Connecting to MongoDB in Python

Lesson 01: Using MongoDB Python Client Libraries

* [MongoDB Drivers](https://www.mongodb.com/docs/drivers/)
* [PyMongo Documentation](https://www.mongodb.com/docs/drivers/pymongo/)

Lesson 02: Connecting to an Atlas Cluster in Python Applications

* [Using PyMongo with MongoDB Atlas](https://pymongo.readthedocs.io/en/stable/atlas.html)
* [Get Connection String](https://www.mongodb.com/docs/guides/atlas/connection-string/)
* [Connection String URI Format](https://www.mongodb.com/docs/manual/reference/connection-string/)
* [Set Up Your Environment](https://www.mongodb.com/developer/languages/python/python-quickstart-crud/#set-up-your-environment)

Lesson 03: Troubleshooting a MongoDB Connection in Python Applications

* [Troubleshoot Connection Issues](https://www.mongodb.com/docs/atlas/troubleshoot-connection/)

MongoDB CRUD Operations in Python

### **Lesson 01: Working with MongoDB Documents in Python**

* [BSON Encoding and Decoding](https://pymongo.readthedocs.io/en/stable/api/bson/index.html)

### **Lesson 02: Inserting a Document in Python Applications**

* [Inserting a Document](https://pymongo.readthedocs.io/en/stable/tutorial.html#inserting-a-document)
* [Bulk Inserts](https://pymongo.readthedocs.io/en/stable/tutorial.html#bulk-inserts)

### **Lesson 03: Querying a MongoDB Collection in Python Applications**

* [Getting a Single Document With find\_one()](https://pymongo.readthedocs.io/en/stable/tutorial.html#getting-a-single-document-with-find-one)
* [Querying for More Than One Document](https://pymongo.readthedocs.io/en/stable/tutorial.html#querying-for-more-than-one-document)
* [Querying by ObjectId](https://pymongo.readthedocs.io/en/stable/tutorial.html#querying-by-objectid)

### **Lesson 04: Updating Documents in Python Applications**

* [update\_one()](https://pymongo.readthedocs.io/en/stable/api/pymongo/collection.html?highlight=update#pymongo.collection.Collection.update_one)
* [update\_many()](https://pymongo.readthedocs.io/en/stable/api/pymongo/collection.html?highlight=update#pymongo.collection.Collection.update_many)

### **Lesson 05: Deleting Documents in Python Applications**

* [delete\_one()](https://pymongo.readthedocs.io/en/stable/api/pymongo/operations.html#pymongo.operations.DeleteOne)
* [delete\_many()](https://pymongo.readthedocs.io/en/stable/api/pymongo/collection.html?highlight=delete_many#pymongo.collection.Collection.delete_many)

### **Lesson 06: Creating MongoDB Transactions in Python Applications**

* [Transactions](https://www.mongodb.com/docs/manual/core/transactions/)
* [with\_transaction()](https://pymongo.readthedocs.io/en/stable/api/pymongo/client_session.html?highlight=transactions#pymongo.client_session.ClientSession.with_transaction)

# **MongoDB Aggregation with Python**

### **Lesson 01: Building a MongoDB Aggregation Pipeline in Python Applications**

* [Aggregation Operations](https://www.mongodb.com/docs/manual/aggregation/?_ga=2.59215460.810066485.1665291537-836515500.1666025886)
* [Getting Started with Aggregation Pipelines in Python](https://www.mongodb.com/developer/languages/python/python-quickstart-aggregation/?_ga=2.59215460.810066485.1665291537-836515500.1666025886)
* [Aggregation Examples](https://pymongo.readthedocs.io/en/stable/examples/aggregation.html)
* [Practical MongoDB Aggregations Book](https://www.practical-mongodb-aggregations.com/)

### **Lesson 02: Using MongoDB Aggregation Stages with Python: $match and $group**

* [$match](https://www.mongodb.com/docs/manual/reference/operator/aggregation/match/?_ga=2.26136564.810066485.1665291537-836515500.1666025886)
* [$group](https://www.mongodb.com/docs/manual/reference/operator/aggregation/group/?_ga=2.26136564.810066485.1665291537-836515500.1666025886)

### **Lesson 03: Using MongoDB Aggregation Stages with Python: $sort and $project**

* [$sort](https://www.mongodb.com/docs/manual/reference/operator/aggregation/sort/?_ga=2.26136564.810066485.1665291537-836515500.1666025886)
* [$project](https://www.mongodb.com/docs/manual/reference/operator/aggregation/project/?_ga=2.26136564.810066485.1665291537-836515500.1666025886)