# Introduction

NoSQL vs. SQL: A Comparative Analysis

- Briefly introduce the topic of the presentation: Comparing MongoDB (a NoSQL database) and traditional SQL databases.

- Highlight the importance of database systems in modern applications.

- Mention that the presentation will cover key differences and use cases for each type of database.
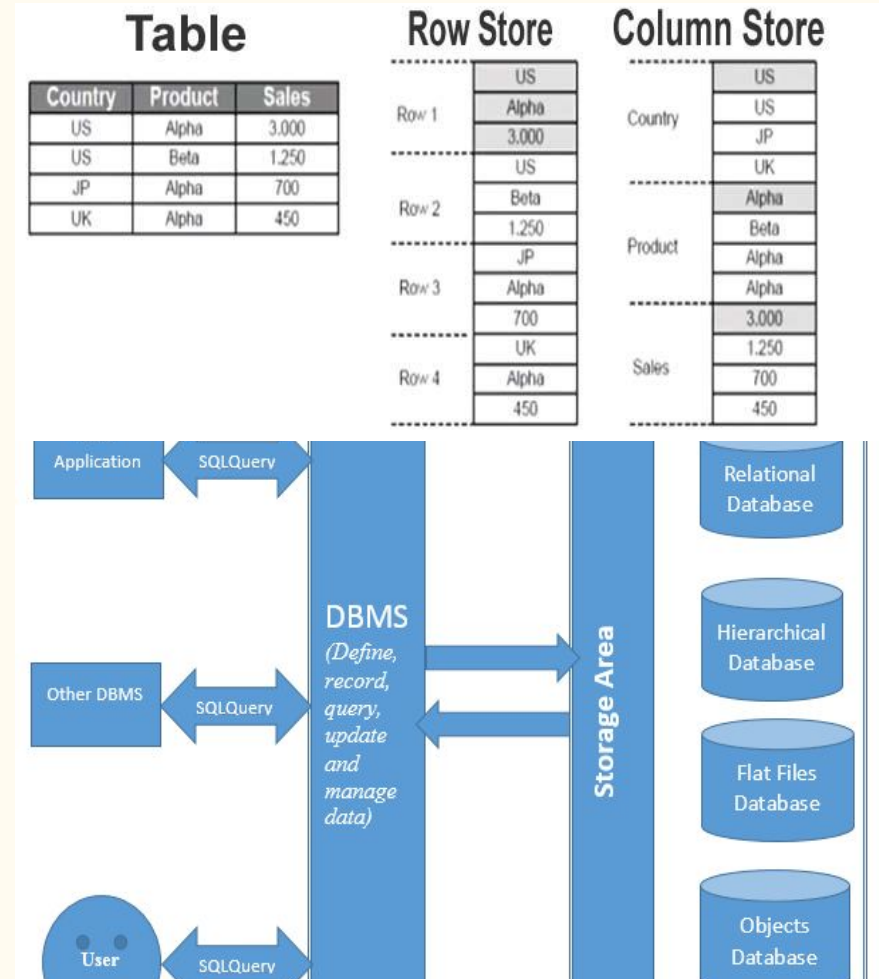
MongoDB

1. NoSQL database

2. Document-oriented

3. Schema-less structure

4. Uses BSON (Binary JSON) format
   for data storage

5. Highlight MongoDB's flexibility for
   handling unstructured and
   semi-structured data.

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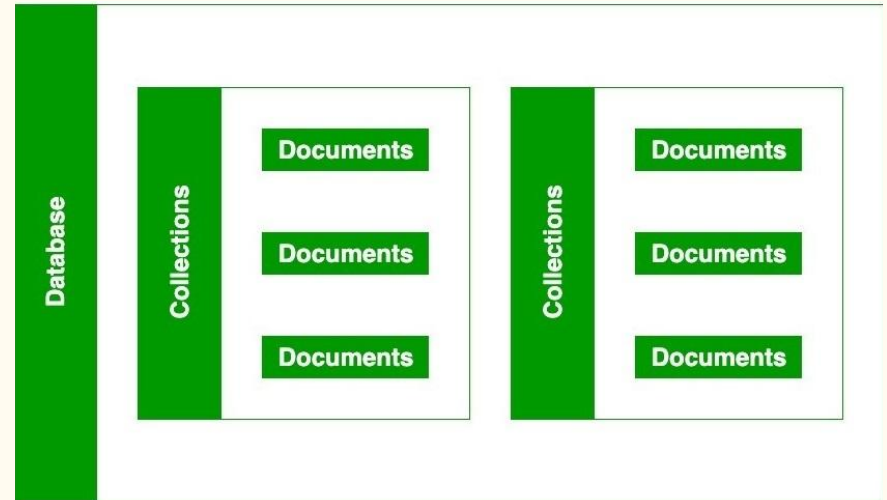
SQL (Structured Query Language)

Provide a brief overview of SQL:

1. Relational database management system (RDBMS)

2. Tabular structure with predefined schema

3. Data stored in rows and columns

4. Emphasize the rigid structure of SQL databases and their suitability for structured data.

Key Differences between MongoDB and SQL

Data Model:

MongoDB: Document-based model with flexible schema.

SQL: Table-based model with rigid schema.

Query Language:

MongoDB: Uses MongoDB Query Language (MQL) for querying JSON-like documents.

SQL: Uses Structured Query Language (SQL) for querying relational tables.

Scalability:

MongoDB: Horizontal scalability with sharding for handling large datasets.

SQL: Vertical scalability with replication for managing increasing loads.

Data Relationships:

Conclusion

Summarize the key points covered in the presentation:

MongoDB and SQL have distinct data models and query languages.

MongoDB offers flexibility and scalability for certain use cases.

SQL provides structured data management and complex querying capabilities.

Emphasize that the choice between MongoDB and SQL should be based on the project's unique requirements.

Invite questions from the audience.