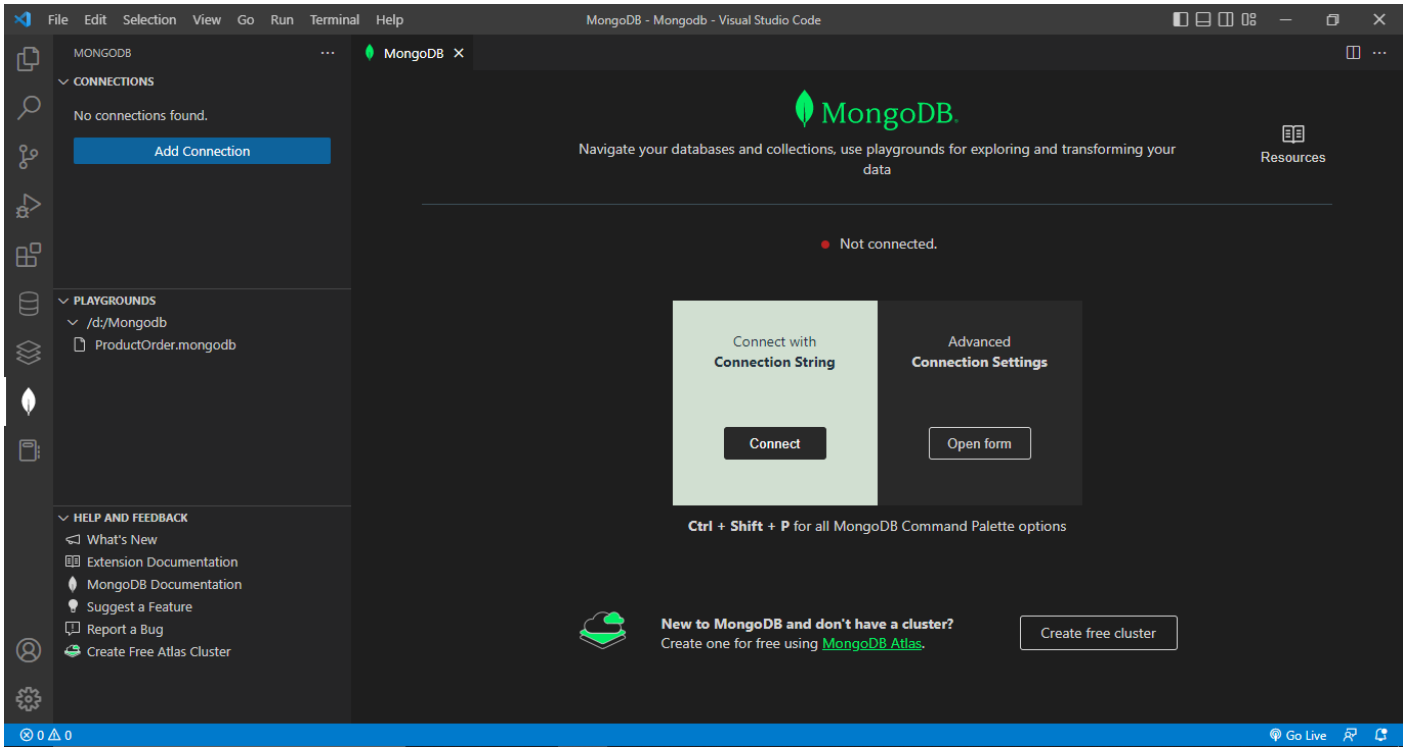
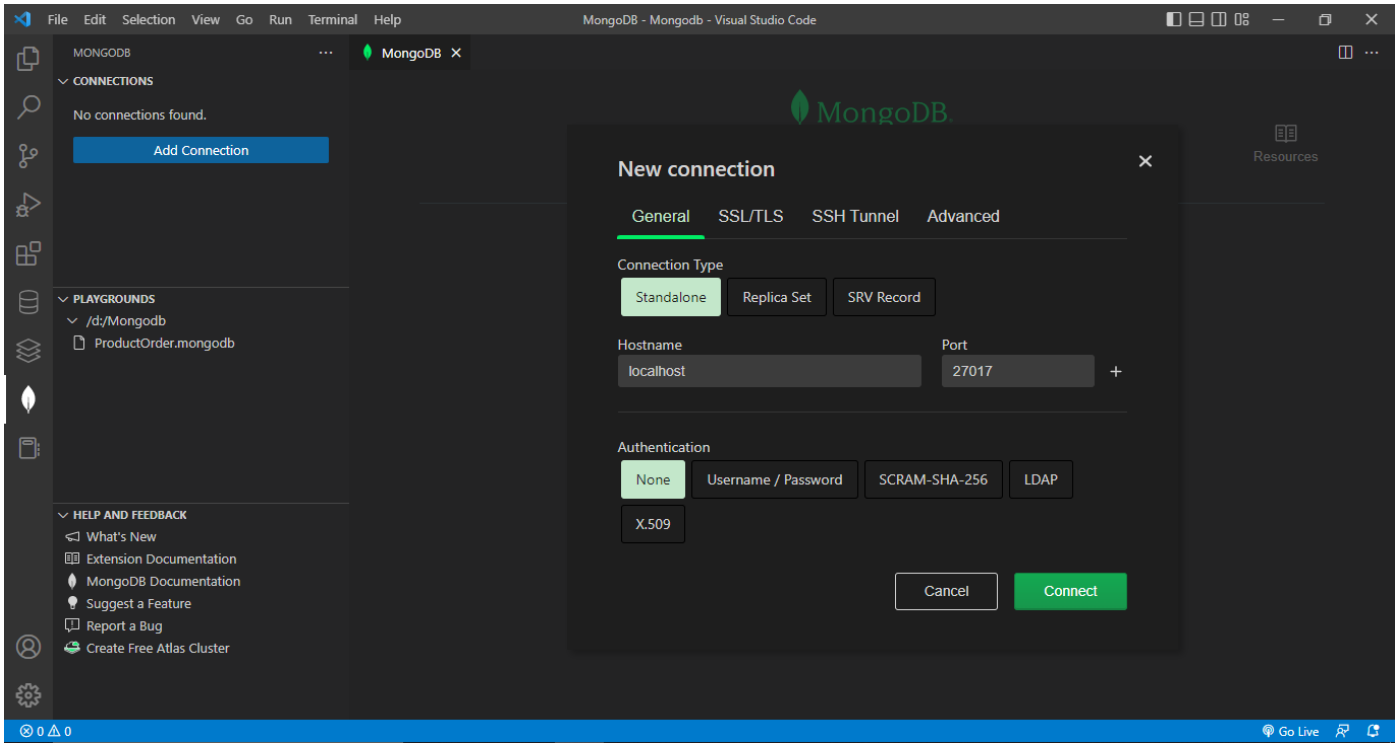
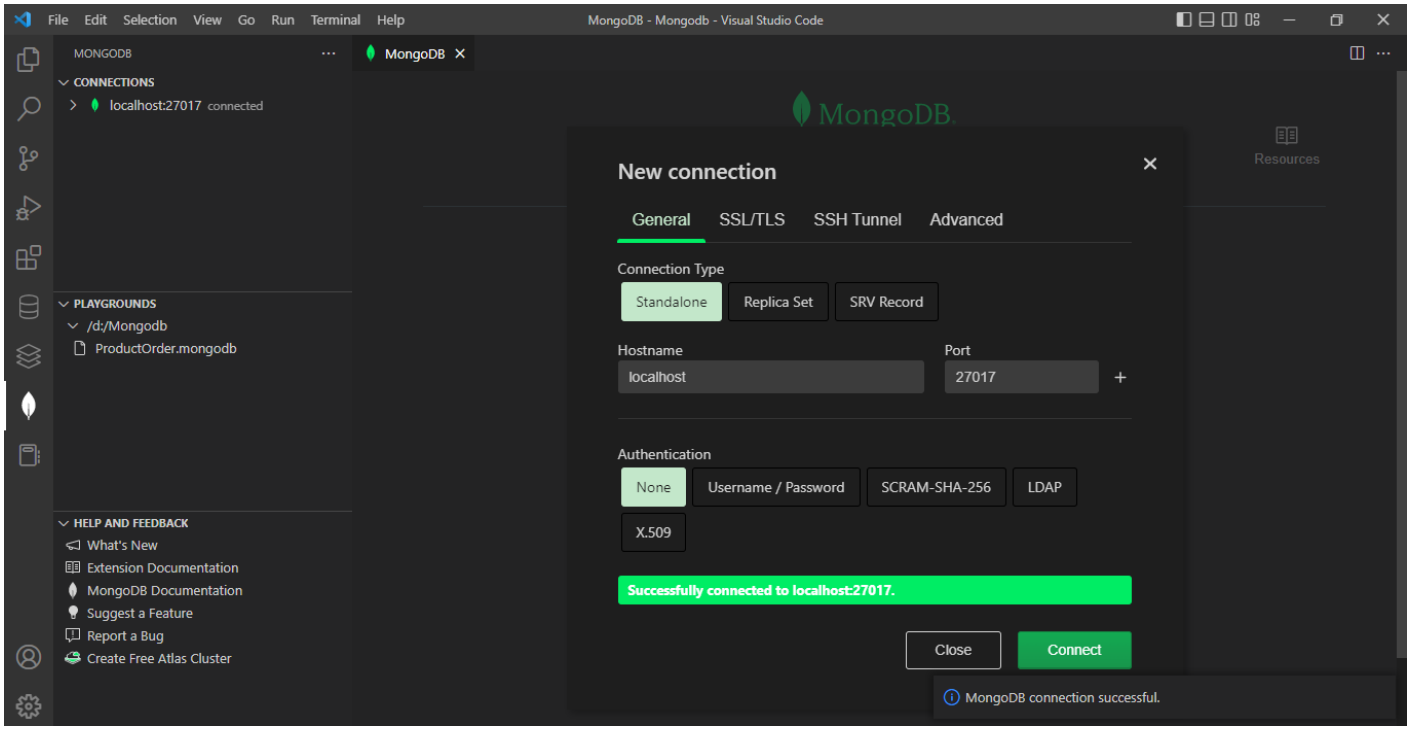
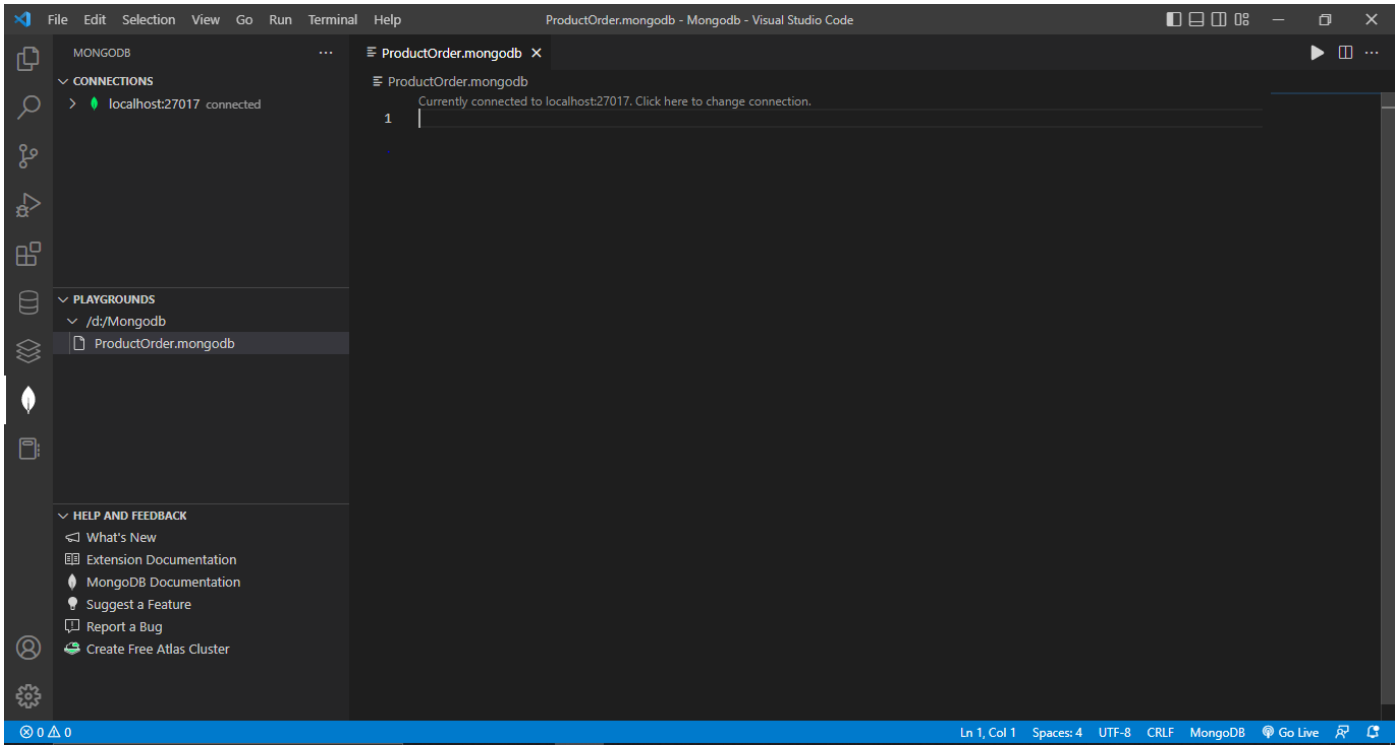
Analyzing shipment data of an ecommerce firm using MONGODB

