Amazon-Web-Services

Exam Questions SAP-C02

AWS Certified Solutions Architect - Professional

NEW QUESTION 1
- (Exam Topic 1)
A company is developing a new serverless API by using Amazon API Gateway and AWS Lambda. The company integrated the Lambda functions with API Gateway to use several shared libraries and custom classes.
A solutions architect needs to simplify the deployment of the solution and optimize for code reuse. Which solution will meet these requirements?

A. Deploy the shared libraries and custom classes into a Docker imag
B. Store the image in an S3 bucket.Create a Lambda layer that uses the Docker image as the sourc
C. Deploy the API's Lambda functions as Zip package
D. Configure the packages to use the Lambda layer.
E. Deploy the shared libraries and custom classes to a Docker imag
F. Upload the image to Amazon Elastic Container Registry (Amazon ECR). Create a Lambda layer that uses the Docker image as the sourc
G. Deploy the API's Lambda functions as Zip package
H. Configure the packages to use the Lambda layer.
I. Deploy the shared libraries and custom classes to a Docker container in Amazon Elastic Container Service (Amazon ECS) by using the AWS Fargate launch typ
J. Deploy the API's Lambda functions as Zip package
K. Configure the packages to use the deployed container as a Lambda layer.
L. Deploy the shared libraries, custom classes, and code for the API's Lambda functions to a Docker imag
M. Upload the image to Amazon Elastic Container Registry (Amazon ECR). Configure the API's Lambda functions to use the Docker image as the deployment package.

Answer: B

Explanation:
Deploying the shared libraries and custom classes to a Docker image and uploading the image to Amazon Elastic Container Registry (Amazon ECR) and creating a Lambda layer that uses the Docker image as the source. Then, deploying the API's Lambda functions as Zip packages and configuring the packages to use the Lambda layer would meet the requirements for simplifying the deployment and optimizing for code reuse.
A Lambda layer is a distribution mechanism for libraries, custom runtimes, and other function dependencies. It allows you to manage your in-development function code separately from your dependencies, this way you can easily update your dependencies without having to update your entire function code.
By deploying the shared libraries and custom classes to a Docker image and uploading the image to Amazon Elastic Container Registry (ECR), it makes it easy to manage and version the dependencies. This way, the company can use the same version of the dependencies across different Lambda functions.
By creating a Lambda layer that uses the Docker image as the source, the company can configure the API's Lambda functions to use the layer, reducing the need to include the dependencies in each function package, and making it easy to update the dependencies across all functions at once.
Reference:
AWS Lambda Layers documentation: https://docs.aws.amazon.com/lambda/latest/dg/configuration-layers.html
AWS Elastic Container Registry (ECR) documentation: https://aws.amazon.com/ecr/ Building Lambda Layers with Docker documentation: https://aws.amazon.com/blogs/compute/building-lambda-layers-with-docker/

NEW QUESTION 2
- (Exam Topic 1)
A company is hosting a three-tier web application in an on-premises environment. Due to a recent surge in traffic that resulted in downtime and a significant financial impact, company management has ordered that the application be moved to AWS. The application is written in .NET and has a dependency on a MySQL database A solutions architect must design a scalable and highly available solution to meet the demand of 200000 daily users.
Which steps should the solutions architect take to design an appropriate solution?

A. Use AWS Elastic Beanstalk to create a new application with a web server environment and an Amazon RDS MySQL Multi-AZ DB instance The environment should launch a Network Load Balancer (NLB) in front of an Amazon EC2 Auto Scaling group in multiple Availability Zones Use an Amazon Route 53 alias record to route traffic from the company's domain to the NLB.
B. Use AWS CloudFormation to launch a stack containing an Application Load Balancer (ALB) in front of an Amazon EC2 Auto Scaling group spanning three Availability Zone
C. The stack should launch a Multi-AZ deployment of an Amazon Aurora MySQL DB cluster with a Retain deletion polic
D. Use an Amazon Route 53 alias record to route traffic from the company's domain to the ALB
E. Use AWS Elastic Beanstalk to create an automatically scaling web server environment that spans two separate Regions with an Application Load Balancer (ALB) in each Regio
F. Create a Multi-AZ deployment of an Amazon Aurora MySQL DB cluster with a cross-Region read replica Use Amazon Route 53 with a geoproximity routing policy to route traffic between the two Regions.
G. Use AWS CloudFormation to launch a stack containing an Application Load Balancer (ALB) in front of an Amazon ECS cluster of Spot Instances spanning three Availability Zones The stack should launch an Amazon RDS MySQL DB instance with a Snapshot deletion policy Use an Amazon Route 53 alias record to route traffic from the company's domain to the ALB

Answer: C

Explanation:
Using AWS CloudFormation to launch a stack with an Application Load Balancer (ALB) in front of an Amazon EC2 Auto Scaling group spanning three Availability Zones, a Multi-AZ deployment of an Amazon Aurora MySQL DB cluster with a Retain deletion policy, and an Amazon Route 53 alias record to route traffic from the company’s domain to the ALB will ensure that

NEW QUESTION 3
- (Exam Topic 1)
A company is developing and hosting several projects in the AWS Cloud. The projects are developed across multiple AWS accounts under the same organization in AWS Organizations. The company requires the cost lor cloud infrastructure to be allocated to the owning project. The team responsible for all of the AWS accounts has discovered that several Amazon EC2 instances are lacking the Project tag used for cost allocation.
Which actions should a solutions architect take to resolve the problem and prevent it from happening in the future? (Select THREE.)

A. Create an AWS Config rule in each account to find resources with missing tags.
B. Create an SCP in the organization with a deny action for ec2:RunInstances if the Project tag is missing.
C. Use Amazon Inspector in the organization to find resources with missing tags.
D. Create an IAM policy in each account with a deny action for ec2:RunInstances if the Project tag is missing.
E. Create an AWS Config aggregator for the organization to collect a list of EC2 instances with the missing Project tag.

F. Use AWS Security Hub to aggregate a list of EC2 instances with the missing Project tag.

Answer: ABE

Explanation:
https://docs.aws.amazon.com/config/latest/developerguide/config-rule-multi-account-deployment.html
https://docs.aws.amazon.com/config/latest/developerguide/aggregate-data.html
https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps_examples_tagging.htm

NEW QUESTION 4
- (Exam Topic 1)
A company wants to migrate its workloads from on premises to AWS. The workloads run on Linux and Windows. The company has a large on-premises intra structure that consists of physical machines and VMs that host numerous applications.
The company must capture details about the system configuration. system performance. running processure and network coi.net lions of its o. -premises ,on boards. The company also must divide the on-premises applications into groups for AWS migrations. The company needs recommendations for Amazon EC2 instance types so that the company can run its workloads on AWS in the most cost-effective manner.
Which combination of steps should a solutions architect take to meet these requirements? (Select THREE.)

A. Assess the existing applications by installing AWS Application Discovery Agent on the physical machines and VMs.
B. Assess the existing applications by installing AWS Systems Manager Agent on the physical machines and VMs
C. Group servers into applications for migration by using AWS Systems Manager Application Manager.
D. Group servers into applications for migration by using AWS Migration Hub.
E. Generate recommended instance types and associated costs by using AWS Migration Hub.
F. Import data about server sizes into AWS Trusted Adviso
G. Follow the recommendations for cost optimization.

Answer: ADE

Explanation:
https://docs.aws.amazon.com/application-discovery/latest/userguide/discovery-agent.html
https://docs.aws.amazon.com/migrationhub/latest/ug/ec2-recommendations.html

NEW QUESTION 5
- (Exam Topic 1)
A company has a serverless application comprised of Amazon CloudFront, Amazon API Gateway, and AWS Lambda functions. The current deployment process of the application code is to create a new version number of the Lambda function and run an AWS CLI script to update. If the new function version has errors, another CLI script reverts by deploying the previous working version of the function. The company would like to decrease the time to deploy new versions of the application logic provided by the Lambda functions, and also reduce the time to detect and revert when errors are identified.
How can this be accomplished?

A. Create and deploy nested AWS CloudFormation stacks with the parent stack consisting of the AWS CloudFront distribution and API Gateway, and the child stack containing the Lambda functio
B. For changes to Lambda, create an AWS CloudFormation change set and deploy; if errors are triggered, revert the AWS CloudFormation change set to the previous version.
C. Use AWS SAM and built-in AWS CodeDeploy to deploy the new Lambda version, gradually shift traffic to the new version, and use pre-traffic and post-traffic test functions to verify cod
D. Rollback if Amazon CloudWatch alarms are triggered.
E. Refactor the AWS CLI scripts into a single script that deploys the new Lambda versio
F. When deployment is completed, the script tests execut
G. If errors are detected, revert to the previous Lambda version.
H. Create and deploy an AWS CloudFormation stack that consists of a new API Gateway endpoint that references the new Lambda versio
I. Change the CloudFront origin to the new API Gateway endpoint, monitor errors and if detected, change the AWS CloudFront origin to the previous API Gateway endpoint.

Answer: B

Explanation:
https://aws.amazon.com/about-aws/whats-new/2017/11/aws-lambda-supports-traffic-shifting-and-phased-deploy

NEW QUESTION 6
- (Exam Topic 1)
A company is migrating some of its applications to AWS. The company wants to migrate and modernize the applications quickly after it finalizes networking and security strategies. The company has set up an AWS Direct Connection connection in a central network account.
The company expects to have hundreds of AWS accounts and VPCs in the near future. The corporate network must be able to access the resources on AWS seamlessly and also must be able to communicate with all the VPCs. The company also wants to route its cloud resources to the internet through its on-premises data center.
Which combination of steps will meet these requirements? (Choose three.)

A. Create a Direct Connect gateway in the central accoun
B. In each of the accounts, create an association proposal by using the Direct Connect gateway and the account ID for every virtual private gateway.
C. Create a Direct Connect gateway and a transit gateway in the central network accoun
D. Attach the transit gateway to the Direct Connect gateway by using a transit VIF.
E. Provision an internet gatewa
F. Attach the internet gateway to subnet
G. Allow internet traffic through the gateway.
H. Share the transit gateway with other account
I. Attach VPCs to the transit gateway.
J. Provision VPC peering as necessary.
K. Provision only private subnet
L. Open the necessary route on the transit gateway and customer gatewayto allow outbound internet traffic from AWS to flow through NAT services that run in the

data center.

Answer: BDF

Explanation:

Option A is incorrect because creating a Direct Connect gateway in the central account and creating an association proposal by using the Direct Connect gateway and the account ID for every virtual private gateway does not enable active-passive failover between the regions. A Direct Connect gateway is a globally available resource that enables you to connect your AWS Direct Connect connection over a private virtual interface (VIF) to one or more VPCs in any AWS Region. A virtual private gateway is the VPN concentrator on the Amazon side of a VPN connection. You can associate a Direct Connect gateway with either a transit gateway or a virtual private gateway. However, a Direct Connect gateway does not provide any load balancing or failover capabilities by itself1

Option B is correct because creating a Direct Connect gateway and a transit gateway in the central network account and attaching the transit gateway to the Direct Connect gateway by using a transit VIF meets the requirement of enabling the corporate network to access the resources on AWS seamlessly and also to communicate with all the VPCs. A transit VIF is a type of private VIF that you can use to connect your AWS Direct Connect connection to a transit gateway or a Direct Connect gateway. A transit gateway is a network transit hub that you can use to interconnect your VPCs and on-premises networks. By using a transit VIF, you can route traffic between your on-premises network and multiple VPCs across different AWS accounts and Regions through a single connection23

Option C is incorrect because provisioning an internet gateway, attaching the internet gateway to subnets, and allowing internet traffic through the gateway does not meet the requirement of routing cloud resources to the internet through its on-premises data center. An internet gateway is a horizontally scaled, redundant, and highly available VPC component that allows communication between your VPC and the internet. An internet gateway serves two purposes: to provide a target in your VPC route tables for internet-routable traffic, and to perform network address translation (NAT) for instances that have been assigned public IPv4 addresses. By using an internet gateway, you are routing cloud resources directly to the internet, not through your on-premises data center.

Option D is correct because sharing the transit gateway with other accounts and attaching VPCs to the transit gateway meets the requirement of enabling the corporate network to access the resources on AWS seamlessly and also to communicate with all the VPCs. You can share your transit gateway with other AWS accounts within the same organization by using AWS Resource Access Manager (AWS RAM). This allows you to centrally manage connectivity from multiple accounts without having to create individual peering connections between VPCs or duplicate network appliances in each account. You can attach VPCs from different accounts and Regions to your shared transit gateway and enable routing between them.

