



review



review questions

Elastic Compute Cloud (EC2) V1.01



Course title

BackSpace Academy
AWS Certified Cloud Practitioner



PLEASE READ THIS

The purpose of Learning by Quizzes

Preparation for the AWS certification exams will require understanding of the AWS documentation. Unfortunately, this documentation is massive in size and, it is completely impractical to attempt to present this with video lectures. The "learning by quizzes" exercises select key points from the AWS documentation that you should know in the format of a question and an answer. We have found that this is the most effective way to get a large amount of information into memory.

How to use the Learning by Quizzes

1. Read the question and select the correct answer.
2. Check if your answer is correct.
3. If you don't know why the answer is correct read the explanation.
4. If you still don't understand why it is correct then read the link to the page in the AWS documentation.

Please note: Although it is requirement of AWS certification to have read and understood the AWS documentation, "learning by quizzes" is designed to significantly reduce that requirement.

This "learning by quizzes" exercise will be based upon the videos and the following reference material:

Section: What Is Amazon EC2?

Reference: EC2 User Guide

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/concepts.html>

Question

Amazon EC2 provides the following features:

Answers

- A. Instances & Instance types & Tags
- B. Amazon Machine Images (AMIs)
- C. Secure login information for your instances using key pairs
- D. Instance store & EBS volumes
- E. Hosting in Regions & Availability Zones
- F. Security groups
- G. Elastic IP addresses
- H. All of the above

H

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/concepts.html>

Question

From an ____, you launch an instance, which is a copy of the ____ running as a virtual server in the cloud.

Answers

- A. EBS
- B. AMI
- C. ELB
- D. None of the above

B

See: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/concepts.html>

Question

Your instance may include local storage volumes, known as instance store volumes, which you can configure at launch time with_____.

Answers

- A. block device mapping
- B. ELB
- C. AMi
- D. EBS
- E. None of the above

A

See: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/block-device-mapping-concepts.html>

Question

Password-based logins for instances launched from your AMI increase security.

Answers

- A. True
- B. False

B

Password information should not be in AMI

Question

When an instance is stopped, the instance performs a normal shutdown, then the attached Amazon EBS volumes are deleted unless the volume's `deleteOnTermination` attribute is set to false. The instance itself is also deleted, and you can't start the instance again at a later time.

Answers

- A. True
- B. False

B

When an instance is stopped, the instance performs a normal shutdown and then transitions to a stopped state. All of its Amazon EBS volumes remain attached, and you can start the instance again at a later time. You are not charged for additional instance hours while the instance is in a stopped state.

When an instance is terminated, the instance performs a normal shutdown, then the attached Amazon EBS volumes are deleted unless the volume's `deleteOnTermination` attribute is set to false. The instance itself is also deleted, and you can't start the instance again at a later time.

If you run a script on instance termination, your instance might have an abnormal termination, because we have no way to ensure that shutdown scripts run. Amazon EC2 attempts to shut an instance down cleanly and run any system shutdown scripts; however, certain events (such as hardware failure) may prevent these system shutdown scripts from running.

You can only stop an Amazon EBS-backed instance, not instance store backed instances.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-lifecycle.html#lifecycle-differences>

Question

When you launch an instance, you must select an AMI that's in the same region.

Answers

- A. True
- B. False

A

AMI are region specific but can be copied to another region.

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/CopyingAMIs.html>

Question

Your Availability Zone us-east-1a is the same location as us-east-1a for another account. You can easily coordinate Availability Zones between accounts.

Answers

- A. True
- B. False

B

An Availability Zone is represented by a region code followed by a letter identifier; for example, us-east-1a. To ensure that resources are distributed across the Availability Zones for a region, we independently map Availability Zones to identifiers for each account. For example, your Availability Zone us-east-1a might not be the same location as us-east-1a for another account. There's no way for you to coordinate Availability Zones between accounts. See:

<http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html#concepts-regions-availability-zones>

Question

To migrate an instance to another availability zone you must create an AMI from the original instance, launch an instance in the new Availability Zone, and update the configuration of the new instance.

Answers

- A. True
- B. False

A

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/CopyingAMIs.html>

Question

It is recommend that you use AMIs backed by instance store, because they launch faster and use persistent storage.

Answers

- A. True
- B. False

B

They do not have persistent storage

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html>

Question

Instances that use instance stores for the root device automatically have instance store volumes available, with one serving as the root device volume.

Answers

- A. True
- B. False

A

Instances that use instance stores for the root device automatically have one or more instance store volumes available, with one volume serving as the root device volume. When an instance is launched, the image that is used to boot the instance is copied to the root volume. Note that you can optionally use additional instance store volumes, depending on the instance type.

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/RootDeviceStorage.html#RootDeviceStorageConcepts>

Question

An Amazon EBS-backed instance can be stopped and later restarted without affecting data stored in the attached volumes.

Answers

- A. True
- B. False

A

An EBS volume behaves like a raw, unformatted, external block device that you can attach to a single instance. The volume persists independently from the running life of an instance. After an EBS volume is attached to an instance, you can use it like any other physical hard drive.

See: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Storage.html>

Question

It is recommended if an Amazon EBS-backed instance with normal volume size fails, you can restore your session by:

Answers

- A. Stop and then start again. Automatically snapshot all relevant volumes and create a new AMI.
- B. Attach the volume to a new instance. Terminate and then start again.
- C. All of the above

C

If an Amazon EBS-backed instance fails, you can restore your session by following one of these methods:

- Stop and then start again (try this method first).
- Automatically snapshot all relevant volumes and create a new AMI. For more information, see [Creating an Amazon EBS-Backed Linux AMI](#).
- Attach the volume to the new instance by following these steps:
 1. Create a snapshot of the root volume.
 2. Register a new AMI using the snapshot.
 3. Launch a new instance from the new AMI.
 4. Detach the remaining Amazon EBS volumes from the old instance.
 5. Reattach the Amazon EBS volumes to the new instance.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/RootDeviceStorage.html>

This "learning by quizzes" exercise will be based upon the videos and the following reference material:

Section: Best Practices for Amazon EC2

Reference: EC2 User Guide

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-best-practices.html>

Question

It is best practice to implement the most permissive rules for your security group.

