckets.

Answer:
Explanation:
From https://docs.aws.amazon.com/kms/latest/developerguide/custom-key-store-overview.html
For most users, the default AWS KMS key store, which is protected by FIPS 140-2 validated cryptographic modules, fulfills their security requirements. There is no need to add an extra layer of maintenance responsibility or a dependency on an additional service. However, you might consider creating a custom key store if your organization has any of the following requirements: Key material cannot be stored in a shared environment. Key material must be subject to a secondary, independent audit path. The HSMs that generate and store key material must be certified at FIPS 140-2 Level 3.
https://docs.aws.amazon.com/kms/latest/developerguide/custom-key-store-overview.html

QUESTION 185
A company is using a fleet of Amazon EC2 instances to ingest data from on-premises data sources. The data is in JSON format and ingestion rates can be as high as 1 MB/s. When an EC2 instance is rebooted, the data in-flight is lost.

The company's data science team wants to query ingested data near-real time.

Which solution provides near-real-time data querying that is scalable with minimal data loss?

A. Publish data to Amazon Kinesis Data Streams.
Use Kinesis Data Analytics to query the data.
B. Publish data to Amazon Kinesis Data Firehose with Amazon Redshift as the destination.
Use Amazon Redshift to query the data.
C. Store ingested data in an EC2 instance store.
Publish data to Amazon Kinesis Data Firehose with Amazon S3 as the destination.
Use Amazon Athena to query the data.
D. Store ingested data in an Amazon Elastic Block Store (Amazon EBS) volume.
Publish data to Amazon ElastiCache for Redis.
Subscribe to the Redis channel to query the data.

Answer:
Explanation:

Kinesis data streams consists of shards. The more througput is needed, the more shards you add, the less throughput, the more shards you remove, so it's scalable. Each shard can handle up to 1MB/s of writes.
However Kinesis data streams stores ingested data for only 1 to 7 days so there is a chance of data loss. Additionally,
Kinesis data analytics and kinesis data streams are both for real-time ingestion and analytics. Firehouse on the other hand is also scalable and processes data in near real time as per the requirement. It also transfers data into Redshift which is a data warehouse so data won't be lost. Redshift also has a SQL interface for performing queries for data analytics.

QUESTION 186
A company is developing a mobile game that streams score updates to a backend processor and then posts results on a leaderboard.
A solutions architect needs to design a solution that can handle large traffic spikes, process the mobile game updates in order of receipt, and store the processed updates in a highly available database. The company also wants to minimize the management overhead required to maintain the solution.

What should the solutions architect do to meet these requirements?

A. Push score updates to Amazon Kinesis Data Streams.
Process the updates in Kinesis Data Streams with AWS Lambda.
Store the processed updates in Amazon DynamoDB.
B. Push score updates to Amazon Kinesis Data Streams.
Process the updates with a fleet of Amazon EC2 instances set up for Auto Scaling.
Store the processed updates in Amazon Redshift.
C. Push score updates to an Amazon Simple Notification Service (Amazon SNS) topic.
Subscribe an AWS Lambda function to the SNS topic to process the updates.
Store the processed updates in a SQL database running on Amazon EC2.
D. Push score updates to an Amazon Simple Queue Service (Amazon SQS) queue.
Use a fleet of Amazon EC2 instances with Auto Scaling to process the updates in the SOS queue.
Store the processed updates in an Amazon RDS Multi-AZ DB instance.

Answer:
Explanation:
Keywords to focus on would be highly available database - DynamoDB would be a better choice for leaderboard.

QUESTION 187
An ecommerce website is deploying its web application as Amazon Elastic Container Service (Amazon ECS) container instance behind an Application Load Balancer (ALB). During periods of high activity, the website slows down and availability is reduced. A solutions architect uses Amazon CloudWatch alarms to receive notifications whenever there is an availability issues so they can scale out resource Company management wants a solution that automatically responds to such events.

Which solution meets these requirements?

A. Set up AWS Auto Scaling to scale out the ECS service when there are timeouts on the ALB.
Set up AWS Auto Scaling to scale out the ECS cluster when the CPU or memory reservation is too high.
B. Set up AWS Auto Scaling to scale out the ECS service when the ALB CPU utilization is too

high.
Set up AWS Auto Scaling to scale out the ECS cluster when the CPU or memory reservation is too high.

C. Set up AWS Auto Scaling to scale out the ECS service when the service's CPU utilization is too high.
Set up AWS Auto Scaling to scale out the ECS cluster when the CPU or memory reservation is too high.

D. Set up AWS Auto Scaling to scale out the ECS service when the ALB target group CPU utilization is too high.
Set up AWS Auto Scaling to scale out the ECS cluster when the CPU or memory reservation is too high.

Answer:
Explanation:
Match deployed capacity to the incoming application load, using scaling policies for both the ECS service and the Auto Scaling group in which the ECS cluster runs. Scaling up cluster instances and service tasks when needed and safely scaling them down when demand subsides, keeps you out of the capacity guessing game. This provides you high availability with lowered costs in the long run.
https://aws.amazon.com/blogs/compute/automatic-scaling-with-amazon-ecs/

QUESTION 188
A company has no existing file share services. A new project requires access to file storage that is mountable as a drive for on-premises desktops. The file server must authenticate usrs to an Activ Directory domain before they are able to access the storage.

Which service will allow Active Directory users to mount storage as a drive on their desktops?

A. AWS S3 Glacier
B. AWS DataSync
C. AWS Snowball Edge
D. AWS Storage Gateway

Answer:
Explanation:
Before you create an SMB file share, make sure that you configure SMB security settings for your file gateway.
You also configure either Microsoft Active Directory (AD) or guest access for authentication.
https://docs.aws.amazon.com/storagegateway/latest/userguide/CreatingAnSMBFileShare.html

QUESTION 189
Management has decided to deploy all AWS VPCs with IPv6 enabled. After sometime, a solutions architect tries to launch a new instance and receives an error stating that there is no enough IP address space available in the subnet.

What should the solutions architect do to fix this?

A. Check to make sure that only IPv6 was used during the VPC creation
B. Create a new IPv4 subnet with a larger range, and then launch the instance
C. Create a new IPv6-only subnet with a larger range, and then launch the instance
D. Disable the IPv4 subnet and migrate all instances to IPv6 only.
Once that is complete, launch the instance.

Answer:
Explanation:
https://cloudonaut.io/getting-started-with-ipv6-on-aws/
First of all, there is no IPv6-only VPC on AWS. A VPC is always IPv4 enabled, but you can optionally enable IPv6 (dual-stack).

QUESTION 190
A company operates an ecommerce website on Amazon EC2 instances behind an Application Load Balancer (ALB) in an Auto Scaling group. The site is experiencing performance issues related to a high request rate from illegitimate external systems with changing IP addresses. The security team is worried about potential DDoS attacks against the website. The company must block the illegitimate incoming requests in a way that has a minimal impact on legitimate users.

