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MongoDB CRUD Operations > Insert Documents

# **Insert Documents**

This page provides examples in:

| MONGO SHELL  | COMPASS |      | PYTHON | JAVA (SYNC) |    | NODE.JS | PHP | MOTOR |
|--------------|---------|------|--------|-------------|----|---------|-----|-------|
| JAVA (ASYNC) | C#      | PERL | RUBY   | SCALA       | GO |         |     |       |

This page provides examples of insert operations in MongoDB.

#### **CREATING A COLLECTION:**

If the collection does not currently exist, insert operations will create the collection.

## Insert a Single Document

db.collection.insertOne() inserts a single document into a collection.

The following example inserts a new document into the inventory collection. If the document does not specify an \_id field, MongoDB adds the \_id field with an ObjectId value to the new document. See Insert Behavior.

```
db.inventory.insertOne(
    { item: "canvas", qty: 100, tags: ["cotton"], size: { h: 28, w: 35.5, uom: "cm" } }
)
```

You can run the operation in the web shell below:



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insertOne() returns a document that includes the newly inserted document's \_id field value. For an example of a return document, see db.collection.insertOne() reference.

To retrieve the document that you just inserted, query the collection:

```
db.inventory.find( { item: "canvas" } )
```

# Insert Multiple Documents

New in version 3.2.

db.collection.insertMany() can insert *multiple* documents into a collection. Pass an array of documents to the method.

The following example inserts three new documents into the inventory collection. If the documents do not specify an \_id field, MongoDB adds the \_id field with an ObjectId value to each document. See Insert Behavior.

```
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{ item: "journal", qty: 25, tags: ["
    { item: "mat", qty: 85, tags: ["gray"], size: { h: 27.9, w: 35.5, uom: "cm" } },
    { item: "mousepad", qty: 25, tags: ["gel", "blue"], size: { h: 19, w: 22.85, uom: "cm"
})
```

You can run the operation in the web shell below:

```
MongoDB Web Shell

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```

insertMany() returns a document that includes the newly inserted documents \_id field values. See the reference for an example.

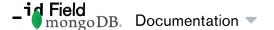
To retrieve the inserted documents, query the collection:

```
db.inventory.find( {} )
```

## **Insert Behavior**

### Collection Creation

If the collection does not currently exist, insert operations will create the collection.



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In MongoDB, each document stored in a collection requires a unique \_id field that acts as a primary key. If an inserted document omits the \_id field, the MongoDB driver automatically generates an ObjectId for the \_id field.

This also applies to documents inserted through update operations with upsert: true.

## **Atomicity**

All write operations in MongoDB are atomic on the level of a single document. For more information on MongoDB and atomicity, see Atomicity and Transactions

## Write Acknowledgement

With write concerns, you can specify the level of acknowledgement requested from MongoDB for write operations. For details, see Write Concern.

#### SEE ALSO:

- db.collection.insertOne()
- db.collection.insertMany()
- · Additional Methods for Inserts

https://docs.mongodb.com/manual/tutorial/insert-documents/