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

cloudacademy.com/quiz/exam/3792035/results

#1

Amazon Keyspaces is compatible with _____.

✗
MongoDB

✗
MySQL

✗
Firebase

✓
Apache Cassandra

Explanation

Keyspaces is a serverless, fully-managed service designed to be highly scalable, highly available, and, importantly, compatible with Apache Cassandra, meaning you can use all the same tools and code as you do normally with your existing Apache Cassandra databases.

/course/database-fundamentals-aws-part-2-1063/amazon-keyspaces-for-apache-cassandra/
Covered in this lecture
Amazon Keyspaces (for Apache Cassandra)
Course:Database Fundamentals for AWS - Part 2 of 2

6m

#2

How many primary DB instances can perform write operations in a cluster at one time in Amazon DocumentDB?

✓

1

✕

2

✕

3

✕

4

Explanation

There will only ever be a single primary DB instance performing write operations in the cluster at any one time.

/course/database-fundamentals-aws-part-2-1063/amazon-documentdb-with-mongodb-compatibility/
Covered in this lecture
Amazon DocumentDB (With MongoDB Compatibility)
Course:Database Fundamentals for AWS - Part 2 of 2

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#3

Which type of Amazon DocumentDB endpoint allows connectivity to read replicas but not primary instances?

✕

Cluster

✓

Reader

✕

Writer

✕

Instance

Explanation

A Reader endpoint allows connectivity to any read replicas that you have configured within the region.

/course/database-fundamentals-aws-part-2-1063/amazon-documentdb-with-mongodb-compatibility/
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Amazon DocumentDB (With MongoDB Compatibility)
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#4

Which of the following tasks is not one of the five challenges that a good data lake will deal with well?

✓ normalization

✗ data movement

✗ generic analytics

✗ predictive analytics

Explanation

A good data lake will deal with these five challenges well: storage (the lake itself), data movement (how the data gets to the lake), data cataloging and discovery (finding the data and classifying it), generic analytics (making sense of that data), and predictive analytics (making educated guesses about the future based on the data).

/course/understanding-data-lakes-aws-1646/what-makes-up-a-good-data-lake/

#5

What is a node slice in Amazon Redshift?

✗ a cached copy of query results

a query performed on the data in your warehouse

a grouping of compute nodes

a partition of a compute node where the node's memory and disk spaces split

Explanation

A node slice is simply a partition of a compute node where the node's memory and disk spaces split.

/course/database-fundamentals-aws-part-2-1063/amazon-redshift/
Covered in this lecture
Amazon Redshift
Course:Database Fundamentals for AWS - Part 2 of 2

8m

#6

_____ allows you to set up your secure data lake by identifying existing data sources that you want to move into your data lake, and then crawling, cataloging, and preparing all that data for you to perform analytics on.

AWS Lake Formation

Amazon Athena

Amazon OpenSearch Service

AWS Glue

Explanation

We can use the AWS Lake Formation service, which promises to make setting up your secure data lake take only a matter of days, instead of weeks or months. It does this by identifying existing data sources within Amazon S3, relational databases, and NoSQL databases that you want to move into your data lake. It then will crawl and catalog and prepare all that data for you to perform analytics on.

/course/understanding-data-lakes-aws-1646/how-do-i-actually-build-a-data-lake/

#7

Amazon Redshift is a fast, fully-managed, _____-scale data warehouse.

✗ megabyte

✗ gigabyte

✗ terabyte

✓ petabyte

Explanation

Amazon Redshift is a fast, fully-managed, petabyte-scale data warehouse.

/course/database-fundamentals-aws-part-2-1063/amazon-redshift/

Covered in this lecture
Redshift
Course:AWS Big Data Specialty - Storage

37m

#8

The Amazon DocumentDB replicas are responsible for _____.

✓ only read operations

✗

only write operations

✗
both read and write operations

✗
neither read nor write operations

Explanation

The replicas will only process read requests to the cluster volume.

