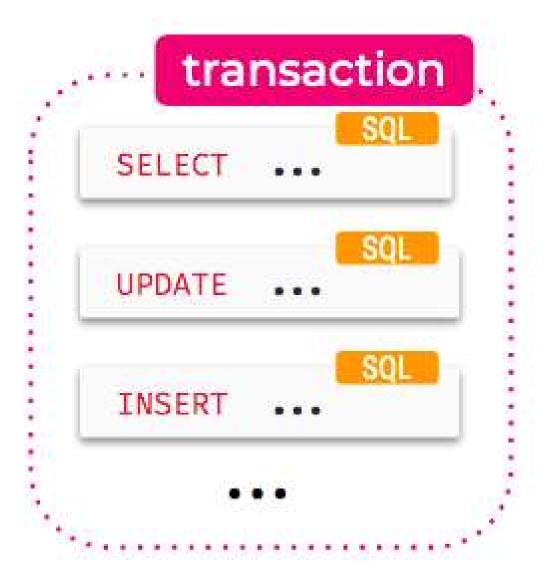
Transactions



A transaction is a logical group of one or more SQL statements.

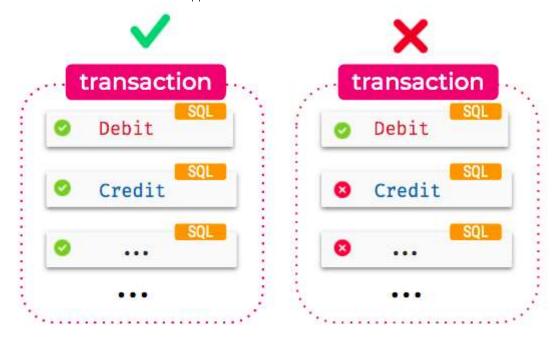
Transactions are used in various scenarios such as banking, ecommerce, social networks, booking tickets, etc.

A transaction has four important properties.

- Atomicity
- Consistency
- Isolation
- Durability

Atomicity

Either all SQL statements or none are applied to the database.



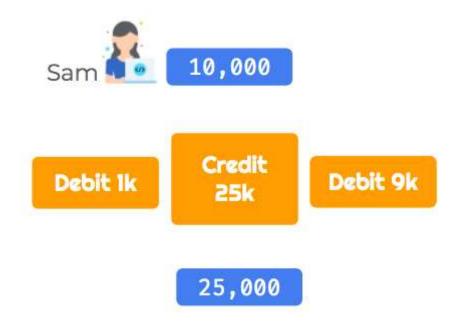
Consistency

Transactions always leave the database in a consistent state.



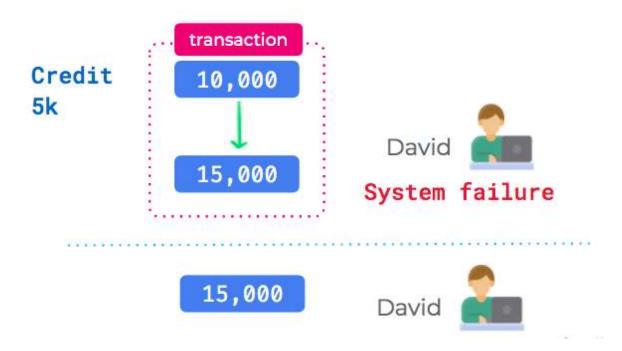
Isolation

Multiple transaction can occur at the same time without adversely affecting the other.



Durability

Changes of a successful transaction persist even after a system crash.



These four properties are commonly acronymed as ACID.

Atomicity Consistency Isolation Durable

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In scenarios like, searching for a word in dictionary, we use index to easily search for the word. Similarly, in databases, we maintain indexes to speed up the search for data in a table.



✓ MARKED AS COMPLETE

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