

Easy Difficulty

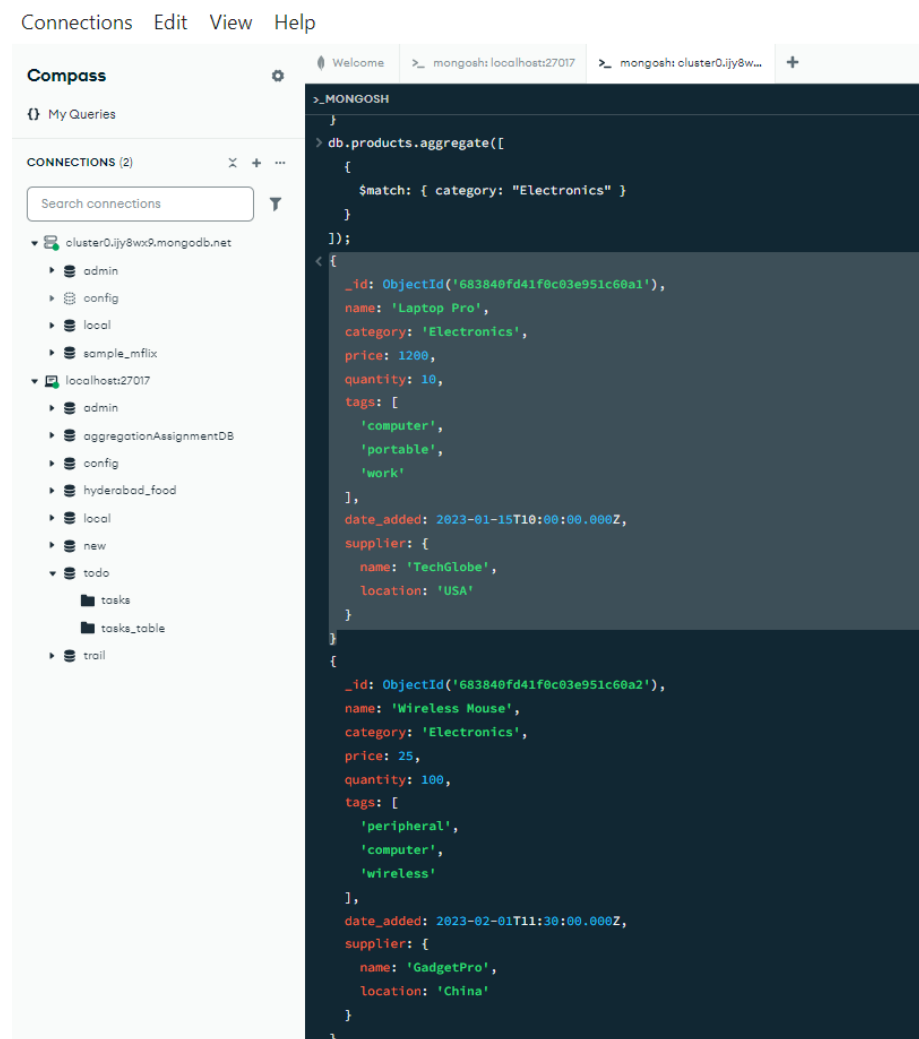
1. List All Products in the "Electronics" Category:

- **Task:** Write an aggregation query to find all documents where the `category` is "Electronics".
- **Hint:** Use the `$match` stage.
- **Expected Output (structure, `_id` will vary):**

Command:

```
db.products.aggregate([  
  
  {  
  
    $match: { category: "Electronics" }  
  
  }  
  
]);
```

gives records which has category as Electronics



Compass

{ } My Queries

CONNECTIONS (2)

Search connections

- cluster0.iijy8wx9.mongodb.net
 - admin
 - config
 - local
 - sample_mflix
- localhost:27017
 - admin
 - aggregationAssignmentDB
 - config
 - hyderabad_food
 - local
 - new
 - todo
 - tasks
 - tasks_table
 - trail

