Estudante: Clístenes Grizafis Bento

Professor: João Eugênio Marynowski

Atividade 8 – Quiz

- Enviar um arquivo pdf com as suas respostas para o quiz:

  Big Data Technologies
  - http://tinyurl.com/jqmuptk
  - Ou http://searchdatamanagement.techtarget.com/quiz/Quiz-How-do-relational-databases-and-NoSQL-technologies-compare

* Imprimir salvando como pdf.

✓ **Question 1 of 7**

True or false? Relational databases are being phased out as more and more companies make the switch to NoSQL technologies.

A. True

B. False ✓

More about the answer:

Of course, this is false. Though NoSQL technologies offer new capabilities and solve certain problems better than traditional databases, users and consultants agree that relational databases continue to fill crucial data needs and are likely to retain their leading role in transaction processing and business intelligence applications for the foreseeable future.

✓ **Question 2 of 7**

Which of the following statements is true of NoSQL databases?

A. They don't support any Structured Query Language (SQL) functions.

B. They are useful for managing large sets of distributed data. ✓

More about the answer:

NoSQL databases were primarily designed with management of large sets of data in mind. Many of them do support some degree of SQL functionality; in fact, the term NoSQL is often used to mean "not only SQL." Traditional relational databases remain the most prevalent choice in databases and many companies are finding ways to use both types of databases to address different data processing needs.

C. They are the most commonly used databases today.

D. They cannot be used in conjunction with relational databases.

✓ **Question 3 of 7**

In terms of data security, NoSQL databases don't offer the same level of security as RDBMSs due to:

A. The lack of integrated features for data confidentiality, integrity and availability

B. The lack of ACID compliance for guaranteeing transactional reliability

C. The lack of default-enabled authentication and authorization features in many technologies

D. All of the above ✓

More about the answer:

NoSQL databases offer several advantages over relational technologies, including the ability to quickly access and easily modify data. However, this quick access also rules out some security methods that can help ensure data confidentiality and integrity. In addition, NoSQL offerings often don't fully support the ACID properties -- atomicity, consistency, durability and isolation -- that are the hallmark of reliable transaction processing. Many NoSQL databases don't provide access controls such as authentication and authorization as default features, making them a potentially risky choice for managing sensitive data.

✓ Question 4 of 7

While NoSQL databases avoid the rigid schemas of relational databases, the types of NoSQL technologies vary and can be separated into the following primary categories:

A. Document databases, graph databases, key-value databases and wide column stores ✓

More about the answer:

NoSQL databases fall into four general categories according to what functions they perform. The other options in this question refer to specific vendors and database products, and while some NoSQL databases can manage data in the cloud, they aren't categorized by that factor.

B. CouchDB, MongoDB, Cassandra and HBase

C. Those that manage data in the cloud and those that don't

D. Oracle NoSQL database, NoSQL for Windows Azure and IBM DB2

✓ Question 5 of 7

True or false? The adoption level of NoSQL software is lower than that of relational databases, data appliances and columnar database software.

A. True ✓

More about the answer:

Recent surveys, including one by The Data Warehousing Institute and another conducted jointly by Enterprise Management Associates Inc. and 9sight Consulting, have shown that one-fifth to one-third of organizations are using NoSQL technologies, putting it behind not only relational software but also technologies such as data warehouse appliances and columnar databases.

B. False

✓ **Question 6 of 7**

Which of the following relational database market leaders now also offers NoSQL software as well?

A. IBM

B. Microsoft

C. Oracle

D. All of the above ✓

More about the answer:

The top three relational database vendors have all gotten into the NoSQL game in one way or another. Oracle introduced a NoSQL database in 2011 and Microsoft offers a NoSQL data store as part of its Microsoft Azure cloud platform. IBM's DB2 database can handle graph and XML data and also supports NoSQL vendor MongoDB's application programming interface; in addition, IBM in March 2014 acquired hosted NoSQL database provider Cloudant Inc.

✓ **Question 7 of 7**

True or false? Even for big data environments, consultants recommend evaluating your project needs and selecting the database technology that best suits those requirements, instead of assuming that NoSQL technologies are always a better fit than relational software.

A. True ✓

More about the answer:

While new database technologies have a lot to offer, they aren't always the best choice. Experts recommend making purchase decisions based on your business's specific needs, for big data applications as well as more conventional ones.

B. False