Answers

- A. True
- B. False

B

Least permissive. See:

<http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-best-practices.html>

Question

It is best practice to launch your instances into EC2-Classic instead of a VPC

Answers

- A. True
- B. False

B

Launch your instances into a VPC instead of EC2-Classic. Note that if you created your AWS account after 2013-12-04, AWS automatically launch your instances into a VPC.

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-best-practices.html>

Question

It is best practice to use the instance store available for your instance to store temporary data

Answers

- A. True
- B. False

A

Use the instance store available for your instance to store temporary data. Remember that the data stored in instance store is deleted when you stop or terminate your instance. If you use instance store for database storage, ensure that you have a cluster with a replication factor that ensures fault tolerance.

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-best-practices.html>

Question

It is best practice to use instance metadata and custom resource tags to track and identify your AWS resources.

Answers

- A. True
- B. False

A

Use instance metadata and custom resource tags to track and identify your AWS resources.

See: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-best-practices.html>

Question

It is best practice to design your applications to handle dynamic IP addressing when your instance restarts.

Answers

- A. True
- B. False

Design your applications to handle dynamic IP addressing when your instance restarts.

See: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-best-practices.html>

This "learning by quizzes" exercise will be based upon the course videos and the following reference material:

Section: Getting Started with Amazon EC2 Windows Instances

Reference: EC2 Windows User Guide

https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/EC2_GetStarted.html

Question

To connect to a Windows instance, you must retrieve the initial administrator password and then specify this password when you connect to your instance using Remote Desktop.

Answers

- A. TRUE
- B. FALSE

A

See: https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/EC2_GetStarted.html#ec2-connect-toinstance-windows

Question

You connect to your Windows instance using SSH.

Answers

- A. TRUE
- B. FALSE

B

You connect using RDP

See: https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/EC2_GetStarted.html#ec2-connect-toinstance-windows

Question

Port 3389 allows you to connect to the instance with Remote Desktop Protocol (RDP).

Answers

- A. TRUE
- B. FALSE

A

See: <http://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/using-network-security.html>

This "learning by quizzes" exercise will be based upon the course videos and the following reference material:

Section: Amazon Machine Images (AMI)

Reference: EC2 Linux User Guide

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

Question

An AMI includes:

Answers

- A. A template for the root volume for the instance (for example, an operating system, an application server, and applications)
- B. Launch permissions that control which AWS accounts can use the AMI to launch instances
- C. A block device mapping that specifies the volumes to attach to the instance when it's launched
- D. All of the above

D

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

Question

You can copy an AMI to the same region but not to different regions.

Answers

- A. True
- B. False

B

You can copy an Amazon Machine Image (AMI) within or across an AWS region using the AWS Management Console, the AWS command line tools or SDKs, or the Amazon EC2 API, all of which support the CopyImage action. You can copy both Amazon EBS-backed AMIs and instance store-backed AMIs. You can copy encrypted AMIs and AMIs with encrypted snapshots.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/CopyingAMIs.html>

Question

After you create an AMI, you can keep it private so that only you can use it, or you can share it with a specified list of AWS accounts. You can also make your custom AMI public so that the community can use it.

Answers

- A. True
- B. False

A

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AMIs.html#buy-share-sell>

Question

Command line tools are not pre-installed on Amazon Linux.

Answers

- A. True
- B. False

B

Command line tools ARE pre-installed on Amazon Linux.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/amazon-linux-ami-basics.html#amazon-linux-awscommand-line-tools>

Question

Data on any Amazon EBS volumes attached to an instance store backed instance persists after instance termination by default.

Answers

- A. True
- B. False

A

An EBS volume is off-instance storage that can persist independently from the life of an instance. You continue to pay for the volume usage as long as the data persists.

By default, EBS volumes that are attached to a running instance automatically detach from the instance with their data intact when that instance is terminated. The volume can then be reattached to a new instance, enabling quick recovery. If you are using an EBS-backed instance, you can stop and restart that instance without affecting the data stored in the attached volume. The volume remains attached throughout the stop-start cycle. This enables you to process and store the data on your volume indefinitely, only using the processing and storage resources when required. The data persists on the volume until the volume is deleted explicitly. The physical block storage used by deleted EBS volumes is overwritten with zeroes before it is allocated to another account. If you are dealing with sensitive data, you should consider encrypting your data manually or storing the data on a volume protected by Amazon EBS encryption. For more information, see Amazon EBS Encryption.

Question

By default, EBS volumes that are created and attached to an instance at launch are deleted when that instance is terminated. You can modify this behavior by changing the value of the flag `DeleteOnTermination` to false when

Data on any instance store volumes persists only during the life of the instance for all instance types.

Answers

- A. True
- B. False

A

The data in an instance store persists only during the lifetime of its associated instance. If an instance reboots (intentionally or unintentionally), data in the instance store persists. However, data in the instance store is lost under the following circumstances:

- The underlying disk drive fails
- The instance stops
- The instance terminates

Therefore, do not rely on instance store for valuable, long-term data. Instead, use more durable data storage, such as Amazon S3, Amazon EBS, or Amazon EFS.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ComponentsAMIs.html#storage-for-the-rootdevice>

Question

Data on any non-root Amazon EBS volumes persists after instance termination by default.

Answers

- A. True
- B. False

A

By default, the root volume is deleted when the instance terminates.

Data on any other Amazon EBS volumes persists after instance termination by default. Data on any instance store volumes persists only during the life of the instance.

Data on any instance store volumes persists only during the life of the instance. Data on any Amazon EBS volumes persists after instance termination by default.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ComponentsAMIs.html#storage-for-the-rootdevice>

Question

The instance type, kernel, RAM disk, and user data can be changed while the instance is stopped with instance store backed instances.

