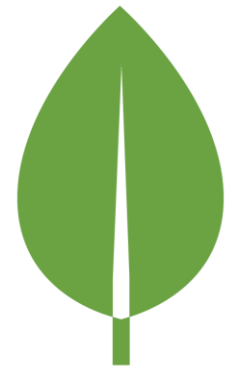


# ACID Properties



**mongo**DB

Mostly RDBMS use SQL, a standard computer language for relational database management and data manipulation.

Relational databases follow ACID properties that are:  
Atomicity, Consistency, Isolation, Durability

**ACID** is a set of properties that guarantee that database transactions are processed reliably.

## Atomicity

The atomicity property identifies that the transaction is atomic. An atomic transaction is either fully completed, or is not begun at all.

## Consistency

It ensures that any changes to values in an instance are consistent with changes to other values in the same instance.

## Isolation

It is needed when there are concurrent transactions that occur at the same time, such as shared multiple users accessing shared objects.

## Durability

A transaction is durable in that once it has been successfully completed, all of the changes it made to the system are permanent.

# Shortcomings of RDBMS

- ✓ Useful for structured data
- ✓ Data explosion
- ✓ Overhead of joins
- ✓ Maintaining relationship is a challenge