

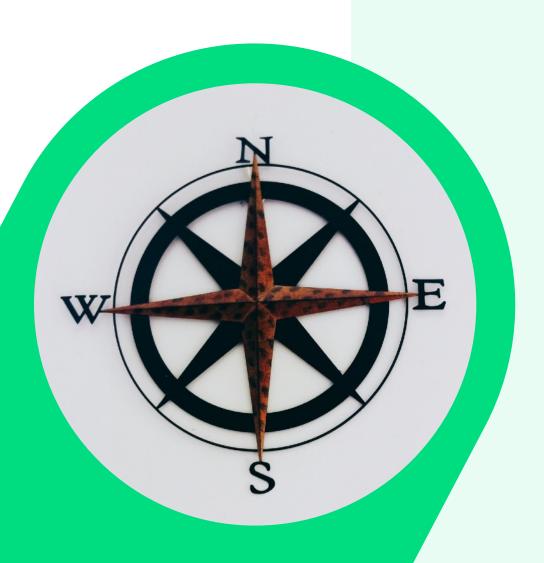


MONGODB. vs SQL



CHECKPOINT PRESENTATION

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Introduction



& Definitions

MongoDB: A flexible NoSQL database



SQL : A powerful relational database management system

Let's dive in...



MongoDB Overview

- MongoDB is a NoSQL database.
- Flexible data handling: Stores unstructured data.
- Document-based structure: Utilizes JSON-like documents.
- Ideal for scalable applications and real-time analytics.



SQL Overview

- SQL is a relational database management system (RDBMS).
- Structured data storage: Uses fixed schemas and tables.
- Supports **complex queries and transactions**.
- Widely used for structured data storage and retrieval.

Key Differences







DATA STRUCTURE

Flexible, schema-less documents

Fixed schema with tables and relations

SCALABILITY

Horizontal scalability for large datasets

Vertical scalability for structured data

QUERY LANGUAGE

JSON-based query language

Utilizes SQL (Structured Query Language)



MongoDB Use Cases



Agile development:
Adaptable to changing requirements

Real-time applications:
Supports fast data
updates

PROS & CONS:

Flexibility, Scalability
Limited transaction support



SQL Use Cases



Financial systems:
Ensures data accuracy
and integrity

E-commerce platforms:
Efficiently handles
structured data

PROS & CONS:

Structured data management, ACID compliance
Steeper learning curve

CONCLUSION

The choice between MongoDB and SQL depends on project requirements



Merci

Pour votre attention