



Amazon-Web-Services

Exam Questions SAA-C03

AWS Certified Solutions Architect - Associate (SAA-C03)

NEW QUESTION 1

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
- C. Grant the user read permission to objects in the S3 bucket
- D. Assign the user to CloudFront.
- E. 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).
- F. Create an origin access identity (OAI). Assign the OAI to the CloudFront distribution
- G. Configure the S3 bucket permissions so that only the OAI has read permission.

Answer: D

Explanation:

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>

NEW QUESTION 2

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: D

Explanation:

Explanation

<https://aws.amazon.com/solutions/implementations/aws-streaming-data-solution-for-amazon-kinesis/>

NEW QUESTION 3

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: C

Explanation:

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."

NEW QUESTION 4

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 log
- E. 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: B

NEW QUESTION 5

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

Answer: D

NEW QUESTION 6

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 AddPermission API call to add appropriate permissions
- C. Use the ReceiveMessage API call to set an appropriate wait time
- D. Use the ChangeMessageVisibility API call to increase the visibility timeout

Answer: D

Explanation:

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 is the best choice; other options are ruled out [Option A - You can't introduce one more Queue in the existing one; Option B - only Permission; Option C - Only Retrieves Messages]. FIFO 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).

NEW QUESTION 7

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 be fully managed.

Which AWS solution meets these requirements?

- A. Create an AWS Storage Gateway volume gateway
- B. Create a file share that uses the required client protocol. Connect the application server to the file share.
- C. Create an AWS Storage Gateway tape gateway. Configure (apes to use Amazon S3). Connect the application server to the tape gateway.
- D. Create an Amazon EC2 Windows instance. Install and configure a Windows file share role on the instance.
- E. Connect the application server to the file share.
- F. Create an Amazon FSx for Windows File System. Attach the file system to the origin server. Connect the application server to the file system.

Answer: D

NEW QUESTION 8

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.
- C. Add the aws:PrincipalOrgPaths global condition key to the S3 bucket policy.
- D. Use AWS CloudTrail to monitor the CreateAccount, InviteAccountToOrganization, LeaveOrganization, and RemoveAccountFromOrganization events.
- E. Update the S3 bucket policy accordingly.
- F. Tag each user that needs access to the S3 bucket.
- G. Add the aws:PrincipalTag global condition key to the S3 bucket policy.

Answer: A

Explanation:

