Cody Ferre

CSD310-A310

10/20/23

Relationships with a relational database can be conveyed as multiple interactions within different databases that are all under a master database. The best way I could understand this was to take it as a customer ID that also had an order ID and address ID, that both broke down to display specific information such as the order and its product ID and the address.

The relationship between these is that they all relate to the customer ID while still being separate IDs themselves. The advantage of a relational database is through its simplicity in how the databases operate with each other and allow for quick and easy access of the data even for multiple users, while you have different users the databases, they access all share information even if some do not. While a NoSQL database holds the advantage of allowing the information only to be pulled through horizontal scaling making them easier to access the information from multiple locations rather than a single database like relational would be, the data access for these can be large in comparison and make it better for cloud and server use.

Some of the disadvantages of the relational come from it’s lack of scalability and its flexibility in how the data and columns for them are formatted. The length of the data and its lack of flexibility create problems because of its forced table structure requirement. Whereas the drawback for NoSQL is that it does not offer atomicity, consistency, isolation, or durability across multiple documents with data models not optimized for data duplication or support for storage it can take.

MYSQL has an open-source code that allows for better scalability and this helps grow the code for others as it creates a better environment for MYSQL to handle the data within the columns you create. This is a query that allows for better record keeping and optimization within the information that it reads within the database. This also comes with features such as high availability for the servers to shard and replicate the information for the servers along with a prebuilt replication protocol that helps give the system better elasticity and growth. These features come together to create MYSQL as an easy to use, secure and reliable program when it comes to a SQL database option.

Mongodb offers some of the same features but it has a different way of handling them as the code for mongodb isn’t opensource but works well for allowing quesries within the database to be optimized and faster when it comes to searching the database while also allowing those queries to be executed quickly using its indexing the pulls and reads the address within files to match the statements you are searching for. While these features differ slightly from MYSQL, they still offer the same replication and stability for the database that they have and even do a good job in handling the sharding and load balancing that is required of a high demand database to handle when a lot of users are pulling information from the databases to use, ensuring a high load capacity.

References

MongoDB,2023, NOSQL vs SQL databses, <https://www.mongodb.com/nosql-explained/nosql-vs-sql>

Andrew Pamponio, october 14,2021, MySQL Overview Key features, Benefits, and Use cases, Openlogic.com, <https://www.openlogic.com/blog/mysql-overview>

Mongodb, 2023, mongodb features, https://www.mongodb.com/what-is-mongodb/features