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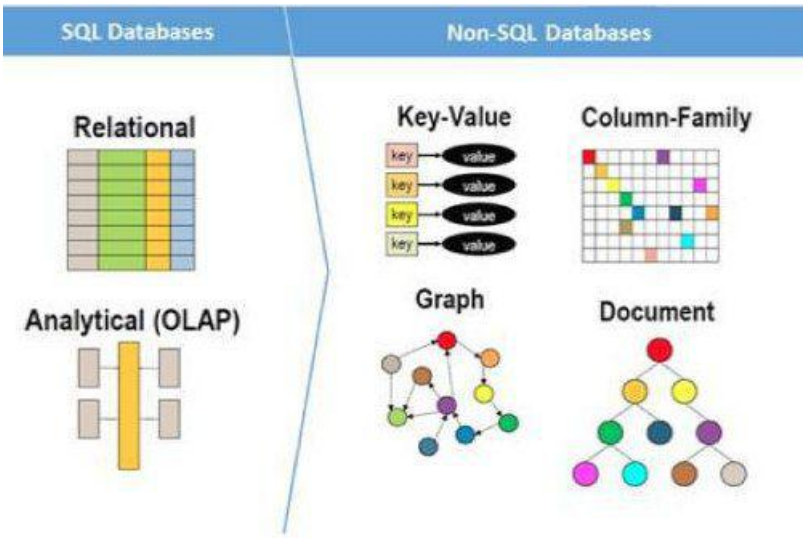
TYPES OF DATABASES



Relational databases

- are the opposite of NoSQL databases. A relational database stores data that is arranged around other data. The link between a person purchasing online and the shopping cart is a fantastic example of a relational database. When data integrity is an issue or scalability isn't a priority, relational databases are frequently the best choice.

A read-only system that stores historical information about company criteria such as sales performance and inventory levels is an analytic database, also known as an analytical database. An analytic database is used by business analysts, corporate executives, and other employees to conduct queries and reports. The data is updated on a regular basis to reflect the most recent transaction data from a company's operational systems.

Analytic database

An analytic database, which is usually part of a data warehouse or data mart, is created expressly to enable business intelligence (BI) and analytic applications. This distinguishes it from an operational, transactional, or online transaction processing database, which is used to process transactions like order entry and other business applications.

While transaction processing databases can support data warehousing and business intelligence applications, analytic database providers say their products outperform traditional relational database software in terms of performance and scalability.

Key-value database

A key-value database is a nonrelational database that stores data using a simple key-value mechanism. Data is stored in a key-value database as a collection of key-value pairs, with a key serving as a unique identifier. Both keys and values can be any type of object, from simple to complex compound objects. Key-value databases are highly partitionable and can scale horizontally at scales that other databases cannot. If a current partition fills to capacity and extra storage space is necessary, Amazon DynamoDB assigns additional partitions to the database.

Column store database
A column store database is a type of database that uses a column-oriented model to store data.The following terms can be used to describe a column store database:

- Database with columns
- Database with a column family
- Database with columns
- Database with a large number of columns
- Wide column store
- Database with columns
- Store with columns

A Column Store Database's Structure

Columns store databases use a concept called a keyspace. In the relational paradigm, a keyspace is similar to a schema. All of the column families (similar to tables in the relational model) that contain rows and columns are contained in the keyspace.

Graph database

A graph database is one that holds information in the form of entities and their relationships. RDF (resource description framework) databases, which store data in the subject-predicate-object (triple) format, are a variation on this theme.

True graph databases, triple stores, and conventional databases with some graphical capabilities are the three types of graph databases. RDF databases are another name for triple stores. The distinction between a genuine graph product and a triple store is that the former allows index free adjacency (the ability to traverse a graph without using an index), while the latter does not. Property graphs (graphs in which properties can be applied to either entities or their relationships, or both) are supported by the former, although some triple stores have recently introduced this functionality.

Both graph and RDF databases may be native products or they may be built on

Document database

A document database (also known as a document-oriented database or a document store) is a database that stores information in documents

A document database is a NoSQL data stores that is designed to store and query data as JSON-like documents. The data in document databases is stored as documents with their metadata. The document stored is in key/value pair where the key is the unique identifier of the document. Unlike relational databases, document databases are faster to load, access, and parse.

Document database are also referred as document database management systems, document-oriented databases, or document store database.Here are the key characteristics of document databases:
Document DBMSs are NoSQL databases.

Document DBMSs use key/value to store and access documents data.

Document DBMSs have a flexible schema that can be different for each document. For example, one document can be an Author profile, while other document can be a blog.

For more information, please visit this link:
https://www.kdnuggets.com/2016/07/seven-steps-understanding-nosql-databases.html