What should a solutions architect recommend?

A. Deploy Amazon Inspector and associate it with the ALB.
B. Deploy AWS WAF, associate it with the ALB, and configure a rate-limiting rule.
C. Deploy rules to the network ACLs associated with the ALB to block the incoming traffic.
D. Deploy Amazon GuardDuty and enable rate-limiting protection when configuring GuardDuty.

Answer:
Explanation:
Rate limit
For a rate-based rule, enter the maximum number of requests to allow in any five-minute period from an IP address that matches the rule's conditions. The rate limit must be at least 100.

You can specify a rate limit alone, or a rate limit and conditions. If you specify only a rate limit, AWS WAF places the limit on all IP addresses. If you specify a rate limit and conditions, AWS WAF places the limit on IP addresses that match the conditions.

When an IP address reaches the rate limit threshold, AWS WAF applies the assigned action (block or count) as quickly as possible, usually within 30 seconds. Once the action is in place, if five minutes pass with no requests from the IP address, AWS WAF resets the counter to zero.

QUESTION 191
A media company is evaluating the possibility ot moving rts systems to the AWS Cloud. The company needs at least 10 TB of storage with the maximum possible I/O performance for video processing. 300 TB of very durable storage for storing media content, and 900 TB of storage to meet requirements for archival media that is not in use anymore.
Which set of services should a solutions architect recommend to meet these requirements?

A. Amazon EBS for maximum performance.
Amazon S3 for durable data storage, and Amazon S3 Glacier for archival storage.
B. Amazon EBS for maximum performance.
Amazon EFS for durable data storage and Amazon S3 Glacier for archival storage.
C. Amazon EC2 instance store for maximum performance.
Amazon EFS for durable data storage and Amazon S3 for archival storage.
D. Amazon EC2 Instance store for maximum performance.
Amazon S3 for durable data storage, and Amazon S3 Glacier for archival storage.

Answer:
Explanation:

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

QUESTION 192
A company wants to run applications in containers in the AWS Cloud. These applications are stateless and can tolerate disruptions within the underlying infrastructure. The company needs a solution that minimizes cost and operational overhead.

What should a solutions architect do to meet these requirements?

A. Use Spot Instances in an Amazon EC2 Auto Scaling group to run the application containers.
B. Use Spot Instances in an Amazon Elastic Kubernetes Service (Amazon EKS) managed node group.
C. Use On-Demand Instances in an Amazon EC2 Auto Scaling group to run the application containers.
D. Use On-Demand Instances in an Amazon Elastic Kubernetes Service (Amazon EKS) managed node group.

Answer:

QUESTION 193
A company is running a multi-tier web application on premises. The web application is containerized and runs on a number of Linux hosts connected to a PostgreSQL database that contains user records. The operational overhead of maintaining the infrastructure and capacity planning is limiting the company's growth. A solutions architect must improve the application's infrastructure.

Which combination of actions should the solutions architect take to accomplish this? (Choose two.)

A. Migrate the PostgreSQL database to Amazon Aurora
B. Migrate the web application to be hosted on Amazon EC2 instances.
C. Set up an Amazon CloudFront distribution for the web application content.
D. Set up Amazon ElastiCache between the web application and the PostgreSQL database.
E. Migrate the web application to be hosted on AWS Fargate with Amazon Elastic Container Service (Amazon ECS).

Answer:

QUESTION 194
An application runs on Amazon EC2 instances across multiple Availability Zones. The instances run in an Amazon EC2 Auto Scaling group behind an Application Load Balancer. The application performs best when the CPU utilization of the EC2 instances is at or near 40%.
What should a solutions architect do to maintain the desired performance across all instances in the group?

A. Use a simple scaling policy to dynamically scale the Auto Scaling group
B. Use a target tracking policy to dynamically scale the Auto Scaling group
C. Use an AWS Lambda function to update the desired Auto Scaling group capacity.
D. Use scheduled scaling actions to scale up and scale down the Auto Scaling group

Answer:

Explanation:
https://docs.aws.amazon.com/autoscaling/application/userguide/application-auto-scaling-target-tracking.html

QUESTION 195
A company is developing a file-sharing application that will use an Amazon S3 bucket for storage. The company wants to serve all the files through an Amazon CloudFront distribution. The company does not want the files to be accessible through direct navigation to the S3 URL.

What should a solutions architect do to meet these requirements?

A. Write individual policies for each S3 bucket to grant read permission for only CloudFront access.
B. Create an IAM user. Grant the user read permission to objects in the S3 bucket. Assign the user to CloudFront.
C. Write an S3 bucket policy that assigns the CloudFront distribution ID as the Principal and assigns the target S3 bucket as the Amazon Resource Name (ARN).
D. Create an origin access identity (OAI). Assign the OAI to the CloudFront distribution. Configure the S3 bucket permissions so that only the OAI has read permission.

Answer:
Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/cloudfront-access-to-amazon-s3/
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-restricting-access-to-s3.html#private-content-restricting-access-to-s3-overview

QUESTION 196
A company's website provides users with downloadable historical performance reports. The website needs a solution that will scale to meet the company's website demands globally. The solution should be cost-effective, limit the provisioning of infrastructure resources, and provide the fastest possible response time.

Which combination should a solutions architect recommend to meet these requirements?

A. Amazon CloudFront and Amazon S3
B. AWS Lambda and Amazon DynamoDB
C. Application Load Balancer with Amazon EC2 Auto Scaling
D. Amazon Route 53 with internal Application Load Balancers

Answer:
Explanation:
Cloudfront for rapid response and s3 to minimize infrastructure.

QUESTION 197
A company runs an Oracle database on premises. As part of the company's migration to AWS, the company wants to upgrade the database to the most recent available version. The company also wants to set up disaster recovery (DR) for the database. The company needs to minimize the operational overhead for normal operations and DR setup. The company also needs to maintain access to the database's underlying operating system.

Which solution will meet these requirements?

A. Migrate the Oracle database to an Amazon EC2 instance.
Set up database replication to a different AWS Region.
B. Migrate the Oracle database to Amazon RDS for Oracle.
Activate Cross-Region automated backups to replicate the snapshots to another AWS Region.
C. Migrate the Oracle database to Amazon RDS Custom for Oracle.
Create a read replica for the database in another AWS Region.
D. Migrate the Oracle database to Amazon RDS for Oracle.
Create a standby database in another Availability Zone.

Answer:

QUESTION 198
A company wants to move its application to a serverless solution. The serverless solution needs to analyze existing and new data by using SL. The company stores the data in an Amazon S3 bucket. The data requires encryption and must be replicated to a different AWS Region.

Which solution will meet these requirements with the LEAST operational overhead?