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
```

NEW QUESTION 9

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: B

Explanation:

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/costmanagement/latest/userguide/ce-what-is.html>

NEW QUESTION 10

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
- B. Enter the product manager's email address, and complete the sharing step
- C. Provide a shareable link for the dashboard to the product manager.
- D. Create an IAM user specifically for the product manager
- E. Attach the CloudWatch Read Only Access managed policy to the user
- F. Share the new login credential with the product manager
- G. Share the browser URL of the correct dashboard with the product manager.
- H. Create an IAM user for the company's employees, Attach the View Only Access AWS managed policy to the IAM user
- I. Share the new login credentials with the product manager
- J. Ask the product manager to navigate to the CloudWatch console and locate the dashboard by name in the Dashboards section.
- K. Deploy a bastion server in a public subnet
- L. When the product manager requires access to the dashboard, start the server and share the RDP credential
- M. 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: A

NEW QUESTION 10

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
- B. Associate the target group with the Auto Scaling group
- C. Use the NLB as an AWS Global Accelerator endpoint in each Region.
- D. Deploy an Application Load Balancer (ALB) and an associated target group
- E. Associate the target group with the Auto Scaling group
- F. Use the ALB as an AWS Global Accelerator endpoint in each Region.
- G. Deploy a Network Load Balancer (NLB) and an associated target group
- H. Associate the target group with the Auto Scaling group
- I. Create an Amazon Route 53 latency record that points to aliases for each NLB
- J. Create an Amazon CloudFront distribution that uses the latency record as an origin.
- K. Deploy an Application Load Balancer (ALB) and an associated target group
- L. Associate the target group with the Auto Scaling group
- M. Create an Amazon Route 53 weighted record that points to aliases for each ALB
- N. Deploy an Amazon CloudFront distribution that uses the weighted record as an origin.

Answer: C

NEW QUESTION 12

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.
- C. Tag those resources manually.
- D. Write API calls to check all resources for proper tag allocation.
- E. Periodically run the code on an EC2 instance.
- F. Write API calls to check all resources for proper tag allocation.
- G. Schedule an AWS Lambda function through Amazon CloudWatch to periodically run the code.

Answer: A

NEW QUESTION 13

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 Load Balancer with an AWS Lambda target that uses the Express.js framework.

Answer: B

Explanation:

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.

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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.

NEW QUESTION 17

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.
- C. Other applications can consume the data stored in Amazon S3.
- D. 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.
- E. Store the batched transactions data in Amazon S3 as file.
- F. 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: C

Explanation:

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.

NEW QUESTION 19

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: D

NEW QUESTION 21

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
- B. 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 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.
- D. Create an Amazon EventBridge (Amazon CloudWatch Events) rule for each SaaS source to send output data
- E. Configure the S3 bucket as the rule's target
- F. Create a second EventBridge (CloudWatch Events) rule to send events when the upload to the S3 bucket is complete
- G. Configure an Amazon Simple Notification Service (Amazon SNS) topic as the second rule's target.
- H. Create a Docker container to use instead of an EC2 instance
- I. 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.

Answer: B

NEW QUESTION 24

A company has a data ingestion workflow that consists of 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 the 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: BE

NEW QUESTION 29

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
- B. Use an access control policy to deny deletion of the records for a period of 10 years.
- C. Store the records by using S3 Intelligent-Tiering
- D. Use an IAM policy to deny deletion of the records. After 10 years, change the IAM policy to allow deletion.
- E. Use an S3 Lifecycle policy to transition the records from S3 Standard to S3 Glacier Deep Archive after 1 year
- F. Use S3 Object Lock in compliance mode for a period of 10 years.
- G. 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
- H. Use S3 Object Lock in governance mode for a period of 10 years.

Answer: C

NEW QUESTION 31

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
- B. Move the on-premises file data to FSx for Windows File Server
- C. Reconfigure the workloads to use FSx for Windows File Server on AWS.
- D. 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.
- E. 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.
- F. 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: D

NEW QUESTION 35

A rapidly growing ecommerce company is running its workloads in a single AWS Region. A solutions architect must create a disaster recovery (DR) strategy that includes a different AWS Region. The company wants its database to be up to date in the DR Region with the least possible latency. The remaining infrastructure in the DR Region needs to run at reduced capacity and must be able to scale up if necessary. Which solution will meet these requirements with the LOWEST recovery time objective (RTO)?

- A. Use an Amazon Aurora global database with a pilot light deployment.
- B. Use an Amazon Aurora global database with a warm standby deployment.
- C. Use an Amazon RDS Multi-AZ DB instance with a pilot light deployment.
- D. Use an Amazon RDS Multi-AZ DB instance with a warm standby deployment.

Answer: B

NEW QUESTION 39

A company collects data from thousands of remote devices by using a RESTful web services application that runs on an Amazon EC2 instance. The EC2 instance receives the raw data, transforms the raw data, and stores all the data in an Amazon S3 bucket. The number of remote devices will increase into the millions soon. The company needs a highly scalable solution that minimizes operational overhead. Which combination of steps should a solutions architect take to meet these requirements? (Select TWO.)

