

# MongoDB - collection

Topics : [MongoDB](#)

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A MongoDB collection is a grouping of MongoDB documents. It is the equivalent of an RDBMS table. A collection exists within a single database and does not enforce a schema. In MongoDB, documents within a collection can have different fields and data types.

## 1. Dynamic Schema:

- MongoDB is schema-less, meaning documents within a collection do not need to have the same structure. Each document can have different fields.

## 2. Creation:

- Collections are created implicitly when the first document is inserted. MongoDB creates a collection dynamically as soon as data is inserted into it.

## 3. Accessing Collections:

- In the MongoDB shell, you can access a collection using the `db.collection_name` notation. For example, `db.users` refers to the "users" collection.

## 4. Inserting Documents:

- You can insert documents into a collection using the `insertOne` or `insertMany` methods.

```
db.collection_name.insertOne({ field1: value1, field2: value2 });
```

## 5. Querying Documents:

- The `find` method is used to query documents in a collection. It returns a cursor to the documents that match the query criteria.

```
db.collection_name.find({ field: value });
```

## 6. Updating Documents:

- You can update documents in a collection using the `updateOne` or `updateMany` methods.

```
db.collection_name.updateOne({ field: value }, { $set: { updated_field: new_value } });
```

## 7. Deleting Documents:

- Documents can be deleted using the deleteOne or deleteMany methods.

```
db.collection_name.deleteOne({ field: value });
```

## 8. Indexing:

- Indexes can be created on fields to improve query performance.

```
db.collection_name.createIndex({ field: 1 });
```

## 9. Aggregation:

- MongoDB supports aggregation pipelines for complex data transformations.

```
db.collection_name.aggregate([  
  { $group: { _id: "$field", count: { $sum: 1 } } }  
]);
```

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