>_MONGOSH

```
{
  _id: ObjectId('683840fd41f0c03e951c60a3'),
  name: 'Mechanical Keyboard',
  category: 'Electronics',
  price: 75,
  quantity: 50,
  tags: [
    'peripheral',
    'computer',
    'mechanical'
  ],
  date_added: 2023-01-20T14:00:00.000Z,
  supplier: {
    name: 'TechGlobe',
    location: 'USA'
  }
}
{
  _id: ObjectId('683840fd41f0c03e951c60a7'),
  name: 'Smartwatch',
  category: 'Electronics',
  price: 199,
  quantity: 25,
  tags: [
    'wearable',
    'gadget',
    'portable'
  ],
  date_added: 2023-04-01T12:00:00.000Z,
  supplier: {
    name: 'GadgetPro',
    location: 'China'
  }
}
{
  _id: ObjectId('683840fd41f0c03e951c60aa'),
  name: 'Bluetooth Speaker',
  category: 'Electronics',
  price: 80,
  quantity: 60,
  tags: [
    'audio',
    'portable',
    'wireless'
  ],
  date_added: 2023-02-25T17:00:00.000Z,
  supplier: {
    name: 'SoundWave',
    location: 'USA'
  }
}
Atlas atlas-14ihyp-shard-0 [primary] aggregationAssignmentDB>
```

```
{
  _id: ObjectId('683839e622f6a1f56dd6e4f0'),
  name: 'Laptop Pro',
  category: 'Electronics',
  price: 1200,
  quantity: 10,
  tags: [
    'computer',
    'portable',
    'work'
  ],
  date_added: 2023-01-15T10:00:00.000Z,
  supplier: {
    name: 'TechGlobe',
    location: 'USA'
  }
}
```

```
{
  _id: ObjectId('683839e622f6a1f56dd6e4f1'),
  name: 'Wireless Mouse',
  category: 'Electronics',
  price: 25,
  quantity: 100,
  tags: [
```

```
'peripheral',
'computer',
'wireless'
],
date_added: 2023-02-01T11:30:00.000Z,
supplier: {
  name: 'GadgetPro',
  location: 'China'
}
}
{
  _id: ObjectId('683839e622f6a1f56dd6e4f2'),
  name: 'Mechanical Keyboard',
  category: 'Electronics',
  price: 75,
  quantity: 50,
  tags: [
    'peripheral',
    'computer',
    'mechanical'
  ],
  date_added: 2023-01-20T14:00:00.000Z,
  supplier: {
    name: 'TechGlobe',
```

```
    location: 'USA'
  }
}
{
  _id: ObjectId('683839e622f6a1f56dd6e4f6'),
  name: 'Smartwatch',
  category: 'Electronics',
  price: 199,
  quantity: 25,
  tags: [
    'wearable',
    'gadget',
    'portable'
  ],
  date_added: 2023-04-01T12:00:00.000Z,
  supplier: {
    name: 'GadgetPro',
    location: 'China'
  }
}
{
  _id: ObjectId('683839e622f6a1f56dd6e4f6'),
  name: 'Smartwatch',
  category: 'Electronics',
```

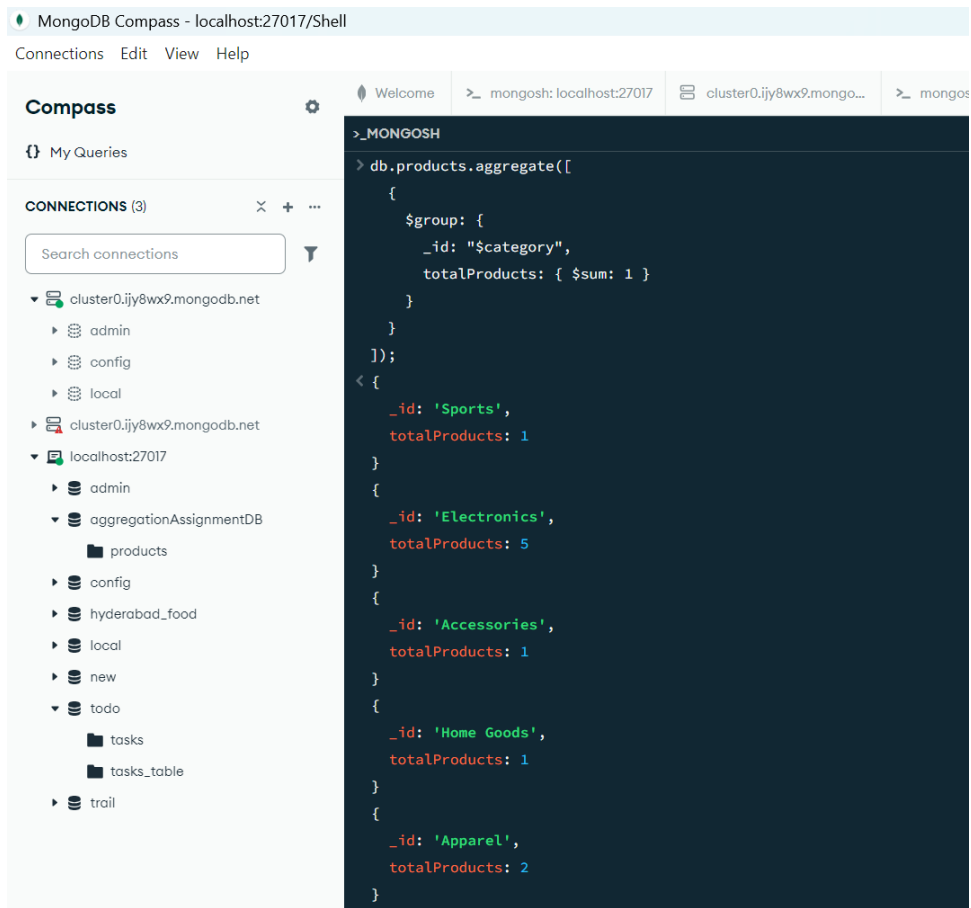
```
price: 199,  
quantity: 25,  
tags: [  
  'wearable',  
  'gadget',  
  'portable'  
],  
date_added: 2023-04-01T12:00:00.000Z,  
supplier: {  
  name: 'GadgetPro',  
  location: 'China'  
}  
}
```