- A. Use AWS Glue to process the raw data in Amazon S3.
- B. Use Amazon Route 53 to route traffic to different EC2 instances.
- C. Add more EC2 instances to accommodate the increasing amount of incoming data.
- D. Send the raw data to Amazon Simple Queue Service (Amazon SQS). Use EC2 instances to process the data.
- E. Use Amazon API Gateway to send the raw data to an Amazon Kinesis data stream.
- F. Configure Amazon Kinesis Data Firehose to use the data stream as a source to deliver the data to Amazon S3.

Answer: BE

NEW QUESTION 42

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 Amazon EC2 Linux 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 cluster placement group.
- B. Attach a single Provisioned IOPS SSD Amazon Elastic Block Store (Amazon EBS) volume to all the instances by using Amazon EBS Multi-Attach.
- C. Use a partition placement group.
- D. Create shared file systems across the instances by using Amazon Elastic File System (Amazon EFS).
- E. Use a partition placement group.
- F. Create shared file systems across the instances by using Amazon Elastic File System (Amazon EFS).
- G. Use a spread placement group.
- H. Attach a single Provisioned IOPS SSD Amazon Elastic Block Store (Amazon EBS) volume to all the instances by using Amazon EBS Multi-Attach.

Answer: A

NEW QUESTION 45

A public-facing web application queries a database hosted on an Amazon EC2 instance in a private subnet. A large number of queries involve multiple table joins, and the application performance has been degrading due to an increase in complex queries. The application team will be performing updates to improve performance. What should a solutions architect recommend to the application team? (Select TWO.)

- A. Cache query data in Amazon SQS.
- B. Create a read replica to offload queries.
- C. Migrate the database to Amazon Athena.
- D. Implement Amazon DynamoDB Accelerator to cache data.
- E. Migrate the database to Amazon RDS.

Answer: BE

NEW QUESTION 46

A gaming company is moving its public scoreboard from a data center to the AWS Cloud. The company uses Amazon EC2 Windows Server instances behind an Application Load Balancer to host its dynamic application. The company needs a highly available storage solution for the application. The application consists of static files and dynamic server-side code. Which combination of steps should a solutions architect take to meet these requirements? (Select TWO.)

- A. Store the static files on Amazon S3. Use Amazon CloudFront to cache objects at the edge.
- B. Store the static files on Amazon S3. Use Amazon ElastiCache to cache objects at the edge.
- C. Store the server-side code on Amazon Elastic File System (Amazon EFS). Mount the EFS volume on each EC2 instance to share the files.
- D. Store the server-side code on Amazon FSx for Windows File Server.
- E. Mount the FSx for Windows File Server volume on each EC2 instance to share the files.
- F. Store the server-side code on a General Purpose SSD (gp2) Amazon Elastic Block Store (Amazon EBS) volume.
- G. Mount the EBS volume on each EC2 instance to share the files.

Answer: AE

NEW QUESTION 47

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 Amazon 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 (or Amazon S3 within the VPC)
- B. Create a bucket policy to make the objects in 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: BD

NEW QUESTION 51

An image hosting company uploads its large assets to Amazon S3 Standard buckets. The company uses multipart upload in parallel by using S3 APIs and overwrites if the same object is uploaded again. For the first 30 days after upload, the objects will be accessed frequently. The objects will be used less frequently after 30 days, but the access patterns for each object will be inconsistent. The company must optimize its S3 storage costs while maintaining high availability and resiliency of stored assets.

Which combination of actions should a solutions architect recommend to meet these requirements? (Select TWO.)

- A. Move assets to S3 Intelligent-Tiering after 30 days.
- B. Configure an S3 Lifecycle policy to clean up incomplete multipart uploads.
- C. Configure an S3 Lifecycle policy to clean up expired object delete markers.
- D. Move assets to S3 Standard-Infrequent Access (S3 Standard-IA) after 30 days.
- E. Move assets to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 30 days.

Answer: CD

NEW QUESTION 54

A solution 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. 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: C

NEW QUESTION 59

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 reaches the web server.

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

- A. Create a Network Load Balancer in 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 in the inspection VPC. Configure route tables to route the incoming packets 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: D

NEW QUESTION 61

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: C

NEW QUESTION 64

A company has a web-based map application that provides status information about ongoing repairs. The application sometimes has millions of users. Repair teams have a mobile app that sends current location and status in a JSON message to a REST-based endpoint.

Few repairs occur on most days. The company wants the application to be highly available and to scale when large numbers of repairs occur after natural disasters. Customers use the application most often during these times. The company does not want to pay for idle capacity.

- A. Create a webpage that is based on Amazon S3 to display information
- B. Use Amazon API Gateway and AWS Lambda to receive the JSON status data. Store the JSON data in Amazon S3.

- C. Use Amazon EC2 instances as web servers across multiple Availability Zone
- D. Run the EC2 instances in an Auto Scaling group
- E. Use Amazon API Gateway and AWS Lambda to receive the JSON status data Store the JSON data in Amazon S3.
- F. Use Amazon EC2 instances as web servers across multiple Availability Zone
- G. Run the EC2 instances in an Auto Scaling group
- H. Use a REST endpoint on the EC2 instances to receive the JSON status data
- I. Store the JSON data in an Amazon RDS Multi-AZ DB instance.
- J. Use Amazon EC2 instances as web servers across multiple Availability zones Run the EC2 instances in an Auto Scaling group Use a REST endpoint on the EC2 instances to receive the JSON status data Store the JSON data in an Amazon DynamoDB table.

