





Document-Oriented Database

In this lesson, you will learn about the Document Oriented database and when to choose it for our projects.

We'll cover the following



- What is a document-oriented database?
- Popular document-oriented databases
- When do I pick a document-oriented data store for my project?
- Real-life implementations

What is a document-oriented database?#

Document-oriented databases are the main types of NoSQL databases. They store data in a document-oriented model in independent documents. The data is generally semi-structured and stored in a JSON-like format.

The data model is similar to the data model of our application code, so it's easier to store and query data for developers.

Document-oriented stores are suitable for *Agile software development methodology* because it's easier to change things with evolving demands when working with them.





Popular document-oriented databases#

Some of the popular document-oriented stores used in the industry are *MongoDB, CouchDB, OrientDB, Google Cloud Datastore, and Amazon DocumentDB*

When do I pick a documentoriented data store for my project?#

Pick a document-oriented data store if you are working with *semi-structured* data, and need a flexible schema that will change often. Also, use one when you aren't sure about the database schema when you start writing the app when there is a possibility that things might change over time, and when you are in need of something flexible which you could change over time with minimum fuss.

Typical use cases of document-oriented databases include:

- Real-time feeds
- Live sports apps
- Writing product catalogues
- Inventory management
- Storing user comments
- Web-based multiplayer games





Being in the family of *NoSQL* databases these provide horizontal scalability, performant read-writes because they cater to *Create Read Update Delete (CRUD)* use cases. These include scenarios where there isn't much relational logic involved and all we need is just quick persistence and retrieval of data.

Real-life implementations#

Here are some of the good real-life implementations of the tech:

- SEGA uses Mongo-DB to improve the experience for millions of mobile gamers (https://www.mongodb.com/blog/post/sega-hardlight-migrates-to-mongodb-atlas-simplify-ops-improve-experience-mobile-gamers)
- Coinbase scaled from 15k requests per min to 1.2 million requests per minute with MongoDB (https://blog.coinbase.com/scaling-connections-with-ruby-and-mongodb-99204dbf8857)





