MongoDB Scenarios – Rut Patel

User Stories

Library Rentals

1. As a Customer I want to query by a particular publisher in order to find items by someone I like
2. As a Social Media Consultant I want to know which items get rented out the most so I can create effective campaigns for them
3. As a librarian I want to query to get the total amount income that we earned from our rentals this month
4. As a librarian I want to query to update the stock details for the specific item
5. As a librarian I want to query to insert new item our system
6. As a librarian I want get the total number of items we have in our library with its available quantity so that I can order the new items if there is less quantity available
7. As a librarian I want to delete a particular item that has been rented least by the customers
8. As a customer I want to get the DVD’s that are popular and are less than £10.00
9. As a customer I want to get the list of DVD’s whose rating is higher 3 stars which helps me decide which DVD shall I rent out

Emergency Services Logs

1. As a Managing Director I want to query what the peak times for particular service requests are so I can appropriately assign staff
2. As a Calls Manager I want to query which members of staff have taken the most calls so I know who is performing well
3. As an Managing Director I want to query what the maximum call duration has been the past month so I can track statistics on this
4. As a managing director I want to get the list of the areas from where the most amount of problems has been reported
5. As a Calls Manager I want to get the most demanded resolution type
6. As a managing director I want to get the total number of calls has been attended by each employee, total duration and average duration per call so that I announce employee of the months who attended most calls with least duration

7. As a Calls Manager I want to know the top 3 customers whom have made most amount of calls requesting for the service
8. As a Calls Manager I want to delete a particular recorded incident as the customer no longer required that service.

Amazon Warehouse

1. As a Warehouse operative, I want to add multiple products to an order so I can decrease the amount of packing needed for individual items
2. As a Warehouse manager I want to query which items need restocking so I can contact the appropriate supplier for re-ordering
3. As an Warehouse Director, I want to query what the maximum time taken to complete an order so I can see where we can increase efficiency in the warehouse.
4. As a Warehouse operative I want to the get the list of all the orders with the information about who picked the order and packed the order as well as the amount of time they have taken to complete the order in order to see performance from each of the employees
5. As a managing director I want to get the list of top 5 employees who picked and packed most amount of the orders with the quickest completion time so that I pick employee of the month
6. As a Warehouse manager I want to get the total income for the specific day so that I can generate the statistics chart.
7. As a warehouse director I want to get the list of customers who have placed most amount of orders so that I can send them the vouchers as a reward
8. As a Warehouse Operative I want to update the price for the specific item due to the end of month sale.

Pokemon Trainer Database

1. As a Pokémon Trainer, I want to query what type of team the gym leaders that I haven’t beaten have so I can see the best path to become a Pokémon Master
2. As a Gym Leader, I want to query which Pokémon I can add to my team based on the type of team I use so I can find the optimal team for a challenger
3. As a Pokemon Trainer, I want to query the Pokemon I can find in a certain town, city or route so that I can add to my team of PATHETIC LOSERS.
4. As a pokemon trainer I want to get the list of all pokemon that I have caught during my journey and get their released status
5. As a pokemon trainer I want to get the list of pokemon I have used the most for all the gym battles that I have done till now
6. As a pokemon trainer I want to know the total number of pokemons that I have for each type.

7. As a pokemon trainer I want to know the level for each of my pokemon with their strength and weakness against other types
8. As a gym leader I want to see the list of the pokemon of the trainer whom I will fighting against on the particular date so that I can prepare my team

Library Rental Data Dictionary

Customers Table	
Field	Type
Customer ID	Int
Full Name	VARCHAR(255)
Item ID	Item
Start Date	DATE
End Date	DATE

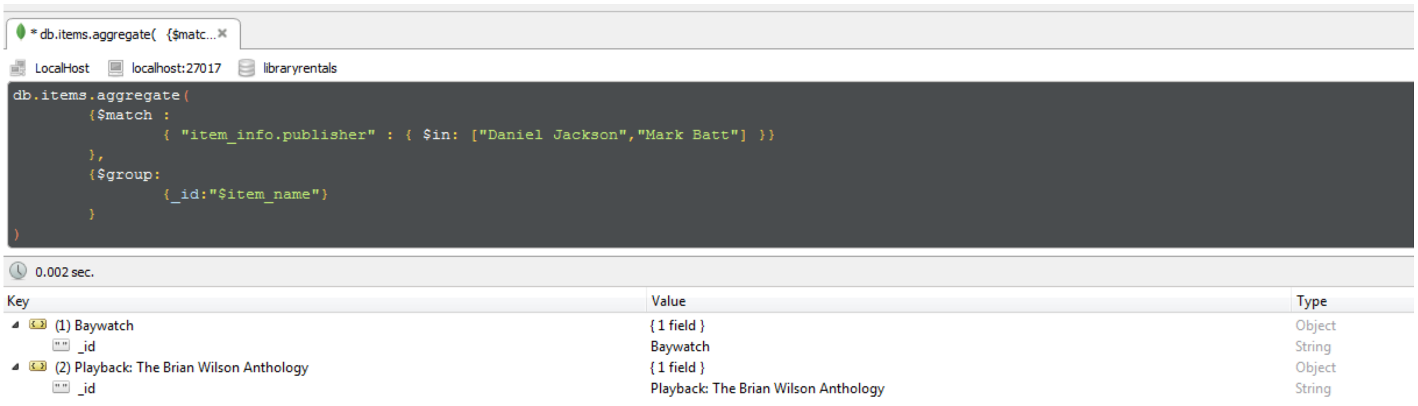
Items Table	
Field	Type
Item ID	Int
Type	VARCHAR(255)
Item Name	LONG TEXT
Genres	VARCHAR(255)
Quantity	Int
Price	Double

Library Rental Solutions

- CREATE database: **db libraryrentals**

1. As a Librarian I want to query if any rentals are overdue so I can chase this up

```
db.items.aggregate(
        {$match :
                { "item_info.publisher" : { $in: ["Daniel Jackson","Mark Batt"] }}
        },
        {$group:
                {_id:"$item_name"}
        }
```



* db.items.aggregate({$matc...

LocalHost localhost:27017 libraryrentals

```
db.items.aggregate(
        {$match :
                { "item_info.publisher" : { $in: ["Daniel Jackson","Mark Batt"] }}
        },
        {$group:
                {_id:"$item_name"}
        }
)
```

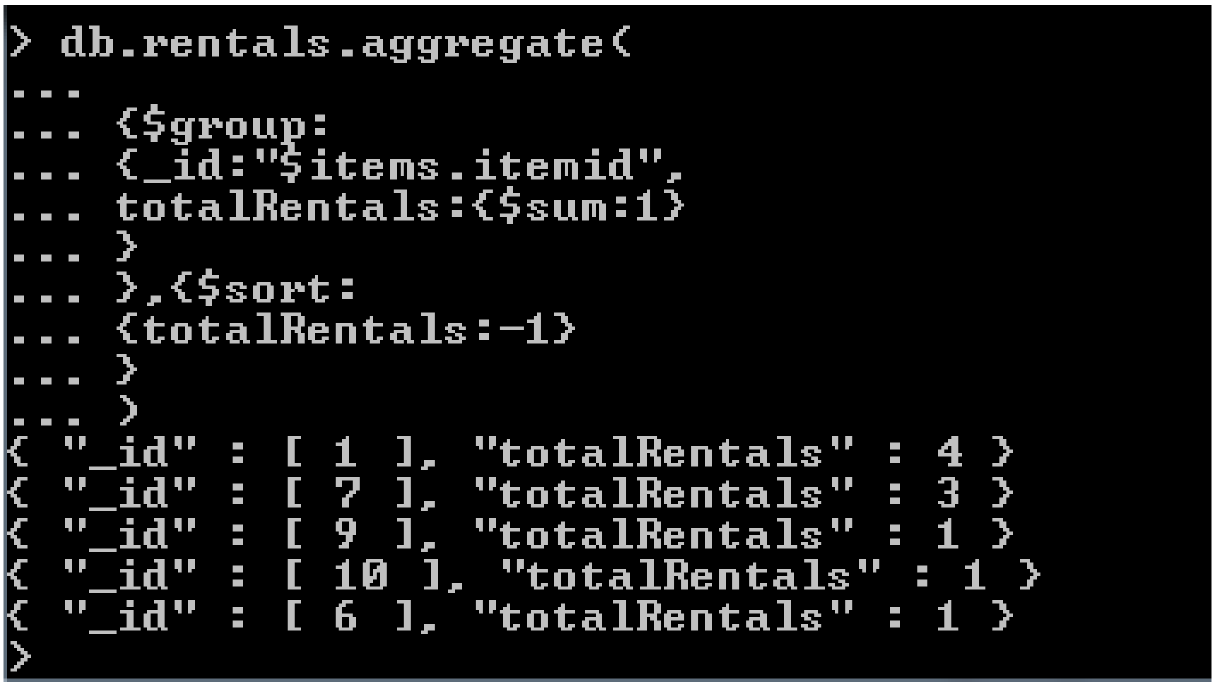
0.002 sec.

```
Key                                         Value                                    Type
(1) Baywatch                                { 1 field }                              Object
    _id                                     Baywatch                                 String
(2) Playback: The Brian Wilson Anthology    { 1 field }                              Object
    _id                                     Playback: The Brian Wilson Anthology     String
```