Answer: D

NEW QUESTION 69

A company wants to analyze and troubleshoot Access Denied errors and unauthorized errors that are related to IAM permissions. The company has AWS CloudTrail turned on.

Which solution will meet these requirements with the LEAST effort?

- A. Use AWS Glue and write custom scripts to query CloudTrail logs for the errors.
- B. Use AWS Batch and write custom scripts to query CloudTrail logs for the errors.
- C. Search CloudTrail logs with Amazon Athena queries to identify the errors
- D. Search CloudTrail logs with Amazon QuickSight Create a dashboard to identify the errors

Answer: C

NEW QUESTION 73

A company has on-premises servers that run a relational database The database serves high-read traffic for users in different locations The company wants to migrate the database to AWS with the least amount of effort The database solution must support high availability and must not affect the company's current traffic flow

Which solution meets these requirements?

- A. Use a database in Amazon RDS with Multi-AZ and at least one read replica.
- B. Use a database in Amazon RDS with Multi-AZ and at least one standby replica.
- C. Use databases that are hosted on multiple Amazon EC2 instances in different AWS Regions.
- D. Use databases that are hosted on Amazon EC2 instances behind an Application Load Balancer in different Availability Zones

Answer: A

Explanation:

<https://aws.amazon.com/blogs/database/implementing-a-disaster-recovery-strategy-with-amazon-rds/>

NEW QUESTION 76

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: A

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"

NEW QUESTION 80

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: C

NEW QUESTION 83

A company has a business-critical application that runs on Amazon EC2 instances. The application stores data in an Amazon DynamoDB table. The company must be able to revert the table to any point within the last 24 hours. Which solution meets these requirements with the LEAST operational overhead?

- A. Configure point-in-time recovery for the table
- B. Use AWS Backup for the table
- C. Use an AWS Lambda function to make an on demand backup of the table every hour
- D. Turn on streams on the table to capture a log of all changes to the table in the last 24 hours
- E. Store a copy of the stream in an Amazon S3 bucket

Answer: A

NEW QUESTION 88

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: AE

NEW QUESTION 93

A company is hosting a website from an Amazon S3 bucket that is configured for public hosting. The company's security team mandates the usage of secure connections for access to the website. However, HTTP-based URLs and HTTPS-based URLs must be functional.

What should a solution architect recommend to meet these requirements?

- A. Create an S3 bucket policy to explicitly deny non-HTTPS traffic.
- B. Enable S3 Transfer Acceleration.
- C. Select the HTTPS Only bucket property.
- D. Place the website behind an Elastic Load Balancer that is configured to redirect HTTP traffic to HTTPS.
- E. Serve the website through an Amazon CloudFront distribution that is configured to redirect HTTP traffic to HTTPS.

Answer: D

NEW QUESTION 98

A company has a business system that generates hundreds of reports each day. The business system saves the reports to a network share in CSV format. The company needs to store this data in the AWS Cloud in near-real time for analysis. Which solution will meet these requirements with the LEAST administrative overhead?

- A. Use AWS DataSync to transfer the files to Amazon S3. Create a scheduled task that runs at the end of each day.
- B. Create an Amazon S3 File Gateway. Update the business system to use a new network share from the S3 File Gateway.
- C. Use AWS DataSync to transfer the files to Amazon S3. Create an application that uses the DataSync API in the automation workflow.
- D. Deploy an AWS Transfer for SFTP endpoint. Create a script that checks for new files on the network share and uploads the new files by using SFTP.

Answer: B

NEW QUESTION 100

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: CD

NEW QUESTION 104

A company is developing a new machine learning (ML) model solution on AWS. The models are developed as independent microservices that fetch approximately 1GB of model data from Amazon S3 at startup and load the data into memory. Users access the models through an asynchronous API. Users can send a request or a batch of requests and specify where the results should be sent.

The company provides models to hundreds of users. The usage patterns for the models are irregular. Some models could be unused for days or weeks. Other models could receive batches of thousands of requests at a time.

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

- A. Direct the requests from the API to a Network Load Balancer (NLB). Deploy the models as AWS Lambda functions that are invoked by the NLB.
- B. Direct the requests from the API to an Application Load Balancer (ALB). Deploy the models as Amazon Elastic Container Service (Amazon ECS) services that read from an Amazon Simple Queue Service (Amazon SQS) queue. Use AWS App Mesh to scale the instances of the ECS cluster based on the SQS queue size.
- C. Direct the requests from the API into an Amazon Simple Queue Service (Amazon SQS) queue. Deploy the models as AWS Lambda functions that are invoked by SQS events. Use AWS Auto Scaling to increase the number of vCPUs for the Lambda functions based on the SQS queue size.
- D. Direct the requests from the API into an Amazon Simple Queue Service (Amazon SQS) queue. Deploy the models as Amazon Elastic Container Service (Amazon ECS) services that read from the queue. Enable AWS Auto Scaling on Amazon ECS for both the cluster and copies of the service based on the queue size.

Answer: C

NEW QUESTION 106

A company has enabled AWS CloudTrail logs to deliver log files to an Amazon S3 bucket for each of its developer accounts. The company has created a central AWS account for streamlining management and audit reviews. An internal auditor needs to access the CloudTrail logs yet access needs to be restricted for all developer account users. The solution must be secure and optimized. How should a solutions architect meet these requirements?

- A. Configure an AWS Lambda function in each developer account to copy the log files to the central account. Create an IAM role in the central account for the auditor. Attach an IAM policy providing read-only permissions to the bucket.