Option E is incorrect because provisioning VPC peering as necessary does not meet the requirement of enabling the corporate network to access the resources on AWS seamlessly and also to communicate with all the VPCs. VPC peering is a networking connection between two VPCs that enables you to route traffic between them using private IPv4 addresses or IPv6 addresses. You can create a VPC peering connection between your own VPCs, or with a VPC in another AWS account within a single Region. However, VPC peering does not allow you to route traffic from your on-premises network to your VPCs or between multiple Regions. You would need to create multiple VPN connections or Direct Connect connections for each VPC peering connection, which increases operational complexity and costs.

Option F is correct because provisioning only private subnets, opening the necessary route on the transit gateway and customer gateway to allow outbound internet traffic from AWS to flow through NAT services that run in the data center meets the requirement of routing cloud resources to the internet through its on-premises data center. A private subnet is a subnet that’s associated with a route table that has no route to an internet gateway. Instances in a private subnet can communicate with other instances in the same VPC but cannot access resources on the internet directly. To enable outbound internet access from instances in private subnets, you can use NAT devices such as NAT gateways or NAT instances that are deployed in public subnets. A public subnet is a subnet that’s associated with a route table that has a route to an internet gateway. Alternatively, you can use your on-premises data center as a NAT device by configuring routes on your transit gateway and customer gateway that direct outbound internet traffic from your private subnets through your VPN connection or Direct Connect connection. This way, you can route cloud resources to the internet through your on-premises data center instead of using an internet gateway.
References: 1:
https://docs.aws.amazon.com/directconnect/latest/UserGuide/direct-connect-gateways-intro.html 2:
https://docs.aws.amazon.com/directconnect/latest/UserGuide/direct-connect-transit-virtual-interfaces.html 3: https://docs.aws.amazon.com/vpc/latest/tgw/what-is-transit-gateway.html : https://docs.aws.amazon.com/vpc/latest/userguide/VPC_Internet_Gateway.html : https://docs.aws.amazon.com/vpc/latest/tgw/tgw-sharing.html : https://docs.aws.amazon.com/vpc/latest/peering/what-is-vpc-peering.html : https://docs.aws.amazon.com/vpc/latest/userguide/VPC_Scenario2.html : https://docs.aws.amazon.com/vpc/latest/userguide/VPC_Scenario3.html : https://docs.aws.amazon.com/vpc/latest/userguide/VPC_NAT_Instance.html : https://docs.aws.amazon.com/vpc/latest/userguide/VPC_NAT_Gateway.html

NEW QUESTION 7
- (Exam Topic 1)
A company is running an application in the AWS Cloud. The application runs on containers in an Amazon Elastic Container Service (Amazon ECS) cluster. The ECS tasks use the Fargate launch type. The application's data is relational and is stored in Amazon Aurora MySQL. To meet regulatory requirements, the application must be able to recover to a separate AWS Region in the event of an application failure. In case of a failure, no data can be lost. Which solution will meet these requirements with the LEAST amount of operational overhead?

A. Provision an Aurora Replica in a different Region.
B. Set up AWS DataSync for continuous replication of the data to a different Region.
C. Set up AWS Database Migration Service (AWS DMS) to perform a continuous replication of the data to a different Region.
D. Use Amazon Data Lifecycle Manager {Amazon DLM) to schedule a snapshot every 5 minutes.

Answer: A

Explanation:
Provision an Aurora Replica in a different Region will meet the requirement of the application being able to recover to a separate AWS Region in the event of an application failure, and no data can be lost, with the least amount of operational overhead.

NEW QUESTION 8
- (Exam Topic 1)
A company is running an application on several Amazon EC2 instances in an Auto Scaling group behind an Application Load Balancer. The load on the application varies throughout the day, and EC2 instances are scaled in and out on a regular basis. Log files from the EC2 instances are copied to a central Amazon S3 bucket every 15 minutes. The security team discovers that log files are missing from some of the terminated EC2 instances.
Which set of actions will ensure that log files are copied to the central S3 bucket from the terminated EC2 instances?

A. Create a script to copy log files to Amazon S3, and store the script in a file on the EC2 instanc
B. Create an Auto Scaling lifecycle hook and an Amazon EventBridge (Amazon CloudWatch Events) rule to detect lifecycle events from the Auto Scaling grou
C. Invoke an AWS Lambda function on the autoscaling:EC2_INSTANCE_TERMINATING transition to send ABANDON to the Auto Scaling group to prevent termination, run the script to copy the log files, and terminate the instance using the AWS SDK.
D. Create an AWS Systems Manager document with a script to copy log files to Amazon S3. Create an Auto Scaling lifecycle hook and an Amazon EventBridge (Amazon CloudWatch Events) rule to detect lifecycle events from the Auto Scaling grou

E. Invoke an AWS Lambda function on the autoscaling:EC2_INSTANCE_TERMINATING transition to call the AWS Systems Manager API SendCommand operation to run the document to copy the log files and send CONTINUE to the Auto Scaling group to terminate the instance.
F. Change the log delivery rate to every 5 minute
G. Create a script to copy log files to Amazon S3, and add the script to EC2 instance user dat
H. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to detect EC2 instance terminatio
I. Invoke an AWS Lambda function from the EventBridge (CloudWatch Events) rule that uses the AWS CLI to run the user-data script to copy the log files and terminate the instance.
J. Create an AWS Systems Manager document with a script to copy log files to Amazon S3. Create an Auto Scaling lifecycle hook that publishes a message to an Amazon Simple Notification Service (Amazon SNS) topi
K. From the SNS notification, call the AWS Systems Manager API SendCommand operation to run the document to copy the log files and send ABANDON to the Auto Scaling group to terminate the instance.

Answer: B

Explanation:
https://docs.aws.amazon.com/autoscaling/ec2/userguide/adding-lifecycle-hooks.html
- Refer to Default Result section - If the instance is terminating, both abandon and continue allow the instance to terminate. However, abandon stops any remaining actions, such as other lifecycle hooks, and continue allows any other lifecycle hooks to complete.
https://aws.amazon.com/blogs/infrastructure-and-automation/run-code-before-terminating-an-ec2-auto-scaling-i https://github.com/aws-samples/aws-lambda-lifecycle-hooks-function
https://github.com/aws-samples/aws-lambda-lifecycle-hooks-function/blob/master/cloudformation/template.yam

NEW QUESTION 9
- (Exam Topic 1)
A finance company hosts a data lake in Amazon S3. The company receives financial data records over SFTP each night from several third parties. The company runs its own SFTP server on an Amazon EC2 instance in a public subnet of a VPC. After the files ate uploaded, they are moved to the data lake by a cron job that runs on the same instance. The SFTP server is reachable on DNS sftp.examWe.com through the use of Amazon Route 53.
What should a solutions architect do to improve the reliability and scalability of the SFTP solution?

A. Move the EC2 instance into an Auto Scaling grou
B. Place the EC2 instance behind an Application Load Balancer (ALB). Update the DNS record sftp.example.com in Route 53 to point to the ALB.
C. Migrate the SFTP server to AWS Transfer for SFT
D. Update the DNS record sftp.example.com in Route 53 to point to the server endpoint hostname.
E. Migrate the SFTP server to a file gateway in AWS Storage Gatewa
F. Update the DNS record sflp.example.com in Route 53 to point to the file gateway endpoint.
G. Place the EC2 instance behind a Network Load Balancer (NLB). Update the DNS record sftp.example.com in Route 53 to point to the NLB.

Answer: B

Explanation:
https://aws.amazon.com/aws-transfer-family/faqs/ https://docs.aws.amazon.com/transfer/latest/userguide/what-is-aws-transfer-family.html
https://aws.amazon.com/about-aws/whats-new/2018/11/aws-transfer-for-sftp-fully-managed-sftp-for-s3/?nc1=h_

NEW QUESTION 10
- (Exam Topic 1)
A company is running a critical application that uses an Amazon RDS for MySQL database to store data. The RDS DB instance is deployed in Multi-AZ mode.
A recent RDS database failover test caused a 40-second outage to the application A solutions architect needs to design a solution to reduce the outage time to less than 20 seconds.
Which combination of steps should the solutions architect take to meet these requirements? (Select THREE.)

A. Use Amazon ElastiCache for Memcached in front of the database
B. Use Amazon ElastiCache for Redis in front of the database.
C. Use RDS Proxy in front of the database
D. Migrate the database to Amazon Aurora MySQL
E. Create an Amazon Aurora Replica
F. Create an RDS for MySQL read replica

Answer: CDE

Explanation:
Migrate the database to Amazon Aurora MySQL. - Create an Amazon Aurora Replica. - Use RDS Proxy in front of the database. - These options are correct because they address the requirement of reducing the failover time to less than 20 seconds. Migrating to Amazon Aurora MySQL and creating an Aurora replica can reduce the failover time to less than 20 seconds. Aurora has a built-in, fault-tolerant storage system that can automatically detect and repair failures. Additionally, Aurora has a feature called "Aurora Global Database" which allows you to create read-only replicas across multiple AWS regions which can further help to reduce the failover time. Creating an Aurora replica can also help to reduce the failover time as it can take over as the primary DB instance in case of a failure. Using RDS proxy can also help to reduce the failover time as it can route the queries to the healthy DB instance, it also helps to balance the load across multiple DB instances.

NEW QUESTION 10
- (Exam Topic 1)
A company has created an OU in AWS Organizations for each of its engineering teams Each OU owns multiple AWS accounts. The organization has hundreds of AWS accounts A solutions architect must design a solution so that each OU can view a breakdown of usage costs across its AWS accounts. Which solution meets these requirements?

A. Create an AWS Cost and Usage Report (CUR) for each OU by using AWS Resource Access Manager Allow each team to visualize the CUR through an Amazon QuickSight dashboard.
B. Create an AWS Cost and Usage Report (CUR) from the AWS Organizations management account- Allow each team to visualize the CUR through an Amazon QuickSight dashboard
C. Create an AWS Cost and Usage Report (CUR) in each AWS Organizations member account Allow each team to visualize the CUR through an Amazon QuickSight dashboard.

D. Create an AWS Cost and Usage Report (CUR) by using AWS Systems Manager Allow each team to visualize the CUR through Systems Manager OpsCenter dashboards

Answer: B

Explanation:
https://docs.aws.amazon.com/cur/latest/userguide/billing-cur-limits.html

NEW QUESTION 11
- (Exam Topic 1)
A company that uses AWS Organizations allows developers to experiment on AWS. As part of the landing zone that the company has deployed, developers use their company email address to request an account. The company wants to ensure that developers are not launching costly services or running services unnecessarily. The company must give developers a fixed monthly budget to limit their AWS costs.
Which combination of steps will meet these requirements? (Choose three.)

A. Create an SCP to set a fixed monthly account usage limi
B. Apply the SCP to the developer accounts.
C. Use AWS Budgets to create a fixed monthly budget for each developer's account as part of the account creation process.
D. Create an SCP to deny access to costly services and component
E. Apply the SCP to the developer accounts.
F. Create an IAM policy to deny access to costly services and component
G. Apply the IAM policy to the developer accounts.
H. Create an AWS Budgets alert action to terminate services when the budgeted amount is reached.Configure the action to terminate all services.
I. Create an AWS Budgets alert action to send an Amazon Simple Notification Service (Amazon SNS) notification when the budgeted amount is reache
J. Invoke an AWS Lambda function to terminate all services.