1. Open VS Code and connect to MONGODB

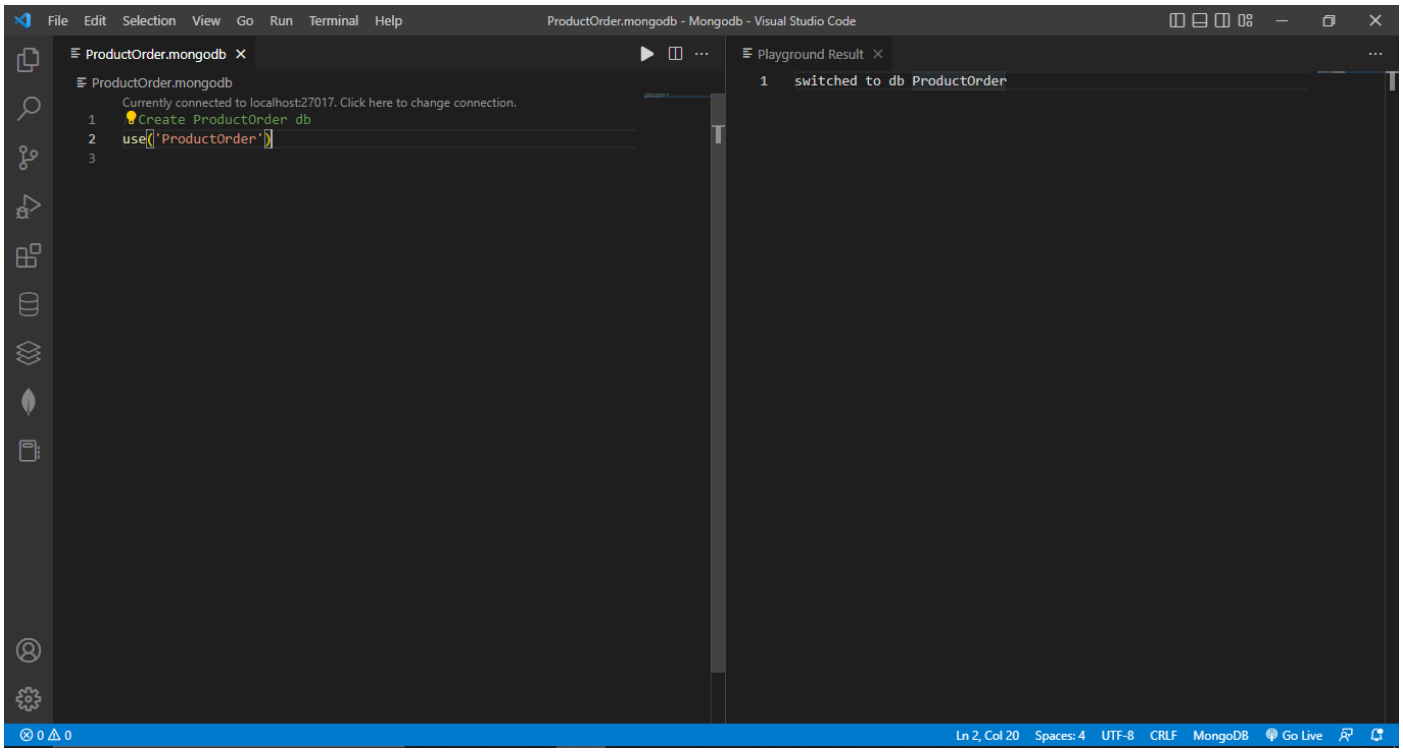


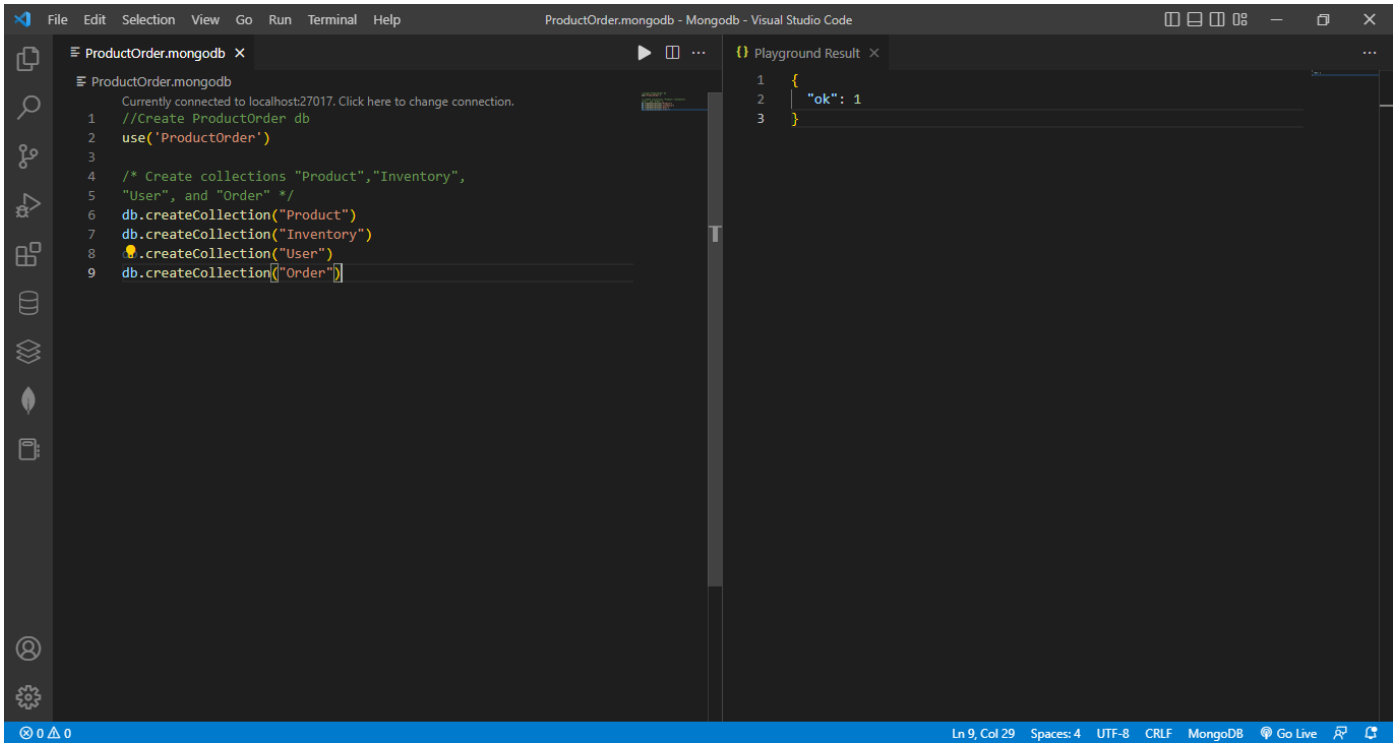



File Edit Selection View Go Run Terminal Help
MongoDB - Mongodb - Visual Studio Code
MONGODB
MongoDB
CONNECTIONS
localhost:27017 connected
PLAYGROUNDS
/d:/Mongodb
ProductOrder.mongodb
HELP AND FEEDBACK
What's New
Extension Documentation
MongoDB Documentation
Suggest a Feature
Report a Bug
Create Free Atlas Cluster
Resources
New connection
General
SSL/TLS
SSH Tunnel
Advanced
Connection Type
Standalone
Replica Set
SRV Record
Hostname
localhost
Port
27017
Authentication
None
Username / Password
SCRAM-SHA-256
LDAP
X.509
Successfully connected to localhost:27017.
Close
Connect
MongoDB connection successful.


File Edit Selection View Go Run Terminal Help
ProductOrder.mongodb - Mongodb - Visual Studio Code
MONGODB
ProductOrder.mongodb
CONNECTIONS
localhost:27017 connected
Currently connected to localhost:27017. Click here to change connection.
1
PLAYGROUNDS
/d:/Mongodb
ProductOrder.mongodb
HELP AND FEEDBACK
What's New
Extension Documentation
MongoDB Documentation
Suggest a Feature
Report a Bug
Create Free Atlas Cluster
Ln 1, Col 1
Spaces: 4
UTF-8
CRLF
MongoDB
Go Live

2. Create a database "ProductOrder" and create collections "Product","Inventory","User", and "Order" in it.

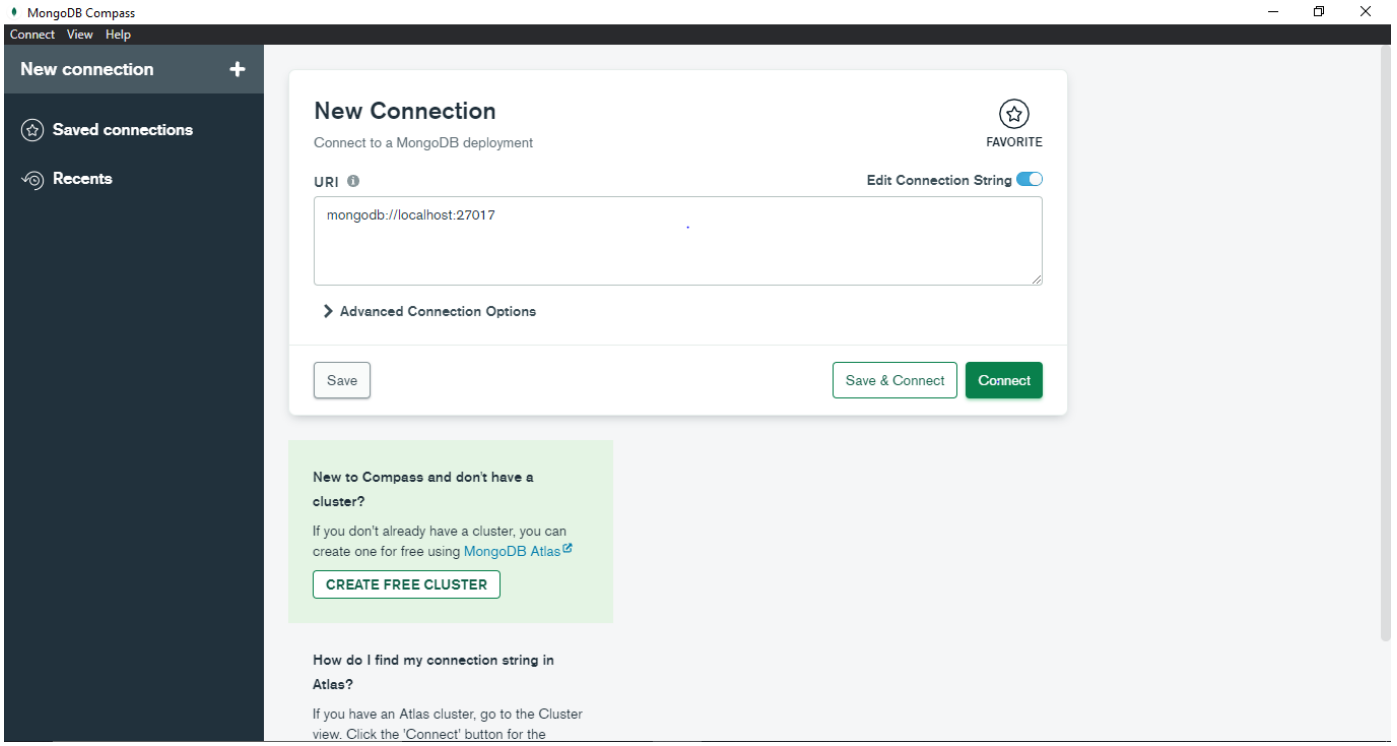


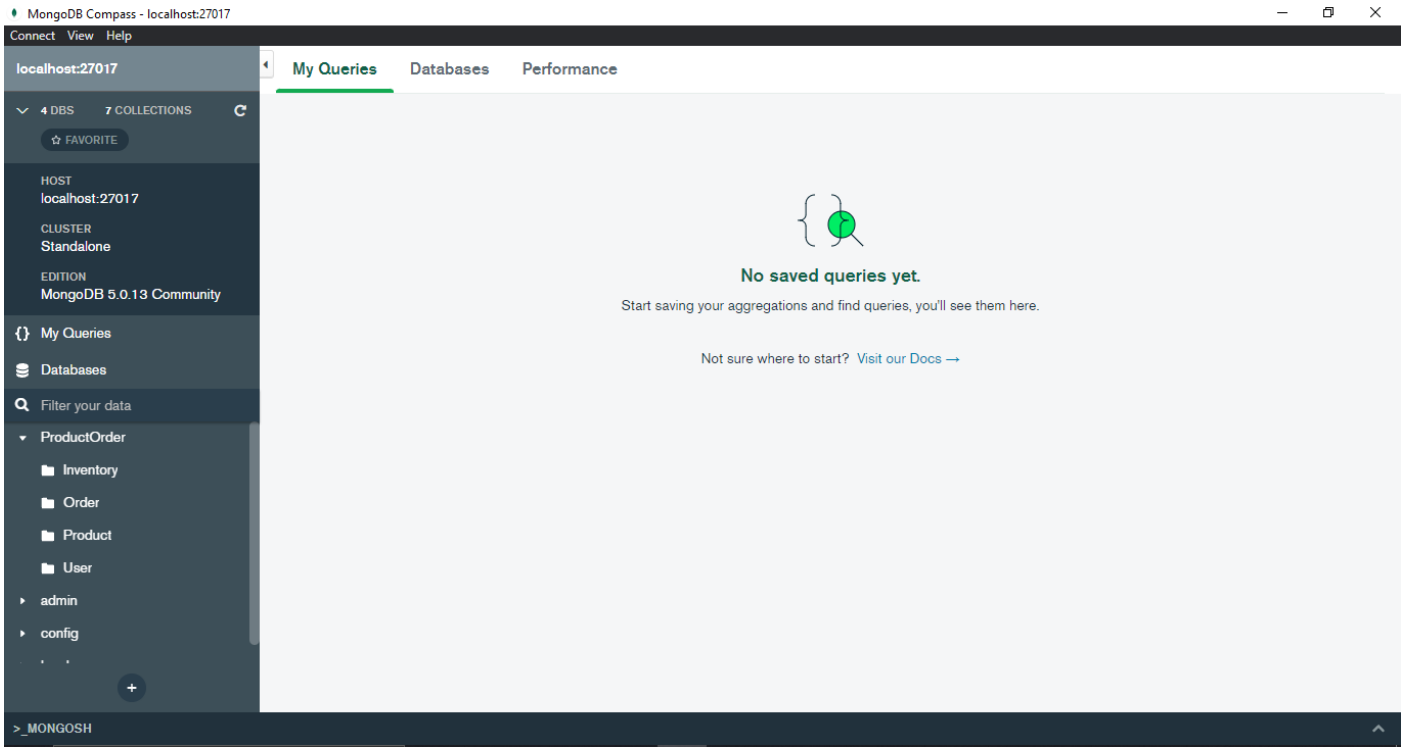


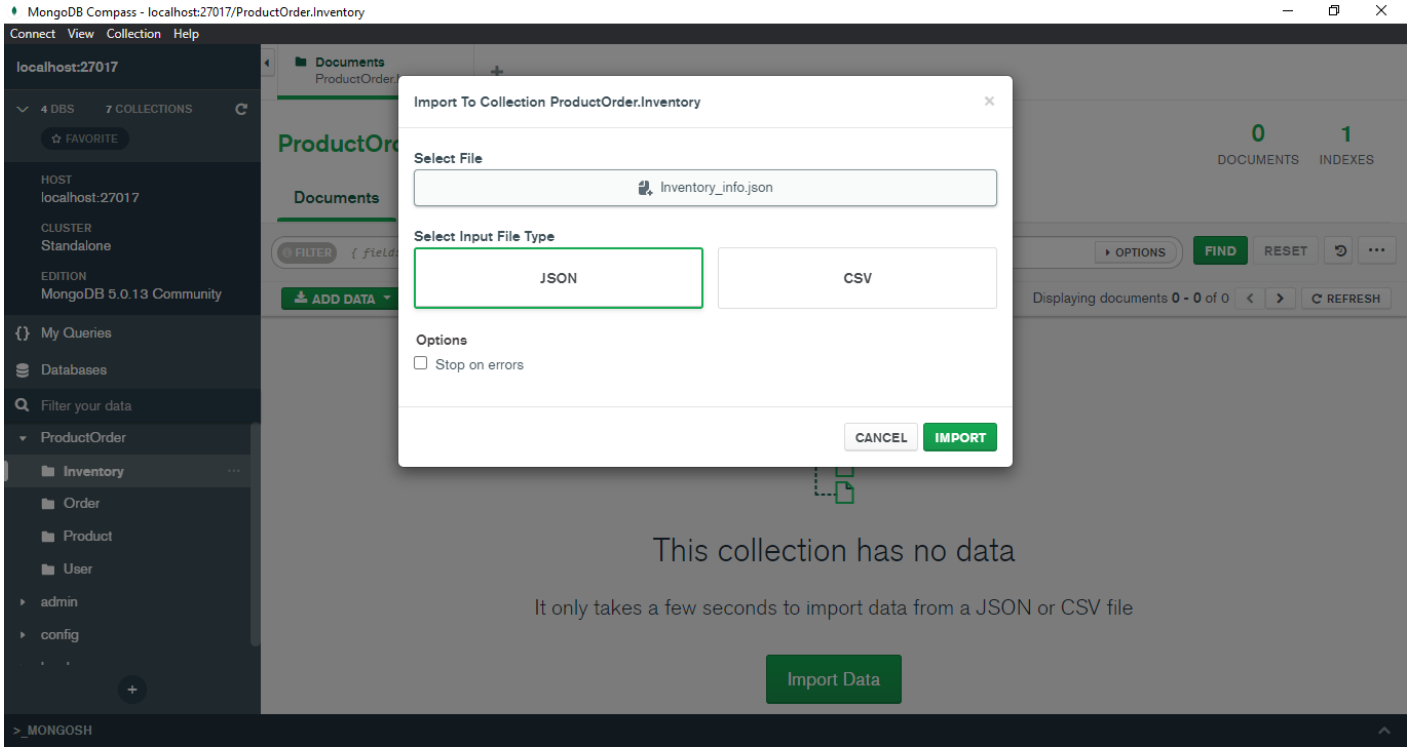
3. Open MongoDBCompass and navigate to the "ProductOrder" database.

