NoSQL database is the anthesis of relational database. It is non-relational. Relational databases are a good fit for structured data. The oncepts of primary key and foreign key has allowed us to store data in separate tables and “link” them by their keys. NonSQL addresses database models that are more flexible and don’t have to conform to a certain set of constraints.

For example in rlational database, we would store book inventory in several tables and link them by AuthorID, ISBN, Book title. InNoSQL, the entire inventory could be in a JSON file that is s structured in such a way to allow us to query it.

In addition to flexibility, NoSQL offers scalability, high-performance, and variety of functions. It addresses scalability by using distributed clusters of servers which handle all the operations discretely and unobtrusively. NoSQL databases are optimized for specific data models to achieve high performance. It provides APIs and data types that are specific to the data models.

Some of the popular NoSQL databases are MongoDB, DynamoDB, Cassandra and Couchbase. They are rapidly being considered for various applications in gaming, IoT, mobile and web. It is mostly a good fit when dealing with high volume of data that demands a flexible model.

References

1. What is NoSQL? - https://aws.amazon.com/nosql/