)

2. As a Social Media Consultant I want to know which items get rented out the most so I can create effective campaigns for them

```
db.rentals.aggregate(
        {$group:
                {_id:"$items.itemid",
                        totalRentals:{$sum:1}
                }
        },{$sort:
                {totalRentals:-1}
        }
)
```

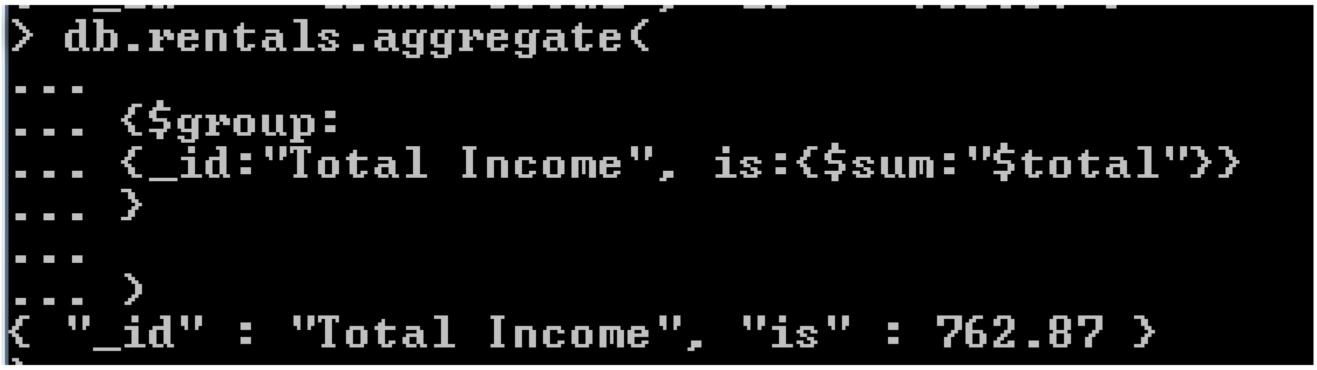


```
> db.rentals.aggregate(
...
... {$group:
... {_id:"$items.itemid",
... totalRentals:{$sum:1}
... }
... },{$sort:
... {totalRentals:-1}
... }
... )
{ "_id" : [ 1 ], "totalRentals" : 4 }
{ "_id" : [ 7 ], "totalRentals" : 3 }
{ "_id" : [ 9 ], "totalRentals" : 1 }
{ "_id" : [ 10 ], "totalRentals" : 1 }
{ "_id" : [ 6 ], "totalRentals" : 1 }
>
```

"_id" belongs to the ITEM ID

3. As a librarian I want to query to get the total amount income that we earned from our rentals this month

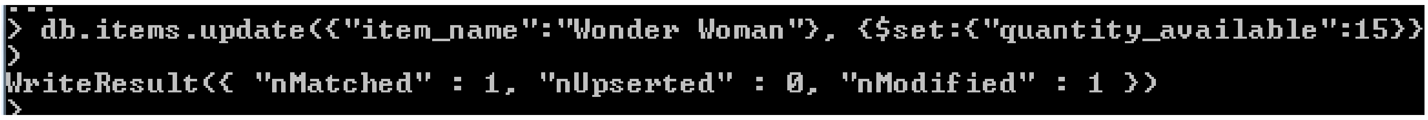
```
db.rentals.aggregate(

        {$group:

                {_id:"Total Income", is:{$sum:"$total"}}

        }

)
```



```
> db.rentals.aggregate(
...
... {$group:
... {_id:"Total Income", is:{$sum:"$total"}}
... }
...
... )
{ "_id" : "Total Income", "is" : 762.87 }
```

4. As a librarian I want to query to update the stock details for the specific item

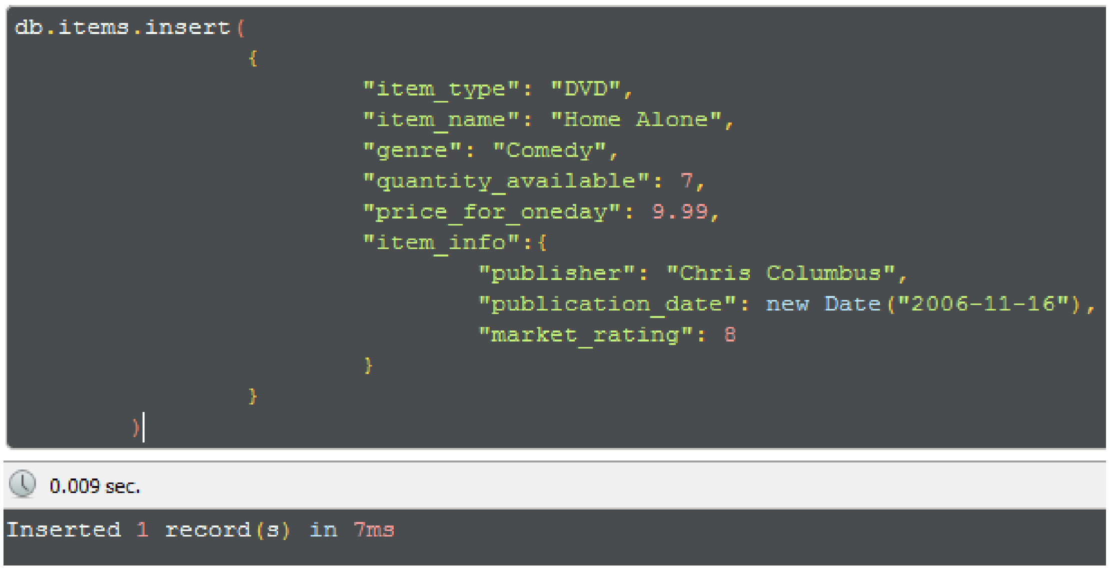
```
db.items.update({"item_name":"Wonder Woman"}, {$set:{"quantity_available":15}})
```



```
...
> db.items.update({"item_name":"Wonder Woman"}, {$set:{"quantity_available":15}})
>
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
>
```

5. As a librarian I want to query to insert new item our system

```
db.items.insert(
 {
        "item_type": "DVD",
        "item_name": "Home Alone",
        "genre": "Comedy",
        "quantity_available": 7,
        "price_for_oneday": 9.99,
        "item_info":{
                "publisher": "Chris Columbus",
                "publication_date": new Date("2006-11-16"),
                "market_rating": 8
        }
 }
```



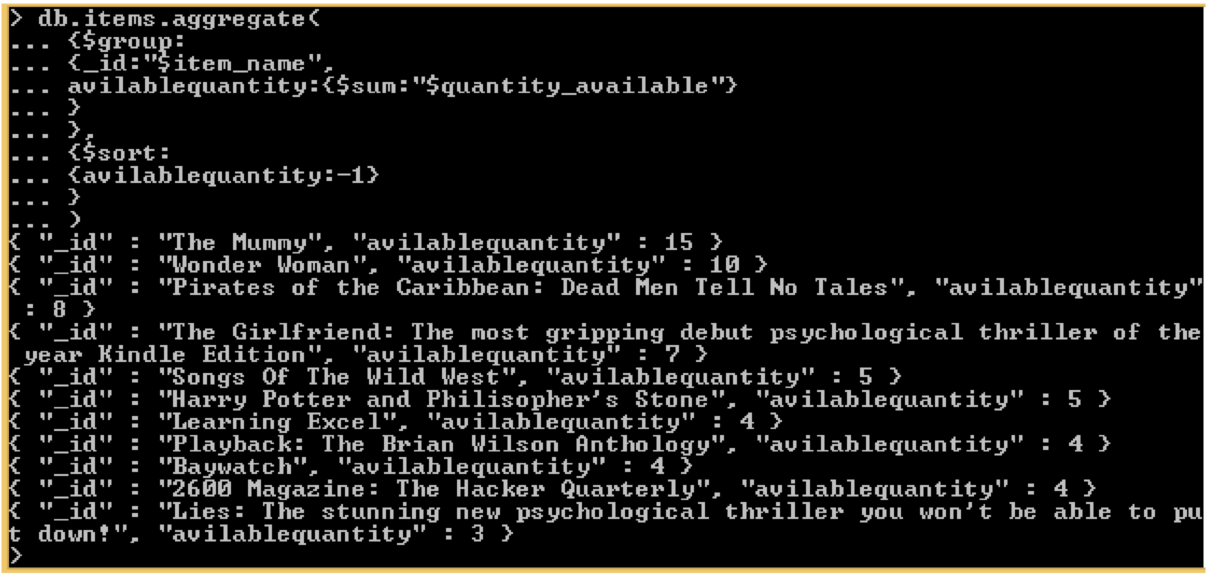
```
db.items.insert(
                {
                        "item_type": "DVD",
                        "item_name": "Home Alone",
                        "genre": "Comedy",
                        "quantity_available": 7,
                        "price_for_oneday": 9.99,
                        "item_info":{
                                "publisher": "Chris Columbus",
                                "publication_date": new Date("2006-11-16"),
                                "market_rating": 8
                        }
                }
          )
```