A. Create a new S3 bucket. Load the data into the new S3 bucket.
Use S3 Cross-Region Replication (CRR) to replicate encrypted objects to an S3 bucket in another Region.
Use server-side encryption with AWS KMS multi-Region kays (SSE-KMS).
Use Amazon Athena to query the data.
B. Create a new S3 bucket. Load the data into the new S3 bucket.
Use S3 Cross-Region Replication (CRR) to replicate encrypted objects to an S3 bucket in another Region.
Use server-side encryption with AWS KMS multi-Region keys (SSE-KMS).
Use Amazon RDS to query the data.
C. Load the data into the existing S3 bucket.
Use S3 Cross-Region Replication (CRR) to replicate encrypted objects to an S3 bucket in another Region.
Use server-side encryption with Amazon S3 managed encryption keys (SSE-S3).
Use Amazon Athena to query the data.
D. Load the data into the existing S3 bucket.
Use S3 Cross-Region Replication (CRR) to replicate encrypted objects to an S3 bucket in another Region.
Use server-side encryption with Amazon S3 managed encryption keys (SSE-S3).
Use Amazon RDS to query the data.

Answer:

QUESTION 199
A company runs workloads on AWS. The company needs to connect to a service from an external provider. The service is hosted in the provider's VPC. According to the company's security team, the connectivity must be private and must be restricted to the target service. The connection must be initiated only from the company's VPC.

Which solution will mast these requirements?

A. Create a VPC peering connection between the company's VPC and the provider's VPC.
Update the route table to connect to the target service.
B. Ask the provider to create a virtual private gateway in its VPC.

Use AWS PrivateLink to connect to the target service.

C. Create a NAT gateway in a public subnet of the company's VPC.
Update the route table to connect to the target service.

D. Ask the provider to create a VPC endpoint for the target service.
Use AWS PrivateLink to connect to the target service.

Answer:

QUESTION 200
A company is migrating its on-premises PostgreSQL database to Amazon Aurora PostgreSQL. The on-premises database must remain online and accessible during the migration. The Aurora database must remain synchronized with the on-premises database.

Which combination of actions must a solutions architect take to meet these requirements? (Choose two.)

A. Create an ongoing replication task.
B. Create a database backup of the on-premises database
C. Create an AWS Database Migration Service (AWS DMS) replication server
D. Convert the database schema by using the AWS Schema Conversion Tool (AWS SCT).
E. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to monitor the database synchronization

Answer:

QUESTION 201
A company uses AWS Organizations to create dedicated AWS accounts for each business unit to manage each business unit's account independently upon request. The root email recipient missed a notification that was sent to the root user email address of one account. The company wants to ensure that all future notifications are not missed. Future notifications must be limited to account administrators.

Which solution will meet these requirements?

A. Configure the company's email server to forward notification email messages that are sent to the AWS account root user email address to all users in the organization.
B. Configure all AWS account root user email addresses as distribution lists that go to a few administrators who can respond to alerts. Configure AWS account alternate contacts in the AWS Organizations console or programmatically.
C. Configure all AWS account root user email messages to be sent to one administrator who is responsible for monitoring alerts and forwarding those alerts to the appropriate groups.
D. Configure all existing AWS accounts and all newly created accounts to use the same root user email address.
Configure AWS account alternate contacts in the AWS Organizations console or programmatically.

Answer:

QUESTION 202
A company recently launched a variety of new workloads on Amazon EC2 instances in its AWS account. The company needs to create a strategy to access and administer the instances

remotely and securely. The company needs to implement a repeatable process that works with native AWS services and follows the AWS Well-Architected Framework.
Which solution will meet these requirements with the LEAST operational overhead?

A. Use the EC2 serial console to directly access the terminal interface of each instance for administration.
B. Attach the appropriate IAM role to each existing instance and new instance.
Use AWS Systems Manager Session Manager to establish a remote SSH session.
C. Create an administrative SSH key pair.
Load the public key into each EC2 instance.
Deploy a bastion host in a public subnet to provide a tunnel for administration of each instance.
D. Establish an AWS Site-to-Site VPN connection.
Instruct administrators to use their local on-premises machines to connect directly to the instances by using SSH keys across the VPN tunnel.

Answer:
Explanation:
https://docs.aws.amazon.com/systems-manager/latest/userguide/setup-launch-managed-instance.html

QUESTION 203
A company is hosting a static website on Amazon S3 and is using Amazon Route 53 for DNS. The website is experiencing increased demand from around the world. The company must decrease latency for users who access the website.
Which solution meets these requirements MOST cost-effectively?

A. Replicate the S3 bucket that contains the website to all AWS Regions.
Add Route 53 geolocation routing entries.
B. Provision accelerators in AWS Global Accelerator.
Associate the supplied IP addresses with the S3 bucket.
Edit the Route 53 entries to point to the IP addresses of the accelerators.
C. Add an Amazon CloudFront distribution in front of the S3 bucket.
Edit the Route 53 entries to point to the CloudFront distribution.
D. Enable S3 Transfer Acceleration on the bucket.
Edit the Route 53 entries to point to the new endpoint.

Answer:

QUESTION 204
A company maintains a searchable repository of items on its website. The data is stored in an Amazon RDS for MySQL database table that contains more than 10 million rows. The database has 2 TB of General Purpose SSD storage. There are millions of updates against this data every day through the company's website.
The company has noticed that some insert operations are taking 10 seconds or longer.
The company has determined that the database storage performance is the problem.
Which solution addresses this performance issue?

A. Change the storage type to Provisioned IOPS SSD
B. Change the DB instance to a memory optimized instance class
C. Change the DB instance to a burstable performance instance class
D. Enable Multi-AZ RDS read replicas with MySQL native asynchronous replication.

Answer:
Explanation:
https://aws.amazon.com/ebs/features/
Provisioned IOPS volumes are backed by solid-state drives (SSDs) and are the highest performance EBS volumes designed for your critical, I/O intensive database applications. These volumes are ideal for both IOPS-intensive and throughput-intensive workloads that require extremely low latency.

QUESTION 205
A company has thousands of edge devices that collectively generate 1 TB of status alerts each day. Each alert is approximately 2 KB in size.
A solutions architect needs to implement a solution to ingest and store the alerts for future analysis.
The company wants a highly available solution. However, the company needs to minimize costs and does not want to manage additional infrastructure. Additionally, the company wants to keep 14 days of data available for immediate analysis and archive any data older than 14 days.

What is the MOST operationally efficient solution that meets these requirements?