- B. Configure CloudTrail from each developer account to deliver the log files to an S3 bucket in the central account. Create an IAM user in the central account for the auditor. Attach an IAM policy providing full permissions to the bucket.
- C. Configure CloudTrail from each developer account to deliver the log files to an S3 bucket in the central account. Create an IAM role in the central account for the auditor. Attach an IAM policy providing read-only permissions to the bucket.
- D. Configure an AWS Lambda function in the central account to copy the log files from the S3 bucket in each developer account. Create an IAM user in the central account for the auditor. Attach an IAM policy providing full permissions to the bucket.

Answer: C

Explanation:

<https://docs.aws.amazon.com/awsccloudtrail/latest/userguide/cloudtrail-sharing-logs.html>

NEW QUESTION 110

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 SQS 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.
- C. Use the message deduplication ID to discard duplicate messages.
- D. 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.
- E. Modify the Lambda function to delete each message from the SQS queue immediately after the message is read before processing.

Answer: B

NEW QUESTION 115

A company wants to establish connectivity between its on-premises data center and AWS (or an existing workload). The workload runs on Amazon EC2 instances in two VPCs in different AWS Regions. The VPCs need to communicate with each other. The company needs to provide connectivity from its data center to both VPCs. The solution must support a bandwidth of 600 Mbps to the data center. Which solution will meet these requirements?

- A. Set up an AWS Site-to-Site VPN connection between the data center and one VPC.
- B. Create a VPC peering connection between the VPCs.
- C. Set up an AWS Site-to-Site VPN connection between the data center and each VPC.
- D. Create a VPC peering connection between the VPCs.
- E. Set up an AWS Direct Connect connection between the data center and one VPC.
- F. Create a VPC peering connection between the VPCs.
- G. Create a transit gateway.
- H. Attach both VPCs to the transit gateway.
- I. Create an AWS Site-to-Site VPN tunnel to the transit gateway.

Answer: B

NEW QUESTION 120

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 to 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 file 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: B

NEW QUESTION 125

A company has chosen to rehost its application on Amazon EC2 instances. The application occasionally experiences errors that affect parts of its functionality. The company was unaware of this issue until users reported the errors. The company wants to address this problem during the migration and reduce the time it takes to detect issues with the application. Log files for the application are stored on the local disk. A solutions architect needs to design a solution that will alert staff if there are errors in the application after the application is migrated to AWS. The solution must not require additional changes to the application code. What is the MOST operationally efficient solution that meets these requirements?

- A. Configure the application to generate custom metrics for the errors. Send these metric data points to Amazon CloudWatch.

- B. CloudWatch by using the PutMetricData API call Create a CloudWatch alarm that is based on the custom metrics
- C. Create an hourly cron job on the instances to copy the application log data to an Amazon S3 bucket Configure an AWS Lambda function to scan the log file and publish a message to an Amazon Simple Notification Service (Amazon SNS) topic to alert staff if errors are detected.
- D. Install the Amazon CloudWatch agent on the instances Configure the CloudWatch agent to stream the application log file to Amazon CloudWatch Logs Run a CloudWatch Logs insights query to search for the relevant pattern in the log file Create a CloudWatch alarm that is based on the query output
- E. Install the Amazon CloudWatch agent on the instances Configure the CloudWatch agent to stream the application log file to Amazon CloudWatch Log
- F. Create a metric filter for the relevant log group
- G. Define the filter pattern that is required to determine that there are errors in the application Create a CloudWatch alarm that is based on the resulting metric.

Answer: B

NEW QUESTION 128

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
- B. Enter the product manager's email address, and complete the sharing step
- C. Provide a shareable link for the dashboard to the product manager.
- D. Create an IAM user specifically for the product manager
- E. Attach the CloudWatch Read Only Access managed policy to the user
- F. Share the new login credential with the product manager
- G. Share the browser URL of the correct dashboard with the product manager.
- H. Create an IAM user for the company's employees, Attach the View Only Access AWS managed policy to the IAM user
- I. Share the new login credentials with the product manager
- J. Ask the product manager to navigate to the CloudWatch console and locate the dashboard by name in the Dashboards section.
- K. Deploy a bastion server in a public subnet
- L. When the product manager requires access to the dashboard, start the server and share the RDP credential
- M. 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: A

NEW QUESTION 131

A company wants to use Amazon S3 for the secondary copy of its dataset. The company would rarely need to access this copy. The storage solution's cost should be minimal.

Which storage solution 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: C

NEW QUESTION 135

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
- D. Use Amazon Elastic File System (Amazon EFS) for storage.
- E. Migrate the application to Amazon EC2 instances in a Multi-AZ Auto Scaling group
- F. Use Amazon Elastic Block Store (Amazon EBS) for storage.

Answer: C

NEW QUESTION 140

A company wants to run applications in containers in the AWS Cloud. Those applications are stateless and can tolerate disruptions. What should a solutions architect do to meet those requirements?

What should a solution 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: A

NEW QUESTION 143

A company that primarily runs its application servers on premises has decided to migrate to AWS. The company wants to minimize its need to scale its Internet Small Computer Systems Interface (iSCSI) storage on premises. The company wants only its recently accessed data to remain stored locally.

Which AWS solution should the company use to meet these requirements?

- A. Amazon S3 File Gateway
- B. AWS Storage Gateway Tape Gateway