Answers

- A. True
- B. False

B

Amazon EBS-Backed AMI - The instance type, kernel, RAM disk, and user data can be changed while the instance is stopped.

Amazon Instance Store-Backed AMI - Instance attributes are fixed for the life of an instance.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ComponentsAMIs.html#storage-for-the-rootdevice>

Question

You can stop an Amazon EBS-backed instance, but not an Amazon EC2 instance store-backed instance.

Answers

- A. True
- B. False

A

All AMIs are categorized as either backed by Amazon EBS or backed by instance store. The latter means that the root device for an instance launched from the AMI is an instance store volume created from a template stored in Amazon S3. Don't get confused with an EBS backed instance with an attached instance store volume. Instances created from an instance store backed AMI can only be running or terminated.

See: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ComponentsAMIs.html#storage-for-the-rootdevice>

Question

When an Amazon EBS-backed instance is stopped, you're not charged for instance usage and, not charged for volume storage.

Answers

- A. True
- B. False

B

You're charged for instance usage, Amazon EBS volume usage, and storing your AMI as an Amazon EBS snapshot. This applies even the instance is stopped.

See: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ComponentsAMIs.html#storage-for-the-rootdevice>

Question

You are billed when your AMI is launched by other AWS accounts.

Answers

- A. True
- B. False

B

Amazon EC2 enables you to share your AMIs with other AWS accounts. You can allow all AWS accounts to launch the AMI (make the AMI public), or only allow a few specific accounts to launch the AMI (see Sharing an AMI with Specific AWS Accounts). You are not billed when your AMI is launched by other AWS accounts; only the accounts launching the AMI are billed.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/sharingamis-intro.html>

Question

If you have created a public AMI, or shared an AMI with another AWS user, you can create a _____ that allows a user to access your AMI and launch an instance in their own account immediately. This is an easy way to share AMI references, so users don't have to spend time finding your AMI in order to use it.

Answers

- A. Signed URL
- B. Bookmark
- C. AMI Tag

B

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

Question

Using a fixed root password for a public AMI is a security risk.

Answers

- A. True
- B. False

A

Using a fixed root password for a public AMI is a security risk that can quickly become known. Even relying on users to change the password after the first login opens a small window of opportunity for potential abuse.

To solve this problem, disable password-based remote logins for the root user.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/building-shared-amis.html#public-amis-disablepassword-logins-for-root>

Question

To protect yourself it is recommended:

Answers

- A. Always delete the shell history before bundling.
- B. Bundling a running instance requires your private key and X.509 certificate. Put these and other credentials in a location that is not bundled (such as the instance store).
- C. Exclude the SSH authorized keys when bundling the image.
- D. All of the above

D

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/building-shared-amis.html#public-amis-protectyourself>

Question

You can convert an instance store-backed Windows AMI to an Amazon EBS-backed Windows AMI and you can also convert an AMI that you do not own.

Answers

- A. True
- B. False

B

You can convert an instance store-backed Linux AMI that you own to an Amazon EBS-backed Linux AMI.

Important:

You can't convert an instance store-backed Windows AMI to an Amazon EBS-backed Windows AMI and you cannot convert an AMI that you do not own.

See: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Using_ConvertingS3toEBS.html

Question

You can convert an instance store-backed Linux AMI that you own to an Amazon EBS-backed Linux AMI.

Answers

- A. True
- B. False

A

You can convert an instance store-backed Linux AMI that you own to an Amazon EBS-backed Linux AMI.

Important:

You can't convert an instance store-backed Windows AMI to an Amazon EBS-backed Windows AMI and you cannot convert an AMI that you do not own.

See: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Using_ConvertingS3toEBS.html

Question

Copying an AMI across geographically diverse regions provides the following benefits:

Answers

- A. Consistent global deployment
- B. Scalability
- C. Performance
- D. High availability
- E. All of the above

E

Copying an AMI across geographically diverse regions provides the following benefits:

- Consistent global deployment: Copying an AMI from one region to another enables you to launch consistent instances in different regions based on the same AMI.
- Scalability: You can more easily design and build global applications that meet the needs of your users, regardless of their location.
- Performance: You can increase performance by distributing your application, as well as locating critical components of your application in closer proximity to your users. You can also take advantage of region-specific features, such as instance types or other AWS services.
- High availability: You can design and deploy applications across AWS regions, to increase availability.

See:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/CopyingAMIs.html>

This "learning by quizzes" exercise will be based upon the course videos and the following reference material:

Section: Amazon EC2 Instances

Reference: EC2 Linux User Guide

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Instances.html>

Question

You can stop and change the size of your instance after it has been launched.

Answers

- A. True
- B. False

A

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-resize.html>

Question

If the root device for your instance is an Amazon instance store volume, you can easily resize your instance by changing its instance type.

Answers

- A. True
- B. False

B

You can specify instance store volumes for an instance only when you launch it. See <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html>

Question

_____ enable you to bid on unused EC2 instances, which can lower your Amazon EC2 costs significantly.

Answers

- A. Bid Instances
- B. Spot Instances
- C. On Demand
- D. Reserved

B

Spot Instances enable you to request unused EC2 instances, which can lower your Amazon EC2 costs significantly. The hourly price for a Spot Instance (of each instance type in each Availability Zone) is set by Amazon EC2, and adjusted gradually based on the long-term supply of and demand for Spot Instances. Your Spot Instance runs whenever capacity is available and the maximum price per hour for your request exceeds the Spot price.

Spot Instances are a cost-effective choice if you can be flexible about when your applications run and if your applications can be interrupted. For example, Spot Instances are well-suited for data analysis, batch jobs, background processing, and optional tasks.

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

Question

Spot Instances run until either you terminate them or the Spot Price increases above your bid price.

