SAP-C01 Q&As

AWS Certified Solutions Architect - Professional (SAP-C01)

Pass Amazon SAP-C01 Exam with 100% Guarantee

Free Download Real Questions & Answers **PDF** and **VCE** file from:

https://www.leads4pass.com/aws-solution-architect-professional.html

100% Passing Guarantee
100% Money Back Assurance

Following Questions and Answers are all new published by Amazon Official Exam Center

- **Instant Download** After Purchase
- **100% Money Back** Guarantee
- **365 Days** Free Update
- **800,000+** Satisfied Customers

QUESTION 1

A company hosts a photography website on AWS that has global visitors. The website has experienced steady increases in traffic during the last 12 months, and users have reported a delay in displaying images. The company wants to configure Amazon CloudFront lo deliver photos to visitors with minimal latency.

Which actions will achieve this goal? (Select TWO.)

A. Set the Minimum TTL and Maximum TTL to 0 in the CloudFront distribution.

B. Set the Minimum TTL and Maximum TTL to a high value in the CloudFront distribution.

C. Set the CloudFront distribution to forward all headers, all cookies, and all query strings to the origin.

D. Set up additional origin servers that are geographically closer to the requesters. Configure latency-based routing in Amazon Route 53.

E. Select Price Class 100 on Ihe CloudFront distribution.

Correct Answer: BD

QUESTION 2

A Solutions Architect is designing the storage layer for a recently purchased application. The application will be running on Amazon EC2 instances and has the following layers and requirements:

1.

Data layer: A POSIX file system shared across many systems.

2.

Service layer: Static file content that requires block storage with more than 100k IOPS.

Which combination of AWS services will meet these needs? (Choose two.)

A. Data layer - Amazon S3

B. Data layer - Amazon EC2 Ephemeral Storage

C. Data layer - Amazon EFS

D. Service layer - Amazon EBS volumes with Provisioned IOPS

E. Service layer - Amazon EC2 Ephemeral Storage

Correct Answer: CE

QUESTION 3

A new application is running on Amazon Elastic Container Service (Amazon ECS) with AWS Fargate The application

uses an Amazon Aurora MySQL database The application and the database run m the same subnets of a VPC with distinct security groups that are configured.

The password (or the database is stored m AWS Secrets Manager and is passed to the application through the D8_PASSWORD environment variable The hostname of the database is passed to the application through the DB_HOST environment variable The application Is failing to access the database.

Which combination of actions should a solutions architect take to resolve this error? (Select THREE)

A. Ensure that the container has the environment variable with name "DB_PASSWORD" specified with a "ValueFrom" and the ARN of the secret

B. Ensure that the container has the environment variable with name *D8_PASSWORD" specified with a "ValueFrom" and the secret name of the secret.

C. Ensure that the Fargate service security group allows inbound network traffic from the Aurora MySQL database on the MySQL TCP port 3306.

D. Ensure that the Aurora MySQL database security group allows inbound network traffic from the Fargate service on the MySQL TCP port 3306.

E. Ensure that the container has the environment variable with name "D8_HOST" specified with the hostname of a DB instance endpoint.

F. Ensure that the container has the environment variable with name "DB_HOST" specified with the hostname of the OB duster endpoint.

Correct Answer: ADE

QUESTION 4

Which of the following AWS services can be used to define alarms to trigger on a certain activity, such as activity success, failure, or delay in AWS Data Pipeline?

A. Amazon SES

B. Amazon CodeDeploy

C. Amazon SNS

D. Amazon SQS

Correct Answer: C

In AWS Data Pipeline, you can define Amazon SNS alarms to trigger on activities such as success, failure, or delay by creating an alarm object and referencing it in the onFail, onSuccess, or onLate slots of the activity object.

