

MODULO I FUNDAMENTOS DE BASES DE DATOS

PROYECTO E-Commerce Olist.

1. Definición del proyecto.

a. Fuentes de Datos:

Facilitado por el instructor Andrés Ramírez.

<https://www.kaggle.com/olistbr/brazilian-e-commerce>

NOMBRE DATASET	ALIAS	REGISTROS	No. COLS	DESCRIPCION
olist_products_dataset	products	32951	9	CATALOGO DE PRODUCTOS CLASIFICACION DE DATOS GEOGRAFICOS POR CIUDAD Y
olist_geolocation_dataset	geolocation	1000163	6	ESTADO CATALOGO DE CODIGO DE
olist_customers_dataset	customers	99441	5	CLIENTES POR CIUDAD Y ESTADO CATALOGO DE CODIGO DE
olist_sellers_dataset	sellers	3095	4	VENDEDORES POR CIUDAD Y ESTADO INFORMACION DE ORDENES DE
olist_orders_dataset	orders	99441	8	COMPRA. DETALLES DE LA COMPRA POR
olist_order_items_dataset	items	112650	8	ORDEN DE COMPRA INFORMACION CON DETALLES DE
olist_order_payments_dataset	payments	103886	6	PAGO DE LAS ORDENES DE COMPRA INFORMACION DE PUNTUACION
olist_order_reviews_dataset	reviews	100000	8	A ORDENES DE COMPRA OTORGADOS POR LOS CLIENTES
Total Registros		1551627		

b. Problemas a resolver

Conocer los posibles resultados de este conjunto de datos a partir de las siguientes áreas.

AREA	RETOS
Score Card Balance	Identificar top / average / last 5 de vendedores, clientes, ciudad y estado. Identificar las categorías de productos estrellas, promedio y con menos movimiento. Identificar los períodos con más y menos ventas.
Análisis de Texto (Lenguaje Natural)	Analizar el texto de las reseñas del producto. Algunos clientes no escribieron una reseña. Cuál será la razón, ¿por qué están felices o enojados con la categoría de productos? Identificar las categorías de productos que son más propensas a la insatisfacción del cliente.
Predicción de Ventas	Con la información de la fecha de compra, se podrán predecir ventas futuras.
Logística	Identificar las rutas con mayor y menor movimiento. Analizar el rendimiento de la entrega y encontrar formas de optimizar los tiempos de entrega.

	Identificar las categorías de productos que presentan problemas en su entrega. Analizar e identificar tiempos promedios en estatus de pedidos.
Tipos de Pagos	Identificar los tipos de pagos que generan más entradas al negocio.

c. Diccionario de datos de Catálogos.

TIPO DE PAGO

payment_type	Descripción
credit_card	TDC
Boleto	Boleto es como la guía de pago del agua en CDMX. Por ejemplo, quiero comprar una bici que cuesta \$10k en un eCommerce y pongo que la pago con boleto. El sitio me da un número con el cual puedo ir abonando dinero hasta pagar el total. Puedo hacer pagos en tiendas de abarrotes, bancos y en distintas apps. Es un sistema del Banco Central de Brasil
Voucher	Voucher es como OXXO Pay: es la emisión de un número para un prepago. Se espera que se pague completo en el momento para abonar saldo o completar el pago por un bien.
debit_card	TDC
not_defined	

TIPOS DE ESTATUS DE PEDIDO

order_status	Descripción
delivered	Entregado
invoiced	Facturado
shipped	Enviado
processing	Procesado
unavailable	No disponible
canceled	Cancelado
created	Creado
approved	Aprobado

TABLA DE PUNTUACION A PRODUCTOS

review_score	Clima	Descripción

	Não chegou meu produto não recebi ainda Produto pirata! Produto diferente da ilus PRODUTO PIASSIMO Meu produto não chegou Entrega atrasada ENTRAGOU NO PRIMEIRO DIA Não entregou no tempo . Atraso na data de entrega Entrega Parcial. Não recebi os dois produt Produto com avaria falta de produto e quebra Pedido cancelado Defeito Produto errado Produto veio diferente
1	não confere o produto Não recebi o produto Foto não condiz Relogio Gato Produto não entregue Não posso dizer ainda Vidro estragado regular Produto avariado Caixa rasgada não recomendo Produto riscado CANCELADO_AGUARD._ESTORNO Deceptionou um pouco PRODUTO NAO ENTREGUE

Não recebi o produto.
Entrega atrasou
recomendo
Erraram na caixa acústica
Recomendo, com restrições
Boa qualidade
Recomendo a loja, sempre!
Bom
Muito bom
nao
Recebi produto diverso
sim, recomendo ***
Talvez recomendaria
Produto mal embalado
eu me arrependo da compra
Atraso na entrega
Avaliação
bolo fake
Media
FALTOU ITENS
O produto veio quebrado

recomendo
Muito bom.
Chegou
Bom
dessa vez veio rÁpido
Produto de boa qualidade
Recomendo
Entrega perfeita
Muito bom
Boa
Rapidez
Bom produto
Tudo ok
BOA COMPRA
Entrega
Satisfeito
Aquecedor a gas
Ok
recomendado
Excelente o produto Í_timo
Otimo atendimento
Rapidez e qualidade
Entrega antes do prazo
Funciona
Pontual
Entrega super rapida
Gostei
normal
Positiva
otimo

	<p>Super recomendo</p> <p>!Ótimo</p> <p>Bom</p> <p>Maravilhoso!</p> <p>Entrega perfeita</p> <p>MT lindo</p> <p>!Ótimo Produto!</p> <p>RECOMENDO SEMPRE!!</p> <p>***** Recomendo</p> <p>OTIMO</p> <p>muito boa</p> <p>prazo entrega</p> <p>Super produto</p> <p>Entrega antes do previsto</p> <p>Recomendo</p> <p>Top</p> <p>produto show</p> <p>super recoendo</p> <p>!Ótima compra</p> <p>Muito bom.</p> <p>Perfeito</p> <p>Excelente</p> <p>Produto excelente!</p> <p>muito satisfeito =]</p> <p>muito bom e bonito</p> <p>Aprovo e recomendo</p> <p>Tudo Ok!</p> <p>Excelente produto</p> <p>Super recomendado</p> <p>entrega super rapida</p> <p>Entrega no Prazo.</p> <p>PERFEITO!!!!</p> <p>otimo produto</p> <p>Muito satisfeito</p> <p>Satisfeita</p> <p>Recomendo</p>
5	

CATALOGO DE CATEGORIAS DE PRODUCTOS

id	product_category_name	product_category_name_english
1	beleza_saude	health_beauty
2	informatica_acessorios	computers_accessories
3	Automotivo	Auto
4	cama_mesa_banho	bed_bath_table
5	moveis_decoracao	furniture_decor
6	esporte_lazer	sports_leisure
7	Perfumaria	Perfumery
8	utilidades_domesticas	Housewares
9	Telefonía	Telephony
10	relogios_presentes	watches_gifts

11	alimentos_bebidas	food_drink
12	Bebes	baby
13	Papelaria	stationery
14	tablets_impressao_imagem	tablets_printing_image
15	Brinquedos	toys
16	telefonia_fixa	fixed_telephony
17	ferramentas_jardim	garden_tools
18	fashion_bolsas_e_acessorios	fashion_bags_accessories
19	Eletroportateis	small_appliances
20	consoles_games	consoles_games
21	Audio	audio
22	fashion_calcados	fashion_shoes
23	cool_stuff	cool_stuff
24	malas_acessorios	luggage_accessories
25	Climatizacao	air_conditioning
26	construcao_ferramentas_construcao	construction_tools_construction
27	moveis_cozinha_area_de_servico_jantar_e_jardim	kitchen_dining_laundry_garden_furniture
28	construcao_ferramentas_jardim	construction_tools_garden
29	fashion_roupa_masculina	fashion_male_clothing
30	pet_shop	pet_shop
31	moveis_escritorio	office_furniture
32	market_place	market_place
33	Eletronicos	electronics
34	Eletrodomesticos	home_appliances
35	artigos_de_festas	party_supplies
36	casa_comforto	home_comfort
37	construcao_ferramentas_ferramentas	construction_tools_tools
38	agro_industria_e_comercio	agro_industry_and_commerce
39	moveis_colchao_e_estofado	furniture_mattress_and_upholstery
40	livros_tecnicos	books_technical
41	casa_construcao	home_construction
42	instrumentos_musicais	musical_instruments
43	moveis_sala	furniture_living_room
44	construcao_ferramentas_iluminacao	construction_tools_lights
45	industria_comercio_e_negocios	industry_commerce_and_business
46	Alimentos	food
47	Artes	art
48	moveis_quarto	furniture_bedroom
49	livros_interesse_geral	books_general_interest
50	construcao_ferramentas_seguranca	construction_tools_safety
51	fashion_underwear_e_moda_praia	fashion_underwear_beach
52	fashion_esporte	fashion_sport
53	sinalizacao_e_seguranca	signaling_and_security
54	Pcs	computers
55	artigos_de_natal	christmas_supplies
56	fashion_roupa_feminina	fashion_female_clothing
57	eletrodomesticos_2	home_appliances_2
58	livros_importados	books_imported

59	Bebidas	drinks
60	cine_foto	cine_photo
61	la_cuisine	la_cuisine
62	Música	music
63	casa_comforto_2	home_comfort_2
64	portateis_casa_forno_e_cafe	small_appliances_home_oven_and_coffee
65	cds_dvds_musicais	cds_dvds_musicals
66	dvds_blu_ray	dvds_blu_ray
67	Flores	flowers
68	artes_e_artesanato	arts_and_craftmanship
69	fraldas_higiene	diapers_and_hygiene
70	fashion_roupa_infantil_juvenil	fashion_childrens_clothes
71	seguros_e_servicos	security_and_services

2. Creación de Base de Datos en MySQL

Se usaron dos funcionalidades para la creación y alimentación de la BD.

- Se usó la opción “Tabla Data Import Wizard” para la creación e importación de tablas y datos. Desafortunadamente, la cantidad de registros que se añadían era muy insuficiente, por lo que se utilizó la carga de datos mediante scripts para las 8 tablas que componen el dataset.

```

insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('c9b01bef18eb84888ff0fd071b84')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('9ac048d7ffebab67d54456aa9ec')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('20824837882dd673707e8adfcac')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('38d11c87fc409de31e930084abb')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('40ec2cfc5cb1e0bf1ea2b117552')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('d41f1036712e18e525939d08b7')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('60ae0d04a4eba0e424eb3ca85017')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('0872d0faafe0ccb56e6f2c594cc')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('3531718b24df5022fb0d101e10')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('2e3d96522c8c378d4135c12a65c')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('c45067032fd84f4cf408730ff52')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('7159096c5aa9be77f7f0c26c81e')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('0406037ad97740d5d3a178ecc7a')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('7b905861d7825891d6347454ee')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('32699bbb3d69b3c066a6860554')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('b8b61059626efa996a60be9bb93')
insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values ('28bbae6599b09d39ca406b747b6')

```

#	Time	Action	Message	Duration / Fetch
10662	07:06:29	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) v...	1 row(s) affected	0.109 sec
10663	07:06:29	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) v...	1 row(s) affected	0.125 sec
10664	07:06:29	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) v...	1 row(s) affected	0.109 sec
10665	07:06:29	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) v...	1 row(s) affected	0.109 sec
10666	07:06:29	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) v...	1 row(s) affected	0.109 sec
4	10667	07:06:29 insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) v... Running ...		?

MySQL Workbench

Bedu-07-07NOVIEMBRE2020

File Edit View Query Database Server Tools Scripting Help

Navigator Schemas

Schema: frasgado

Tables

customers

columns:

- customer_id
- customer_unique_id
- customer_zip_code_prefix
- customer_city
- customer_state

Action Output

#	Time	Action	Message	Duration / Fetch
4548	02:09:14	insert into customers (customer_id, customer_unique_id, customer_zip_code_prefix, customer_city, customer_state) values ('6ecb390e8056057a2')	1 row(s) affected	0.110 sec
4549	02:09:15	insert into customers (customer_id, customer_unique_id, customer_zip_code_prefix, customer_city, customer_state) values ('31d5d04d4657892a8')	1 row(s) affected	0.172 sec
4550	02:09:15	insert into customers (customer_id, customer_unique_id, customer_zip_code_prefix, customer_city, customer_state) values ('b4b0c0b00e3f72d82a')	1 row(s) affected	0.125 sec
4551	02:09:15	insert into customers (customer_id, customer_unique_id, customer_zip_code_prefix, customer_city, customer_state) values ('f719c619448f72d2e')	1 row(s) affected	0.218 sec
4552	02:09:15	insert into customers (customer_id, customer_unique_id, customer_zip_code_prefix, customer_city, customer_state) values ('0590c3c795016c3e5')	1 row(s) affected	0.141 sec
4553	02:09:15	insert into customers (customer_id, customer_unique_id, customer_zip_code_prefix, customer_city, customer_state) values ('625243048f1ccf53f')	1 row(s) affected	0.156 sec

Output

Result Grid

Count(*)

103886

Action Output

#	Time	Action	Message	Duration / Fetch
40406	07:52:27	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values (1, 1, 'boleto', 1, 100)	1 row(s) affected	0.093 sec
40407	07:52:27	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values (1, 1, 'boleto', 1, 100)	1 row(s) affected	0.094 sec
40408	07:52:27	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values (1, 1, 'boleto', 1, 100)	1 row(s) affected	0.094 sec
40409	07:52:27	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values (1, 1, 'boleto', 1, 100)	1 row(s) affected	0.078 sec
40410	07:52:27	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values (1, 1, 'boleto', 1, 100)	1 row(s) affected	0.094 sec
40411	08:20:19	select count(*) from payments	1 row(s) returned	0.110 sec / 0.000 sec

Al final, las tablas que se contemplaron se muestran en la siguiente imagen.

MySQL Workbench

Bedu-07-07NOVIEMBRE2020

File Edit View Query Database Server Tools Scripting Help

Navigator Schemas

Schema: frasgado

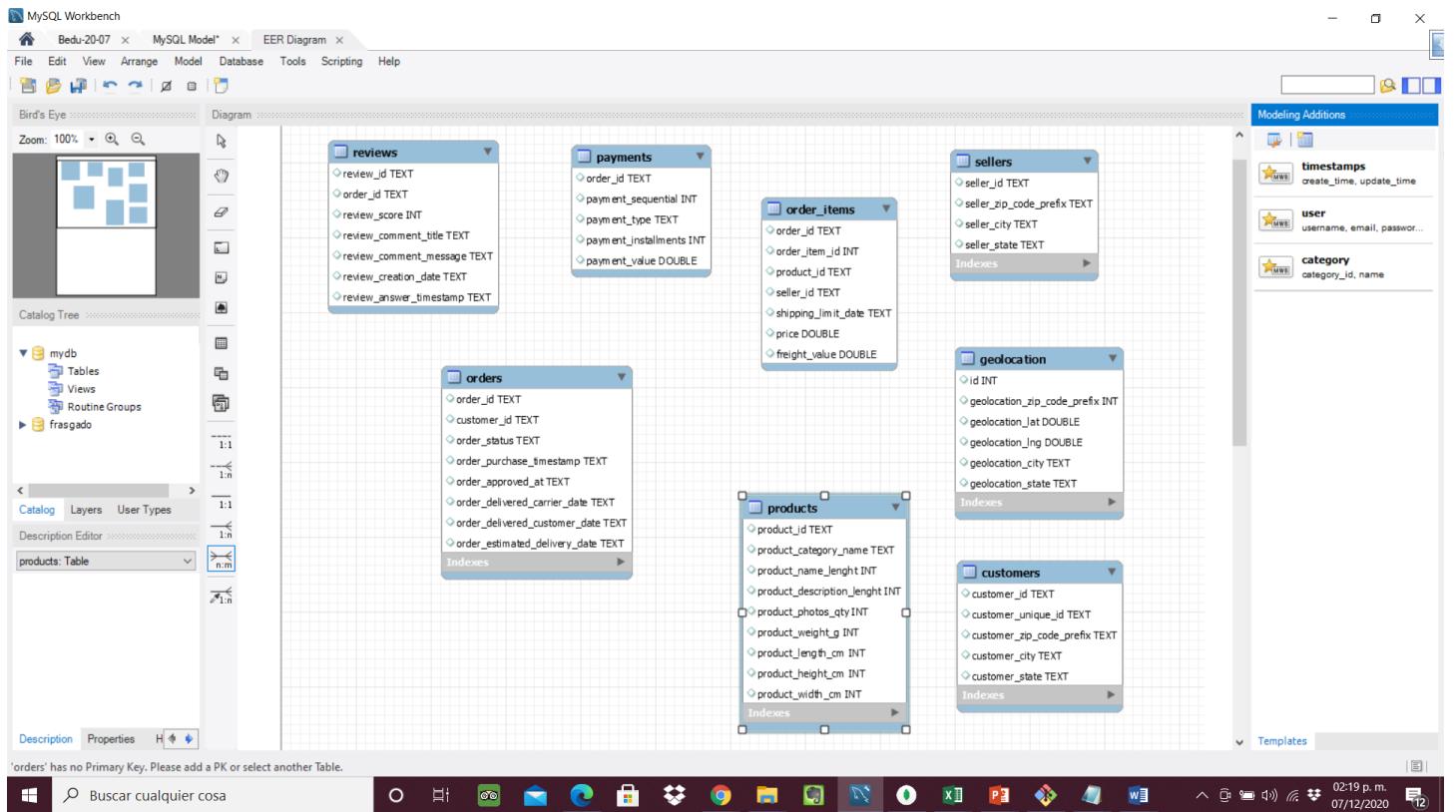
Tables

payments

Action Output

#	Time	Action	Message	Duration / Fetch
40406	07:52:27	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values (1, 1, 'boleto', 1, 100)	1 row(s) affected	0.093 sec
40407	07:52:27	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values (1, 1, 'boleto', 1, 100)	1 row(s) affected	0.094 sec
40408	07:52:27	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values (1, 1, 'boleto', 1, 100)	1 row(s) affected	0.094 sec
40409	07:52:27	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values (1, 1, 'boleto', 1, 100)	1 row(s) affected	0.078 sec
40410	07:52:27	insert into payments (order_id, payment_sequential, payment_type, payment_installments, payment_value) values (1, 1, 'boleto', 1, 100)	1 row(s) affected	0.094 sec
40411	08:20:19	select count(*) from payments	1 row(s) returned	0.110 sec / 0.000 sec

Esquema de Base de Datos



3. Creación de Base de Datos en MongoDB

En MongoDB, fue rápido la subida de información y la creación de las colecciones.

