Presentation: No SQL vs SQl

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1. Introduction to Databases.

1 SQL.

Also known as Relational Databases

Examples: MySQL, PostgreSQL, Oracle.

2 NO SQL.

Non-relational and distributed databases.

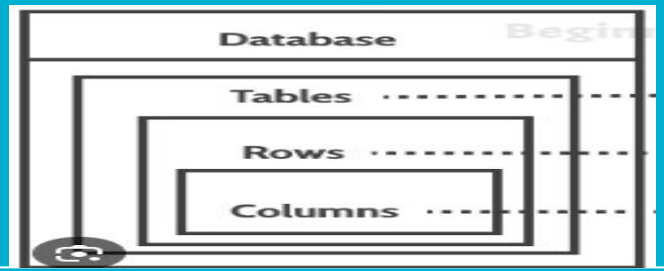
Example: MongoDB.

2. Data Model and Schema.

1 SQL.

Schema-based design ensures consistency.

Tables have fixed columns and data types.example of a table:.



2 NO SQL.

Schema-less design allows flexibility.

Documents can have different structures.example of table:

3. Query Language and Transactions.

1 SQL.

Uses Structured Query Language (SQL).

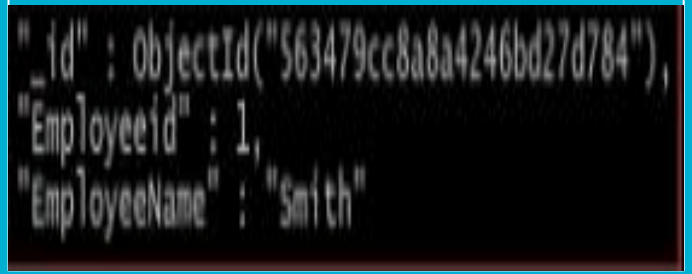
Strong support for complex queries and joins.

```
SELECT customer_ID, SUM(total_amount) AS "Total"
FROM orders
WHERE order_date BETWEEN '2022-01-01' AND '2022-03-31'
AND customer_city = 'New York'
GROUP BY customer_id
ORDER BY Total DESC;
```

2 NO SQL.

Uses MongoDB Query Language (MQL).

Supports ad-hoc queries, indexing, and aggregation.



4. Use Cases and Applications.

1 SQL.

Ideal for financial systems, inventory management, ERP, and applications requiring data integrity.

Robust support for complex transactions and consistent data.

MySQL
Microsoft SQL Server
ORACLE
PostgreSQL

2 NO SQL.

Ideal for big data, real-time analytics, content management, and IoT.

Flexible schema for dynamic and evolving data.

5. Scalability:

1 | SQL.

Vertical scaling, sometimes limited horizontal scaling.

MySQL
Microsoft SQL Server
ORACLE
PostgreSQL

2 | NO SQL.

Horizontal scaling with ease..

Example: MongoDB.

Conclusion.

...Choose the right database based on your specific needs and use cases.