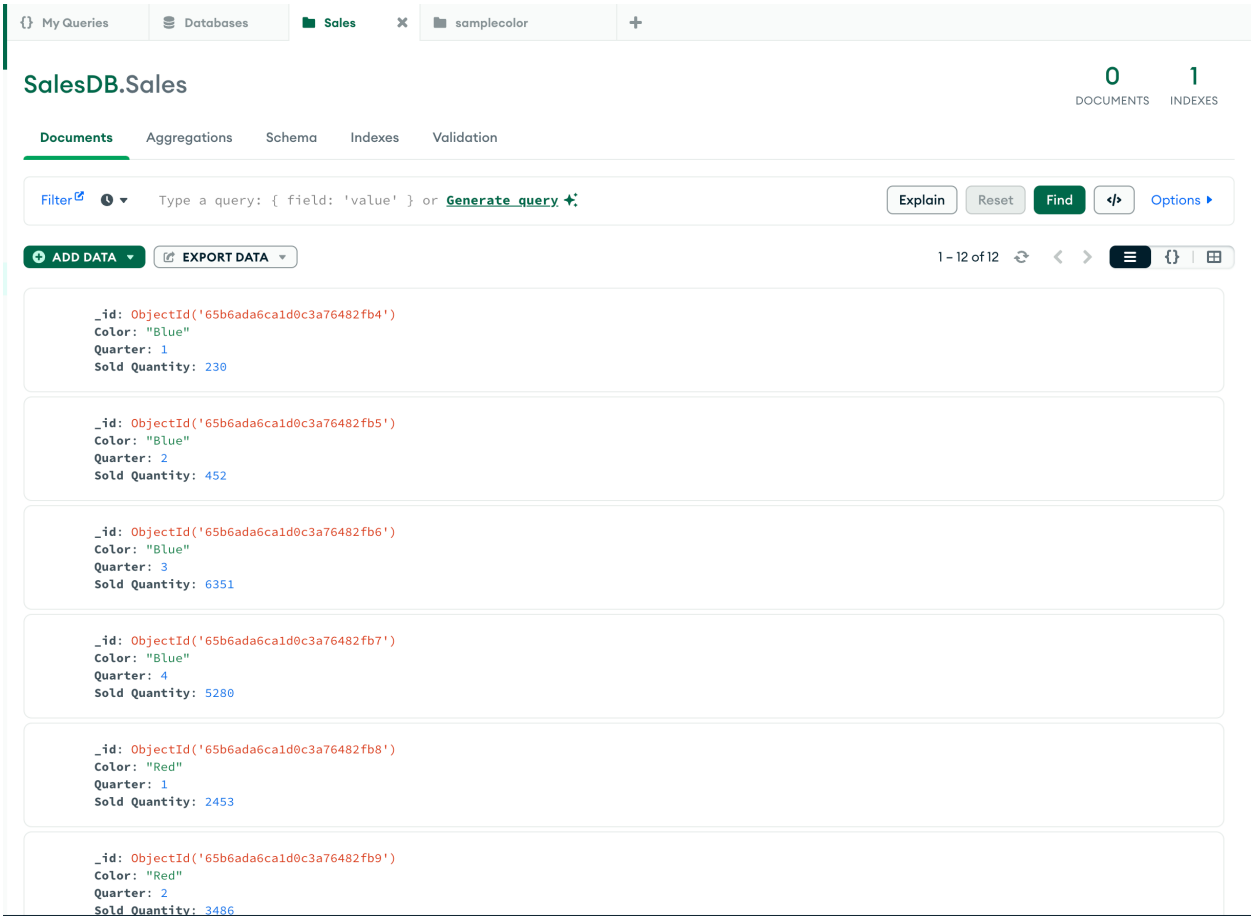
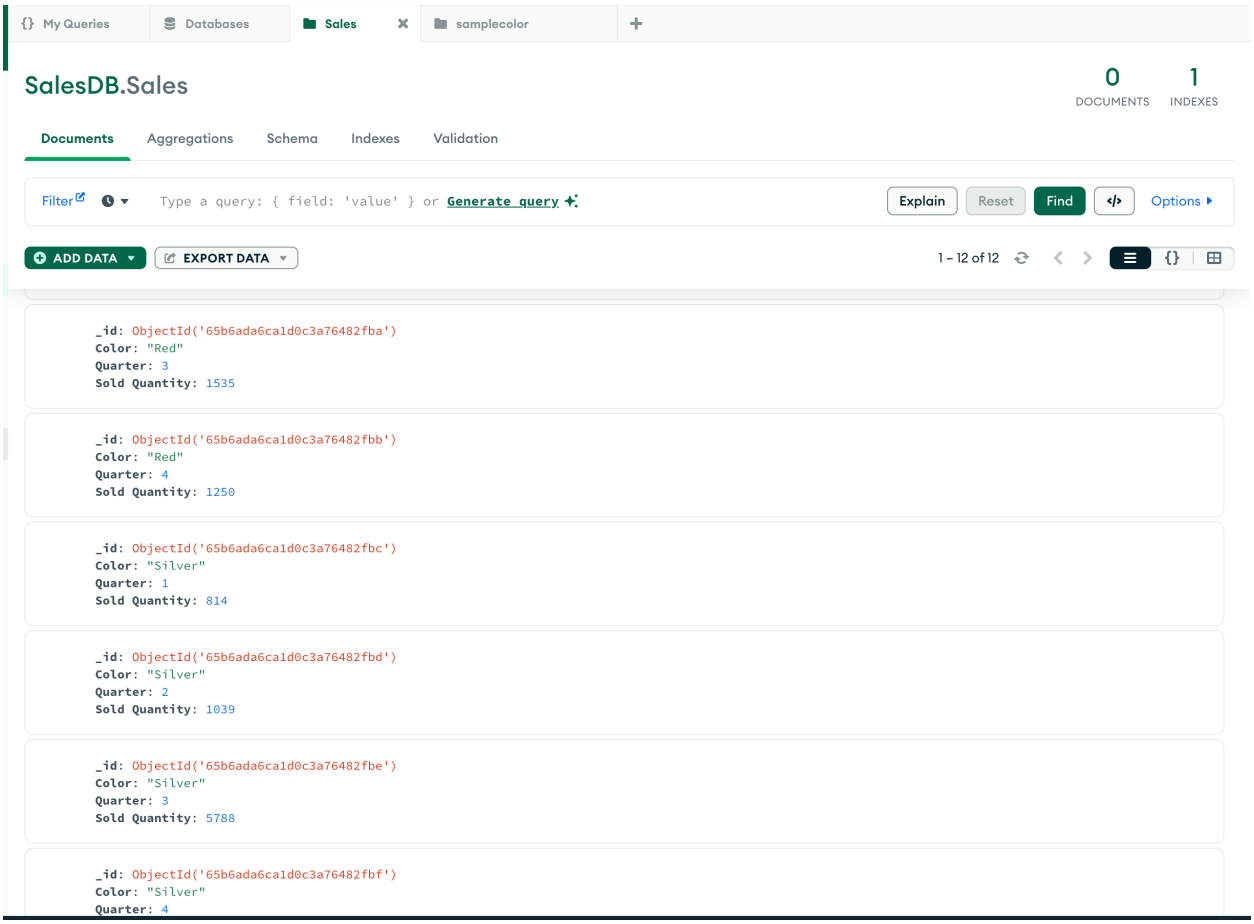
LAB-1