Answers

- A. True
- B. False

A

The key differences between Spot Instances and On-Demand Instances are that Spot Instances can only be launched immediately if there is available capacity, the hourly price for Spot Instances varies based on demand, and Amazon EC2 can interrupt an individual Spot Instance as the price for, or availability of, Spot Instances changes. One strategy is to launch a core group of On-Demand Instances to maintain a minimum level of guaranteed compute resources for your applications, and supplement them with Spot Instances when the opportunity arises.

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

Question

Amazon EC2 does not terminate Spot Instances with a specified duration (also known as Spot blocks) when the Spot price changes.

Answers

- A. True
- B. False

A

Amazon EC2 does not terminate Spot Instances with a specified duration (also known as Spot blocks) when the Spot price changes. This makes them ideal for jobs that take a finite time to complete, such as batch processing, encoding and rendering, modeling and analysis, and continuous integration.

You can specify a duration of 1, 2, 3, 4, 5, or 6 hours. The price that you pay depends on the specified duration. To view the current prices for a 1 hour duration or a 6 hour duration, see Spot Instance Prices. You can use these prices to estimate the cost of the 2, 3, 4, and 5 hour durations. When a request with a duration is fulfilled, the price for your Spot Instance is fixed, and this price remains in effect until the instance terminates. You are billed at this price for each hour or partial hour that the instance is running. A partial instance hour is billed to the nearest second.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/spot-requests.html#fixed-duration-spot-instances>

Question

Spot instances are also available to run for a predefined duration – in hourly increments up to six hours in length – at a discount of up to 30-50% compared to On-Demand pricing.

Answers

- C. True
- D. False

A

See: <https://aws.amazon.com/ec2/spot/pricing/>

Question

You can take advantage of Spot Instance termination notices, which provide a two-minute warning before the Spot service must terminate your Spot Instance.

Answers

- A. True
- B. False

A

The best way to protect against Spot Instance interruption is to architect your application to be fault tolerant. In addition, you can take advantage of Spot Instance interruption notices, which provide a two-minute warning before Amazon EC2 must interrupt your Spot Instance. We recommend that you check for these warnings every 5 seconds.

This warning is made available as a CloudWatch event and as item in the instance metadata on the Spot Instance.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/spot-interruptions.html#spot-instancetermination-notices>

Question

You can use the Amazon Web Services (AWS) VM Import/Export tools to import virtual machine (VM) images from your local environment into AWS and convert them into ready-to-use Amazon EC2 instances

Answers

- A. True
- B. False

A

VM Import/Export enables customers to import Virtual Machine (VM) images in order to create Amazon EC2 instances. Customers can also export previously imported EC2 instances to create VMs. Customers can use VM Import/Export to leverage their previous investments in building VMs by migrating their VMs to Amazon EC2.

See: <https://www.amazonaws.cn/en/ec2/faqs/#vm-import-export>

Question

You cannot change the virtualization type of an instance or an AMI; an instance can only be resized to an instance type that supports its method of virtualization, and AMIs can only be launched on instance types that support their method of virtualization.

Answers

- A. True
- B. False

A

Virtualization type: Linux AMIs use one of two types of virtualization: paravirtual (PV) or hardware virtual machine (HVM). You can't resize an instance that was launched from a PV AMI to an instance type that is HVM only.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-resize.html#resize-limitations>

This "learning by quizzes" exercise will be based upon the course videos and the following reference material:

Section: Instance Lifecycle

Reference: EC2 Linux User Guide

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-lifecycle.html>

Question

Rebooting an instance is not equivalent to rebooting an operating system; the instance does not remain on the same host computer nor maintains its public DNS name, private IP address, and any data on its instance store volumes.

Answers

- A. True
- B. False

B

An instance reboot is equivalent to an operating system reboot. In most cases, it takes only a few minutes to reboot your instance. When you reboot an instance, it remains on the same physical host, so your instance keeps its public DNS name (IPv4), private IPv4 address, IPv6 address (if applicable), and any data on its instance store volumes.

Rebooting an instance doesn't start a new instance billing period (with a minimum one-minute charge), unlike stopping and restarting your instance.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-reboot.html>

Question

When an EBS backed instance is stopped then restarted the instance runs on a new computer.

Answers

- A. True
- B. False

A

There is a difference between restarting an instance i.e. stopping then starting the instance, and rebooting an instance. You can only stop and restart an EBS backed instance. When an EBS instance is restarted it will be migrated to a new underlying host computer. When an instance is rebooted it will remain on the same underlying host computer. An instance reboot is equivalent to an operating system reboot.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-lifecycle.html#lifecycle-differences>

Question

When an EBS backed instance is stopped then restarted in EC2 Classic

Answers

- A. The EIP is disassociated from the instance
- B. The EIP remains associated with the instance

A See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-lifecycle.html#lifecycle-differences>

Question

When an EBS backed instance is stopped then restarted in EC2 VPC

Answers

- A. The EIP is disassociated from the instance
- B. The EIP remains associated with the instance

B

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-lifecycle.html#lifecycle-differences>

Question

When an EBS backed instance is terminated

Answers

- A. The EIP is disassociated from the instance
- B. The EIP remains associated with the instance

A

The instance is terminated so there is no instance to associate the EIP to anymore.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-lifecycle.html#lifecycle-differences>

Question

The Launch More Like This wizard option clones your selected instance in the same way as an AMI.

Answers

- A. True
- B. False

B

Question

The Launch More Like This wizard option clones your selected instance in the same way as an AMI.

Answers

- A. True
- B. False

B

The Launch More Like This wizard option does not clone your selected instance; it only replicates some configuration details. To create a copy of your instance, first create an AMI from it, then launch more instances from the AMI.

Alternatively, create a launch template to store the launch parameters for your instances.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/launch-more-like-this.html>

Question

The following configuration details are copied from the selected instance into the launch wizard:

- AMI ID, Instance type, Tags associated with the instance & Kernel ID and RAM disk ID (if applicable)
- Availability Zone, or the VPC and subnet in which the selected instance is located
- IAM role associated with the instance, (if applicable) & security group associated with the instance
- Tenancy setting, if launching into a VPC (shared or dedicated) • Amazon EBS-optimization setting (true or false)
- Public IP address.

