

# **An E-commerce Database**

## **Milestone: NoSQL Implementation**

Group 11

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# CREATING THE DATABASE:
















```
> use ecommerce
switched to db ecommerce
> db.createCollection("products")
{ "ok" : 1 }
```

```
> db.products.insertMany([
...   {_id: 1, product_name: "Cabbage_Nappa", quantity_in_stock: 67, unit_price: 1.22},
...   {_id: 2, product_name: "Tea-Green", quantity_in_stock: 100, unit_price: 1.34},
...   {_id: 3, product_name: "French Pastry-Mini Chocolate", quantity_in_stock: 52, unit_price: 2.09},
...   {_id: 4, product_name: "Asparagus-Frozen", quantity_in_stock: 99, unit_price: 2.53},
...   {_id: 5, product_name: "Lotus Rootlets-Canned", quantity_in_stock: 50, unit_price: 1.66}
... ])
{ "acknowledged" : true, "insertedIds" : [ 1, 2, 3, 4, 5 ] }
```

products								
	_id Double	product_name String	quantity_in_stock Double	unit_price Double				
1	1	"Cabbage_Nappa"	67	1.22				
2	2	"Tea-Green"	100	1.34				
3	3	"French Pastry-Mini Chocolate"	52	2.09				
4	4	"Asparagus-Frozen"	99	2.53				
5	5	"Lotus Rootlets-Canned"	50	1.66				
















```
> db.customers.insertMany([
...   { '_id': 1, 'first_name': 'Leonor', 'last_name': 'Syde', 'birth_date': new Date('1978-11-16'), 'phone': '862-639-0489', 'email': 'lsyde0@oakley.com', 'street_address': '9396 Comanche Trail', 'city': 'Newark', 'state': 'NJ'},
...   { '_id': 2, 'first_name': 'Conrado', 'last_name': 'Pinke', 'birth_date': new Date('2001-08-16'), 'phone': '512-440-3848', 'email': 'cpinke1@discovery.com', 'street_address': '739 Pond Drive', 'city': 'Austin', 'state': 'TX'},
...   { '_id': 3, 'first_name': 'Filmore', 'last_name': 'Linnit', 'birth_date': new Date('1954-07-25'), 'phone': '203-421-2312', 'email': 'flinnit2@nbcnews.com', 'street_address': '3 Jenna Avenue', 'city': 'New Haven', 'state': 'CT'},
...   { '_id': 4, 'first_name': 'Fee', 'last_name': 'Conneau', 'birth_date': new Date('1994-10-04'), 'phone': '480-382-3487', 'email': 'fconneau3@tinypic.com', 'street_address': '017 Norway Maple Pass', 'city': 'Gilbert', 'state': 'AZ'},
...   { '_id': 5, 'first_name': 'Molli', 'last_name': 'Butrimovich', 'birth_date': new Date('1963-04-08'), 'phone': '785-112-3346', 'email': 'mbutrimovich4@imdb.com', 'street_address': '67045 Pennsylvania Drive', 'city': 'Topeka', 'state': 'KS'},
... ]));
{ "acknowledged" : true, "insertedIds" : [ 1, 2, 3, 4, 5 ] }
```

# customers

	_id Double	first_name String	last_name String	birth_date Date	phone String	email String	
1	1	"Lleanor"	"Syde"	1978-11-16T00:00:00.000+00:00	"862-639-0489"	"lsyde0@oakley.com"	  
2	2	"Conrado"	"Pinke"	2001-08-16T00:00:00.000+00:00	"512-440-3848"	"cpinke1@discovery."	  
3	3	"Filmore"	"Linnit"	1954-07-25T00:00:00.000+00:00	"203-421-2312"	"flinnit2@nbcnews.c"	  
4	4	"Fee"	"Conneau"	1994-10-04T00:00:00.000+00:00	"480-382-3487"	"fconneau3@tinypic."	  
5	5	"Molli"	"Butrimovich"	1963-04-08T00:00:00.000+00:00	"785-112-3346"	"mbutrimovich4@imdb"	  

```
> db.customer_orders.insertMany([
...   { '_id': 1, 'order_date': new Date('2014-03-01'), 'status': 2, 'shipper_id': null, 'shipped_date': new Date('2017-09-01') },
...   { '_id': 2, 'order_date': new Date('2019-05-2025'), 'status': 3, 'shipper_id': 3, 'shipped_date': new Date('2019-05-28') },
...   { '_id': 3, 'order_date': new Date('2022-05-11'), 'status': 2, 'shipper_id': 10, 'shipped_date': new Date('2022-05-14') },
...   { '_id': 4, 'order_date': new Date('2017-03-23'), 'status': 2, 'shipper_id': null, 'shipped_date': null },
...   { '_id': 5, 'order_date': new Date('2018-04-20'), 'status': 3, 'shipper_id': 1, 'shipped_date': new Date('2018-04-22') },
... ]);
{ "acknowledged" : true, "insertedIds" : [ 1, 2, 3, 4, 5 ] }
```