Answer: BCF

Explanation:
- Option A is incorrect because creating an SCP to set a fixed monthly account usage limit is not possible.
SCPs are policies that specify the services and actions that users and roles can use in the member accounts of an AWS Organization. SCPs cannot enforce budget limits or prevent users from launching
costly services or running services unnecessarily1
- Option B is correct because using AWS Budgets to create a fixed monthly budget for each developer's account as part of the account creation process meets the requirement of giving developers a fixed monthly budget to limit their AWS costs. AWS Budgets allows you to plan your service usage, service costs, and instance reservations. You can create budgets that alert you when your costs or usage exceed (or are forecasted to exceed) your budgeted amount2
- Option C is correct because creating an SCP to deny access to costly services and components meets the requirement of ensuring that developers are not launching costly services or running services
unnecessarily. SCPs can restrict access to certain AWS services or actions based on conditions such as region, resource tags, or request time. For example, an SCP can deny access to Amazon Redshift clusters or Amazon EC2 instances with certain instance types1
- Option D is incorrect because creating an IAM policy to deny access to costly services and components is not sufficient to meet the requirement of ensuring that developers are not launching costly services or running services unnecessarily. IAM policies can only control access to resources within a single AWS account. If developers have multiple accounts or can create new accounts, they can bypass the IAM policy restrictions. SCPs can apply across multiple accounts within an AWS Organization and prevent users from creating new accounts that do not comply with the SCP rules3
- Option E is incorrect because creating an AWS Budgets alert action to terminate services when the budgeted amount is reached is not possible. AWS Budgets alert actions can only perform one of the following actions: apply an IAM policy, apply an SCP, or send a notification through Amazon SNS. AWS Budgets alert actions cannot terminate services directly.
- Option F is correct because creating an AWS Budgets alert action to send an Amazon SNS notification when the budgeted amount is reached and invoking an AWS Lambda function to terminate all services meets the requirement of giving developers a fixed monthly budget to limit their AWS costs. AWS Budgets alert actions can send notifications through Amazon SNS when a budget threshold is breached. Amazon SNS can trigger an AWS Lambda function that can perform custom logic such as terminating all services in the developer's account. This way, developers cannot exceed their budget limit and incur additional costs.
References: 1: https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps.html 2
: https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/budgets-create.html 3: https://docs.aws.amazon.com/IAM/latest/UserGuide/introduction.html :
https://docs.aws.amazon.com/cost-management/latest/userguide/budgets-actions.html : https://docs.aws.amazon.com/sns/latest/dg/sns-lambda.html :
https://docs.aws.amazon.com/lambda/latest/dg/welcome.html

NEW QUESTION 15
- (Exam Topic 1)
A company runs a Java application that has complex dependencies on VMs that are in the company's data center. The application is stable. but the company wants to modernize the technology stack. The company wants to migrate the application to AWS and minimize the administrative overhead to maintain the servers.
Which solution will meet these requirements with the LEAST code changes?

A. Migrate the application to Amazon Elastic Container Service (Amazon ECS) on AWS Fargate by using AWS App2Containe
B. Store container images in Amazon Elastic Container Registry (Amazon ECR). Grant the ECS task execution role permission 10 access the ECR image repositor
C. Configure Amazon ECS to use an Application Load Balancer (ALB). Use the ALB to interact with the application.
D. Migrate the application code to a container that runs in AWS Lambd
E. Build an Amazon API Gateway REST API with Lambda integratio
F. Use API Gateway to interact with the application.
G. Migrate the application to Amazon Elastic Kubernetes Service (Amazon EKS) on EKS managed node groups by using AWS App2Containe
H. Store container images in Amazon Elastic Container Registry (Amazon ECR). Give the EKS nodes permission to access the ECR image repositor
I. Use Amazon API Gateway to interact with the application.
J. Migrate the application code to a container that runs in AWS Lambd
K. Configure Lambda to use an Application Load Balancer (ALB). Use the ALB to interact with the application.

Answer: A

Explanation:
According to the AWS documentation1, AWS App2Container (A2C) is a command line tool for migrating and modernizing Java and .NET web applications into

container format. AWS A2C analyzes and builds an inventory of applications running in bare metal, virtual machines, Amazon Elastic Compute Cloud (EC2) instances, or in the cloud. You can use AWS A2C to generate container images for your applications and deploy them on Amazon ECS or Amazon EKS.
Option A meets the requirements of the scenario because it allows you to migrate your existing Java application to AWS and minimize the administrative overhead to maintain the servers. You can use AWS A2C to analyze your application dependencies, extract application artifacts, and generate a Dockerfile. You can then store your container images in Amazon ECR, which is a fully managed container registry service. You can use AWS Fargate as the launch type for your Amazon ECS cluster, which is a serverless compute engine that eliminates the need to provision and manage servers for your containers. You can grant the ECS task execution role permission to access the ECR image repository, which allows your tasks to pull images from ECR. You can configure Amazon ECS to use an ALB, which is a load balancer that distributes traffic across multiple targets in multiple Availability Zones using HTTP or HTTPS protocols. You can use the ALB to interact with your application.

NEW QUESTION 18
- (Exam Topic 1)
A company is creating a sequel for a popular online game. A large number of users from all over the world will play the game within the first week after launch. Currently, the game consists of the following components deployed in a single AWS Region:
• Amazon S3 bucket that stores game assets
• Amazon DynamoDB table that stores player scores
A solutions architect needs to design a multi-Region solution that will reduce latency improve reliability, and require the least effort to implement
What should the solutions architect do to meet these requirements?

A. Create an Amazon CloudFront distribution to serve assets from the S3 bucket Configure S3Cross-Region Replication Create a new DynamoDB able in a new Region Use the new table as a replica target tor DynamoDB global tables.
B. Create an Amazon CloudFront distribution to serve assets from the S3 bucke
C. Configure S3Same-Region Replicatio
D. Create a new DynamoDB able m a new Regio
E. Configure asynchronous replication between the DynamoDB tables by using AWS Database Migration Service (AWS DMS) with change data capture (CDC)
F. Create another S3 bucket in a new Region and configure S3 Cross-Region Replication between the buckets Create an Amazon CloudFront distribution and configure origin failover with two origins accessing the S3 buckets in each Regio
G. Configure DynamoDB global tables by enabling Amazon DynamoDB Streams, and add a replica table in a new Region.
H. Create another S3 bucket in the same Region, and configure S3 Same-Region Replication between the buckets- Create an Amazon CloudFront distribution and configure origin failover with two origin accessing the S3 buckets Create a new DynamoDB table m a new Region Use the new table as a replica target for DynamoDB global tables.

Answer: C

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/dynamodb-global-table-stream-lambda/?nc1=h_ls

NEW QUESTION 21
- (Exam Topic 1)
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 VP
B. 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.
C. Create a VPC in us-east-1 and a VPC in us-west-1. In the us-east-1 VP
D. create an Application Load Balancer (ALB) that extends across multiple Availability Zones in that VP
E. 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 VP
F. Create an Amazon Route 53 hosted zone Create separate records for each ALB Enable health checks to ensure high availability between Regions.
G. Create a VPC in us-east-1 and a VPC in us-west-1 In the us-east-1 VP
H. 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 zon
I. Create separate records for each ALB Enable health checks and configure a failover routing policy for each record.
J. Create a VPC in us-east-1 and a VPC in us-west-1 Configure VPC peering In the us-east-1 VP
K. create an Application Load Balancer (ALB) that extends across multiple Availability Zones in 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 host.. Create a record for the ALB.

Answer: C

Explanation:
it's the one that handles failover while B (the one shown as the answer today) it almost the same but does not handle failover.

NEW QUESTION 22
- (Exam Topic 1)
A company is using multiple AWS accounts The DNS records are stored in a private hosted zone for Amazon Route 53 in Account A The company's applications and databases are running in Account B.
A solutions architect win deploy a two-net application In a new VPC To simplify the configuration, the db.example com CNAME record set tor the Amazon RDS endpoint was created in a private hosted zone for Amazon Route 53.
During deployment, the application failed to start. Troubleshooting revealed that db.example com is not resolvable on the Amazon EC2 instance The solutions architect confirmed that the record set was created correctly in Route 53.
Which combination of steps should the solutions architect take to resolve this issue? (Select TWO)

A. Deploy the database on a separate EC2 instance in the new VPC Create a record set for the instance's private IP in the private hosted zone
B. Use SSH to connect to the application tier EC2 instance Add an RDS endpoint IP address to the/eto/resolv.conf file
C. Create an authorization lo associate the private hosted zone in Account A with the new VPC In Account B
D. Create a private hosted zone for the example.com domain m Account B Configure Route 53 replication between AWS accounts

E. Associate a new VPC in Account B with a hosted zone in Account
F. Delete the association authorization In Account A.

Answer: CE

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/private-hosted-zone-different-account/

NEW QUESTION 25
- (Exam Topic 1)
A company is building a software-as-a-service (SaaS) solution on AWS. The company has deployed an Amazon API Gateway REST API with AWS Lambda integration in multiple AWS Regions and in the same production account.
The company offers tiered pricing that gives customers the ability to pay for the capacity to make a certain number of API calls per second. The premium tier offers up to 3,000 calls per second, and customers are identified by a unique API key. Several premium tier customers in various Regions report that they receive error responses of 429 Too Many Requests from multiple API methods during peak usage hours. Logs indicate that the Lambda function is never invoked.
What could be the cause of the error messages for these customers?

A. The Lambda function reached its concurrency limit.
B. The Lambda function its Region limit for concurrency.
C. The company reached its API Gateway account limit for calls per second.
D. The company reached its API Gateway default per-method limit for calls per second.

Answer: C

Explanation:
https://docs.aws.amazon.com/apigateway/latest/developerguide/api-gateway-request-throttling.html#apig-reques

NEW QUESTION 27
- (Exam Topic 1)
A company has its cloud infrastructure on AWS A solutions architect needs to define the infrastructure as code. The infrastructure is currently deployed in one AWS Region. The company's business expansion plan includes deployments in multiple Regions across multiple AWS accounts
What should the solutions architect do to meet these requirements?

A. Use AWS CloudFormation templates Add IAM policies to control the various accounts Deploy the templates across the multiple Regions
B. Use AWS Organizations Deploy AWS CloudFormation templates from the management account Use AWS Control Tower to manage deployments across accounts
C. Use AWS Organizations and AWS CloudFormation StackSets Deploy a CloudFormation template from an account that has the necessary IAM permissions
D. Use nested stacks with AWS CloudFormation templates Change the Region by using nested stacks

Answer: C

Explanation:
https://aws.amazon.com/blogs/aws/new-use-aws-cloudformation-stacksets-for-multiple-accounts-in-an-aws-orga AWS Organizations allows the management of multiple AWS accounts as a single entity and AWS
CloudFormation StackSets allows creating, updating, and deleting stacks across multiple accounts and regions in an organization. This solution allows creating a single CloudFormation template that can be deployed across multiple accounts and regions, and also allows for the management of access and permissions for the different accounts through the use of IAM roles and policies in the management account.

NEW QUESTION 31
- (Exam Topic 1)
A company has purchased appliances from different vendors. The appliances all have IoT sensors. The sensors send status information in the vendors' proprietary formats to a legacy application that parses the information into JSON. The parsing is simple, but each vendor has a unique format. Once daily, the application parses all the JSON records and stores the records in a relational database for analysis.
The company needs to design a new data analysis solution that can deliver faster and optimize costs. Which solution will meet these requirements?

A. Connect the IoT sensors to AWS IoT Cor
B. Set a rule to invoke an AWS Lambda function to parse the information and save a .csv file to Amazon S3. Use AWS Glue to catalog the file
C. Use Amazon Athena and Amazon OuickSight for analysis.
D. Migrate the application server to AWS Fargate, which will receive the information from IoT sensors and parse the information into a relational forma
E. Save the parsed information to Amazon Redshift for analysis.
F. Create an AWS Transfer for SFTP serve
G. Update the IoT sensor code to send the information as a .csv file through SFTP to the serve
H. Use AWS Glue to catalog the file
I. Use Amazon Athena for analysis.
J. Use AWS Snowball Edge to collect data from the IoT sensors directly to perform local analysis.Periodically collect the data into Amazon Redshift to perform global analysis.

Answer: A

Explanation:
Connect the IoT sensors to AWS IoT Core. Set a rule to invoke an AWS Lambda function to parse the information and save a .csv file to Amazon S3. Use AWS Glue to catalog the files. Use Amazon Athena and Amazon QuickSight for analysis. This solution meets the requirement of faster analysis and cost optimization by using AWS IoT Core to collect data from the IoT sensors in real-time and then using AWS Glue and Amazon Athena for efficient data analysis.
This solution involves connecting the IoT sensors to the AWS IoT Core, setting a rule to invoke an AWS Lambda function to parse the information, and saving a .csv file to Amazon S3. AWS Glue can be used to catalog the files and Amazon Athena and Amazon QuickSight can be used for analysis. This solution will enable faster and more cost-effective data analysis.
This solution is in line with the official Amazon Textbook and Resources for the AWS Certified Solutions Architect - Professional certification. In particular, the book states that: “AWS IoT Core can be used to ingest and process the data, AWS Lambda can be used to process and transform the data, and Amazon S3 can be used to store the data. AWS Glue can be used to catalog and access the data, Amazon Athena can be used to query the data, and Amazon QuickSight can be

used to visualize the data." (Source: https://d1.awsstatic.com/training-and-certification/docs-sa-pro/AWS_Certified_Solutions_Architect_Professiona

NEW QUESTION 36
- (Exam Topic 1)
A company has a web application that allows users to upload short videos. The videos are stored on Amazon EBS volumes and analyzed by custom recognition software for categorization.
The website contains stat c content that has variable traffic with peaks in certain months. The architecture consists of Amazon EC2 instances running in an Auto Scaling group for the web application and EC2
instances running in an Auto Scaling group to process an Amazon SQS queue The company wants to
re-architect the application to reduce operational overhead using AWS managed services where possible and remove dependencies on third-party software.
Which solution meets these requirements?