Reference: https://aws.amazon.com/datapipeline/faqs/

QUESTION 5

You have launched an EC2 instance with four (4) 500 GB EBS Provisioned IOPS volumes attached. The EC2 instance is EBS-Optimized and supports 500 Mbps throughput between EC2 and EBS. The four EBS volumes are configured as

a single RAID 0 device, and each Provisioned IOPS volume is provisioned with 4,000 IOPS (4,000 16KB reads or writes), for a total of 16,000 random IOPS on the instance. The EC2 instance initially delivers the expected 16,000 IOPS random read and write performance. Sometime later, in order to increase the total random I/O performance of the instance, you add an additional two 500 GB EBS Provisioned IOPS volumes to the RAID. Each volume is provisioned to 4,000 IOPs like the original four, for a total of 24,000 IOPS on the EC2 instance. Monitoring shows that the EC2 instance CPU utilization increased from 50% to 70%, but the total random IOPS measured at the instance level does not increase at all.

What is the problem and a valid solution?

A. The EBS-Optimized throughput limits the total IOPS that can be utilized; use an EBSOptimized instance that provides larger throughput.

B. Small block sizes cause performance degradation, limiting the I/O throughput; configure the instance device driver and filesystem to use 64KB blocks to increase throughput.

C. The standard EBS Instance root volume limits the total IOPS rate; change the instance root volume to also be a 500GB 4,000 Provisioned IOPS volume.

D. Larger storage volumes support higher Provisioned IOPS rates; increase the provisioned volume storage of each of the 6 EBS volumes to 1TB.

E. RAID 0 only scales linearly to about 4 devices; use RAID 0 with 4 EBS Provisioned IOPS volumes, but increase each Provisioned IOPS EBS volume to 6,000 IOPS.

Correct Answer: B

QUESTION 6

A company that is developing a mobile game is making game assets available in two AWS Regions. Game assets are served from a set of Amazon EC2 instances behind an Application Load Balancer (ALB) in each Region. The company requires game assets to be fetched from the closest Region. If game assets become unavailable in the closest Region, they should be fetched from the other Region.

What should a solutions architect do to meet these requirements?

A. Create an Amazon CloudFront distribution. Create an origin group with one origin for each ALB. Set one of the origins as primary.

B. Create an Amazon Route 53 health check for each ALB. Create a Route 53 failover routing record pointing to the two ALBs. Set the Evaluate Target Health value to Yes.

C. Create two Amazon CloudFront distributions, each with one ALB as the origin. Create an Amazon Route 53 failover routing record pointing to the two CloudFront distributions. Set the Evaluate Target Health value to Yes.

D. Create an Amazon Route 53 health check for each ALB. Create a Route 53 latency alias record pointing to the two ALBs. Set the Evaluate Target Health value to Yes.

Correct Answer: D

Failover routing policy Use when you want to configure active-passive failover. Latency routing policy Use when you have resources in multiple AWS Regions and you want to route traffic to the region that provides the best latency. https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-policy.html

QUESTION 7

A company\\'s service for video game recommendations has just gone viral. The company has new users from all over the world. The website for the service is hosted on a set of Amazon EC2 instances in an Auto Scaling group behind an Application Load Balancer (ALB). The website consists of static content with different resources being loaded depending on the device type.

Users recently reported that the load time for the website has increased. Administrators are reporting high loads on the EC2 instances that host the service.

Which set actions should a solutions architect take to improve response times?

A. Create separate Auto Scaling groups based on device types. Switch to Network Load Balancer (NLB). Use the User-Agent HTTP header in the NLB to route to a different set of EC2 instances.

B. Move content to Amazon S3. Create an Amazon CloudFront distribution to serve content out of the S3 bucket. Use Lambda@Edge to load different resources based on the User-Agent HTTP header.

C. Create a separate ALB for each device type. Create one Auto Scaling group behind each ALB. Use Amazon Route 53 to route to different ALBs depending on the User-Agent HTTP header.

D. Move content to Amazon S3. Create an Amazon CloudFront distribution to serve content out of the S3 bucket. Use the User-Agent HTTP header to load different content.

Correct Answer: A

QUESTION 8

A company has a media catalog with metadata for each item in the catalog. Different types of metadata are

extracted from the media items by an application running on AWS Lambda. Metadata is extracted

according to a number of rules with the output stored in an Amazon ElastiCache for Redis cluster. The

extraction process is done in batches and takes around 40 minutes to complete.