/course/database-fundamentals-aws-part-2-1063/amazon-documentdb-with-mongodb-compatibility/
Covered in this lecture
Amazon DocumentDB (With MongoDB Compatibility)
Course:Database Fundamentals for AWS - Part 2 of 2

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#9

Amazon QLDB is a _____ database.

✗
relational

✗
document

✓
ledger

✗
graph

Explanation

What actually is Amazon QLDB? It's yet another fully managed and serverless database service, which has been designed as a ledger database.

/course/database-fundamentals-aws-part-2-1063/amazon-quantum-ledger-database-qldb/
Covered in this lecture
Amazon Quantum Ledger Database (QLDB)
Course:Database Fundamentals for AWS - Part 2 of 2

8m

#10

How often does Amazon DocumentDB create snapshots of your storage volume?

✗ every 30 minutes

✗ hourly

✓ daily

✗ monthly

Explanation

The automated backups themselves are performed daily. The backup retention period determines how long DocumentDB will keep and maintain your backups and can be set anywhere between 0 and 35 days.

/course/database-fundamentals-aws-part-2-1063/amazon-documentdb-with-mongodb-compatibility/
Covered in this lecture
Amazon DocumentDB (With MongoDB Compatibility)
Course:Database Fundamentals for AWS - Part 2 of 2

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#11

Amazon Redshift operates as a _____ database management system.

✗
NoSQL

✓
relational

✗
object

✗
graph

Explanation

Redshift operates as a relational database management system, and therefore is compatible with other RDBMS applications.

/course/database-fundamentals-aws-part-2-1063/amazon-redshift/
Covered in this lecture
DEMO: Creating an Amazon Redshift Cluster
Course:Database Fundamentals for AWS - Part 2 of 2

6m

#12

With Amazon QLDB, you can rest assured that nothing has changed or can be changed through the use of a _____.

✓
database journal

✗
server

✗
node slice

✗
ledger distributed across multiple hosts

Explanation

This means you can rest assured that nothing has changed or can be changed through the use of a database journal, which is configured as append-only.

/course/database-fundamentals-aws-part-2-1063/amazon-quantum-ledger-database-qldb/
Covered in this lecture
Amazon Quantum Ledger Database (QLDB)
Course:Database Fundamentals for AWS - Part 2 of 2

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#13

Which of the following statements about data lakes and data warehouses is true?

A data warehouse is a formless blob of information.

A data warehouse is a specialized tool that allows you to perform analysis on a portion of data from a data lake.

Generally, a data lake is a subset of the data from a data warehouse with a specialized purpose.

A data lake is an optimized database dealing with normalized, transformed, and cleaned-up versions of the data from a data warehouse.

Explanation

A data lake is a formless blob of information. It is a pool of knowledge where we try to capture any relevant data from our business so that we can perform analytics on it. A data warehouse is a specialized tool that allows you to perform analysis on a portion of that data, so you can make meaningful decisions from it. Generally, it is a subset of the data from the data lake with a specialized purpose. Your data warehouse Is an optimized database that is dealing with normalized, transformed, and cleaned-up versions of the data from the data lake.

/course/understanding-data-lakes-aws-1646/what-is-the-difference-between-a-data-lake-and-a-data-warehouse/
#14

When using Amazon Keyspaces, how can you run queries using CQL?

✗
through the CQL editor in the Amazon Keyspaces dashboard within the AWS management console

✗
on a CQLSH client

✗
programmatically using an Apache 2 licensed Cassandra client driver

✓
all of these

Explanation

There are a number of ways to run queries using CQL. Firstly, from within the Amazon Keyspaces dashboard within the AWS management console, you can use the CQL editor, which can return as many as a thousand records per query. If you are querying more than a thousand records, then you will need to run multiple queries together. You can run them on a CQLSH client, or you can run them programmatically using an Apache 2 licensed Cassandra client driver.

/course/database-fundamentals-aws-part-2-1063/amazon-keyspaces-for-apache-cassandra/
Covered in this lecture
Amazon Keyspaces (for Apache Cassandra)
Course:Database Fundamentals for AWS - Part 2 of 2

6m
#15

The AWS Lake Formation service's functionally is managed by using _____.

