Create Operations

Create or insert operations add new [documents](https://docs.mongodb.com/manual/core/document/#std-label-bson-document-format) to a [collection](https://docs.mongodb.com/manual/core/databases-and-collections/#std-label-collections). If the collection does not currently exist, insert operations will create the collection.

MongoDB provides the following methods to insert documents into a collection:

* [db.collection.insertOne()](https://docs.mongodb.com/manual/reference/method/db.collection.insertOne/#mongodb-method-db.collection.insertOne) *New in version 3.2*
* [db.collection.insertMany()](https://docs.mongodb.com/manual/reference/method/db.collection.insertMany/#mongodb-method-db.collection.insertMany) *New in version 3.2*

All write operations in MongoDB are [atomic](https://docs.mongodb.com/manual/core/write-operations-atomicity/) on the level of a single [document](https://docs.mongodb.com/manual/core/document/).

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

retrieve the document that you just inserted, [query the collection](https://docs.mongodb.com/manual/core/document/#std-label-document-query-filter):

|  |
| --- |
| db.inventory.find( { item: **"canvas"** } ) |

[.collection.insertMany()](https://docs.mongodb.com/manual/reference/method/db.collection.insertMany/#mongodb-method-db.collection.insertMany) can insert multiple [documents](https://docs.mongodb.com/manual/core/document/#std-label-bson-document-format) 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.

|  |
| --- |
| db.inventory.insertMany([ |
| { item: **"journal"**, qty: 25, tags: [**"blank"**, **"red"**], size: { h: 14, w: 21, uom: **"cm"** } }, |
| { 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"** } } |
| ]) |

Read Operations

Read operations retrieve [documents](https://docs.mongodb.com/manual/core/document/#std-label-bson-document-format) from a [collection](https://docs.mongodb.com/manual/core/databases-and-collections/#std-label-collections); i.e. query a collection for documents. MongoDB provides the following methods to read documents from a collection:

* [db.collection.find()](https://docs.mongodb.com/manual/reference/method/db.collection.find/#mongodb-method-db.collection.find)

|  |
| --- |
| [ |
| { item: **"journal"**, qty: 25, size: { h: 14, w: 21, uom: **"cm"** }, status: **"A"** }, |
| { item: **"notebook"**, qty: 50, size: { h: 8.5, w: 11, uom: **"in"** }, status: **"A"** }, |
| { item: **"paper"**, qty: 100, size: { h: 8.5, w: 11, uom: **"in"** }, status: **"D"** }, |
| { item: **"planner"**, qty: 75, size: { h: 22.85, w: 30, uom: **"cm"** }, status: **"D"** }, |
| { item: **"postcard"**, qty: 45, size: { h: 10, w: 15.25, uom: **"cm"** }, status: **"A"** } |
| ] |

This page uses the following [mongosh](https://docs.mongodb.com/mongodb-shell/" \l "mongodb-binary-bin.mongosh) methods:

* [db.collection.updateOne(<filter>, <update>, <options>)](https://docs.mongodb.com/manual/reference/method/db.collection.updateOne/#mongodb-method-db.collection.updateOne)
* [db.collection.updateMany(<filter>, <update>, <options>)](https://docs.mongodb.com/manual/reference/method/db.collection.updateMany/#mongodb-method-db.collection.updateMany)
* [db.collection.replaceOne(<filter>, <update>, <options>)](https://docs.mongodb.com/manual/reference/method/db.collection.replaceOne/#mongodb-method-db.collection.replaceOne)
* The examples on this page use the inventory collection. To create and/or populate the inventory collection, run the following:

|  |
| --- |
| db.inventory.insertMany( [ |
| { item: **"canvas"**, qty: 100, size: { h: 28, w: 35.5, uom: **"cm"** }, status: **"A"** }, |
| { item: **"journal"**, qty: 25, size: { h: 14, w: 21, uom: **"cm"** }, status: **"A"** }, |
| { item: **"mat"**, qty: 85, size: { h: 27.9, w: 35.5, uom: **"cm"** }, status: **"A"** }, |
| { item: **"mousepad"**, qty: 25, size: { h: 19, w: 22.85, uom: **"cm"** }, status: **"P"** }, |
| { item: **"notebook"**, qty: 50, size: { h: 8.5, w: 11, uom: **"in"** }, status: **"P"** }, |
| { item: **"paper"**, qty: 100, size: { h: 8.5, w: 11, uom: **"in"** }, status: **"D"** }, |
| { item: **"planner"**, qty: 75, size: { h: 22.85, w: 30, uom: **"cm"** }, status: **"D"** }, |
| { item: **"postcard"**, qty: 45, size: { h: 10, w: 15.25, uom: **"cm"** }, status: **"A"** }, |
| { item: **"sketchbook"**, qty: 80, size: { h: 14, w: 21, uom: **"cm"** }, status: **"A"** }, |
| { item: **"sketch pad"**, qty: 95, size: { h: 22.85, w: 30.5, uom: **"cm"** }, status: **"A"** } |
| ] ); |