Part -2:

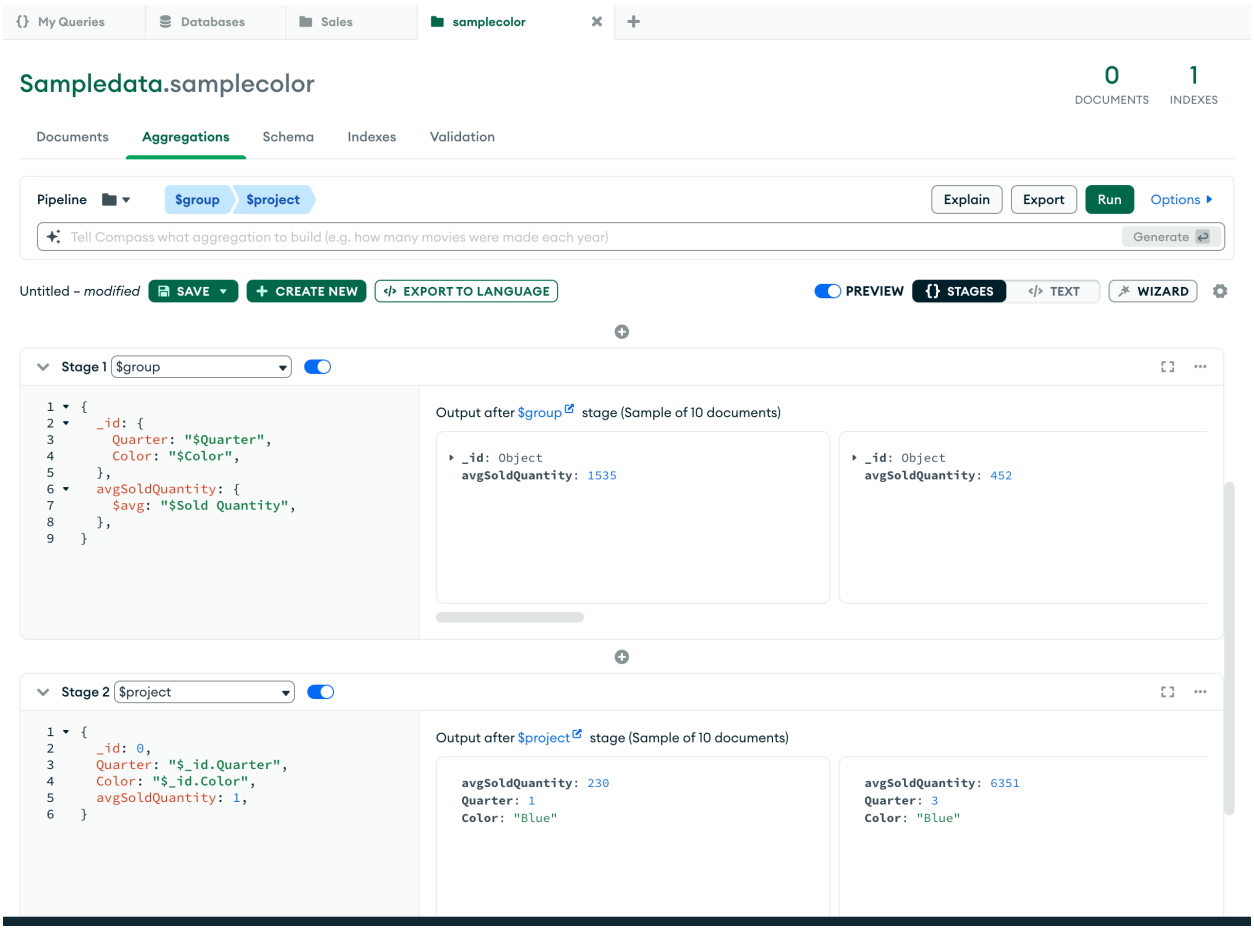
1) **find the average quarterly sold quantity of a color**

