TWITCH DATABASE MODEL

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INTRODUCTION

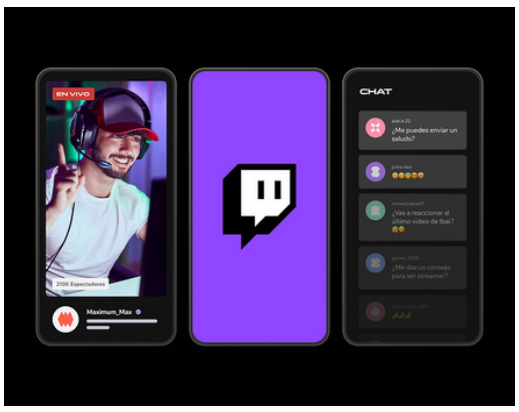
Twitch is a live streaming platform that has become extremely popular, especially among gamers. However, the complexity of managing users, channels, content, and subscriptions presents significant challenges. Previous solutions have ranged from simple relational databases to more complex systems, but many still face issues of scalability and efficiency in handling real-time data.

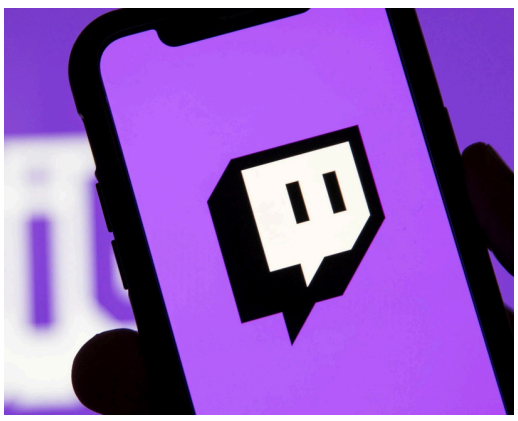
GOAL

The main objective of this work is to design an efficient and scalable database model for the Twitch platform. The research question is: How can we structure the database to optimize performance and data management on a live streaming platform? A model is expected that facilitates the management of users, channels, and streams, and that is capable of handling large volumes of data in real time.

PROPOSED SOLUTION

This database model includes key entities such as Users, Channels, Streams, and Subscriptions. Each entity is related in a way that allows quick and efficient access to data. The use of indexes and partitions is considered to improve performance, in addition to ensuring data integrity through foreign keys and constraints.



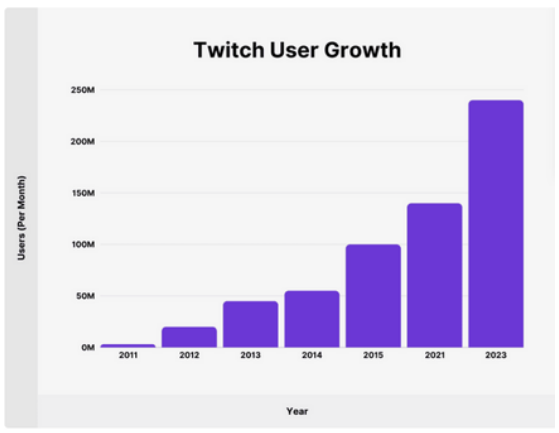


RESULTS

The idea with this modeling of the platform's database is that there will be improvements in the databases, increasing their effectiveness and efficiency to have results like the following

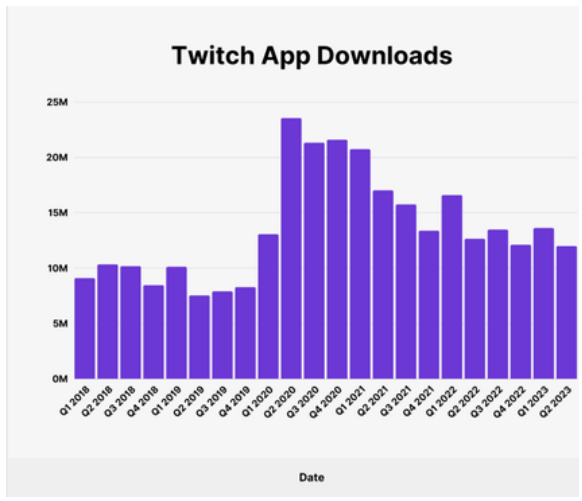
Metric	Previous Solution	New Solution
Query Time	300 ms	150 ms
Scalability	Low	High
Data Integrity	Moderate	High

Analysis of results:
The idea is to be able to say and predict that The results show a significant improvement in the query time and scalability of the system, suggesting that the proposed solution is more effective in handling the growth of the platform.



CONCLUSION

With this database model we want to achieve compliance with Twitch's requirements, but it also answers the research question about efficient data management. where Although some challenges are faced in implementation, the expected results are promising and an improvement in the overall efficiency of the system can be observed.



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