After we finish all the design and implementation, it’s time to point out some of the limitations in our project design. First, this database is design to record and store the information of Sephora’s online store. Nevertheless, we only store the data regarding the operation side of the company. In general, a huge company may have multiple databases containing more aspects of data. It’s hard to analyze all the corresponding data efficiently in our design. Second, it’s also difficult to deal with a large amount of data in our database, since it’s designed based on relational models, it needs plenty of normalizations and relationships to conduct the process, so the analytical procedure will be quite slow. Third, the database can’t deal with real time querying, since it can only analyze a batch of data.

In the future, we may use some advanced tools to redesign this database. For example, NoSQL can be a quite efficient choice. NoSQL, comparing to SQL, it has an obvious advantage that it is designed for horizontal scaling, meaning that they can handle increased workload by distributing data across multiple servers or clusters, it’s more flexible and scalable. Therefore it’s more efficient for NoSQL to handle a large amount of data.

In conclusion, there’re also lots of advantages for our database designed this time. Our database is easier to extend when there’s additional data and schemas available. Due to this peculiarity, our database is easy to modify and maintain. It’s also convenient to access to the commerce data and safe to update the database.

GPT version:

After completing the design and implementation of the database, it is imperative to critically assess the limitations of the current design. Notably, the present database records and stores information solely on the operational aspects of Sephora's online store. However, larger corporations typically require multiple databases to hold varying aspects of data. Consequently, in our design, analyzing all relevant data in a timely and efficient manner poses a significant challenge.

Another limitation pertains to handling a vast amount of data, which the relational model we adopted requires normalization and relationships to process. Consequently, the analytical process may be slow and time-consuming. Lastly, the database's inability to perform real-time querying due to its batch processing approach poses an additional limitation.

To address these limitations, adopting advanced tools such as NoSQL may offer a feasible solution. Compared to SQL, NoSQL is designed for horizontal scaling, which enables it to distribute data across multiple servers or clusters, enhancing flexibility and scalability. These features make NoSQL an efficient and effective approach to handle vast amounts of data.

Despite the limitations, our current database design has several advantages. Specifically, it is easy to extend when additional data and schemas become available, making it convenient to modify and maintain. Additionally, the database provides secure and convenient access to commerce data, enabling safe updates to the database.

In conclusion, while the current database design has some limitations, including the handling of vast amounts of data, adopting advanced tools such as NoSQL can address these limitations. Nonetheless, the database's strengths, including ease of maintenance, convenience of access to data, and the ability to extend when necessary, make it a viable option for present use.