A. Use Amazon ECS containers for the web application and Spot Instances for the Auto Scaling group that processes the SQS queu
B. Replace the custom software with Amazon Recognition to categorize the videos.
C. Store the uploaded videos n Amazon EFS and mount the file system to the EC2 instances for Te web applicatio
D. Process the SOS queue with an AWS Lambda function that calls the Amazon Rekognition API to categorize the videos.
E. Host the web application in Amazon S3. Store the uploaded videos in Amazon S3. Use S3 event notifications to publish events to the SQS queue Process the SQS queue with an AWS Lambda function that calls the Amazon Rekognition API to categorize the videos.
F. Use AWS Elastic Beanstalk to launch EC2 instances in an Auto Scaling group for the web application and launch a worker environment to process the SQS queue Replace the custom software with Amazon Rekognition to categorize the videos.

Answer: C

Explanation:
Option C is correct because hosting the web application in Amazon S3, storing the uploaded videos in Amazon S3, and using S3 event notifications to publish events to the SQS queue reduces the operational overhead of managing EC2 instances and EBS volumes. Amazon S3 can serve static content such as HTML, CSS, JavaScript, and media files directly from S3 buckets. Amazon S3 can also trigger AWS Lambda functions through S3 event notifications when new objects are created or existing objects are updated or deleted. AWS Lambda can process the SQS queue with an AWS Lambda function that calls the Amazon Rekognition API to categorize the videos. This solution eliminates the need for custom recognition software and third-party dependencies345
References: 1: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-spot-instances.html 2:
https://aws.amazon.com/efs/pricing/ 3:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/WebsiteHosting.html 4:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/NotificationHowTo.html 5:
https://docs.aws.amazon.com/rekognition/latest/dg/what-is.html 6: https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/Welcome.html

NEW QUESTION 40
- (Exam Topic 1)
A solutions architect needs to implement a client-side encryption mechanism for objects that will be stored in a new Amazon S3 bucket. The solutions architect created a CMK that is stored in AWS Key Management Service (AWS KMS) for this purpose.
The solutions architect created the following IAM policy and attached it to an IAM role:

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Sid": "DownloadUpload",
            "Action": [
                "s3:GetObject",
                "s3:GetObjectVersion",
                "s3:PutObject",
                "s3:PutObjectAcl"
            ],
            "Effect": "Allow",
            "Resource": "arn:aws:s3:::BucketName/*"
        },
        {
            "Sid": "KMSAccess",
            "Action": [
                "kms:Decrypt",
                "kms:Encrypt"
            ],
            "Effect": "Allow",
            "Resource": "arn:aws:kms:region:Account:key/key ID"
        }
    ]
}
```

During tests, me solutions architect was able to successfully get existing test objects m the S3 bucket However, attempts to upload a new object resulted in an error message. The error message stated that me action was forbidden.
Which action must me solutions architect add to the IAM policy to meet all the requirements?

A. Kms:GenerateDataKey
B. KmsGetKeyPolpcy
C. kmsGetPubKKey
D. kms:SKjn

Answer: A

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/s3-access-denied-error-kms/
"An error occurred (AccessDenied) when calling the PutObject operation: Access Denied" This error message indicates that your IAM user or role needs permission for the kms:GenerateDataKey action.

NEW QUESTION 42

- (Exam Topic 1)
A company is planning to host a web application on AWS and works to load balance the traffic across a group of Amazon EC2 instances. One of the security requirements is to enable end-to-end encryption in transit between the client and the web server.
Which solution will meet this requirement?

A. Place the EC2 instances behind an Application Load Balancer (ALB) Provision an SSL certificate using AWS Certificate Manager (ACM), and associate the SSL certificate with the AL
B. Export the SSL certificate and install it on each EC2 instanc
C. Configure the ALB to listen on port 443 and to forward traffic to port 443 on the instances.
D. Associate the EC2 instances with a target grou
E. Provision an SSL certificate using AWS Certificate Manager (ACM). Create an Amazon CloudFront distribution and configure It to use the SSL certificat
F. Set CloudFront to use the target group as the origin server
G. Place the EC2 instances behind an Application Load Balancer (ALB). Provision an SSL certificate using AWS Certificate Manager (ACM), and associate the SSL certificate with the AL
H. Provision athird-party SSL certificate and install it on each EC2 instanc
I. Configure the ALB to listen on port 443 and to forward traffic to port 443 on the instances.
J. Place the EC2 instances behind a Network Load Balancer (NLB). Provision a third-party SSL certificate and install it on the NLB and on each EC2 instanc
K. Configure the NLB to listen on port 443 and to forward traffic to port 443 on the instances.

Answer: A

Explanation:

Option A is correct because placing the EC2 instances behind an Application Load Balancer (ALB) and associating an SSL certificate from AWS Certificate Manager (ACM) with the ALB enables encryption in transit between the client and the ALB. Exporting the SSL certificate and installing it on each EC2 instance enables encryption in transit between the ALB and the web server. Configuring the ALB to listen on port 443 and to forward traffic to port 443 on the instances ensures that HTTPS is used for both connections. This solution achieves end-to-end encryption in transit for the web applicatio1n2
References: 1: https://docs.aws.amazon.com/elasticloadbalancing/latest/application/introduction.html 2: https://docs.aws.amazon.com/acm/latest/userguide/acm-overview.html 3: https://docs.aws.amazon.com/elasticloadbalancing/latest/application/load-balancer-target-groups.html : https://aws.amazon.com/certificate-manager/faqs/ : https://docs.aws.amazon.com/elasticloadbalancing/latest/network/introduction.html

NEW QUESTION 46
- (Exam Topic 1)
A financial company is planning to migrate its web application from on premises to AWS. The company uses a third-party security tool to monitor the inbound traffic to the application. The company has used the security tool for the last 15 years, and the tool has no cloud solutions available from its vendor. The company's security team is concerned about how to integrate the security tool with AWS technology.
The company plans to deploy the application migration to AWS on Amazon EC2 instances. The EC2 instances will run in an Auto Scaling group in a dedicated VPC. The company needs to use the security tool to inspect all packets that come in and out of the VPC. This inspection must occur in real time and must not affect the application's performance. A solutions architect must design a target architecture on AWS that is highly available within an AWS Region.
Which combination of steps should the solutions architect take to meet these requirements? (Select TWO.)

A. Deploy the security tool on EC2 instances in a new Auto Scaling group in the existing VPC.
B. Deploy the web application behind a Network Load Balancer.
C. Deploy an Application Load Balancer in front of the security tool instances.
D. Provision a Gateway Load Balancer for each Availability Zone to redirect the traffic to the security tool.
E. Provision a transit gateway to facilitate communication between VPCs.

Answer: AD

Explanation:
Option A, Deploy the security tool on EC2 instances in a new Auto Scaling group in the existing VPC, allows the company to use its existing security tool while still running it within the AWS environment. This ensures that all packets coming in and out of the VPC are inspected by the security tool in real time. Option D, Provision a Gateway Load Balancer for each Availability Zone to redirect the traffic to the security tool, allows for high availability within an AWS Region. By provisioning a Gateway Load Balancer for each Availability Zone, the traffic is redirected to the security tool in the event of any failures or outages. This ensures that the security tool is always available to inspect the traffic, even in the event of a failure.

NEW QUESTION 47
- (Exam Topic 1)
A company has introduced a new policy that allows employees to work remotely from their homes if they connect by using a VPN The company Is hosting Internal applications with VPCs in multiple AWS accounts Currently the applications are accessible from the company's on-premises office network through an AWS Site-to-Site VPN connection The VPC in the company's main AWS account has peering connections established with VPCs in other AWS accounts.
A solutions architect must design a scalable AWS Client VPN solution for employees to use while they work from home
What is the MOST cost-effective solution that meets these requirements?

A. Create a Client VPN endpoint in each AWS account Configure required routing that allows access to internal applications
B. Create a Client VPN endpoint in the mam AWS account Configure required routing that allows access to internal applications
C. Create a Client VPN endpoint in the main AWS account Provision a transit gateway that is connected to each AWS account Configure required routing that allows access to internal applications
D. Create a Client VPN endpoint in the mam AWS account Establish connectivity between the Client VPN endpoint and the AWS Site-to-Site VPN

Answer: C

Explanation:
https://docs.aws.amazon.com/vpn/latest/clientvpn-admin/scenario-peered.html

NEW QUESTION 51
- (Exam Topic 1)
A company is building an electronic document management system in which users upload their documents. The application stack is entirely serverless and runs on AWS in the eu-central-1 Region. The system includes a web application that uses an Amazon CloudFront distribution for delivery with Amazon S3 as the origin. The web application communicates with Amazon API Gateway Regional endpoints. The API Gateway APIs call AWS Lambda functions that store metadata in an

Amazon Aurora Serverless database and put the documents into an S3 bucket.
The company is growing steadily and has completed a proof of concept with its largest customer. The company must improve latency outside of Europe.
Which combination of actions will meet these requirements? (Select TWO.)

A. Enable S3 Transfer Acceleration on the S3 bucke
B. Ensure that the web application uses the Transfer Acceleration signed URLs.
C. Create an accelerator in AWS Global Accelerato
D. Attach the accelerator to the CloudFront distribution.
E. Change the API Gateway Regional endpoints to edge-optimized endpoints.
F. Provision the entire stack in two other locations that are spread across the worl
G. Use global databases on the Aurora Serverless cluster.
H. Add an Amazon RDS proxy between the Lambda functions and the Aurora Serverless database.

Answer: AC

Explanation:
https://aws.amazon.com/global-accelerator/faqs/

NEW QUESTION 55
- (Exam Topic 1)
A solutions architect is designing the data storage and retrieval architecture for a new application that a company will be launching soon. The application is designed to ingest millions of small records per minute from devices all around the world. Each record is less than 4 KB in size and needs to be stored in a durable location where it can be retrieved with low latency. The data is ephemeral and the company is required to store the data for 120 days only, after which the data can be deleted.
The solutions architect calculates that, during the course of a year, the storage requirements would be about 10-15 TB.
Which storage strategy is the MOST cost-effective and meets the design requirements?

A. Design the application to store each incoming record as a single .csv file in an Amazon S3 bucket to allow for indexed retrieva
B. Configure a lifecycle policy to delete data older than 120 days.
C. Design the application to store each incoming record in an Amazon DynamoDB table properly configured for the scal
D. Configure the DynamoOB Time to Live (TTL) feature to delete records older than 120 days.
E. Design the application to store each incoming record in a single table in an Amazon RDS MySQL databas
F. Run a nightly cron job that executes a query to delete any records older than 120 days.
G. Design the application to batch incoming records before writing them to an Amazon S3 bucke
H. Updatethe metadata for the object to contain the list of records in the batch and use the Amazon S3 metadata search feature to retrieve the dat
I. Configure a lifecycle policy to delete the data after 120 days.

Answer: B

Explanation:
DynamoDB with TTL, cheaper for sustained throughput of small items + suited for fast retrievals. S3 cheaper for storage only, much higher costs with writes. RDS not designed for this use case.

NEW QUESTION 59
- (Exam Topic 1)
A company is running several workloads in a single AWS account. A new company policy states that engineers can provision only approved resources and that engineers must use AWS CloudFormation to provision these resources. A solutions architect needs to create a solution to enforce the new restriction on the IAM role that the engineers use for access.
What should the solutions architect do to create the solution?

A. Upload AWS CloudFormation templates that contain approved resources to an Amazon S3 bucket.Update the IAM policy for the engineers' IAM role to only allow access to Amazon S3 and AWS CloudFormatio
B. Use AWS CloudFormation templates to provision resources.
C. Update the IAM policy for the engineers' IAM role with permissions to only allow provisioning of approved resources and AWS CloudFormatio
D. Use AWS CloudFormation templates to create stacks with approved resources.
E. Update the IAM policy for the engineers' IAM role with permissions to only allow AWS CloudFormation action
F. Create a new IAM policy with permission to provision approved resources, and assign the policy to a new IAM service rol
G. Assign the IAM service role to AWS CloudFormation during stack creation.
H. Provision resources in AWS CloudFormation stack
I. Update the IAM policy for the engineers' IAM role to only allow access to their own AWS CloudFormation stack.

Answer: B

Explanation:
https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/security-best-practices.html#use-iam-to-c
https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/using-iam-servicerole.html

NEW QUESTION 62
- (Exam Topic 1)
A company needs to implement a patching process for its servers. The on-premises servers and Amazon EC2 instances use a variety of tools to perform patching. Management requires a single report showing the patch status of all the servers and instances.
Which set of actions should a solutions architect take to meet these requirements?

A. Use AWS Systems Manager to manage patches on the on-premises servers and EC2 instance
B. Use Systems Manager to generate patch compliance reports.
C. Use AWS OpsWorks to manage patches on the on-premises servers and EC2 instance
D. Use Amazon OuickSight integration with OpsWorks to generate patch compliance reports.
E. Use an Amazon EventBridge (Amazon CloudWatch Events) rule to apply patches by scheduling an AWS Systems Manager patch remediation jo
F. Use Amazon Inspector to generate patch compliance reports.
G. Use AWS OpsWorks to manage patches on the on-premises servers and EC2 instance

H. Use AWS X-Ray to post the patch status to AWS Systems Manager OpsCenter to generate patch compliance reports.

Answer: A

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

NEW QUESTION 65
- (Exam Topic 1)
The company needs to determine which costs on the monthly AWS bill are attributable to each application or team. The company also must be able to create reports to compare costs from the last 12 months and to help forecast costs for the next 12 months. A solutions architect must recommend an AWS Billing and Cost Management solution that provides these cost reports.
Which combination of actions will meet these requirements? (Select THREE.)

A. Activate the user-defined cost allocation tags that represent the application and the team.
B. Activate the AWS generated cost allocation tags that represent the application and the team.
C. Create a cost category for each application in Billing and Cost Management.
D. Activate IAM access to Billing and Cost Management.
E. Create a cost budget.
F. Enable Cost Explorer.

Answer: ACF

Explanation:
https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/manage-cost-categories.html https://aws.amazon.com/premiumsupport/knowledge-center/cost-explorer-analyze-spending-and-usage/ https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/manage-cost-categories.html https://docs.aws.amazon.com/cost-management/latest/userguide/ce-enable.html
The best combination of actions to meet the company's requirements is Options A, C, and F.
Option A involves activating the user-defined cost allocation tags that represent the application and the team. This will allow the company to assign costs to different applications or teams, and will allow them to be tracked in the monthly AWS bill.
Option C involves creating a cost category for each application in Billing and Cost Management. This will allow the company to easily identify and compare costs across different applications and teams.
Option F involves enabling Cost Explorer. This will allow the company to view the costs of their AWS resources over the last 12 months and to create forecasts for the next 12 months.
These recommendations are in line with the official Amazon Textbook and Resources for the AWS Certified Solutions Architect - Professional certification. In particular, the book states that "You can use cost allocation tags to group your costs by application, team, or other categories" (Source: https://d1.awsstatic.com/training-and-certification/docs-sa-pro/AWS_Certified_Solutions_Architect_Professiona Additionally, the book states that "Cost Explorer enables you to view the costs of your AWS resources over the last 12 months and to create forecasts for the next 12 months" (Source: https://d1.awsstatic.com/training-and-certification/docs-sa-pro/AWS_Certified_Solutions_Architect_Professiona

NEW QUESTION 66
- (Exam Topic 1)
A weather service provides high-resolution weather maps from a web application hosted on AWS in the eu-west-1 Region. The weather maps are updated frequently and stored in Amazon S3 along with static HTML content. The web application is fronted by Amazon CloudFront.
The company recently expanded to serve users in the us-east-1 Region, and these new users report that viewing their respective weather maps is slow from time to time.
Which combination of steps will resolve the us-east-1 performance issues? (Choose two.)

A. Configure the AWS Global Accelerator endpoint for the S3 bucket in eu-west-1. Configure endpoint groups for TCP ports 80 and 443 in us-east-1.
B. Create a new S3 bucket in us-east-1. Configure S3 cross-Region replication to synchronize from the S3 bucket in eu-west-1.
C. Use Lambda@Edge to modify requests from North America to use the S3 Transfer Acceleration endpoint in us-east-1.
D. Use Lambda@Edge to modify requests from North America to use the S3 bucket in us-east-1.
E. Configure the AWS Global Accelerator endpoint for us-east-1 as an origin on the CloudFront distributio
F. Use Lambda@Edge to modify requests from North America to use the new origin.

Answer: BD

Explanation:
https://aws.amazon.com/about-aws/whats-new/2016/04/transfer-files-into-amazon-s3-up-to-300-percent-faster/

NEW QUESTION 67
- (Exam Topic 1)
A company has a legacy monolithic application that is critical to the company's business. The company hosts the application on an Amazon EC2 instance that runs Amazon Linux 2. The company's application team receives a directive from the legal department to back up the data from the instance's encrypted Amazon Elastic Block Store (Amazon EBS) volume to an Amazon S3 bucket. The application team does not have the administrative SSH key pair for the instance. The application must continue to serve the users.
