Pre-Read

Deciding the Right Database : NoSQL vs SQL

Relevel
by Unacademy

“PRE-READ : Deciding the Right Database : NoSQL vs SQL”

Things I need to know before this session

What is a database: A database is an organized collection of structured information, or data, typically stored electronically in a computer system. A database is usually controlled by a database management system (DBMS). Together, the data and the DBMS, along with the applications that are associated with them, are referred to as a database system, often shortened to just a database.

What will be taught in this session?

- What is NoSQL
- Types of NoSQL
- NoSQL vs.RDBMS
- Brief discussion on Vertical Scaling, Horizontal Scaling, Sharding and Partitioning
- Why is NoSQL a good fit in this project
- Popular choices for NoSQL DB
- Intro to MongoDB
- Key Features of MongoDB

How are these concepts being used in the industry for building applications?

Relational databases have been around since the 1970s. Relational databases are very reliable. They are compliant with ACID (Atomicity, Consistency, Isolation, Durability), which is a standard set of properties for reliable database transactions. Relational databases work well with structured data. Organizations that have a lot of unstructured or semi-structured data should not be considering a relational database. **Examples:** Microsoft SQL Server, Oracle Database, MySQL, PostgreSQL and IBM Db2

NoSQL Database is a broad category that includes any database that doesn’t use SQL as its primary data access language. These types of databases are also sometimes referred to as non-relational databases. Unlike in relational databases, data in a NoSQL database doesn’t have to conform to a pre-defined schema, so these types of databases are great for organizations seeking to store unstructured or semi-structured data. One advantage of NoSQL databases is that developers can make changes to the database on the fly, without affecting applications that are using the database. **Examples:** Apache Cassandra, MongoDB, CouchDB, and CouchBase

With the rise in data all around the world, there has been an observable and increasing interest surrounding the wave of the non-relational database, also known as ‘NoSQL‘. Businesses and organizations are seeking new methods to manage the flood of data and are drawn toward the alternate database management tools and systems that are different from the traditional relational database systems.

References

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https://www.matillion.com/resources/blog/the-types-of-databases-with-examples

https://intellipaat.com/blog/what-is-mongodb/