# customer\_orders

	_id Double	order_date Date	status Double	shipper_id Mixed	shipped_date Mixed	
1	1	2014-03-01T00:00:00.000+00:00	2	null	2017-09-01T00:00:00.000+00:00	  
2	2	1970-01-01T00:00:00.000+00:00	3	3	2019-05-28T00:00:00.000+00:00	  
3	3	2022-05-11T00:00:00.000+00:00	2	10	2022-05-14T00:00:00.000+00:00	  
4	4	2017-03-23T00:00:00.000+00:00	2	null	null	  
5	5	2018-04-20T00:00:00.000+00:00	3	1	2018-04-22T00:00:00.000+00:00	  

## QUERIES:

- (1) Get everything from the 'customers' collection, except id, birth\_date and street\_address.

```
> db.customers.find({}, {_id: 0, birth_date: 0, street_address: 0})
{ "first_name" : "Leonor", "last_name" : "Syde", "phone" : "862-639-0489", "email" : "lsyde0@oakley.com", "city" : "Newark", "state" : "NJ" }
{ "first_name" : "Conrado", "last_name" : "Pinke", "phone" : "512-440-3848", "email" : "cpinke1@discovery.com", "city" : "Austin", "state" : "TX" }
{ "first_name" : "Filmore", "last_name" : "Linnit", "phone" : "203-421-2312", "email" : "flinnit2@nbcnews.com", "city" : "New Haven", "state" : "CT" }
{ "first_name" : "Fee", "last_name" : "Conneau", "phone" : "480-382-3487", "email" : "fconneau3@tinypic.com", "city" : "Gilbert", "state" : "AZ" }
{ "first_name" : "Molli", "last_name" : "Butrimovich", "phone" : "785-112-3346", "email" : "mbutrimovich4@imdb.com", "city" : "Topeka", "state" : "KS" }
```

- (2) Get everything from the 'customers' collection, except id, birth\_date and street\_address, and sort the results by first\_name.

```
> db.customers.find({}, {_id: 0, birth_date: 0, street_address: 0}).sort({first_name: 1})
{ "first_name" : "Conrado", "last_name" : "Pinke", "phone" : "512-440-3848", "email" : "cpinke1@discovery.com", "city" : "Austin", "state" : "TX" }
{ "first_name" : "Fee", "last_name" : "Conneau", "phone" : "480-382-3487", "email" : "fconneau3@tinypic.com", "city" : "Gilbert", "state" : "AZ" }
{ "first_name" : "Filmore", "last_name" : "Linnit", "phone" : "203-421-2312", "email" : "flinnit2@nbcnews.com", "city" : "New Haven", "state" : "CT" }
{ "first_name" : "Leonor", "last_name" : "Syde", "phone" : "862-639-0489", "email" : "lsyde0@oakley.com", "city" : "Newark", "state" : "NJ" }
{ "first_name" : "Molli", "last_name" : "Butrimovich", "phone" : "785-112-3346", "email" : "mbutrimovich4@imdb.com", "city" : "Topeka", "state" : "KS" }
```

- (3) Get everything, except id, birth\_date and street\_address, from 'customers' collection, where either state is 'NJ' or first\_name is 'Conrado'.

```
> db.customers.find({$or: [{state: "NJ"}, {first_name: "Conrado"}]}, {_id: 0, birth_date: 0, street_address: 0})
{ "first_name" : "Leonor", "last_name" : "Syde", "phone" : "862-639-0489", "email" : "lsyde0@oakley.com", "city" : "Newark", "state" : "NJ" }
{ "first_name" : "Conrado", "last_name" : "Pinke", "phone" : "512-440-3848", "email" : "cpinke1@discovery.com", "city" : "Austin", "state" : "TX" }
```

- (4) Get everything from 'products' collection, where unit\_price > 1.5 and sort the results by quantity\_in\_stock in descending order.

```
> db.products.find({unit_price: {$gt: 1.5}}).sort({quantity_in_stock: -1})
{ "_id" : 4, "product_name" : "Asparagus-Frozen", "quantity_in_stock" : 99, "unit_price" : 2.53 }
{ "_id" : 3, "product_name" : "French Pastry-Mini Chocolate", "quantity_in_stock" : 52, "unit_price" : 2.09 }
{ "_id" : 5, "product_name" : "Lotus Rootlets-Canned", "quantity_in_stock" : 50, "unit_price" : 1.66 }
```

- (5) Get the results from 'customer\_orders' collection, where status = 2.

```
> db.customer_orders.find({status: {$eq: 2}})
{ "_id" : 1, "order_date" : ISODate("2014-03-01T00:00:00Z"), "status" : 2, "shipper_id" : null, "shipped_date" : ISODate("2017-09-01T00:00:00Z") }
{ "_id" : 3, "order_date" : ISODate("2022-05-11T00:00:00Z"), "status" : 2, "shipper_id" : 10, "shipped_date" : ISODate("2022-05-14T00:00:00Z") }
{ "_id" : 4, "order_date" : ISODate("2017-03-23T00:00:00Z"), "status" : 2, "shipper_id" : null, "shipped_date" : null }
```

- (6) Count the number of orders from the 'customer\_orders' collection, where the status = 2.

```
> db.customer_orders.count({status: 2})  
3
```

- (7) From the 'customers' collection, list the different cities the people belong to.

```
> db.customers.distinct("city")  
[ "Austin", "Gilbert", "New Haven", "Newark", "Topeka" ]
```