Exam Session - Knowledge Check: Compute (CLF-C01)

cloudacademy.com/quiz/exam/3761103/results

#1

What is the difference between Amazon Elastic Container Service (ECS) and Amazon Elastic Container Registry (ECR)?

✓
ECR stores Docker images to be deployed by ECS.

✗
ECR is a failover and backup service for ECS clusters.

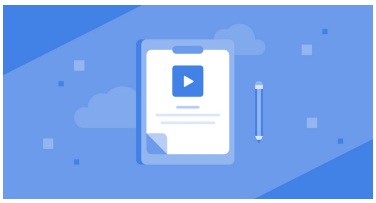
✗
ECR is a central data storage service for stateless ECS clusters.

✗
ECR manages EC2 instances and Docker containers deployed by ECS.

Explanation

Elastic Container Registry is a secure location to store and manage Docker images. It is a fully managed service. Elastic Container Service can pull images from registries withing ECR and deploy them within ECS clusters.

/course/compute-fundamentals-for-aws/ecr-elastic-container-registry/
Covered in this lecture
ECR - Elastic Container Registry
Course:Compute Fundamentals For AWS



4m

#2

An AWS Lambda function _____ is an operation from an event source that causes the function to invoke.

✓
trigger

✕
event

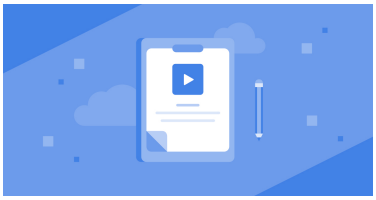
✕
log

✕
stream

Explanation

A trigger is essentially an operation from an event source that causes the function to invoke, and so essentially is triggering that function.

/course/understanding-aws-lambda-to-run-scale-code/demo-creating-a-lambda-function/
Covered in this lecture
An Overview of AWS Lambda
Course:Understanding AWS Lambda to Run & Scale Your Code



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#3

What compute service does AWS Elastic Beanstalk provide?

✕
To deploy small units of user-provided code as functions

✕
To deploy and manage containers on clusters with a variety of compute options

✓
To deploy applications without managing, load balancing, or scaling the infrastructure

✕
To host AWS-managed hardware in an on-premises environment

Explanation

With Elastic Beanstalk, you can quickly deploy and manage applications in the AWS Cloud without having to learn about the infrastructure that runs those applications. Elastic Beanstalk reduces management complexity without restricting choice or control. You simply upload your application, and Elastic Beanstalk automatically handles the details of capacity provisioning, load balancing, scaling, and application health monitoring.

https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/Welcome.html

#4

Which AWS compute service allows customers to quickly spin up and shut down cloud servers they can manage at the operating system level?

✓ Amazon EC2

✗ Amazon Elastic Container Services (ECS)

✗ Elastic Load Balancer

✗ AWS Elastic Beanstalk

Explanation

EC2 stands for Elastic Compute Cloud, and is the service that lets you quickly spin up and shut down the cloud servers that are most like your on-premise servers.

/course/introduction-to-amazon-web-services-aws/aws-compute-1/

Covered in this lecture
AWS Compute
Course:Introduction to Amazon Web Services (AWS)

7m

#5

Which Amazon service allows you to run, stop, and manage Docker containers on a cluster of Amazon Elastic Compute Cloud instances?

✗

AWS Batch

Amazon Elastic Container Registry

Amazon Elastic Container Service

AWS Elastic Beanstalk

Explanation

Amazon ECS allows you to launch and stop container-based applications with API calls and also allows you to get the state of your cluster from a centralized service. You can use Amazon ECS to schedule the placement of containers across your cluster based on your resource needs, isolation policies, and availability requirements.

http://docs.aws.amazon.com/AmazonECS/latest/developerguide/Welcome.html

#6

In which case does AWS recommend selecting a Network Load Balancer?