The screenshot shows the MongoDB Compass interface connected to a cluster. The left sidebar shows the database structure:

- HOSTS: cluster0-shard-00-01-76pg..., cluster0-shard-00-02-76pg..., cluster0-shard-00-03-76pg...
- CLUSTER: Replica Set (atlas-env04-... 3 Nodes)
- EDITION: MongoDB 4.2.11 Enterprise
- Filter your data
- admin
- frasgado
 - 2019-nCoV-cases-JHU
 - CoV-cases
 - customers
 - directory
 - geolocation
 - h1n1
 - items
 - orders
 - payments
 - products
 - reviews
- MongoSH Beta

The main pane displays the list of collections in the 'frasgado' database:

Collection Name	Documents	Avg. Document Size	Total Document Size	Num. Indexes	Total Index Size	Properties
2019-nCoV-cases-JHU	4,709	194.5 B	894.5 KB	1	56.0 KB	
CoV-cases	4,709	189.6 B	872.0 KB	1	76.0 KB	
customers	99,441	218.3 B	20.7 MB	1	896.0 KB	
directory	25,600	379.6 B	9.3 MB	1	284.0 KB	
geolocation	1,000,163	178.3 B	170.1 MB	1	9.6 MB	
h1n1	1,822	100.5 B	178.8 KB	1	52.0 KB	
items	112,650	270.7 B	29.1 MB	1	1.0 MB	
orders	99,441	403.0 B	38.2 MB	1	916.0 KB	
payments	103,886	186.8 B	18.5 MB	1	956.0 KB	
products	32,951	3070.0 B	9.6 MB	1	328.0 KB	
reviews	100,000	314.6 B	30.0 MB	1	880.0 KB	

4. Consultas realizadas.

1. ¿Cuáles son las categorías de productos que el E-commerce Olist ofrece en sus tiendas?

MYSQL

```
use frasgado;
select distinct(product_category_name) from products order by product_category_name;
```

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'Navigator' with 'SCHEMAS' expanded, showing databases like 'Bedu-20-07', 'FabiolaReyesProj', 'FabiolaPerez', 'FabiolaPerezR', 'FernandoHidalgo', and 'frasgado'. Under 'frasgado', the 'Tables' section is expanded, showing 'customers', 'geolocation', 'payments', 'orders', 'order_items', and 'products'. The 'products' table is selected, and its columns are listed: product_id, product_category_name, product_name_length, product_descriptio..._by, product_weight_g, product_length_cm. The main pane shows the query: 'use frasgado; select distinct(product_category_name) from products order by product_category_name;'. The results grid displays 54 rows of category names, including 'ferramentas_jardin', 'industria_comercio_e_negocios', 'informatica_accesorios', 'instrumentos_musicais', 'la_culinaria', 'livros_interesse_geral', 'livros_tecnicos', 'mais_acessorios', 'mater_papel', 'movies_cozinha_area_de_servico_jan...', 'movies_decoracao', 'movies_escritorio', 'movies_sala', 'musica', 'papelaria', 'pcs', 'perfumaria', 'pet_shop', 'relogios_presentes', 'seguranca_e_seguranca', and 'vitoria'. The bottom status bar indicates 'Query Completed' at 02:51 p.m. on 05/12/2020.

MONGODB

```
[{$project: {
  _id: 0,
  product_category_name: 1
}}, {$match: {
  product_category_name:
  {$ne: "" }
}}]
```

The screenshot shows the MongoDB Compass interface with the following details:

- Left Sidebar (Local):** Lists databases (2 DBs) and collections (6 Collections). The 'products' collection is selected.
- Top Bar:** Shows the connection information: MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.products.
- Aggregation Pipeline:**
 - \$project Stage:** Includes fields: '_id', 'product_category_name', and 'product_id'.
 - \$match Stage:** Filters documents where 'product_category_name' is either 'perfumeria' or 'artes'.
- Results:** Shows sample documents for 'perfumeria' and 'artes' categories.
- Bottom Status Bar:** Shows the system tray with icons for battery, signal, and date/time (05/12/2020, 03:33 a.m.).

2. Obtener número de ventas clasificadas por Año.

MySQL

```

select
year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) as anio,
count(*) as NuVentas
from orders
group by
year(str_to_date(order_purchase_timestamp, '%d/%m/%Y'))
order by year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) desc ;

```

The screenshot shows the MySQL Workbench interface. In the top navigation bar, tabs include 'MySQL Model*', 'EER Diagram', 'File', 'Edit', 'View', 'Query', 'Database', 'Server', 'Tools', 'Scripting', and 'Help'. The main area has a 'Navigator' pane on the left listing schemas like 'FabiolaPerez', 'FabiolaPerezR', 'FernandoHidalgo', and 'frasgado'. A central 'SQL Editor' pane contains the following SQL code:

```

11
12
13 • select
14     year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) as anio,
15     count(*) as NuVentas
16     from orders
17     group by
18     year(str_to_date(order_purchase_timestamp, '%d/%m/%Y'))
19     order by year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) desc
20
21
22
23
24

```

The results grid below shows the output:

anio	NuVentas
2018	54011
2017	45101
2016	329

The status bar at the bottom right indicates the time as '03:02 p. m.' and the date as '07/12/2020'.

MONGODB

```

[{$addFields: {

FechaVenta: {

$dateFromString: {

dateString: '$order_purchase_timestamp',
format: '%Y-%m-%d %H:%M:%S'

}

}

}, {$addFields: {

anio: {

$year: "$FechaVenta"

},

mes: {

$month: "$FechaVenta"

}

}}, {$group: {

_id: "$anio",

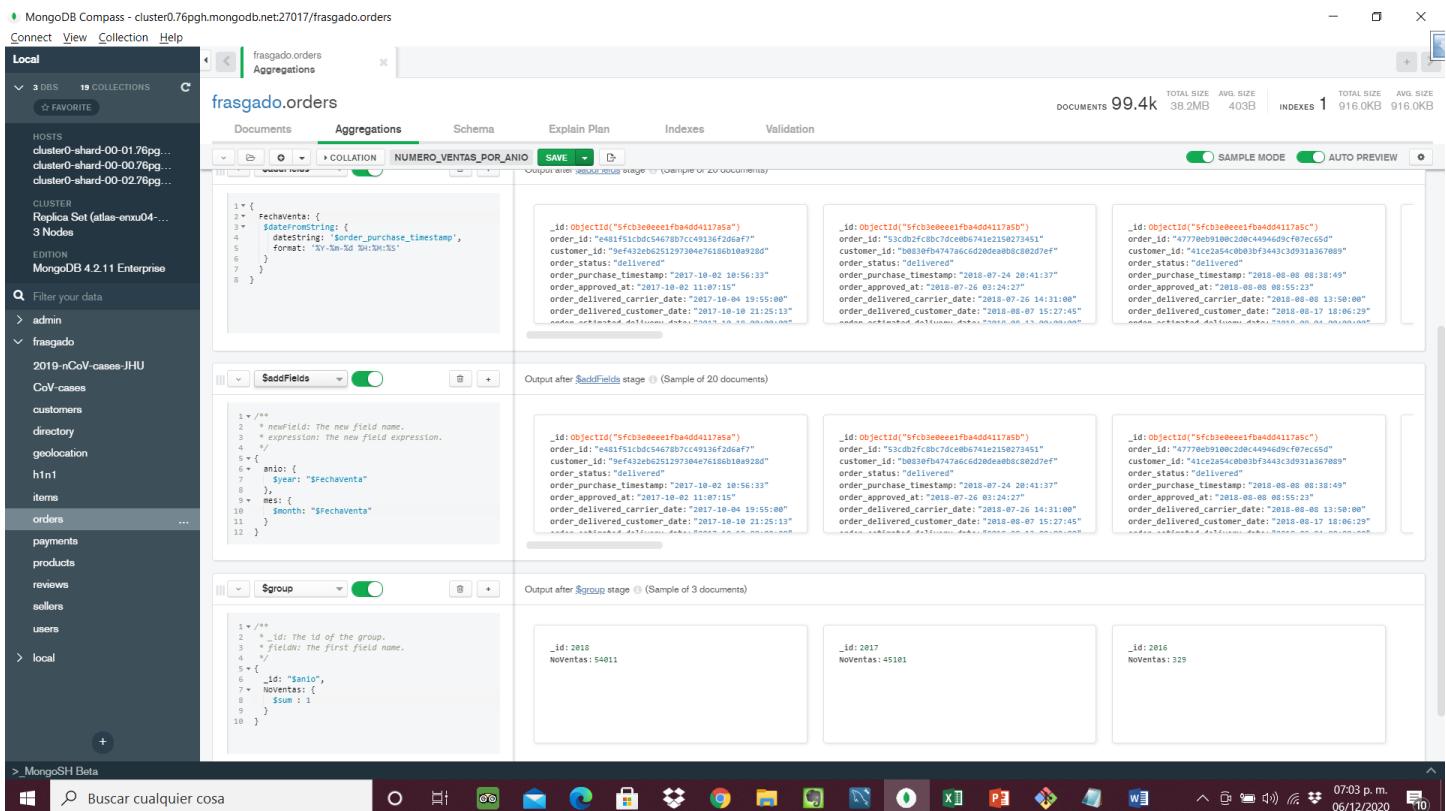
```

NoVentas: {

\$sum : 1

}

}]



3. Obtener número de ventas agrupados por Año y Mes, ordenados por los siguientes criterios:

- Año ordenado de forma descendente.
 - Mes ordenado de forma ascendente.

MySQL

```
select year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) as anio,
```

```
month(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) as mes,
```

count(*) as NuVentas

from orders

group by

```
year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')), month(str_to_date(order_purchase_timestamp, '%d/%m/%Y'))
```

```
order by year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) desc ,  
month(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) asc
```

10

The screenshot shows the MySQL Workbench interface. In the top navigation bar, tabs include 'Bedu-20-07', 'MySQL Model*', and 'EER Diagram'. The main area displays a SQL query:

```

20
21 • select year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) as anio,
22 month(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) as mes,
23 count(*) as NuVentas
24 from orders
25 group by
26 year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')), month(str_to_date(order_purchase_timestamp, '%d/%m/%Y'))
27 order by year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) desc , month(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) asc
28 ;
29
30
31
32 -- select str_to_date(order_purchase_timestamp, '%d/%m/%Y') from orders;

```

The results grid shows the following data:

anio	mes	NuVentas
2018	1	7269
2018	2	6728
2018	3	7211
2018	4	6939
2018	5	6873
2018	6	6167
2018	7	6292
2018	8	6512
2018	9	16
2018	10	4
2017	1	800
2017	2	1780
2017	3	2682

The status bar at the bottom indicates 'Result 17' and shows system icons like Task View, Start, Taskbar, and a date/time stamp '03:00 p. m. 07/12/2020'.

```

[{$addFields: {

FechaVenta: {

$dateFromString: {

dateString: '$order_purchase_timestamp',
format: '%Y-%m-%d %H:%M:%S'

}

}

}, {$addFields: {

anio: {

$year: "$FechaVenta"

},

mes: {

$month: "$FechaVenta"

}

}, {$group: {

_id: {

anio: "$anio",
mes: "$mes"
}
}
}
]

```

```
        },
        NoVentas: {
            $sum: 1
        }
    }}, {$sort: {
        anio: 1,
        mes: 1
    }}, {$addFields: {
        byAnio: "$_id.anio",
        byMonth: "$_id.mes"
    }}, {$project: {
        _id: 0,
        byAnio: 1,
        byMonth: 1,
        NoVentas: 1
    }}, {$sort: {
        byAnio: -1,
        byMonth: 1
    }}]
```

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.orders

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations

frasgado.orders

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION NUMERO_VENTAS_POR_ANIO_y_MES SAVE

DOCUMENTS 99.4k TOTAL SIZE 38.2MB AVG. SIZE 403B INDEXES 1 TOTAL SIZE 916.0KB AVG. SIZE 916.0KB

SAMPLE MODE AUTO PREVIEW

99441 Documents in the Collection

Select an operator to construct expressions used in the aggregation pipeline stages. [Learn more](#)

Preview of Documents in the Collection

_id: ObjectId("5fc3e0eee1fba4dd4117a5b")
order_id: "e481f51c1bcd5467807c4c9136fd2d6af7"
customer_id: "9ef432eb6251297304e76186b10a928d"
order_status: "delivered"
order_purchase_timestamp: "2017-10-02 10:56:33"
order_approved_at: "2017-10-02 11:07:15"
order_delivered_carrier_date: "2017-10-10 19:55:00"
order_delivered_customer_date: "2017-10-10 21:25:13"
order_estimated_delivery_date: "2017-10-10 20:00:00"

_id: ObjectId("5fc3e0eee1fba4dd4117a5b")
order_id: "53cdb2fc8bc7dcce0b6741e2150273451"
customer_id: "b0830fb4747ac6cd20deab8c802d7ef"
order_status: "delivered"
order_purchase_timestamp: "2018-07-24 20:41:37"
order_approved_at: "2018-07-26 03:24:27"
order_delivered_carrier_date: "2018-07-26 14:31:00"
order_delivered_customer_date: "2018-08-07 15:27:45"
order_estimated_delivery_date: "2018-08-13 00:00:00"

_id: ObjectId("5fc3e0eee1fba4dd4117a5b")
order_id: "53cdb2fc8bc7dcce0b6741e2150273451"
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order_delivered_carrier_date: "2018-07-26 14:31:00"
order_delivered_customer_date: "2018-08-07 15:27:45"
order_estimated_delivery_date: "2018-08-13 00:00:00"

\$addFields

Output after \$addFields stage (Sample of 20 documents)

```

1 {
2   FechaVenta: {
3     $dateFromString: {
4       $dateString: "$order_purchase_timestamp",
5       $format: "%Y-%m-%d %H:%M:%S"
6     }
7   }
8 }

```

_id: ObjectId("5fc3e0eee1fba4dd4117a5b")
order_id: "e481f51c1bcd5467807c4c9136fd2d6af7"
customer_id: "9ef432eb6251297304e76186b10a928d"
order_status: "delivered"
order_purchase_timestamp: "2017-10-02 10:56:33"
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order_delivered_carrier_date: "2017-10-10 19:55:00"
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_id: ObjectId("5fc3e0eee1fba4dd4117a5b")
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customer_id: "b0830fb4747ac6cd20deab8c802d7ef"
order_status: "delivered"
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order_approved_at: "2018-07-26 03:24:27"
order_delivered_carrier_date: "2018-07-26 14:31:00"
order_delivered_customer_date: "2018-08-07 15:27:45"
order_estimated_delivery_date: "2018-08-13 00:00:00"

\$addFields

Output after \$addFields stage (Sample of 20 documents)

> MongoSH Beta

Buscar cualquier cosa

07:38 p. m.
06/12/2020

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.orders

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations

frasgado.orders

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION NUMERO_VENTAS_POR_ANIO_y_MES SAVE

DOCUMENTS 99.4k TOTAL SIZE 38.2MB AVG. SIZE 403B INDEXES 1 TOTAL SIZE 916.0KB AVG. SIZE 916.0KB

SAMPLE MODE AUTO PREVIEW

99441 Documents in the Collection

Output after \$addFields stage (Sample of 20 documents)

```

1 /**
2  * newField: The new field name.
3  * expression: The new field expression.
4 */
5 {
6   anio: {
7     $year: "$FechaVenta"
8   },
9   mes: {
10    $month: "$FechaVenta"
11  }
12 }

```

order_status: "delivered"
order_purchase_timestamp: "2017-10-02 10:56:33"
order_approved_at: "2017-10-02 11:07:15"
order_delivered_carrier_date: "2017-10-10 19:55:00"
order_delivered_customer_date: "2017-10-10 21:25:13"
order_estimated_delivery_date: "2017-10-10 20:00:00"
FechaVenta: 2017-10-02T10:56:33.000+00:00
anio: 2017
mes: 10

_id: ObjectId("5fc3e0eee1fba4dd4117a5b")
order_id: "53cdb2fc8bc7dcce0b6741e2150273451"
customer_id: "b0830fb4747ac6cd20deab8c802d7ef"
order_status: "delivered"
order_purchase_timestamp: "2018-07-24 20:41:37"
order_approved_at: "2018-07-26 03:24:27"
order_delivered_carrier_date: "2018-07-26 14:31:00"
order_delivered_customer_date: "2018-08-07 15:27:45"
order_estimated_delivery_date: "2018-08-13 00:00:00"

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customer_id: "b0830fb4747ac6cd20deab8c802d7ef"
order_status: "delivered"
order_purchase_timestamp: "2018-07-24 20:41:37"
order_approved_at: "2018-07-26 03:24:27"
order_delivered_carrier_date: "2018-07-26 14:31:00"
order_delivered_customer_date: "2018-08-07 15:27:45"
order_estimated_delivery_date: "2018-08-13 00:00:00"

_id: ObjectId("5fc3e0eee1fba4dd4117a5b")
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order_purchase_timestamp: "2018-07-24 20:41:37"
order_approved_at: "2018-07-26 03:24:27"
order_delivered_carrier_date: "2018-07-26 14:31:00"
order_delivered_customer_date: "2018-08-07 15:27:45"
order_estimated_delivery_date: "2018-08-13 00:00:00"

\$group

Output after \$group stage (Sample of 20 documents)

```

1 /**
2  * _id: The id of the group.
3  * fieldN: The first field name.
4 */
5 {
6   _id: {
7     anio: "$anio",
8     mes: "$mes"
9   },
10  NoVentas: {
11    $sum: 1
12  }
13 }

```

_id: Object
NoVentas: 4026

_id: Object
NoVentas: 6512

_id: Object
NoVentas:

\$sort

Output after \$sort stage (Sample of 20 documents)

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07:44 p. m.
06/12/2020

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.orders

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS FAVORITE

HOSTS
cluster0-shard-00-01.76pg...
cluster0-shard-00-00.76pg...
cluster0-shard-00-02.76pg...

CLUSTER
Replica Set (atlas-enxu04-...
3 Nodes

EDITION
MongoDB 4.2.11 Enterprise

Filter your data
> admin
✓ frasgado
2019-nCoV-cases-JHU
CoV-cases
customers
directory
geolocation
h1n1
items
orders ...
payments
products
reviews

> MongoSH Beta

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frasgado.orders Aggregations

Documents Aggregations Schema Explain Plan Indexes Validation

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SAMPLE MODE AUTO PREVIEW

\$sort Output after \$sort stage (Sample of 20 documents)

```
1 /**
2  * Provide any number of field/order pairs.
3  */
4 {
5   anio: 1,
6   mes: 1
7 }
```

Output after \$addFields stage (Sample of 20 documents)

```
1 /**
2  * newfield: The new field name.
3  * expression: The new field expression.
4  */
5 {
6   byAnio: "$_id.anio",
7   byMonth: "$_id.mes"
8 }
```

Output after \$project stage (Sample of 20 documents)

```
1 /**
2  * specifications: The fields to
3  * include or exclude.
4  */
5 {
6   _id: 0,
7   byAnio: 1,
8   byMonth: 1,
9   NoVentas: 1
10 }
```

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.orders

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS FAVORITE

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SAMPLE MODE AUTO PREVIEW

\$project Output after \$project stage (Sample of 20 documents)

```
1 /**
2  * specifications: The fields to
3  * include or exclude.
4  */
5 {
6   _id: 0,
7   byAnio: 1,
8   byMonth: 1,
9   NoVentas: 1
10 }
```

Output after \$sort stage (Sample of 20 documents)

```
1 /**
2  * Provide any number of field/order pairs.
3  */
4 {
5   byAnio: 1,
6   byMonth: 1
7 }
```

ADD STAGE

4. Obtener el detalle de artículos de cada venta realizada. El detalle debe mostrar detalles de los artículos y vendedor.