2. Count Products per Category:

- **Task:** Write an aggregation query to count how many products belong to each category.
- **Hint:** Use the `$group` stage with the `$sum` accumulator.

Command

```
db.products.aggregate([  
  {  
    $group: {  
      _id: "$category",  
      totalProducts: { $sum: 1 }    }  
    }  
  ]);
```



we get no.of field for each categories

```
{
  "_id": 'Sports',
  totalProducts: 1
}
{
  "_id": 'Electronics',
  totalProducts: 5
}
{
  "_id": 'Accessories',
  totalProducts: 1
}
```

```

}
{
  _id: 'Apparel',
  totalProducts: 2
}
{
  _id: 'Home Goods',
  totalProducts: 1
}

```

3. Product Names and Prices, Sorted by Price (Descending):

- **Task:** Write an aggregation query to display only the `name` and `price` of each product, sorted by `price` from highest to lowest. Do not include the `_id` field.
- **Hint:** Use `$project` and `$sort`.

Command

```

db.products.aggregate([
{
  $project: {
    _id: 0,

```



```
    name: 1,  
    price: 1  
  }  
},  
{  
  $sort: { price: -1 }  
}  
]);
```

```
{  
  name: 'Laptop Pro',  
  price: 1200  
}  
{  
  name: 'Espresso Machine',  
  price: 250  
}  
{  
  name: 'Smartwatch',  
  price: 199  
}  
{  
  name: 'Bluetooth Speaker',  
  price: 80
```

}

{

name: 'Mechanical Keyboard',

price: 75

}

{

name: 'Denim Jeans',

price: 60

}

{

name: 'Leather Wallet',

price: 45

}

{

name: 'Yoga Mat',

price: 30

}

{

name: 'Wireless Mouse',

price: 25

}

{

name: 'Cotton T-Shirt',

price: 20

}

MongoDB Compass - localhost:27017/Shell

Connections Edit View Help

Compass

{ } My Queries

CONNECTIONS (3)

Search connections

cluster0.ijy8wx9.mongodb.net

admin

config

local

cluster0.ijy8wx9.mongodb.net

localhost:27017

admin

aggregationAssignmentDB

products

config

hyderabad_food

local

new

todo

tasks

tasks_table

trail

Welcome

mongosh: localhost:27017

cluster0.ijy8wx9.mongo...

>_MONGOSH

> db.products.aggregate([
 {
 \$project: {
 _id: 0,
 name: 1,
 price: 1
 }
 },
 {
 \$sort: { price: -1 }
 }
]);
< {
 name: 'Laptop Pro',
 price: 1200
}
{
 name: 'Espresso Machine',
 price: 250
}
{
 name: 'Smartwatch',
 price: 199
}
{
 name: 'Bluetooth Speaker',
 price: 80
}

```
{
  name: 'Mechanical Keyboard',
  price: 75
}
{
  name: 'Denim Jeans',
  price: 60
}
{
  name: 'Leather Wallet',
  price: 45
}
{
  name: 'Yoga Mat',
  price: 30
}
{
  name: 'Wireless Mouse',
  price: 25
}
{
  name: 'Cotton T-Shirt',
  price: 20
}
aggregationAssignmentDB> |
```