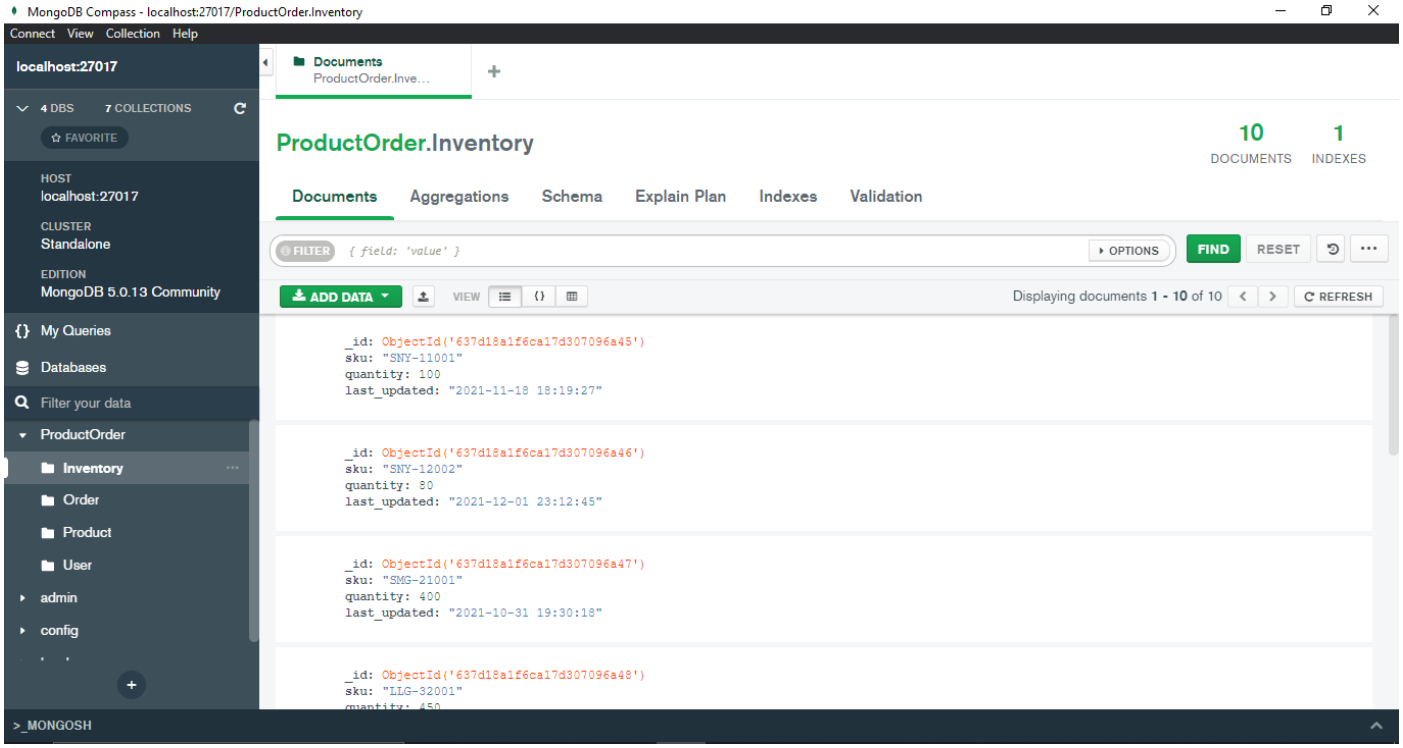
i) Add "Product_info.json" file into the "Product" collection.
ii) Add "Inventory_info.json" file into "Inventory" collection.
iii) Add "User_info.json" file into the "User" collection.
iv) Add "Order_info.json" file into "Order" collection.

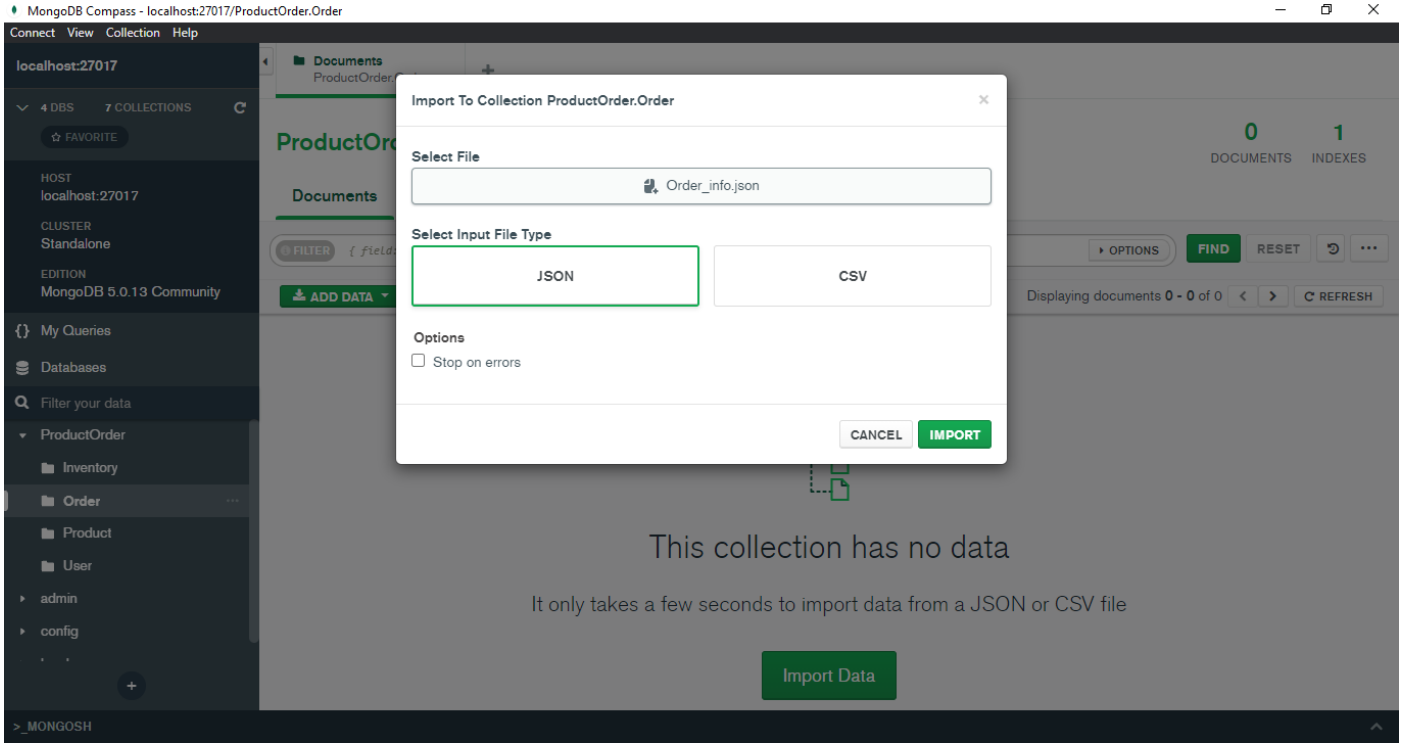
Note: These JSON files have restricted access. Hence, not uploaded to the repository.

