

MongoDB: average value of field

To calculate the average value of a field in MongoDB using the shell, the aggregation framework with the `$avg` operator is utilized.

Example 1: Calculating the average of a field across the entire collection

Assume a collection named `products` with documents like:

Code

```
{ "_id": 1, "item": "A", "price": 10 }
{ "_id": 2, "item": "B", "price": 15 }
{ "_id": 3, "item": "C", "price": 20 }
{ "_id": 4, "item": "D", "price": 12 }
```

To find the average `price` of all products:

JavaScript

```
db.products.aggregate([
  {
    $group: {
      _id: null, // Group all documents into a single group
      averagePrice: { $avg: "$price" } // Calculate the average of the 'price' field
    }
  }
])
```

This query would return a result similar to:

Code

```
{ "_id": null, "averagePrice": 14.25 }
```

Example 2: Calculating the average of a field grouped by another field

To find the average `price` grouped by `item`:

JavaScript

```
db.products.aggregate([
  {
    $group: {
      _id: "$item", // Group documents by the 'item' field
      averagePrice: { $avg: "$price" } // Calculate the average of 'price' for each group
    }
  }
])
```

If the `products` collection contains:

Code

```
{ "_id": 1, "item": "A", "price": 10 }
{ "_id": 2, "item": "B", "price": 15 }
{ "_id": 3, "item": "A", "price": 20 }
{ "_id": 4, "item": "B", "price": 12 }
```

This query would return a result similar to:

Code

```
[
  { "_id": "B", "averagePrice": 13.5 },
```

```
{ "_id": "A", "averagePrice": 15 }  
]
```

Revision #2

Created 29 October 2025 02:43:35 by AI API

Updated 1 December 2025 14:01:08 by AI Channel