Step1: The database is created by inserting the given csv file directly onto the MongoDB cluster.

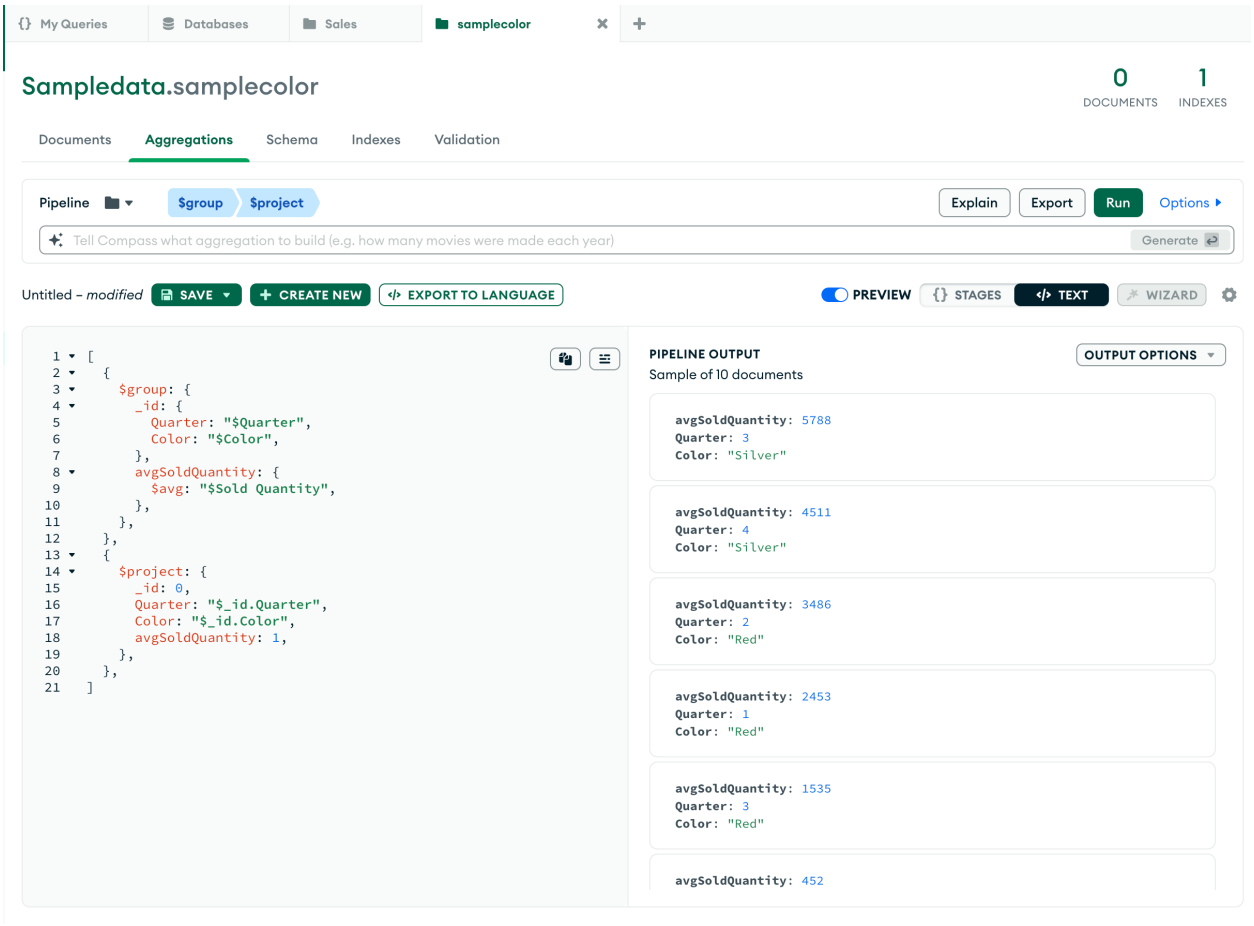




Step 2: The below stage makes use of the group stage to give the average quarterly sold per color.

