

Our software is going to be using SQL for numerous reasons. Mainly for the ability to handle a high number of transactions at a time. Another one of the main reasons is the simplicity of the format of holding the information. SQL offers multiple features on portability for our software. We are working with multiple different types of devices between the users, restaurant owners, and the workers. Compared to NoSQL it had certain features that posed useful to our software however, it did not include certain features that we prioritized as more important such as things like handling high transactions and portability. Another reason is the data integrity which would allow our software to keep data consistent through the processes.

For our food delivery app, our application will be using at least 5 databases: user information, restaurant information, restaurant menu, driver information, payment information.

We chose 5 databases to maximize specificity, and avoid redundancy to increase reliability of our software with the help of key and indexes in RDBMS.

- SQL
 - Costly to scale.
 - Structured data
 - Ensures data integrity.
 - MySQL is cost effective.
 - MySQL has lots of community support and stability.
 - **Able to handle lots of transactions.**
 - Based on ACID (atomicity, consistency, isolate, durability)
 - Reliable.
 - Data accuracy.
 - Atomicity makes transactions succeed or fail completely, even in the case of system failure.
 - Consistency prevents database corruption.
 - Isolation helps with high-traffic transactions and will run more smoothly.
 - Durability helps more successful transactions since even system failures cannot prevent the effects of a successful transaction.
- Tradeoffs of SQL:
 - Scalability is much better in NoSQL.
 - Vertical scalability of MySQL means our software is harder to update.
 - Sacrifices software performance.