When an application requires load balancing of HTTP requests

When an application requires load balancing of TCP or UDP protocol traffic

When an application requires the use of a third-party virtual appliance

Network Load Balancers are not recommended because AWS retired the related network

Explanation

Elastic Load Balancing (ELB) supports four types of load balancers. You can select the appropriate load balancer based on your application needs. If you need to load balance HTTP requests, we recommend you use the Application Load Balancer (ALB). For network/transport protocols (layer4 – TCP, UDP) load balancing, and for extreme performance/low latency applications we recommend using Network Load Balancer. If your

application is built within the Amazon Elastic Compute Cloud (Amazon EC2) Classic network, you should use Classic Load Balancer. If you need to deploy and run third-party virtual appliances, you can use Gateway Load Balancer.

https://aws.amazon.com/elasticloadbalancing/faqs/?nc=sn&loc=5

#7

What is a common use case for Amazon Lightsail?

✓

to host simple websites, blogs or small applications

✗

to process individual steps in a process automatically based on changes in your system status

✗

to process large compute jobs with minimal administrative requirements

✗

to manage scaling of Amazon EC2 instances

Explanation

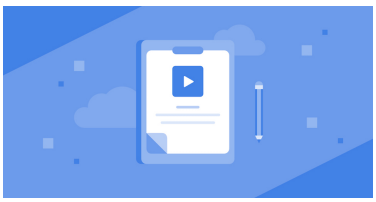
With its simplicity and small scale uses, Amazon Lightsail is commonly used to host simple websites, small applications, and blogs. You can run multiple Lightsail instances together, allowing them to communicate and it's even possible, if required, to connect it to other AWS resources and to your existing VPC running within AWS via a peering connection.

https://lightsail.aws.amazon.com/ls/docs/getting-started/article/what-is-amazon-lightsail

Covered in this lecture

Summary

Course:Compute Fundamentals For AWS



8m

#8

What is the purpose of the Elastic Load Balancing service?

✗

Deny incoming or outgoing requests that fail to meet a set of provided rules

✗
Transmit network messages outside of the VPC without the use of the public internet

✓
Improve system fault tolerance by distributing traffic across multiple AWS resources

✗
Connect external clients to the correct resource based upon the assigned domain or subdomain

Explanation

Elastic Load Balancing is a network service that distributes application traffic across multiple EC2 instances and availability zones. It provides network fault tolerance by automatically scaling up or down based on network traffic requirements.

https://docs.aws.amazon.com/elasticloadbalancing/latest/application/introduction.html

#9

In which case does AWS recommend selecting a Gateway Load Balancer?

✗
When an application requires load balancing of HTTP requests

✗
When an application requires load balancing of TCP or UDP protocol traffic

✓
When an application requires the use of a third-party virtual appliance

✗
Gateway Load Balancers are not recommended because AWS retired the related network

Explanation

Elastic Load Balancing (ELB) supports four types of load balancers. You can select the appropriate load balancer based on your application needs. If you need to load balance HTTP requests, we recommend you use the Application Load Balancer (ALB). For network/transport protocols (layer4 – TCP, UDP) load balancing, and for extreme performance/low latency applications we recommend using Network Load Balancer. If your

application is built within the Amazon Elastic Compute Cloud (Amazon EC2) Classic network, you should use Classic Load Balancer. If you need to deploy and run third-party virtual appliances, you can use Gateway Load Balancer.

https://aws.amazon.com/elasticloadbalancing/faqs/?nc=sn&loc=5

#10

What service does Elastic Container Repository offer?

✓ It stores Docker images

✗ It stores application code

✗ It stores Docker container data

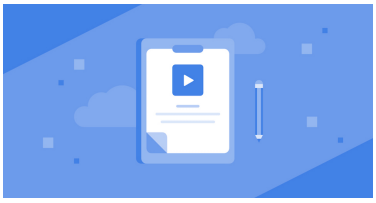
✗ It manages encryption keys for Docker application data

Explanation

Amazon ECR supports private Docker repositories with resource-based permissions using AWS IAM so that specific users or Amazon EC2 instances can access repositories and images. Developers can use the Docker CLI to push, pull, and manage images.

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

Covered in this lecture
Introduction
Course:Compute Fundamentals For AWS



5m

#11

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

#12

AWS Auto Scaling offers what service?