The update process is triggered manually whenever the metadata extraction rules change.

The company wants to reduce the amount of time it takes to extract metadata from its media catalog. To

achieve this, a solutions architect has split the single metadata extraction Lambda function into a Lambda

function for each type of metadata.

Which additional steps should the solutions architect take to meet the requirements?

A. Create an AWS Step Functions workflow to run the Lambda functions in parallel. Create another Step Functions workflow that retrieves a list of media items and executes a metadata extraction workflow for each one.

B. Create an AWS Batch compute environment for each Lambda function. Configure an AWS Batch job queue for the compute environment. Create a Lambda function to retrieve a list of media items and write each item to the job queue.

C. Create an AWS Step Functions workflow to run the Lambda functions in parallel. Create a Lambda function to retrieve a list of media items and write each item to an Amazon SQS queue. Configure the

SQS queue as an input to the Step Functions workflow.

D. Create a Lambda function to retrieve a list of media items and write each item to an Amazon SQS queue. Subscribe the metadata extraction Lambda functions to the SQS queue with a large batch size.

Correct Answer: C

QUESTION 9

True or false: In CloudFormation, you cannot create an Amazon RDS DB instance from a snapshot.

A. False, you can specify it in attributes

B. False, you can specify it in condition

C. False, you can specify it in resource properties

D. True

Correct Answer: C

In AWS CloudFormation, resource properties are additional options that you can specify on a resource. For example, you can specify the DB snapshot property for an Amazon RDS DB instance in order to create a DB instance from a snapshot.

Reference: http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/concept-resources.html

QUESTION 10

If I write the below command, what does it do?

ec2-run ami-e3a5408a -n 20 -g appserver

A. Start twenty instances as members of appserver group.

B. Creates 20 rules in the security group named appserver

C. Terminate twenty instances as members of appserver group.

D. Start 20 security groups

Correct Answer: A

QUESTION 11

A retail company has a custom .NET web application running on AWS that uses Microsoft SQL Server for the database. The application servers maintain a user\\'s session locally.

Which combination of architecture changes are needed to ensure all tiers of the solution are highly available? (Choose three.)

A. Refactor the application to store the user\\'s session in Amazon ElastiCache. Use Application Load Balancers to distribute the load between application instances.

B. Set up the database to generate hourly snapshots using Amazon EBS. Configure an Amazon CloudWatch Events rule to launch a new database instance if the primary one fails.

C. Migrate the database to Amazon RDS for SQL Server. Configure the RDS instance to use a Multi-AZ deployment.

D. Move the .NET content to an Amazon S3 bucket. Configure the bucket for static website hosting.

E. Put the application instances in an Auto Scaling group. Configure the Auto Scaling group to create new instances if an instance becomes unhealthy.

F. Deploy Amazon CloudFront in front of the application tier. Configure CloudFront to serve content from healthy application instances only.

Correct Answer: BDE

QUESTION 12

A financial services company in North America plans to release a new online web application to its customers on AWS. The company will launch the application in the us-east-1 Region on Amazon EC2 instances. The application must be highly available and must dynamically scale to meet user traffic. The company also wants to implement a disaster recovery environment for the application in the us-west-1 Region by using active-passive failover.

Which solution will meet these requirements?

A. Create a VPC in us-east-1 and a VPC in us-west-1. Configure VPC peering. In the us-east-1 VPC, create an Application Load Balancer (ALB) that extends across multiple Availability Zones in both

VPCs. Create an Auto Scaling group that deploys the EC2 instances across the multiple Availability

Zones in both VPCs. Place the Auto Scaling group behind the ALB.

B. Create a VPC in us-east-1 and a VPC in us-west-1. In the us-east-1 VPC, create an Application Load Balancer (ALB) that extends across multiple Availability Zones in that VPC. Create an Auto Scaling group that deploys the EC2 instances across the multiple Availability Zones in the us-east-1 VPC. Place the Auto Scaling group behind the ALB. Set up the same configuration in the us-west-1 VPC. Create an Amazon Route 53 hosted zone. Create separate records for each ALB. Enable health checks to ensure high availability between Regions.