A. Create an Amazon Kinesis Data Firehose delivery stream to ingest the alerts.
Configure the Kinesis Data Firehose stream to deliver the alerts to an Amazon S3 bucket.
Set up an S3 Lifecycle configuration to transition data to Amazon S3 Glacier after 14 days.
B. Launch Amazon EC2 instances across two Availability Zones and place them behind an Elastic Load Balancer to ingest the alerts.
Create a script on the EC2 instances that will store tne alerts m an Amazon S3 bucket.
Set up an S3 Lifecycle configuration to transition data to Amazon S3 Glacier after 14 days.
C. Create an Amazon Kinesis Data Firehose delivery stream to ingest the alerts.
Configure the Kinesis Data Firehose stream to deliver the alerts to an Amazon Elasticsearch Service (Amazon ES) duster.
Set up the Amazon ES cluster to take manual snapshots every day and delete data from the duster that is older than 14 days
D. Create an Amazon Simple Queue Service (Amazon SQS) standard queue to ingest the alerts and set the message retention period to 14 days.
Configure consumers to poll the SQS queue check the age of the message and analyze the message data as needed If the message is 14 days old the consumer should copy the message to an Amazon S3 bucket and delete the message from the SQS queue.

Answer
Explanation:
https://aws.amazon.com/kinesis/data-firehose/features/?nc=sn&loc=2#:~:text=into%20Amazon%20S3%2C%20Amazon%20Redshift%2C%20Amazon%20OpenSearch%20Service%2C%20Kinesis,Delivery%20streams

QUESTION 206
A company's application integrates with multiple software-as-a-service (SaaS) sources for data collection. The company runs Amazon EC2 instances to receive the data and to upload the data to an Amazon S3 bucket for analysis. The same EC2 instance that receives and uploads the data also sends a notification to the user when an upload is complete. The company has noticed slow application performance and wants to improve the performance as much as possible.

Which solution will meet these requirements with the LEAST operational overhead?

A. Create an Auto Scaling group so that EC2 instances can scale out.

Configure an S3 event notification to send events to an Amazon Simple Notification Service (Amazon SNS) topic when the upload to the S3 bucket is complete.

B. Create an Amazon AppFlow flow to transfer data between each SaaS source and the S3 bucket.
Configure an S3 event notification to send events to an Amazon Simple Notification Service (Amazon SNS) topic when the upload to the S3 bucket is complete.

C. Create an Amazon EventBridge (Amazon CloudWatch Events) rule for each SaaS source to send output data.
Configure the S3 bucket as the rule's target.
Create a second EventBridge (CloudWatch Events) rule to send events when the upload to the S3 bucket is complete.
Configure an Amazon Simple Notification Service (Amazon SNS) topic as the second rule's target.

D. Create a Docker container to use instead of an EC2 instance. Host the containerized application on Amazon Elastic Container Service (Amazon ECS).
Configure Amazon CloudWatch Container Insights to send events to an Amazon Simple Notification Service (Amazon SNS) topic when the upload to the S3 bucket is complete.

Answe

QUESTION 207
A company runs a highly available image-processing application on Amazon EC2 instances in a single VPC. The EC2 instances run inside several subnets across multiple Availability Zones. The EC2 instances do not communicate with each other. However, the EC2 instances download images from Amazon S3 and upload images to Amazon S3 through a single NAT gateway. The company is concerned about data transfer charges.
What is the MOST cost-effective way for the company to avoid Regional data transfer charges?

A. Launch the NAT gateway in each Availability Zone
B. Replace the NAT gateway with a NAT instance
C. Deploy a gateway VPC endpoint for Amazon S3
D. Provision an EC2 Dedicated Host to run the EC2 instances

Answe

QUESTION 208
A company has an on-premises application that generates a large amount of time-sensitive data that is backed up to Amazon S3. The application has grown and there are user complaints about internet bandwidth limitations. A solutions architect needs to design a long-term solution that allows for both timely backups to Amazon S3 and with minimal impact on internet connectivity for internal users.

Which solution meets these requirements?

A. Establish AWS VPN connections and proxy all traffic through a VPC gateway endpoint
B. Establish a new AWS Direct Connect connection and direct backup traffic through this new connection.
C. Order daily AWS Snowball devices Load the data onto the Snowball devices and return the devices to AWS each day.
D. Submit a support ticket through the AWS Management Console. Request the removal of S3 service limits from the account.

Answer:

QUESTION 209
A company has an Amazon S3 bucket that contains critical data. The company must protect the data from accidental deletion.
Which combination of steps should a solutions architect take to meet these requirements? (Choose two.)

A. Enable versioning on the S3 bucket.
B. Enable MFA Delete on the S3 bucket.
C. Create a bucket policy on the S3 bucket.
D. Enable default encryption on the S3 bucket.
E. Create a lifecycle policy for the objects in the S3 bucket.

Answer:

QUESTION 210
A company has a data ingestion workflow that consists the following:

```
- An Amazon Simple Notification Service (Amazon SNS) topic for
notifications about new data deliveries.
- An AWS Lambda function to process the data and record metadata
```

The company observes that the ingestion workflow fails occasionally because of network connectivity issues. When such a failure occurs, the Lambda function does not ingest the corresponding data unless the company manually reruns the job.
Which combination of actions should a solutions architect take to ensure that the Lambda function ingests all data in the future? (Select TWO.)

A. Configure the Lambda function In multiple Availability Zones.
B. Create an Amazon Simple Queue Service (Amazon SQS) queue, and subscribe It to me SNS topic.
C. Increase the CPU and memory that are allocated to the Lambda function.
D. Increase provisioned throughput for the Lambda function.
E. Modify the Lambda function to read from an Amazon Simple Queue Service (Amazon SQS) queue

Answer:

QUESTION 211
A company's web application is running on Amazon EC2 instances behind an Application Load Balancer. The company recently changed its policy, which now requires the application to be accessed from one specific country only.
Which configuration will meet this requirement?

A. Configure the security group for the EC2 instances.
B. Configure the security group on the Application Load Balancer.
C. Configure AWS WAF on the Application Load Balancer in a VPC.
D. Configure the network ACL for the subnet that contains the EC2 instances.

Answer:

Explanation:
https://aws.amazon.com/about-aws/whats-new/2017/10/aws-waf-now-supports-geographic-match/

QUESTION 212
A company has a mulli-tier application that runs six front-end web servers in an Amazon EC2 Auto Scaling group in a single Availability Zone behind an Application Load Balancer (ALB). A solutions architect needs lo modify the infrastructure to be highly available without modifying the application. Which architecture should the solutions architect choose that provides high availability?

A. Create an Auto Scaling group that uses three Instances across each of tv/o Regions.
B. Modify the Auto Scaling group to use three instances across each of two Availability Zones.
C. Create an Auto Scaling template that can be used to quickly create more instances in another Region.
D. Change the ALB in front of the Amazon EC2 instances in a round-robin configuration to balance traffic to the web tier.

Answer:
Explanation:
High availability can be enabled for this architecture quite simply by modifying the existing Auto Scaling group to use multiple availability zones. The ASG will automatically balance the load so you don't actually need to specify the instances per AZ.

QUESTION 213
Organizers for a global event want to put daily reports online as static HTML pages. The pages are expected to generate millions of views from users around the world. The files are stored In an Amazon S3 bucket. A solutions architect has been asked to design an efficient and effective solution. Which action should the solutions architect take to accomplish this?