0.009 sec.

```
Inserted 1 record(s) in 7ms
```

6. As a librarian I want get the total number of items we have in our library with its available quantity so that I can order the new items if there is less quantity available

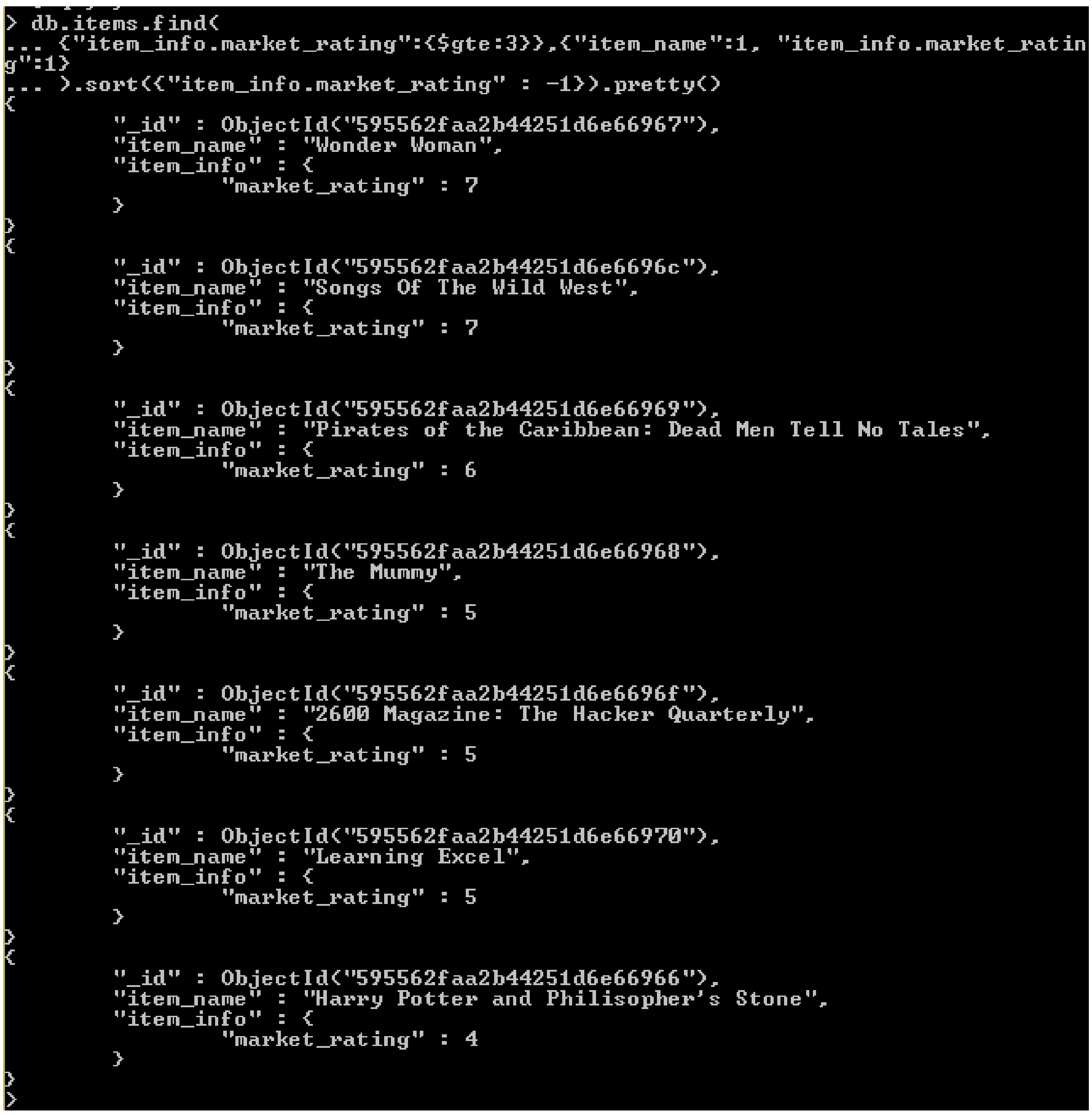
```
db.items.aggregate(
  {$group:
        {_id:"$item_name",
              avilablequantity:{$sum:$quantity_available}
        }
  },
  {$sort:
        {avilablequantity:-1}
  }
)
```



```
> db.items.aggregate(
... {$group:
... {_id:"$item_name",
... avilablequantity:{$sum:"$quantity_available"}
... }
... },
... {$sort:
... {avilablequantity:-1}
... }
... )
{ "_id" : "The Mummy", "avilablequantity" : 15 }
{ "_id" : "Wonder Woman", "avilablequantity" : 10 }
{ "_id" : "Pirates of the Caribbean: Dead Men Tell No Tales", "avilablequantity"
 : 8 }
{ "_id" : "The Girlfriend: The most gripping debut psychological thriller of the
 year Kindle Edition", "avilablequantity" : 7 }
{ "_id" : "Songs Of The Wild West", "avilablequantity" : 5 }
{ "_id" : "Harry Potter and Philisopher's Stone", "avilablequantity" : 5 }
{ "_id" : "Learning Excel", "avilablequantity" : 4 }
{ "_id" : "Playback: The Brian Wilson Anthology", "avilablequantity" : 4 }
{ "_id" : "Baywatch", "avilablequantity" : 4 }
{ "_id" : "2600 Magazine: The Hacker Quarterly", "avilablequantity" : 4 }
{ "_id" : "Lies: The stunning new psychological thriller you won't be able to pu
t down!", "avilablequantity" : 3 }
>
```

7. As a customer I want to get the list of DVD’s whose rating is higher 3 stars which helps me decide which DVD shall I rent out

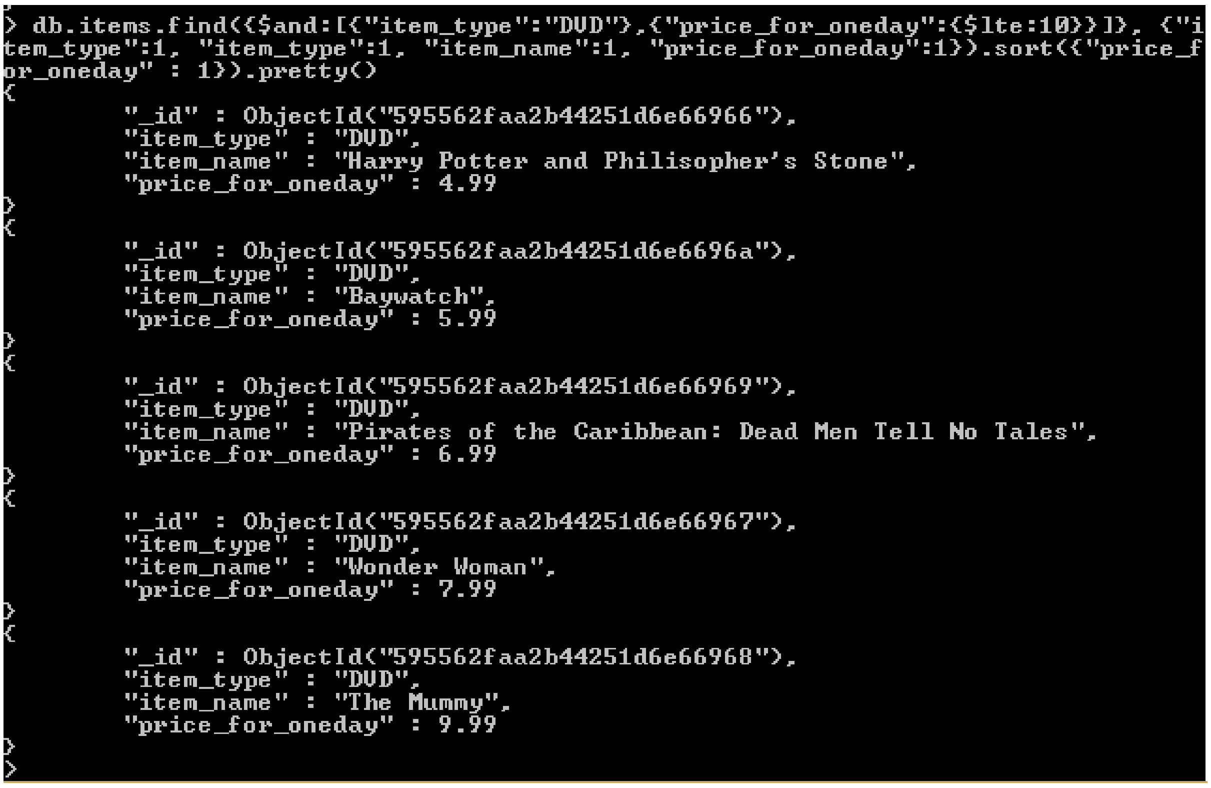
```
db.items.find(
    {"item_info.market_rating":{$gte:3}},{"item_name":1,
    "item_info.market_rating":1}
).sort({"item_info.market_rating" : -1}).pretty()
```



```
> db.items.find(
... {"item_info.market_rating":{$gte:3}},{"item_name":1, "item_info.market_ratin
g":1}
... ).sort({"item_info.market_rating" : -1}).pretty()
{
        "_id" : ObjectId("595562faa2b44251d6e66967"),
        "item_name" : "Wonder Woman",
        "item_info" : {
                "market_rating" : 7
        }
}
{
        "_id" : ObjectId("595562faa2b44251d6e6696c"),
        "item_name" : "Songs Of The Wild West",
        "item_info" : {
                "market_rating" : 7
        }
}
{
        "_id" : ObjectId("595562faa2b44251d6e66969"),
        "item_name" : "Pirates of the Caribbean: Dead Men Tell No Tales",
        "item_info" : {
                "market_rating" : 6
        }
}
{
        "_id" : ObjectId("595562faa2b44251d6e66968"),
        "item_name" : "The Mummy",
        "item_info" : {
                "market_rating" : 5
        }
}
{
        "_id" : ObjectId("595562faa2b44251d6e6696f"),
        "item_name" : "2600 Magazine: The Hacker Quarterly",
        "item_info" : {
                "market_rating" : 5
        }
}
{
        "_id" : ObjectId("595562faa2b44251d6e66970"),
        "item_name" : "Learning Excel",
        "item_info" : {
                "market_rating" : 5
        }
}
{
        "_id" : ObjectId("595562faa2b44251d6e66966"),
        "item_name" : "Harry Potter and Philisopher's Stone",
        "item_info" : {
                "market_rating" : 4
        }
}
>
```