Answers

- A. True
- B. False

A

The question asks about configuration details. If the original instance is configured to have a public ip address then the target instance will also have a public ip address.

See: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/launch-more-like-this.html>

Question

The following configuration details are copied from your selected instance with the Launch More Like This wizard option:

- Storage
- Termination protection
- Shutdown behavior
- User data

Answers

- A. True
- B. False

B

Storage: The default storage configuration is determined by the AMI and the instance type.

Question

You can modify the following attributes of an instance only when it is stopped:

- A. Instance type
- B. User data
- C. Kernel
- D. RAM disk

Answers

- A. True
- B. False

A

If you try to modify these attributes while the instance is running, Amazon EC2 returns the `IncorrectInstanceState` error.

See:

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Stop_Start.html#Using_ChangingAttributesWhileInstanceStopped

Question

By default, any Amazon EBS volumes that you attach as you launch the instance are automatically deleted when the instance terminates. However, by default, any volumes that you attach to a running instance persist even after the instance terminates. This behavior is controlled by the volume's DeleteOnShutdown attribute, which you can modify.

Answers

- A. True
- B. False

B

By default, Amazon EBS root device volumes are automatically deleted when the instance terminates. However, by default, any additional EBS volumes that you attach at launch, or any EBS volumes that you attach to an existing instance persist even after the instance terminates. This behavior is controlled by the volume's DeleteOnTermination attribute, which you can modify. For more information, see Preserving Amazon EBS Volumes on Instance Termination.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/terminating-instances.html#termination-overview>

Question

The `DisableConsoleTermination` attribute controls whether the instance can be terminated using the console, CLI, or API. By default, termination protection is disabled.

Answers

- A. True
- B. False

B

`DisableApiTermination` not `DisableConsoleTermination`. Termination protection can also be enabled through the EC2 console.

You can prevent an instance from being terminated accidentally by someone using the AWS Management Console, the CLI, and the API. This feature is available for both Amazon EC2 instance store-backed and Amazon EBS-backed instances. Each instance has a `DisableApiTermination` attribute with the default value of false (the instance can be terminated through Amazon EC2). You can modify this instance attribute while the instance is running or stopped (in the case of Amazon EBS-backed instances).

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/terminating-instances.html#termination-overview>

Question

By default AWS preserves any volumes that you attach to your instance at launch when you terminate an instance. You can change this behavior using the DeleteOnTermination attribute for the volume in the console.

Answers

- A. True
- B. False

B

Delete on termination / termination protection can be enabled or disabled for root volumes in the console. The delete on termination flag for non-root EBS volumes can only be changed through the EC2 CLI using the `aws ec2 modify-instance-attribute` command.

See:

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/terminatinginstances.html#Using_ChangingDisableAPI_Termination

Question

By default AWS deletes the volumes that you attach to your instance at launch, including the root device volume, when you terminate the instance. You can change this behavior using the `DeleteOnTermination` attribute for the volume.

Answers

- A. True
- B. False

B

By default AWS deletes only the root volume. Additional instances attached are not deleted.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/terminating-instances.html#termination-overview>

Question

System status checks can fail through:

- Loss of network connectivity
- Loss of system power
- Software issues on the physical host
- Hardware issues on the physical host

Answers

- A. True
- B. False

A

System Status Checks

Monitor the AWS systems on which your instance runs. These checks detect underlying problems with your instance that require AWS involvement to repair. When a system status check fails, you can choose to wait for AWS to fix the issue, or you can resolve it yourself. For instances backed by Amazon EBS, you can stop and start the instance yourself, which in most cases migrates it to a new host computer. For instances backed by instance store, you can terminate and replace the instance.

The following are examples of problems that can cause system status checks to fail:

- Loss of network connectivity
-
- Loss of system power
-
- Software issues on the physical host
-
- Hardware issues on the physical host that impact network reachability

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/monitoring-system-instance-statuscheck.html#types-of-instance-status-checks>

This "learning by quizzes" exercise will be based upon the course videos and the following reference material:

Section: Network and Security

Reference: EC2 Linux User Guide

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EC2_Network_and_Security.html

Question

Using _____ enables applications to participate in a low-latency, 10 Gbps network. _____ are recommended for applications that benefit from low network latency, high network throughput, or both.

Answers

- A. compute clusters
- B. placement groups
- C. subnets
- D. None of the above

B

Placement groups are recommended for applications that benefit from low network latency, high network throughput, or both. To provide the lowest latency, and the highest packet-per-second network performance for your placement group, choose an instance type that supports enhanced networking.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html#placement-groups-cluster>

Question

Question

A cluster placement group can span multiple Availability Zones but not multiple regions.

Answers

- A. True
- B. False

B

A cluster placement group can't span multiple Availability Zones.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html#concepts-placementgroups>

Question

You can merge placement groups

Answers

- A. True
- B. False

B

Before you use placement groups, be aware of the following rules:

- The name you specify for a placement group must be unique within your AWS account for the region.
- You can't merge placement groups.
- An instance can be launched in one placement group at a time; it cannot span multiple placement groups.
- Reserved Instances provide a capacity reservation for EC2 instances in a specific Availability Zone. The capacity reservation can be used by instances in a placement group. However, it is not possible to explicitly reserve capacity for a placement group.
- Instances with a tenancy of host cannot be launched in placement groups.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html#concepts-placementgroups>

This "learning by quizzes" exercise will be based upon the course videos and the following reference material:

Section: Storage

Reference: EC2 Linux User Guide

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Storage.html>

Question

Amazon EBS is not suitable for database-style applications that frequently encounter many random reads and writes across the data set.