A. Generate presigned URLs for the files.
B. Use cross-Region replication to all Regions.
C. Use the geoproximtty feature of Amazon Route 53.
D. Use Amazon CloudFront with the S3 bucket as its origin.

Answer:

QUESTION 214
A company runs an application using Amazon ECS. The application creates esi/ed versions of an original image and then makes Amazon S3 API calls to store the resized images in Amazon S3. How can a solutions architect ensure that the application has permission to access Amazon S3?

A. Update the S3 role in AWS IAM to allow read/write access from Amazon ECS, and then relaunch the container.
B. Create an IAM role with S3 permissions, and then specify that role as the taskRoleAm in the task definition.
C. Create a security group that allows access from Amazon ECS to Amazon S3, and update the launch configuration used by the ECS cluster.
D. Create an IAM user with S3 permissions, and then relaunch the Amazon EC2 instances for the ECS cluster while logged in as this account.

Answer:

QUESTION 215
A solutions architect needs to securely store a database user name and password that an application uses to access an Amazon RDS DB instance. The application that accesses the database runs on an Amazon EC2 instance. The solutions architect wants to create a secure parameter in AWS Systems Manager Parameter Store.
What should the solutions architect do to meet this requirement?

A. Create an IAM role that has read access to the Parameter Store parameter.
Allow Decrypt access to an AWS Key Management Service (AWS KMS) key that is used to encrypt the parameter.
Assign this IAM role to the EC2 instance.
B. Create an IAM policy that allows read access to the Parameter Store parameter.
Allow Decrypt access to an AWS Key Management Service (AWS KMS) key that is used to encrypt the parameter.
Assign this IAM policy to the EC2 instance.
C. Create an IAM trust relationship between the Parameter Store parameter and the EC2 instance.
Specify Amazon RDS as a principal in the trust policy.
D. Create an IAM trust relationship between the DB instance and the EC2 instance.
Specify Systems Manager as a principal in the trust policy.

Answer:
Explanation:
https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_aws-services-that-work-with-iam.html

QUESTION 216
An entertainment company is using Amazon DynamoDB to store media metadata. The application is read intensive and experiencing delays. The company does not have staff to handle additional operational overhead and needs to improve the performance efficiency of DynamoDB without reconfiguring the application.
What should a solutions architect recommend to meet this requirement?

A. Use Amazon ElastiCache for Redis.
B. Use Amazon DynamoDB Accelerator (DAX).
C. Replicate data by using DynamoDB global tables.
D. Use Amazon ElastiCache for Memcached with Auto Discovery enabled.

Answer:
Explanation:
https://aws.amazon.com/dynamodb/dax/

QUESTION 217
A security team wants to limit access to specific services or actions in all of the team's AWS accounts. All accounts belong to a large organization in AWS Organizations. The solution must be scalable and there must be a single point where permissions can be maintained.
What should a solutions architect do to accomplish this?

A. Create an ACL to provide access to the services or actions.
B. Create a security group to allow accounts and attach it to user groups.

C. Create cross-account roles in each account to deny access to the services or actions.
D. Create a service control policy in the root organizational unit to deny access to the services or actions.

Answer:
Explanation:
Service control policies (SCPs) are one type of policy that you can use to manage your organization. SCPs offer central control over the maximum available permissions for all accounts in your organization, allowing you to ensure your accounts stay within your organization's access control guidelines.
https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scp.html.

QUESTION 218
A company is concerned about the security of its public web application due to recent web attacks. The application uses an Application Load Balancer (ALB). A solutions architect must reduce the risk of DDoS attacks against the application.
What should the solutions architect do to meet this requirement?

A. Add an Amazon Inspector agent to the ALB.
B. Configure Amazon Macie to prevent attacks.
C. Enable AWS Shield Advanced to prevent attacks.
D. Configure Amazon GuardDuty to monitor the ALB.

Answer:

QUESTION 219
A company runs a production application on a fleet of Amazon EC2 instances. The application reads the data from an Amazon SQS queue and processes the messages in parallel. The message volume is unpredictable and often has intermittent traffic. This application should continually process messages without any downtime.
Which solution meets these requirements MOST cost-effectively?

A. Use Spot Instances exclusively to handle the maximum capacity required.
B. Use Reserved Instances exclusively to handle the maximum capacity required.
C. Use Reserved Instances for the baseline capacity and use Spot Instances to handle additional capacity.
D. Use Reserved Instances for the baseline capacity and use On-Demand Instances to handle additional capacity.

Answer:
Explanation:
We recommend that you use On-Demand Instances for applications with short-term, irregular workloads that cannot be interrupted.
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-on-demand-instances.html

QUESTION 220
A solutions architect must design a solution that uses Amazon CloudFront with an Amazon S3 origin to store a static website. The company's security policy requires that all website traffic be inspected by AWS WAR.
How should the solutions architect comply with these requirements?

A. Configure an S3 bucket policy lo accept requests coming from the AWS WAF Amazon Resource Name (ARN) only.
B. Configure Amazon CloudFront to forward all incoming requests to AWS WAF before requesting content from the S3 origin.
C. Configure a security group that allows Amazon CloudFront IP addresses to access Amazon S3 only.
Associate AWS WAF to CloudFront.
D. Configure Amazon CloudFront and Amazon S3 to use an origin access identity (OAI) to restrict access to the S3 bucket. Enable AWS WAF on the distribution.

Answer:
Explanation:
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-restricting-access-to-s3.html
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/distribution-web-awswaf.html

QUESTION 221
A company wants to manage Amazon Machine Images (AMIs). The company currently copies AMIs to the same AWS Region where the AMIs were created. The company needs to design an application that captures AWS API calls and sends alerts whenever the Amazon EC2 CreateImage API operation is called within the company's account.
Which solution will meet these requirements with the LEAST operational overhead?

A. Create an AWS Lambda function to query AWS CloudTrail logs and to send an alert when a CreateImage API call is detected.
B. Configure AWS CloudTrail with an Amazon Simple Notification Service (Amazon SNS) notification that occurs when updated logs are sent to Amazon S3.
Use Amazon Athena to create a new table and to query on CreateImage when an API call is detected.
C. Create an Amazon EventBridge (Amazon CloudWatch Events) rule for the CreateImage API call.
Configure the target as an Amazon Simple Notification Service (Amazon SNS) topic to send an alert when a CreateImage API call is detected.
D. Configure an Amazon Simple Queue Service (Amazon SQS) FIFO queue as a target for AWS CloudTrail logs.
Create an AWS Lambda function to send an alert to an Amazon Simple Notification Service (Amazon SNS) topic when a CreateImage API call is detected.

