

MongoDB Atlas

- NoSQL Database: Not Only SQL
- It stores data in documents JSON like documents (BSON → **Binary JSON**)
- No predefined structure – dynamic documents
- Fast reads/write with indexing support

SQL	NoSQL
Table	Collection
Record / Row	Document
Column	Field



- Runs on AWS, Azure or Google cloud.
- Automated deployment, backup and scaling
- Build-in monitoring and alerting

PyMongo

Official Python Driver for MongoDB

- Official MongoDB Python distribution.
- Supports both synchronous and asynchronous APIs
- Pure Python implementation
- Includes BSON serialization/deserialization
- Works with Python 3.10+

PyMongo

Features

PyMongo offers powerful features:

Query Filtering

- User Python Dictionaries for flexible queries
- Eg: find

Aggregated Pipelines

- Complex data transformations in stage
- Eg: groupby

Indexing

- Speed up queries dramatically

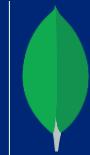
Bulk Operations

- Batch Operation efficiently.

Next



Setting up
MongoDB Atlas, PyMongo



Setting up

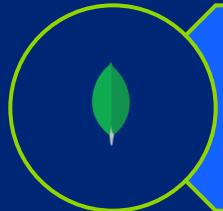
MongoDB Atlas, PyMongo

Steps



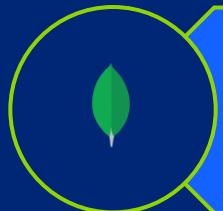
Signup

- Signup to MongoDB Atlas



Cluster

- Create Cluster and Database



Connect

- Connect MongoDB Atlas with PyMongo



Add Environment Variables

- Username
- Password
- MongoDB Connection String

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