MYSQL

```
select a.order_id, a.order_item_id, a.product_id, b.seller_id, a.price
```

```
from order_items a, sellers b
```

```
where
```

```
a.seller_id = b.seller_id
```

```
;
```

order_id	order_item_id	product_id	seller_id	price
00010242fe8c5a6d1ba2dd792cb16214	1	4244733e06e7eb4970a6e2683c13e61	4843dade18ac8b2bce089ec2a041202	58.9
00018f72f032c557190d7a14bbd3	1	e5fd52b802189ee658865ca93d83a8f	df7dd04e1b6c2614352b383e fe2d36	239.9
00042b26cf59d7ca6dfabb4e55b-fd9	1	ac6c3623068f30de03045865e4e10089	df56039f3a51e74553ab94004ba5c57	199.9
0004cc3ae777c65dbb7da0e534c1ea	1	ef92d0fde84b84509d70c526ef70f	6426d21ac49402a131f0a50d960a3c90	21.9
000576fe39319847cb5b5d288e5617a6	1	557d850972a76f792fd18ae1400969a	5996cdcab893a4652b15992b59ab8db	810
00051a1728c9d785b6e2b08094576c	1	310aae3140f94b03219a040dc3c77fb	a18b6ba846a11724393025641d1ed5	145.95
0005f50442cb953dc1d021e1f923495	1	4539b0e1091c278ff193e5a1d3b39f	ba143b05f0110f0d71ad71b4466c92	53.99
00061f2a7b09d83e415a52dca3a4f1	1	d6321011f499b976c35295b1c4bea	cc419e0650a3c5ba77189a182b7556a	59.99
00063b38a4240652a429470734ebd5	1	f17754e4e93259a5b282f24e33f65ab6	8602a61d680a10a82cceeda0d99ea3	45
000828aa423d2a3f00fc1b17cd7d8719	1	368c6c730842d78016ad23897a372db	1f50f920176fa1da6994f9023523100	49.9
000828aa423d2a3f00fc1b17cd7d8719	2	368c6c730842d78016ad23897a372db	1f50f920176fa1da6994f9023523100	49.9
0009c9a17916a706471784483a56643	1	3f27a9c8e699ff3d300e4e5d8c5c6b2	fcb5ace8bc9c2f75707d0f1a2d269	639
000ad2a75bad29dd57058c5a2ded	1	4fa33915031a8cd03d0d3e8bf27f01	fe2032dab1a61af879424b83196565c3	144
000e5628871f20f06475e0be559292e	1	5ed9easf534f6936b51d0b6c5e45c2e9	8dbae7e12377ed9c9fa18c7875207478	25
000e5338ae80bbcb5a30573b99628	1	553e0e75900d3116a072507a3635d2877	1c129092b2f23f28a5930387c980c0fc	47.9
000e906b789b55f64edcb184030f90d	1	57d799050de6d8897872c551bdf09358	ea8482cd71d3c1969d7b9473ff13abc	21.99
000f25fd472195062c40b12dc4e9a18a	1	1c05e0964302b6c56ba015f326gb8	7c67e144b0f6e99d365ce6b010ab	119.99
001021feaa8636c29475e7734483457d	1	5d7c23067ed0f3c8c6e9909373d59809	6560211a19b47992c3666cc44a7e940	49
001062e5201cc5f1ae7e9cc0ff5b00	1	5a49ebf248c8718fe522b51c69f61a	35040cd71d7fa480967e0e4e9459d9	46.9
00119ff34e539cf26f92b9ef0cffed8	1	21b1c2f67a9aabfb5a0eb0b6c139bd8a	c864036feaabb8c1659f65ea4faebe1da	219.9

```
    {$lookup: {
```

```
      from: 'items',
```

```
      localField: 'order_id',
```

```
      foreignField: 'order_id',
```

```
      as: 'itemArr'
```

```
    }, {$lookup: {
```

```
      from: 'products',
```

```
      localField: 'itemArr.product_id',
```

```
      foreignField: 'product_id',
```

```
as: 'prdsArr'  
}, {$addFields: {  
    itemsObj : {  
        $arrayElemAt: [ "$itemArr", 0]  
    },  
    prodsObj : {  
        $arrayElemAt: [ "$prdsArr", 0]  
    },  
    NoProductos: {  
        $size: "$itemArr"  
    }  
  
}, {$addFields: {  
    categoriaProducto: "$prodsObj.product_category_name",  
    NoVendedor: "$itemsObj.seller_id"  
}}, {$project: {  
    order_id: 1,  
    order_purchase_timestamp: 1,  
    customer_id: 1,  
    NoVendedor: 1,  
    NoProductos: 1,  
    order_status: 1,  
    categoriaProducto: 1,  
    itemArr: 1  
}}, {$unwind: {  
    path: "$itemArr"  
}}]
```

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.orders

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations

frasgado.orders

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION OBTENER EL DETALLE DE CADA VENTA_ITEMS Modified SAVE SAMPLE MODE AUTO PREVIEW

DOCUMENTS 99.4k TOTAL SIZE 38.2MB AVG. SIZE 403B INDEXES 1 TOTAL SIZE 916.0KB AVG. SIZE 916.0KB

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_id: ObjectId("5fc3e0eee1fba4dd4117a5a")
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customer_id: "9ef432eb6251297304e76186b10a028d"
order_status: "delivered"
order_purchase_timestamp: "2017-10-02 10:56:33"
order_approved_at: "2017-10-02 11:07:15"
order_delivered_carrier_date: "2017-10-10 19:55:00"
order_delivered_customer_date: "2017-10-10 21:25:13"
order_estimated_delivery_date: "2017-10-10 20:00:00"
```

```
_id: ObjectId("5fc3e0eee1fba4dd4117a5b")
order_id: "53cd2fc8bc7dc0e0b6741e2150273451"
customer_id: "b083cf04747a6c6d20de0b8c802d7ef"
order_status: "delivered"
order_purchase_timestamp: "2018-07-24 20:41:37"
order_approved_at: "2018-07-26 03:24:27"
order_delivered_carrier_date: "2018-08-07 14:31:00"
order_delivered_customer_date: "2018-08-07 15:27:45"
order_estimated_delivery_date: "2018-08-07 15:00:00"
```

Output after \$lookup stage (Sample of 20 documents)

```
1 /**
2  * from: The target collection.
3  * LocalField: The local join field.
4  * foreignField: The target join field.
5  * as: The name for the results.
6  * pipeline: The pipeline to run on the joined collection.
7  * let: Optional variables to use in the pipeline if needed.
8 */
9 {
10  from: 'products',
11  localField: 'order_id',
12  foreignField: 'order_id',
13  as: 'itemArrn'
14 }
```

```
0: Object
_id: ObjectId("5fc4314e1fba4dd4148bcb")
id: 101633
order_id: "e69fb5eb8e0ed6a785585b27e16dbf"
order_item_id: 1
product_id: "9a7fb9862b10749a117f7fc3c1f051"
seller_id: "7c67e144bb0f5e969d365ceab010ab"
shipping_limit_date: "11/08/17 12:05"
price: 149.99
freight_value: 19.77
```

```
itemArr: Array
0: Object
_id: ObjectId("5fc4314e1fba4dd4148c27")
id: 101725
order_id: "e6ca15cb79ec1d90b1da9085a6118aeb"
order_item_id: 2
product_id: "88574b074924071f4e201e151b152b4e"
seller_id: "001ca7ae0ea17fb1caed9dfb1094831"
shipping_limit_date: "22/05/17 19:50"
price: 99
```

Output after \$lookup stage (Sample of 20 documents)

08:24 p. m. 06/12/2020

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.orders

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations

frasgado.orders

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION OBTENER EL DETALLE DE CADA VENTA_ITEMS SAVE SAMPLE MODE AUTO PREVIEW

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Output after \$lookup stage (Sample of 20 documents)

```
_id: ObjectId("5fc3e0eee1fba4dd4117a5a")
order_id: "e481f51bcd54678bc4c9136f2d6af7"
customer_id: "9ef432eb6251297304e76186b10a028d"
order_status: "delivered"
order_purchase_timestamp: "2017-10-02 10:56:33"
order_approved_at: "2017-10-02 11:07:15"
order_delivered_carrier_date: "2017-10-10 19:55:00"
order_delivered_customer_date: "2017-10-10 21:25:13"
order_estimated_delivery_date: "2017-10-10 20:00:00"
itemArr: Array
```

```
_id: ObjectId("5fc3e0eee1fba4dd4117a5b")
order_id: "53cd2fc8bc7dc0e0b6741e2150273451"
customer_id: "b083cf04747a6c6d20de0b8c802d7ef"
order_status: "delivered"
order_purchase_timestamp: "2018-07-24 20:41:37"
order_approved_at: "2018-07-26 03:24:27"
order_delivered_carrier_date: "2018-08-07 14:31:00"
order_delivered_customer_date: "2018-08-07 15:27:45"
order_estimated_delivery_date: "2018-08-07 15:00:00"
itemArr: Array
```

Output after \$addFields stage (Sample of 20 documents)

```
1 /**
2  * newField: The new field name.
3  * expression: The new field expression.
4  */
5 {
6  itemObj: {
7    $arrayElemAt: [ "$itemArr", 0 ]
8  },
9  prodsObj: {
10    $arrayElemAt: [ "$prdsArr", 0 ]
11  },
12  NoProductos: {
13    $size: "$itemArr"
14  }
15,
16 }
```

```
_id: ObjectId("5fc3e0eee1fba4dd4117a5a")
order_id: "e481f51bcd54678bc4c9136f2d6af7"
customer_id: "9ef432eb6251297304e76186b10a028d"
order_status: "delivered"
order_purchase_timestamp: "2017-10-02 10:56:33"
order_approved_at: "2017-10-02 11:07:15"
order_delivered_carrier_date: "2017-10-10 19:55:00"
order_delivered_customer_date: "2017-10-10 21:25:13"
order_estimated_delivery_date: "2017-10-10 20:00:00"
itemArr: Array
prdsArr: Array
```

```
_id: ObjectId("5fc3e0eee1fba4dd4117a5b")
order_id: "53cd2fc8bc7dc0e0b6741e2150273451"
customer_id: "b083cf04747a6c6d20de0b8c802d7ef"
order_status: "delivered"
order_purchase_timestamp: "2018-07-24 20:41:37"
order_approved_at: "2018-07-26 03:24:27"
order_delivered_carrier_date: "2018-08-07 14:31:00"
order_delivered_customer_date: "2018-08-07 15:27:45"
order_estimated_delivery_date: "2018-08-07 15:00:00"
itemArr: Array
prdsArr: Array
```

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MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.orders

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

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CLUSTER
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EDITION
MongoDB 4.2.11 Enterprise

Filter your data
CoV-cases
DETALLE_VENTA
customers
directory
geolocation
h1n1
items
orders
payments
products
reviews
sellers
users

frasgado.orders

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION OBTENER EL DETALLE DE CADA VENTA_ITEMS SAVE

\$addFields SAMPLE MODE AUTO PREVIEW

Output after **\$addFields** stage (Sample of 20 documents)

```
1 /**
2  * newField: The new field name.
3  * expression: The new field expression.
4  */
5 {
6   categoriaProducto: "$prodsObj.product_category_name"
7   NoVendedor: "$itemsObj.seller_id"
8 }
```

\$project

Output after **\$project** stage (Sample of 20 documents)

```
1 /**
2  * specifications: The fields to
3  * include or exclude.
4  */
5 {
6   order_id: 1,
7   order_purchase_timestamp: 1,
8   customer_id: 1,
9   NoVendedor: 1,
10  NoProductos: 1,
11  orden_status: 1,
12  categoriaProducto: 1,
13  itemArr: 1
14 }
```

\$unwind

Output after **\$unwind** stage (Sample of 20 documents)

```
_id:ObjectId("5fc3e0eee1fba4dd4117a5a")
order_id:"e481f51cbd54678b7cc49136f2d6af7"
customer_id:"9ef432eb6251297304e76188b10a928d"
order_status:"delivered"
order_purchase_timestamp:"2017-10-02 10:56:33"
order_approved_at:"2017-10-02 11:07:15"
order_delivered_carrier_date:"2017-10-04 19:55:00"
order_delivered_customer_date:"2017-10-10 21:25:13"
orden_articulos_documento:"2017-10-10 19:55:00:00"
_id:ObjectId("5fc3e0eee1fba4dd4117a5b")
order_id:"53cb2fcabc7dc0e0b741e2150273451"
customer_id:"b0830fb4747a6c6d28de0b8c802d7ef"
order_status:"delivered"
order_purchase_timestamp:"2018-07-24 20:41:37"
order_approved_at:"2018-07-26 03:24:27"
order_delivered_carrier_date:"2018-07-26 14:31:00"
order_delivered_customer_date:"2018-08-07 15:27:45"
orden_articulos_documento:"2018-08-15 05:00:00"
_id:ObjectId("5fc3e0eee1fba4dd4117a5c")
order_id:"a481f51cbd54678b7cc49136f2d6af7"
customer_id:"9ef432eb6251297304e76188b10a928d"
order_status:"delivered"
order_purchase_timestamp:"2017-10-02 10:56:33"
itemArr:Array
NoProductos:1
categoriaProducto:"utilidades_domesticas"
NoVendedor:"3504c0cb71d7fa48d967e0e4c9d59d9"
_id:ObjectId("5fc3e0eee1fba4dd4117a5d")
order_id:"53cb2fcabc7dc0e0b741e2150273451"
customer_id:"b0830fb4747a6c6d28de0b8c802d7ef"
order_status:"delivered"
order_purchase_timestamp:"2018-07-24 20:41:37"
itemArr:Array
NoProductos:1
categoriaProducto:"perfumeria"
NoVendedor:"289cd525fb7e7f891c38608bf9e0962"
_id:ObjectId("5fc3e0eee1fba4dd4117a5e")
order_id:"a481f51cbd54678b7cc49136f2d6af7"
customer_id:"9ef432eb6251297304e76188b10a928d"
order_status:"delivered"
order_purchase_timestamp:"2018-07-24 20:41:37"
itemArr:Array
NoProductos:1
categoriaProducto:"perfumeria"
NoVendedor:"289cd525fb7e7f891c38608bf9e0962"
```

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5. Identificar aquellas órdenes de compras que tengan más de un artículo en el año 2017.

```
[$addFields: {
```

```
FechaVenta: {
```

```
$dateFromString: {
```

```
dateString: '$order_purchase_timestamp',
```

```
format: '%Y-%m-%d %H:%M:%S'
```

```
}
```

```
}
```

```
}}, {$addFields: {
```

```
anio: {
```

```
$year: "$FechaVenta"
```

```
}
```

```
}}, {$match: {
```

```
anio: { $eq: 2017}
```

```
}}, {$lookup: {
  from: 'items',
  localField: 'order_id',
  foreignField: 'order_id',
  as: 'itemArr'
}}, {$addFields: {
  NoProductos: {
    $size: "$itemArr"
  }
}}, {$match: {
  NoProductos: { $gt: 1},
}}, {$project: {
  order_id: 1,
  order_purchase_timestamp: 1,
  customer_id: 1,
  NoProductos: 1,
  order_status: 1,
  itemArr: 1
}}]
```

MongoDB Compass - cluster0.76phg.mongodb.net:27017/frasgado.orders

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS C

FAVORITE

HOSTS

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cluster0-shard-00-00.76phg...
cluster0-shard-00-02.76phg...

CLUSTER

Replica Set (atlas-enxu04-...
3 Nodes

EDITION

MongoDB 4.2.11 Enterprise

Filter your data

CoV-cases

DETALLE_VENTA

customers

directory

geolocation

h1n1

items

orders ...

payments

products

reviews

sellers

users

frasgado.orders

frasgado.orders Aggregations

frasgado.orders Aggregations

frasgado.orders

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION IDENTIFICAR-COMPRAS-MAYOR-DE-1-ARTICULO Modified SAVE

DOCUMENTS 99.4k TOTAL SIZE 38.2MB AVG. SIZE 403B INDEXES 1 TOTAL SIZE 916.0KB AVG. SIZE 916.0KB

99441 Documents in the Collection

Preview of Documents in the Collection

Select an operator to construct expressions used in the aggregation pipeline stages. [Learn more](#)

`_id: ObjectId("5fc3e0eee1fba4dd4117a5")
order_id: "481f51c1bcd54678b7cc49136f2d6af7"
customer_id: "0ef432eb625129730ae7616b010a928d"
order_status: "delivered"
order_purchase_timestamp: "2017-10-02 10:56:33"
order_approved_at: "2017-10-02 11:07:15"
order_delivered_carrier_date: "2017-10-04 19:55:00"
order_delivered_customer_date: "2017-10-10 21:25:13"`

`_id: ObjectId("5fc3e0eee1fba4dd4117a5")
order_id: "53cd2fc8bc7dc0e6741e215b273451"
customer_id: "b0830fb4747a6c62de0e8c802d7ef"
order_status: "delivered"
order_purchase_timestamp: "2018-07-24 20:41:37"
order_approved_at: "2018-07-26 03:24:27"
order_delivered_carrier_date: "2018-07-26 14:31:00"
order_delivered_customer_date: "2018-08-07 15:27:45"`

`_id: ObjectId("5fc3e0eee1fba4dd4117a5")
order_id: "481f51c1bcd54678b7cc49136f2d6af7"
customer_id: "0ef432eb625129730ae7616b010a928d"
order_status: "delivered"
order_purchase_timestamp: "2017-10-02 10:56:33"
order_approved_at: "2017-10-02 11:07:15"
order_delivered_carrier_date: "2017-10-04 19:55:00"
order_delivered_customer_date: "2017-10-10 21:25:13"
order_estimated_delivery_date: "2017-10-10 00:00:00"`

`_id: ObjectId("5fc3e0eee1fba4dd4117a5")
order_id: "53cd2fc8bc7dc0e6741e215b273451"
customer_id: "b0830fb4747a6c62de0e8c802d7ef"
order_status: "delivered"
order_purchase_timestamp: "2018-07-24 20:41:37"
order_approved_at: "2018-07-26 03:24:27"
order_delivered_carrier_date: "2018-07-26 14:31:00"
order_delivered_customer_date: "2018-08-07 15:27:45"
order_estimated_delivery_date: "2018-08-07 00:00:00"`

\$addFields

Output after \$addFields stage (Sample of 20 documents)

\$addFields

Output after \$addFields stage (Sample of 20 documents)

> MongoSH Beta

The screenshot shows the MongoDB Compass interface with three stages of an aggregation pipeline:

- \$addFields**: Adds a new field `anio` containing the value of `$year`.
- \$match**: Filters documents where `anio` is equal to 2017.
- \$lookup**: Looks up related documents from a collection named `frasgado.orders` based on the `customer_id` field.

The results for each stage are shown as samples of 20 documents. The first document in each sample is highlighted in red, indicating it is the current document being viewed.