Answers

- A. True
- B. False

B

Amazon EBS is recommended when data must be quickly accessible and requires long-term persistence. EBS volumes are particularly well-suited for use as the primary storage for file systems, databases, or for any applications that require fine granular updates and access to raw, unformatted, block-level storage. Amazon EBS is well suited to both database-style applications that rely on random reads and writes, and to throughputintensive applications that perform long, continuous reads and writes.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AmazonEBS.html>

Question

When you create an encrypted EBS volume and attach it to a supported instance type, data stored at rest on the volume, disk I/O, and snapshots created from the volume are all encrypted. The encryption occurs on the servers that host EC2 instances, providing encryption of data-in-transit from EC2 instances to EBS storage.

Answers

- A. True
- B. False

A

Amazon EBS encryption offers a simple encryption solution for your EBS volumes without the need to build, maintain, and secure your own key management infrastructure. When you create an encrypted EBS volume and attach it to a supported instance type, the following types of data are encrypted:

- Data at rest inside the volume
- All data moving between the volume and the instance
- All snapshots created from the volume
- All volumes created from those snapshots

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html>

Question

Creating your own Customer Master Key (CMK) gives you more flexibility, including the ability to create, rotate, disable, define access controls, and audit the encryption keys used to protect your data

Answers

- A. True
- B. False

A

Amazon EBS encryption uses AWS Key Management Service (AWS KMS) master keys when creating encrypted volumes and any snapshots created from your encrypted volumes. The first time you create an encrypted EBS volume in a region, a default master key is created for you automatically. This key is used for Amazon EBS encryption unless you select a Customer Master Key (CMK) that you created separately using the AWS Key Management Service. Creating your own CMK gives you more flexibility, including the ability to create, rotate, disable, define access controls, and audit the encryption keys used to protect your data.

See: <https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/AmazonEBS.html>

Question

Features of EBS:

- You can create Amazon EBS volumes from 1 GiB to 1 TiB in size.
- With General Purpose (SSD) volumes, your volume receives a base performance of 3 IOPS/GiB, with the ability to burst to 3,000 IOPS for extended periods of time. With Provisioned IOPS (SSD) volumes, you can provision a specific level of I/O performance, up to 4000 IOPS per volume.
- Amazon EBS volumes behave like raw, unformatted block devices. You can use encrypted Amazon EBS volumes to meet a wide range of data-at-rest encryption requirements for regulated/audited data and applications.
- You can create point-in-time snapshots of Amazon EBS volumes, which are persisted to Amazon S3. You can purchase from AWS the physical device containing your data.
- Amazon EBS volumes are created in a specific Availability Zone, and can then be attached to any instances in that same Availability Zone. A large repository of public data set snapshots can be restored to Amazon EBS volumes and seamlessly integrated into AWS cloud-based applications.
- Performance metrics, such as bandwidth, throughput, latency, and average queue length, are available through the AWS Management Console.

Answers

- A. True
- B. False

B

You can't request to AWS to purchase the physical device containing your data.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSVolumeTypes.html>

Question

When you create an Amazon EBS volume in an Availability Zone, it is automatically replicated within that zone to prevent data loss due to failure of any single hardware component.

Answers

- A. True
- B. False

A

When you create an EBS volume in an Availability Zone, it is automatically replicated within that zone to prevent data loss due to failure of any single hardware component. After you create a volume, you can attach it to any EC2 instance in the same Availability Zone. After you attach a volume, it appears as a native block device similar to a hard drive or other physical device. At that point, the instance can interact with the volume just as it would with a local drive. The instance can format the EBS volume with a file system, such as ext3, and then install applications.

An EBS volume can be attached to only one instance at a time within the same Availability Zone. However, multiple volumes can be attached to a single instance. If you attach multiple volumes to a device that you have named, you can stripe data across the volumes for increased I/O and throughput performance.

You can get monitoring data for your EBS volumes, including root device volumes for EBS-backed instances, at no additional charge.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSVolumes.html#EBSFeatures>

Question

You can get monitoring data for your Amazon EBS volumes at additional charge.

Answers

- A. True
- B. False

B

CloudWatch metrics are statistical data that you can use to view, analyze, and set alarms on the operational behavior of your volumes.

The following table describes the types of monitoring data available for your Amazon EBS volumes.

Basic (free)

Data is available automatically in 5-minute periods at no charge. This includes data for the root device volumes for EBS-backed instances.

Detailed

Provisioned IOPS SSD (io1) volumes automatically send one-minute metrics to CloudWatch.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/monitoring-volume-status.html>

Question

To create a snapshot for an Amazon EBS volume that serves as a root device, you should stop the instance before taking the snapshot.

Answers

- A. True
- B. False

A

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-creating-snapshot.html>

Question

If you have a volume with 100 GiB of data, but only 5 GiB of data have changed since your last snapshot, how much data is written to Amazon S3?

Answers

- A. 100GiB
- B. 5GiB
- C. 95GiB
- D. None of the above

B

Snapshots are incremental backups, meaning that only the blocks on the volume that have changed after your most recent snapshot are saved. If you have a volume with 100 GiB of data, but only 5 GiB of data have changed since your last snapshot, only the 5 GiB of modified data is written to Amazon S3. Even though snapshots are saved incrementally, the snapshot deletion process is designed so that you need to retain only the most recent snapshot in order to restore the volume.

See: <https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/EBSVolumes.html#EBSFeatures>

Question

A Provisioned IOPS volume with 1,500 IOPS must be at least.

Answers

- A. 100 GiB
- B. 30 GiB
- C. 150 GiB
- D. None of the above

B

The maximum ratio of provisioned IOPS to requested volume size (in GiB) is 50:1. See:
<http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSVolumeTypes.html>

Question

_____ volumes deliver approximately 100 IOPS on average, with burst capability of up to hundreds of IOPS.

Answers

- A. General Purpose (SSD)
- B. Provisioned IOPS (SSD)
- C. Magnetic
- D. None of the above

C

See:

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSVolumeTypes.html#EBSVolumeTypes_standard

Question

After a volume is created from a snapshot, there is no need to wait for all of the data to transfer from Amazon S3 to your Amazon EBS volume before your attached instance can start accessing the volume and all its data.

