WHERE, AND , OR & CRUD:

WHERE: Use the where operator to pass either a string containing a JavaScript expression or a full JavaScript function to the query system. The where provides greater flexibility, but requires that the database processes the JavaScript expression or function for *each* document in the collection. Reference the document in the JavaScript expression or function using either this or obj .

ex:

db.players.insertMany([

{ _id: 12378, name: "Steve", username: "steveisawesome", first_login: "2017-01-01" },

{ _id: 2, name: "Anya", username: "anya", first_login: "2001-02-02" }

])

AND: and performs a logical AND operation on an array of one or more expressions (<expression1>, <expression2>, and so on) and selects the documents that satisfy all the expressions.

ex:

db.inventory.find({ $and: [{ price: { $ne: 1.99 } }, { price: { $exists: true } }] })

OR: The or operator performs a logical OR operation on an array of *one or more* <expressions> and selects the documents that satisfy *at least* one of the <expressions>.

ex:

db.inventory.find({ $or: [{ quantity: { $lt: 20 } }, { price: 10 }] })

CRUD OPERATIONS:

1.insert :

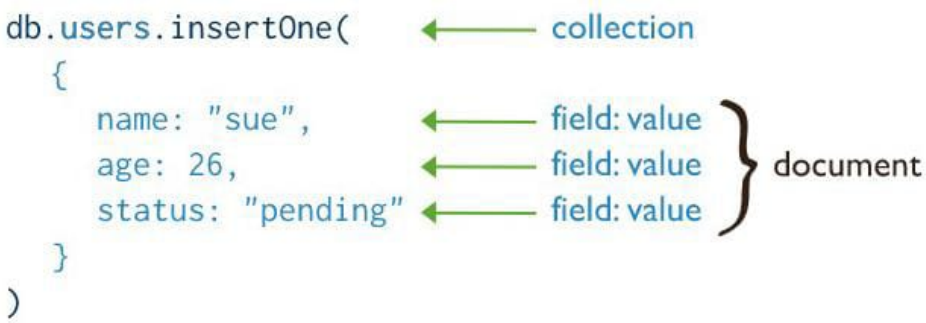
Create or insert operations add new documents to a collection. If the collection does not currently exist, insert operations will create the collection.

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

db.collection.insertOne()

db.collection.insertMany()

In MongoDB, insert operations target a single collection. All write operations in MongoDB are atomic on the level of a single document.



2.update and update many:

Update operations modify existing documents in a collection. MongoDB provides the following methods to update documents of a collection:

db.collection.updateOne()

db.collection.updateMany()

db.collection.replaceOne()

In MongoDB, update operations target a single collection. All write operations in MongoDB are atomic on the level of a single document.

You can specify criteria, or filters, that identify the documents to update. These filters use the same syntax as read operations.

3.delete and delete many:

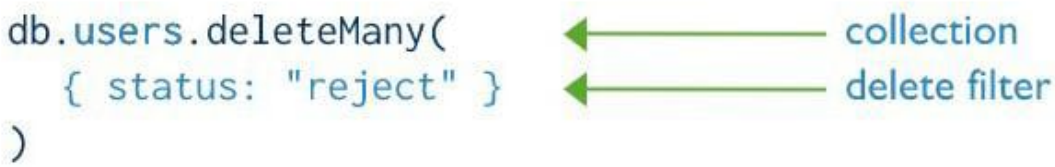
Delete operations remove documents from a collection. MongoDB provides the following methods to delete documents of a collection:

db.collection.deleteOne()

db.collection.deleteMany()

In MongoDB, delete operations target a single collection. All write operations in MongoDB are atomic on the level of a single document.

You can specify criteria, or filters, that identify the documents to remove. These filters use the same syntax as read operations.



PROJECTIONS :

The positional $ operator limits the contents of an <array> to return the first element that matches the query condition on the array.

Use $ in the projection document of the find() method or the findOne() method when you only need one particular array element in selected documents.

See the aggregation operator $filter to return an array with only those elements that match the specified condition.

Ex:

```
{ "_id" : 1, "semester" : 1, "grades" : [ 70, 87, 90 ] }
{ "_id" : 2, "semester" : 1, "grades" : [ 90, 88, 92 ] }
{ "_id" : 3, "semester" : 1, "grades" : [ 85, 100, 90 ] }
{ "_id" : 4, "semester" : 2, "grades" : [ 79, 85, 80 ] }
{ "_id" : 5, "semester" : 2, "grades" : [ 88, 88, 92 ] }
{ "_id" : 6, "semester" : 2, "grades" : [ 95, 90, 96 ] }
```