8. As a customer I want to get the DVD’s that are popular and are less than £10.00

db.items.find({$and:[{"item_type":"DVD"},{"price_for_oneday":{$lte:10}}]}, {"item_type":1, "item_type":1, "item_name":1, "price_for_oneday":1}).sort({"price_for_oneday" : 1}).pretty()



```
> db.items.find({$and:[{"item_type":"DVD"},{"price_for_oneday":{$lte:10}}]}, {"i
tem_type":1, "item_type":1, "item_name":1, "price_for_oneday":1}).sort({"price_f
or_oneday" : 1}).pretty()
{
        "_id" : ObjectId("595562faa2b44251d6e66966"),
        "item_type" : "DVD",
        "item_name" : "Harry Potter and Philisopher's Stone",
        "price_for_oneday" : 4.99
}
{
        "_id" : ObjectId("595562faa2b44251d6e6696a"),
        "item_type" : "DVD",
        "item_name" : "Baywatch",
        "price_for_oneday" : 5.99
}
{
        "_id" : ObjectId("595562faa2b44251d6e66969"),
        "item_type" : "DVD",
        "item_name" : "Pirates of the Caribbean: Dead Men Tell No Tales",
        "price_for_oneday" : 6.99
}
{
        "_id" : ObjectId("595562faa2b44251d6e66967"),
        "item_type" : "DVD",
        "item_name" : "Wonder Woman",
        "price_for_oneday" : 7.99
}
{
        "_id" : ObjectId("595562faa2b44251d6e66968"),
        "item_type" : "DVD",
        "item_name" : "The Mummy",
        "price_for_oneday" : 9.99
}
>
```

Emergency Services Logs Data Dictionary

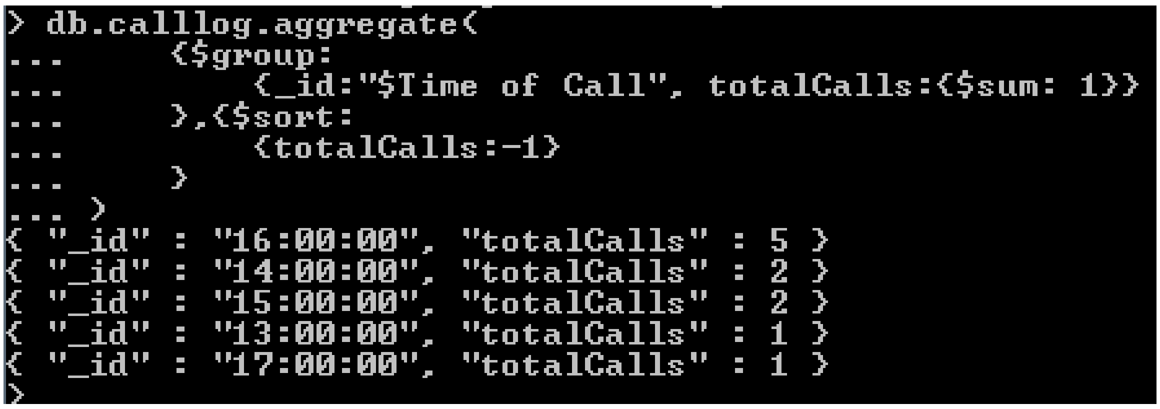
Staff Table	
Field	Type
Staff ID	Int
Name	VARCHAR(255)
Age	Int
Location	VARCHAR(255)
Email Address	VARCHAR(255)

Call Log Table	
Field	Type
Date of Call	DATE
Time of Call	TIME
Call Duration	VARCHAR(255)
Staff ID	VARCHAR(255)
Reason for call	VARCHAR(255)
Comments	VARCHAR(255)
Customer Name	VARCHAR(255)
Phone Number	VARCHAR(255)
Address	VARCHAR(255)
Location	VARCHAR(255)

<u>Emergency Services Logs</u>

1. As a Managing Director I want to query what the peak times for particular service requests are so I can appropriately assign staff

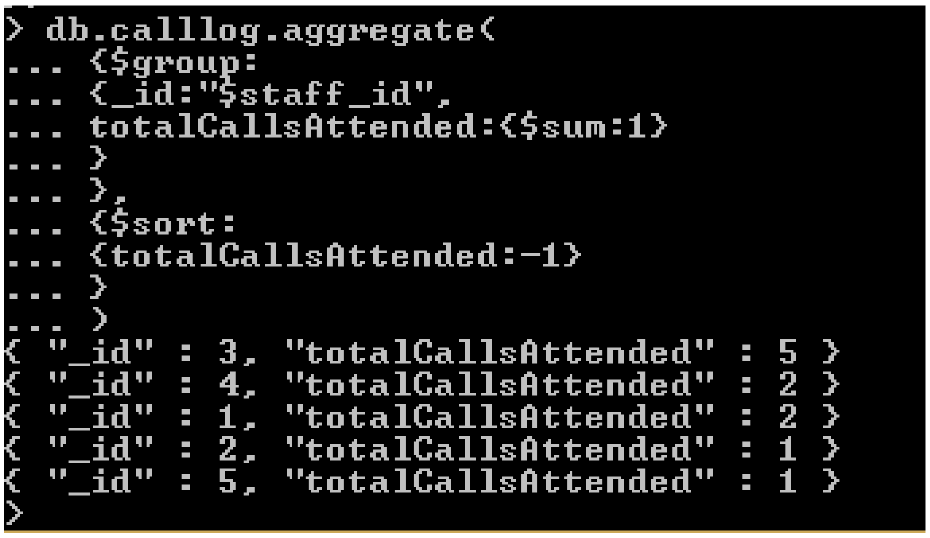
```
db.calllog.aggregate(
   {$group:
      {_id:"$Time of Call", totalCalls:{$sum: 1}}
   },{$sort:
      {totalCalls:-1}
   }
)
```



```
> db.calllog.aggregate(
...     {$group:
...         {_id:"$Time of Call", totalCalls:{$sum: 1}}
...     },{$sort:
...         {totalCalls:-1}
...     }
... )
{ "_id" : "16:00:00", "totalCalls" : 5 }
{ "_id" : "14:00:00", "totalCalls" : 2 }
{ "_id" : "15:00:00", "totalCalls" : 2 }
{ "_id" : "13:00:00", "totalCalls" : 1 }
{ "_id" : "17:00:00", "totalCalls" : 1 }
>
```

2. As a Calls Manager I want to query which members of staff have taken the most calls so I know who is performing well

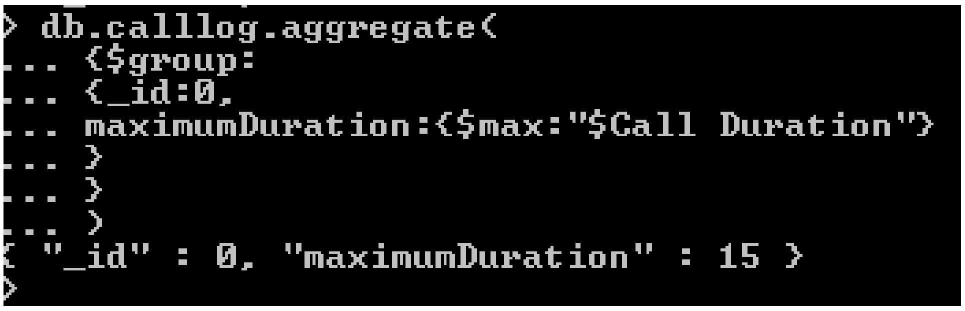
```
db.calllog.aggregate(
        {$group:
                {_id:"$staff_id",
                        totalCallsAttended:{$sum:1}
                }
        },
        {$sort:
                {totalCallsAttended:-1}
        }
)
```



```
> db.calllog.aggregate(
... {$group:
... {_id:"$staff_id",
... totalCallsAttended:{$sum:1}
... }
... },
... {$sort:
... {totalCallsAttended:-1}
... }
... )
{ "_id" : 3, "totalCallsAttended" : 5 }
{ "_id" : 4, "totalCallsAttended" : 2 }
{ "_id" : 1, "totalCallsAttended" : 2 }
{ "_id" : 2, "totalCallsAttended" : 1 }
{ "_id" : 5, "totalCallsAttended" : 1 }
>
```