✗

logs

✗
partitions

✗
schemas

✓
blueprints

Explanation

All of Lake Formation's functionally is managed by using "blueprints" where you simply: point to the source data, point where you want to load that data in the data lake, and specify how often you want to load that data.

/course/understanding-data-lakes-aws-1646/how-do-i-actually-build-a-data-lake/

#16

Which data lake challenge deals with how the data gets to the lake?

✗
data cataloging and discovery

✗
generic analytics

✗
storage

✓
data movement

Explanation

A good data lake will deal with these five challenges well: storage (the lake itself), data movement (how the data gets to the lake), data cataloging and discovery (finding the data and classifying it), generic analytics (making sense of that data), and predictive analytics (making educated guesses about the future based on the data).

/course/understanding-data-lakes-aws-1646/what-makes-up-a-good-data-lake/

#17

Which of the following statements about AWS Lake Formation service is false?

✓

When you use the Lake Formation service, you have to pay a fee for it, plus you have to pay for all the services it uses.

✗

It will take care of user security by creating self-service access to data through your choice of analytics services.

✗

It ties data access with access control policies with each individual service instead of within the data catalog.

✗

It can pull data all at once, or it can pull it incrementally.

Explanation

We can use the AWS Lake formation service, which promises to make setting up your secure data lake take only a matter of days, instead of weeks or months. It does this by identifying existing data sources within Amazon S3, relational databases, and NoSQL databases that you want to move into your data lake. All this data can be grabbed all at once, or it can be taken incrementally. AWS Lake Formation will take care of user security by creating self-service access to that data through your choice of analytics services. It does this by setting up users' access within Lake Formation, by tying data access with access control policies within the data catalog instead of with each individual service. There is no additional pricing for using the Lake Formation service, but you do have to pay for all the services it uses, though.

🔗/course/understanding-data-lakes-aws-1646/how-do-i-actually-build-a-data-lake/

#18

Which of the following is automatically discovered by an AWS Lake Formation service blueprint?

✓

the source's table schema

✗

the location of the source data

✗
where to load the data in the data lake

✗
how often to load the data in the data lake

Explanation

All of the functionally of Lake Formation is managed by using "blueprints" where you simply: Point to the source data Point where you want to load that data in the data lake Specify how often you want to load that data And the blueprint: Discover the sources table schema Automatically converts to a new target format Partitions the data based on partitioning schema Keeps track of the data that was already processed Allows you to customize all the above actions

/course/understanding-data-lakes-aws-1646/how-do-i-actually-build-a-data-lake/
#19

In Amazon DocumentDB, a cluster is composed of _____.

✗
a single DB instance

✗
multiple DB instances

✓
a single or multiple DB instances

✗
exactly two read replicas

Explanation

The database itself is comprised of a core component--a cluster--and this cluster is composed of a single or multiple DB instances, up to 16 in total, which can span across different availability zones within a single region.

/course/database-fundamentals-aws-part-2-1063/amazon-documentdb-with-mongodb-compatibility/
Covered in this lecture
Amazon DocumentDB (With MongoDB Compatibility)

Course:Database Fundamentals for AWS - Part 2 of 2

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#20

In relation to Amazon QLDB, what is a database journal?

✓ the immutable transaction log that records all entries in a sequenced manner over time

✗ the list of all users that are authorized to access the database

✗ the list of all users that have accessed the database

✗ the settings of your ledger, such as ID, journal size, index storage size, ARN, and region

Explanation

This means you can rest assured that nothing has changed or can be changed through the use of a database journal, which is configured as append-only--essentially, the immutable transaction log that records all entries in a sequenced manner over time.

/course/database-fundamentals-aws-part-2-1063/amazon-quantum-ledger-database-qldb/

Covered in this lecture

Amazon Quantum Ledger Database (QLDB)

Course:Database Fundamentals for AWS - Part 2 of 2

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