MongoDB Aggregations

USERS:

1.

```
_id: ObjectId('68842753f181689da77f7863')        _id: ObjectId('68842753f181689da77f7864')        _id: ObjectId('68842753f181689da77f7865')
user_id : "U100"                                   user_id : "U101"                                   user_id : "U102"
name : "User 0"                                     name : "User 1"                                     name : "User 2"
email : "user0@university.edu"                      email : "user1@university.edu"                      email : "user2@university.edu"
role : "student"                                    role : "faculty"                                    role : "student"
▸ preferences : Object                             ▸ preferences : Object                             ▸ preferences : Object
  location : "Library"                                location : "Dorm"                                  location : "Dorm"
▸ order_history : Array (2)                         ▸ order_history : Array (2)                         ▸ order_history : Array (2)
```

Stage 1 `$group`

```
1 ▾ {
2       _id: "$location",
3 ▾     userCount: {
4           $sum: 1
5       }
6   }
```

Output after $group stage (Sample of 6 documents)

```
_id: "Dorm"                    _id: "Canteen"
userCount : 2                  userCount : 2
```

EXPORT DATA ▾   25 ▾ 1 – 5 of 5

```
_id: "Admin"
userCount : 3
```

```
_id: "Dorm"
userCount : 2
```

```
_id: "Library"
userCount : 2
```

```
_id: "Canteen"
userCount : 2
```

```
_id: "Science Block"
userCount : 1
```

2.

```
_id: "Dorm"            _id: "Library"            _id: "Girls Hostel - Block B"
userCount : 2          userCount : 2             userCount : 1
```

FEEDBACKS:

1.

Stage 1 [$group ▼] 🔵   [] ⋯

```
1 ▼ {
2     _id: "$food_rating",
3 ▼   totalFeedbackCount: {
4         $sum: 1
5     }
6 }
```

Output after $group⊡ stage (Sample of 3 documents)

_id: 3
totalFeedbackCount : 5

_id: 5
totalFeedbackCount : 1

∨ **10 Documents** in the collection   ⟳

Preview of documents

_id: ObjectId('6884278af181689da77f786e')
feedback_id : "F700"
user_id : "U100"
order_id : "O500"
food_rating : 4
delivery_rating : 3
comment : "Feedback comment 0"
timestamp : "2025-07-25T06:08:40.931852Z"

_id: ObjectId('6884278af181689da77f786f')
feedback_id : "F701"
user_id : "U101"
order_id : "O501"
food_rating : 4
delivery_rating : 5
comment : "Feedback comment 1"
timestamp : "2025-07-25T06:18:40.931861Z"

▶ **_id:** ObjectId('6884278af181689da77f7870')
feedback_id : "F702"
user_id : "U102"
order_id : "O502"
food_rating : 3
delivery_rating : 4
comment : "Feedback comment 2"
timestamp : "2025-07-25T06:28:40.931866Z"

⊕

2.

[📤 EXPORT DATA ▾]   [25 ▾] 1–5 of 5 ⟳ ‹ › [▾] ☰ {} ⊞

_id: "M102"
totalQuantitySold : 18

_id: "M103"
totalQuantitySold : 11

▶ **_id:** "M101"
totalQuantitySold : 10

_id: "M105"
totalQuantitySold : 6

_id: ObjectId('66b1f1e9bcda7f1234567880')
totalQuantitySold : 0

INVERSTORS:
1.

Stage 1 · $sort

```
1  ▾ {
2        quantity: -1
3     }
```

Output after $sort stage (Sample of 5 documents)

```
_id: ObjectId('68843a8bf181689da77f788e')
ingredient_id : "I100"
name : "Ingredient 0"
quantity : 42
unit : "kg"
last_updated : "2025-07-25T06:08:40.931689Z"
low_stock_threshold : 2
```

```
_id: ObjectId('68843a8bf181689da77f7890')
ingredient_id : "I102"
name : "Ingredient 2"
quantity : 41
unit : "kg"
last_updated : "2025-07-25T06:08:40.931705Z"
low_stock_threshold : 2
```

Stage 2 · $limit

```
1  5
```

Output after $limit stage (Sample of 5 documents)

```
_id: ObjectId('68843a8bf181689da77f788e')
ingredient_id : "I100"
name : "Ingredient 0"
quantity : 42
unit : "kg"
last_updated : "2025-07-25T06:08:40.931689Z"
low_stock_threshold : 2
```

```
_id: ObjectId('68843a8bf181689da77f7890')
ingredient_id : "I102"
name : "Ingredient 2"
quantity : 41
unit : "kg"
last_updated : "2025-07-25T06:08:40.931705Z"
low_stock_threshold : 2
```

ORDERS:
1.

```
_id: "M102"
totalQuantitySold : 18
```

```
_id: "M103"
totalQuantitySold : 11
```

```
_id: "M101"
totalQuantitySold : 10
```

```
_id: "M105"
totalQuantitySold : 6
```

```
_id: ObjectId('66b1f1e9bcda7f1234567880')
totalQuantitySold : 0
```

```
_id: "M102"
totalQuantitySold : 18
```

```
_id: "M103"
totalQuantitySold : 11
```

```
_id: "M101"
totalQuantitySold : 10
```

Stage 3 $sort

```
1 ▾ {
2    totalQuantitySold: -1
3 }
```

Output after $sort stage (Sample of 5 documents)

_id: "M102"
totalQuantitySold : 18

_id: "M103"
totalQuantitySold : 11

QUICK_BITES:
1.

_id: "M102"
totalOrders : 18

_id: "M103"
totalOrders : 11

_id: "M101"
totalOrders : 10

_id: "M105"
totalOrders : 6

2.

_id: "M102"
totalOrders : 18

_id: "M103"
totalOrders : 11

_id: "M101"
totalOrders : 10

Stage 5 $limit

```
1    5
```

Output after $limit stage (Sample of 4 documents)

_id: "M102"
totalOrders : 18

_id: "M103"
totalOrders : 11

```
1 ▾ {
2      _id: "$orders.items.item_id",
3 ▾   totalOrders: {
4         $sum: "$orders.items.quantity"
5      }
6   }
```

Output after $group stage (Sample of 4 documents)

```
_id: "M105"
totalOrders : 6
```

```
_id: "M103"
totalOrders : 11
```

➕

▾ Stage 4 [$sort   ▾] 🔵   ⤢ ⋯

```
1 ▾ {
2      totalOrders: -1
3   }
```

Output after $sort stage (Sample of 4 documents)

```
_id: "M102"
totalOrders : 18
```

```
_id: "M103"
totalOrders : 11
```

```
1 ▾ {
2      _id: "$orders.items.item_id",
3   }
```