

## Overview

- not only SQL
- `[[SQL]]` alternative
- uses `[[Document Stores]]` to store data as documents within collections as `[[Key-Value Pairs]]`

## Benefits

- non-relational
  - key value pairs
  - graphs
  - time series
- schema-free
  - flexible
  - implicit
- impedance mismatch
- scalable
  - horizontal partitioning (sharding)
  - scaling

## MongoDB Example

<b>▪ Creating a Collection</b>	<pre>import pymongo as m conn = m.MongoClient("mongodb://localhost:123/") db = conn["dbs19"]      # database dbs19 cust = db["customers"]  # collection customers</pre>
<b>▪ Inserting into a Collection</b>	<pre>mdict = {     "name": "Jane Smith",     "address": "Inffeldgasse 13, Graz" } id = cust.insert_one(mdict).inserted_id # ids = cust.insert_many(mlist).inserted_ids</pre>
<b>▪ Querying a Collection</b>	<pre>print(cust.find_one({"_id": id}))  ret = cust.find({"name": "Jane Smith"}) for x in ret:     print(x)</pre>

`[[Data Models]]`