3. As an Managing Director I want to query what the maximum call duration has been the past month so I can track statistics on this

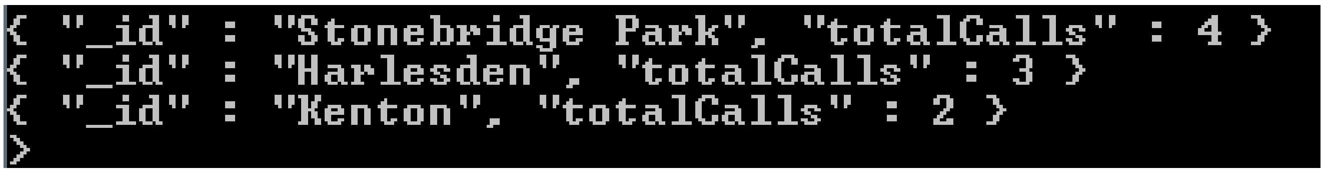
```
db.calllog.aggregate(
        {$group:
                {_id:0,
                        maximumDuration:{$max:"$Call Duration"}
                }
        }
)
```



```
> db.calllog.aggregate(
... {$group:
... {_id:0,
... maximumDuration:{$max:"$Call Duration"}
... }
... }
... )
{ "_id" : 0, "maximumDuration" : 15 }
>
```

4. As a managing director I want to get the list of the areas from where the most amount of problems has been reported

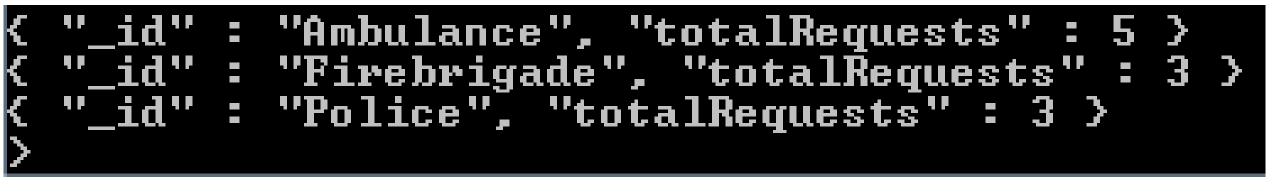
```
db.calllog.aggregate(
        {$group:
                {_id:"$customer_info.location",
                        totalCalls:{$sum:1}
                }
        },{$sort:
                {totalCalls:-1}
        },{$limit:3}
)
```



```
{ "_id" : "Stonebridge Park", "totalCalls" : 4 }
{ "_id" : "Harlesden", "totalCalls" : 3 }
{ "_id" : "Kenton", "totalCalls" : 2 }
>
```

5. As a Calls Manager I want to get the list of total number of calls that we have received so far against the reported dates

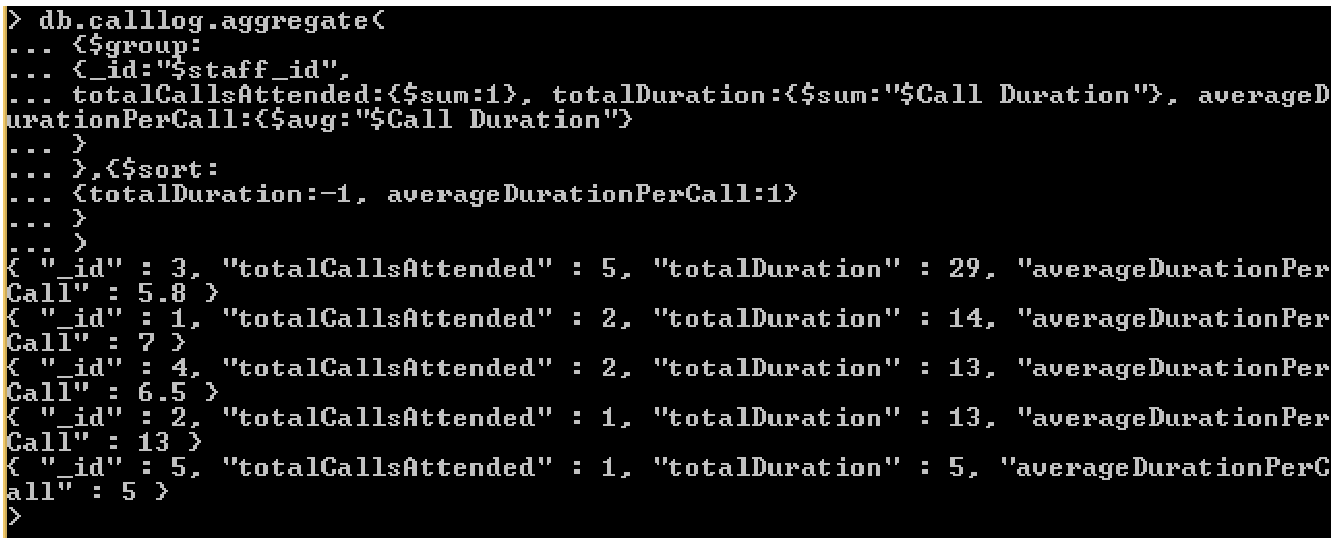
```
db.calllog.aggregate(

   {$group:

      {_id:"$resolutionType", totalRequests:{$sum: 1}}

   },{$sort:

      {totalRequests:-1}

   }

)
```



```
{ "_id" : "Ambulance", "totalRequests" : 5 }
{ "_id" : "Firebrigade", "totalRequests" : 3 }
{ "_id" : "Police", "totalRequests" : 3 }
>
```

6. As a managing director I want to get the total number of calls has been attended by each employee, total duration and average duration per call so that I announce employee of the month

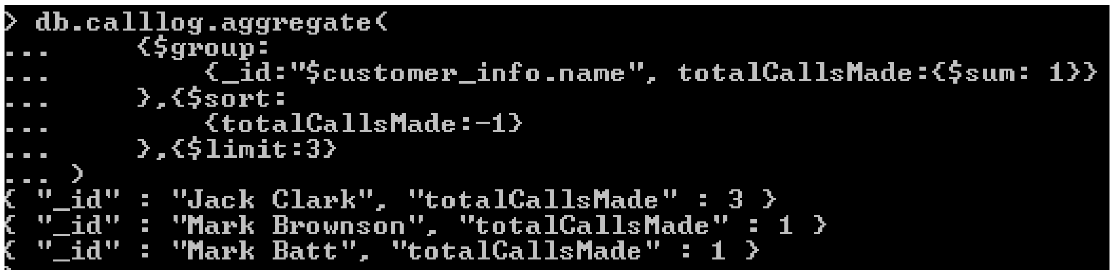
```
db.calllog.aggregate(
        {$group:
                {_id:"$staff_id",
                        totalCallsAttended:{$sum:1}, totalDuration:{$sum:"$Call
Duration"}, averageDurationPerCall:{$avg:"$Call Duration"}
                }
        },{$sort:
                {totalDuration:-1, averageDurationPerCall:1}
        }
)
```



```
> db.calllog.aggregate(
... {$group:
... {_id:"$staff_id",
... totalCallsAttended:{$sum:1}, totalDuration:{$sum:"$Call Duration"}, averageD
urationPerCall:{$avg:"$Call Duration"}
... }
... },{$sort:
... {totalDuration:-1, averageDurationPerCall:1}
... }
... )
{ "_id" : 3, "totalCallsAttended" : 5, "totalDuration" : 29, "averageDurationPer
Call" : 5.8 }
{ "_id" : 1, "totalCallsAttended" : 2, "totalDuration" : 14, "averageDurationPer
Call" : 7 }
{ "_id" : 4, "totalCallsAttended" : 2, "totalDuration" : 13, "averageDurationPer
Call" : 6.5 }
{ "_id" : 2, "totalCallsAttended" : 1, "totalDuration" : 13, "averageDurationPer
Call" : 13 }
{ "_id" : 5, "totalCallsAttended" : 1, "totalDuration" : 5, "averageDurationPerC
all" : 5 }
>
```

7. As a Calls Manager I want to know the top 3 customers whom have made most amount of calls requesting for the service

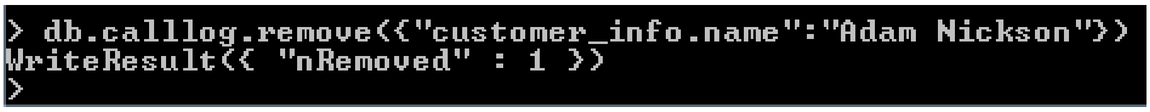
```
db.calllog.aggregate(
   {$group:
      {_id:"$customer_info.name", totalCallsMade:{$sum: 1}}
   },{$sort:
      {totalCallsMade:-1}
   },{$limit:3}
)
```



```
> db.calllog.aggregate(
...       {$group:
...           {_id:"$customer_info.name", totalCallsMade:{$sum: 1}}
...       },{$sort:
...           {totalCallsMade:-1}
...       },{$limit:3}
... )
{ "_id" : "Jack Clark", "totalCallsMade" : 3 }
{ "_id" : "Mark Brownson", "totalCallsMade" : 1 }
{ "_id" : "Mark Batt", "totalCallsMade" : 1 }
```