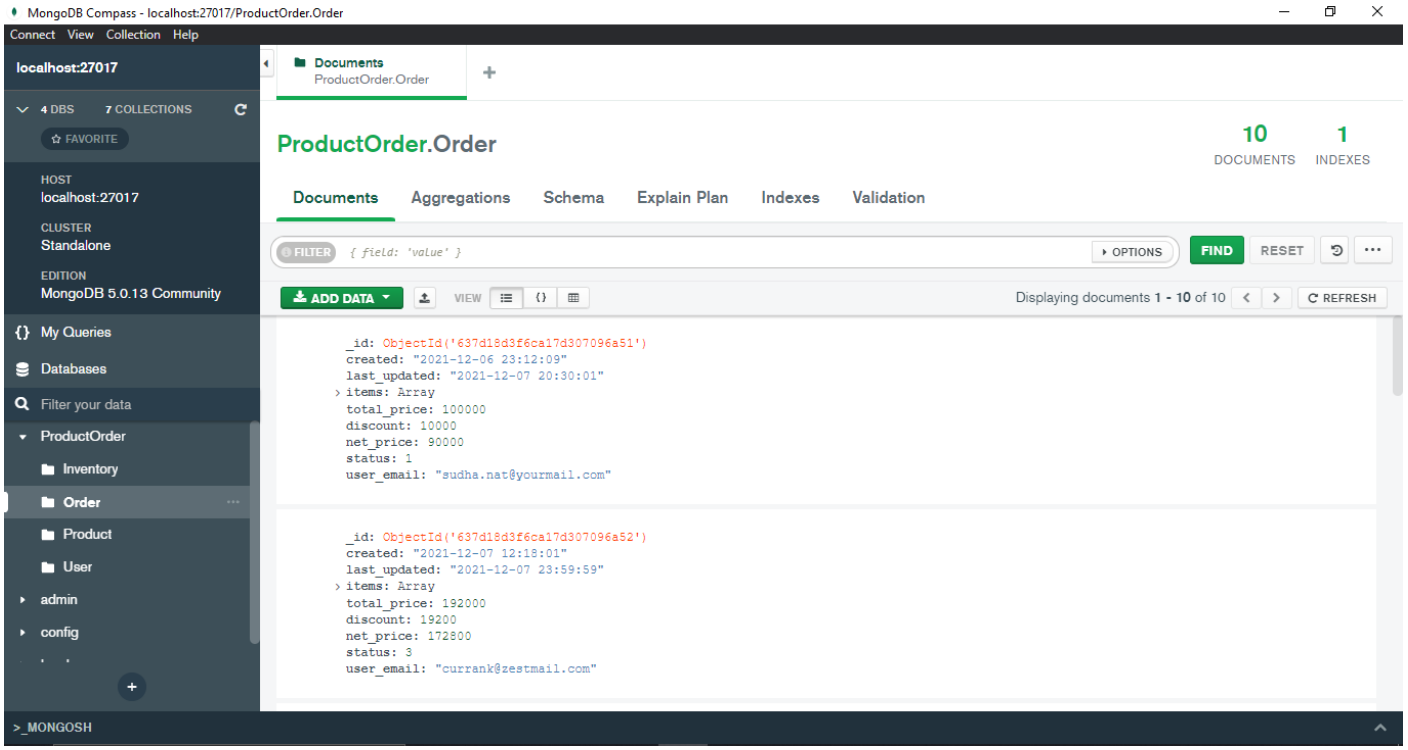


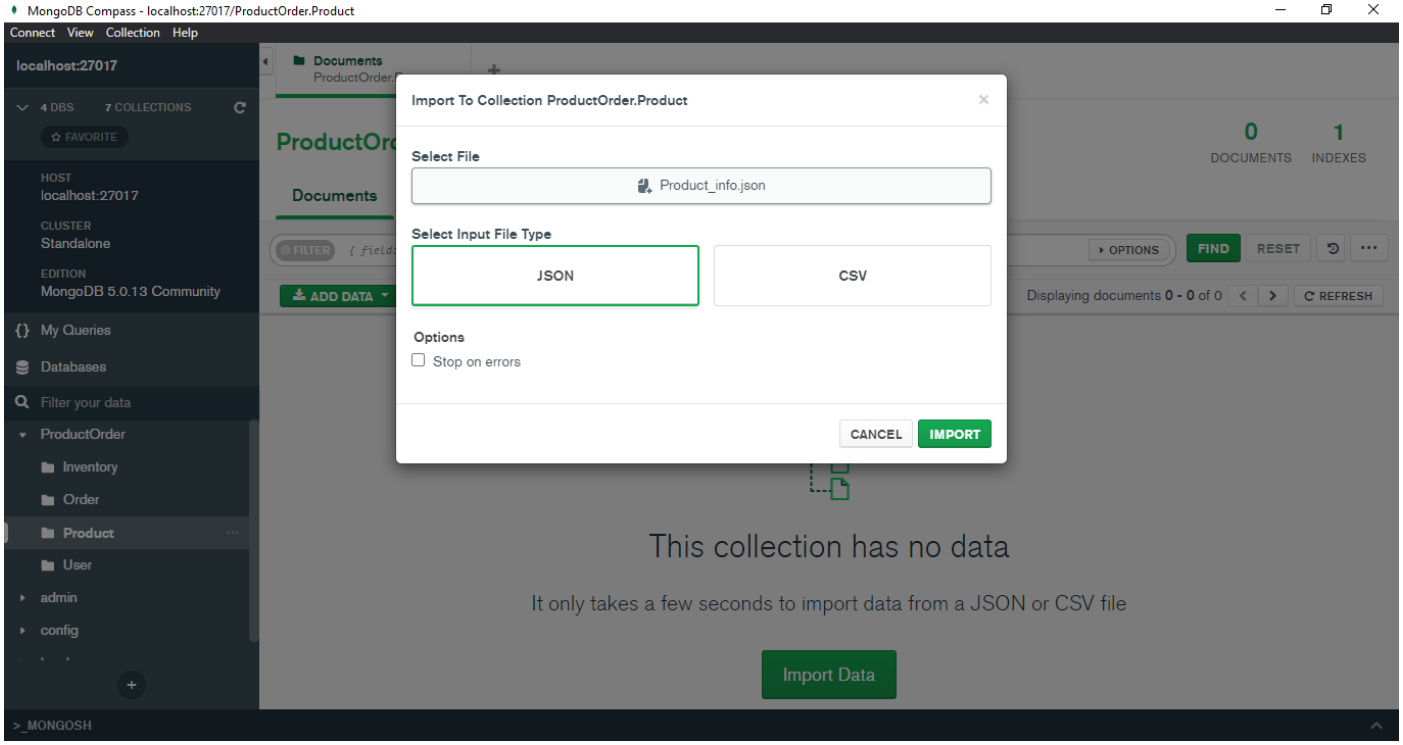


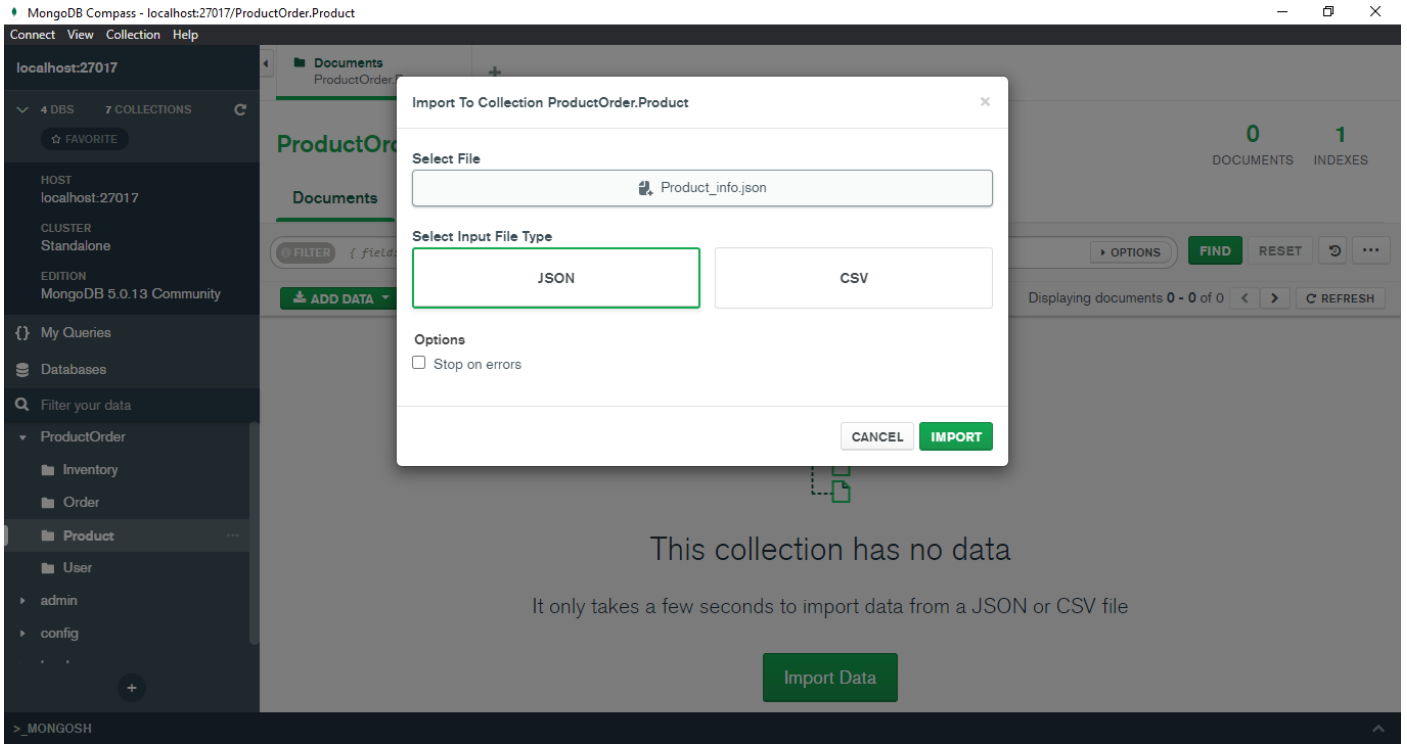

MongoDB Compass - localhost:27017/ProductOrder.Inventory
Connect View Collection Help
localhost:27017
4 DBS 7 COLLECTIONS
FAVORITE
HOST
localhost:27017
CLUSTER
Standalone
EDITION
MongoDB 5.0.13 Community
My Queries
Databases
Filter your data
ProductOrder
Inventory
Order
Product
User
admin
config
Documents
Import To Collection ProductOrder.Inventory
Select File
Inventory_info.json
Select Input File Type
JSON
CSV
Options
Stop on errors
CANCEL
IMPORT
0
DOCUMENTS
1
INDEXES
OPTIONS
FIND
RESET
ADD DATA
Displaying documents 0 - 0 of 0
REFRESH
This collection has no data
It only takes a few seconds to import data from a JSON or CSV file
Import Data
>_MONGOSH

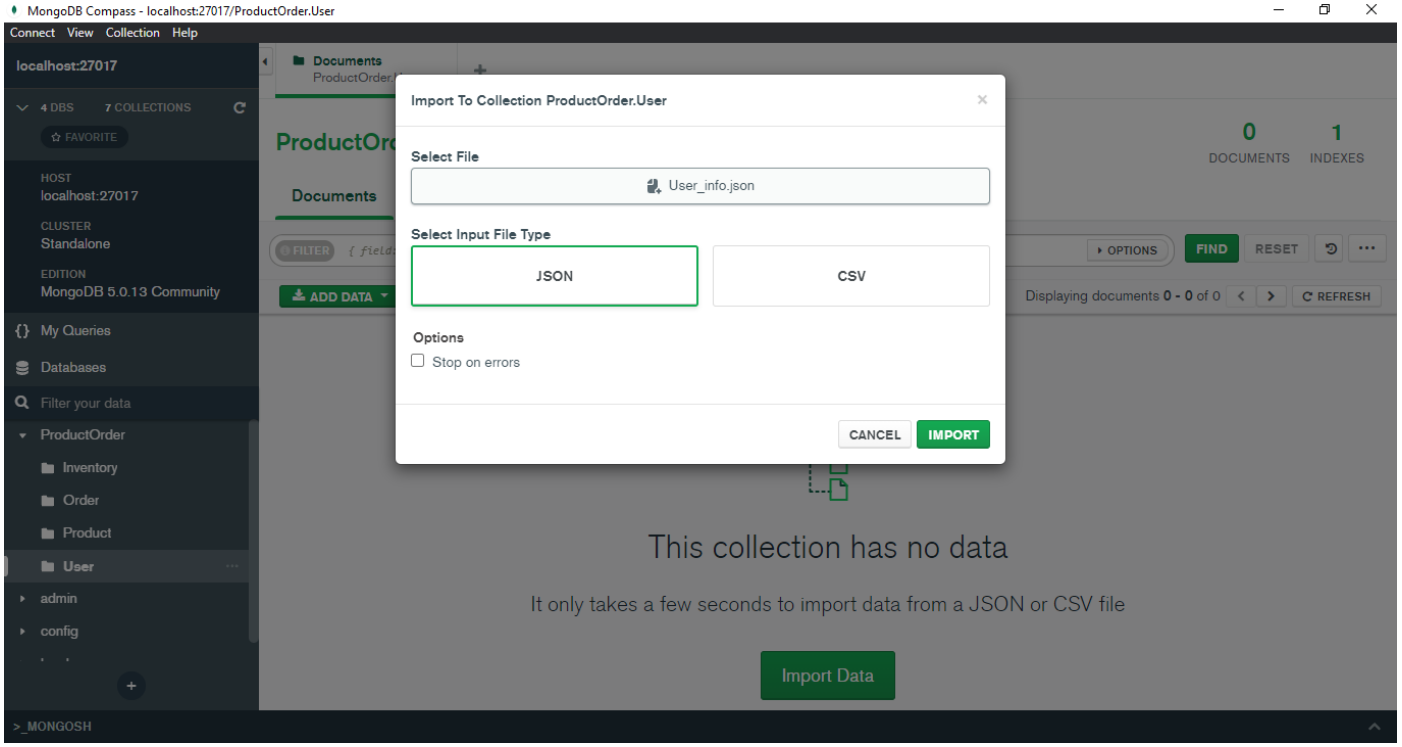

MongoDB Compass - localhost:27017/ProductOrder.Inventory
Connect View Collection Help
localhost:27017
4 DBS 7 COLLECTIONS
FAVORITE
HOST
localhost:27017
CLUSTER
Standalone
EDITION
MongoDB 5.0.13 Community
My Queries
Databases
Filter your data
ProductOrder
Inventory
Order
Product
User
admin
config
Documents
ProductOrder.Inve...
ProductOrder.Inventory
10
DOCUMENTS
1
INDEXES
Documents
Aggregations
Schema
Explain Plan
Indexes
Validation
FILTER
{ field: 'value' }
OPTIONS
FIND
RESET
ADD DATA
VIEW
Displaying documents 1 - 10 of 10
REFRESH
_id: ObjectId('637d18a1f6ca17d307096a45')
sku: "SNY-11001"
quantity: 100
last_updated: "2021-11-18 18:19:27"
_id: ObjectId('637d18a1f6ca17d307096a46')
sku: "SNY-12002"
quantity: 80
last_updated: "2021-12-01 23:12:45"
_id: ObjectId('637d18a1f6ca17d307096a47')
sku: "SMG-21001"
quantity: 400
last_updated: "2021-10-31 19:30:18"
_id: ObjectId('637d18a1f6ca17d307096a48')
sku: "LLG-32001"
>_MONGOSH

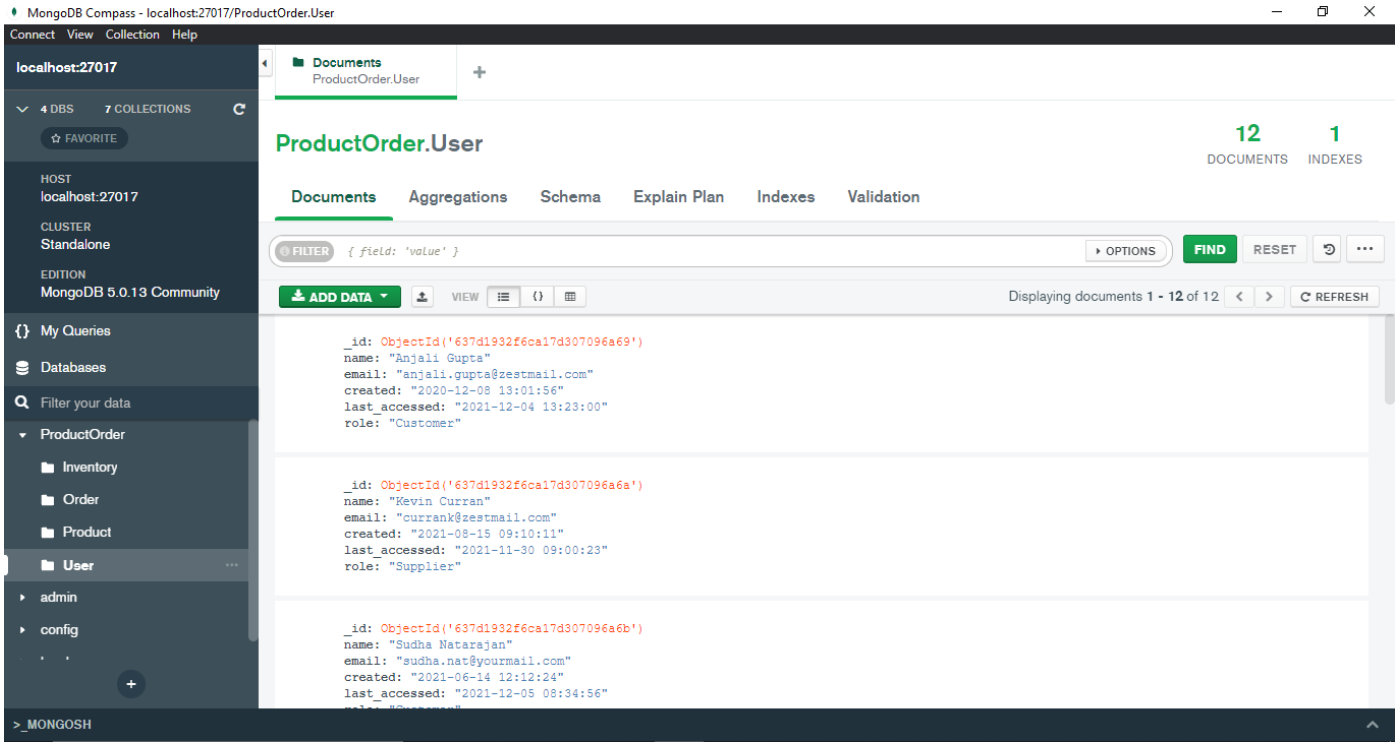

MongoDB Compass - localhost:27017/ProductOrder.Order
Connect View Collection Help
localhost:27017
4 DBS 7 COLLECTIONS
FAVORITE
HOST
localhost:27017
CLUSTER
Standalone
EDITION
MongoDB 5.0.13 Community
My Queries
Databases
Filter your data
ProductOrder
Inventory
Order
Product
User
admin
config
Documents
ProductOrder
Import To Collection ProductOrder.Order
Select File
Order_info.json
Select Input File Type
JSON
CSV
Options
Stop on errors
CANCEL
IMPORT
0
DOCUMENTS
1
INDEXES
OPTIONS
FIND
RESET
ADD DATA
Displaying documents 0 - 0 of 0
REFRESH
This collection has no data
It only takes a few seconds to import data from a JSON or CSV file
Import Data
>_MONGOSH


MongoDB Compass - localhost:27017/ProductOrder.Order
Connect View Collection Help
localhost:27017
4 DBS 7 COLLECTIONS
FAVORITE
HOST
localhost:27017
CLUSTER
Standalone
EDITION
MongoDB 5.0.13 Community
My Queries
Databases
Filter your data
ProductOrder
Inventory
Order
Product
User
admin
config
Documents
ProductOrder.Order
ProductOrder.Order
10
DOCUMENTS
1
INDEXES
Documents
Aggregations
Schema
Explain Plan
Indexes
Validation
FILTER
{ field: 'value' }
OPTIONS
FIND
RESET
ADD DATA
VIEW
Displaying documents 1 - 10 of 10
REFRESH
_id: ObjectId('637d18d3f6ca17d307096a51')
created: "2021-12-06 23:12:09"
last_updated: "2021-12-07 20:30:01"
items: Array
total_price: 100000
discount: 10000
net_price: 90000
status: 1
user_email: "sudha.nat@yourmail.com"
_id: ObjectId('637d18d3f6ca17d307096a52')
created: "2021-12-07 12:18:01"
last_updated: "2021-12-07 23:59:59"
items: Array
total_price: 192000
discount: 19200
net_price: 172800
status: 3
user_email: "currank@zestmail.com"
>_MONGOSH

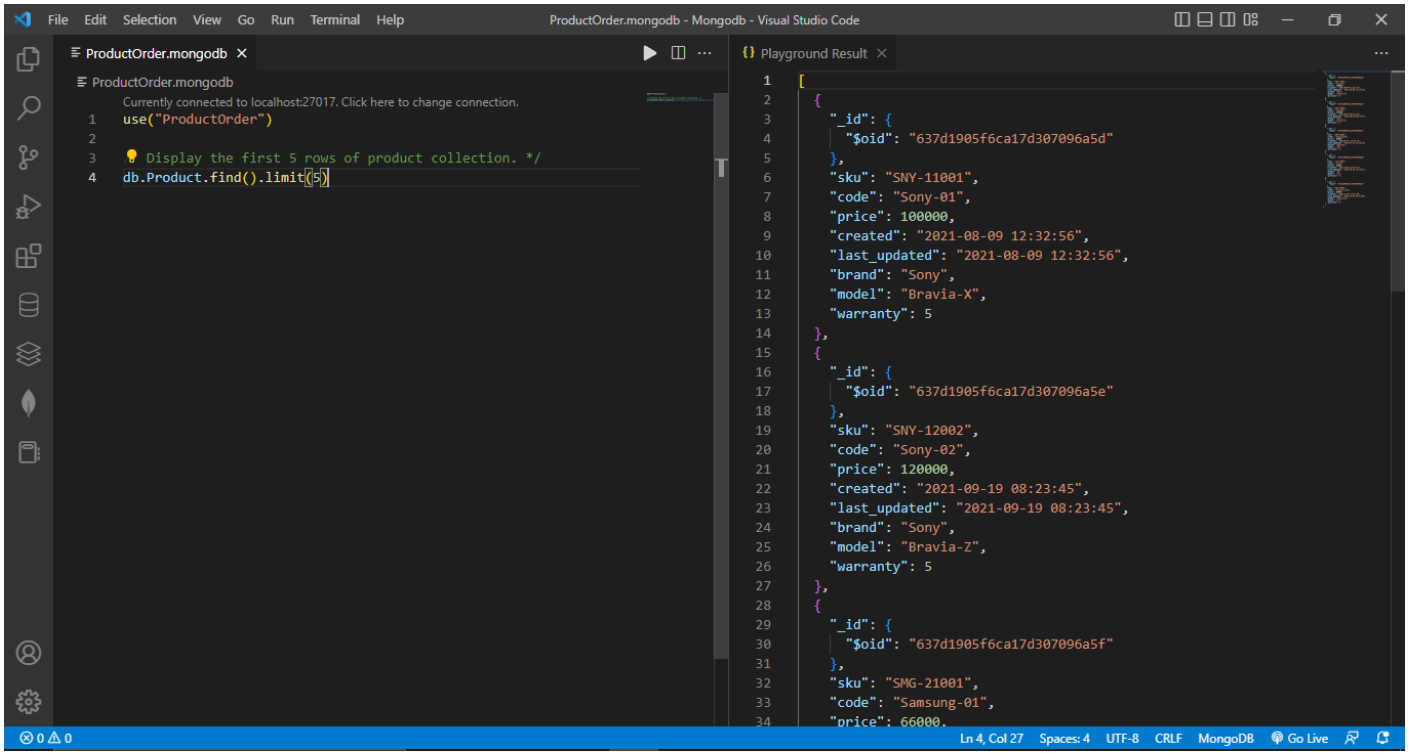

MongoDB Compass - localhost:27017/ProductOrder.Product
Connect View Collection Help
localhost:27017
4 DBS 7 COLLECTIONS
FAVORITE
HOST
localhost:27017
CLUSTER
Standalone
EDITION
MongoDB 5.0.13 Community
My Queries
Databases
Filter your data
ProductOrder
Inventory
Order
Product
User
admin
config
Documents
ProductOrder
Import To Collection ProductOrder.Product
Select File
Product_info.json
Select Input File Type
JSON
CSV
Options
Stop on errors
CANCEL
IMPORT
0
DOCUMENTS
1
INDEXES
OPTIONS
FIND
RESET
ADD DATA
Displaying documents 0 - 0 of 0
REFRESH
This collection has no data
It only takes a few seconds to import data from a JSON or CSV file
Import Data
>_MONGOSH