Answer:

QUESTION 222
An online retail company has more than 50 million active customers and receives more than 25,000 orders each day. The company collects purchase data for customers and stores this data in Amazon S3. Additional customer data is stored in Amazon RDS. The company wants to make all the data available to various teams so that the teams can perform analytics. The solution must provide the ability to manage fine-grained permissions for the data and must minimize operational overhead.
Which solution will meet these requirements?

A. Migrate the purchase data to write directly to Amazon RDS.
Use RDS access controls to limit access.
B. Schedule an AWS Lambda function to periodically copy data from Amazon RDS to Amazon S3.

Create an AWS Glue crawler.
Use Amazon Athena to query the data.
Use S3 policies to limit access.

C. Create a data lake by using AWS Lake Formation.
Create an AWS Glue JDBC connection to Amazon RDS.
Register (he S3 bucket in Lake Formation.
Use Lake Formation access controls to limit access.

D. Create an Amazon Redshift cluster.
Schedule an AWS Lambda function to periodically copy data from Amazon S3 and Amazon RDS to Amazon Redshift.
Use Amazon Redshift access controls to limit access.

Answer:

QUESTION 223
A company owns an asynchronous API that is used to ingest user requests and, based on the request type, dispatch requests to the appropriate microservice for processing. The company is using Amazon API Gateway to deploy the API front end, and an AWS Lambda function that invokes Amazon DynamoDB to store user requests before dispatching them to the processing microservices. The company provisioned as much DynamoDB throughput as its budget allows, but the company is still experiencing availability issues and is losing user requests.
What should a solutions architect do to address this issue without impacting existing users?

A. Add throttling on the API Gateway with server-side throttling limits.
B. Use DynamoDB Accelerator (DAX) and Lambda to buffer writes to DynamoDB.
C. Create a secondary index in DynamoDB for the table with the user requests.
D. Use the Amazon Simple Queue Service (Amazon SQS) queue and Lambda to buffer writes to DynamoDB.

Answer:
Explanation:
because all other options put some more charges to DynamoDB. But the company supplied as much as they can for DynamoDB. And it is async request and we need to have retry mechanism not to lose the customer data.

QUESTION 224
A company needs to move data from an Amazon EC2 instance to an Amazon S3 bucket. The company must ensure that no API calls and no data are routed through public internet routes. Only the EC2 instance can have access to upload data to the S3 bucket.
Which solution will meet these requirements?

A. Create an interface VPC endpoint for Amazon S3 in the subnet where the EC2 instance is located.
Attach a resource policy to the S3 bucket to only allow the EC2 instance's IAM role for access.

B. Create a gateway VPC endpoint for Amazon S3 in the Availability Zone where the EC2 instance is located.
Attach appropriate security groups to the endpoint.
Attach a resource policy lo the S3 bucket to only allow the EC2 instance's IAM role for access.

C. Run the nslookup tool from inside the EC2 instance to obtain the private IP address of the S3 bucket's service API endpoint.
Create a route in the VPC route table to provide the EC2 instance with access to the S3 bucket.
Attach a resource policy to the S3 bucket to only allow the EC2 instance's IAM role for access.

D. Use the AWS provided, publicly available ip-ranges.json tile to obtain the private IP address of the

S3 bucket's service API endpoint.
Create a route in the VPC route table to provide the EC2 instance with access to the S3 bucket.
Attach a resource policy to the S3 bucket to only allow the EC2 instance's IAM role for access.

Answer:

QUESTION 225
A gaming company hosts a browser-based application on AWS. The users of the application consume a large number of videos and images that are stored in Amazon S3. This content is the same for all users.
The application has increased in popularity, and millions of users worldwide are accessing these media files. The company wants to provide the files to the users while reducing the load on the origin.
Which solution meets these requirements MOST cost-effectively?

A. Deploy an AWS Global Accelerator accelerator in front of the web servers.
B. Deploy an Amazon CloudFront web distribution in front of the S3 bucket.
C. Deploy an Amazon ElastiCache for Redis instance in front of the web servers.
D. Deploy an Amazon ElastiCache for Memcached instance in front of the web servers.

Answer

QUESTION 226
A company has two applications: a sender application that sends messages with payloads to be processed and a processing application intended to receive the messages with payloads. The company wants to implement an AWS service to handle messages between the two applications. The sender application can send about 1.000 messages each hour. The messages may take up to 2 days to be processed. If the messages fail to process, they must be retained so that they do not impact the processing of any remaining messages.
Which solution meets these requirements and is the MOST operationally efficient?

A. Set up an Amazon EC2 instance running a Redis database.
Configure both applications to use the instance.
Store, process, and delete the messages, respectively.
B. Use an Amazon Kinesis data stream to receive the messages from the sender application.
Integrate the processing application with the Kinesis Client Library (KCL).
C. Integrate the sender and processor applications with an Amazon Simple Queue Service (Amazon SQS) queue.
Configure a dead-letter queue to collect the messages that failed to process.
D. Subscribe the processing application to an Amazon Simple Notification Service (Amazon SNS) topic to receive notifications to process.
Integrate the sender application to write to the SNS topic.

Answer:
Explanation:
https://aws.amazon.com/blogs/compute/building-loosely-coupled-scalable-c-applications-with-amazon-sqs-and-amazon-sns/
https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/sqs-dead-letter-queues.html

QUESTION 227

A company has an AWS account used for software engineering. The AWS account has access to the company's on-premises data center through a pair of AWS Direct Connect connections. All non-VPC traffic routes to the virtual private gateway.
A development team recently created an AWS Lambda function through the console.
The development team needs to allow the function to access a database that runs in a private subnet in the company's data center.
Which solution will meet these requirements?

A. Configure the Lambda function to run in the VPC with the appropriate security group.
B. Set up a VPN connection from AWS to the data center. Route the traffic from the Lambda function through the VPN.
C. Update the route tables in the VPC to allow the Lambda function to access the on-premises data center through Direct Connect.
D. Create an Elastic IP address. Configure the Lambda function to send traffic through the Elastic IP address without an elastic network interface.

Answer:
Explanation:
https://docs.aws.amazon.com/lambda/latest/dg/configuration-vpc.html#vpc-managing-eni

QUESTION 228
A company has a legacy data processing application that runs on Amazon EC2 instances. Data is processed sequentially, but the order of results does not matter. The application uses a monolithic architecture. The only way that the company can scale the application to meet increased demand is to increase the size of the instances.
The company's developers have decided to rewrite the application to use a microservices architecture on Amazon Elastic Container Service (Amazon ECS).
What should a solutions architect recommend for communication between the microservices?

A. Create an Amazon Simple Queue Service (Amazon SQS) queue.
Add code to the data producers, and send data to the queue.
Add code to the data consumers to process data from the queue.
B. Create an Amazon Simple Notification Service (Amazon SNS) topic.
Add code to the data producers, and publish notifications to the topic.
Add code to the data consumers to subscribe to the topic.
C. Create an AWS Lambda function to pass messages.
Add code to the data producers to call the Lambda function with a data object.
Add code to the data consumers to receive a data object that is passed from the Lambda function.
D. Create an Amazon DynamoDB table.
Enable DynamoDB Streams.
Add code to the data producers to insert data into the table.
Add code to the data consumers to use the DynamoDB Streams API to detect new table entries and retrieve the data.