- C. AWS Storage Gateway Volume Gateway stored volumes
- D. AWS Storage Gateway Volume Gateway cachea volumes

Answer: D

NEW QUESTION 146

A company uses a legacy application to produce data in CSV format. The legacy application stores the output data in Amazon S3. The company is deploying a new commercial off-the-shelf (COTS) application that can perform complex SQL queries to analyze data that is stored in Amazon Redshift and Amazon S3 only. However, the COTS application cannot process the CSV files that the legacy application produces. The company cannot update the legacy application to produce data in another format. The company needs to implement a solution so that the COTS application can use the data that the legacy application produces.

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

- A. Create a AWS Glue extract, transform, and load (ETL) job that runs on a schedule.
- B. Configure the ETL job to process the .csv files and store the processed data in Amazon Redshift.
- C. Develop a Python script that runs on Amazon EC2 instances to convert the .csv files to SQL files. Invoke the Python script on a cron schedule to store the output files in Amazon S3.
- D. Create an AWS Lambda function and an Amazon DynamoDB table.
- E. Use an S3 event to invoke the Lambda function.
- F. Configure the Lambda function to perform an extract, transform, and load (ETL) job to process the .csv files and store the processed data in the DynamoDB table.
- G. Use Amazon EventBridge (Amazon CloudWatch Events) to launch an Amazon EMR cluster on a weekly schedule.
- H. Configure the EMR cluster to perform an extract, transform, and load (ETL) job to process the .csv files and store the processed data in an Amazon Redshift table.

Answer: C

NEW QUESTION 147

A startup company is hosting a website for its customers on an Amazon EC2 instance. The website consists of a stateless Python application and a MySQL database. The website serves only a small amount of traffic. The company is concerned about the reliability of the instance and needs to migrate to a highly available architecture. The company cannot modify the application code.

Which combination of actions should a solution architect take to achieve high availability for the website?

(Select TWO.)

- A. Provision an internet gateway in each Availability Zone in use.
- B. Migrate the database to an Amazon RDS for MySQL Multi-AZ DB instance.
- C. Migrate the database to Amazon DynamoDB, and enable DynamoDB auto scaling.
- D. Use AWS DataSync to synchronize the database data across multiple EC2 instances.
- E. Create an Application Load Balancer to distribute traffic to an Auto Scaling group of EC2 instances that are distributed across two Availability Zones.

Answer: BE

NEW QUESTION 150

To meet security requirements, a company needs to encrypt all of its application data in transit while communicating with an Amazon RDS MySQL DB instance. A recent security audit revealed that encryption at rest is enabled using AWS Key Management Service (AWS KMS), but data in transit is not encrypted. What should a solutions architect do to satisfy the security requirements?

- A. Enable IAM database authentication on the database.
- B. Provide self-signed certificates. Use the certificates in all connections to the RDS instance.
- C. Take a snapshot of the RDS instance. Restore the snapshot to a new instance with encryption enabled.
- D. Download AWS-provided root certificates. Provide the certificates in all connections to the RDS instance.

Answer: C

Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Overview.Encryption.html#Overview.Encryption>.

NEW QUESTION 154

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: A

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."

NEW QUESTION 157

A company that primarily runs its application servers on premises has decided to migrate to AWS. The company wants to minimize its need to scale its Internet Small Computer Systems Interface (iSCSI) storage on premises. The company wants only its recently accessed data to remain stored locally. Which AWS solution should the company use to meet these requirements?

- A. Amazon S3 File Gateway
- B. AWS Storage Gateway Tape Gateway
- C. AWS Storage Gateway Volume Gateway stored volumes
- D. AWS Storage Gateway Volume Gateway cached volumes

Answer: D

NEW QUESTION 162

A solution architect is using an AWS CloudFormation template to deploy a three-tier web application. The web application consists of a web tier and an application tier that stores and retrieves user data in Amazon DynamoDB tables. The web and application tiers are hosted on Amazon EC2 instances, and the database tier is not publicly accessible. The application EC2 instances need to access the Dynamo tables without exposing API credentials in the template. What should the solution architect do to meet the requirements?

- A. Create an IAM role to read the DynamoDB table
- B. Associate the role with the application instances by referencing an instance profile.
- C. Create an IAM role that has the required permissions to read and write from the DynamoDB table
- D. Add the role to the EC2 instance profile, and associate the instance profile with the application instances.
- E. Use the parameter section in the AWS CloudFormation template to have the user input access and secret keys from an already-created IAM user that has the required permissions to read and write from the DynamoDB tables.
- F. Create an IAM user in the AWS CloudFormation template that has the required permissions to read and write from the DynamoDB table
- G. Use the GetAtt function to retrieve the access secret keys, and pass them to the application instances through the user data.

Answer: B

NEW QUESTION 163

A company's application is running on Amazon EC2 instances within an Auto Scaling group behind an Elastic Load Balancer. Based on the application's history, the company anticipates a spike in traffic during a holiday each year. A solutions architect must design a strategy to ensure that the Auto Scaling group proactively increases capacity to minimize any performance impact on application users. Which solution will meet these requirements?

- A. Create an Amazon CloudWatch alarm to scale up the EC2 instances when CPU utilization exceeds 90%.
- B. Create a recurring scheduled action to scale up the Auto Scaling group before the expected period of peak demand.
- C. Increase the minimum and maximum number of EC2 instances in the Auto Scaling group during the peak demand period.
- D. Configure an Amazon Simple Notification Service (Amazon SNS) notification to send alerts when there are autoscaling EC2_INSTANCE_LAUNCH events.