Answers

- A. True
- B. False

A

See: See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-restoring-volume.html>

Question

When a block of data on an Amazon EBS volume created from a snapshot is written to for the first time, you might experience longer than normal latency. To avoid the possibility of increased write latency on a production workload, you should first write to all blocks on the volume to ensure optimal performance; this practice is called _____ the volume (formerly known as pre-warming)).

Answers

- A. initiating
- B. initializing
- C. formatting
- D. block writing
- E. None of the above

B

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-initialize.html>

Question

If an Amazon EBS volume is the root device of an instance, you must stop the instance before you can detach the volume

Answers

- A. True
- B. False

A

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-detaching-volume.html>

Question

Failure to unmount a running volume before detaching, results in the volume being stuck in the busy state while it is trying to detach, which could possibly damage the file system or the data it contains.

Answers

- A. True
- B. False

A

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-detaching-volume.html>

Question

After you detach a volume, you are no longer charged for volume storage.

Answers

- A. True
- B. False

B

After you detach a volume, you are still charged for volume storage as long as the storage amount exceeds the limit of the AWS Free Tier. You must delete a volume to avoid incurring further charges.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-detaching-volume.html>

Question

By default, only you can launch volumes from snapshots that you own. However, you can choose to share your unencrypted snapshots with specific AWS accounts or make them public.

Answers

- A. True
- B. False

A

By modifying the permissions of the snapshot, you can share your unencrypted snapshots with your co-workers or others in the AWS community. Users that you have authorized can use your unencrypted shared snapshots as the basis for creating their own EBS volumes. If you choose, you can also make your unencrypted snapshots available publicly to all AWS users.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-modifying-snapshot-permissions.html>

Question

When a snapshot is created from a volume with an AWS Marketplace product code, the product code is not propagated to the snapshot

Answers

- A. True
- B. False

B

When a snapshot is created from a volume with an AWS Marketplace product code, the product code is propagated to the snapshot.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-creating-snapshot.html>

Question

After you've stored a snapshot in Amazon S3, you can copy it from one AWS region to another, or within the same region, using the Amazon EC2 console, Amazon EC2 CLI, or the API.

Answers

- A. True
- B. False

A

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-copy-snapshot.html>

Question

Snapshots with AWS Marketplace product codes can be made public.

Answers

- A. True
- B. False

B

This would encourage piracy. When a snapshot is created from a volume with an AWS Marketplace product code, the product code is propagated to the snapshot.

Question

Amazon EBS encryption feature is supported only on General Purpose and Provisioned IOPS volume types.

Answers

- A. True
- B. False

B

Encryption is supported by all EBS volume types (General Purpose SSD [gp2], Provisioned IOPS SSD [io1], Throughput Optimized HDD [st1], Cold HDD [sc1], and Magnetic [standard]).

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html>

Question

With Amazon EBS encryption, your data and associated keys are encrypted using the industry-standard AES-256 algorithm.

Answers

- A. True
- B. False

A

EBS encrypts your volume with a data key using the industry-standard AES-256 algorithm. Your data key is stored on-disk with your encrypted data, but not before EBS encrypts it with your CMK—it never appears there in plaintext. The same data key is shared by snapshots of the volume and any subsequent volumes created from those snapshots.

See: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html#EBSEncryption_key_mgmt

Question

Each AWS account has a unique master key that is stored completely separate from your data, on a system that is surrounded with strong physical and logical security controls.

Answers

- A. True
- B. False

A

See: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html>

Question

There is no way to directly create an unencrypted volume from an encrypted snapshot or vice versa.

Answers

- A. True
- B. False

A

There is no direct way to encrypt an existing unencrypted volume, or to remove encryption from an encrypted volume. However, you can migrate data between encrypted and unencrypted volumes. You can also apply a new encryption status while copying a snapshot:

- While copying an unencrypted snapshot of an unencrypted volume, you can encrypt the copy. Volumes restored from this encrypted copy are also encrypted.
- While copying an encrypted snapshot of an encrypted volume, you can associate the copy with a different CMK. Volumes restored from the encrypted copy are only accessible using the newly applied CMK.
- You cannot remove encryption from an encrypted snapshot.

See:

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSEncryption.html#EBSEncryption_considerations

Question

Any performance-sensitive workloads, such as production databases or business applications, should use Magnetic volumes that are attached to an EBS-optimized instance or an instance with 10 Gigabit network connectivity.

Answers

- A. True
- B. False

B

Magnetic volumes are too slow for performance-sensitive workloads. Magnetic volumes are backed by magnetic drives and are suited for workloads where data is accessed infrequently, and scenarios where low-cost storage for small volume sizes is important. These volumes deliver approximately 100 IOPS on average, with burst capability of up to hundreds of IOPS, and they can range in size from 1 GiB to 1 TiB.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSVolumeTypes.html>

Question

AWS manages EBS so that Amazon EBS to Amazon EC2 connection will not become a performance bottleneck.

Answers

- A. True
- B. False

B

Several factors, including I/O characteristics and the configuration of your instances and volumes, can affect the performance of Amazon EBS. Customers who follow the guidance on our Amazon EBS and Amazon EC2 product detail pages typically achieve good performance out of the box. However, there are some cases where you may need to do some tuning in order to achieve peak performance on the platform.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSPerformance.html>

Question

Amazon EBS measures each I/O operation per second (that is 64 KB or smaller) as one IOPS. I/O operations that are larger than 64 KB are counted in 64 KB capacity units.

Answers

- A. True
- B. False

B

IOPS are input/output operations per second. Amazon EBS measures each I/O operation per second (that is 256 KB or smaller) as one IOPS. I/O operations that are larger than 256 KB are counted in 256 KB capacity units.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-io-characteristics.html>

Question

Volume Queue Length, Avg Read Latency and Avg Write Latency are CloudWatch metrics and graphs that measure EBS workload demand.