C. Create a VPC in us-east-1 and a VPC in us-west-1. In the us-east-1 VPC, create an Application Load Balancer (ALB) that extends across multiple Availability Zones in that VPC. Create an Auto Scaling group that deploys the EC2 instances across the multiple Availability Zones in the us-east-1 VPC. Place the Auto Scaling group behind the ALB. Set up the same configuration in the us-west-1 VPC. Create an Amazon Route 53 hosted zone. Create separate records for each ALB. Enable health checks and configure a failover routing policy for each record.

D. Create a VPC in us-east-1 and a VPC in us-west-1. Configure VPC peering. In the us-east-1 VPC, create an Application Load Balancer (ALB) that extends across multiple Availability Zones in both VPCs. Create an Auto Scaling group that deploys the EC2 instances across the multiple Availability Zones in both VPCs. Place the Auto Scaling group behind the ALB. Create an Amazon Route 53 hosted zone. Create a record for the ALB.

Correct Answer: C

QUESTION 13

A company has more than 10,000 sensors that send data to an on-premises Apache Kafka server by using the Message Queuing Telemetry Transport (MQTT) protocol. The on-premises Kafka server transforms the data and then stores the results as objects in an Amazon S3 bucket.

Recently, the Kafka server crashed. The company lost sensor data while the server was being restored. A solutions architect must create a new design on AWS that is highly available and scalable to prevent a similar occurrence.

Which solution will meet these requirements?

A. Launch two Amazon EC2 instances to host the Kafka server in an active/standby configuration across two Availability Zones. Create a domain name in Amazon Route 53. Create a Route 53 failover policy. Route the sensors to send the data to the domain name.

B. Migrate the on-premises Kafka server to Amazon Managed Streaming for Apache Kafka (Amazon MSK). Create a Network Load Balancer (NLB) that points to the Amazon MSK broker. Enable NLB health checks. Route the sensors to send the data to the NLB.

C. Deploy AWS IoT Core, and connect it to an Amazon Kinesis Data Firehose delivery stream. Use an AWS Lambda function to handle data transformation. Route the sensors to send the data to AWS IoT Core.

D. Deploy AWS IoT Core, and launch an Amazon EC2 instance to host the Kafka server. Configure AWS IoT Core to send the data to the EC2 instance. Route the sensors to send the data to AWS IoT Core.

Correct Answer: A

QUESTION 14

A company operates quick-service restaurants. The restaurants follow a predictable model with high sales traffic for -4 hours daily Sates traffic is lower outside of those peak hours.

The point of sale and management platform is deployed in the AWS Cloud and has a backend that is based or Amazon DynamoDB The database table uses provisioned throughput mode with 100.000 RCUs and 80.000 WCUs to match Known peak resource consumption.

The company wants to reduce its DynamoDB cost and minimize the operational overhead for the IT staff.

Which solution meets these requirements MOST cost-effectively?

A. Reduce the provisioned RCUs and WCUs

B. Change the DynamoDB table to use on-demand capacity

C. Enable Dynamo DB auto seating for the table.

D. Purchase 1-year reserved capacity that is sufficient to cover the peak load for 4 hours each day.

Correct Answer: C

QUESTION 15

A company has a data center that must be migrated to AWS as quickly as possible. The data center has a 500 Mbps

AWS Direct Connect link and a separate, fully available 1 Gbps ISP connection. A Solutions Architect must transfer 20 TB of data from the data center to an Amazon S3 bucket.

What is the FASTEST way transfer the data?

A. Upload the data to the S3 bucket using the existing DX link.

B. Send the data to AWS using the AWS Import/Export service.

C. Upload the data using an 80 TB AWS Snowball device.

D. Upload the data to the S3 bucket using S3 Transfer Acceleration.

Correct Answer: B

Import/Export supports importing and exporting data into and out of Amazon S3 buckets. For significant data sets, AWS Import/Export is often faster than Internet transfer and more cost effective than upgrading your connectivity.

Reference: https://stackshare.io/stackups/aws-direct-connect-vs-aws-import-export