```
1 * {  
2     anio: {  
3         $year: "$FechaVenta"  
4     }  
5 }
```

```
_id: ObjectId("5fcf3e0eee1fba4dd4117a5a")  
order_id: "481f5f1cfd54679b7cc49136f2d6af7"  
customer_id: "9ef432eb6251297304e76186b10a928d"  
order_status: "delivered"  
order_purchase_timestamp: "2017-10-02 10:56:33"  
order_approved_at: "2017-10-02 11:07:15"  
order_delivered_carrier_date: "2017-10-04 19:55:00"  
order_delivered_customer_date: "2017-10-10 21:25:13"  
order_estimated_delivery_date: "2017-10-09 19:00:00-00"
```

```
_id: ObjectId("5fcf3e0eee1fba4dd4117a5b")  
order_id: "3c3dfcfc927dc6b741e2150273451"  
customer_id: "98830fb4747a6c6d280de0a08c802d7ef"  
order_status: "delivered"  
order_purchase_timestamp: "2018-07-26 20:41:37"  
order_approved_at: "2018-07-26 03:24:27"  
order_delivered_carrier_date: "2018-07-26 14:31:00"  
order_delivered_customer_date: "2018-07-26 15:27:45"  
order_estimated_delivery_date: "2018-07-25 19:00:00-00"
```

```
_id: ObjectId("5fcf3e0eee1fba4dd4117a5c")  
order_id: "3c3dfcfc927dc6b741e2150273451"  
customer_id: "98830fb4747a6c6d280de0a08c802d7ef"  
order_status: "delivered"  
order_purchase_timestamp: "2018-07-26 20:41:37"  
order_approved_at: "2018-07-26 03:24:27"  
order_delivered_carrier_date: "2018-07-26 14:31:00"  
order_delivered_customer_date: "2018-07-26 15:27:45"  
order_estimated_delivery_date: "2018-07-25 19:00:00-00"
```

```
_id: ObjectId("5fcf3e0eee1fba4dd4117a5d")  
order_id: "49d45b44df5de018fe0c16f97b45faa"  
customer_id: "f88197465ea7920adcdbec7375364d82"  
order_status: "delivered"  
order_purchase_timestamp: "2017-11-18 19:28:06"  
order_approved_at: "2017-11-18 19:45:59"  
order_delivered_carrier_date: "2017-11-22 13:39:50"  
order_delivered_customer_date: "2017-12-02 00:28:42"  
order_estimated_delivery_date: "2017-11-16 10:00:00-00"
```

```
_id: ObjectId("5fcf3e0eee1fba4dd4117a5e")  
order_id: "49d45b44df5de018fe0c16f97b45faa"  
customer_id: "f88197465ea7920adcdbec7375364d82"  
order_status: "delivered"  
order_purchase_timestamp: "2017-11-18 19:28:06"  
order_approved_at: "2017-11-18 19:45:59"  
order_delivered_carrier_date: "2017-11-22 13:39:50"  
order_delivered_customer_date: "2017-12-02 00:28:42"  
order_estimated_delivery_date: "2017-11-16 10:00:00-00"
```

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.orders

Connect View Collection Help

Local

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cluster0-shard-00-00.76pg...
cluster0-shard-00-02.76pg...

CLUSTER
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3 Nodes

EDITION
MongoDB 4.2.11 Enterprise

Filter your data
CoV-cases
DETALLE_VENTA
customers
directory
geolocation
h1n1
items
orders
payments
products
reviews
sellers
users

frasgado.orders Aggregations

frasgado.orders Aggregations

frasgado.orders

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION IDENTIFICAR-COMPRAS-MAYOR-DE-1-ARTICULO Modified SAVE SAMPLE MODE AUTO PREVIEW

\$lookup

Output after \$lookup stage (Sample of 20 documents)

```
1: {  
  from: 'items',  
  localField: 'order_id',  
  foreignField: 'order_id',  
  as: 'itemArr'  
}
```

order_status: "delivered"
order_purchase_timestamp: "2017-10-02 10:56:33"
order_approved_at: "2017-10-02 11:07:15"
order_delivered_carrier_date: "2017-10-04 19:55:00"
order_delivered_customer_date: "2017-10-10 21:25:13"
order_estimated_delivery_date: "2017-10-18 00:00:00"
FechaVenta: "2017-10-02T10:56:33.000+00:00"
anio: 2017
itemArr: Array

_id: ObjectId("5fc3e0eee1fba4dd4117a5d")
order_id: "949d5b44df5de91fe9c16f97b45f8a"
customer_id: "f88197465ea7920adcbe737536d82"
order_status: "delivered"
order_purchase_timestamp: "2017-11-18 19:28:06"
order_approved_at: "2017-11-18 19:45:59"
order_delivered_carrier_date: "2017-11-22 13:39:59"
order_delivered_customer_date: "2017-12-02 00:28:42"
order_estimated_delivery_date: "2017-12-15 00:00:00"

_id: ObjectId("5fc3e0eee1fba4dd4117a5d")
order_id: "949d5b44df5de91fe9c16f97b45f8a"
customer_id: "f88197465ea7920adcbe737536d82"
order_status: "delivered"
order_purchase_timestamp: "2017-11-18 19:28:06"
order_approved_at: "2017-11-18 19:45:59"
order_delivered_carrier_date: "2017-11-22 13:39:59"
order_delivered_customer_date: "2017-12-02 00:28:42"
order_estimated_delivery_date: "2017-12-15 00:00:00"

_id: ObjectId("5fc3e0eee1fba4dd4117a5d")
order_id: "949d5b44df5de91fe9c16f97b45f8a"
customer_id: "f88197465ea7920adcbe737536d82"
order_status: "delivered"
order_purchase_timestamp: "2017-11-18 19:28:06"
order_approved_at: "2017-11-18 19:45:59"
order_delivered_carrier_date: "2017-11-22 13:39:59"
order_delivered_customer_date: "2017-12-02 00:28:42"
order_estimated_delivery_date: "2017-12-15 00:00:00"

\$addFields

Output after \$addFields stage (Sample of 20 documents)

```
1: {  
  NoProductos: {  
    $size: "$itemArr"  
  }  
}
```

_id: ObjectId("5fc3e0eee1fba4dd4117a5d")
order_id: "e481f51bd54678b7c49136f2d6af7"
customer_id: "9ef432eb6251297304e76186b10a928d"
order_status: "delivered"
order_purchase_timestamp: "2017-10-02 10:56:33"
order_approved_at: "2017-10-02 11:07:15"
order_delivered_carrier_date: "2017-10-04 19:55:00"
order_delivered_customer_date: "2017-10-10 21:25:13"
order_estimated_delivery_date: "2017-10-18 00:00:00"

_id: ObjectId("5fc3e0eee1fba4dd4117a5d")
order_id: "e481f51bd54678b7c49136f2d6af7"
customer_id: "9ef432eb6251297304e76186b10a928d"
order_status: "delivered"
order_purchase_timestamp: "2017-11-18 19:28:06"
order_approved_at: "2017-11-18 19:45:59"
order_delivered_carrier_date: "2017-11-22 13:39:59"
order_delivered_customer_date: "2017-12-02 00:28:42"
order_estimated_delivery_date: "2017-12-15 00:00:00"

\$match

Output after \$match stage (Sample of 20 documents)

```
1: {  
  NoProductos: {  
    $gt: 1,  
  }  
}
```

_id: ObjectId("5fc3e0eee1fba4dd4117a64")
order_id: "e6ce16c79ec1d90b1da9085a6118ae"
customer_id: "494dd4ed5b20131c64ed7f100595b95c"
order_status: "delivered"
order_purchase_timestamp: "2017-05-16 19:41:18"
order_approved_at: "2017-05-16 19:50:18"
order_delivered_carrier_date: "2017-05-18 11:40:40"
order_delivered_customer_date: "2017-05-29 11:18:31"
order_estimated_delivery_date: "2017-06-07 00:00:00"

_id: ObjectId("5fc3e0eee1fba4dd4117a64")
order_id: "e6ce16c79ec1d90b1da9085a6118ae"
customer_id: "494dd4ed5b20131c64ed7f100595b95c"
order_status: "delivered"
order_purchase_timestamp: "2017-05-16 19:41:18"
order_approved_at: "2017-05-16 19:50:18"
order_delivered_carrier_date: "2017-05-18 11:40:40"
order_delivered_customer_date: "2017-05-29 11:18:31"
order_estimated_delivery_date: "2017-06-07 00:00:00"

\$project

Output after \$project stage (Sample of 20 documents)

```
1: /**  
  * specifications: The fields to  
  *   * include or exclude.  
  */  
5: {  
  6:   order_id: 1,  
  7:   order_purchase_timestamp: 1,  
  8:   customer_id: 1,  
  9:   NoProductos: 1,  
 10:  order_status: 1,  
 11:  itemArr: 1  
12: }
```

_id: ObjectId("5fc3e0eee1fba4dd4117a64")
order_id: "e6ce16c79ec1d90b1da9085a6118ae"
customer_id: "494dd4ed5b20131c64ed7f100595b95c"
order_status: "delivered"
order_purchase_timestamp: "2017-05-16 19:41:18"
itemArr: Array
NoProductos: 2

_id: ObjectId("5fc3e0eee1fba4dd4117a64")
order_id: "82ce2451c9148f8d19a559f70644"
customer_id: "388025bec8128ff20ec1a316ed4dcf02"
order_status: "delivered"
order_purchase_timestamp: "2017-04-20 17:15:46"
itemArr: Array
NoProductos: 5

_id: ObjectId("5fc3e0eee1fba4dd4117a64")
order_id: "82ce2451c9148f8d19a559f70644"
customer_id: "388025bec8128ff20ec1a316ed4dcf02"
order_status: "delivered"
order_purchase_timestamp: "2017-04-20 17:15:46"
itemArr: Array
NoProductos: 5

ADD STAGE

10:05 a.m.
07/12/2020

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.orders

Connect View Collection Help

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HOSTS
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CLUSTER
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MongoDB 4.2.11 Enterprise

Filter your data
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frasgado.orders Aggregations

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frasgado.orders

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION IDENTIFICAR-COMPRAS-MAYOR-DE-1-ARTICULO Modified SAVE SAMPLE MODE AUTO PREVIEW

\$match

Output after \$match stage (Sample of 20 documents)

```
1: {  
  NoProductos: {  
    $gt: 1,  
  }  
}
```

_id: ObjectId("5fc3e0eee1fba4dd4117a64")
order_id: "e6ce16c79ec1d90b1da9085a6118ae"
customer_id: "494dd4ed5b20131c64ed7f100595b95c"
order_status: "delivered"
order_purchase_timestamp: "2017-05-16 19:41:18"
order_approved_at: "2017-05-16 19:50:18"
order_delivered_carrier_date: "2017-05-18 11:40:40"
order_delivered_customer_date: "2017-05-29 11:18:31"
order_estimated_delivery_date: "2017-06-07 00:00:00"

_id: ObjectId("5fc3e0eee1fba4dd4117a64")
order_id: "e6ce16c79ec1d90b1da9085a6118ae"
customer_id: "494dd4ed5b20131c64ed7f100595b95c"
order_status: "delivered"
order_purchase_timestamp: "2017-05-16 19:41:18"
order_approved_at: "2017-05-16 19:50:18"
order_delivered_carrier_date: "2017-05-18 11:40:40"
order_delivered_customer_date: "2017-05-29 11:18:31"
order_estimated_delivery_date: "2017-06-07 00:00:00"

\$project

Output after \$project stage (Sample of 20 documents)

```
1: /**  
  * specifications: The fields to  
  *   * include or exclude.  
  */  
5: {  
  6:   order_id: 1,  
  7:   order_purchase_timestamp: 1,  
  8:   customer_id: 1,  
  9:   NoProductos: 1,  
 10:  order_status: 1,  
 11:  itemArr: 1  
12: }
```

_id: ObjectId("5fc3e0eee1fba4dd4117a64")
order_id: "e6ce16c79ec1d90b1da9085a6118ae"
customer_id: "494dd4ed5b20131c64ed7f100595b95c"
order_status: "delivered"
order_purchase_timestamp: "2017-05-16 19:41:18"
itemArr: Array
NoProductos: 2

_id: ObjectId("5fc3e0eee1fba4dd4117a64")
order_id: "82ce2451c9148f8d19a559f70644"
customer_id: "388025bec8128ff20ec1a316ed4dcf02"
order_status: "delivered"
order_purchase_timestamp: "2017-04-20 17:15:46"
itemArr: Array
NoProductos: 5

_id: ObjectId("5fc3e0eee1fba4dd4117a64")
order_id: "82ce2451c9148f8d19a559f70644"
customer_id: "388025bec8128ff20ec1a316ed4dcf02"
order_status: "delivered"
order_purchase_timestamp: "2017-04-20 17:15:46"
itemArr: Array
NoProductos: 5

ADD STAGE

10:05 a.m.
07/12/2020

6. Obtener ranking de los tipos de pagos.

MYSQL

```
select payment_type, count(*) as ranking  
from payments  
group by payment_type  
order by ranking desc;
```

The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Schemas:** frasdado (selected), session02_07NOVIEMBRE2020, SESION03-14112020, 20-07-PROYECTO-SESION-03-.
- Query Editor:** SQL File 5*, SQL File 6*, orders, reviews, customers, sellers. The query is:

```
23  
24 • select payment_type, count(*) as ranking  
25 from payments  
26 group by payment_type  
27 order by ranking desc;  
28 |
```

- Result Grid:** Shows the results of the query:

payment_type	ranking
credit_card	76795
boleto	19784
voucher	5775
debit_card	1529
not_defined	3

- Output Panel:** Action Output table:

#	Time	Action	Message	Duration / Fetch
1	15:25:52	select payment_type, count(*) as ranking from payments group by payment_type order by ranking desc	5 row(s) returned	0.250 sec / 0.000 sec

- Taskbar:** Buscar cualquier cosa, and other application icons.

```
[{$group: {  
    _id: "$payment_type",  
    count: {  
        $sum: 1  
    }  
}, {$sort: {  
    count: -1  
}}]
```

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.payments

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations frasgado.payments Aggregations

frasgado.payments

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION RANKING_TIPOS_PAGOS SAVE SAMPLE MODE AUTO PREVIEW

103.9k DOCUMENTS TOTAL SIZE 18.5MB AVG. SIZE 187B INDEXES 1 TOTAL SIZE 956.0KB AVG. SIZE 956.0KB

103886 Documents in the Collection

Select an operator to construct expressions used in the aggregation pipeline stages. [Learn more](#)

Preview of Documents in the Collection

```
_id: ObjectId("5fc3a8aee1fba4dd40fe48c")
payment_id: 1
order_id: "b81ef226f3fe1789b1e8b2acac839d17"
payment_sequential: 1
payment_type: "credit_card"
payment_installments: 8
payment_value: 99.33
```

```
_id: ObjectId("5fc3a8aee1fba4dd40fe48d")
payment_id: 2
order_id: "a9810da82917af2d9aef1d278f1dcfa0"
payment_sequential: 1
payment_type: "credit_card"
payment_installments: 1
payment_value: 24.39
```

```
_id: ObjectId("5fc3a8aee1fba4dd40fe48e")
payment_id: 3
order_id: "not_id"
payment_sequential: 1
payment_type: "boleto"
payment_installments: 1
payment_value: 30.0
```

Output after \$group stage (Sample of 5 documents)

```
1 /**
2 * _id: The id of the group.
3 * field: The first field name.
4 */
5 {
6   "_id": "$payment_type",
7   "count": {
8     "$sum": 1
9   }
10 }
```

```
_id: "boleto"
count: 19025
```

```
_id: "voucher"
count: 5545
```

```
_id: "not_id"
count: 3
```

Output after \$sort stage (Sample of 5 documents)

MongoSH Beta

Buscar cualquier cosa

10:19 a.m. 07/12/2020

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.payments

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations frasgado.payments Aggregations

frasgado.payments

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION RANKING_TIPOS_PAGOS SAVE SAMPLE MODE AUTO PREVIEW

103.9k DOCUMENTS TOTAL SIZE 18.5MB AVG. SIZE 187B INDEXES 1 TOTAL SIZE 956.0KB AVG. SIZE 956.0KB

Output after \$group stage (Sample of 5 documents)

```
1 /**
2 * _id: The id of the group.
3 * field: The first field name.
4 */
5 {
6   "_id": "$payment_type",
7   "count": {
8     "$sum": 1
9   }
10 }
```

```
_id: "boleto"
count: 19025
```

```
_id: "voucher"
count: 5545
```

```
_id: "not_id"
count: 3
```

Output after \$sort stage (Sample of 5 documents)

```
1 /**
2 * Provide any number of field/order pairs.
3 */
4 {
5   "count": -1
6 }
```

```
_id: "credit_card"
count: 73956
```

```
_id: "boleto"
count: 19025
```

```
_id: "voucher"
count: 5545
```

MongoSH Beta

Buscar cualquier cosa

10:20 a.m. 07/12/2020

7. Obtener ranking de puntajes en las revisiones de órdenes de compra.

MYSQL

```

select review_score, count(*) as ranking
from reviews
group by review_score
order by ranking desc;

```

The screenshot shows the MySQL Workbench interface with the following details:

- Query Editor:** Displays the SQL query:

```

23
24 • select review_score, count(*) as ranking
25   from reviews
26   group by review_score
27   order by ranking desc;
28

```
- Result Grid:** Shows the output of the query:

review_score	ranking
5	12115
4	4048
1	2483
3	1735
2	701
- Output Panel:** Shows the completed query log:

#	Time	Action	Message	Duration / Fetch
1	15:25:52	select payment_type, count(*) as ranking from payments group by payment_type order by ranking desc	5 row(s) returned	0.250 sec / 0.000 sec
2	15:27:21	select review_score, count(*) as ranking from reviews group by review_score order by ranking desc	5 row(s) returned	0.203 sec / 0.000 sec

MONGODB

```

[{$group: {
  _id:"$review_score",
  ranking: {
    $sum: 1
  }
}}, {$sort: {
  ranking: -1
}]]
```

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.reviews

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations frasgado.reviews Aggregations

frasgado.reviews

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION RANKING_GENERAL SAVE

100000 Documents in the Collection

Select an operator to construct expressions used in the aggregation pipeline stages. [Learn more](#)

Preview of Documents in the Collection

100000 Documents in the Collection

100.0k DOCUMENTS TOTAL SIZE 30.0MB AVG. SIZE 315B INDEXES 1 TOTAL SIZE 928.0KB AVG. SIZE 928.0KB

Aggregation Pipeline Stages:

- \$group** (Sample of 5 documents)

