Exam Session - Knowledge Check: Compute (SAA-C03) 2 of 2

cloudacademy.com/quiz/exam/3770494/results

#1

Which of the following can an internal ELB serve?

✗ Requests from the Internet-facing target group

✗ Requests from unconfigured Availability Zones

✓ Requests from within the VPC

✗ Requests from a single EC2 instance

Explanation

An internal ELB serves requests from within the VPC only. It does not serve requests from the Internet-facing target group, as that would be accomplished by the public ELB. It does not serve requests from configured Availability Zones, as the Availability Zone for the ELB node must be configured or it will not route traffic in response to any requests, and it does not necessarily respond to requests from a single EC2 instance, as the idea of elastic load balancing is to balance loads across target groups.

https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-to-elb-load-balancer.html

#2

AWS encrypts data within VMware Cloud on AWS at which level?

✗ Datastore

✗ Virtual machine

✓
Firmware

✗
Hardware

Explanation

It is not possible to encrypt data at the datastore level or VM-level. To ensure your data remains secure, AWS performs encryption at the firmware level for all NVMe devices. The encryption keys are then managed and controlled by AWS and are not shared with VMware.

/course/compute-saa-c03/what-is-vmware-cloud-on-aws-1/

#3

Which type of elastic load balancer operates at the layer 4 of the OSI model, is designed to minimize latency between targets within a VPC, and can handle millions of requests per second?

✓
Network Load Balancers

✗
Application Load Balancers

✗
Classic Load Balancers

✗
Gateway Load Balancers

Explanation

Firstly, the Application Load Balancer provides a flexible feature set for your web applications running the HTTP or HTTPS protocols. The Application Load Balancer operates at the request level, and it also provides advanced routing, TLS termination, and visibility features targeted at application architectures, allowing you to route traffic to different ports on the same EC2 instance.

Network Load Balancers are used for ultra-high performance for your application while at the same time managing very low latencies. It operates at the connection level, routing traffic to targets within your VPC, and it's also capable of handling millions of requests per second.

Classic Load Balancers are primarily used for applications that were built in the existing EC2 Classic environment and operate at both the connection and request level. We'll now talk a little bit about the components of an AWS ELB and some of the principles behind them.

/course/saa-compute/what-elastic-load-balancer-elb/

#4

What two options are available for AWS Outposts? (Choose 2 answers)

✓ VMware on AWS

✓ Native AWS variant

✗ HPC-optimized server class

✗ Well-Architected version

Explanation

There are two different options available when using Outposts. You can either use VMware on AWS, which will seamlessly run your existing VMware management and infrastructure, or you can use a native AWS variant, which means you can use the same APIs and management tools as you would in AWS but on-premises.

/course/compute-saa-c03/aws-outposts/

#5

A user has configured an Auto Scaling group with the minimum capacity of three (3) instances, and the maximum capacity of ten (10) instances. You have not specified the desired capacity. When the auto scaling group's configuration is complete, how many instances will be launched?

✓ 3

✗ 5

✗
4

✗
8

Explanation

When the user configures the launch configuration and the Auto Scaling group, the Auto Scaling group will start instances by launching the minimum number (or the desired number, if specified) of EC2 instances. If there are no other scaling conditions attached to the Auto Scaling group, it will maintain the minimum number of running instances at all times.

http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/as-maintain-instance-levels.html
#6

How is VMware Cloud on AWS different from standard AWS compute services such as Amazon EC2 instances?

✓
VMware runs on bare-metal AWS architecture

✗
Customers must run VMware Cloud on AWS from on-premises hardware

✗
VMware Cloud on AWS only runs on dedicated EC2 instances

✗
VMware Cloud on AWS only runs on containers

Explanation

The AWS architecture used for VMware Cloud on AWS is different from your standard compute services on AWS, such as EC2 that runs on top of a Xen hypervisor installed on the host, whereas VMware Cloud on AWS runs on bear-metal AWS infrastructure. This primarily means two things. Firstly, the host itself belongs to a single customer.

And secondly, the host is not running any virtualization software, such as a standard Xen hypervisor that AWS normally uses. Typically, within a normal AWS environment, many customers can share the same underlying host to run their EC2 instances by selecting an

option to run their resources on shared-tenancy hosts.

/course/compute-saa-c03/what-is-vmware-cloud-on-aws-1/
#7

What is the primary role of a server certificate in configuring HTTPS as a listener for an Application Load Balancer?