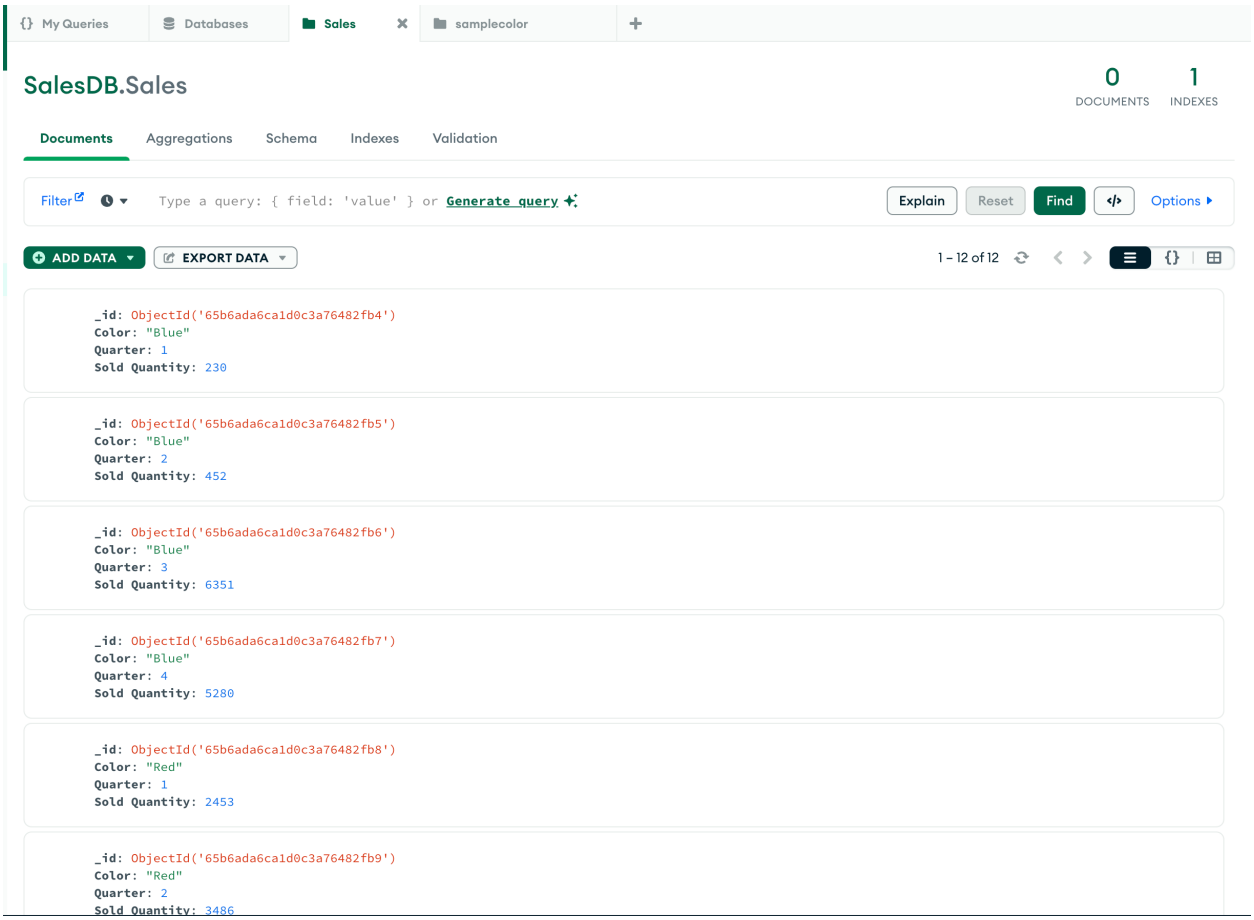


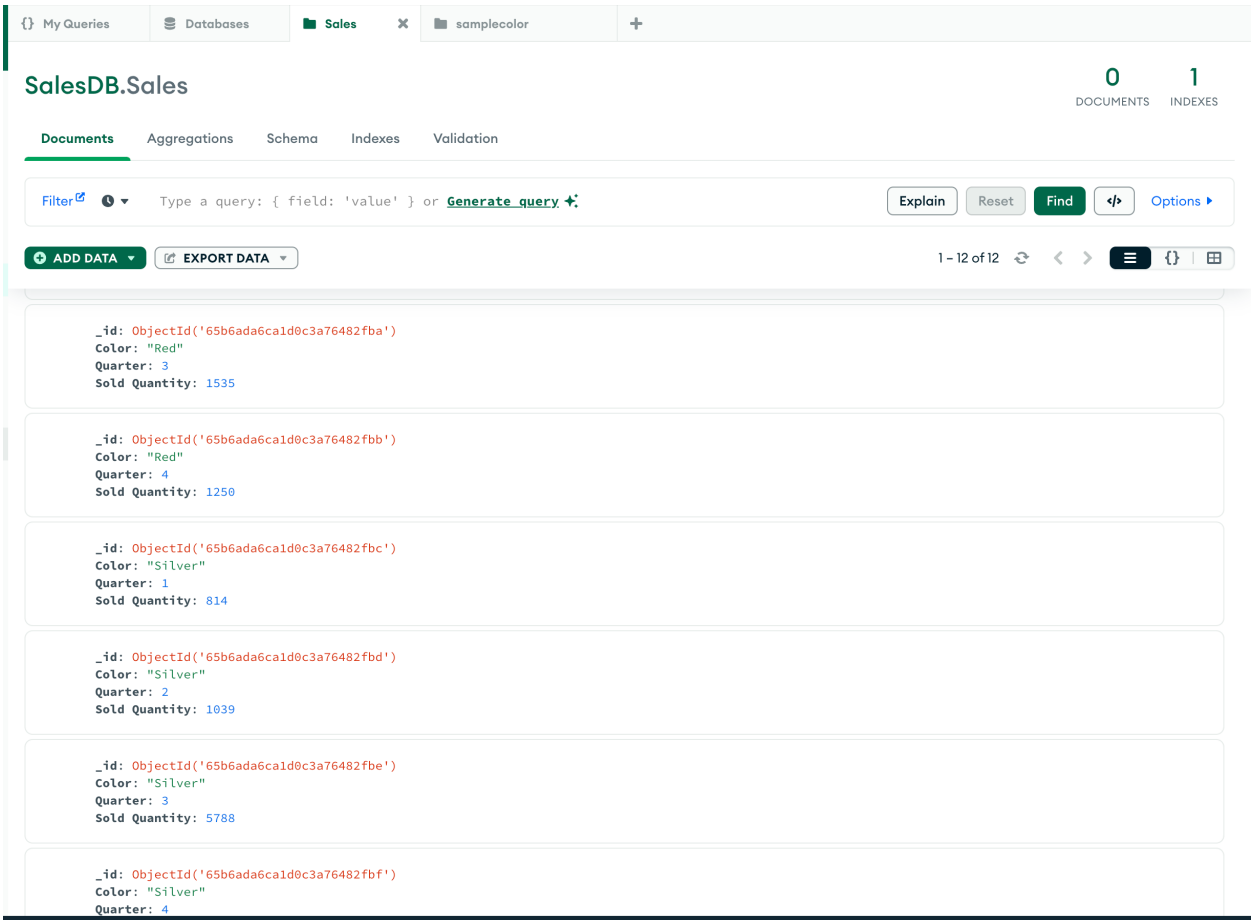
Below is the final Schema:



2) calculate the average quarterly sold quantity of the blue color.

