2. $[]

3. $[element]

4. $push operators with modifiers: $each, $position, $sort, $slice

5. $addToSet operator with $each modifier

6. $pop

7. $pull

8. $pullAll

CRUD   Operations:

   C --->Create|Insert

   R --->Retrieve | Read

   U --->Update

   D --->Delete

Deleting Documents from the collection:

--

MongoDB provides the following methods to delete documents from the collection.

1. deleteOne()

2. deleteMany()

3. remove()

1. deleteOne():

To delete only one document that matches the query criteria.

> db.collection.deleteOne({query})

2. deleteMany():

To delete all matched documents that matches query criteria.

> db.collection.deleteMany({query})

Case Study:

```
db.employees.insert({_id:1,eno:100,ename:"Sunny",esal:1000,eaddr:"Mumbai"})
db.employees.insert({_id:2,eno:200,ename:"Bunny",esal:2000,eaddr:"Hyderabad"})
db.employees.insert({_id:3,eno:300,ename:"Chinny",esal:3000,eaddr:"Mumbai"})
db.employees.insert({_id:4,eno:400,ename:"Vinny",esal:4000,eaddr:"Delhi"})
db.employees.insert({_id:5,eno:500,ename:"Pinny",esal:5000,eaddr:"Chennai"})
db.employees.insert({_id:6,eno:600,ename:"Tinny",esal:6000,eaddr:"Mumbai"})
db.employees.insert({_id:7,eno:700,ename:"Zinny",esal:7000,eaddr:"Delhi"})
```

Q1. Delete the first matched document where eaddr is Mumbai?

```
> db.employees.deleteOne({eaddr: "Mumbai"})
{ "acknowledged" : true, "deletedCount" : 1 }
```
In this case only first matched document deleted.

Q2. Delete all the documents where eaddr is Mumbai?

```
> db.employees.deleteMany({eaddr: "Mumbai"})
{ "acknowledged" : true, "deletedCount" : 2 }
```

Q3. Delete all documents where esal is greater than 3000?
```
>db.employees.deleteMany({esal: {$gt: 3000}})
```

{ "acknowledged" : true, "deletedCount" : 3 }

Q4. Delete all documents where esal is greater than 5000 and eaddr is Delhi?

==1st way:==

> db.employees.deleteMany({$and: [{esal: {$gt: 5000}},{eaddr: "Delhi"}]})

{ "acknowledged" : true, "deletedCount" : 1 }

==2nd way:==

----

db.employees.deleteMany({esal: {$gt: 5000}, eaddr: "Delhi"})

Q5. How to delete all documents from the collection without deleting collection?

> db.employees.deleteMany({})

> db.employees.find().count()

6

> db.employees.deleteMany({})

{ "acknowledged" : true, "deletedCount" : 6 }

> db.employees.find().count()

0

> show collections

employees

students

This operation is exactly same as truncate operation in our relational databases.

3. remove() :

==We can use remove() method to delete either a single document or multiple documents.==

Syntax:

> db.collection.remove({query},justOne)

==justOne field can take boolean value.==
==If it is true, then only one document will be deleted.==
==If it is false, then all matched documents will be deleted.==
==The default value is false. Hence , bydefault remove() method will delete multiple documents.==

Q1. To delete all documents where eaddr is Mumbai?

> db.employees.remove({eaddr: "Mumbai"})

WriteResult({ "nRemoved" : 3 })

Q2. To delete only first matched document where eaddr is Delhi?

> db.employees.remove({eaddr: "Delhi"},true)

WriteResult({ "nRemoved" : 1 })

How to delete a collection?

> db.collection.drop()

To delete collection including all documents.

> show collections

employees

students

> db.employees.drop()

true

> show collections

students

How to delete a database?

> **db.dropDatabase()**

   It will delete the current database.

> **show dbs**

admin   0.000GB

config   0.000GB

durgadb   0.000GB

local   0.000GB

storedb   0.000GB

studentdb 0.000GB

> **db.getName()**

storedb

> **db.dropDatabase()**

{ "dropped" : "storedb", "ok" : 1 }

> **show dbs**

admin   0.000GB

config   0.000GB

durgadb   0.000GB

local   0.000GB

studentdb 0.000GB

Note: In general deleting collections and databases are responsibilities of database admins.

Q1. What is the difference between the following 2 commands?

db.collection.drop()

db.collection.deleteMany({})

Ans:

<mark>db.collection.drop() --->Both collection and documents will be deleted.</mark>
<mark>db.collection.deleteMany({}) --->Only documents will be deleted but not collection.</mark>

Q2. What is the difference between the following commands?

> db.collection.deleteMany({})
> db.collection.remove({})
> db.collection.remove({},false)

ANSWER :All are equal and deleting all documents

MongoDB Utilities (Database Tools):

<mark>----------------------------------</mark>
<mark>1. mongoimport</mark>
<mark>2. mongoexport</mark>
<mark>3. mongodump</mark>
4. <mark>mongorestore</mark>
etc

All these are separate applications.
These can be used for data management in mongodb.
These are commond line utilities and we have to execute from command prompt only but not from mongodb shell.

Bydefault these tools are not available and we have to install