

NOSQL/NON-RELATIONAL DATABASES

- As web applications became increasingly complex, NoSQL databases are an increasingly popular alternative to relational databases.
- The critical difference between NoSQL and relational databases is that RDBMS schemas rigidly define how all data inserted into the database must be typed and composed.
- By contrast, see the image to your right: It can allow unstructured and semi-structured data to be stored and manipulated.

Key	Document
1001	<pre>{ "CustomerID": 99, "OrderItems": [{ "ProductID": 2010, "Quantity": 2, "Cost": 520 }, { "ProductID": 4365, "Quantity": 1, "Cost": 18 }], "OrderDate": "04/01/2017" }</pre>
1002	<pre>{ "CustomerID": 220, "OrderItems": [{ "ProductID": 1285, "Quantity": 1, "Cost": 120 }], "OrderDate": "05/08/2017" }</pre>

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- This data structure here is called (JavaScript Object Notation) **JSON**.
- In other words, **NoSQL** databases can be schema-agnostic, they don't have to all have the same format.

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1005	<pre>} "OLq6LD9f6": "02\08\50T1..", "C02f": 150, "0n9uFIfλ": 1, { "bLoqncfID": 1582, "OLq6LIf6w2": ["Cn2fow6LID": 550,] } }</pre>
	<pre>} "OLq6LD9f6": "04\0T\50T1..", "C02f": 18, "0n9uFIfλ": 1, { "bLoqncfID": 4302, } "C02f": 250, "0n9uFIfλ": 1, { "bLoqncfID": 4302, } }</pre>