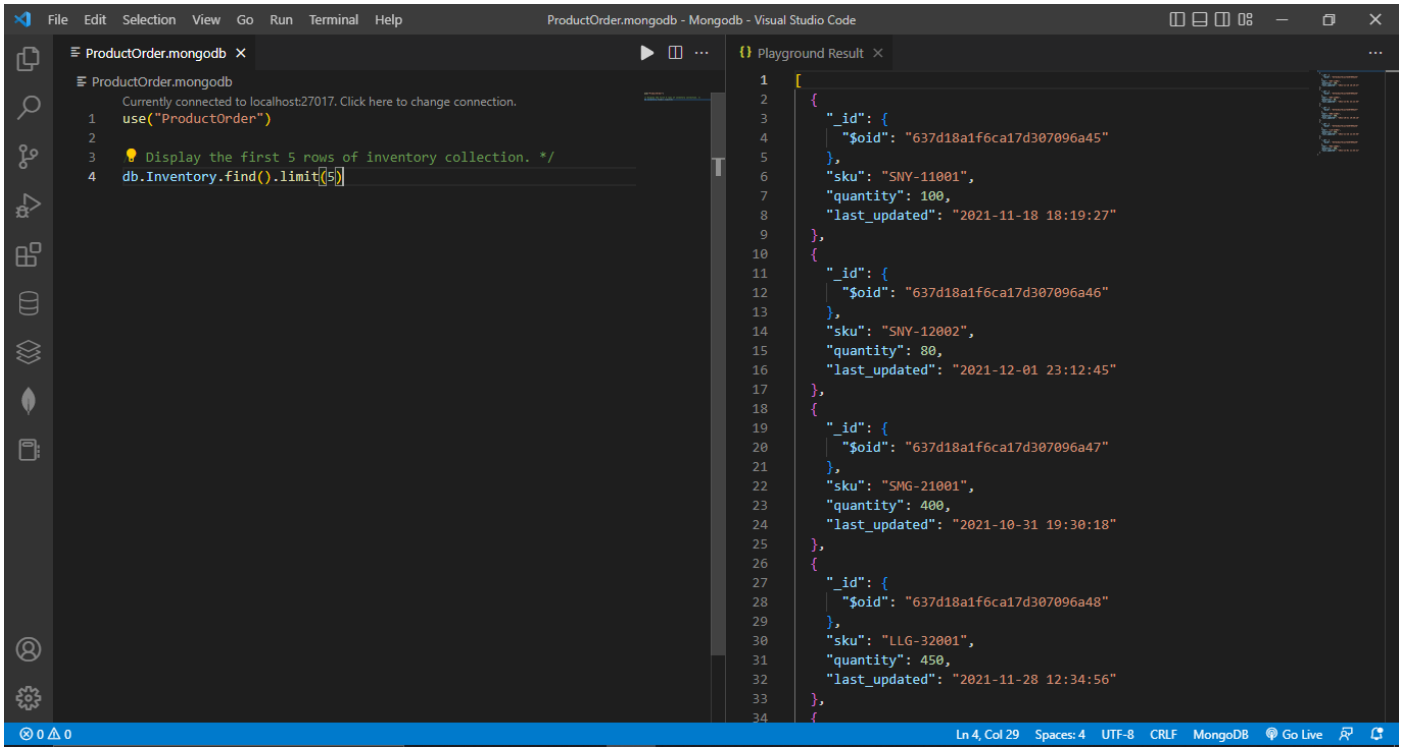

MongoDB Compass - localhost:27017/ProductOrder.Product
Connect View Collection Help
localhost:27017
4 DBS 7 COLLECTIONS
FAVORITE
HOST
localhost:27017
CLUSTER
Standalone
EDITION
MongoDB 5.0.13 Community
My Queries
Databases
Filter your data
ProductOrder
Inventory
Order
Product
User
admin
config
Documents
ProductOrder
Import To Collection ProductOrder.Product
Select File
Product_info.json
Select Input File Type
JSON
CSV
Options
Stop on errors
CANCEL
IMPORT
0
DOCUMENTS
1
INDEXES
OPTIONS
FIND
RESET
ADD DATA
Displaying documents 0 - 0 of 0
REFRESH
This collection has no data
It only takes a few seconds to import data from a JSON or CSV file
Import Data
>_MONGOSH

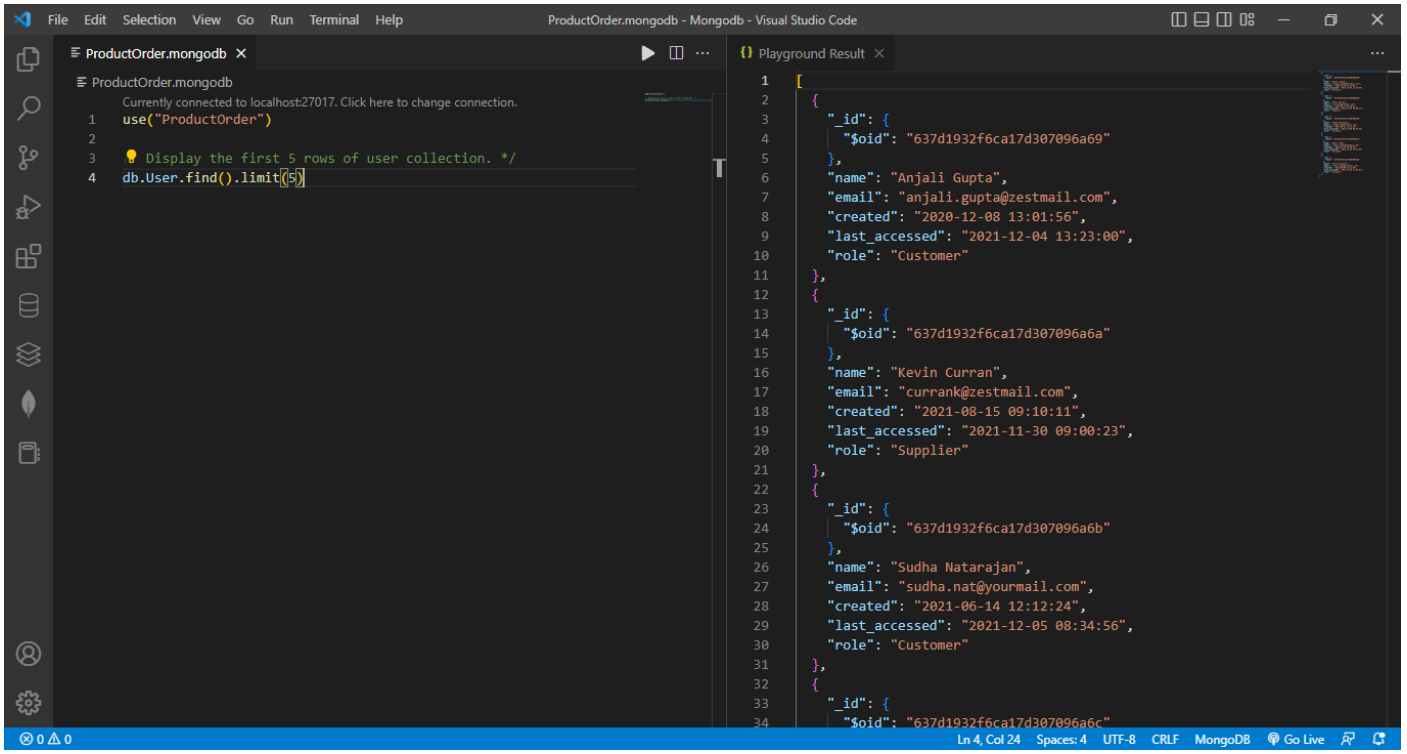

MongoDB Compass - localhost:27017/ProductOrder.User
Connect View Collection Help
localhost:27017
4 DBS 7 COLLECTIONS
FAVORITE
HOST
localhost:27017
CLUSTER
Standalone
EDITION
MongoDB 5.0.13 Community
My Queries
Databases
Filter your data
ProductOrder
Inventory
Order
Product
User
admin
config
Documents
ProductOrder.
Import To Collection ProductOrder.User
Select File
User_info.json
Select Input File Type
JSON
CSV
Options
Stop on errors
CANCEL
IMPORT
0
DOCUMENTS
1
INDEXES
OPTIONS
FIND
RESET
ADD DATA
Displaying documents 0 - 0 of 0
REFRESH
This collection has no data
It only takes a few seconds to import data from a JSON or CSV file
Import Data
>_MONGOSH

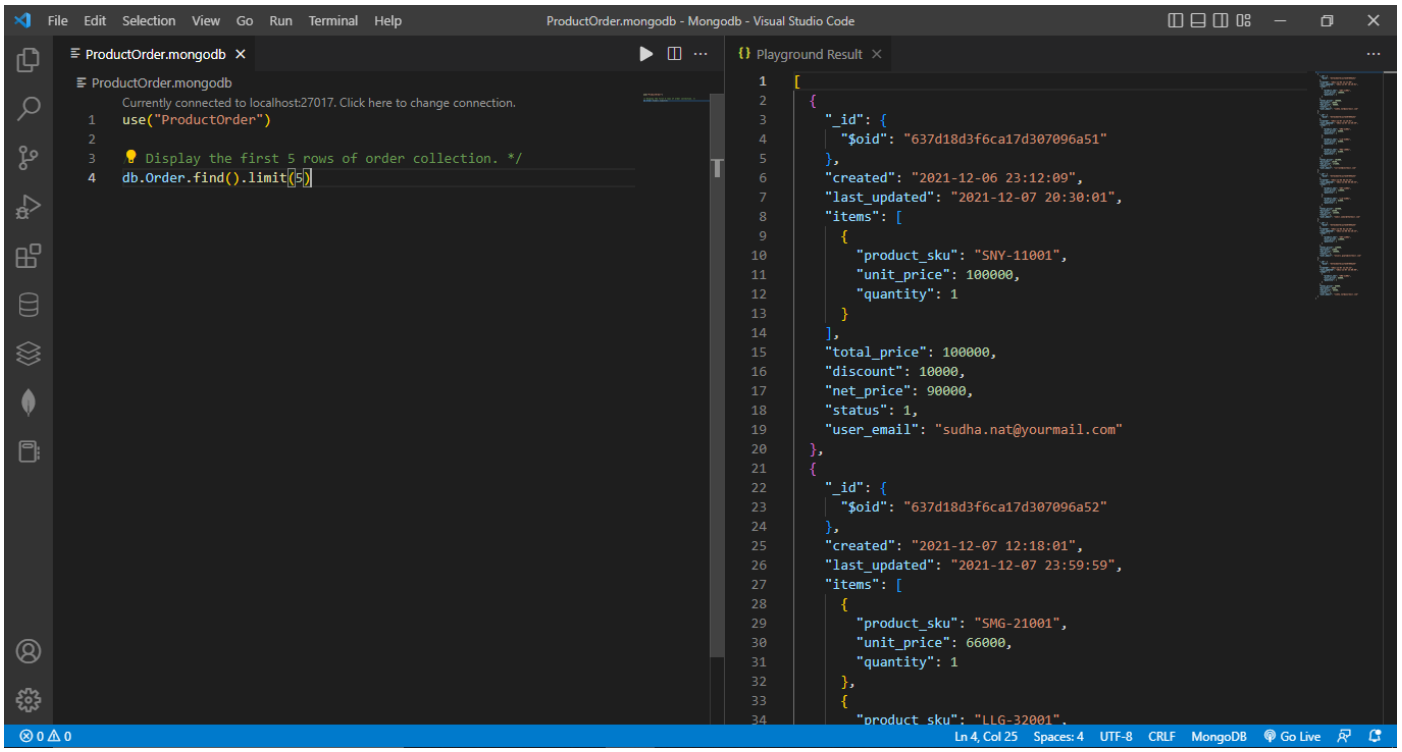

MongoDB Compass - localhost:27017/ProductOrder.User
Connect View Collection Help
localhost:27017
4 DBS 7 COLLECTIONS
FAVORITE
HOST
localhost:27017
CLUSTER
Standalone
EDITION
MongoDB 5.0.13 Community
My Queries
Databases
Filter your data
ProductOrder
Inventory
Order
Product
User
admin
config
Documents
ProductOrder.User
ProductOrder.User
12
DOCUMENTS
1
INDEXES
Documents
Aggregations
Schema
Explain Plan
Indexes
Validation
FILTER
{ field: 'value' }
OPTIONS
FIND
RESET
ADD DATA
VIEW
Displaying documents 1 - 12 of 12
REFRESH
_id: ObjectId('637d1932f6ca17d307096a69')
name: "Anjali Gupta"
email: "anjali.gupta@zestmail.com"
created: "2020-12-08 13:01:56"
last_accessed: "2021-12-04 13:23:00"
role: "Customer"
_id: ObjectId('637d1932f6ca17d307096a6a')
name: "Kevin Curran"
email: "currank@zestmail.com"
created: "2021-08-15 09:10:11"
last_accessed: "2021-11-30 09:00:23"
role: "Supplier"
_id: ObjectId('637d1932f6ca17d307096a6b')
name: "Sudha Natarajan"
email: "sudha.nat@yourmail.com"
created: "2021-06-14 12:12:24"
last_accessed: "2021-12-05 08:34:56"
>_MONGOSH