Answer: B

NEW QUESTION 166

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.
- B. 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.
- C. Set up a Route 53 active-passive failover configuration.
- D. 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.
- E. Set up a Route 53 active-active configuration with the ALB and an Amazon EC2 instance that hosts a static error page as endpoint.
- F. Configure Route 53 to send requests to the instance only if the health checks fail for the ALB.
- G. Update the Route 53 records to use a multivalue answer routing policy.
- H. Create a health check.
- I. Direct traffic to the website if the health check passes.
- J. Direct traffic to a static error page that is hosted in Amazon S3 if the health check does not pass.

Answer: B

NEW QUESTION 170

The DNS provider that hosts a company's domain name records is experiencing outages that cause service disruption for a website running on AWS. The company needs to migrate to a more resilient managed DNS service and wants the service to run on AWS. What should a solutions architect do to rapidly migrate the DNS hosting service?

- A. Create an Amazon Route 53 public hosted zone for the domain name.
- B. Import the zone file containing the domain records hosted by the previous provider.
- C. Create an Amazon Route 53 private hosted zone for the domain name. Import the zone file containing the domain records hosted by the previous provider.
- D. Create a Simple AD directory in AWS.
- E. Enable zone transfer between the DNS provider and AWS Directory Service for Microsoft Active Directory for the domain records.
- F. Create an Amazon Route 53 Resolver inbound endpoint in the VPC. Specify the IP addresses that the provider's DNS will forward DNS queries to. Configure the provider's DNS to forward DNS queries for the domain to the IP addresses that are specified in the inbound endpoint.

Answer: B

NEW QUESTION 173

A company has two VPCs named Management and Production. The Management VPC uses VPNs through a customer gateway to connect to a single device in the data center. The Production VPC uses a virtual private gateway with two attached AWS Direct Connect connections. The Management and Production VPCs

both use a single VPC peering connection to allow communication between the applications.
 What should a solutions architect do to mitigate any single point of failure in this architecture?

- A. Add a set of VPNs between the Management and Production VPCs
- B. Add a second virtual private gateway and attach it to the Management VPC.
- C. Add a second set of VPNs to the Management VPC from a second customer gateway device
- D. Add a second VPC peering connection between the Management VPC and the Production VPC.

Answer: C

Explanation:

https://docs.aws.amazon.com/vpn/latest/s2svpn/images/Multiple_Gateways_diagram.png

"To protect against a loss of connectivity in case your customer gateway device becomes unavailable, you can set up a second Site-to-Site VPN connection to your VPC and virtual private gateway by using a second customer gateway device." <https://docs.aws.amazon.com/vpn/latest/s2svpn/vpn-redundant-connection.html>

NEW QUESTION 177

A company has hired a solutions architect to design a reliable architecture for its application. The application consists of one Amazon RDS DB instance and two manually provisioned Amazon EC2 instances that run web servers. The EC2 instances are located in a single Availability Zone.
 What should the solutions architect do to maximize reliability of the application Infrastructure?

- A. Delete one EC2 instance and enable termination protection on the other EC2 instance
- B. Update the DB instance to be multi-AZ, and enable deletion protection.
- C. Update the DB instance to be Multi-AZ
- D. and enable deletion protection
- E. Place the EC2 instances behind an Application Load Balancer, and run them in an EC2 Auto Scaling group across multiple Availability Zones
- F. Create an additional DB instance along with an Amazon API Gateway and an AWS Lambda function. Configure the application to invoke the Lambda function through API Gateway Have the Lambda function write the data to the two DB instances.
- G. Place the EC2 instances in an EC2 Auto Scaling group that has multiple subnets located in multiple Availability Zone
- H. Use Spot Instances instead of On-Demand Instance
- I. Set up Amazon CloudWatch alarms to monitor the health of the instance
- J. Update the DB instance to be Multi-AZ, and enable deletion protection.

Answer: B

Explanation:

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

NEW QUESTION 178

A company wants to reduce the cost of its existing three-tier web architect. The web, application, and database servers are running on Amazon EC2 instance EC2 instance 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 instance purchasing solution will meet the company's requirements MOST cost-effectively?

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

Answer: B

NEW QUESTION 183

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 in 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 day
- C. 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
- D. Use AWS trusted Advisor to check for certificates that will expire within to day
- E. 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 Notification Service (Amazon SNS)
- F. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to detect any certificates that will expire within 30 day
- G. Configure the rule to invoke an AWS Lambda function
- H. Configure the Lambda function to send a custom alert by way of Amazon Simple Notification Service (Amazon SNS).

Answer: B

NEW QUESTION 186

A company is developing an Internal application that uses a PostgreSQL database. The company has decided to host the database on Amazon Aurora The application does not need to be highly available but data must be stored in multiple Availability Zones to maximize durability.
 Which database configuration meets these requirements MOST cost-effectively?

- A. An Aurora PostgreSQL DB cluster with a single DB Instance

- B. An Aurora PostgreSQL DB cluster with a primary DB instance and a read replica
- C. An Aurora PostgreSQL DB cluster with Multi-AZ deployment enabled
- D. An Aurora PostgreSQL global database cluster

Answer: B

NEW QUESTION 189

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
- B. Use the AWS CLI to copy all files locally to the S3 bucket.
- C. Create an AWS Snowball Edge job
- D. Receive a Snowball Edge device on premise
- E. Use the Snowball Edge client to transfer data to the device