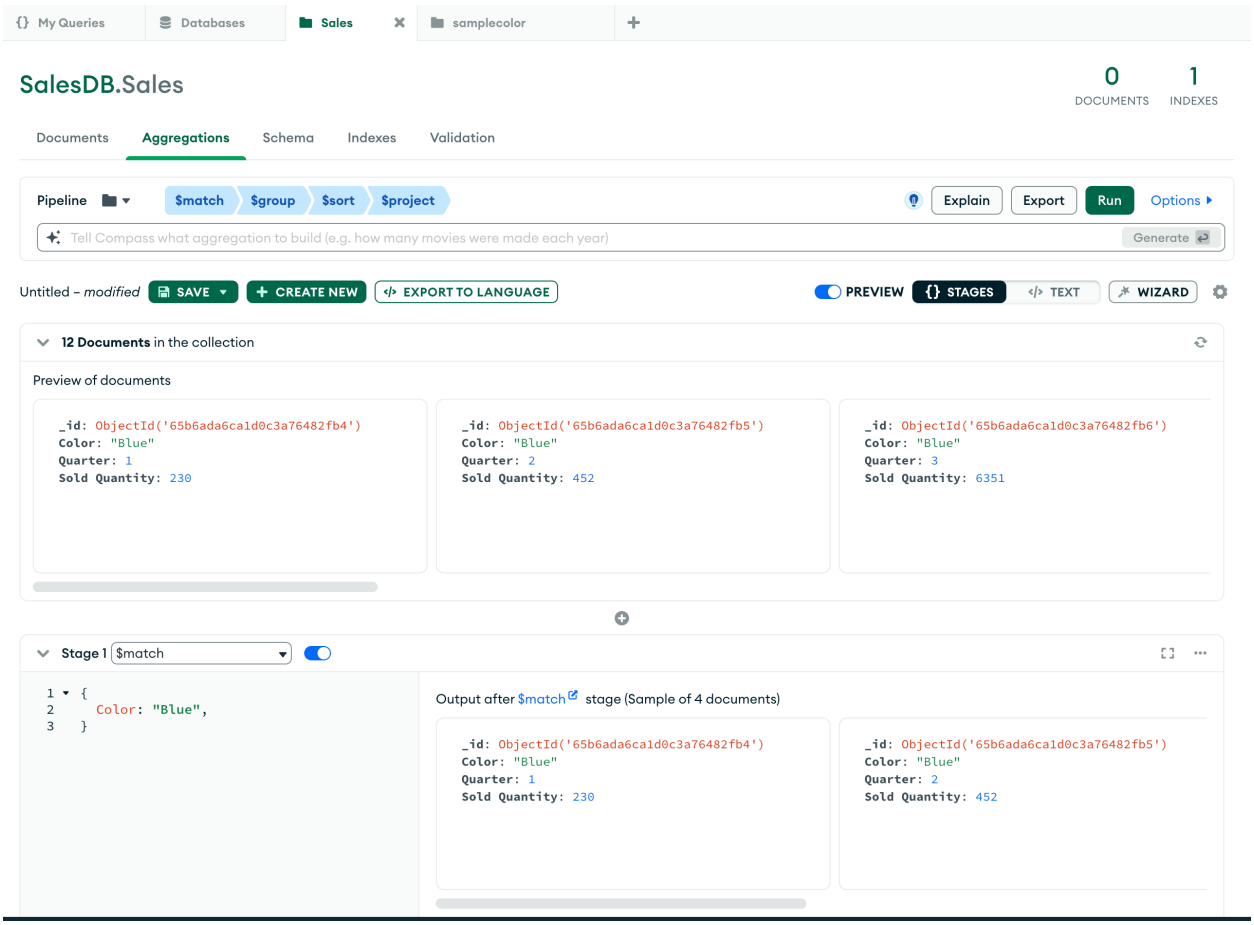
Step1: The database is created by inserting the given csv file directly onto the MongoDB cluster.