8. As a Calls Manager I want to delete a particular recorded incident as the customer no longer required that service.

```
db.calllog.remove({"customer_info.name":"Adam Nickson"})
```



```
> db.calllog.remove({"customer_info.name":"Adam Nickson"})
WriteResult({ "nRemoved" : 1 })
>
```

Amazon Warehouse Data Dictionary

Staff Table	
Field	Type
Staff ID	Int
Name	VARCHAR(255)
Age	Int
Email Address	VARCHAR(255)

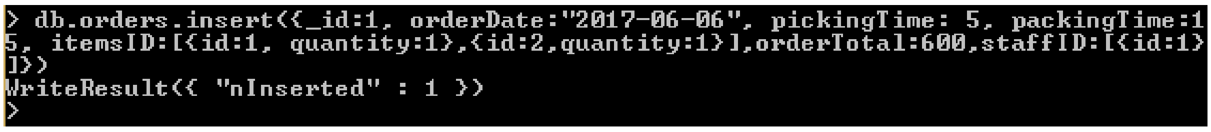
Item Table	
Field	Type
Item ID	Int
Name	VARCHAR(255)
Stock	Int
Price	Double

Orders Table	
Field	Type
Order ID	Int
Order Date	DATE
Picking Time	TIME
Packing Time	TIME
Item ID	Int
Item Quantity	Int
Order Total	Double
Staff ID	Int

Amazon Warehouse

1. As a Warehouse operative, I want to add multiple products to an order so I can decrease the amount of packing needed for individual items

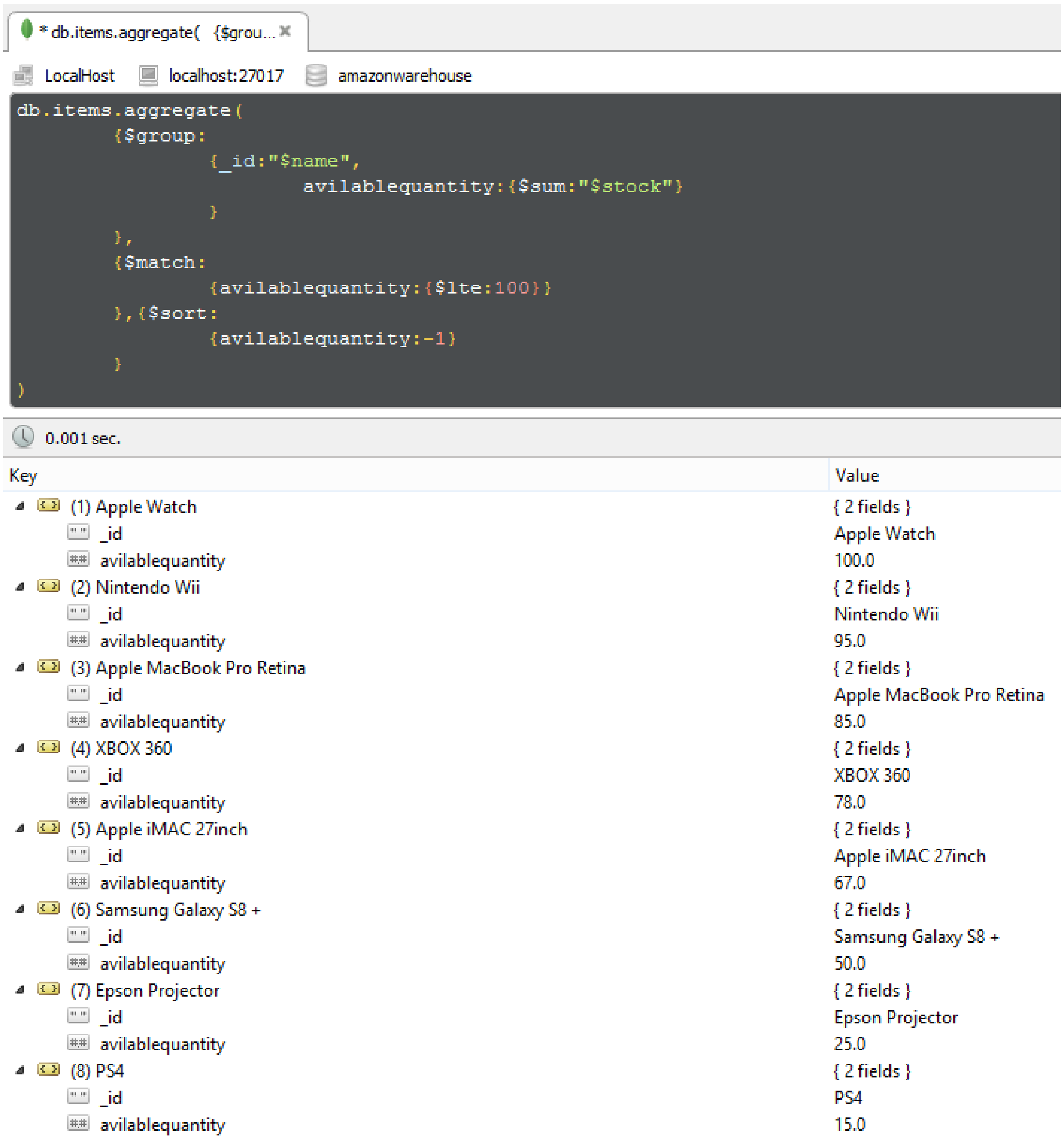
   db.orders.insert({_id:1, orderDate:"2017-06-06", pickingTime: 5, packingTime:15, itemsID:[{id:1, quantity:1},{id:2,quantity:1}],orderTotal:600,staffID:[{id:1}]})



```
> db.orders.insert({_id:1, orderDate:"2017-06-06", pickingTime: 5, packingTime:1
5, itemsID:[{id:1, quantity:1},{id:2,quantity:1}],orderTotal:600,staffID:[{id:1}
]})
WriteResult({ "nInserted" : 1 })
>
```

2. As a Warehouse manager I want to query which items need restocking so I can contact the appropriate supplier for re-ordering

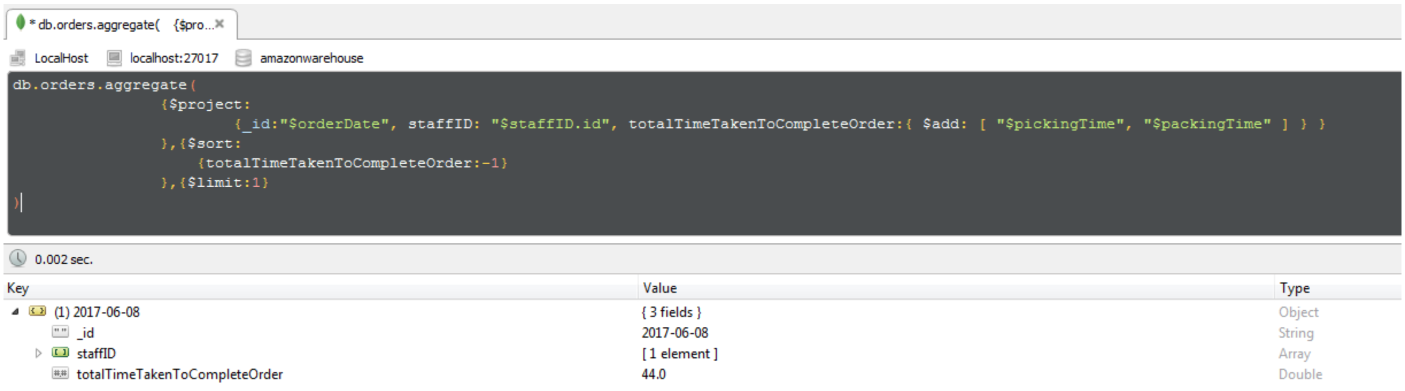
```
db.items.aggregate(
        {$group:
                {_id:"$name",
                        avilablequantity:{$sum:"$stock"}
                }
        },
        {$match:
                {avilablequantity:{$lte:100}}
        },{$sort:
                {avilablequantity:-1}
        }
)
```



```
* db.items.aggregate(   {$grou...
LocalHost   localhost:27017   amazonwarehouse
db.items.aggregate(
        {$group:
                {_id:"$name",
                        avilablequantity:{$sum:"$stock"}
                }
        },
        {$match:
                {avilablequantity:{$lte:100}}
        },{$sort:
                {avilablequantity:-1}
        }
)
0.001 sec.
Key                                   Value
(1) Apple Watch                       { 2 fields }
    _id                               Apple Watch
    avilablequantity                  100.0
(2) Nintendo Wii                      { 2 fields }
    _id                               Nintendo Wii
    avilablequantity                  95.0
(3) Apple MacBook Pro Retina          { 2 fields }
    _id                               Apple MacBook Pro Retina
    avilablequantity                  85.0
(4) XBOX 360                          { 2 fields }
    _id                               XBOX 360
    avilablequantity                  78.0
(5) Apple iMAC 27inch                 { 2 fields }
    _id                               Apple iMAC 27inch
    avilablequantity                  67.0
(6) Samsung Galaxy S8 +               { 2 fields }
    _id                               Samsung Galaxy S8 +
    avilablequantity                  50.0
(7) Epson Projector                   { 2 fields }
    _id                               Epson Projector
    avilablequantity                  25.0
(8) PS4                               { 2 fields }
    _id                               PS4
    avilablequantity                  15.0
```