```

1 [
2   {
3     "_id": "$review_score",
4     "ranking": {
5       "$sum": 1
6     }
7   }
8 ]
  
```

Output after **\$group** stage (Sample of 5 documents)

<code>_id: 5 ranking: 57420</code>	<code>_id: 2 ranking: 3235</code>	<code>_id: 1 ranking: 1</code>
--	---------------------------------------	------------------------------------

\$sort (Sample of 5 documents)

Output after **\$sort** stage (Sample of 5 documents)

<code>_id: 5 ranking: 57420</code>	<code>_id: 2 ranking: 3235</code>	<code>_id: 1 ranking: 1</code>
--	---------------------------------------	------------------------------------

SAMPLE MODE AUTO PREVIEW

> MongoSH Beta

Buscar cualquier cosa

11:18 a.m. 07/12/2020

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.reviews

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations frasgado.reviews Aggregations

frasgado.reviews

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION RANKING_GENERAL SAVE

100.0k DOCUMENTS TOTAL SIZE 30.0MB AVG. SIZE 315B INDEXES 1 TOTAL SIZE 928.0KB AVG. SIZE 928.0KB

Aggregation Pipeline Stages:

- \$group** (Sample of 5 documents)

```

1 [
2   {
3     "_id": "$review_score",
4     "ranking": {
5       "$sum": 1
6     }
7   }
8 ]
  
```

Output after **\$group** stage (Sample of 5 documents)

<code>_id: 5 ranking: 57420</code>	<code>_id: 2 ranking: 3235</code>	<code>_id: 1 ranking: 1</code>
--	---------------------------------------	------------------------------------

\$sort (Sample of 5 documents)

Output after **\$sort** stage (Sample of 5 documents)

<code>_id: 5 ranking: 57420</code>	<code>_id: 4 ranking: 19200</code>	<code>_id: 1 ranking: 1</code>
--	--	------------------------------------

SAMPLE MODE AUTO PREVIEW

> MongoSH Beta

Buscar cualquier cosa

11:18 a.m. 07/12/2020

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.reviews

Connect View Collection Help

Local

frasgado.orders Aggregations frasgado.reviews Aggregations

frasgado.reviews

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION RANKING_GENERAL SAVE

Output after \$group stage (Sample of 5 documents)

```
1 * {
  2   _id: "$review_score",
  3   ranking: {
  4     $sum: 1
  5   }
}
```

_id: 5 ranking: 57420

_id: 2 ranking: 3235

_id: 1 ranking: 1

Output after \$sort stage (Sample of 5 documents)

```
1 * /**
  2   * Provide any number of field/order pairs.
  3   */
  4 * {
  5   ranking: -1
  6 }
```

_id: 1 ranking: 11858

_id: 3 ranking: 8287

_id: 2 ranking: 3235

ADD STAGE

8. Obtener ranking de puntajes por año y mes.

MYSQL

```
select review_score,
year(str_to_date(review_creation_date, '%d/%m/%Y')) as anio,
month(str_to_date(review_creation_date, '%d/%m/%Y')) as mes,
count(*) as ranking
from reviews
group by review_score, anio, mes
order by anio desc, mes asc, ranking desc;
```

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: session02_07NOVIEMBRE2020 SESION03-14112020 20-07-PROYECTO-SESION-03... SQL File 5* SQL File 6* orders reviews customers sellers SQL Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

SCHEMAS

- Triggers
- orders
- payments
- products
- ratings
- reviews

Columns

- review_id
- order_id
- review_score
- review_comment_title
- review_comment_message
- review_creation_date
- review_answer_timestamp

Indexes

Administration Schemas Information

Column: review_creation_date
Collation: utf8mb4_0900_ai_ci
Definition: review_creation_date text

Result Grid

review_score	año	mes	ranking
5	2018	1	754
4	2018	1	231
1	2018	1	149
3	2018	1	118
2	2018	1	40
5	2018	2	736
4	2018	2	259
1	2018	2	169
3	2018	2	135
2	2018	2	41
5	2018	3	821
1	2018	3	316
4	2018	3	304
3	2018	3	155
2	2018	3	68
5	2018	4	811

Result 29 x

Output

#	Time	Action	Message	Duration / Fetch
5	15:30:57	select review_creation_date from reviews	21082 row(s) returned	0.171 sec / 0.516 sec
6	15:30:57	select review_score, year(str_to_date(review_creation_date, '%d/%m/%Y')) as año, month(str_to_date(review_creation_date, '%d/%m/%Y')) as mes from reviews	Error Code: 1054. Unknown column 'month' in 'group statement'	0.078 sec
7	15:31:15	select review_score, year(str_to_date(review_creation_date, '%d/%m/%Y')) as año, month(str_to_date(review_creation_date, '%d/%m/%Y')) as mes from reviews	109 row(s) returned	0.282 sec / 0.000 sec

Object Info Session

Query Completed

Buscar cualquier cosa 03:31 p. m. 07/12/2020

MONGODB

```

[{$lookup: {
  from: 'orders',
  localField: 'order_id',
  foreignField: 'order_id',
  as: 'ordArr'
}}, {$addFields: {
  ordObj: {
    $arrayElemAt: [ "$ordArr", 0 ]
  }
}}, {$addFields: {
  FechaVenta: {
    $dateFromString: {
      dateString: '$ordObj.order_purchase_timestamp',
      format: '%Y-%m-%d %H:%M:%S'
    }
  }
}}
  
```

```

}}, {$addFields: {
    anio: {
        $year: "$FechaVenta"
    }
}}, {$group: {
    _id: {
        anio: "$anio",
        review_score: "$review_score"
    },
    count: {
        $sum: 1
    }
}
}]]
```

The screenshot shows the MongoDB Compass interface with the following details:

- Hosts:** cluster0-shard-00-02:7080, cluster0-shard-00-01:7080, cluster0-shard-00-00:7080.
- Collection:** frasgado.reviews.
- Aggregations Tab:** The pipeline consists of three stages:
 - \$addFields:** Adds a new field `anio` by extracting the year from the `FechaVenta` timestamp.
 - \$group:** Groups documents by the year and review score, summing the count for each group.
- Results:** The output shows 20 sample documents. Each document includes fields like `_id`, `review_id`, `order_id`, `review_score`, `review_comment_title`, `review_comment_message`, `review_creation_date`, and `review_answer_timestamp`. The grouped results show the count for each year and review score combination.

9. ¿Cuántos vendedores existen por ciudad y estado?

MYSQL

```
select seller_state, seller_city, count(*) as NumVendedores
```

from sellers

group by seller_state, seller_city

order by NumVendedores desc

;

The screenshot shows the MySQL Workbench interface with a query editor window open. The query is:

```
33 • select seller_state, seller_city, count(*) as NumVendedores
34 from sellers
35 group by seller_state, seller_city
36 order by NumVendedores desc
37
38
```

The results grid displays the following data:

seller_state	seller_city	NumVendedores
SP	sao paulo	694
PR	curitiba	124
RJ	rio de janeiro	93
MG	belo horizonte	66
SP	ribeirao preto	52
SP	guarulhos	50
SP	ibatinga	49
SP	santo andre	45
SP	campinas	41
PR	maringa	40
SP	sao jose do ri...	33
SP	sao bernardo...	32
SP	osasco	32
SP	sorocaba	32
DF	brasilia	28
RS	porto alegra	27

The Query Completed status bar at the bottom indicates the execution time and date.

MONGODB

```
[{$group: {
    _id: {
        seller_state: "$seller_state",
        seller_city: "$seller_city"
    },
    numVendedores: { $sum: 1 }
}}, {$addFields: {
    Ciudad: "$_id.seller_city",
    Estado: "$_id.seller_state"
}}, {$sort: {
    numVendedores: -1
}}, {$project: {
```

_id: 0,

Ciudad: 1,

Estado: 1,

numVendedores: 1

}]]

MongoDB Compass - cluster0.76pg.h.mongodb.net:27017/frasgado.sellers

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS C

HOSTS cluster0-shard-00-01.76pg... cluster0-shard-00-00.76pg... cluster0-shard-00-02.76pg...

CLUSTER Replica Set (atlas-enu04-... 3 Nodes

EDITION MongoDB 4.2.11 Enterprise

Filter your data

2019-nCoV-cases-JHU

CoV-cases

DETALLE_VENTA

customers

directory

geolocation

h1n1

items

orders

payments

products

reviews

sellers

...

frasgado.orders Aggregations

frasgado.sellers Aggregations

frasgado.sellers

Documents Aggregations Schema Explain Plan Indexes Validation

VENDEDORES POR ESTADO

SAVE

DOCUMENTS 3.1k TOTAL SIZE 462.9KB AVG. SIZE 153B INDEXES 1 TOTAL SIZE 56.0KB AVG. SIZE 56.0KB

3095 Documents in the Collection

Select an operator to construct expressions used in the aggregation pipeline stages. [Learn more](#)

Preview of Documents in the Collection

`_id:ObjectId("5fc3994ee1fba4dd40fd875")
seller_id:"3442f8959a84dea7e197c632cb2df15"
seller_zip_code_prefix:"13023"
seller_city:"campinas"
seller_state:"SP"`

`_id:ObjectId("5fc3994ee1fba4dd40fd876")
seller_id:"d1b65fc7debc3361ea86b5f14c68d2e2"
seller_zip_code_prefix:"13844"
seller_city:"mogi guacu"
seller_state:"SP"`

`_id:Object
seller_id:
seller_zi:
seller_ci:
seller_st:`

\$group

Output after \$group stage (Sample of 20 documents)

`1 /*
2 * _id: The id of the group.
3 * fieldN: The first field name.
4 */
5 {
6 _id: {
7 seller_state: "$seller_state",
8 seller_city: "$seller_city"
9 },
10 numVendedores: { $sum: 1
11 }`

\$addFields

Output after \$addFields stage (Sample of 20 documents)

`_id:Object
numVendedores:2`

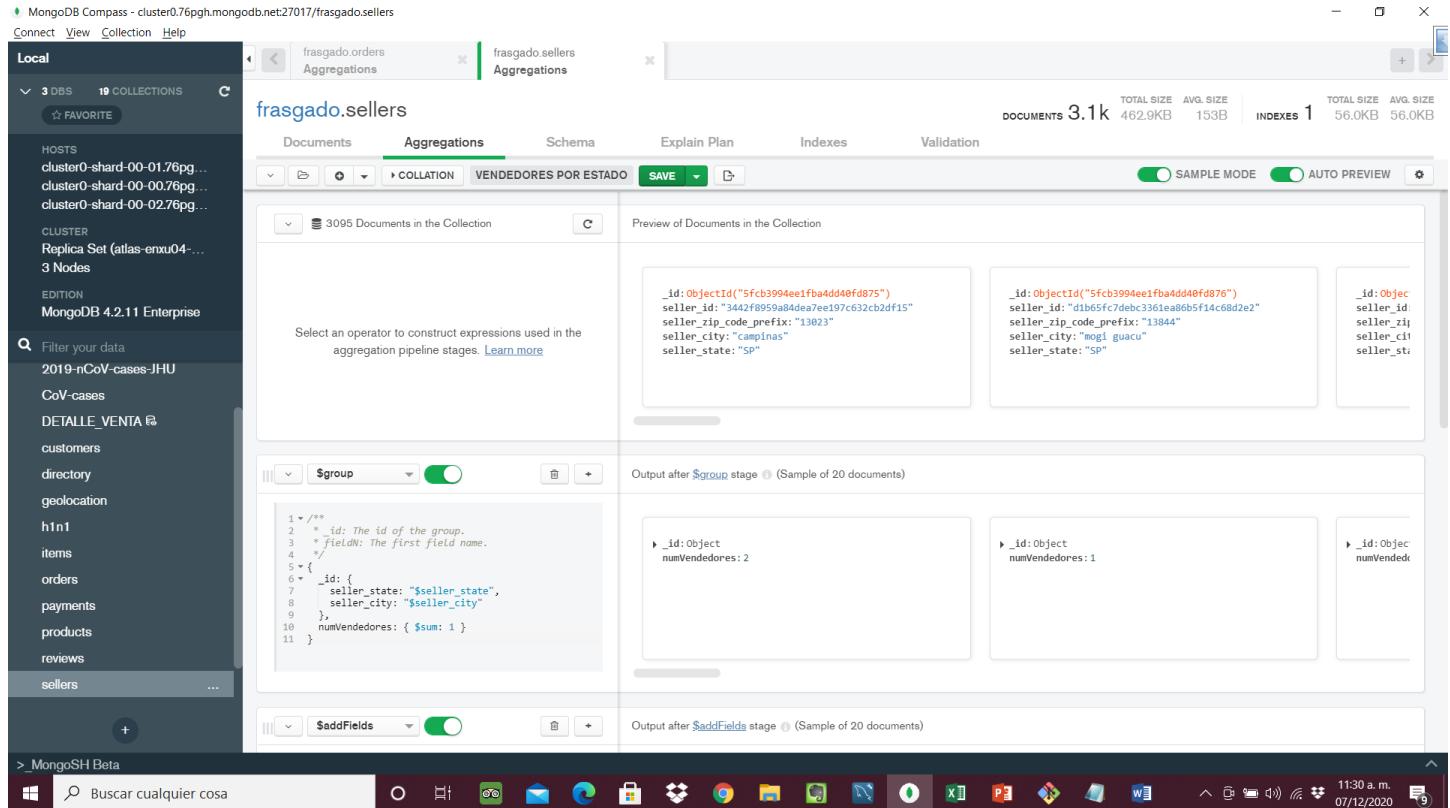
`_id:Object
numVendedores:1`

`_id:Object
numVendedores:1`

> MongoSH Beta

Buscar cualquier cosa

11:30 a.m. 07/12/2020



MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.sellers

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations frasgado.sellers Aggregations

frasgado.sellers

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION VENDEDORES POR ESTADO SAVE SAMPLE MODE AUTO PREVIEW

\$addFields

```
1 /**
2  * newField: The new field name.
3  * expression: The new field expression.
4 */
5 * {
6   Ciudad: "$_id.seller_city",
7   Estado: "$_id.seller_state"
8 }
```

Output after \$addFields stage (Sample of 20 documents)

```
_id:Object
numVendedores:2
Ciudad:"natal"
Estado:"RN"
```

\$sort

```
1 /**
2  * Provide any number of field/order pairs.
3 */
4 * {
5   numVendedores: -1
6 }
```

Output after \$sort stage (Sample of 20 documents)

```
_id:Object
numVendedores:694
Ciudad:"sao paulo"
Estado:"SP"
```

\$project

```
1 /**
2  * specifications: The fields to
3  * + include or exclude.
4 */
5 * {
6   _id: 0,
7   Ciudad: 1,
8   Estado: 1,
9   numVendedores: 1
10 }
```

Output after \$project stage (Sample of 20 documents)

```
numVendedores:694
Ciudad:"sao paulo"
Estado:"SP"
```

DOCUMENTS 3.1k TOTAL SIZE 462.9KB AVG. SIZE 153B INDEXES 1 TOTAL SIZE 56.0KB AVG. SIZE 56.0KB

11:31 a.m. 07/12/2020

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.sellers

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations frasgado.sellers Aggregations

frasgado.sellers

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION VENDEDORES POR ESTADO SAVE SAMPLE MODE AUTO PREVIEW

\$sort

```
1 /**
2  * Provide any number of field/order pairs.
3 */
4 * {
5   numVendedores: -1
6 }
```

Output after \$sort stage (Sample of 20 documents)

```
_id:Object
numVendedores:694
Ciudad:"sao paulo"
Estado:"SP"
```

\$project

```
1 /**
2  * specifications: The fields to
3  * + include or exclude.
4 */
5 * {
6   _id: 0,
7   Ciudad: 1,
8   Estado: 1,
9   numVendedores: 1
10 }
```

Output after \$project stage (Sample of 20 documents)

```
numVendedores:694
Ciudad:"sao paulo"
Estado:"SP"
```

DOCUMENTS 3.1k TOTAL SIZE 462.9KB AVG. SIZE 153B INDEXES 1 TOTAL SIZE 56.0KB AVG. SIZE 56.0KB

11:31 a.m. 07/12/2020

10. ¿Cuántos clientes existen por Ciudad y Estado?

MYSQL

```
select customer_state, customer_city, count(*) as NumClientes
from customers
group by customer_state, customer_city
order by NumClientes desc
;
```

The screenshot shows the MySQL Workbench interface. The query editor contains the SQL code provided above. The results grid displays the following data:

customer_state	customer_city	NumClientes
SP	sao paulo	15540
RJ	rio de janeiro	6882
MG	belo horizonte	2773
DF	brasilia	2131
PR	curitiba	1521
SP	campinas	1444
RS	porto alegre	1379
BA	salvador	1245
SP	guarulhos	1189
SP	sao bernardo do campo	938
RJ	niteroi	849
SP	santo andre	796
SP	osasco	746
SP	santos	713
GO	goiania	692
SP	sao jose dos campos	691
CE	fortaleza	654
ES	aracaju	574

The output pane shows the query was executed at 15:47:56 and returned 4310 rows. The duration was 0.562 sec / 0.125 sec.

MONGODB

```
[$group: {
  _id: {
    customer_city: "$customer_city",
    customer_state: "$customer_state"
  },
  numClientes: {
    $sum: 1
  }
}, {$addFields: {
  Ciudad: "$_id.customer_city",
```

```
Estado: "$_id.customer_state"
```

```
}}, {$sort: {
```

```
numClientes: -1
```

```
}}, {$project: {
```

```
_id: 0,
```

```
Ciudad: 1,
```

```
Estado: 1,
```

```
numClientes: 1
```

```
}}]
```

The screenshot shows the MongoDB Compass interface with the following details:

- Collection:** frasgado.customers
- Aggregation Pipeline Stages:**
 - \$group:

```
1 //**
2   * _id: The id of the group.
3   * fields: The first field name.
4   */
5 {
6   _id: {
7     customer_city: "$customer_city",
8     customer_state: "$customer_state"
9   },
10  numClientes: {
11    $sum: 1
12  }
13 }
```
 - \$addFields (disabled):

```
Output after $addFields stage (Sample of 20 documents)
```
- Preview of Documents in the Collection:**
 - Document 1:

```
_id: ObjectId("5fcbb37b3ee1fba4dd40e5404")
customer_id: "6bb6999e2fb1a1fc88172c0eba8bc7"
customer_unique_id: "861eff4711a542e4b93843c6dd7febb0"
customer_zip_code_prefix: "14409"
customer_city: "franca"
customer_state: "sp"
```
 - Document 2:

```
_id: ObjectId("5fcbb37b3ee1fba4dd40e5405")
customer_id: "1895e83d337fd6b2def6b18a428ac77"
customer_unique_id: "290c7bc59b7ac935b93aa66c333dc3"
customer_zip_code_prefix: "09798"
customer_city: "sao bernardo do campo"
customer_state: "sp"
```
 - Document 3:

```
_id: ObjectId("5fcbb37b3ee1fba4dd40e5406")
customer_id: "33333333333333333333333333333333"
customer_unique_id: "33333333333333333333333333333333"
customer_zip_code_prefix: "09798"
customer_city: "sao paulo"
customer_state: "sp"
```
- Statistics:** DOCUMENTS 99.4k, TOTAL SIZE 20.7MB, AVG. SIZE 218B, INDEXES 1, TOTAL SIZE 896.0KB, AVG. SIZE 896.0KB.

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.customers

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations frasgado.sellers Aggregations frasgado.customers Aggregations

frasgado.customers

Documents Aggregations Schema Explain Plan Indexes Validation

CLIENTES_POR_CIUDAD_Y_ESTADO SAVE

\$addFields SAMPLE MODE AUTO PREVIEW

Output after \$addFields stage (Sample of 20 documents)

```
1 /**
2  * newField: The new field name.
3  * expression: The new field expression.
4 */
5 {
6   Ciudad: "$_id.customer_city",
7   Estado: "$_id.customer_state"
8 }
```

\$sort

Output after \$sort stage (Sample of 20 documents)

```
1 /**
2  * Provide any number of field/order pairs.
3 */
4 {
5   numClientes: -1
6 }
```

\$project

Output after \$project stage (Sample of 20 documents)

11:38 a.m. 07/12/2020

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.customers

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations frasgado.sellers Aggregations frasgado.customers Aggregations

frasgado.customers

Documents Aggregations Schema Explain Plan Indexes Validation

CLIENTES_POR_CIUDAD_Y_ESTADO SAVE

\$sort

Output after \$sort stage (Sample of 20 documents)

```
1 /**
2  * Provide any number of field/order pairs.
3 */
4 {
5   numClientes: -1
6 }
```

\$project

Output after \$project stage (Sample of 20 documents)

```
1 /**
2  * specifications: The fields to
3  * + include or exclude.
4 */
5 {
6   _id: 0,
7   Ciudad: 1,
8   Estado: 1,
9   numClientes: 1
10}
11 }
```

11:39 a.m. 07/12/2020

11. Identificar los números de órdenes que no fueron entregados.

MYSQL

```
select order_id, review_id, review_score, review_comment_title, review_comment_message, review_creation_date  
FROM reviews  
where review_comment_message like '%PRODUTO%NAO%ENTREGUE%'
```

The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** MySQL Workbench, Bedu-20-07, MySQL Model*, EER Diagram*
- Toolbar:** Standard MySQL Workbench toolbar with various icons for file operations, database management, and query execution.
- Navigator:** Shows the database schema with tables: ratings, reviews, sellers, and users. The reviews table is expanded to show columns: review_id, order_id, review_score, review_comment_title, review_comment_message, and review_creation_date.
- Query Editor:** Contains the SQL query:

```
select order_id, review_id, review_score, review_comment_title, review_comment_message, review_creation_date  
FROM reviews  
where review_comment_message like '%PRODUTO%NAO%ENTREGUE%'
```
- Result Grid:** Displays the results of the query, showing 8 rows of data. The columns are: order_id, review_id, review_score, review_comment_title, review_comment_message, and review_creation_date. The review_comment_message column contains Portuguese text describing delivery issues.
- Output Window:** Shows the execution log with two entries:

#	Time	Action	Message	Duration / Fetch
3	15:52:25	select order_id, review_id, review_score, review_comment_title, review_comment_message, review_creation_date	1 row(s) returned	0.110 sec / 0.000 sec
4	15:52:48	select order_id, review_id, review_score, review_comment_title, review_comment_message, review_creation_date	8 row(s) returned	0.109 sec / 0.000 sec
- Status Bar:** Shows "Query Completed" and the system tray with various icons.

MONGODB

```
[$match: {  
    "review_comment_message": {  
        "$in": [/PRODUTO NAO ENTREGUE/i]  
    }  
}]
```

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.reviews

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS

frasgado.orders Aggregations frasgado.sellers Aggregations frasgado.customers Aggregations frasgado.reviews Aggregations frasgado.reviews Aggregations

frasgado.reviews

DOCUMENTS 100.0k TOTAL SIZE 30.0MB AVG. SIZE 315B INDEXES 1 TOTAL SIZE 928.0KB AVG. SIZE 928.0KB

Documents Aggregations Schema Explain Plan Indexes Validation SAMPLE MODE AUTO PREVIEW

COLLATION PRODUCTOS_NO_ENTREGADOS SAVE

100000 Documents in the Collection Preview of Documents in the Collection

Select an operator to construct expressions used in the aggregation pipeline stages. [Learn more](#)

_id: ObjectId("5fcba43f1ee1fbba4dd414b6d5")
 id: 1
 review_id: "7bc2406110b926393aa56f88a40eba40"
 order_id: "73fc7af87114b39712e6da79b0a377eb"
 review_score: 4
 review_comment_title: ""
 review_comment_message: ""
 review_creation_date: "18/01/18 0:00"

_id: ObjectId("5fcba43f1ee1fbba4dd414b6d6")
 id: 2
 review_id: "80e641a11e56f04c1ad469d5645fdde"
 order_id: "a548910a1c614779b98fdf73dbeba33"
 review_score: 5
 review_comment_title: ""
 review_comment_message: ""
 review_creation_date: "18/03/18 0:00"

_id: ObjectId("5fcba43f1ee1fbba4dd414b6d7")
 id: 3
 review_id: "88743d1ed8e7b6ca01e12830855cdca2"
 order_id: "68f9b61730239352e7961a9fffb4a55e"
 review_score: 1
 review_comment_title: ""
 review_comment_message: "Demora, produto nao entregue!"
 review_creation_date: "24/03/18 0:00"

_id: ObjectId("5fcba43f1ee1fbba4dd414b6d8")
 id: 4
 review_id: "81a57c09af35f9736f760b6ae16a118"
 order_id: "167d05678f810589a854d30460ae62f0"
 review_score: 1
 review_comment_title: ""
 review_comment_message: "Demora, produto nao entregue!"
 review_creation_date: "07/03/18 0:00"

_id: ObjectId("5fcba43f1ee1fbba4dd414b6d9")
 id: 5
 review_id: "88743d1ed8e7b6ca01e12830855cdca3"
 order_id: "68f9b61730239352e7961a9fffb4a55e"
 review_score: 1
 review_comment_title: ""
 review_comment_message: "Demora, produto nao entregue!"
 review_creation_date: "07/03/18 0:00"

_id: ObjectId("5fcba43f1ee1fbba4dd414b6d0")
 id: 6
 review_id: "88743d1ed8e7b6ca01e12830855cdca4"
 order_id: "68f9b61730239352e7961a9fffb4a55e"
 review_score: 1
 review_comment_title: ""
 review_comment_message: "Demora, produto nao entregue!"
 review_creation_date: "07/03/18 0:00"

_id: ObjectId("5fcba43f1ee1fbba4dd414b6d1")
 id: 7
 review_id: "88743d1ed8e7b6ca01e12830855cdca5"
 order_id: "68f9b61730239352e7961a9fffb4a55e"
 review_score: 1
 review_comment_title: ""
 review_comment_message: "Demora, produto nao entregue!"
 review_creation_date: "07/03/18 0:00"

_id: ObjectId("5fcba43f1ee1fbba4dd414b6d2")
 id: 8
 review_id: "88743d1ed8e7b6ca01e12830855cdca6"
 order_id: "68f9b61730239352e7961a9fffb4a55e"
 review_score: 1
 review_comment_title: ""
 review_comment_message: "Demora, produto nao entregue!"
 review_creation_date: "07/03/18 0:00"

_id: ObjectId("5fcba43f1ee1fbba4dd414b6d3")
 id: 9
 review_id: "88743d1ed8e7b6ca01e12830855cdca7"
 order_id: "68f9b61730239352e7961a9fffb4a55e"
 review_score: 1
 review_comment_title: ""
 review_comment_message: "Demora, produto nao entregue!"
 review_creation_date: "07/03/18 0:00"

_id: ObjectId("5fcba43f1ee1fbba4dd414b6d4")
 id: 10
 review_id: "88743d1ed8e7b6ca01e12830855cdca8"
 order_id: "68f9b61730239352e7961a9fffb4a55e"
 review_score: 1
 review_comment_title: ""
 review_comment_message: "Demora, produto nao entregue!"
 review_creation_date: "07/03/18 0:00"

Output after \$match stage (Sample of 10 documents)

ADD STAGE

A partir de la vista generada para pedidos que no fueron entregados, identificar la cantidad de órdenes.

```
[{$group: {
  _id: null,
  totalOrdenesSinEntregar: {
    $sum: 1
  }
}}]
```

The screenshot shows the MongoDB Compass interface. On the left, there's a sidebar with a 'Local' section containing 'HOSTS' (cluster0-shard-00-01-76pg...), 'CLUSTER' (Replica Set (atlas-enu04-3 Nodes)), and a 'FILTER' section with 'No_DE_ORDENES_N...' and 'VENDEDORES_ESTA...'. The main area has tabs for 'Documents', 'Aggregations' (which is selected), 'Schema', 'Explain Plan', 'Indexes', and 'Validation'. There are tabs for other databases like 'frasgado.orders', 'frasgado.sellers', 'frasgado.customers', 'frasgado.reviews', and 'frasgado.No_DE_ORDENES_NO_ENTREGADOS'. Below the tabs, there's a 'COLLATION' dropdown and a 'Untitled - Modified' tab. A 'SAVE' button is at the top right. To the right of the tabs, there are 'SAMPLE MODE' and 'AUTO PREVIEW' buttons. The main preview area shows '10 Documents in the Collection' and a 'Preview of Documents in the Collection' section with three documents. Below this is a stage editor with '\$group' selected, showing the aggregation pipeline code and its output.

12. Identificar los números de órdenes que cumplan con las siguientes características:

- Que no se hayan entregado, recibido o conferido por el cliente.
 - NAO ENTREGUE,
 - Nao recebi,
 - nao confere
- En el primer semestre del 2018.

MYSQL

```
select order_id, review_id, review_score, review_comment_title, review_comment_message, review_creation_date
FROM reviews
```

where

```
year(str_to_date(review_creation_date, '%d/%m/%Y')) = 2018
```

```
and month(str_to_date(review_creation_date, '%d/%m/%Y')) in (1,2,3,4,5,6)
```

and

```
(review_comment_message like '%PRODUTO%NAO%ENTREGUE%'
```

```
or review_comment_message like '%Nao%recebi%'
```

```
or review_comment_message like '%nao%confere%')
```

The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** Bedu-20-07 x MySQL Model x EER Diagram x
- Schemas:** ratings, reviews, columns (review_id, order_id, review_score, review_comment_title, review_comment_message, review_creation_date, review_answer_timestamp)
- Table: order_items**
- Columns:** order_id, order_item_id, product_id, seller_id, shipping_limit_date, price, freight_value
- Query:** A complex SELECT statement filtering reviews from November 2018 where the review creation date is between month 1 and 6 and the comment message contains specific keywords related to product delivery.
- Results:** A grid showing multiple rows of review data, including order_id, review_id, review_score, review_comment_title, review_comment_message, and review_creation_date.
- Toolbars:** SQL, Navigator, Schemas, Administration, Information, Table, Columns, Query, Results, Statistics, Fields, Form, Grid, Context Help, Snippets.
- Status Bar:** Duration / Fetch 0.156 sec / 0.000 sec
- Bottom Bar:** Action Output, Object Info, Session, Query Completed, Search bar, Taskbar icons.

MONGODB

```
[{$match: {
    "review_comment_message": {
        "$in: [/NAO ENTREGUE/i,
        /Nao recebi/,
        /nao confere/
    }
} }, {$addFields: {
    fechaRegistro: {
        $dateFromString: {
            dateString: '$review_creation',
            format: '%d/%m/%Y %H:%M'
        }
    }
}}
```

```

}}, {$addFields: {
    anio: {
        $year: "$fechaRegistro"
    },
    mes: {
        $month: "$fechaRegistro"
    }
}

```

```

}}, {$match: {
    anio: { $eq: 18 },
    mes: { $gte: 1 },
    mes: { $lte: 6 }
}}, {$sort: {
    mes: 1
}]}

```

The screenshot shows the MongoDB Compass interface with the following details:

- Collection:** frasgado.reviews
- Documents:** 100.0k
- Indexes:** 1
- Aggregation Pipeline:**
 - \$match:** Filters documents where the year is 18 and the month is between 1 and 6.
 - \$_id: ObjectId("5fc458ee1fb44dd414b6d6"):** A projection stage that selects specific fields from each document.
 - \$addFields:** Adds new fields 'anio' and 'mes' to each document based on the year and month of the review creation date.
- Preview of Documents:** Shows a sample of 84 documents with their IDs and some field values.
- Code View:** Displays the MQL code for the aggregation pipeline.

MongoDB Compass - cluster-0.76phg.mongodb.net:27017/frasgado.reviews

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS C

frasgado.orders Aggregations frasgado.sellers Aggregations frasgado.customers Aggregations frasgado.reviews Aggregations

frasgado.reviews

DOCUMENTS 100.0k TOTAL SIZE 30.0MB AVG. SIZE 315B INDEXES 1 TOTAL SIZE 928.0KB AVG. SIZE 928.0KB

Documents Aggregations Schema Explain Plan Indexes Validation

\$addFields

Output after \$addFields stage (Sample of 84 documents)

```
1 /**
2 * newField: The new field name.
3 * expression: The new field expression.
4 */
5 {
6   fechaRegistro: {
7     $dateToString: {
8       datestring: '$review_creation_date',
9       format: '%d/%m/%Y %H:%M'
10    }
11  }
12 }
13 }
```

Output after \$addFields stage (Sample of 84 documents)

```
_id: 1953
review_id: "81a57c00af35f9736f760b6ae16af118"
order_id: "16705678f010589a854d30466ae02f0"
review_score: 1
review_comment_title: ""
review_comment_message: "Demora, produto nao entregue!"
```

```
_id: 5773
review_id: "c8742102a4b11642f51cd203b4836c6b"
order_id: "8bc040c1a5d10ed37389fda5dbbe"
review_score: 1
review_comment_title: ""
review_comment_message: "Nao recebi o produto."
```

Output after \$match stage (Sample of 45 documents)

```
_id: ObjectId("5fcba43f9ee1fba4dd414c591")
id: 1953
review_id: "81a57c00af35f9736f760b6ae16af118"
order_id: "16705678f010589a854d30466ae02f0"
review_score: 1
review_comment_title: ""
review_comment_message: "Demora, produto nao entregue!"
```

```
_id: ObjectId("5fcba43f9ee1fba4dd414c591")
id: 3773
review_id: "c8742102a4b11642f51cd203b4836c6b"
order_id: "8bc040c1a5d10ed37389fda5dbbe"
review_score: 1
review_comment_title: ""
review_comment_message: "Nao recebi o produto."
```

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.reviews

Connect View Collection Help

Local

3 DBS 19 COLLECTIONS C

FAVORITE

HOSTS

cluster0-shard-00-01.76pg...
cluster0-shard-00-00.76pg...
cluster0-shard-00-02.76pg...

CLUSTER

Replica Set (atlas-enux04-...
3 Nodes

EDITION

MongoDB 4.2.11 Enterprise

Filter your data

No_DE_ORDENES_N...
VENDEDORES_ESTA...

customers

directory

geolocation

h1n1

items

orders

payments

products

reviews

...
sellers

users

frasgado.orders Aggregations

frasgado.sellers Aggregations

frasgado.customers Aggregations

frasgado.reviews Aggregations

frasgado.reviews Aggregations

DOCUMENTS 100.0k TOTAL SIZE 30.0MB AVG. SIZE 315B INDEXES 1 TOTAL SIZE 928.0KB AVG. SIZE 928.0KB

Aggregations

COLLATION

PRODUCTOS_NO_ENTREGADOS_2018_1erSemestre. Modified

SAVE

SAMPLE MODE AUTO PREVIEW

\$match

Output after \$match stage (Sample of 45 documents)

```
1 /*  
2 * query: The query in MQL.  
3 */  
4 {  
5   anio: { $eq: 18 },  
6   mes: { $gte: 1 },  
7   mes: { $lte: 6 }  
8 }  
10 }
```

order_id: 10/0050/071058980540504000000000
review_score: 1
review_comment_title: ""
review_comment_message: "Demora, produto nao entregue!"
review_creation_date: "07/03/18 0:00"
review_answer_timestamp: "07/03/18 15:26"
fechaRegistro: 0018-03-07T00:00:00.000+00:00
anio: 18
mes: 3

_id: ObjectId("5fc9441bee1fba4dd414e019")
id: 10565
review_id: d9f94052ca4d5bf79588f6263bf4aa4"
order_id: 0fc2805c054f060f9b7db45927b5024"
review_score: 1
review_comment_title: ""
review_comment_message: "Nao recebi... e nem recebi jus... t♦♦ demorando"
review_creation_date: "00/03/18 0:00"

id: Objec...
id: 14393
review_id:
order_id:
review_sco...
review_com...
review_cri...
review_an...

\$sort

Output after \$sort stage (Sample of 45 documents)

```
1 /*  
2 * Provide any number of field/order pairs.  
3 */  
4 {  
5   mes: 1  
6 }
```

order_id: 10/0050/071058980540504000000000
review_score: 1
review_comment_title: ""
review_comment_message: "Nao recebi"
review_creation_date: "31/01/18 0:00"
review_answer_timestamp: "31/01/18 23:48"
fechaRegistro: 0018-01-31T00:00:00.000+00:00
anio: 18
mes: 1

order_id: 01080000000000000000000000000000
review_score: 1
review_comment_title: ""
review_comment_message: "Nao recebi nem o produto nem o..."
review_creation_date: "05/01/18 0:00"
review_answer_timestamp: "05/01/18 7:43"
fechaRegistro: 0018-01-05T00:00:00.000+00:00
anio: 18
mes: 1

id: Objec...
id: 53200
review_id:
order_id:
review_sco...
review_com...
review_cri...
review_an...

ADD STAGE

>_MongoSH Beta

Buscar cualquier cosa

1237 p. m. 07/12/2020

13. Obtener el número de artículos vendidos por número de orden y fecha.

MYSQL

```
select o.order_id, count(i.order_item_id) as NumArticulosVendidos, str_to_date(o.order_purchase_timestamp, '%d/%m/%Y') as fechaCompra  
from order_items i, orders o  
where i.order_id = o.order_id  
group by o.order_id, fechaCompra  
order by fechaCompra desc, o.order_id asc;
```

The screenshot shows the MySQL Workbench interface with the following details:

- File Menu:** File, Edt, View, Query, Database, Server, Tools, Scripting, Help.
- Toolbar:** Standard MySQL icons for opening, saving, and executing queries.
- Navigator:** Shows the database schema with tables: customers, geolocation, movies, and order_items. The order_items table is expanded to show columns: order_id, order_item_id, product_id, seller_id, shipping_limit_date, price, and freight_value.
- SQL Editor:** Contains the SQL query from the previous code block. The result set starts with:

order_id	NumArticulosVendidos	fechaCompra
54282e97f61c23b78330c15b154c867d	1	2018-09-03
03ef5dedb7492bae72eecc50764c43f	1	2018-08-29
0b223d92c27432930dfc407c6aea3041	2	2018-08-29
168626408cb32af0ff767171cae1dc	1	2018-08-29
35a972d778436405b56e36add1a7140	1	2018-08-29
52018484704db3661b98e838612b507	1	2018-08-29
912859fe5a5ab0d5059b6d4fa791121a	1	2018-08-29
bee12e8653a04e76786e8891cf6330a	5	2018-08-29
c94d885539fb78bf2c7cdca2eb211ce	1	2018-08-29
d03ca98f59480e7e76c71fa83ecd8fb6	1	2018-08-29
d70442bc5e3cb7438da497cc6a210f80	1	2018-08-29
fb393211459aa00a9f52cd7ab4fa2cc	1	2018-08-29
00b4bb03d74a5e9a5ebafe9150781d	1	2018-08-28
0acc69790e2a6e4075edbf78648a3994	1	2018-08-28
0c1fa059fb30e05d526ab3576cd24	1	2018-08-28
141d7e98d9a50269f84d9a3c5330cba	1	2018-08-28
- Result Grid:** A table view of the query results with columns: order_id, NumArticulosVendidos, and fechaCompra.
- Output Panel:** Shows the duration of the query execution (0.984 sec / 6.641 sec).
- System Bar:** Includes the Windows taskbar with various pinned icons like File Explorer, Mail, and Task View.

MONGODB