My Queries
Databases
Sales
samplecolor
SalesDB.Sales
0
DOCUMENTS
1
INDEXES
Documents
Aggregations
Schema
Indexes
Validation
Filter
Type a query: { field: 'value' } or Generate query
Explain
Reset
Find
Options
ADD DATA
EXPORT DATA
1 – 12 of 12
_id: ObjectId('65b6ada6ca1d0c3a76482fb4')
Color: "Blue"
Quarter: 1
Sold Quantity: 230
_id: ObjectId('65b6ada6ca1d0c3a76482fb5')
Color: "Blue"
Quarter: 2
Sold Quantity: 452
_id: ObjectId('65b6ada6ca1d0c3a76482fb6')
Color: "Blue"
Quarter: 3
Sold Quantity: 6351
_id: ObjectId('65b6ada6ca1d0c3a76482fb7')
Color: "Blue"
Quarter: 4
Sold Quantity: 5280
_id: ObjectId('65b6ada6ca1d0c3a76482fb8')
Color: "Red"
Quarter: 1
Sold Quantity: 2453
_id: ObjectId('65b6ada6ca1d0c3a76482fb9')
Color: "Red"
Quarter: 2
Sold Quantity: 3486

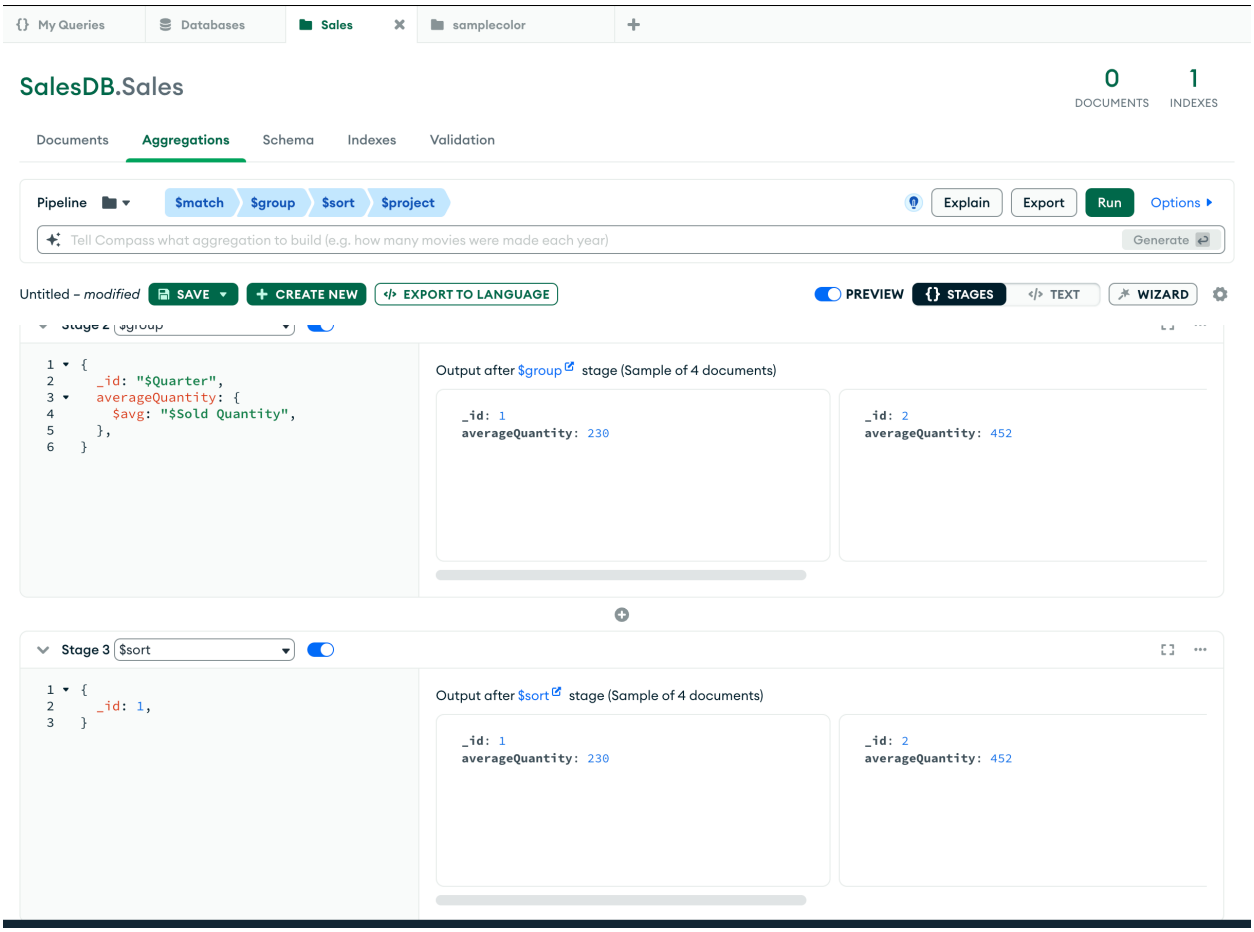


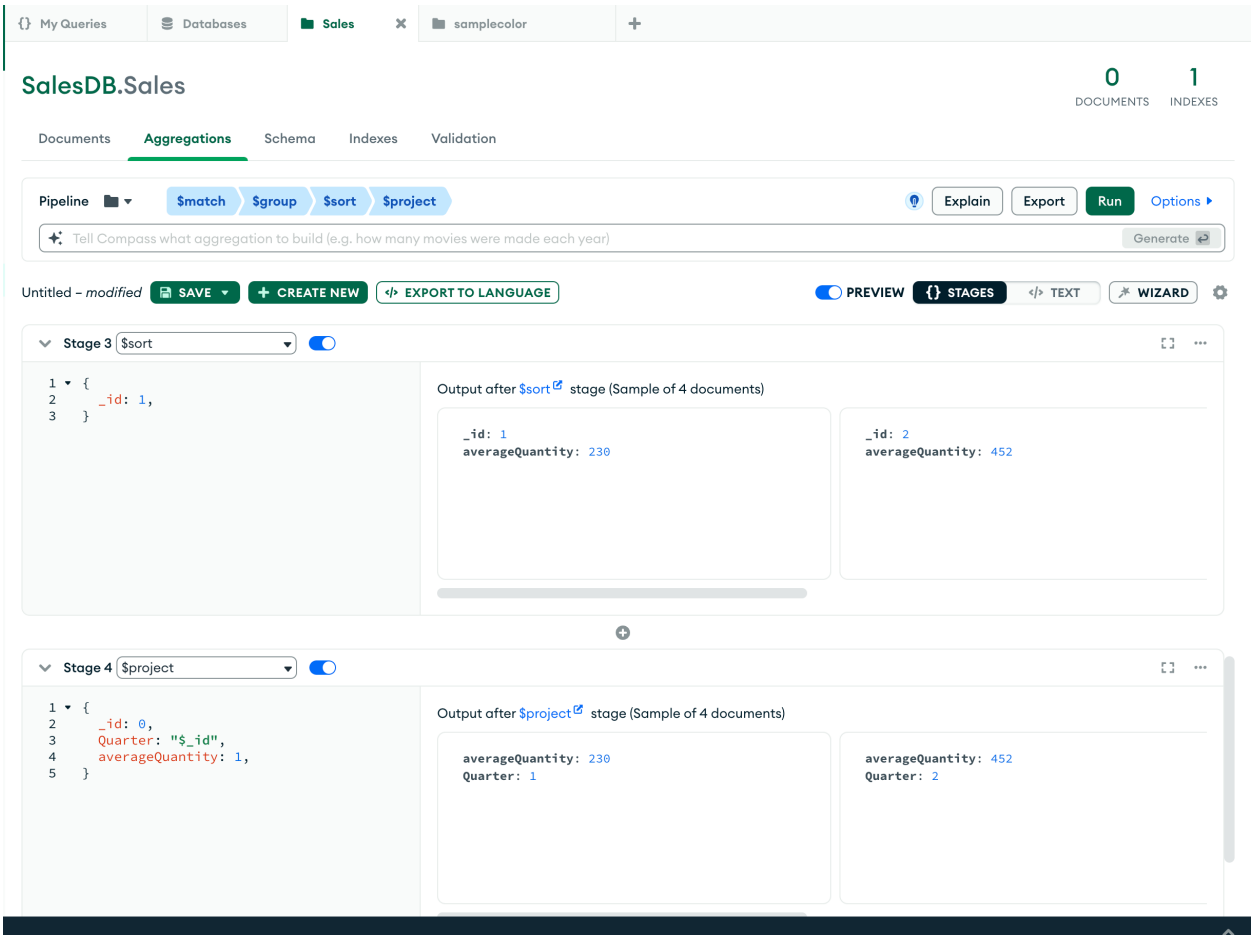
Step 2: To calculate the given problem, it is segregated into different stages, wherein stage 1 is the matching operation of getting all the blue colored objects.

The above query is inputted to get the desired result.

