review

review questions

Relational Database Service (RDS)
V1.00

Course title

BackSpace Academy
AWS Certified Cloud Practitioner

Contents

What Is Amazon Relational Database Service (Amazon RDS)?

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

Section: ***What Is Amazon Relational Database Service (Amazon RDS)?***

Reference: Amazon Relational Database Service (Amazon RDS) Developer Guide

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html

Question

RDS supports the following database products:

- MySQL
- PostgreSQL
- Oracle
- Microsoft SQL Server
- Aurora DB
- MariaDB

Answers

A. True
B. False

A
You can use the database products you are already familiar with: MySQL, MariaDB, PostgreSQL, Oracle, Microsoft SQL Server, and the new, MySQL-compatible Amazon Aurora DB engine.
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html#Welcome.Concepts

Question

Amazon RDS provides shell access to DB instances, and access to certain system procedures and tables that require advanced privileges.

Answers

A. True
B. False

B
To deliver a managed service experience, Amazon RDS doesn't provide shell access to DB instances, and it restricts access to certain system procedures and tables that require advanced privileges.
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html#Welcome.Concepts

Question

You can run your DB instance in several Availability Zones, an option called a Multi-AZ deployment. When you select this option, Amazon automatically provisions and maintains a synchronous standby replica of your DB instance in a different Availability Zone.

Answers

A. True
B. False

A
You can run your DB instance in several Availability Zones, an option called a Multi-AZ deployment. When you select this option, Amazon automatically provisions and maintains a secondary standby DB instance in a different Availability Zone. Your primary DB instance is synchronously replicated across Availability Zones to the secondary instance to provide data redundancy, failover support, eliminate I/O freezes, and minimize latency spikes during system backups.
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html#Welcome.Concepts.Regions

Question

In simple terms, a DB security group controls access to a DB instance that is not in a VPC, a VPC security group controls access to a DB instance inside a VPC, and an Amazon EC2 security group controls access to an EC2 instance and can be used with a DB instance.

Answers

A. True
B. False

A
Amazon RDS uses DB security groups, VPC security groups, and EC2 security groups. In simple terms, a DB security group controls access to a DB instance that is not in a VPC, a VPC security group controls access to a DB instance inside a VPC, and an Amazon EC2 security group controls access to an EC2 instance and can be used with a DB instance.
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html#Welcome.Concepts.SecurityGroups

Question

_____ ___contains engine configuration values that can be applied to one or more DB instances of the same instance type.

Answers

A. DB parameter group
B. DB option group
C. DB security group
D. None of the above

A
Each DB instance runs a DB engine. Amazon RDS currently supports the MySQL, MariaDB, PostgreSQL, Oracle, and Microsoft SQL Server DB engines. Each DB engine has its own supported features, and each version of a DB engine may include specific features. Additionally, each DB engine has a set of parameters in a DB parameter group that control the behavior of the databases that it manages.
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html#Welcome.Concepts.DBInstance

Question

You are billed with RDS according to the following criteria.

- Instance class & Storage
- Running time
- DB Policies
- I/O requests per month & Data transfer
- Backup storage

Answers

A. True
B. False

B
Instance class & StorageRunning timeI/O requests per month & Data transfer Backup storage.
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html#Welcome.Costs

Best Practices for Amazon RDS

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

Section: ***Best Practices for Amazon RDS***

Reference: Amazon Relational Database Service (Amazon RDS) Developer Guide

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_BestPractices.html

Question

The Amazon RDS Service Level Agreement requires that you follow these guidelines:

- Monitor your memory, CPU, and storage usage.
- Scale down your DB instance when you are approaching storage capacity limits.
- Enable Automatic Backups and Test failover for your DB instance.
- Do not create more than 10,000 tables using Provisioned IOPS or 1000 tables using standard storage on one MySQL DB instance.
- Ensure your database workload is less than the I/O than you have provisioned.
- If your client application is caching the DNS data of your DB instances, set a TTL of less than 30 seconds.

Answers

A. True
B. False

B
Monitor your memory, CPU, and storage usage.Enable Automatic Backups and Test failover for your DB instance.Do not create more than 10,000 tables using Provisioned IOPS or 1000 tables using standard storage on one MySQL DB instance.Ensure your database workload is less than the I/O than you have provisioned.If your client application is caching the DNS data of your DB instances, set a TTL of less than 30 seconds.
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_BestPractices.html#CHAP_BestPractices.DiskPerformance

Question

You should always allocate enough RAM so that your RDS working set resides almost completely in memory.

Answers

A. True
B. False

A
An Amazon RDS performance best practice is to allocate enough RAM so that your working set resides almost completely in memory. To tell if your working set is almost all in memory, check the ReadIOPS metric (using Amazon CloudWatch) while the DB instance is under load. The value of ReadIOPS should be small and stable. If scaling up the DB instance class—to a class with more RAM—results in a dramatic drop in ReadIOPS, your working set was not almost completely in memory. Continue to scale up until ReadIOPS no longer drops dramatically after a scaling operation, or ReadIOPS is reduced to a very small amount.
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_BestPractices.html#CHAP_BestPractices.Performance.RAM

Question

MyISAM is the recommended and supported storage engine for MySQL DB instances on Amazon RDS.

Answers

A. True
B. False

B
InnoDB is the recommended and supported storage engine for MySQL DB instances on Amazon RDS. InnoDB instances can also be migrated to Aurora, while MyISAM instances can't be migrated. However, MyISAM performs better than InnoDB if you require intense, full-text search capability.
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_BestPractices.html#CHAP_BestPractices.MySQLStorage

Question

MyISAM performs better than InnoDB if you require intense, full-text search capability.

Answers

A. True
B. False

A
InnoDB is the recommended and supported storage engine for MySQL DB instances on Amazon RDS. InnoDB instances can also be migrated to Aurora, while MyISAM instances can't be migrated. However, MyISAM performs better than InnoDB if you require intense, full-text search capability.
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_BestPractices.html#CHAP_BestPractices.MySQLStorage

Question

Always enable the following SQL Server modes: Simple recover mode, Offline mode and Read-only mode.

Answers

A. True
B. False

B
We recommend that you do not enable the following modes because they turn off transaction logging, which is required for Multi-AZ: Simple recover mode Offline mode Read-only mode.
https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_BestPractices.html#CHAP_BestPractices.SQLServer