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Web 335

Discussion 2.1

Consistency in NoSQL databases refers to many kinds of consistency, but the main idea is the maintain the same data on a database through updates, read and write to it. This is important so that users on the same database see the same information as soon as possible.

Update consistency is when we want to update the server with the correct data based on the original data on the server before any updates. Important so that there are no double updates or overwriting an earlier update without realizing updates have already been made.

When two users are trying to update the server on a same data item at the same time, we call that a write-write conflict. One write will be updated first over the other. The first one that gets updated is replaced by the second one and the first update is now a lost update. (Sadalage & Fowler, 2013, pg. 47) The second update was pushed through due to the fact that the server was not updated yet, but because of write-write conflict, the server threw out the 1st update and replaced it with the 2nd one, when really it did not have to.  
Read consistency is pushing the correct data through to all users with requests on a read. Read-write conflicts can happen here if user1 is reading a line but user2 is writing to the same line, but the update has not gone through. This is also called an inconsistent read. What user1 sees is not the most accurate data because of the changes user2 did while user1 was reading the same line.

References

Sadalage, P., & Fowler, M. (2013). *NoSQL Distilled: A Brief Guide to the Emerging World of Polyglot Persistence* (1st ed.). Addison-Wesley Professional.