4. Display the first 5 rows of product, inventory, user, and order collection

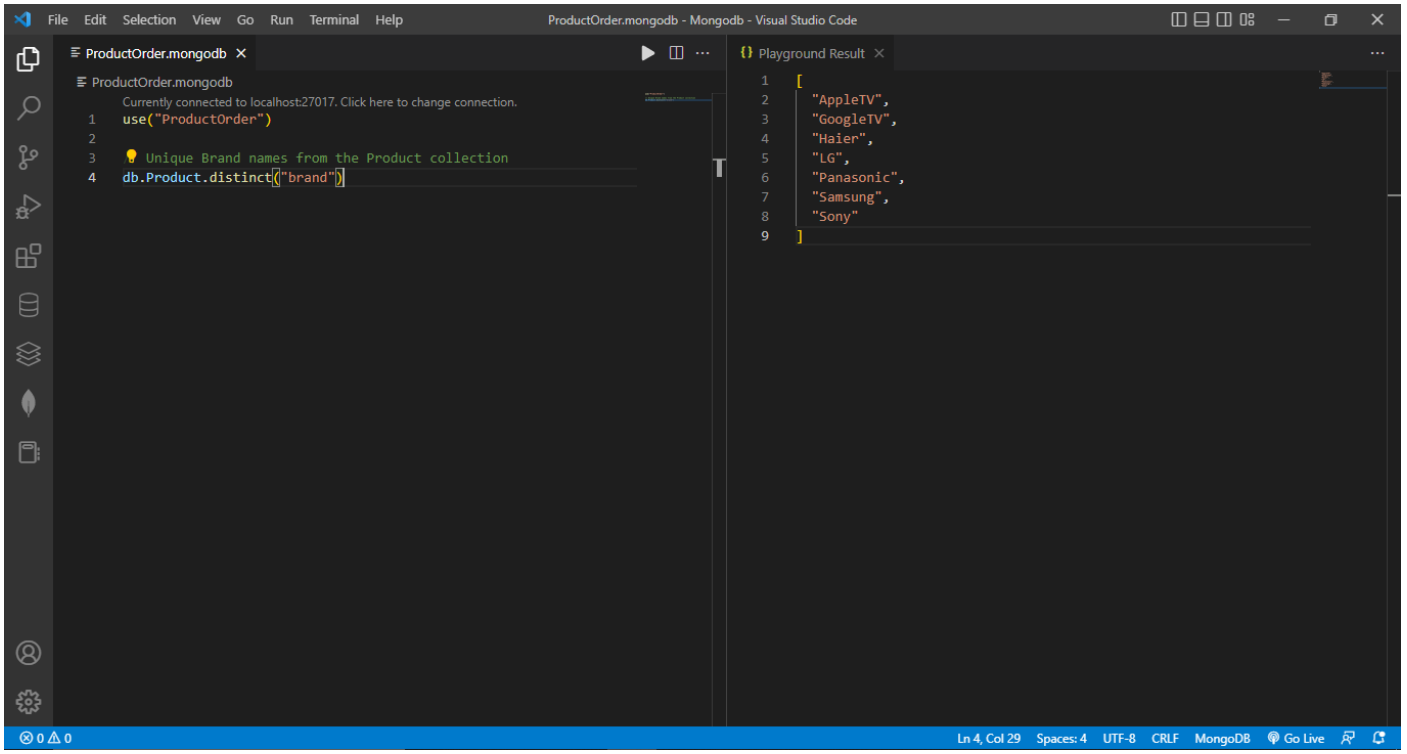


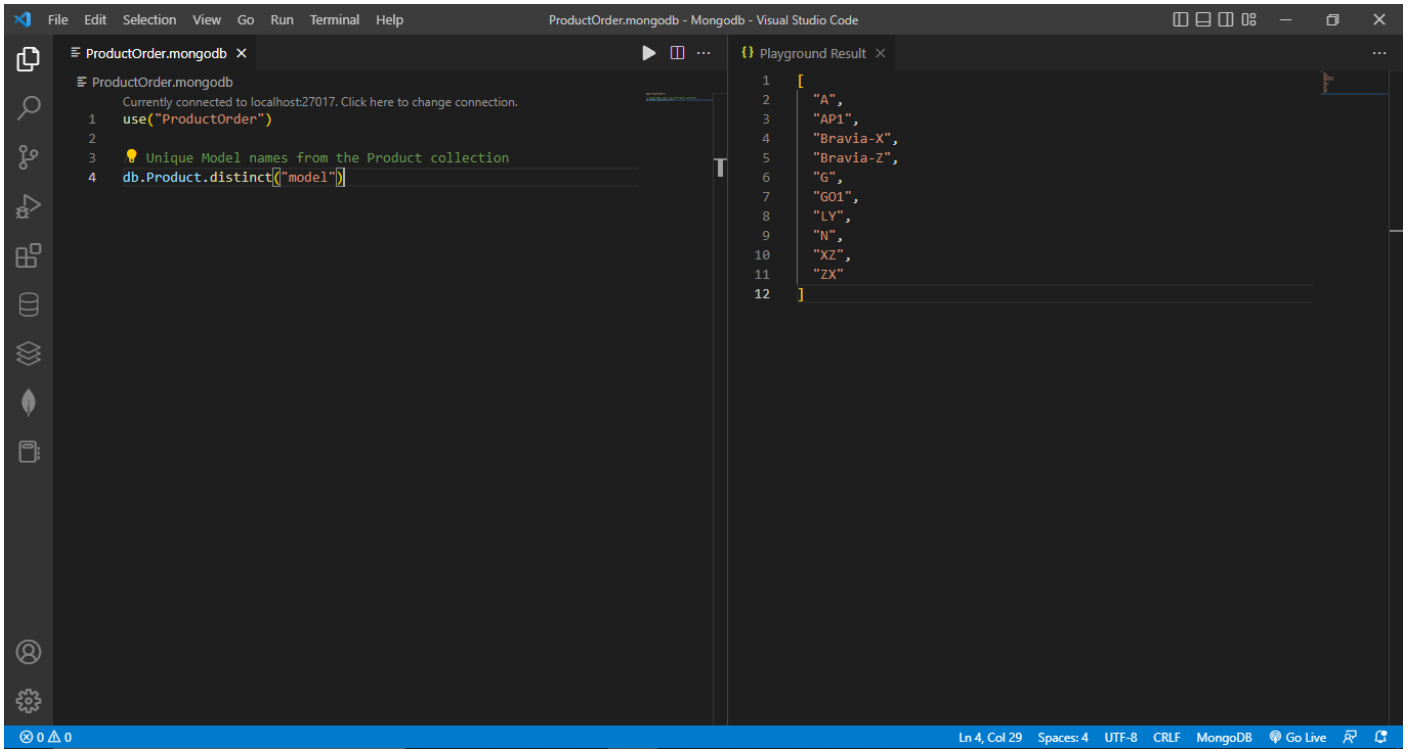



File Edit Selection View Go Run Terminal Help
ProductOrder.mongodb - Mongodb - Visual Studio Code
ProductOrder.mongodb
ProductOrder.mongodb
Currently connected to localhost:27017. Click here to change connection.
use("ProductOrder")
/* Display the first 5 rows of user collection. */
db.User.find().limit(5)
Playground Result
[
{
"_id": {
"$oid": "637d1932f6ca17d307096a69"
},
"name": "Anjali Gupta",
"email": "anjali.gupta@zestmail.com",
"created": "2020-12-08 13:01:56",
"last_accessed": "2021-12-04 13:23:00",
"role": "Customer"
},
{
"_id": {
"$oid": "637d1932f6ca17d307096a6a"
},
"name": "Kevin Curran",
"email": "currank@zestmail.com",
"created": "2021-08-15 09:10:11",
"last_accessed": "2021-11-30 09:00:23",
"role": "Supplier"
},
{
"_id": {
"$oid": "637d1932f6ca17d307096a6b"
},
"name": "Sudha Natarajan",
"email": "sudha.nat@yourmail.com",
"created": "2021-06-14 12:12:24",
"last_accessed": "2021-12-05 08:34:56",
"role": "Customer"
},
{
"_id": {
"$oid": "637d1932f6ca17d307096a6c"
Ln 4, Col 24 Spaces: 4 UTF-8 CRLF MongoDB Go Live

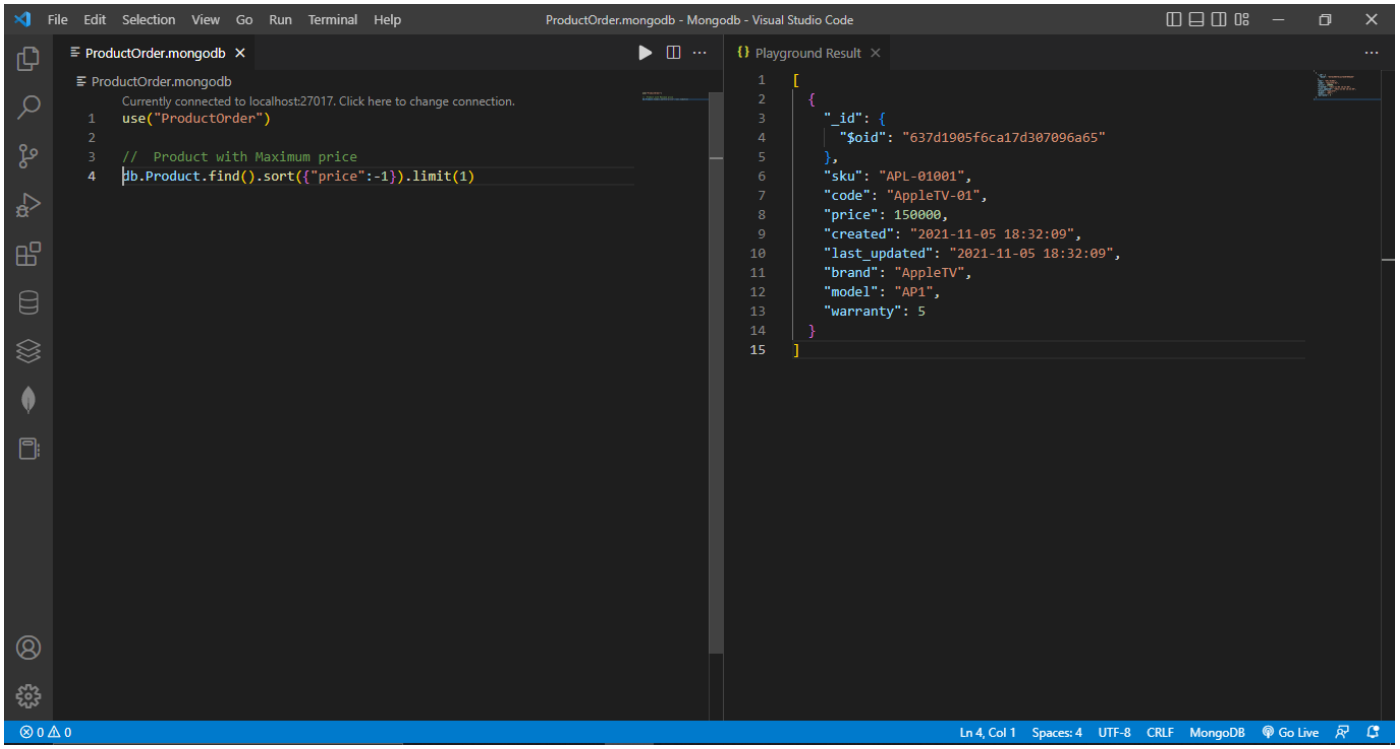

File Edit Selection View Go Run Terminal Help
ProductOrder.mongodb - Mongodb - Visual Studio Code
ProductOrder.mongodb
ProductOrder.mongodb
Currently connected to localhost:27017. Click here to change connection.
use("ProductOrder")
/* Display the first 5 rows of order collection. */
db.Order.find().limit(5)
Playground Result
[
{
"_id": {
"$oid": "637d18d3f6ca17d307096a51"
},
"created": "2021-12-06 23:12:09",
"last_updated": "2021-12-07 20:30:01",
"items": [
{
"product_sku": "SNY-11001",
"unit_price": 100000,
"quantity": 1
}
],
"total_price": 100000,
"discount": 10000,
"net_price": 90000,
"status": 1,
"user_email": "sudha.nat@yourmail.com"
},
{
"_id": {
"$oid": "637d18d3f6ca17d307096a52"
},
"created": "2021-12-07 12:18:01",
"last_updated": "2021-12-07 23:59:59",
"items": [
{
"product_sku": "SMG-21001",
"unit_price": 66000,
"quantity": 1
},
{
"product_sku": "LLG-32001",
Ln 4, Col 25 Spaces: 4 UTF-8 CRLF MongoDB Go Live

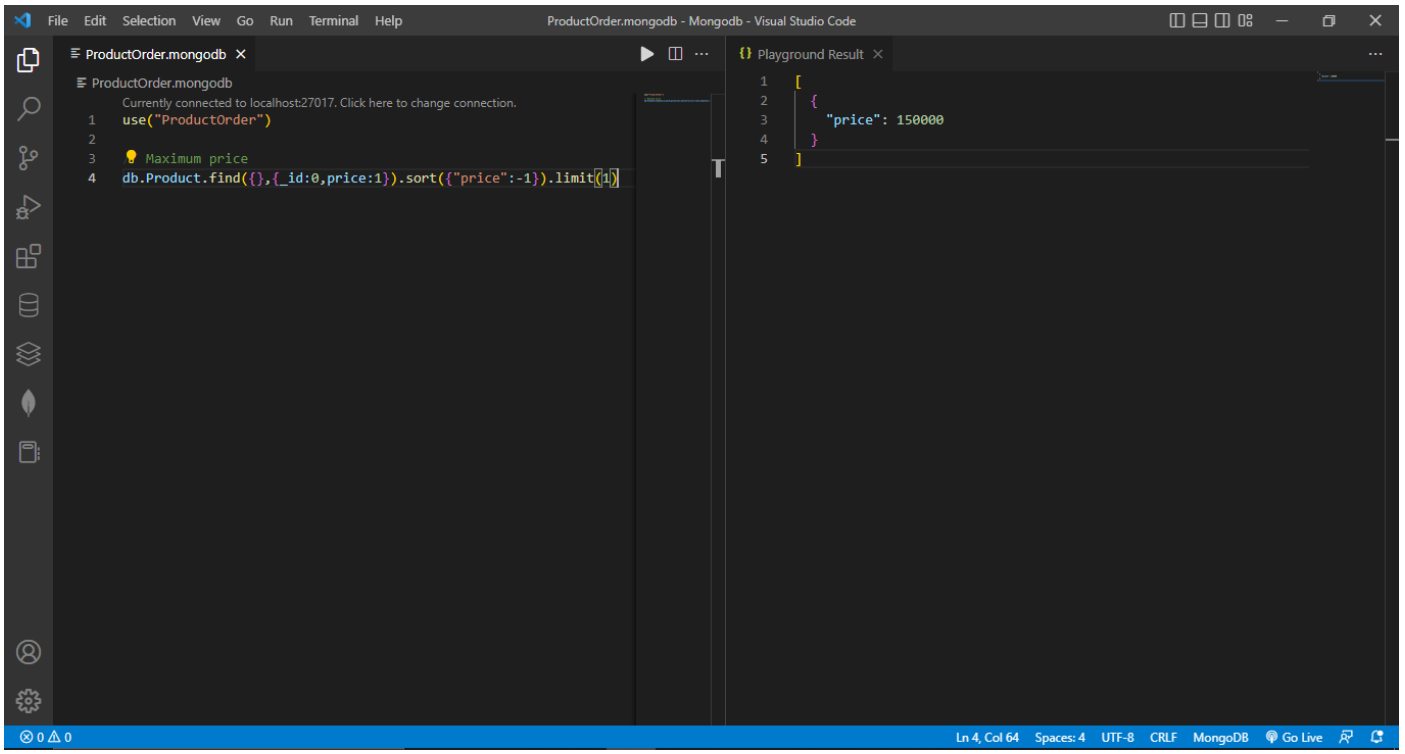
5. Display the Unique Brand and Model names from the Product collection