Answers

- A. True
- B. False

A

See: <https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/ebs-io-characteristics.html>

Question

What does the following Linux command do? `sudo dd if=/dev/xvdf of=/dev/null bs=1M`

Answers

- A. Unmount a new volume
- B. Unmount a volume created from a restored volume
- C. Initialize (Pre-warm) a new volume
- D. Initialize (Pre-warm) a volume restored from a snapshot
- E. Initialize (Pre-warm) an entire restored volume
- F. Format a volume

D

New EBS volumes receive their maximum performance the moment that they are available and do not require initialization (formerly known as pre-warming). However, storage blocks on volumes that were restored from snapshots must be initialized (pulled down from Amazon S3 and written to the volume) before you can access the block. This preliminary action takes time and can cause a significant increase in the latency of an I/O operation the first time each block is accessed. For most applications, amortizing this cost over the lifetime of the volume is acceptable. Performance is restored after the data is accessed once.

You can avoid this performance hit in a production environment by reading from all of the blocks on your volume before you use it; this process is called initialization. For a new volume created from a snapshot, you should read all the blocks that have data before using the volume.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-initialize.html>

Question

You must unmount a volume before initializing (pre-warming) it

Answers

- A. True
- B. False

A

You attach the device to the instance but do not mount it until after initialization process.

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-initialize.html#ebs-initialize-linux>

Question

Instances launched from an instance store-backed AMI have a mounted instance store volume for the virtual machine's root device volume (the size of this volume varies by AMI, but the maximum size is 100 GiB) in addition to the instance store volumes included with the instance type.

Answers

- A. True
- B. False

B

If you create an AMI from an instance, the data on its instance store volumes isn't preserved and isn't present on the instance store volumes of the instances that you launch from the AMI.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html#instance-store-lifetime>

Question

Data on instance store volumes is lost with:

Answers

- A. Failure of an underlying drive
- B. Stopping an Amazon EBS-backed instance
- C. Terminating an instance
- D. All of the above

D

The data in an instance store persists only during the lifetime of its associated instance. If an instance reboots (intentionally or unintentionally), data in the instance store persists. However, data in the instance store is lost under the following circumstances:

- A. The underlying disk drive fails
- B. The instance stops
- C. The instance terminates

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html#instance-store-lifetime>

Question

If your instance type supports one instance store volume, and your AMI has mappings for two instance store volumes, then the instance launches with two instance store volumes.

Answers

- A. True
- B. False

B

The instance type determines the size of the instance store available and the type of hardware used for the instance store volumes.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html#instance-store-volumes>

Question

You can stop an instance without instance store volumes (such as the t2.micro), change the instance to a type that supports instance store volumes, and then restart the instance with instance store volumes.

Answers

- A. True
- B. False

B

You can specify instance store volumes for an instance only when you launch it. You can't detach an instance store volume from one instance and attach it to a different instance.

See: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html#instance-store-lifetime>

This "learning by quizzes" exercise will be based upon the course videos and the following reference material:

Section: Resources and Tags

Reference: EC2 Linux User Guide

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EC2_Resources.html

Question

You can work with tags using the AWS Management Console, the Amazon EC2 command line interface (CLI), and the Amazon EC2 API.

Answers

- A. True
- B. False

A

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

Question

You can terminate, stop, or delete a resource based solely on its tags.

Answers

- A. True
- B. False

B

You can't terminate, stop, or delete a resource based solely on its tags; you must specify the resource identifier.

For example, to delete snapshots that you tagged with a tag key called DeleteMe, you must use the DeleteSnapshots action with the resource identifiers of the snapshots, such as snap-1234567890abcdef0.

See: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Using_Tags.html#tag-restrictions

Question

You can tag public or shared resources, but the tags you assign are available only to your AWS account and not to the other accounts sharing the resource.

Answers

- A. True
- B. False

A

See: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Using_Tags.html#tag-restrictions

Question

You can tag an Instance Store Volume.

Answers

- A. True
- B. False

B

See table (Tagging Support for Amazon EC2 Resources) at

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Using_Tags.html#tag-resources

Question

You can use tags to organize your AWS bill to reflect your own cost structure.

Answers

- A. True
- B. False

A

You can use tags to organize your AWS bill to reflect your own cost structure. To do this, sign up to get your AWS account bill with tag key values included.

See: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Using_Tags.html#tag-resources-for-billing

This "learning by quizzes" exercise will be based upon the course videos and the following reference material:

Section: Configuring Your Windows Instance

Reference: EC2 Windows User Guide

<https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/ec2-windows-instances.html>

Question

_____ is a set of Windows PowerShell scripts on Windows Server 2016 AMIs. _____ performs the following tasks by default during the initial instance boot:

- Sets up new wallpaper that renders information about the instance. (Doesn't apply to Nano Server.)
- Sets the computer name.
- Sends instance information to the Amazon EC2 console.
- Sends the RDP certificate thumbprint to the EC2 console. (Doesn't apply to Nano Server.)
- Sets a random password for the administrator account.
- Adds DNS suffixes.
- Dynamically extends the operating system partition to include any unpartitioned space.
- Executes user data (if specified).

Answers

- A. RDP
- B. EC2Config
- C. EC2Launch
- D. EC2WinConfig
- E. Bash

C

See: <https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/ec2launch.html>

Question

EC2Launch replaces _____ on Windows AMIs for Windows Server 2016.

Answers

- A. RDP
- B. EC2Config
- C. EC2WinConfig
- D. Bash

B

See: <https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/ec2config-service.html>

Question

If you've lost the password for the local Administrator account for your Windows instance, or if the password has expired, you can reset the password using the EC2Launch service.

Answers

- A. True
- B. False

A

See: <https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/ResettingAdminPassword.html>