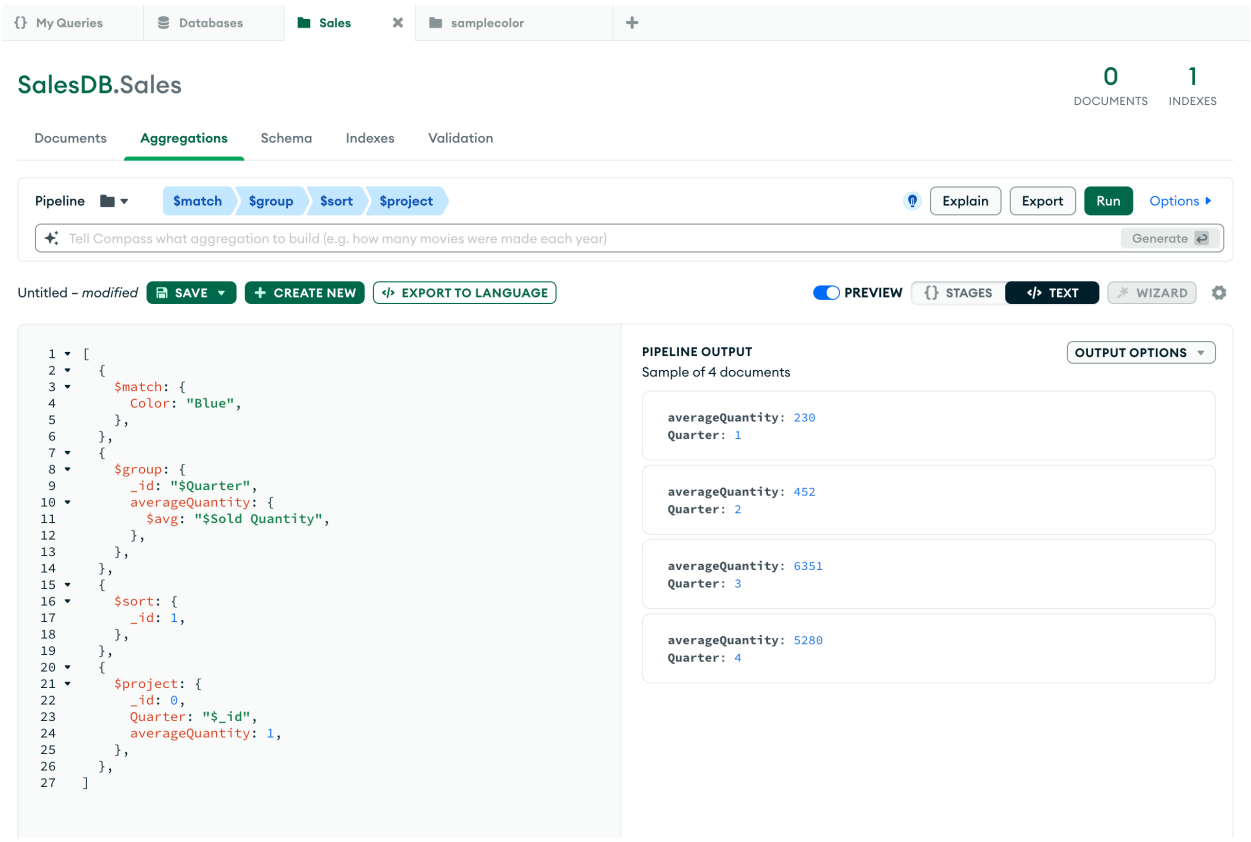


Step 3: The following 2 queries are majorly based on group into quarters and then sorting them accordingly.


My Queries
Databases
Sales
samplecolor
SalesDB.Sales
0
DOCUMENTS
1
INDEXES
Documents
Aggregations
Schema
Indexes
Validation
Pipeline
$match
$group
$sort
$project
Explain
Export
Run
Options
Tell Compass what aggregation to build (e.g. how many movies were made each year)
Generate
Untitled – modified
SAVE
CREATE NEW
EXPORT TO LANGUAGE
PREVIEW
STAGES
TEXT
WIZARD
{
_id: "$Quarter",
averageQuantity: {
$avg: "$Sold Quantity",
},
}
Output after $group stage (Sample of 4 documents)
_id: 1
averageQuantity: 230
_id: 2
averageQuantity: 452
Stage 3
$sort
{
_id: 1,
}
Output after $sort stage (Sample of 4 documents)
_id: 1
averageQuantity: 230
_id: 2
averageQuantity: 452



Below is the final schema:


My Queries
Databases
Sales
samplecolor
SalesDB.Sales
0
DOCUMENTS
1
INDEXES
Documents
Aggregations
Schema
Indexes
Validation
Pipeline
$match
$group
$sort
$project
Explain
Export
Run
Options
Tell Compass what aggregation to build (e.g. how many movies were made each year)
Generate
Untitled – modified
SAVE
CREATE NEW
EXPORT TO LANGUAGE
PREVIEW
STAGES
TEXT
WIZARD
[
{
$match: {
Color: "Blue",
},
},
{
$group: {
_id: "$Quarter",
averageQuantity: {
$avg: "$Sold Quantity",
},
},
},
{
$sort: {
_id: 1,
},
},
{
$project: {
_id: 0,
Quarter: "$_id",
averageQuantity: 1,
},
},
]
PIPELINE OUTPUT
OUTPUT OPTIONS
Sample of 4 documents
averageQuantity: 230
Quarter: 1
averageQuantity: 452
Quarter: 2
averageQuantity: 6351
Quarter: 3
averageQuantity: 5280
Quarter: 4