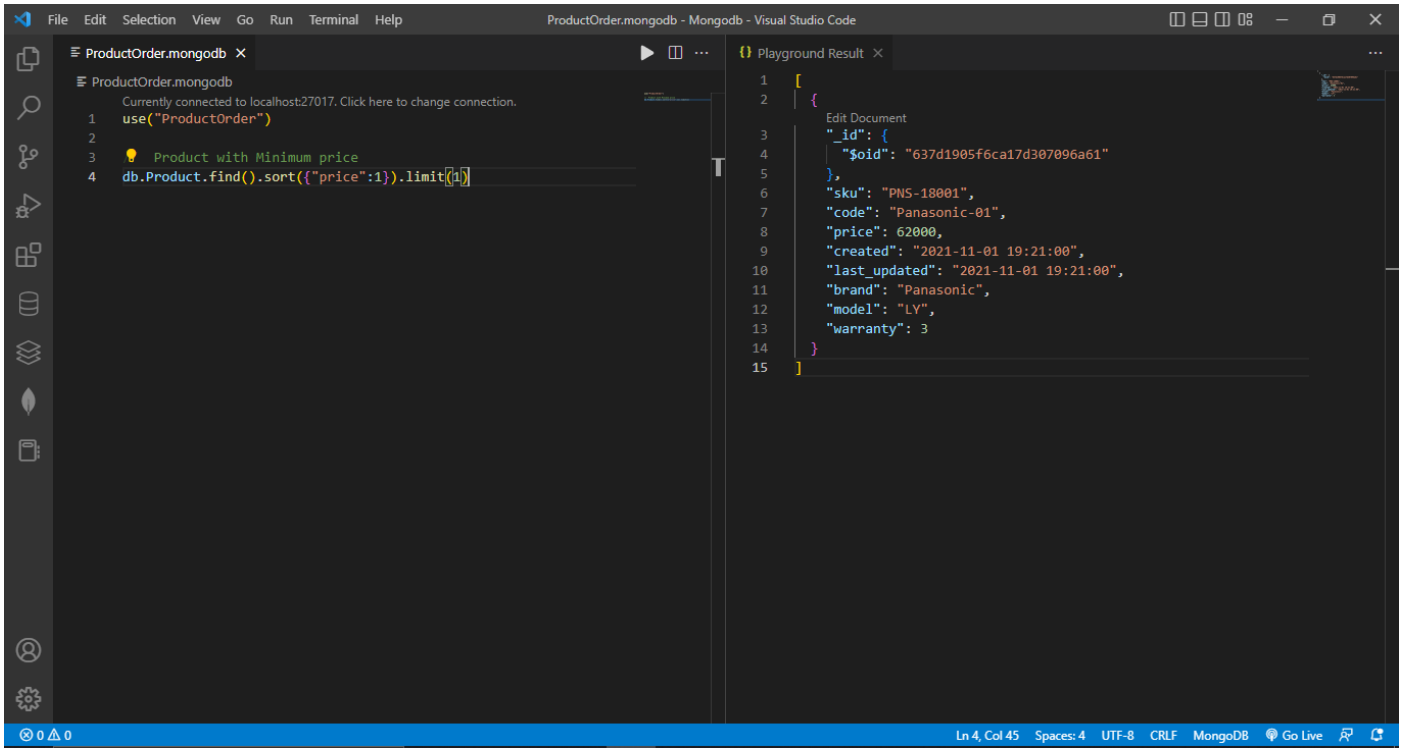


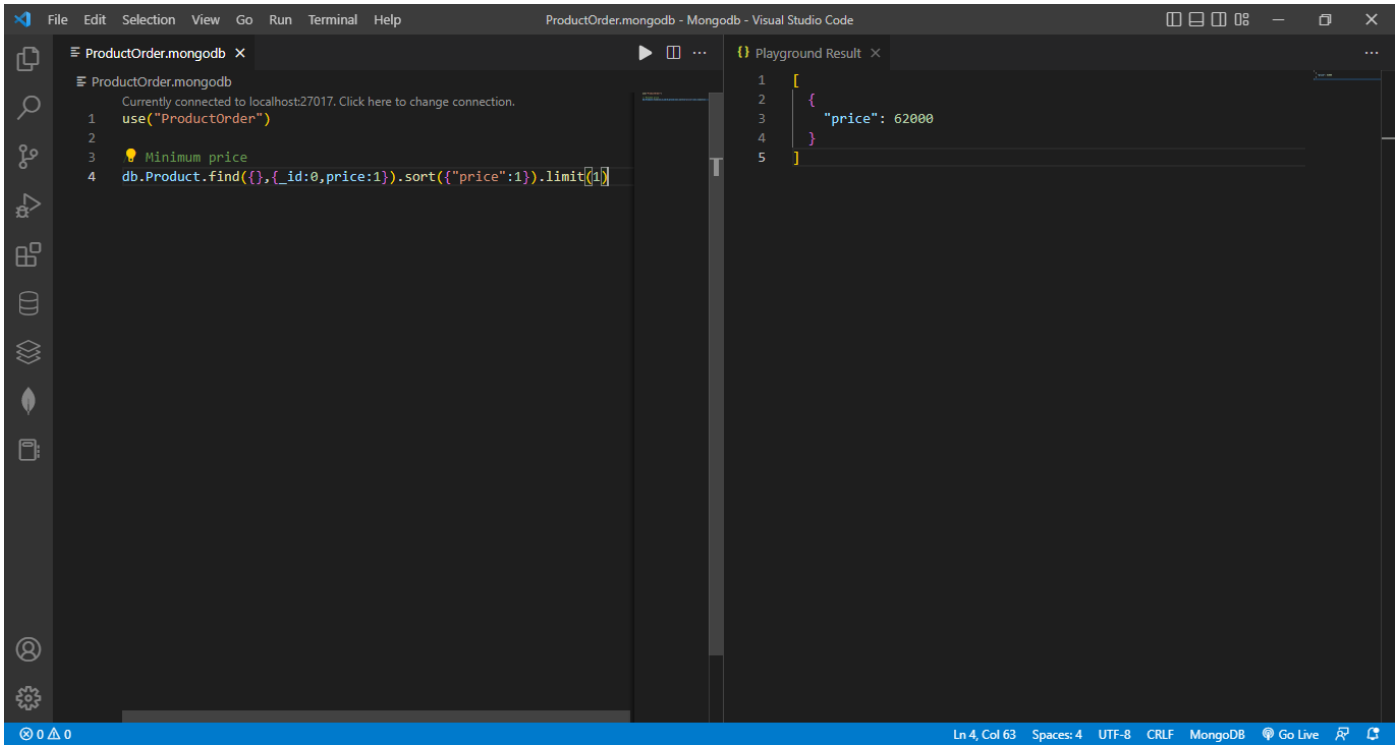


6. Find the maximum and minimum price of the given products.

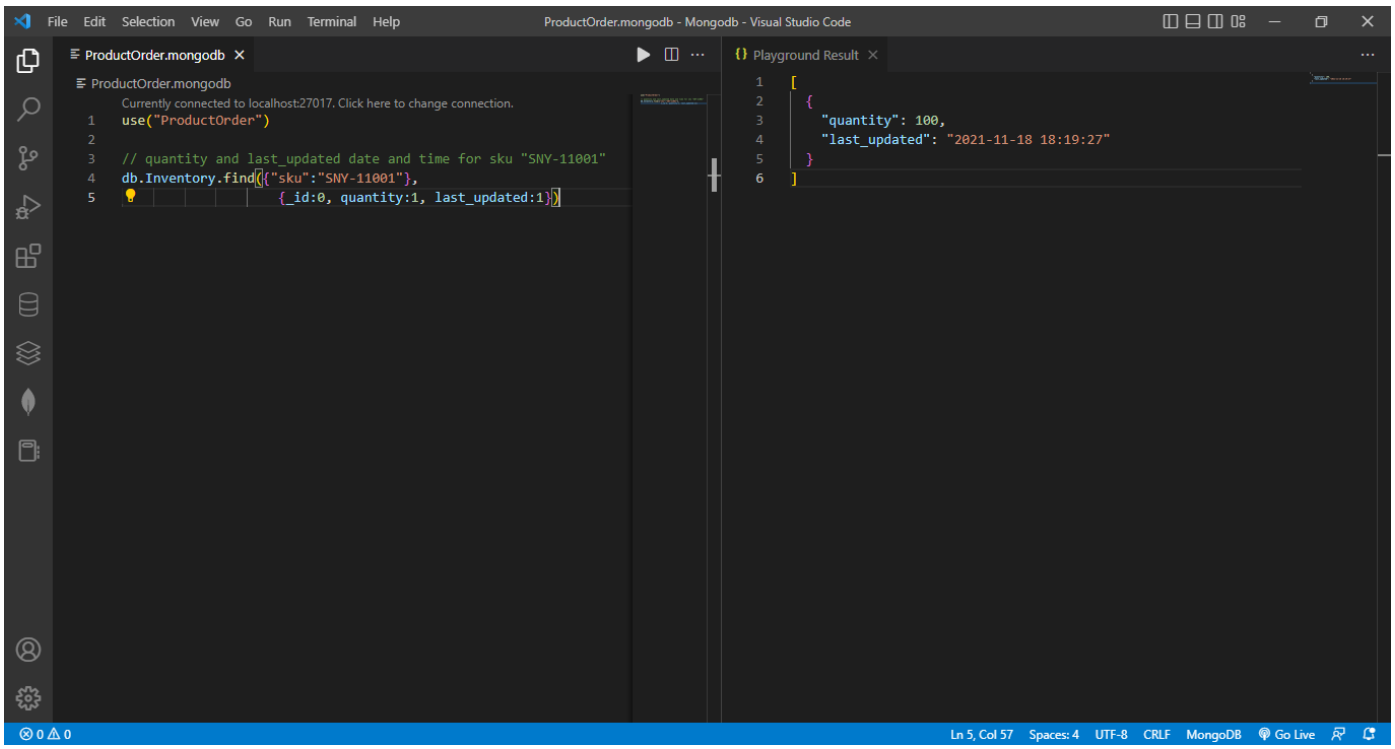




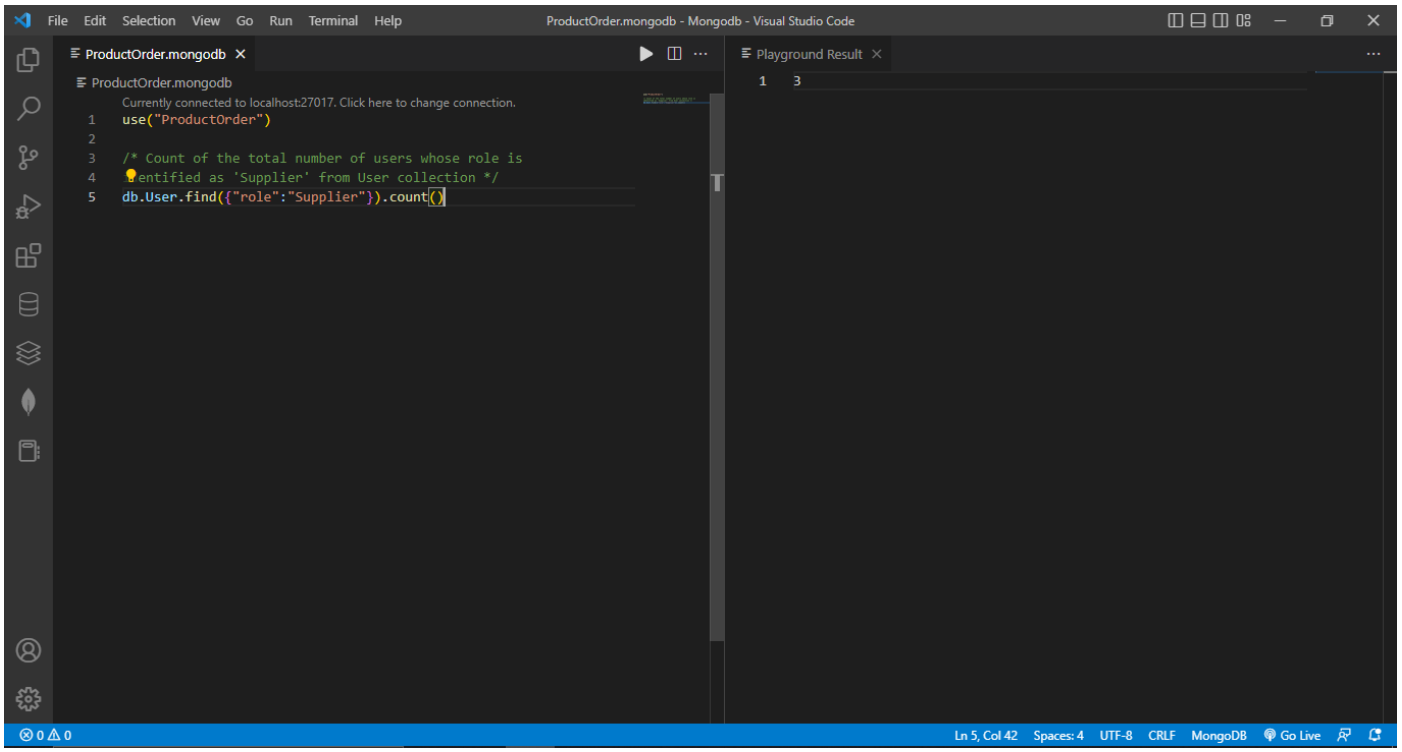

File Edit Selection View Go Run Terminal Help
ProductOrder.mongodb - Mongodb - Visual Studio Code
ProductOrder.mongodb
ProductOrder.mongodb
Currently connected to localhost:27017. Click here to change connection.
use("ProductOrder")
Product with Minimum price
db.Product.find().sort({"price":1}).limit(1)
Playground Result
[
{
Edit Document
"_id": {
"$oid": "637d1905f6ca17d307096a61"
},
"sku": "PNS-18001",
"code": "Panasonic-01",
"price": 62000,
"created": "2021-11-01 19:21:00",
"last_updated": "2021-11-01 19:21:00",
"brand": "Panasonic",
"model": "LY",
"warranty": 3
}
]
Ln 4, Col 45 Spaces: 4 UTF-8 CRLF MongoDB Go Live


File Edit Selection View Go Run Terminal Help
ProductOrder.mongodb - Mongodb - Visual Studio Code
ProductOrder.mongodb
ProductOrder.mongodb
Currently connected to localhost:27017. Click here to change connection.
use("ProductOrder")
Minimum price
db.Product.find({},{_id:0,price:1}).sort({"price":1}).limit(1)
Playground Result
[
{
"price": 62000
}
]
Ln 4, Col 63 Spaces: 4 UTF-8 CRLF MongoDB Go Live

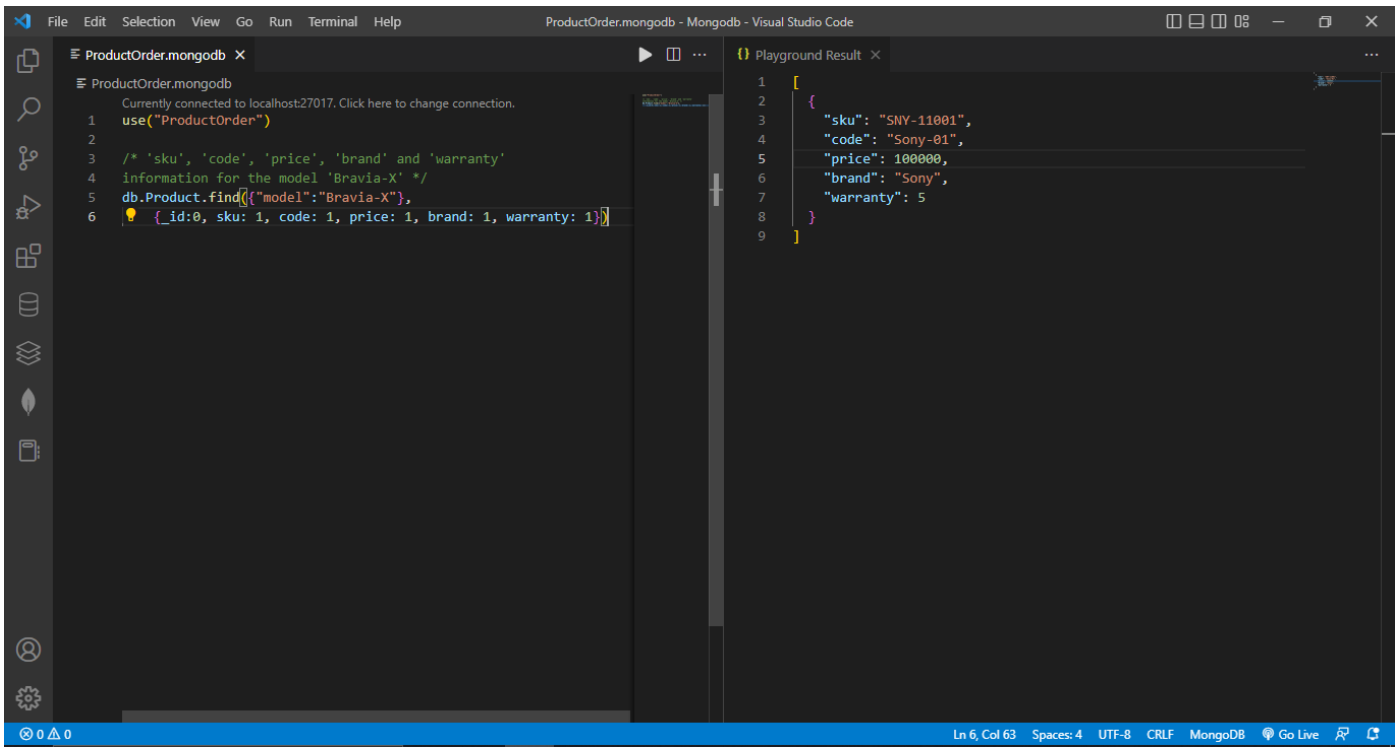
7. Display the quantity and last_updated date and time for sku "SNY-11001"