Answer:
Explanation:
Queue has Limited throughput (300 msg/s without batching, 3000 msg/s with batching whereby up-to 10 msg per batch operation; Msg duplicates not allowed in the queue (exactly-once delivery); Msg order is preserved (FIFO); Queue name must end with .fifo

QUESTION 229
A hospital wants to create digital copies for its large collection of historical written records. The hospital will continue to add hundreds of new documents each day. The hospital's data team will

scan the documents and will upload the documents to the AWS Cloud. A solutions architect must implement a solution to analyze the documents, extract the medical information, and store the documents so that an application can run SQL queries on the data. The solution must maximize scalability and operational efficiency.
Which combination of steps should the solutions architect take to meet these requirements? (Select TWO.)

A. Write the document information to an Amazon EC2 instance that runs a MySQL database.
B. Write the document information to an Amazon S3 bucket.
Use Amazon Athena to query the data.
C. Create an Auto Scaling group of Amazon EC2 instances to run a custom application that processes the scanned files and extracts the medical information.
D. Create an AWS Lambda function that runs when new documents are uploaded.
Use Amazon Rekognition to convert the documents to raw text.
Use Amazon Transcribe Medical to detect and extract relevant medical information from the text.
E. Create an AWS Lambda function that runs when new documents are uploaded.
Use Amazon Textract to convert the documents to raw text.
Use Amazon Comprehend Medical to detect and extract relevant medical information from the text.

Answer: [redacted]

QUESTION 230
A solutions architect is optimizing a website for an upcoming musical event. Videos of the performances will be streamed in real time and then will be available on demand. The event is expected to attract a global online audience.
Which service will improve the performance of both the real-lime and on-demand streaming?

A. Amazon CloudFront
B. AWS Global Accelerator
C. Amazon Route 53
D. Amazon S3 Transfer Acceleration

Answer: [redacted]
Explanation:
You can use CloudFront to deliver video on demand (VOD) or live streaming video using any HTTP origin. One way you can set up video workflows in the cloud is by using CloudFront together with AWS Media Services.
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/on-demand-streaming-video.html

QUESTION 231
A company wants to migrate its MySQL database from on premises to AWS. The company recently experienced a database outage that significantly impacted the business. To ensure this does not happen again, the company wants a reliable database solution on AWS that minimizes data loss and stores every transaction on at least two nodes.
Which solution meets these requirements?

A. Create an Amazon RDS DB instance with synchronous replication to three nodes in three Availability Zones.
B. Create an Amazon RDS MySQL DB instance with Multi-AZ functionality enabled to synchronously replicate the data.

C. Create an Amazon RDS MySQL DB instance and then create a read replica in a separate AWS Region that synchronously replicates the data.
D. Create an Amazon EC2 instance with a MySQL engine installed that triggers an AWS Lambda function to synchronously replicate the data to an Amazon RDS MySQL DB instance.

Answer:
Explanation:
Q: What does Amazon RDS manage on my behalf?
Amazon RDS manages the work involved in setting up a relational database: from provisioning the infrastructure capacity you request to installing the database software. Once your database is up and running, Amazon RDS automates common administrative tasks such as performing backups and patching the software that powers your database. With optional Multi-AZ deployments, Amazon RDS also manages synchronous data replication across Availability Zones with automatic failover.
https://aws.amazon.com/rds/faqs/

QUESTION 232
An ecommerce company hosts its analytics application in the AWS Cloud. The application generates about 300 MB of data each month. The data is stored in JSON format. The company is evaluating a disaster recovery solution to back up the data. The data must be accessible in milliseconds if it is needed, and the data must be kept for 30 days.
Which solution meets these requirements MOST cost-effectively?

A. Amazon OpenSearch Service (Amazon Elasticsearch Service)
B. Amazon S3 Glacier
C. Amazon S3 Standard
D. Amazon RDS for PostgreSQL

Answer:

QUESTION 233
A company has a Windows-based application that must be migrated to AWS. The application requires the use of a shared Windows file system attached to multiple Amazon EC2 Windows instances that are deployed across multiple Availability Zones.
What should a solutions architect do to meet this requirement?

A. Configure AWS Storage Gateway in volume gateway mode.
Mount the volume to each Windows instance.
B. Configure Amazon FSx for Windows File Server.
Mount the Amazon FSx file system to each Windows instance.
C. Configure a file system by using Amazon Elastic File System (Amazon EFS).
Mount the EFS file system to each Windows instance.
D. Configure an Amazon Elastic Block Store (Amazon EBS) volume with the required size.
Attach each EC2 instance to the volume.
Mount the file system within the volume to each Windows instance.

Answer:

QUESTION 234
A solutions architect is creating a new Amazon CloudFront distribution for an application. Some of the information submitted by users is sensitive. The application uses HTTPS but needs another

layer of security. The sensitive information should be protected throughout the entire application stack, and access to the information should be restricted to certain applications.
Which action should the solutions architect take?

A. Configure a CloudFront signed URL.
B. Configure a CloudFront signed cookie.
C. Configure a CloudFront field-level encryption profile.
D. Configure CloudFront and set the Origin Protocol Policy setting to HTTPS Only for the Viewer Protocol Policy.

Answer:
Explanation:
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/field-level-encryption.html
"With Amazon CloudFront, you can enforce secure end-to-end connections to origin servers by using HTTPS. Field-level encryption adds an additional layer of security that lets you protect specific data throughout system processing so that only certain applications can see it."

QUESTION 235
A company is planning to move its data to an Amazon S3 bucket. The data must be encrypted when it is stored in the S3 bucket. Additionally, the encryption key must be automatically rotated every year. Which solution will meet these requirements with the LEAST operational overhead?

A. Move the data to the S3 bucket.
Use server-side encryption with Amazon S3 managed encryption keys (SSE-S3).
Use the built-in key rotation behavior of SSE-S3 encryption keys.
B. Create an AWS Key Management Service (AWS KMS) customer managed key.
Enable automatic key rotation.
Set the S3 bucket's default encryption behavior to use the customer managed KMS key.
Move the data to the S3 bucket.
C. Create an AWS Key Management Service (AWS KMS) customer managed key.
Set the S3 bucket's default encryption behavior to use the customer managed KMS key.
Move the data to the S3 bucket.
Manually rotate the KMS key every year.
D. Encrypt the data with customer key material before moving the data to the S3 bucket.
Create an AWS Key Management Service (AWS KMS) key without key material.
Import the customer key material into the KMS key.
Enable automatic key rotation.