- F. Return the device so that AWS can import the data into Amazon S3.
- G. Deploy an S3 File Gateway on premise
- H. 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
- I. Transfer the data from the existing NFS file share to the S3 File Gateway.
- J. Set up an AWS Direct Connect connection between the on-premises network and AWS
- K. Deploy an S3 File Gateway on premise
- L. Create a public virtual interface (VIF) to connect to the S3 File Gateway
- M. Create an S3 bucket
- N. Create a new NFS file share on the S3 File Gateway
- O. Point the new file share to the S3 bucket
- P. Transfer the data from the existing NFS file share to the S3 File Gateway.

Answer: C

NEW QUESTION 194

A company wants to create a mobile app that allows users to stream slow-motion video clips on their mobile devices. Currently, the app captures video clips and uploads the video clips in raw format into an Amazon S3 bucket. The app retrieves these video clips directly from the S3 bucket. However, the videos are large in their raw format.

Users are experiencing issues with buffering and playback on mobile devices. The company wants to implement solutions to maximize the performance and scalability of the app while minimizing operational overhead.

Which combination of solutions will meet these requirements? (Select TWO.)

- A. Deploy Amazon CloudFront for content delivery and caching
- B. Use AWS DataSync to replicate the video files across AWS Regions in other S3 buckets
- C. Use Amazon Elastic Transcoder to convert the video files to more appropriate formats
- D. Deploy an Auto Scaling group of Amazon EC2 instances in Local Zones for content delivery and caching
- E. Deploy an Auto Scaling group of Amazon EC2 instances to convert the video files to more appropriate formats

Answer: CD

NEW QUESTION 197

A solutions architect is creating a new VPC design. There are two public subnets for the load balancer, two private subnets for web servers, and two private subnets for MySQL. The web servers use only HTTPS. The solutions architect has already created a security group for the load balancer allowing port 443 from 0.0.0.0/0.

Company policy requires that each resource has the least access required to still be able to perform its tasks. Which additional configuration strategy should the solutions architect use to meet these requirements?

- A. Create a security group for the web servers and allow port 443 from 0.0.0.0/0. Create a security group for the MySQL servers and allow port 3306 from the web servers security group.
- B. Create a network ACL for the web servers and allow port 443 from 0.0.0.0/0. Create a network ACL for the MySQL servers and allow port 3306 from the web servers security group.
- C. Create a security group for the web servers and allow port 443 from the load balancer
- D. Create a security group for the MySQL servers and allow port 3306 from the web servers security group.
- E. Create a network ACL for the web servers and allow port 443 from the load balancer
- F. Create a network ACL for the MySQL servers and allow port 3306 from the web servers security group.

Answer: C

NEW QUESTION 202

A company wants to migrate a Windows-based application from on-premises to the AWS Cloud. The application has three tiers, a business tier, and a database tier with Microsoft SQL Server. The company wants to use specific features of SQL Server such as native backups and Data Quality Services. The company also needs to share files for process between the tiers.

How should a solution architect design the architecture to meet these requirements?

- A. Host all three on Amazon EC2 instance
- B. Use Amazon FSx File Gateway for file sharing between tiers.
- C. Host all three on Amazon EC2 instance
- D. Use Amazon FSx for Windows file sharing between the tiers.
- E. Host the application tier and the business tier on Amazon EC2 instance
- F. Host the database tier on Amazon RDS
- G. Use Amazon Elastic File System (Amazon EFS) for file sharing between the tiers.

- H. Host the application tier and the business tier on Amazon EC2 instance
- I. Host the database tier on Amazon RD
- J. Use a Provisioned IOPS SSD (io2) Amazon Elastic Block Store (Amazon EBS) volume for file sharing between the tiers.

Answer: B

NEW QUESTION 205

A company is deploying a new application to Amazon Elastic Kubernetes Service (Amazon EKS) with an AWS Fargate cluster. The application needs a storage solution for data persistence. The solution must be highly available and fault tolerant. The solution also must be shared between multiple application containers. Which solution will meet these requirements with the LEAST operational overhead?

- A. Create Amazon Elastic Block Store (Amazon EBS) volumes in the same Availability Zones where EKS worker nodes are placed.
- B. Register the volumes in a StorageClass object on an EKS cluster. Use EBS Multi-Attach to share the data between containers.
- C. Create an Amazon Elastic File System (Amazon EFS) file system. Register the file system in a StorageClass object on an EKS cluster. Use the same file system for all containers.
- D. Create an Amazon Elastic Block Store (Amazon EBS) volume. Register the volume in a StorageClass object on an EKS cluster. Use the same volume for all containers.
- E. Create Amazon Elastic File System (Amazon EFS) file systems in the same Availability Zones where EKS worker nodes are placed. Register the file systems in a StorageClass object on an EKS cluster. Create an AWS Lambda function to synchronize the data between file systems.

Answer: B

NEW QUESTION 207

A company has a document management application that contains PDF documents. The company hosts the application on Amazon EC2 instances. According to regulations, the instances must not have access to the internet. The application must be able to read and write to a persistent storage system that provides native versioning capabilities.

A solutions architect needs to design secure storage that maximizes resiliency and facilitates data sharing across instances. Which solution meets these requirements?

- A. Place the instances in a public subnet. Use Amazon S3 for storage. Access S3 objects by using URLs.
- B. Place the instances in a private subnet. Use Amazon S3 for storage. Use a VPC endpoint to access S3 objects.
- C. Use the instances with a Provisioned IOPS SSD (io2) Amazon Elastic Block Store (Amazon EBS) volume.
- D. Use Amazon Elastic File System (Amazon EFS) Standard-Infrequent Access (Standard-IA) to store data and provide shared access to the instances.

Answer: B

NEW QUESTION 210

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