```
[{$lookup: {  
    from: 'orders',  
    localField: 'order_id',  
    foreignField: 'order_id',  
    as: 'ordArr'  
}}, {$addFields: {  
    orderObj: {  
        $arrayElemAt: [
```

```
'$ordArr',
0
]
}
}, {$addFields: {
fechaCompra: '$orderObj.order_purchase_timestamp'
}}, {$addFields: {
FechaVenta: {
$dateFromString: {
dateString: '$fechaCompra',
format: '%Y-%m-%d %H:%M:%S'
}
}
}
}}, {$group: {
_id: {
order_id: '$order_id',
FechaVenta: '$FechaVenta'
},
NoVentas: {
$sum: 1
}
}
}}]
```

The screenshot shows the MongoDB Compass interface with the following details:

- Left Sidebar:** Shows the "Local" connection, "HOSTS" (cluster0-shard-00-02:76pg..., cluster0-shard-00-01:76pg..., cluster0-shard-00-00:76pg...), "CLUSTER" (Replica Set (atlas-enu04-..., 3 Nodes), EDITION (MongoDB 4.2.11 Enterprise)), and a "frasgado" database section with "admin" and "frasgado" users.
- Top Bar:** "MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.items", "Connect", "View", "Collection", "Help".
- Collection Overview:** "frasgado.items" collection with 112.7k documents, 29.1MB total size, 27.1B avg size, and 1.0MB index size.
- Aggregation Pipeline Stages:**
 - \$lookup:** Selects an operator to construct expressions used in the aggregation pipeline stages. Preview shows 20 documents.
 - \$addFields:** Adds fields to the documents. Preview shows 20 documents.
- Bottom Status Bar:** "MongoSH Beta", "Buscar cualquier cosa", system icons, "0156 p.m.", "07/12/2020".

The screenshot shows the MongoDB Compass interface with the following details:

- Left Sidebar:** Shows the connection name "MongoDB Compass - cluster-0.76phg.mongodb.net:27017/frasgado.items", a "Local" section with "3 DBS" and "23 COLLECTIONS", and a "HOSTS" section listing "cluster0-shard-00-00.276pg...", "cluster0-shard-00-01.76pg...", and "cluster0-shard-00-00.76pg...".
- Top Bar:** Includes "Connect", "View", "Collection", "Help", and tabs for "frasgado.items" and "Aggregations".
- Central Area:** Displays the "frasgado.items" collection with the "Aggregations" tab selected. The pipeline stages are:
 - \$addFields:** Adds fields like `FechaCompra: '$orderObj.order_purchase_timestamp'`.
 - \$addFields:** Adds fields like `FechaVenta: { dateFromString: { format: 'MM-DD-YY HH:MM:SS' } }`.
 - \$group:** Groups documents by `_id: { $oid: '$order_id' }, FechaVenta: '$FechaVenta'`, resulting in 0 preview documents.
- Bottom Status Bar:** Shows "Error in Sourcer stage : caused by : operation exceeded time limit" and the system status "0156 p.m. 07/12/2020".

14. Obtener ranking de palabras claves en los comentarios de clientes.

MYSQL

```
select review_comment_title, count(*) as rankingWords  
from reviews  
group by review_comment_title  
order by rankingWords desc;
```

The screenshot shows the MySQL Workbench interface. In the central pane, a SQL editor window displays the following query:

```
73 • select review_comment_title, count(*) as rankingWords  
74   from reviews  
75   group by review_comment_title  
76   order by rankingWords desc;  
77
```

The results are shown in a Result Grid table:

review_comment_title	rankingWords
recomendo	18548
super recomendo	196
Bom	121
Excelente	94
multb bom	66
OTIMO	64
Â'timo	59
Â'imo	56
10	43
NÃ£o recomendo	41
Boa	29
Recomendo	25
Multb bom	19
Excelente	18
Super recomendado	18
Ok	17
ruim	16
Otima	14
Bom	13
5	11
	10
	9
	8
	7
	6
	5
	4
	3
	2
	1
	0

The output pane shows the command executed and its duration:

```
1 17:14:10 select review_comment_title, count(*) as rankingWords from reviews group by review_comment_title order by rankingWords desc; 1188 row(s) returned
```

Duration / Fetch: 0.219 sec / 0.000 sec

MONGODB

```
[$group: {  
  _id: "$review_comment_title",  
  cont: {  
    $sum: 1  
  }  
}, {$sort: {  
  cont: -1  
}, {$limit: 30}]
```

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.reviews

Connect View Collection Help

Local

HOSTS: cluster0-shard-00-02.76pg... cluster0-shard-00-01.76pg... cluster0-shard-00-00.76pg...

CLUSTER: Replica Set (atlas-enxu04... 3 Nodes

EDITION: MongoDB 4.2.11 Enterprise

Filter your data: admin frasgado

2019-nCoV-cases-JHU CLIENTES_CIUDAD_ES... CoV-cases

DETALLE_VENTA_E... No_DE_ORDENES_NO... VENDEDORES_ESTAD...

customers directory geolocation

h1n1 items orders payments products reviews sellers users

local

frasgado.reviews

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION RANKING DE PALABRAS CLAVES SENTIMENTOS SAVE

100000 Documents in the Collection

Preview of Documents in the Collection

Select an operator to construct expressions used in the aggregation pipeline stages. [Learn more](#)

`_id: ObjectId("5fc843ebbe1fbadda14b6d")
cont: 1
review_id: "7bc2480118092393aa3d49f80a4e0ba48"
order_id: "73fc7af07114b39712ededa79b0a377eb"
review_score: 4
review_title: ""
review_comment_message: ""
review_creation_date: "18/01/18 0:00"
review_answer_timestamp: "18/01/18 21:46"`

`_id: ObjectId("5fc843ebbe1fbadda14b6d")
cont: 1
review_id: "728c550806dc1d49d5645fd5de"
order_id: "a548910a1c5147796b9846df73deba33"
review_score: 5
review_title: ""
review_comment_message: ""
review_creation_date: "17/02/18 0:00"
review_answer_timestamp: "11/03/18 3:05"`

`_id: ObjectId("5fc843ebbe1fbadda14b6d")
cont: 1
review_id: "e6dfbfb93a7b78284b"
order_id: "658677c97b3859b01"
review_score: 1
review_title: ""
review_comment_message: ""
review_creation_date: "11/02/18 0:00"
review_answer_timestamp: "21/02/18 14:36"`

`_id: ObjectId("5fc843ebbe1fbadda14b6d")
cont: 1
review_id: "98e41a11e5f94c1ad49d5645fd5de"
order_id: "a548910a1c5147796b9846df73deba33"
review_score: 5
review_title: ""
review_comment_message: ""
review_creation_date: "17/02/18 0:00"
review_answer_timestamp: "18/02/18 14:36"`

`$group` Output after \$group stage (Sample of 100 documents)

`1 /*
2 * _id: The id of the group.
3 * field: The first field name.
4 */
5 * {
6 * _id: "$review_comment_title",
7 * cont: {
8 * $sum: 1
9 * }
10 }`

`_id: "Recomendo a loja"
cont: 3`

`_id: "Sem recomendo"
cont: 2`

`_id: "No funciona."
cont: 1`

`_id: "Super recomendo."
cont: 12`

`$sort` Output after \$sort stage (Sample of 100 documents)

`1 /*
2 * Provide any number of field/order pairs.
3 */
4 * {
5 * cont: -1
6 * }`

`_id: ""
cont: 88285`

`_id: "Recomendo"
cont: 426`

`_id: "recomendo"
cont: 346`

`_id: "Bom"
cont: 294`

`$limit` Output after \$limit stage (Sample of 30 documents)

`1 /*
2 * Provide the number of documents to limit.
3 */
4 * 30`

`_id: ""
cont: 88285`

`_id: "Recomendo"
cont: 426`

`_id: "recomendo"
cont: 346`

`_id: "Bom"
cont: 294`

DATABASES 100.0k TOTAL SIZE 30.0MB AVG. SIZE 315B DOCUMENTS 100.0k TOTAL SIZE 928.0KB AVG. SIZE 928.0KB INDEXES 1 TOTAL SIZE 928.0KB AVG. SIZE 928.0KB

SAMPLE MODE AUTO PREVIEW

02:00 p.m. 07/12/2020

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.reviews

Connect View Collection Help

Local

HOSTS: cluster0-shard-00-02.76pg... cluster0-shard-00-01.76pg... cluster0-shard-00-00.76pg...

CLUSTER: Replica Set (atlas-enxu04... 3 Nodes

EDITION: MongoDB 4.2.11 Enterprise

Filter your data: admin frasgado

2019-nCoV-cases-JHU CLIENTES_CIUDAD_ES... CoV-cases

DETALLE_VENTA_E... No_DE_ORDENES_NO... VENDEDORES_ESTAD...

customers directory geolocation

h1n1 items orders payments products reviews sellers users

local

frasgado.reviews

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION RANKING DE PALABRAS CLAVES SENTIMENTOS SAVE

100.0k TOTAL SIZE 30.0MB AVG. SIZE 315B DOCUMENTS 100.0k TOTAL SIZE 928.0KB AVG. SIZE 928.0KB INDEXES 1 TOTAL SIZE 928.0KB AVG. SIZE 928.0KB

Output after \$group stage (Sample of 100 documents)

`1 /*
2 * _id: The id of the group.
3 * field: The first field name.
4 */
5 * {
6 * _id: "$review_comment_title",
7 * cont: {
8 * $sum: 1
9 * }
10 }`

`_id: "Recomendo a loja"
cont: 3`

`_id: "Sem recomendo"
cont: 2`

`_id: "No funciona."
cont: 1`

`_id: "Super recomendo."
cont: 12`

Output after \$sort stage (Sample of 100 documents)

`1 /*
2 * Provide any number of field/order pairs.
3 */
4 * {
5 * cont: -1
6 * }`

`_id: ""
cont: 88285`

`_id: "Recomendo"
cont: 426`

`_id: "recomendo"
cont: 346`

`_id: "Bom"
cont: 294`

Output after \$limit stage (Sample of 30 documents)

`1 /*
2 * Provide the number of documents to limit.
3 */
4 * 30`

`_id: ""
cont: 88285`

`_id: "Recomendo"
cont: 426`

`_id: "recomendo"
cont: 346`

`_id: "Bom"
cont: 294`

ADD STAGE

02:01 p.m. 07/12/2020

15. Obtener las primeras 10 rutas con más comentarios negativos.

MYSQL

```
select s.seller_state , s.seller_city, count(*) numComentariosNegativos  
from reviews r, order_items o, sellers s  
where  
r.order_id = o.order_id  
and o.seller_id = s.seller_id  
group by s.seller_state, s.seller_city  
order by numComentariosNegativos desc, s.seller_state asc, s.seller_city asc
```

The screenshot shows the MySQL Workbench interface with the following details:

- Query Editor:** The SQL query is displayed in the editor area:

```
select s.seller_state , s.seller_city, count(*) numComentariosNegativos  
from reviews r, order_items o, sellers s  
where  
r.order_id = o.order_id  
and o.seller_id = s.seller_id  
group by s.seller_state, s.seller_city  
order by numComentariosNegativos desc, s.seller_state asc, s.seller_city asc
```
- Result Grid:** The results of the query are shown in a grid format. The columns are seller_state, seller_city, and numComentariosNegativos. The data includes rows for various cities in São Paulo (SP) such as São Paulo, Ibitinga, Santo André, and others, along with their respective negative comment counts.
- Output Panel:** The output panel shows the execution message: "1 17:23:57 select s.seller_state , s.seller_city, count(*) numComentariosNegativos from reviews r, order_items o, sellers s ... 492 row(s) returned". It also displays the duration: "0.703 sec / 0.000 sec".
- System Bar:** The bottom bar shows the Windows taskbar with various application icons and the system clock indicating "05:24 p.m. 07/12/2020".

MONGODB

```
[{$lookup: {  
    from: 'items',  
    localField: 'order_id',  
    foreignField: 'order_id',  
    as: 'itemsArr'  
}}, {$match: {  
    review_score: { $in: [ 4, 5 ] }  
}}
```

```
}, {$unwind: {
    path: "$itemsArr"
}}, {$lookup: {
    from: 'sellers',
    localField: 'itemsArr.seller_id',
    foreignField: 'seller_id',
    as: 'selArr'
}}, {$unwind: {
    path: "$selArr"
}}, {$group: {
    _id: {
        seller_state: "$selArr.seller_state",
        seller_city: "$selArr.seller_city"
    },
    numComentNeg: {
        $sum: 1
    }
}}, {$sort: {
    numComentNeg: -1
}}, {$limit: 10}]
```

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.reviews

Connect View Collection Help

Local

HOSTS: cluster0-shard-00-02-76pg..., cluster0-shard-00-01-76pg..., cluster0-shard-00-00-76pg...

CLUSTER: Replica Set (atlas-enmu04... 3 Nodes)

EDITION: MongoDB 4.2.11 Enterprise

Filter your data

> admin

> frasgado

2019-mCoV-cases-JHU

CLIENTES_CIUDAD_ES...

CoV-cases

DETALLE_VENTA_E...

No_DE_ORDENES_NO...

VENDEDORES_ESTAD...

customers

directory

geolocation

h1n1

items

orders

payments

products

reviews

sellers

users

> local

frasgado.reviews

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION: RUTA_RECIBIO_COMENTARIOS_NEGATIVOS - Modified

Aggregation Pipeline:

```

1. $lookup
2. $match
3. $unwind
4. $group
    
```

Output after **\$lookup** stage (Sample of 20 documents)

```

1 <-
  from: 'items',
  localField: 'order_id',
  foreignField: 'order_id',
  as: 'itemArr'
}
    
```

Output after **\$match** stage (Sample of 20 documents)

```

1 <-
  review_score: { $in: [ 4, 5 ] }
}
    
```

Output after **\$unwind** stage (Sample of 20 documents)

```

1 <-
  path: "itemArr"
}
    
```

Output after **\$group** stage (Sample of 20 documents)

```

1 <-
  {
    _id: '$oid',
    review_id: '$oid',
    review_order_id: '$oid',
    review_seller_id: '$oid',
    review_item_id: '$oid',
    review_comment_title: '$oid',
    review_comment_message: '$oid',
    review_creation_date: '$oid',
    review_answer_timestamp: '$oid'
  }
}
    
```

DOCUMENTS 100.0k TOTAL SIZE 30.0MB AVG SIZE 315B INDEXES 1 TOTAL SIZE 928.0KB AVG SIZE 928.0KB

SAMPLE MODE AUTO PREVIEW

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.reviews

Connect View Collection Help

Local

HOSTS: cluster0-shard-00-02-76pg..., cluster0-shard-00-01-76pg..., cluster0-shard-00-00-76pg...

CLUSTER: Replica Set (atlas-enmu04... 3 Nodes)

EDITION: MongoDB 4.2.11 Enterprise

Filter your data

> admin

> frasgado

2019-mCoV-cases-JHU

CLIENTES_CIUDAD_ES...

CoV-cases

DETALLE_VENTA_E...

No_DE_ORDENES_NO...

VENDEDORES_ESTAD...

customers

directory

geolocation

h1n1

items

orders

payments

products

reviews

sellers

users

> local

frasgado.reviews

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION: RUTA_RECIBIO_COMENTARIOS_NEGATIVOS - Modified

Aggregation Pipeline:

```

1. $unwind
2. $lookup
3. $group
    
```

Output after **\$unwind** stage (Sample of 20 documents)

```

1 <-
  path: "itemArr"
}
    
```

Output after **\$lookup** stage (Sample of 20 documents)

```

1 <-
  from: 'sellers',
  localField: 'itemArr.seller_id',
  foreignField: 'seller_id',
  as: 'seller'
}
    
```

Output after **\$group** stage (Sample of 0 documents)

```

1 <-
  {
    _id: '$oid',
    review_id: '$oid',
    review_order_id: '$oid',
    review_seller_id: '$oid',
    review_item_id: '$oid',
    review_comment_title: '$oid',
    review_comment_message: '$oid',
    review_creation_date: '$oid',
    review_answer_timestamp: '$oid'
  }
}
    
```

DOCUMENTS 100.0k TOTAL SIZE 30.0MB AVG SIZE 315B INDEXES 1 TOTAL SIZE 928.0KB AVG SIZE 928.0KB

SAMPLE MODE AUTO PREVIEW

```

1 * {
2   "_id: {
3     "seller_state": "$sellArr.seller_state",
4     "seller_city": "$sellArr.seller_city"
5   },
6   "numConsentNeg: {
7     "$sum: 1
8   }
9 }

Error in $cursor stage :: caused by :: operation exceeded time limit

1 * /**
2  * Provide any number of field/order pairs.
3  */
4 *
5   numConsentNeg: -1
6 }

Error in $cursor stage :: caused by :: operation exceeded time limit

1 * /**
2  * Provide the number of documents to limit.
3  */
4 10

Error in $cursor stage :: caused by :: operation exceeded time limit

```

16. Crear vistas en MySQL de los siguientes puntos:

Vista de números de ventas por año y mes

`CREATE VIEW vista1 AS`

```

select year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) as anio,
month(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) as mes,
count(*) as NuVentas
from orders
group by
year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')), month(str_to_date(order_purchase_timestamp, '%d/%m/%Y'))
order by year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) desc ,
month(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) asc
;
```

The screenshot shows the MySQL Workbench interface with the following details:

- Top Bar:** MySQL Workbench, Bedu-20-07, MySQL Model, EER Diagram.
- Menu Bar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Toolbar:** Includes icons for Home, Undo, Redo, Save, Copy, Paste, Find, Replace, and others.
- Navigator:** Shows the current schema is "frasgado".
- Schemas:** List of databases including "geolocation", "movies", "order_items", "payments", "products", "ratings", "reviews", "sellers", and "users".
- Views:** List of views including "vista1".
- Code Editor:** SQL code for creating a view "vista1". The code is as follows:

