# MongoDB - Aggregation

Aggregations operations process data records and return computed results. Aggregation operations group values from multiple documents together, and can perform a variety of operations on the grouped data to return a single result. In SQL count(\*) and with group by is an equivalent of mongodb aggregation.

## The aggregate() Method

For the aggregation in MongoDB, you should use **aggregate()** method.

### **Syntax**

Basic syntax of **aggregate()** method is as follows −

>db.COLLECTION\_NAME.aggregate(AGGREGATE\_OPERATION)

Single Purpose Aggregation Operations

MongoDB also provides [db.collection.count()](https://docs.mongodb.com/manual/reference/method/db.collection.count/" \l "db.collection.count" \o "db.collection.count()) and [db.collection.distinct()](https://docs.mongodb.com/manual/reference/method/db.collection.distinct/" \l "db.collection.distinct" \o "db.collection.distinct()).

All of these operations aggregate documents from a single collection. While these operations provide simple access to common aggregation processes, they lack the flexibility and capabilities of the aggregation pipeline and map-reduce.

Create a collection :user

db.createCollection**(**"user"**)**

db.user.insert**([{**

title**:**'MongoDB Overview'**,**

description**:**'MongoDB is no sql database'**,**

by\_user**:**'facebook'**,**

likes**:**100

**},**

**{**

title**:**'NoSQL Overview'**,**

description**:**'No sql database is very fast'**,**

by\_user**:**'facebook'**,**

likes**:**10

**},**

**{**

title**:**'Neo4j Overview'**,**

description**:**'Neo4j is no sql database'**,**

by\_user**:**'Neo4j'**,**

likes**:**750

**}]**

**)**

db.user.find**() => to display all docuemnts**

sum of likes userwise:

db.user.aggregate([{$group : {\_id : "$by\_user", likessum : {$sum : "$likes"}}}])

db.user.aggregate([{$group : {\_id : "$by\_user", avgsum : {$avg : "$likes"}}}])

db.user.aggregate([{$group : {\_id : "$by\_user", minlikes : {$min : "$likes"}}}])

db.user.aggregate([{$group : {\_id : "$by\_user", maxlikes : {$max : "$likes"}}}])

db.user.aggregate([{$group : {\_id : "$by\_user", pushlikes : {$push : "$likes"}}}])

db.user.aggregate([{$group : {\_id : "$by\_user", addToSet : {$addToSet : "$likes"}}}])

db.user.aggregate([{$group : {\_id : "$by\_user", first : {$first : "$likes"}}}])

db.user.aggregate([{$group : {\_id : "$by\_user", last : {$last : "$likes"}}}])