Which solution will meet these requirements?

A. Attach a role to the instance with permission to write to Amazon S3. Use the AWS Systems Manager Session Manager option to gain access to the instance and run commands to copy data into Amazon S3.
B. Create an image of the instance with the reboot option turned o
C. Launch a new EC2 instance from the imag
D. Attach a role to the new instance with permission to write to Amazon S3. Run a command to copy data into Amazon S3.
E. Take a snapshot of the EBS volume by using Amazon Data Lifecycle Manager (Amazon DLM). Copy the data to Amazon S3.
F. Create an image of the instanc
G. Launch a new EC2 instance from the imag
H. Attach a role to the new instance with permission to write to Amazon S3. Run a command to copy data into Amazon S3.

Answer: C

Explanation:
Taking a snapshot of the EBS volume using Amazon Data Lifecycle Manager (DLM) will meet the requirements because it allows you to create a backup of the volume without the need to access the instance or its SSH key pair. Additionally, DLM allows you to schedule the backups to occur at specific intervals and also enables you to copy the snapshots to an S3 bucket. This approach will not impact the running application as the backup is performed on the EBS volume level.

NEW QUESTION 71
- (Exam Topic 1)
A solutions architect must analyze a company's Amazon EC2 Instances and Amazon Elastic Block Store (Amazon EBS) volumes to determine whether the company is using resources efficiently The company is running several large, high-memory EC2 instances lo host database dusters that are deployed in active/passive configurations The utilization of these EC2 instances varies by the applications that use the databases, and the company has not identified a pattern The solutions architect must analyze the environment and take action based on the findings. Which solution meets these requirements MOST cost-effectively?

A. Create a dashboard by using AWS Systems Manager OpsConter Configure visualizations tor Amazon CloudWatch metrics that are associated with the EC2 instances and their EBS volumes Review thedashboard periodically and identify usage patterns Right size the EC2 instances based on the peaks in the metrics
B. Turn on Amazon CloudWatch detailed monitoring for the EC2 instances and their EBS volumes Create and review a dashboard that is based on the metrics Identify usage patterns Right size the FC? instances based on the peaks In the metrics
C. Install the Amazon CloudWatch agent on each of the EC2 Instances Turn on AWS Compute Optimizer, and let it run for at least 12 hours Review the recommendations from Compute Optimizer, and right size the EC2 instances as directed
D. Sign up for the AWS Enterprise Support plan Turn on AWS Trusted Advisor Wait 12 hours Review the recommendations from Trusted Advisor, and rightsize the EC2 instances as directed

Answer: C

Explanation:
(https://aws.amazon.com/compute-optimizer/pricing/ , https://aws.amazon.com/systems-manager/pricing/). https://aws.amazon.com/compute-optimizer/

NEW QUESTION 73
- (Exam Topic 1)
An adventure company has launched a new feature on its mobile app. Users can use the feature to upload their hiking and ratting photos and videos anytime. The photos and videos are stored in Amazon S3 Standard storage in an S3 bucket and are served through Amazon CloudFront.
The company needs to optimize the cost of the storage. A solutions architect discovers that most of the uploaded photos and videos are accessed infrequently after 30 days. However, some of the uploaded photos and videos are accessed frequently after 30 days. The solutions architect needs to implement a solution that maintains millisecond retrieval availability of the photos and videos at the lowest possible cost.
Which solution will meet these requirements?

A. Configure S3 Intelligent-Tiering on the S3 bucket.
B. Configure an S3 Lifecycle policy to transition image objects and video objects from S3 Standard to S3 Glacier Deep Archive after 30 days.
C. Replace Amazon S3 with an Amazon Elastic File System (Amazon EFS) file system that is mounted on Amazon EC2 instances.
D. Add a Cache-Control: max-age header to the S3 image objects and S3 video object
E. Set the header to 30 days.

Answer: A

Explanation:
Amazon S3 Intelligent-Tiering is a storage class that automatically moves objects between two access tiers based on changing access patterns. Objects that are accessed frequently are stored in the frequent access tier and objects that are accessed infrequently are stored in the infrequent access tier. This allows for cost optimization without requiring manual intervention. This makes it an ideal solution for the scenario described, as it can automatically move objects that are infrequently accessed after 30 days to a lower-cost storage tier while still maintaining millisecond retrieval availability.

NEW QUESTION 77
- (Exam Topic 1)
A company has an on-premises website application that provides real estate information for potential renters and buyers. The website uses a Java backend and a NOSQL MongoDB database to store subscriber data.
The company needs to migrate the entire application to AWS with a similar structure. The application must be deployed for high availability, and the company cannot make changes to the application
Which solution will meet these requirements?

A. use an Amazon Aurora DB cluster as the database for the subscriber dat
B. Deploy Amazon EC2instances in an Auto Scaling group across multiple Availability Zones for the Java backend application.
C. Use MongoDB on Amazon EC2 instances as the database for the subscriber dat
D. Deploy EC2 instances in an Auto Scaling group in a single Availability Zone for the Java backend application.
E. Configure Amazon DocumentD3 (with MongoDB compatibility) with appropriately sized instances in multiple Availability Zones as the database for the subscriber dat
F. Deploy Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones for the Java backend application.
G. Configure Amazon DocumentDB (with MongoDB compatibility) in on-demand capacity mode in multiple Availability Zones as the database for the subscriber dat
H. Deploy Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones for the Java backend application.

Answer: C

Explanation:
On-demand capacity mode is the function of Dynamodb.
https://aws.amazon.com/blogs/news/running-spiky-workloads-and-optimizing-costs-by-more-than-90-using-ama
Amazon DocumentDB Elastic Clusters https://aws.amazon.com/blogs/news/announcing-amazon-documentdb-elastic-clusters/
Deploy Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones for the Java backend application. This will provide high availability and scalability, while allowing the company to retain the same database structure as the original application.

NEW QUESTION 80
- (Exam Topic 1)

A company wants to deploy an AWS WAF solution to manage AWS WAF rules across multiple AWS accounts. The accounts are managed under different OUs in AWS Organizations.
Administrators must be able to add or remove accounts or OUs from managed AWS WAF rule sets as needed Administrators also must have the ability to automatically update and remediate noncompliant AWS WAF rules in all accounts
Which solution meets these requirements with the LEAST amount of operational overhead?

A. Use AWS Firewall Manager to manage AWS WAF rules across accounts in the organizatio
B. Use an AWS Systems Manager Parameter Store parameter to store account numbers and OUs to manage Update the parameter as needed to add or remove accounts or OUs Use an Amazon EventBridge (Amazon CloudWatch Events) rule to identify any changes to the parameter and to invoke an AWS Lambda function to update the security policy in the Firewall Manager administrative account
C. Deploy an organization-wide AWS Config rule that requires all resources in the selected OUs to associate the AWS WAF rule
D. Deploy automated remediation actions by using AWS Lambda to fix noncompliant resources Deploy AWS WAF rules by using an AWS CloudFormation stack set to target the same OUs where the AWS Config rule is applied.
E. Create AWS WAF rules in the management account of the organization Use AWS Lambda environment variables to store account numbers and OUs to manage Update environment variables as needed to add or remove accounts or OUs Create cross-account IAM roles in member accounts Assume the rotes by using AWS Security Token Service (AWS STS) in the Lambda function to create and update AWS WAF rules in the member accounts.
F. Use AWS Control Tower to manage AWS WAF rules across accounts in the organization Use AWS Key Management Service (AWS KMS) to store account numbers and OUs to manage Update AWS KMS as needed to add or remove accounts or OUs Create IAM users in member accounts Allow AWS Control Tower in the management account to use the access key and secret access key to create and update AWS WAF rules in the member accounts

Answer: A

Explanation:
https://aws.amazon.com/solutions/implementations/automations-for-aws-firewall-manager/
In this solution, AWS Firewall Manager is used to manage AWS WAF rules across accounts in the organization. An AWS Systems Manager Parameter Store parameter is used to store account numbers and OUs to manage. This parameter can be updated as needed to add or remove accounts or OUs. An Amazon EventBridge rule is used to identify any changes to the parameter and to invoke an AWS Lambda function to update the security policy in the Firewall Manager administrative account. This solution allows for easy management of AWS WAF rules across multiple accounts with minimal operational overhead

NEW QUESTION 83
- (Exam Topic 1)
A health insurance company stores personally identifiable information (PII) in an Amazon S3 bucket. The company uses server-side encryption with S3 managed encryption keys (SSE-S3) to encrypt the objects. According to a new requirement, all current and future objects in the S3 bucket must be encrypted by keys that the company's security team manages. The S3 bucket does not have versioning enabled. Which solution will meet these requirements?

A. In the S3 bucket properties, change the default encryption to SSE-S3 with a customer managed ke
B. Use the AWS CLI to re-upload all objects in the S3 bucke
C. Set an S3 bucket policy to deny unencrypted PutObject requests.
D. In the S3 bucket properties, change the default encryption to server-side encryption with AWS KMS managed encryption keys (SSE-KMS). Set an S3 bucket policy to deny unencrypted PutObject request
E. Use the AWS CLI to re-upload all objects in the S3 bucket.
F. In the S3 bucket properties, change the default encryption to server-side encryption with AWS KMS managed encryption keys (SSE-KMS). Set an S3 bucket policy to automatically encrypt objects on GetObject and PutObject requests.
G. In the S3 bucket properties, change the default encryption to AES-256 with a customer managed key.Attach a policy to deny unencrypted PutObject requests to any entities that access the S3 bucke
H. Use the AWS CLI to re-upload all objects in the S3 bucket.

Answer: D

Explanation:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/ServerSideEncryptionCustomerKeys.html Clearly says we need following header for SSE-C x-amz-server-side-encryption-customer-algorithm Use this header to specify the encryption algorithm. The header value must be AES256.

NEW QUESTION 84
- (Exam Topic 1)
A company wants to use AWS to create a business continuity solution in case the company's main on-premises application fails. The application runs on physical servers that also run other applications. The on-premises application that the company is planning to migrate uses a MySQL database as a data store. All the company's on-premises applications use operating systems that are compatible with Amazon EC2.
Which solution will achieve the company's goal with the LEAST operational overhead?

A. Install the AWS Replication Agent on the source servers, including the MySQL server
B. Set up replication for all server
C. Launch test instances for regular drill
D. Cut over to the test instances to fail over the workload in the case of a failure event.
E. Install the AWS Replication Agent on the source servers, including the MySQL server
F. Initialize AWS Elastic Disaster Recovery in the target AWS Regio
G. Define the launch setting
H. Frequently perform failover and fallback from the most recent point in time.
I. Create AWS Database Migration Service (AWS DMS) replication servers and a target Amazon Aurora MySQL DB cluster to host the databas
J. Create a DMS replication task to copy the existing data to the target DB cluste
K. Create a local AWS Schema Conversion Tool (AWS SCT) change data capture (CDC) task to keep the data synchronize
L. Install the rest of the software on EC2 instances by starting with a compatible base AMI.
M. Deploy an AWS Storage Gateway Volume Gateway on premise
N. Mount volumes on all on-premises server
O. Install the application and the MySQL database on the new volume
P. Take regular snapshot
Q. Install all the software on EC2 Instances by starting with a compatible base AM
R. Launch a Volume Gateway on an EC2 instanc
S. Restore the volumes from the latest snapsho
T. Mount the new volumes on the EC2 instances in the case of a failure event.

Answer: B

Explanation:
https://docs.aws.amazon.com/drs/latest/userguide/what-is-drs.html https://docs.aws.amazon.com/drs/latest/userguide/recovery-workflow-gs.html

NEW QUESTION 85
- (Exam Topic 1)
A company has an organization that has many AWS accounts in AWS Organizations. A solutions architect must improve how the company manages common security group rules for the AWS accounts in the organization.
The company has a common set of IP CIDR ranges in an allow list in each AWS account to allow access to
and from the company's on-premises network.
Developers within each account are responsible for adding new IP CIDR ranges to their security groups. The security team has its own AWS account. Currently, the security team notifies the owners of the other AWS accounts when changes are made to the allow list.
The solutions architect must design a solution that distributes the common set of CIDR ranges across all accounts.
Which solution meets these requirements with the LEAST amount of operational overhead?

A. Set up an Amazon Simple Notification Service (Amazon SNS) topic in the security team's AWS accoun
B. Deploy an AWS Lambda function in each AWS accoun
C. Configure the Lambda function to run every time an SNS topic receives a messag
D. Configure the Lambda function to take an IP address as input and add it to a list of security groups in the accoun
E. Instruct the security team to distribute changes by publishing messages to its SNS topic.
F. Create new customer-managed prefix lists in each AWS account within the organizatio
G. Populate the prefix lists in each account with all internal CIDR range
H. Notify the owner of each AWS account to allow the new customer-managed prefix list IDs in their accounts in their security group
I. Instruct the security team to share updates with each AWS account owner.
J. Create a new customer-managed prefix list in the security team's AWS accoun
K. Populate the customer-managed prefix list with all internal CIDR range
L. Share the customer-managed prefix listwith the organization by using AWS Resource Access Manage
M. Notify the owner of each AWS account to allow the new customer-managed prefix list ID in their security groups.
N. Create an IAM role in each account in the organizatio
O. Grant permissions to update security groups.Deploy an AWS Lambda function in the security team's AWS accoun
P. Configure the Lambda function to take a list of internal IP addresses as input, assume a role in each organization account, and add the list of IP addresses to the security groups in each account.

Answer: C

Explanation:
Create a new customer-managed prefix list in the security team’s AWS account. Populate the
customer-managed prefix list with all internal CIDR ranges. Share the customer-managed prefix list with the organization by using AWS Resource Access Manager. Notify the owner of each AWS account to allow the new customer-managed prefix list ID in their security groups. This solution meets the requirements with the least amount of operational overhead as it requires the security team to create and maintain a single customer-managed prefix list, and share it with the organization using AWS Resource Access Manager. The owners of each AWS account are then responsible for allowing the prefix list in their security groups, which eliminates the need for the security team to manually notify each account owner when changes are made. This solution also eliminates the need for a separate AWS Lambda function in each account, reducing the overall complexity of the solution.

NEW QUESTION 90
- (Exam Topic 1)
A company is running an application in the AWS Cloud. Recent application metrics show inconsistent
response times and a significant increase in error rates. Calls to third-party services are causing the delays. Currently, the application calls third-party services synchronously by directly invoking an AWS Lambda function.
A solutions architect needs to decouple the third-party service calls and ensure that all the calls are eventually completed.
Which solution will meet these requirements?

A. Use an Amazon Simple Queue Service (Amazon SQS) queue to store events and invoke the Lambda function.
B. Use an AWS Step Functions state machine to pass events to the Lambda function.
C. Use an Amazon EventBridge rule to pass events to the Lambda function.
D. Use an Amazon Simple Notification Service (Amazon SNS) topic to store events and Invoke the Lambda function.

Answer: A

Explanation:
Using an SQS queue to store events and invoke the Lambda function will decouple the third-party service calls and ensure that all the calls are eventually completed. SQS allows you to store messages in a queue and process them asynchronously, which eliminates the need for the application to wait for a response from the third-party service. The messages will be stored in the SQS queue until they are processed by the Lambda function, even if the Lambda function is currently unavailable or busy. This will ensure that all the calls are eventually completed, even if there are delays or errors.
AWS Step Functions state machines can also be used to pass events to the Lambda function, but it would require additional management and configuration to set up the state machine, which would increase operational overhead.
Amazon EventBridge rule can also be used to pass events to the Lambda function, but it would not provide the same level of decoupling and reliability as SQS.
Using Amazon Simple Notification Service (Amazon SNS) topic to store events and Invoke the Lambda function, is similar to SQS, but SNS is a publish-subscribe messaging service and SQS is a queue service. SNS is used for sending messages to multiple recipients, SQS is used for sending messages to a single recipient, so SQS is more appropriate for this use case.
References:
- AWS SQS
- AWS Step Functions
- AWS EventBridge
- AWS SNS

NEW QUESTION 95

- (Exam Topic 1)
A company is running an event ticketing platform on AWS and wants to optimize the platform's cost-effectiveness. The platform is deployed on Amazon Elastic Kubernetes Service (Amazon EKS) with Amazon EC2 and is backed by an Amazon RDS for MySQL DB instance. The company is developing new application features to run on Amazon EKS with AWS Fargate.
The platform experiences infrequent high peaks in demand. The surges in demand depend on event dates. Which solution will provide the MOST cost-effective setup for the platform?

A. Purchase Standard Reserved Instances for the EC2 instances that the EKS cluster uses in its baseline loa
B. Scale the cluster with Spot Instances to handle peak
C. Purchase 1-year All Upfront Reserved Instances for the database to meet predicted peak load for the year.
D. Purchase Compute Savings Plans for the predicted medium load of the EKS cluste
E. Scale the cluster with On-Demand Capacity Reservations based on event dates for peak
F. Purchase 1-year No Upfront Reserved Instances for the database to meet the predicted base loa
G. Temporarily scale out database read replicas during peaks.
H. Purchase EC2 Instance Savings Plans for the predicted base load of the EKS cluste
I. Scale the cluster with Spot Instances to handle peak
J. Purchase 1-year All Upfront Reserved Instances for the database to meet the predicted base loa
K. Temporarily scale up the DB instance manually during peaks.
L. Purchase Compute Savings Plans for the predicted base load of the EKS cluste
M. Scale the cluster with Spot Instances to handle peak
N. Purchase 1-year All Upfront Reserved Instances for the database to meet the predicted base loa
O. Temporarily scale up the DB instance manually during peaks.

Answer: B

Explanation:
They all mention using spot instances and EKS based on EC2. A spot instance is not appropriate for a production server and the company is developing new application designed for AWS Fargate, which means we must plan the future cost improvement including AWS Fargate.
https://aws.amazon.com/savingsplans/compute-pricing/

NEW QUESTION 99
- (Exam Topic 1)
A company wants to use a third-party software-as-a-service (SaaS) application. The third-party SaaS application is consumed through several API calls. The third-party SaaS application also runs on AWS inside a VPC.
The company will consume the third-party SaaS application from inside a VPC. The company has internal security policies that mandate the use of private connectivity that does not traverse the internet. No resources that run in the company VPC are allowed to be accessed from outside the company's VPC. All permissions must conform to the principles of least privilege.
Which solution meets these requirements?

A. Create an AWS PrivateLink interface VPC endpoin
B. Connect this endpoint to the endpoint service that the third-party SaaS application provide
C. Create a security group to limit the access to the endpoin
D. Associate the security group with the endpoint.
E. Create an AWS Site-to-Site VPN connection between the third-party SaaS application and the company VP
F. Configure network ACLs to limit access across the VPN tunnels.
G. Create a VPC peering connection between the third-party SaaS application and the company VPUpdate route tables by adding the needed routes for the peering connection.
H. Create an AWS PrivateLink endpoint servic
I. Ask the third-party SaaS provider to create an interface VPC endpoint for this endpoint servic
J. Grant permissions for the endpoint service to the specific account of the third-party SaaS provider.

Answer: A

Explanation:
Reference architecture - https://docs.aws.amazon.com/vpc/latest/privatelink/privatelink-access-saas.html Note from documentation that Interface Endpoint is at client side

NEW QUESTION 101
- (Exam Topic 2)
A company provides auction services for artwork and has users across North America and Europe. The company hosts its application in Amazon EC2 instances in the us-east-1 Region. Artists upload photos of their work as large-size, high-resolution image files from their mobile phones to a centralized Amazon S3 bucket created in the us-east-l Region. The users in Europe are reporting slow performance for their Image uploads.
How can a solutions architect improve the performance of the image upload process?

A. Redeploy the application to use S3 multipart uploads.
B. Create an Amazon CloudFront distribution and point to the application as a custom origin
C. Configure the buckets to use S3 Transfer Acceleration.
D. Create an Auto Scaling group for the EC2 instances and create a scaling policy.

Answer: C

Explanation:
Transfer acceleration. S3 Transfer Acceleration utilizes the Amazon CloudFront global network of edge locations to accelerate the transfer of data to and from S3 buckets. By enabling S3 Transfer Acceleration on the centralized S3 bucket, the users in Europe will experience faster uploads as their data will be routed through the closest CloudFront edge location.

NEW QUESTION 106
- (Exam Topic 2)
A company has five development teams that have each created five AWS accounts to develop and host applications. To track spending, the development teams log in to each account every month, record the current cost from the AWS Billing and Cost Management console, and provide the information to the company's

finance team.
The company has strict compliance requirements and needs to ensure that resources are created only in AWS Regions in the United States. However, some resources have been created in other Regions.
A solutions architect needs to implement a solution that gives the finance team the ability to track and consolidate expenditures for all the accounts. The solution also must ensure that the company can create resources only in Regions in the United States.
Which combination of steps will meet these requirements in the MOST operationally efficient way? (Select THREE.)

A. Create a new account to serve as a management accoun
B. Create an Amazon S3 bucket for the finance learn Use AWS Cost and Usage Reports to create monthly reports and to store the data in the finance team's S3 bucket.
C. Create a new account to serve as a management accoun
D. Deploy an organization in AWS Organizations with all features enable
E. Invite all the existing accounts to the organizatio
F. Ensure that each account accepts the invitation.
G. Create an OU that includes all the development team
H. Create an SCP that allows the creation of resources only in Regions that are in the United State
I. Apply the SCP to the OU.
J. Create an OU that includes all the development team
K. Create an SCP that denies (he creation of resources in Regions that are outside the United State
L. Apply the SCP to the OU.
M. Create an 1AM role in the management account Attach a policy that includes permissions to view the Billing and Cost Management consol
N. Allow the finance learn users to assume the rol
O. Use AWS Cost Explorer and the Billing and Cost Management console to analyze cost.
P. Create an 1AM role in each AWS accoun
Q. Attach a policy that includes permissions to view the Billing and Cost Management consol
R. Allow the finance team users to assume the role.

Answer: BCE

Explanation:
AWS Organizations is a service that enables you to consolidate multiple AWS accounts into an organization that you create and centrally manage. By creating a management account and inviting all the existing accounts to join the organization, the solutions architect can track and consolidate expenditures for all the accounts using AWS Cost Management tools such as AWS Cost Explorer and AWS Budgets. An organizational unit (OU) is a group of accounts within an organization that can be used to apply policies and simplify management. A service control policy (SCP) is a type of policy that you can use to manage permissions in your organization. By creating an OU that includes all the development teams and applying an SCP that allows the creation of resources only in Regions that are in the United States, the solutions architect can ensure that the company meets its compliance requirements and avoids unwanted charges from other Regions. An IAM role is an identity with permission policies that determine what the identity can and cannot do in AWS. By creating an IAM role in the management account and allowing the finance team users to assume it, the solutions architect can give them access to view the Billing and Cost Management console without sharing credentials or creating additional users. References:

- https://docs.aws.amazon.com/organizations/latest/userguide/orgs_introduction.html
- https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scp.html
- https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles.html
- https://docs.aws.amazon.com/aws-cost-management/latest/userguide/what-is-costmanagement.html

NEW QUESTION 109
- (Exam Topic 2)
A telecommunications company is running an application on AWS. The company has set up an AWS Direct Connect connection between the company's on-premises data center and AWS. The company deployed the application on Amazon EC2 instances in multiple Availability Zones behind an internal Application Load Balancer (ALB). The company's clients connect from the on-premises network by using HTTPS. The TLS terminates in the ALB. The company has multiple target groups and uses path-based routing to forward requests based on the URL path.
The company is planning to deploy an on-premises firewall appliance with an allow list that is based on IP address. A solutions architect must develop a solution to allow traffic flow to AWS from the on-premises network so that the clients can continue to access the application.
Which solution will meet these requirements?

A. Configure the existing ALB to use static IP addresse
B. Assign IP addresses in multiple Availability Zones to the AL
C. Add the ALB IP addresses to the firewall appliance.
D. Create a Network Load Balancer (NLB). Associate the NLB with one static IP addresses in multiple Availability Zone
E. Create an ALB-type target group for the NLB and add the existing ALAdd the NLB IP addresses to the firewall applianc
F. Update the clients to connect to the NLB.
G. Create a Network Load Balancer (NLB). Associate the LNB with one static IP addresses in multiple Availability Zone
H. Add the existing target groups to the NL
I. Update the clients to connect to the NL
J. Delete the ALB Add the NLB IP addresses to the firewall appliance.
K. Create a Gateway Load Balancer (GWLB). Assign static IP addresses to the GWLB in multiple Availability Zone
L. Create an ALB-type target group for the GWLB and add the existing AL
M. Add the GWLB IP addresses to the firewall applianc
N. Update the clients to connect to the GWLB.

Answer: B

Explanation:
The company should create a Network Load Balancer (NLB) and associate it with one static IP address in multiple Availability Zones. The company should also create an ALB-type target group for the NLB and add the existing ALB. The company should add the NLB IP addresses to the firewall appliance and update the clients to connect to the NLB. This solution will allow traffic flow to AWS from the on-premises network by using static IP addresses that can be added to the firewall appliance's allow list. The NLB will forward requests to the ALB, which will use path-based routing to forward requests to the target groups.

NEW QUESTION 112
- (Exam Topic 2)

A company has built a high performance computing (HPC) cluster in AWS tor a tightly coupled workload that generates a large number of shared files stored in Amazon EFS. The cluster was performing well when the number of Amazon EC2 instances in the cluster was 100. However, when the company increased the cluster size to 1,000 EC2 instances, overall performance was well below expectations.
Which collection of design choices should a solutions architect make to achieve the maximum performance from the HPC cluster? (Select THREE.)

A. Ensure the HPC cluster Is launched within a single Availability Zone.
B. Launch the EC2 instances and attach elastic network interfaces in multiples of four.
C. Select EC2 Instance types with an Elastic Fabric Adapter (EFA) enabled.
D. Ensure the cluster Is launched across multiple Availability Zones.
E. Replace Amazon EFS with multiple Amazon EBS volumes in a RAID array.
F. Replace Amazon EFS with Amazon FSx for Lustre.

Answer: ACF

Explanation:
* A. High performance computing (HPC) workload cluster should be in a single AZ.
* C. Elastic Fabric Adapter (EFA) is a network device that you can attach to your Amazon EC2 instances to accelerate High Performance Computing (HPC)
* F. Amazon FSx for Lustre - Use it for workloads where speed matters, such as machine learning, high performance computing (HPC), video processing, and financial modeling.
Cluster – packs instances close together inside an Availability Zone. This strategy enables workloads to achieve the low-latency network performance necessary for tightly-coupled node-to-node communication that is typical of HPC applications.
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html

NEW QUESTION 117
- (Exam Topic 2)
A company manufactures smart vehicles. The company uses a custom application to collect vehicle data. The vehicles use the MQTT protocol to connect to the application.
The company processes the data in 5-minute intervals. The company then copies vehicle telematics data to on-premises storage. Custom applications analyze this data to detect anomalies.
The number of vehicles that send data grows constantly. Newer vehicles generate high volumes of data. The on-premises storage solution is not able to scale for peak traffic, which results in data loss. The company must modernize the solution and migrate the solution to AWS to resolve the scaling challenges.
Which solution will meet these requirements with the LEAST operational overhead?

A. Use AWS IOT Greengrass to send the vehicle data to Amazon Managed Streaming for Apache Kafka (Amazon MSK). Create an Apache Kafka application to store the data in Amazon S3. Use a pretrained model in Amazon SageMaker to detect anomalies.
B. Use AWS IOT Core to receive the vehicle dat
C. Configure rules to route data to an Amazon Kinesis Data Firehose delivery stream that stores the data in Amazon S3. Create an Amazon Kinesis Data Analytics application that reads from the delivery stream to detect anomalies.
D. Use AWS IOT FleetWise to collect the vehicle dat
E. Send the data to an Amazon Kinesis data stream.Use an Amazon Kinesis Data Firehose delivery stream to store the data in Amazon S3. Use the built-in machine learning transforms in AWS Glue to detect anomalies.
F. Use Amazon MQ for RabbitMQ to collect the vehicle dat
G. Send the data to an Amazon Kinesis Data Firehose delivery stream to store the data in Amazon S3. Use Amazon Lookout for Metrics to detect anomalies.

Answer: B

Explanation:
Using AWS IoT Core to receive the vehicle data will enable connecting the smart vehicles to the cloud using the MQTT protocol1. AWS IoT Core is a platform that enables you to connect devices to AWS Services and other devices, secure data and interactions, process and act upon device data, and enable applications to interact with devices even when they are offline2. Configuring rules to route data to an Amazon Kinesis Data Firehose delivery stream that stores the data in Amazon S3 will enable processing and storing the vehicle data in a scalable and reliable way3. Amazon Kinesis Data Firehose is a fully managed service that delivers real-time streaming data to destinations such as Amazon S3. Creating an Amazon Kinesis Data Analytics application that reads from the delivery stream to detect anomalies will enable analyzing the vehicle data using SQL queries or Apache Flink applications. Amazon Kinesis Data Analytics is a fully managed service that enables you to process and analyze streaming data using SQL or Java.

NEW QUESTION 118
- (Exam Topic 2)
A company is migrating a document processing workload to AWS. The company has updated many applications to natively use the Amazon S3 API to store, retrieve, and modify documents that a processing server generates at a rate of approximately 5 documents every second. After the document processing is finished, customers can download the documents directly from Amazon S3.
During the migration, the company discovered that it could not immediately update the processing server that generates many documents to support the S3 API. The server runs on Linux and requires fast local access to the files that the server generates and modifies. When the server finishes processing, the files must be available to the public for download within 30 minutes.