✓
To terminate the encrypted connection received from the client

✗
To identify resources in the Target Group for the connection request

✗
To connect to a third-party IAM certificate

✗
To import a certificate created outside of AWS

Explanation

The primary role of a server certificate in configuring HTTPS as a listener is to terminate the encrypted connection received from the client and then decrypt and forward it to the resources in the ELB target group. The primary role of the certificate is not to identify resources in the Target Group for the connection request. If you have used a certificate created outside AWS, you should upload a third-party IAM certificate; however, the server certificate does not primarily serve the purpose of importing a certificate created outside of AWS.

https://docs.aws.amazon.com/elasticloadbalancing/latest/application/create-https-listener.html
#8

How is a bare metal server different from the standard virtual compute instances on AWS? (Choose 2 answers)

✓

The bare metal server's host must belong to a single customer

The host is not using any standard AWS virtualization software

The bare metal server must be run on AWS Outpost

The bare metal server's host must be run in separate, non-AWS data centers.

Explanation

The AWS architecture used for VMware Cloud on AWS is different from your standard compute services on AWS, such as EC2 that runs on top of a Xen hypervisor installed on the host, whereas VMware Cloud on AWS runs on bear-metal AWS infrastructure. This primarily means two things. Firstly, the host itself belongs to a single customer.

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 /course/compute-saa-c03/what-is-vmware-cloud-on-aws-1/

#9

What happens if an instance launched by Auto Scaling becomes unhealthy?

The instance cannot become unhealthy.

Auto Scaling will notify the user and the user can update the instance.

Auto Scaling will terminate the instance but not launch a new instance.

Auto Scaling will terminate the instance and launch a new healthy instance.

Explanation

Auto Scaling keeps checking the health of the EC2 instances launched by it at regular intervals. If an instance is observed as unhealthy, Auto Scaling will automatically terminate the instance and launch a new healthy instance. Thus, it maintains the number of instances as per the Auto Scaling group configuration.

http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/AutoScalingLifecycleHooks.html

#10

What does the AWS Outposts service provide?

✓ AWS server hardware that customers manage on-premises

✗ vSphere-based workloads on AWS

✗ Virtual, managed batch processing on AWS

✗ An AWS-supported open source cluster management tool

Explanation

With AWS Outposts, it's now possible to bring the AWS cloud to your data center. This includes the same hardware used by AWS within their data centers. By bringing in AWS hardware to your data center, it allows you to use native AWS services, including the same tools and APIs as you would when running your infrastructure within AWS, the difference being is that the hardware and services will be running locally to help you maintain the need for local applications and workloads, et cetera.

/course/compute-saa-c03/aws-outposts/

#11

In autoscaling, how do scaling policies help you manage a fleet of instances?

✗ By allowing you to create a scaling policy for each instance

✗

By providing pre-configured default scaling policies

By providing the opportunity to schedule fleet health checks

By allowing you to adjust the capacity of the group

Explanation

Scaling policies help you to adjust the capacity of a group of instances within a fleet by creating a policy for increasing the group size and a policy here for decreasing the group size. It does not allow you to create a policy for each individual instance, provide preconfigure default scaling policies, or schedule fleet health checks.

 https://docs.aws.amazon.com/autoscaling/ec2/userguide/as-register-lbs-with-asg.html#12

Which type of Elastic Load Balancer support is ideal for receiving inbound traffic from the clients outside the VPC, offers TLS termination, and advanced routing?

Network Load Balancers

Application Load Balancers

Classic Load Balancers

Gateway Load Balancers

Explanation

Firstly, the Application Load Balancer provides a flexible feature set for your web applications running the HTTP or HTTPS protocols. The Application Load Balancer operates at the request level, and it also provides advanced routing, TLS termination, and visibility features targeted at application architectures, allowing you to route traffic to different ports on the same EC2 instance.

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/course/saa-compute/what-elastic-load-balancer-elb/

#13

In the Elastic Load Balancing service, what is a target group?

✗ A function for routing inbound connections based on ports and protocols set as conditions

✗ A health check that is performed against the resources defined within the target group

✓ Resources to which an ELB can route requests

✗ A rule that defines how an incoming request gets routed to a target group

Explanation

A Target Group is a group of resources to which an ELB can route requests. It is not a function for routing inbound connections based on ports and protocols set as conditions, a health check that is performed against the resources defined within the target group, or a rule that defines how an incoming request gets routed to a target group.

https://aws.amazon.com/elasticloadbalancing/?nc=sn&loc=0

#14

You are configuring your application's compute layer using EC2 Auto Scaling. When configuring the group's capacity, you have set the auto scaling group's minimum capacity to four, the desired capacity to 8, and the maximum capacity to 16. When you deploy your auto scaling group, and the instances are deployed, how many instances are in your auto scaling group?

✗

4

✓
8

✗
12

✗
16

Explanation

You configure the size of your Auto Scaling group by setting the minimum, maximum, and desired capacity. The minimum and maximum capacity are required to create an Auto Scaling group, while the desired capacity is optional. If you do not define your desired capacity upfront, it defaults to your minimum capacity.

By default, the minimum, maximum, and desired capacity are set to one instance when you create an Auto Scaling group from the console. If you change the desired capacity, the capacity that you specify will be the total number of instances launched right after creating your Auto Scaling group.