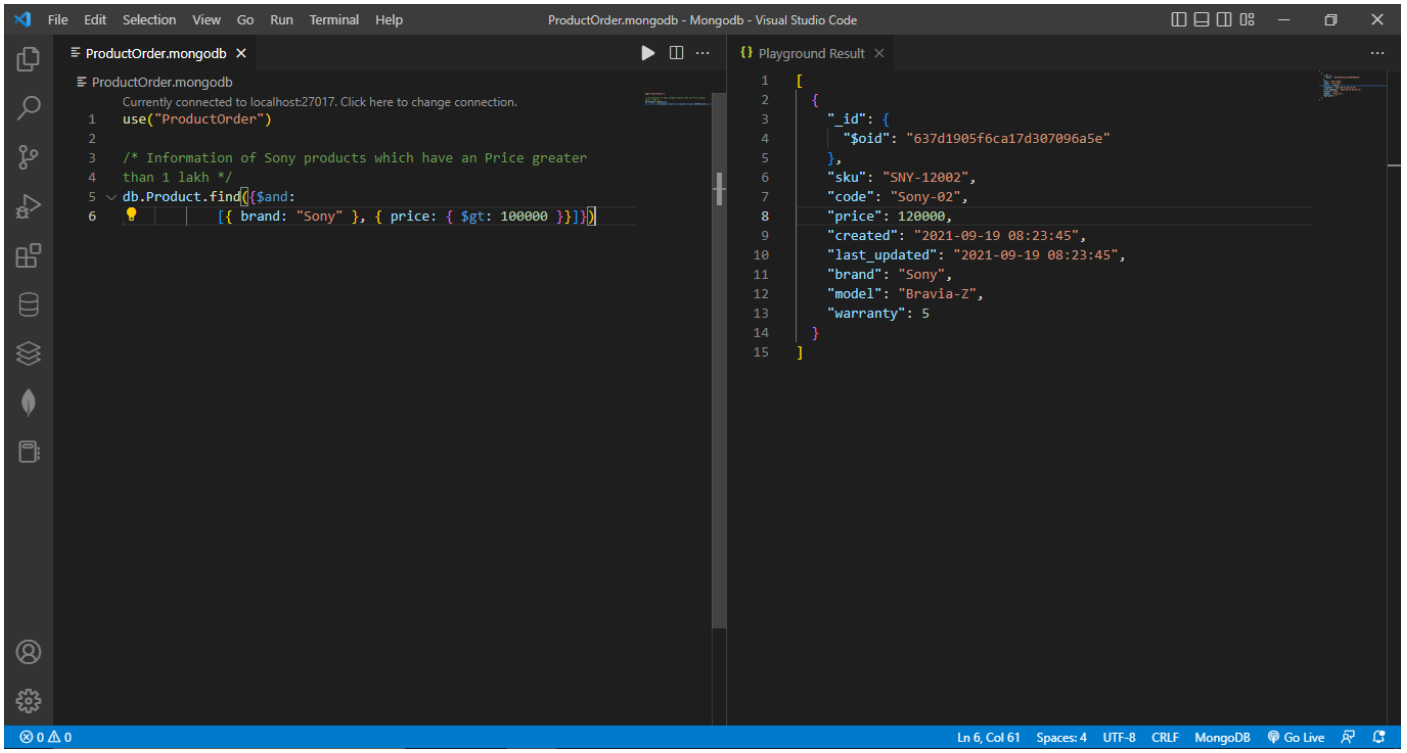
8. List down the count of the total number of users whose role is identified as 'Supplier' from User collection



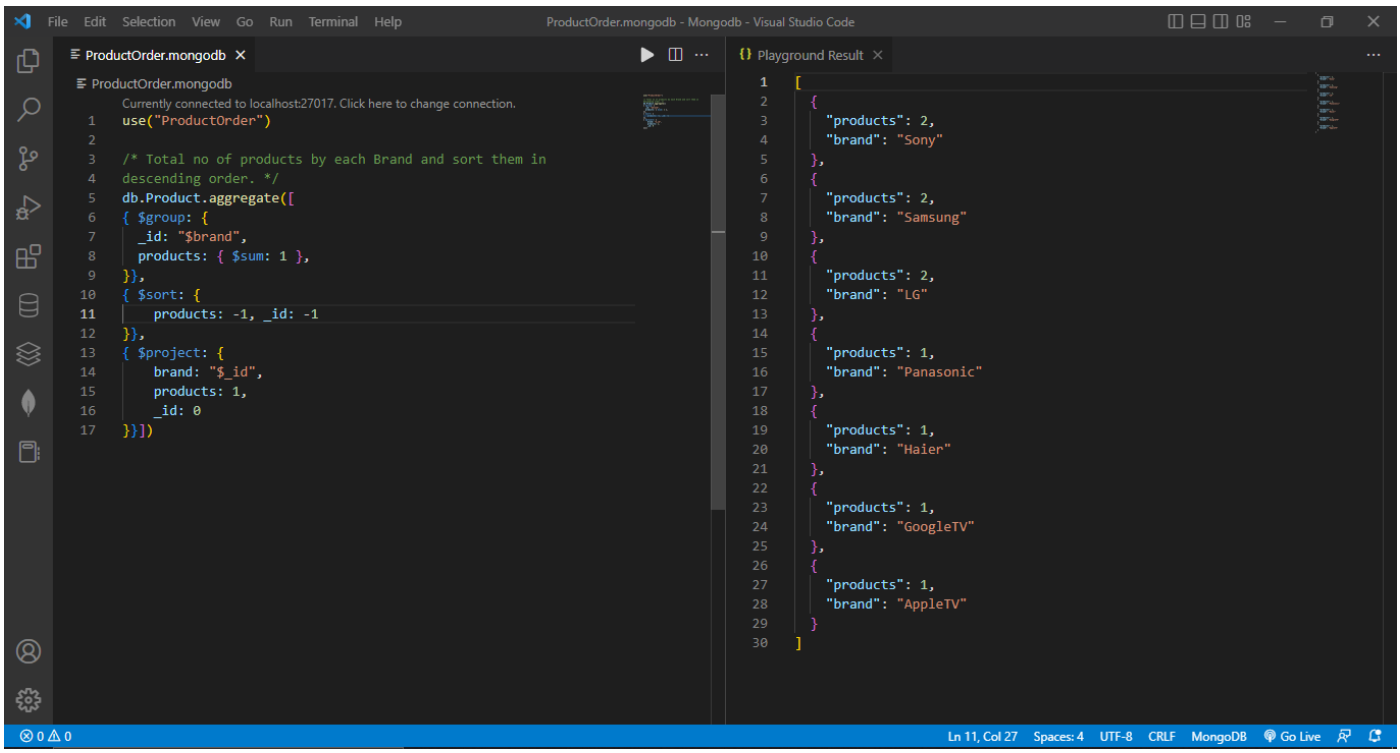
9. Display 'sku', 'code', 'price', 'brand' and 'warranty' information for the model 'Bravia-X'



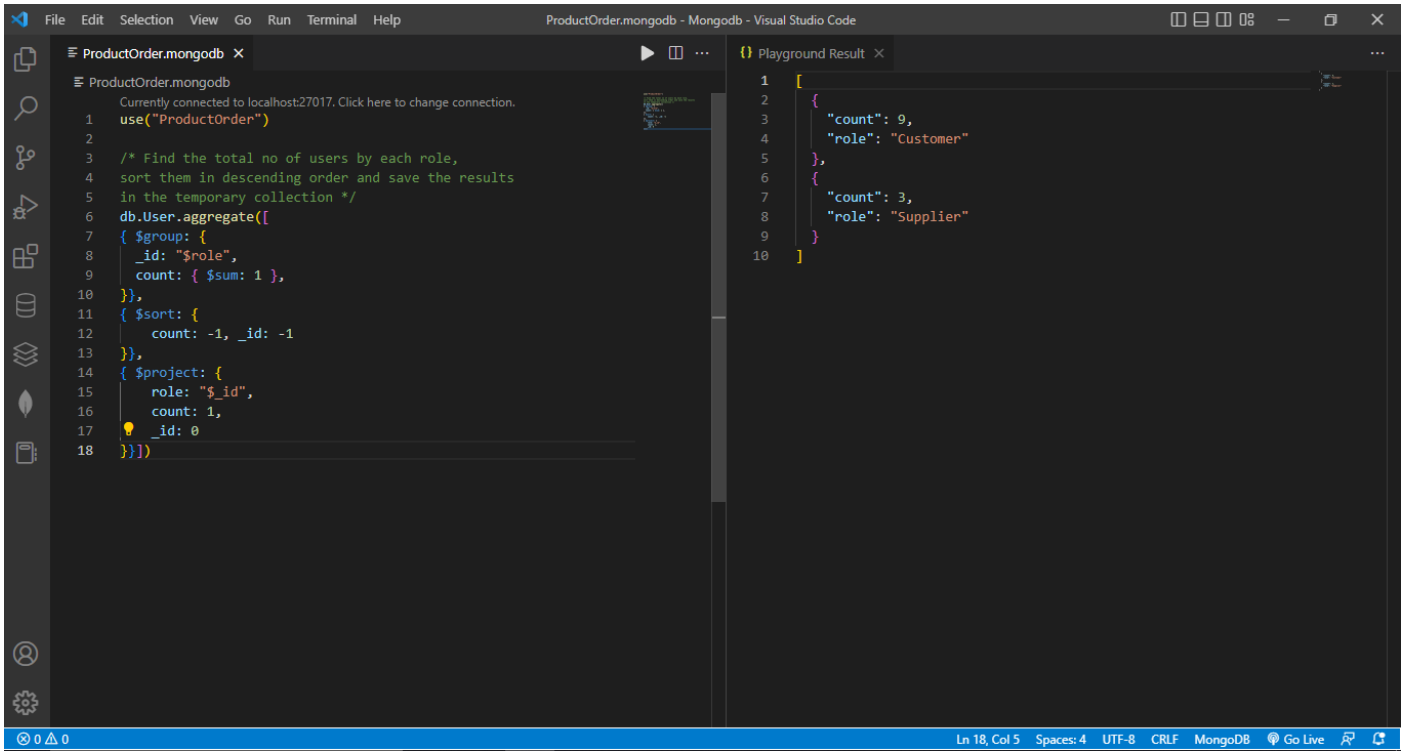
10. Find all the information of Sony products which have an Price greater than 1 lakh

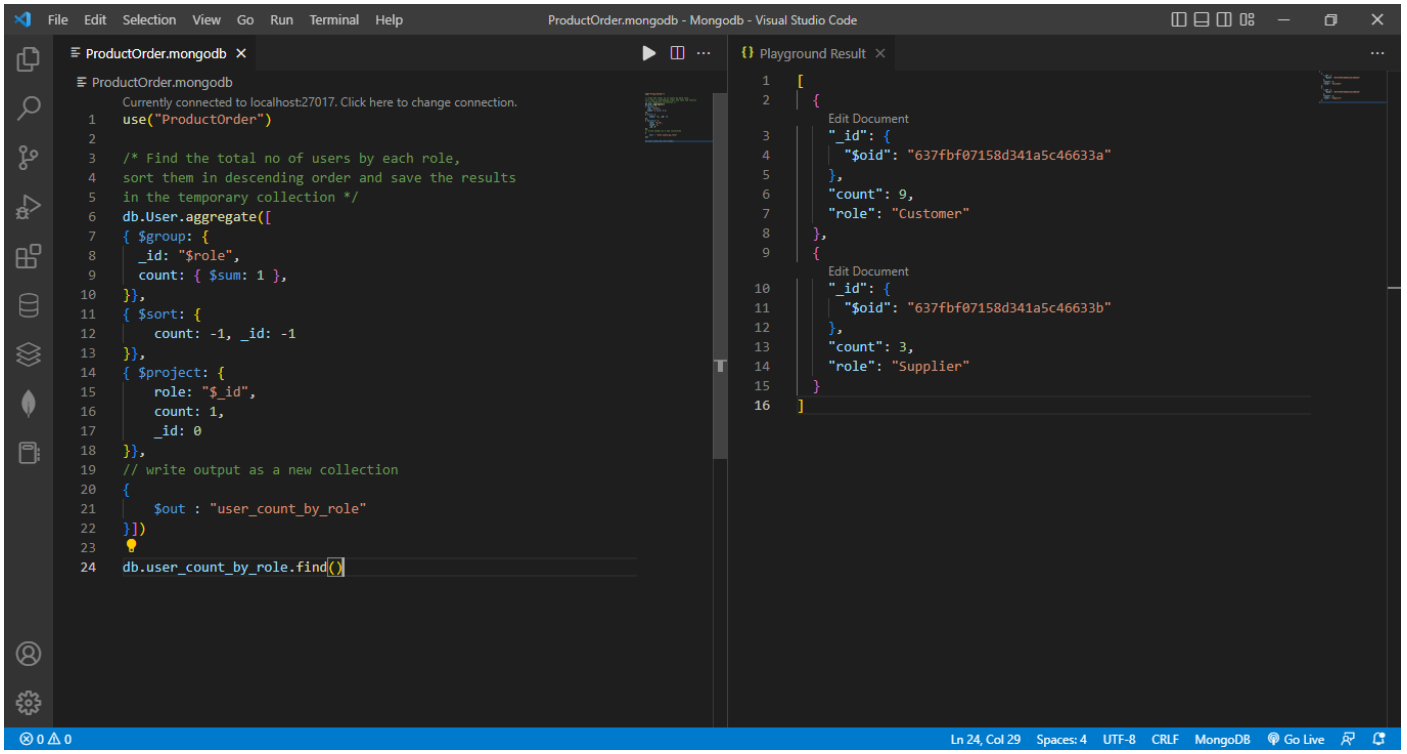


11. Find the total no of products by each Brand and sort them in descending order.



12. Find the total no of users by each role, sort them is descending order and save the results in the temporary collection




File Edit Selection View Go Run Terminal Help
ProductOrder.mongodb - Mongodb - Visual Studio Code
ProductOrder.mongodb
Playground Result
Currently connected to localhost:27017. Click here to change connection.
use("ProductOrder")
/* Find the total no of users by each role,
sort them in descending order and save the results
in the temporary collection */
db.User.aggregate([
{ $group: {
_id: "$role",
count: { $sum: 1 },
}},
{ $sort: {
count: -1, _id: -1
}},
{ $project: {
role: "$_id",
count: 1,
_id: 0
}},
// write output as a new collection
{
$out : "user_count_by_role"
}])
db.user_count_by_role.find()
[
{
Edit Document
"_id": {
"$oid": "637fbf07158d341a5c46633a"
},
"count": 9,
"role": "Customer"
},
{
Edit Document
"_id": {
"$oid": "637fbf07158d341a5c46633b"
},
"count": 3,
"role": "Supplier"
}
]
Ln 24, Col 29
Spaces: 4
UTF-8
CRLF
MongoDB
Go Live