3. As an Warehouse Director, I want to query what the maximum time taken to complete an order so I can see where we can increase efficiency in the warehouse.

```
db.orders.aggregate(
                    {$project:
                              {_id:"$orderDate", staffID: "$staffID.id",
totalTimeTakenToCompleteOrder:{ $add: [ "$pickingTime", "$packingTime" ] }
}
                    },{$sort:
                   {totalTimeTakenToCompleteOrder:-1}
               },{$limit:1}
)
```

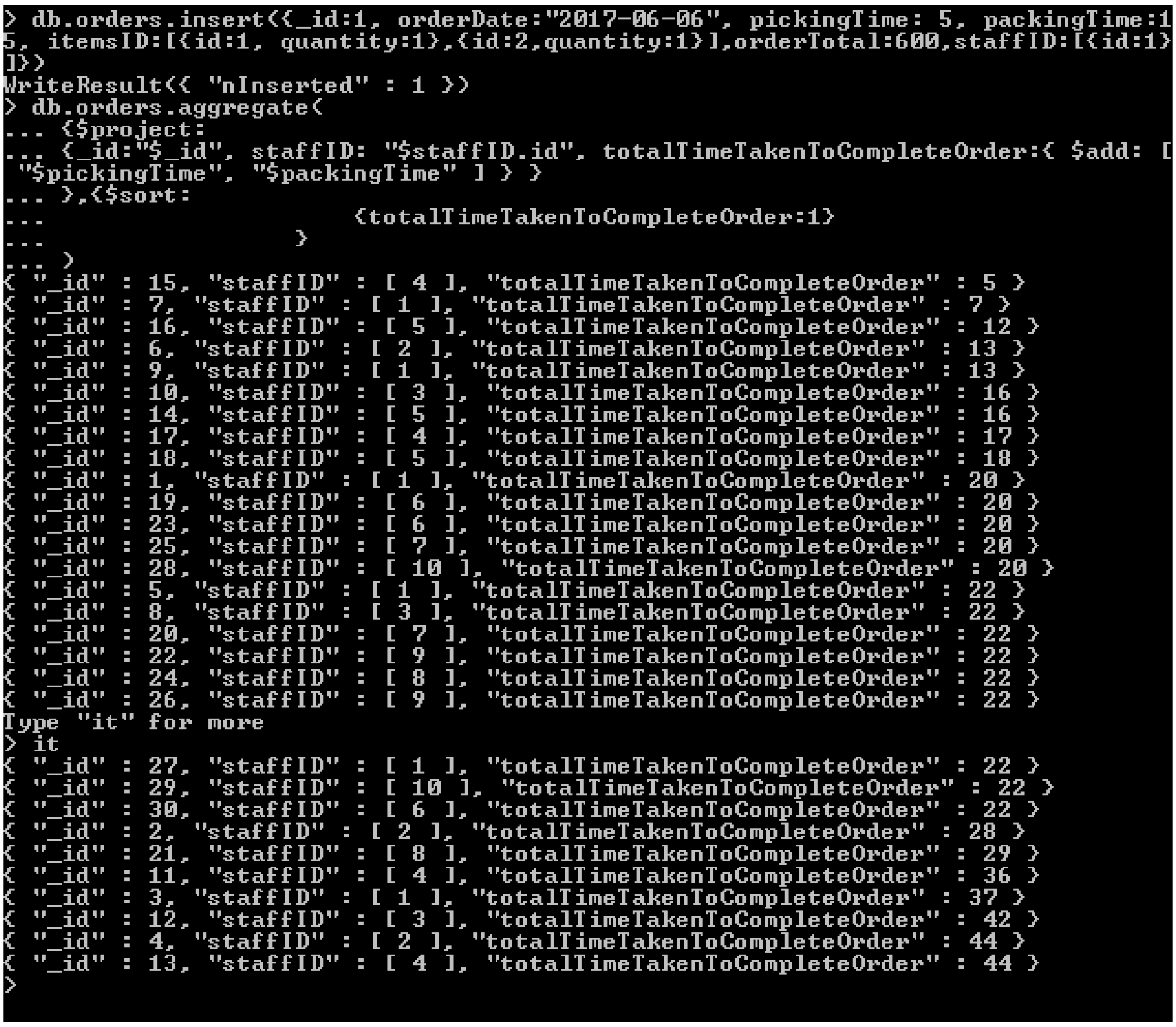


```
db.orders.aggregate(
                {$project:
                        {_id:"$orderDate", staffID: "$staffID.id", totalTimeTakenToCompleteOrder:{ $add: [ "$pickingTime", "$packingTime" ] } }
                },{$sort:
                    {totalTimeTakenToCompleteOrder:-1}
                },{$limit:1}
)
```

```
0.002 sec.
Key                                  Value          Type
(1) 2017-06-08                       { 3 fields }   Object
    _id                              2017-06-08     String
    staffID                          [ 1 element ]  Array
    totalTimeTakenToCompleteOrder    44.0           Double
```

4. As a Warehouse operative I want to the get the list of all the orders with the information about who picked the order and packed the order as well as the amount of time they have taken to complete the order in order to see performance from each of the employees

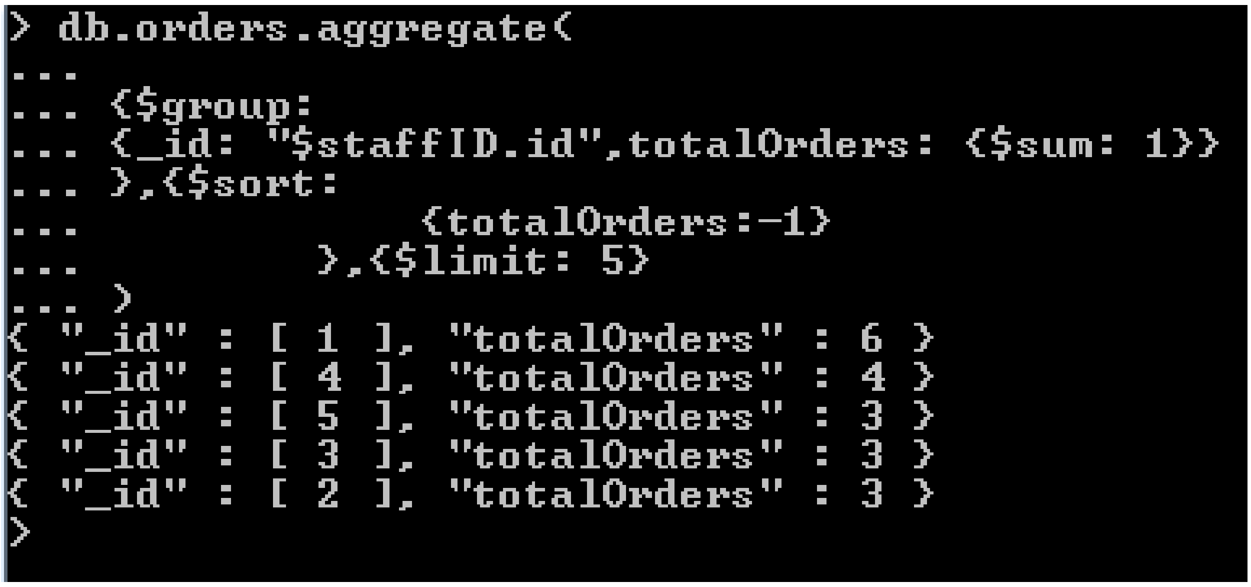
```
db.orders.aggregate(
                {$project:
                        {_id:"$_id", staffID: "$staffID.id",
totalTimeTakenToCompleteOrder:{ $add: [ "$pickingTime", "$packingTime" ] }
}
                },{$sort:
               {totalTimeTakenToCompleteOrder:1}
           }
)
```



```
> db.orders.insert({_id:1, orderDate:"2017-06-06", pickingTime: 5, packingTime:1
5, itemsID:[{id:1, quantity:1},{id:2,quantity:1}],orderTotal:600,staffID:[{id:1}
]})
WriteResult({ "nInserted" : 1 })
> db.orders.aggregate(
... {$project:
... {_id:"$_id", staffID: "$staffID.id", totalTimeTakenToCompleteOrder:{ $add: [
 "$pickingTime", "$packingTime" ] } }
... },{$sort:
...                     {totalTimeTakenToCompleteOrder:1}
...                 }
... )
{ "_id" : 15, "staffID" : [ 4 ], "totalTimeTakenToCompleteOrder" : 5 }
{ "_id" : 7, "staffID" : [ 1 ], "totalTimeTakenToCompleteOrder" : 7 }
{ "_id" : 16, "staffID" : [ 5 ], "totalTimeTakenToCompleteOrder" : 12 }
{ "_id" : 6, "staffID" : [ 2 ], "totalTimeTakenToCompleteOrder" : 13 }
{ "_id" : 9, "staffID" : [ 1 ], "totalTimeTakenToCompleteOrder" : 13 }
{ "_id" : 10, "staffID" : [ 3 ], "totalTimeTakenToCompleteOrder" : 16 }
{ "_id" : 14, "staffID" : [ 5 ], "totalTimeTakenToCompleteOrder" : 16 }
{ "_id" : 17, "staffID" : [ 4 ], "totalTimeTakenToCompleteOrder" : 17 }
{ "_id" : 18, "staffID" : [ 5 ], "totalTimeTakenToCompleteOrder" : 18 }
{ "_id" : 1, "staffID" : [ 1 ], "totalTimeTakenToCompleteOrder" : 20 }
{ "_id" : 19, "staffID" : [ 6 ], "totalTimeTakenToCompleteOrder" : 20 }
{ "_id" : 23, "staffID" : [ 6 ], "totalTimeTakenToCompleteOrder" : 20 }
{ "_id" : 25, "staffID" : [ 7 ], "totalTimeTakenToCompleteOrder" : 20 }
{ "_id" : 28, "staffID" : [ 10 ], "totalTimeTakenToCompleteOrder" : 20 }
{ "_id" : 5, "staffID" : [ 1 ], "totalTimeTakenToCompleteOrder" : 22 }
{ "_id" : 8, "staffID" : [ 3 ], "totalTimeTakenToCompleteOrder" : 22 }
{ "_id" : 20, "staffID" : [ 7 ], "totalTimeTakenToCompleteOrder" : 22 }
{ "_id" : 22, "staffID" : [ 9 ], "totalTimeTakenToCompleteOrder" : 22 }
{ "_id" : 24, "staffID" : [ 8 ], "totalTimeTakenToCompleteOrder" : 22 }
{ "_id" : 26, "staffID" : [ 9 ], "totalTimeTakenToCompleteOrder" : 22 }
Type "it" for more
> it
{ "_id" : 27, "staffID" : [ 1 ], "totalTimeTakenToCompleteOrder" : 22 }
{ "_id" : 29, "staffID" : [ 10 ], "totalTimeTakenToCompleteOrder" : 22 }
{ "_id" : 30, "staffID" : [ 6 ], "totalTimeTakenToCompleteOrder" : 22 }
{ "_id" : 2, "staffID" : [ 2 ], "totalTimeTakenToCompleteOrder" : 28 }
{ "_id" : 21, "staffID" : [ 8 ], "totalTimeTakenToCompleteOrder" : 29 }
{ "_id" : 11, "staffID" : [ 4 ], "totalTimeTakenToCompleteOrder" : 36 }
{ "_id" : 3, "staffID" : [ 1 ], "totalTimeTakenToCompleteOrder" : 37 }
{ "_id" : 12, "staffID" : [ 3 ], "totalTimeTakenToCompleteOrder" : 42 }
{ "_id" : 4, "staffID" : [ 2 ], "totalTimeTakenToCompleteOrder" : 44 }
{ "_id" : 13, "staffID" : [ 4 ], "totalTimeTakenToCompleteOrder" : 44 }
>
```