Answer:

QUESTION 236
An application runs on Amazon EC2 instances in private subnets. The application needs to access an Amazon DynamoDB table. What is the MOST secure way to access the table while ensuring that the traffic does not leave the AWS network?

A. Use a VPC endpoint for DynamoDB.
B. Use a NAT gateway in a public subnet.
C. Use a NAT instance in a private subnet.
D. Use the internet gateway attached to the VPC.

Answer:

Explanation:
https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/vpc-endpoints-dynamodb.html
A VPC endpoint for DynamoDB enables Amazon EC2 instances in your VPC to use their private IP addresses to access DynamoDB with no exposure to the public internet. Your EC2 instances do not require public IP addresses, and you don't need an internet gateway, a NAT device, or a virtual private gateway in your VPC. You use endpoint policies to control access to DynamoDB. Traffic between your VPC and the AWS service does not leave the Amazon network.

QUESTION 237
A company provides an API to its users that automates inquiries for tax computations based on item prices. The company experiences a larger number of inquiries during the holiday season only that cause slower response times. A solutions architect needs to design a solution that is scalable and elastic.
What should the solutions architect do to accomplish this?

A. Provide an API hosted on an Amazon EC2 instance.
The EC2 instance performs the required computations when the API request is made.
B. Design a REST API using Amazon API Gateway that accepts the item names.
API Gateway passes item names to AWS Lambda for tax computations.
C. Create an Application Load Balancer that has two Amazon EC2 instances behind it.
The EC2 instances will compute the tax on the received item names.
D. Design a REST API using Amazon API Gateway that connects with an API hosted on an Amazon EC2 instance.
API Gateway accepts and passes the item names to the EC2 instance for tax computations.

Answer:
Explanation:
Lambda server-less is scalable and elastic than EC2 api gateway solution.

QUESTION 238
A company wants to use high performance computing (HPC) infrastructure on AWS for financial risk modeling. The company's HPC workloads run on Linux. Each HPC workflow runs on hundreds of Amazon EC2 Spot Instances, is shorl-lived, and generates thousands of output files that are ultimately stored in persistent storage for analytics and long-term future use. The company seeks a cloud storage solution that permits the copying of on-premises data to long-term persistent storage to make data available for processing by all EC2 instances. The solution should also be a high performance file system that is integrated with persistent storage to read and write datasets and output files.
Which combination of AWS services meets these requirements?

A. Amazon FSx for Lustre integrated with Amazon S3
B. Amazon FSx for Windows File Server integrated with Amazon S3
C. Amazon S3 Glacier integrated with Amazon Elastic Block Store (Amazon EBS)
D. Amazon S3 bucket with a VPC endpoint integrated with an Amazon Elastic Block Store (Amazon EBS) General Purpose SSD (gp2) volume

Answer:
Explanation:
https://aws.amazon.com/fsx/lustre/
Amazon FSx for Lustre is a fully managed service that provides cost-effective, high-performance, scalable storage for compute workloads. Many workloads such as machine learning, high performance computing (HPC), video rendering, and financial simulations depend on compute

instances accessing the same set of data through high-performance shared storage.

QUESTION 239
A company is running a publicly accessible serverless application that uses Amazon API Gateway and AWS Lambda.
The application's traffic recently spiked due to fraudulent requests from botnets.
Which steps should a solutions architect take to block requests from unauthorized users? (Select TWO.)

A. Create a usage plan with an API key that is shared with genuine users only.
B. Integrate logic within the Lambda function to ignore the requests from fraudulent IP addresses.
C. Implement an AWS WAF rule to target malicious requests and trigger actions to filter them out.
D. Convert the existing public API to a private API.
Update the DNS records to redirect users to the new API endpoint.
E. Create an IAM role for each user attempting to access the API.
A user will assume the role when making the API call.

Answer:
Explanation:
https://docs.aws.amazon.com/apigateway/latest/developerguide/api-gateway-api-usage-plans.html

QUESTION 240
A solutions architect is designing the architecture of a new application being deployed to the AWS Cloud. The application will run on Amazon EC2 On-Demand Instances and will automatically scale across multiple Availability Zones. The EC2 instances will scale up and down frequently throughout the day. An Application Load Balancer (ALB) will handle the load distribution. The architecture needs to support distributed session data management. The company is willing to make changes to code if needed.
What should the solutions architect do to ensure that the architecture supports distributed session data management?

A. Use Amazon ElastiCache to manage and store session data.
B. Use session affinity (sticky sessions) of the ALB to manage session data.
C. Use Session Manager from AWS Systems Manager to manage the session.
D. Use the GetSessionToken API operation in AWS Security Token Service (AWS STS) to manage the session

Answer:
Explanation:
https://aws.amazon.com/vi/caching/session-management/
In order to address scalability and to provide a shared data storage for sessions that can be accessible from any individual web server, you can abstract the HTTP sessions from the web servers themselves. A common solution to for this is to leverage an In-Memory Key/Value store such as Redis and Memcached. ElastiCache offerings for In-Memory key/value stores include ElastiCache for Redis, which can support replication, and ElastiCache for Memcached which does not support replication.

QUESTION 241
A company hosts a marketing website in an on-premises data center. The website consists of static documents and runs on a single server. An administrator updates the website content

infrequently and uses an SFTP client to upload new documents.
The company decides to host its website on AWS and to use Amazon CloudFront. The company's solutions architect creates a CloudFront distribution. The solutions architect must design the most cost-effective and resilient architecture for website hosting to serve as the CloudFront origin.
Which solution will meet these requirements?

A. Create a virtual server by using Amazon Lightsail.
Configure the web server in the Lightsail instance.
Upload website content by using an SFTP client.
B. Create an AWS Auto Scaling group for Amazon EC2 instances.
Use an Application Load Balancer.
Upload website content by using an SFTP client.
C. Create a private Amazon S3 bucket.
Use an S3 bucket policy to allow access from a CloudFront origin access identity (OAI).
Upload website content by using theAWSCLI.
D. Create a public Amazon S3 bucket. Configure AWS Transfer for SFTP.
Configure the S3 bucket for website hosting.
Upload website content by using the SFTP client.

Answer:

QUESTION 242
A company is designing a cloud communications platform that is driven by APIs. The application is hosted on Amazon EC2 instances behind a Network Load Balancer (NLB). The company uses Amazon API Gateway to provide external users with access to the application through APIs.
The company wants to protect the platform against web exploits like SQL injection and also wants to detect and mitigate large, sophisticated DDoS attacks.
Which combination of solutions provides the MOST protection? (Select TWO.)

A. Use AWS WAF to protect the NLB.
B. Use AWS Shield Advanced with the NLB.
C. Use AWS WAF to protect Amazon API Gateway.
D. Use Amazon GuardDuty with AWS Shield Standard.
E. Use AWS Shield Standard with Amazon API Gateway.

Answer:

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