Week 6 Paper

This week, we studied NoSQL. We also learned about vertical and horizontal scaling. With this, we were able to start learning about Cassandra and how that compared to a relational database. In the following paragraphs, I will go over those as well as some other aspects of Cassandra and what we can accomplish with it.

Cassandra is defined as an open-source NoSQL data storage system. This allows high availability, scalability, and reliability. This allows the transfer of a vast amount of data to spread out across multiple servers without a single point of failure. The difference between Cassandra and a relational database is that one cannot perform joins in Cassandra. Also, Cassandra doesn’t require a primary key or a foreign key within the tables.

Next, lets discuss the snowflake model within the database. This is an area of question that companies may have. Is whether Cassandra can implement a snowflake model? The answer is no, the snowflake model can’t be implemented within Cassandra.

The biggest thing that you would need to do if you wanted to implement a snowflake with Cassandra is use a third party system to do so. This is simply due to the fact that both of these are different types of databases and there isn’t an easy way to implement it. Utilizing a third party system would allow you to recreate the Cassandra database so that you could make a snowflake model. With this, the scalability of the database and the speed with be compromised.

All in all, Cassandra databases are great if you are looking for vertical and horizontal scaling. If you are looking for a database that allows you to move a vast amount of data to another area or across several servers. Cassandra is also very reliable and doesn’t receive failures. Sure there are limitations within it, but everything has a limitation on it. It depends on what you want and how you want to move and store your data.

References

* <https://byui.instructure.com/courses/221906/pages/vertical-and-horizontal-scaling-and-cassandra>
* <https://www.spiceworks.com/tech/big-data/articles/what-is-cassandra/>
* <https://cassandra.apache.org/doc/latest/cassandra/data_modeling/data_modeling_rdbms.html>
* <https://www.integrate.io/integrations/snowflake/cassandra/>
* <https://community.snowflake.com/s/question/0D50Z00009U8LYcSAN/cassandra-to-snowflake>
* <https://www.trustradius.com/compare-products/apache-cassandra-vs-snowflake#pricing>