5. As a managing director I want to get the list of top 5 employees who picked and packed most amount of the orders

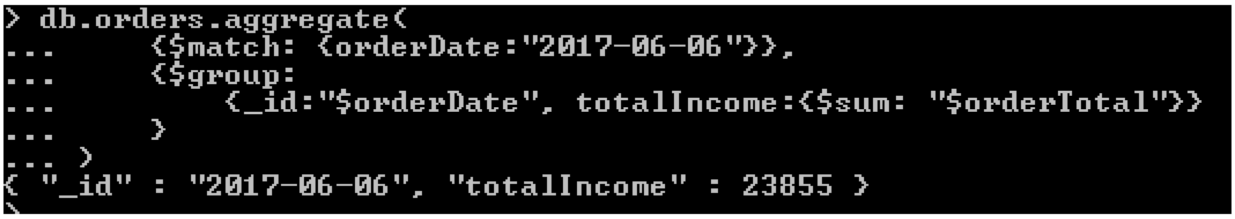
```
db.orders.aggregate(

        {$group:
                {_id: "$staffID.id",totalOrders: {$sum: 1}}
        },{$sort:
         {totalOrders:-1}
      },{$limit: 5}
)
```



```
> db.orders.aggregate(
...
... {$group:
... {_id: "$staffID.id",totalOrders: {$sum: 1}}
... },{$sort:
...                 {totalOrders:-1}
...           },{$limit: 5}
... )
{ "_id" : [ 1 ], "totalOrders" : 6 }
{ "_id" : [ 4 ], "totalOrders" : 4 }
{ "_id" : [ 5 ], "totalOrders" : 3 }
{ "_id" : [ 3 ], "totalOrders" : 3 }
{ "_id" : [ 2 ], "totalOrders" : 3 }
>
```

6. As a Warehouse manager I want to get the total income for the specific day so that I can generate the statistics chart.

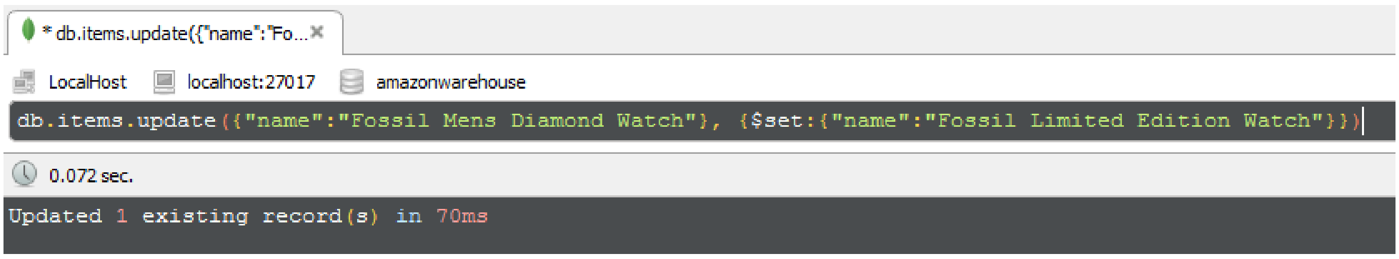
```
db.orders.aggregate(
   {$match: {orderDate:"2017-06-06"}},
   {$group:
      {_id:"$orderDate", totalIncome:{$sum: "$orderTotal"}}
   }
)
```



```
> db.orders.aggregate(
...      {$match: {orderDate:"2017-06-06"}},
...      {$group:
...          {_id:"$orderDate", totalIncome:{$sum: "$orderTotal"}}
...      }
... )
{ "_id" : "2017-06-06", "totalIncome" : 23855 }
>
```

7. As a Warehouse Operative I want to update the price for the specific item due to the end of month sale.

```
db.items.update({"name":"Fossil Mens Diamond Watch"},
{$set:{"name":"Fossil Limited Edition Watch"}})
```



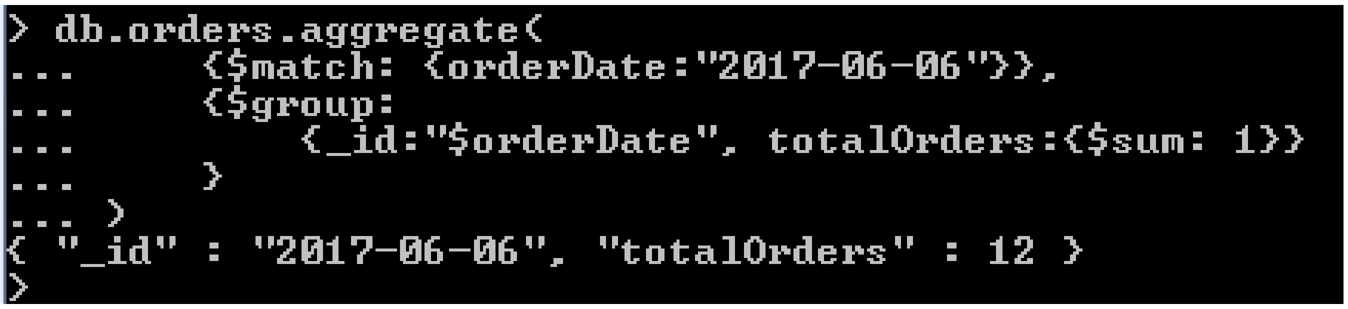
```
db.items.update({"name":"Fossil Mens Diamond Watch"}, {$set:{"name":"Fossil Limited Edition Watch"}})
```

0.072 sec.

```
Updated 1 existing record(s) in 70ms
```

8. As a Warehouse manager I want to get the total number order we have dispatch for the specific day so that I can compare our performance with rest of the days.

```
db.orders.aggregate(
   {$match: {orderDate:"2017-06-06"}},
   {$group:
      {_id:"$orderDate", totalOrders:{$sum: 1}}
   }
)
```



```
> db.orders.aggregate(
...     {$match: {orderDate:"2017-06-06"}},
...     {$group:
...             {_id:"$orderDate", totalOrders:{$sum: 1}}
...     }
... )
{ "_id" : "2017-06-06", "totalOrders" : 12 }
>
```