Which solution will meet these requirements with the LEAST amount of effort?

A. Migrate the application to an AWS Lambda functio
B. Use the AWS SDK for Java to generate, modify, and access the files that the company stores directly in Amazon S3.
C. Set up an Amazon S3 File Gateway and configure a file share that is linked to the document store.Mount the file share on an Amazon EC2 instance by using NF
D. When changes occur in Amazon S3, initiate a RefreshCache API call to update the S3 File Gateway.
E. Configure Amazon FSx for Lustre with an import and export polic
F. Link the new file system to an S3 bucke
G. Install the Lustre client and mount the document store to an Amazon EC2 instance by using NFS.
H. Configure AWS DataSync to connect to an Amazon EC2 instanc
I. Configure a task to synchronize the generated files to and from Amazon S3.

Answer: C

Explanation:
Amazon FSx for Lustre is a fully managed service that provides cost-effective, high-performance, scalable storage for compute workloads. Powered by Lustre, the world’s most popular high-performance file system, FSx for Lustre offers shared storage with sub-ms latencies, up to terabytes per second of throughput, and millions of IOPS. FSx for Lustre file systems can also be linked to Amazon Simple Storage Service (S3) buckets, allowing you to access and process data

concurrently from both a high-performance file system and from the S3 API.

NEW QUESTION 123
- (Exam Topic 2)
A company runs an application on AWS. The company curates data from several different sources. The company uses proprietary algorithms to perform data transformations and aggregations. After the company performs E TL processes, the company stores the results in Amazon Redshift tables. The company sells this data to other companies. The company downloads the data as files from the Amazon Redshift tables and transmits the files to several data customers by using FTP. The number of data customers has grown significantly. Management of the data customers has become difficult.
The company will use AWS Data Exchange to create a data product that the company can use to share data with customers. The company wants to confirm the identities of the customers before the company shares data.
The customers also need access to the most recent data when the company publishes the data. Which solution will meet these requirements with the LEAST operational overhead?

A. Use AWS Data Exchange for APIs to share data with customer
B. Configure subscription verification In the AWS account of the company that produces the data, create an Amazon API Gateway Data API service integration with Amazon Redshif
C. Require the data customers to subscribe to the data product In the AWS account of the company that produces the data, create an AWS Data Exchange datashare by connecting AWS Data Exchange to the Redshift
D. cluste
E. Configure subscription verificatio
F. Require the data customers to subscribe to the data product.
G. Download the data from the Amazon Redshift tables to an Amazon S3 bucket periodicall
H. Use AWS Data Exchange for S3 to share data with customers.
I. Configure subscription verificatio
J. Require the data customers to subscribe to the data product Publish the Amazon Redshift data to an Open Data on AWS Data Exchang
K. Require the customers to subscribe to the data product in AWS Data Exchang
L. In the AWS account of the company that produces the data, attach IAM resource-based policies to the Amazon Redshift tables to allow access only to verified AWS accounts.

Answer: C

Explanation:
The company should download the data from the Amazon Redshift tables to an Amazon S3 bucket periodically and use AWS Data Exchange for S3 to share data with customers. The company should configure subscription verification and require the data customers to subscribe to the data product. This solution will meet the requirements with the least operational overhead because AWS Data Exchange for S3 is a feature that enables data subscribers to access third-party data files directly from data providers' Amazon S3 buckets. Subscribers can easily use these files for their data analysis with AWS services without needing to create or manage data copies. Data providers can easily set up AWS Data Exchange for S3 on top of their existing S3 buckets to share direct access to an entire S3 bucket or specific prefixes and S3 objects. AWS Data Exchange automatically manages subscriptions, entitlements, billing, and payment1.
The other options are not correct because:
- Using AWS Data Exchange for APIs to share data with customers would not work because AWS Data Exchange for APIs is a feature that enables data subscribers to access third-party APIs directly from data providers' AWS accounts. Subscribers can easily use these APIs for their data analysis with AWS services without needing to manage API keys or tokens. Data providers can easily set up AWS Data Exchange for APIs on top of their existing API Gateway resources to share direct access to an entire API or specific routes and stages2. However, this feature is not suitable for sharing data from Amazon Redshift tables, which are not exposed as APIs.
- Creating an Amazon API Gateway Data API service integration with Amazon Redshift would not work because the Data API is a feature that enables you to query your Amazon Redshift cluster using HTTP requests, without needing a persistent connection or a SQL client3. It is useful for building applications that interact with Amazon Redshift, but not for sharing data files with customers.
- Creating an AWS Data Exchange datashare by connecting AWS Data Exchange to the Redshift cluster would not work because AWS Data Exchange does not support datashares for Amazon Redshift clusters. A datashare is a feature that enables you to share live and secure access to your Amazon Redshift data across your accounts or with third parties without copying or moving the underlying data4. It is useful for sharing query results and views with other users, but not for sharing data files with customers.
- Publishing the Amazon Redshift data to an Open Data on AWS Data Exchange would not work because Open Data on AWS Data Exchange is a feature that enables you to find and use free and public datasets from AWS customers and partners. It is useful for accessing open and free data, but not for confirming the identities of the customers or charging them for the data.

References:
- https://aws.amazon.com/data-exchange/why-aws-data-exchange/s3/
- https://aws.amazon.com/data-exchange/why-aws-data-exchange/api/
- https://docs.aws.amazon.com/redshift/latest/mgmt/data-api.html
- https://docs.aws.amazon.com/redshift/latest/dg/datashare-overview.html
- https://aws.amazon.com/data-exchange/open-data/

NEW QUESTION 125
- (Exam Topic 2)
A company operates a proxy server on a fleet of Amazon EC2 instances. Partners in different countries use the proxy server to test the company's functionality. The EC2 instances are running in a VPC. and the instances have access to the internet.
The company's security policy requires that partners can access resources only from domains that the company owns.
Which solution will meet these requirements?

A. Create an Amazon Route 53 Resolver DNS Firewall domain list that contains the allowed domains.Configure a DNS Firewall rule group with a rule that has a high numeric value that blocks all request
B. Configure a rule that has a low numeric value that allows requests for domains in the allowed lis
C. Associate the rule group with the VPC.
D. Create an Amazon Route 53 Resolver DNS Firewall domain list that contains the allowed domains.Configure a Route 53 outbound endpoin
E. Associate the outbound endpoint with the VP
F. Associate the domain list with the outbound endpoint.
G. Create an Amazon Route 53 traffic flow policy to match the allowed domain
H. Configure the traffic flow policy to forward requests that match to the Route 53 Resolve
I. Associate the traffic flow policy with the VPC.

J. Create an Amazon Route 53 outbound endpoin
K. Associate the outbound endpoint with the VP
L. Configure a Route 53 traffic flow policy to forward requests for allowed domains to the outbound endpoin
M. Associate the traffic flow policy with the VPC.

Answer: A

Explanation:
The company should create an Amazon Route 53 Resolver DNS Firewall domain list that contains the allowed domains. The company should configure a DNS Firewall rule group with a rule that has a high numeric value that blocks all requests. The company should configure a rule that has a low numeric value that allows requests for domains in the allowed list. The company should associate the rule group with the VPC. This solution will meet the requirements because Amazon Route 53 Resolver DNS Firewall is a feature that enables you to filter and regulate outbound DNS traffic for your VPC. You can create reusable collections of filtering rules in DNS Firewall rule groups and associate them with your VPCs. You can specify lists of domain names to allow or block, and you can customize the responses for the DNS queries that you block1. By creating a domain list with the allowed domains and a rule group with rules to allow or block requests based on the domain list, the company can enforce its security policy and control access to sites.
The other options are not correct because:

- Configuring a Route 53 outbound endpoint and associating it with the VPC would not help with filtering outbound DNS traffic. A Route 53 outbound endpoint is a resource that enables you to forward DNS
queries from your VPC to your network over AWS Direct Connect or VPN connections2. It does not provide any filtering capabilities.
- Creating a Route 53 traffic flow policy to match the allowed domains would not help with filtering outbound DNS traffic. A Route 53 traffic flow policy is a resource that enables you to route traffic based on multiple criteria, such as endpoint health, geographic location, and latency3. It does not provide any filtering capabilities.
- Creating a Gateway Load Balancer (GWLB) would not help with filtering outbound DNS traffic. A GWLB is a service that enables you to deploy, scale, and manage third-party virtual appliances such as firewalls, intrusion detection and prevention systems, and deep packet inspection systems in the cloud4. It does not provide any filtering capabilities.

References:
- https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/resolver-dns-firewall.html
- https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/resolver-outbound-endpoints.html
- https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/traffic-flow.html
- https://docs.aws.amazon.com/elasticloadbalancing/latest/gateway/introduction.html

NEW QUESTION 129
- (Exam Topic 2)
A company wants to optimize AWS data-transfer costs and compute costs across developer accounts within the company's organization in AWS Organizations Developers can configure VPCs and launch Amazon EC2 instances in a single AWS Region The EC2 instances retrieve approximately 1 TB of data each day from Amazon S3
The developer activity leads to excessive monthly data-transfer charges and NAT gateway processing charges between EC2 instances and S3 buckets, along with high compute costs The company wants to proactively enforce approved architectural patterns for any EC2 instance and VPC infrastructure that developers deploy within the AWS accounts The company does not want this enforcement to negatively affect the speed at which the developers can perform their tasks
Which solution will meet these requirements MOST cost-effectively?

A. Create SCPs to prevent developers from launching unapproved EC2 instance types Provide the developers with an AWS CloudFormation template to deploy an approved VPC configuration with S3 interface endpoints Scope the developers* IAM permissions so that the developers can launch VPC resources only with CloudFormation
B. Create a daily forecasted budget with AWS Budgets to monitor EC2 compute costs and S3 data-transfer costs across the developer accounts When the forecasted cost is 75% of the actual budget cost, send an alert to the developer teams If the actual budget cost is 100%. create a budget action to terminate the developers' EC2 instances and VPC infrastructure
C. Create an AWS Service Catalog portfolio that users can use to create an approved VPC configuration with S3 gateway endpoints and approved EC2 instances Share the portfolio with the developer accounts Configure an AWS Service Catalog launch constraint to use an approved IAM role Scope the developers' IAM permissions to allow access only to AWS Service Catalog
D. Create and deploy AWS Config rules to monitor the compliance of EC2 and VPC resources in the developer AWS accounts If developers launch unapproved EC2 instances or if developers create VPCs without S3 gateway endpoints perform a remediation action to terminate the unapproved resources

Answer: C

Explanation:
This solution allows developers to quickly launch resources using pre-approved configurations and instance types, while also ensuring that the resources launched comply with the company's architectural patterns. This can help reduce data transfer and compute costs associated with the resources. Using AWS Service Catalog also allows the company to control access to the approved configurations and resources through the use of IAM roles, while also allowing developers to quickly provision resources without negatively affecting their ability to perform their tasks.
Reference:
AWS Service Catalog: https://aws.amazon.com/service-catalog/ AWS Service Catalog Constraints:
https://docs.aws.amazon.com/servicecatalog/latest/adminguide/constraints.html
AWS Service Catalog Launch Constraints: https://docs.aws.amazon.com/servicecatalog/latest/adminguide/launch-constraints.html

NEW QUESTION 131
- (Exam Topic 2)
A solutions architect needs to improve an application that is hosted in the AWS Cloud. The application uses an Amazon Aurora MySQL DB instance that is experiencing overloaded connections. Most of the application's operations insert records into the database. The application currently stores credentials in a text-based configuration file.
The solutions architect needs to implement a solution so that the application can handle the current connection load. The solution must keep the credentials secure and must provide the ability to rotate the credentials automatically on a regular basis.
Which solution will meet these requirements?

A. Deploy an Amazon RDS Proxy layer in front of the DB instanc
B. Store the connection credentials as a secret in AWS Secrets Manager.
C. Deploy an Amazon RDS Proxy layer in front of the DB instanc
D. Store the connection credentials in AWS Systems Manager Parameter Store.

E. Create an Aurora Replic
F. Store the connection credentials as a secret in AWS Secrets Manager.
G. Create an Aurora Replic
H. Store the connection credentials in AWS Systems Manager Parameter Store.

Answer: A

Explanation:
https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/rds-proxy.html

NEW QUESTION 133
- (Exam Topic 2)
A solutions architect needs to review the design of an Amazon EMR cluster that is using the EMR File System (EMRFS). The cluster performs tasks that are critical to business needs. The cluster is running Amazon EC2 On-Demand Instances at all times tor all task, primary, and core nodes. The EMR tasks run each morning, starting at 1 ;00 AM. and take 6 hours to finish running. The amount of time to complete the processing is not a priority because the data is not referenced until late in the day.
The solutions architect must review the architecture and suggest a solution to minimize the compute costs. Which solution should the solutions architect recommend to meet these requirements?

A. Launch all task, primary, and core nodes on Spool Instances in an instance flee
B. Terminate the cluster, including all instances, when the processing is completed.
C. Launch the primary and core nodes on On-Demand Instance
D. Launch the task nodes on Spot Instances in an instance flee
E. Terminate the cluster, including all instances, when the processing is complete
F. Purchase Compute Savings Plans to cover the On-Demand Instance usage.
G. Continue to launch all nodes on On-Demand Instance
H. Terminate the cluster, including all instances, when the processing is complete
I. Purchase Compute Savings Plans to cover the On-Demand Instance usage
J. Launch the primary and core nodes on On-Demand Instance
K. Launch the task nodes on Spot Instances in an instance flee
L. Terminate only the task node instances when the processing is complete
M. Purchase Compute Savings Plans to cover the On-Demand Instance usage.

Answer: A

Explanation:
Amazon EC2 Spot Instances offer spare compute capacity at steep discounts compared to On-Demand prices. Spot Instances can be interrupted by EC2 with two minutes of notification when EC2 needs the capacity back. Amazon EMR can handle Spot interruptions gracefully by decommissioning the nodes and redistributing the tasks to other nodes. By launching all nodes on Spot Instances in an instance fleet, the solutions architect can minimize the compute costs of the EMR cluster. An instance fleet is a collection of EC2 instances with different types and sizes that EMR automatically provisions to meet a defined target capacity. By terminating the cluster when the processing is completed, the solutions architect can avoid paying for idle resources. References:
- https://docs.aws.amazon.com/emr/latest/ManagementGuide/emr-managed-scaling.html
- https://docs.aws.amazon.com/emr/latest/ManagementGuide/emr-instance-fleet.html
- https://aws.amazon.com/blogs/big-data/optimizing-amazon-emr-for-resilience-and-cost-with-capacity-opt

NEW QUESTION 134
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