An Auto Scaling group is elastic as long as it has different values for minimum and maximum capacity. All requests to change the Auto Scaling group's desired capacity (either by manual scaling or automatic scaling) must fall within these limits.

If you choose to automatically scale your group, the maximum limit lets Amazon EC2 Auto Scaling scale out the number of instances as needed to handle an increase in demand. The minimum limit helps ensure that you always have a certain number of instances running at all times.

🔗https://docs.aws.amazon.com/autoscaling/ec2/userguide/asg-capacity-limits.html
#15

What does the VMware Cloud on AWS provide?

✗
AWS server hardware that customers manage on-premises

✓
vSphere-based workloads on AWS

✗
Virtual, managed batch processing on AWS

✗
An AWS-supported open source cluster management tool

Explanation

VMware Cloud on AWS is sold as a service by VMware that allows you to run your applications across VMware's vSphere suite of products within an SDDC hosted on top of the AWS Public Cloud. While utilizing VMware's underlying Cloud foundation, it provides the ability to give you access to many native AWS services and features. Couple this with the ability to continue managing your infrastructure with vSphere, vSAN, NSX, and vCenter Server, it enables you to create a secure, flexible, and scalable hybrid Cloud infrastructure model for your organization.

/course/compute-saa-c03/what-is-vmware-cloud-on-aws-1/
#16

How does AWS Batch simplify the batch computing process?

✓
It removes the need for expensive hardware, and time-consuming administrative and process management requirements.

✗
It fully automates the batch computing process.

✗
It allows you to complete large processing jobs in a serverless computing model.

✗
It allows you to manage cluster environments with minimal administrative requirements.

Explanation

As a fully managed service, AWS Batch enables developers, scientists, and engineers to run batch computing workloads of any scale. AWS Batch automatically provisions compute resources and optimizes the workload distribution based on the quantity and scale of the workloads. With AWS Batch, there is no need to install or manage batch computing software,

which allows you to focus on analyzing results and solving problems. AWS Batch reduces operational complexities, saves time, and reduces costs, which makes it easy for developers, scientists, and engineers to run their batch jobs in the AWS Cloud.

https://docs.aws.amazon.com/batch/latest/userguide/what-is-batch.html

#17

In AWS Batch, what is the purpose of a job definition?

✓

It dictates how the job will run and with what configuration.

✗

It is where a job is placed before it processes.

✗

It controls when a job should be run and from which compute environment.

✗

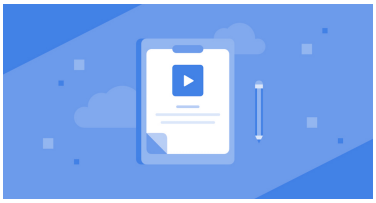
These contain the compute resources to carry out the job.

Explanation

AWS Batch job definitions specify how jobs are to be run. While each job must reference a job definition, many of the parameters that are specified in the job definition can be overridden at run time.

https://docs.aws.amazon.com/batch/latest/userguide/job_definitions.html

Covered in this lecture
AWS Batch
Course:Compute Fundamentals For AWS



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#18

In which of the following AWS Batch components can a user set a priority level, for time-sensitive or low-priority jobs?

✗

Within the job definition

✓ Within a job queue

✗ Within the job scheduler

✗ Within the job itself

Explanation

When you submit an AWS Batch job, you submit it to a particular job queue, where it resides until it is scheduled onto a compute environment. You associate one or more compute environments with a job queue, and you can assign priority values for these compute environments and even across job queues themselves. For example, you could have a high priority queue that you submit time-sensitive jobs to, and a low priority queue for jobs that can run anytime when compute resources are cheaper.

https://docs.aws.amazon.com/batch/latest/userguide/what-is-batch.html

#19

What is a VMware Cloud cluster's scope in terms of location?

✓ Clusters are limited to a single availability zone.

✗ Clusters can span across multiple availability zones.

✗ Clusters are limited to a single region.

✗ Clusters can span across multiple regions.

Explanation

There is a restriction regarding clusters when it comes to location, in that the clusters created cannot span multiple availability zones or regions. They are restricted to a single AWS AZ within a single region.

/course/compute-saa-c03/what-is-vmware-cloud-on-aws-1/

#20

What is the purpose of the launch template in AWS Auto Scaling?

✗ To configure default storage volume for auto-scaling group instances

✗ To identify the best instance type for an auto-scaling group

✓ To build a standard configuration to launch instances for your auto-scaling groups

✗ To configure security groups within an existing auto-scaling group

Explanation

The primary purpose of the launch template when configuring an auto-scaling group is to build a standard configuration to launch instances for your auto-scaling groups. Configuring storage volumes is a general function of auto-scaling, and identifying the best instance type and configuring security groups within an existing auto-scaling group are not primary purposes for using the launch template.

https://aws.amazon.com/autoscaling/getting-started/