✗
It manages the vertical scaling of Amazon EC2 instances

✓
It manages the horizontal scaling of Amazon EC2 instances

✗
It manages the vertical scaling of Amazon RDS databases

✗
It manages the deployment of containers in Amazon ECS

Explanation

Auto Scaling is a service that allows users to automatically scale the EC2 resources in or out, or horizontally, according to the conditions or by manual intervention. It is a seamless process to scale the EC2 instances. It does not scale instances vertically, which would involve changing the size of an existing instance.

https://docs.aws.amazon.com/autoscaling/ec2/userguide/what-is-amazon-ec2-auto-scaling.html

#13

Which statement best describes an Amazon Machine Image (AMI)?

✗ A temporary virtual machine created during horizontal scaling

✗ A virtual machine backup file on a local server hard drive

✓ A preconfigured template for your EC2 instances

✗ A VMware configuration file for any network deployment

Explanation

Amazon EC2 provides Amazon Machine Images (AMIs), which are preconfigured templates for your instances.

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

#14

Which service allows you to implement and deploy small computing units by delivering simple functions?

✗ Amazon EC2

✓ AWS Lambda

✗ Amazon ECS

✗ Amazon Lightsail

Explanation

Now AWS Lambda allows you to implement and deploy small computing units by delivering simple functions.

/course/using-serverless-functions/creating-a-scheduled-event-with-aws-lambda/
Covered in this lecture
Creating and Running a Scheduled Event with AWS Lambda
Course:Using Serverless Functions

15m

#15

Which description best describes Amazon Elastic Kubernetes Service (EKS)?

✗
EKS deploys small units of user-provided code as functions

✗
EKS deploys web applications on virtual servers without the need to manage, load balance, or scale the infrastructure

✗
EKS provides infrastructure-as-a-service on AWS-hosted virtual servers

✓
EKS is a managed service that runs Kubernetes in the AWS cloud

Explanation

Amazon EKS is a managed Kubernetes service to run Kubernetes in the AWS cloud and on-premises data centers. In the cloud, Amazon EKS automatically manages the availability and scalability of the Kubernetes control plane nodes responsible for scheduling containers, managing application availability, storing cluster data, and other key tasks. With Amazon EKS, you can take advantage of all the performance, scale, reliability, and availability of AWS infrastructure, as well as integrations with AWS networking and security services. On-premises, EKS provides a consistent, fully-supported Kubernetes solution with integrated tooling and simple deployment to AWS Outposts, virtual machines, or bare metal servers.

https://aws.amazon.com/eks/

#16

In which case does AWS recommend selecting an Application Load Balancer?

✓ When an application requires load balancing of HTTP requests

✗ When an application requires load balancing of TCP or UDP protocol traffic

✗ When an application requires the use of a third-party virtual appliance

✗ Application Load Balancers are not recommended because the related network is being retired

Explanation

Elastic Load Balancing (ELB) supports four types of load balancers. You can select the appropriate load balancer based on your application needs. If you need to load balance HTTP requests, we recommend you use the Application Load Balancer (ALB). For network/transport protocols (layer4 – TCP, UDP) load balancing, and for extreme performance/low latency applications we recommend using Network Load Balancer. If your application is built within the Amazon Elastic Compute Cloud (Amazon EC2) Classic network, you should use Classic Load Balancer. If you need to deploy and run third-party virtual appliances, you can use Gateway Load Balancer.

https://aws.amazon.com/elasticloadbalancing/faqs/?nc=sn&loc=5

#17

Which AWS service enables AWS users to run containers on Amazon ECS without provisioning and managing the host EC2 instances?

✓ AWS Fargate

✗ AWS Auto Scaling

✗ AWS OpsWorks Chef

AWS Systems Manager

Explanation

When using the Fargate launch type with tasks within your cluster, Amazon ECS manages your cluster resources.

/course/compute-fundamentals-for-aws/ecs-ec2-container-service/

Covered in this lecture
ECS - Elastic Container Service
Course:Compute Fundamentals For AWS

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