```
CREATE VIEW vista1 AS
select year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) as anio,
month(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) as mes,
count(*) as NuVentas
from orders
group by
year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')), month(str_to_date(order_purchase_timestamp, '%d/%m/%Y'))
order by year(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) desc , month(str_to_date(order_purchase_timestamp, '%d/%m/%Y')) asc;
```

- Output Panel:** Shows the execution log:

#	Time	Action	Message	Duration / Fetch
1	15:09:56	CREATE VIEW vista1 AS select year(str_to_date(order_purchase_timestamp, "%d/%m/%Y")) as anio, month(str... 0 row(s) affected		0.094 sec

- Help Panel:** A note stating "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help."

Vista con detalles de artículos.

CREATE VIEW view AS

```
select a.order_id, a.order_item_id, a.product_id, b.seller_id, a.price
```

from order items a, sellers b

where

a.seller_id = b.seller_id

1

The screenshot shows the MySQL Workbench interface. In the top navigation bar, tabs include 'Bedu-20-07', 'MySQL Model*', 'EER Diagram', 'File', 'Edit', 'View', 'Query', 'Database', 'Server', 'Tools', 'Scripting', and 'Help'. The main area displays a SQL editor with the following code:

```

21
22
23
24 • CREATE VIEW view AS
25   select a.order_id, a.order_item_id, a.product_id, b.seller_id, a.price
26   from order_items a, sellers b
27   where
28     a.seller_id = b.seller_id
29   ;
30
31
32
33
34
35
36
37
38
39

```

The 'Output' pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
1	15:20:14	CREATE VIEW view AS select a.order_id, a.order_item_id, a.product_id, b.seller_id, a.price from order_items a... 0 row(s) affected		0.110 sec

The status bar at the bottom right indicates the time as '03:20 p. m.' and the date as '07/12/2020'.

Vista con comentarios del primer semestre 2018, que no se hayan entregado, recibido o conferido por el cliente.

CREATE VIEW view3 as

select order_id, review_id, review_score, review_comment_title, review_comment_message, review_creation_date

FROM reviews

where

year(str_to_date(review_creation_date, '%d/%m/%Y')) = 2018

and month(str_to_date(review_creation_date, '%d/%m/%Y')) in (1,2,3,4,5,6)

and

(review_comment_message like '%PRODUTO%NAO%ENTREGUE%'

or review_comment_message like '%Nao%reibi%'

or review_comment_message like '%nao%confere%'

```

CREATE VIEW view3 AS
  select order_id, review_id, review_score, review_comment_title, review_comment_message, review_creation_date
  FROM reviews
  where
  year(str_to_date(review_creation_date, '%d/%m/%Y')) = 2018
  and month(str_to_date(review_creation_date, '%d/%m/%Y')) in (1,2,3,4,5,6)
  and
  (review_comment_message like '%PRODUTO%NAO%ENTREGUE%'
  or review_comment_message like '%Nao%recebi%'
  or review_comment_message like '%nao%confere%')

```

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Schema: frasgado

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:59:13	select order_id, review_id, review_score, review_comment_title, review_comment_message, review_creation_...	33 row(s) returned	0.156 sec / 0.000 sec
2	15:59:47	select order_id, review_id, review_score, review_comment_title, review_comment_message, review_creation_...	33 row(s) returned	0.141 sec / 0.000 sec
3	16:01:00	CREATE VIEW view3 as select order_id, review_id, review_score, review_comment_title, review_comment_m...	0 row(s) affected	0.094 sec

Query Completed

Vista con ranking de palabras clave en los comentarios de clientes.

CREATE VIEW view5 AS

```

select review_comment_title, count(*) as rankingWords
from reviews
group by review_comment_title
order by rankingWords desc;

```

The screenshot shows the MySQL Workbench interface. In the top navigation bar, there are tabs for 'MySQL Model*', 'EER Diagram', 'File', 'Edit', 'View', 'Query', 'Database', 'Server', 'Tools', 'Scripting', and 'Help'. Below the tabs, the 'Navigator' pane shows the schema structure of the 'frasgado' database, including 'SCHEMAS' (with 'customers' and 'sellers' selected), 'Tables' (with 'orders', 'reviews', 'customers', and 'sellers' listed), and 'Views' (with 'view1' through 'view5' and 'vista1'). The main query editor window contains the following SQL code:

```

1 • CREATE VIEW view5 AS
2 select review_comment_title, count(*) as rankingWords
3 from reviews
4 group by review_comment_title
5 order by rankingWords desc;
6
7

```

To the right of the code editor, a message states: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help." The bottom status bar shows the system tray with icons for network, battery, and date/time (05:31 p.m., 07/12/2020).

Vista con las primeras 10 rutas con más comentarios negativos.

CREATE VIEW view4 AS

```

select s.seller_state , s.seller_city, count(*) numComentariosNegativos
from reviews r,order_items o, sellers s
where
r.order_id = o.order_id
and o.seller_id = s.seller_id
group by s.seller_state, s.seller_city
order by numComentariosNegativos desc, s.seller_state asc, s.seller_city asc

```

The screenshot shows the MySQL Workbench interface. In the top navigation bar, there are tabs for 'MySQL Model*' and 'EER Diagram'. The main area displays a SQL query editor with the following code:

```

77
78
79
80 • CREATE VIEW view4 AS
81   select s.seller_state , s.seller_city, count(*) numComentariosNegativos
82   from reviews r, order_items o, sellers s
83   where
84     r.order_id = o.order_id
85     and o.seller_id = s.seller_id
86   group by s.seller_state, s.seller_city
87   order by numComentariosNegativos desc, s.seller_state asc, s.seller_city asc
88
89
90
91
92
93
94
95

```

In the bottom right corner of the SQL editor, there is a note: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help."

The status bar at the bottom of the window shows the following information: "Query Completed", "Buscar cualquier cosa", a taskbar with various icons, and the date and time: "05:26 p.m. 07/12/2020".

17. Crear vistas en MONGO DB de los siguientes puntos:

Vista Vendedores por Estado y Ciudad.

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.sellers

Connect View Collection Help

Local

frasgado.orders Aggregations frasgado.sellers Aggregations

frasgado.sellers

Documents Aggregations Schema

Create a View

Enter a View Name: VENDEDORES_ESTADO_CIUDAD

Validation

DOCUMENTS 3.1k TOTAL SIZE 462.9KB AVG. SIZE 153B INDEXES 1 TOTAL SIZE 56.0KB AVG. SIZE 56.0KB

SAMPLE MODE AUTO PREVIEW

COLLATION VENDEDORES POR E

\$sort

Ciudad: "sao paulo" Estado: "SP"

\$project

Output after \$project stage (Sample of 20 documents)

1 /**
2 * specifications: The fields to
3 * include or exclude.
4 */
5 +
6 {
7 _id: 0,
8 Ciudad: 1,
9 Estado: 1,
10 numVendedores: 1
11 }

numVendedores: 694 Ciudad: "sao paulo" Estado: "SP"

numVendedores: 124 Ciudad: "curitiba" Estado: "PR"

numVendedores: 9 Ciudad: "rio de Janeiro" Estado: "RJ"

Filter

View

ADD STAGE

11:32 a.m. 07/12/2020

>_MongoSH Beta

Buscar cualquier cosa

MongoDB Compass - cluster0.76pgh.mongodb.net:27017

Connect View Collection Help

Local

frasgado.orders Aggregations frasgado.sellers Aggregations frasgado.VENDEDORES_ESTADO_CIUDAD Documents

frasgado.VENDEDORES_ESTADO_CIUDAD (view on: frasgado.sellers)

MODIFY SOURCE

Read Only

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER

OPTIONS FIND RESET REFRESH

Displaying documents 1 - 20 of 636

numVendedores: 22 Ciudad: "joinville" Estado: "SC"

numVendedores: 33 Ciudad: "sao jose do rio preto" Estado: "SP"

numVendedores: 52 Ciudad: "ribeirao preto" Estado: "SP"

numVendedores: 25 Ciudad: "londrina" Estado: "PR"

numVendedores: 32 Ciudad: "osasco" Estado: "SP"

numVendedores: 41 Ciudad: "campinas" Estado: "SP"

Filter

View

11:33 a.m. 07/12/2020

>_MongoSH Beta

Buscar cualquier cosa

Vista Clientes por Ciudad y Estado

MongoDB Compass - cluster0.76pgh.mongodb.net:27017/frasgado.customers

Connect View Collection Help

Local

- HOSTS
 - cluster0-shard-00-01.76pg...
 - cluster0-shard-00-00.76pg...
 - cluster0-shard-00-02.76pg...
- CLUSTER
 - Replica Set (atlas-enu04-3 Nodes)
- EDITION
 - MongoDB 4.2.11 Enterprise
- Filter your data
- 2019-nCoV-cases-JHU
- CLIENTES_CIUDAD_ESTADO
- CoV-cases
- DETALLE_VENTA
- VENDEDORES_ESTA...
- customers
- directory
- geolocation
- h1n1
- items
- orders
- payments
- products

frasgado.orders Aggregations frasgado.sellers Aggregations frasgado.customers Aggregations frasgado.customers Aggregations

Create a View

Enter a View Name: CLIENTES_CIUDAD_ESTADO

Select an operator to construct expressions used in the aggregation pipeline stages. [Learn more](#)

Validation

DOCUMENTS 99.4k TOTAL SIZE 20.7MB AVG. SIZE 218B INDEXES 1 TOTAL SIZE 896.0KB AVG. SIZE 896.0KB

SAMPLE MODE AUTO PREVIEW

Output after \$group stage (Sample of 20 documents)

```
1 /**
2  * _id: The id of the group.
3  * field: The first field name.
4  */
5 {
6   _id: {
7     customer_city: "$customer_city",
8     customer_state: "$customer_state"
9   },
10  numClientes: {
11    $sum: 1
12  }
13 }
```

Output after \$addFields stage (Sample of 20 documents)

11:49 a.m. 07/12/2020

MongoDB Compass - cluster0.76pgh.mongodb.net:27017

Connect View Collection Help

Local

- HOSTS
 - cluster0-shard-00-01.76pg...
 - cluster0-shard-00-00.76pg...
 - cluster0-shard-00-02.76pg...
- CLUSTER
 - Replica Set (atlas-enu04-3 Nodes)
- EDITION
 - MongoDB 4.2.11 Enterprise
- Filter your data
- 2019-nCoV-cases-JHU
- CLIENTES_CIUDAD_ESTADO
- CoV-cases
- DETALLE_VENTA
- VENDEDORES_ESTA...
- customers
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- geolocation
- h1n1
- items
- orders
- payments
- products

frasgado.orders Aggregations frasgado.sellers Aggregations frasgado.customers Aggregations frasgado.CLIENTES_CIUDAD_ESTADO Documents

frasgado.CLIENTES_CIUDAD_ESTADO (view on: frasgado.customers) [MODIFY SOURCE](#) Read Only

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER

OPTIONS FIND RESET REFRESH

Displaying documents 1 - 20 of 4310

11:48 a.m. 07/12/2020

numClientes	Ciudad	Estado
613	recife	PE
849	niteroi	RJ
1521	curitiba	PR
654	fortaleza	CE
746	osasco	SP
1189	guarulhos	SP

Vista con Número de órdenes “NO ENTREGADOS”.

MongoDB Compass - cluster0.76phg.mongodb.net:27017

Connect View Collection Help

Local

HOSTS
cluster0-shard-00-01.76pg...
cluster0-shard-00-00.76pg...
cluster0-shard-00-02.76pg...

CLUSTER
Replica Set (atlas-enxu04-...
3 Nodes

EDITION
MongoDB 4.2.11 Enterprise

Filter your data
No_DE_ORDENES_N...
VENDEDORES_ESTA...
customers
directory
geolocation
h1n1
items
orders
payments
products
reviews
sellers
users

frasgado.orders Aggregations
frasgado.sellers Aggregations
frasgado.customers Aggregations
frasgado.reviews Aggregations
frasgado.No_DE_ORDENES_NO_ENTREGADOS Documents

frasgado.No_DE_ORDENES_NO_ENTREGADOS (view on: frasgado.reviews) MODIFY SOURCE Read Only

Documents Aggregations Schema Explain Plan Indexes Validation OPTIONS FIND RESET ...

FILTER VIEW Displaying documents 1 - 10 of 10 REFRESH

`_id: ObjectId("5fc43f1ee1fb4add414be75")
id: 1953
review_id: "81a57c09af5f9736f760b6ae16af118"
order_id: "16d05670f810589a854d30460a6e2f0"
review_score: 1
review_comment_title: ""
review_comment_message: "Demora, produto nao entregue!"
review_creation_date: "07/03/18 0:00"
review_answer_timestamp: "07/03/18 15:26"`

`_id: ObjectId("5fc4480ee1fb4add41530ac")
id: 31192
review_id: "68f9b61730239352e7961a9fffb4a55ee"
order_id: "88743d1edbe9b6cae91e12830855ccda2"
review_score: 1
review_comment_title: ""
review_comment_message: "produto nao entregue em mais de um mes de espera"
review_creation_date: "24/03/18 0:00"
review_answer_timestamp: "24/03/18 12:12"`

`_id: ObjectId("5fc4529ee1fb4add415bf85")
id: 67761
review_id: "aa28f65462c9a513c88a2e80da54945c0"
order_id: "a2774eabc9e91067c32cfb2813ac982ad"
review_score: 1
review_comment_title: ""
review_comment_message: "Produto nao entregue, enviado um dos itens da compra sem NF apenas com..."
review_creation_date: "14/12/17 0:00"
review_answer_timestamp: "15/12/17 17:24"`

5. CONCLUSIONES

De la muestra analizada, se concluye lo siguiente:

- A pesar de ser una de las principales ciudades en Ventas, Sao Paulo, la empresa Ollist tiene que mejorar u optimizar las rutas en torno a esta ciudad para aumentar el nivel de satisfacción de los clientes.
- El número de órdenes sin entregar es un número muy pequeño respecto al número de entregas realizadas.
- Habrá que incentivar el uso o manejo de TARJETA DE DEBITO, ya que ocupa el último lugar.
- Durante los meses de mayor venta Enero, Marzo, Noviembre y Diciembre, habrá que aumentar el número de vendedores para dar seguimiento a la logística.
- Se tendrá que incentivar (mediante ofertas o marketing) en los meses de JUNIO, JULIO y AGOSTO, la venta de productos, ya que representan caídas en ventas.
- Sao Paulo, Rio de Janeiro, Ibitinga, Santo Andre, Curitiba, Sao Jose do rio preto son las ciudades con más presencia. Se deberá prestar atención a logística y número de vendedores. Considerar introducir mayor número de productos.
- Habrá que realizar una campaña de marketing para mejorar ventas en las restantes ciudades.

▪ ginha
▪ ampere
▪ toledo
▪ sao joao de meriti
▪ cachoeirinha
▪ lajeado
▪ concordia
▪ ferraz de vasconcelos
▪ mogi mirim
▪ paulinia
▪ ribeirao preto / sao paulo
▪ tanabi
▪ vila velha
▪ santa terezinha de goias
▪ vicosa
▪ castro
▪ bento goncalves
▪ carazinho
▪ aparecida
▪ mococa
▪ tabatinga
▪ gama
▪ muqui
▪ vitoria
▪ uruacu
▪ congonhas
▪ fronteira
▪ ouro preto
▪ brejao
▪ andira-pr
▪ fortaleza
▪ campo grande
▪ campo mourao
▪ ponta grossa
▪ nilopolis
▪ natal
▪ dois corregos
▪ monteiro lobato
▪ sao sebastiao
▪ sp

▪ caucaia
▪ lagoa da prata
▪ ribeirao das neves
▪ tiradentes
▪ varginha
▪ ampere
▪ toledo
▪ vendas@creditparts.com.br
▪ sao joao de meriti
▪ cachoeirinha
▪ lajeado
▪ concordia
▪ ferraz de vasconcelos
▪ mogi mirim
▪ paulinia
▪ ribeirao preto / sao paulo
▪ tanabi
▪ vila velha
▪ santa terezinha de goias
▪ vicosa
▪ castro
▪ bento goncalves
▪ carazinho
▪ aparecida
▪ mococa
▪ tabatinga
▪ gama
▪ muqui
▪ vitoria
▪ uruacu
▪ congonhas
▪ fronteira
▪ ouro preto
▪ brejao
▪ andira-pr
▪ araucaria
▪ campo bom
▪ criciuma
▪ tubarao
▪ andradas
▪ artur nogueira

▪ garulhos
▪ itu
▪ sao jose do rio pardo
▪ varzea paulista
▪ eunapolis
▪ ipatinga
▪ floresta
▪ imbituba
▪ santa terezinha de itaipu
▪ paraiba do sul
▪ campina das missoes
▪ parai
▪ rolante
▪ palhoca
▪ cafelandia
▪ catanduva
▪ novo horizonte
▪ arraial d'ajuda (porto seguro)
▪ domingos martins
▪ camanducaia
▪ sao joao del rei
▪ campos dos goytacazes
▪ venancio aires
▪ boituva
▪ buritama
▪ franco da rocha
▪ mairipora
▪ mogi das cruszes
▪ pilar do sul
▪ santa rosa de viterbo
▪ sao pedro
▪ serrana
▪ sp / sp
▪ guanambi
▪ ilheus
▪ cachoeiro de itapemirim
▪ luziania
▪ campo do meio
▪ lagoa santa
▪ mateus leme

- santo antonio de padua
- parnamirim
- alvorada
- flores da cunha
- sao leopoldo
- balneario camboriu
- braco do norte
- descalvado
- embu guacu
- engenheiro coelho
- igaracu do tiete
- mirassol
- santo antonio de posse
- sbc/sp
- ubatuba
- vargem grande do sul
- vargem grande paulista
- mucambo
- afonso claudio
- jaragua
- piracanjuba
- bonfinopolis de minas
- montes claros
- timoteo
- bocaiuva do sul
- formosa do oeste
- guaratuba
- paranavai
- pitanga
- aperibe
- saquarema
- arvorezinha
- estancia velha
- rio grande
- laurentino
- massaranduba
- paulo lopes
- cananeia
- francisco morato
- holambra
- itirapina
- monte alegre do sul
- nova odessa
- presidente bernardes
- socorro
- manaus
- porto seguro
- cataguases
- centro
- guiricema
- joao monlevade
- muriae
- nova lima
- joao pessoa
- caruaru

- vitoria de santo antao
- almirante tamandare
- entre rios do oeste
- japira
- mandirituba
- pato bragado
- pato branco
- pinhalao
- terra boa
- duque de caxias
- itaborai
- marica
- sao pedro da aldeia
- vassouras
- ji parana
- porto velho
- imbe
- jacutinga
- pelotas
- santa maria
- imbituba
- indaial
- lages - sc
- luiz alves
- rio negrinho
- rodeio
- sao bento do sul
- sombrio
- taio
- neopolis
- auriflama/sp
- bady bassitt
- carapicuiba / sao paulo
- caxias do sul
- cerqueira cesar
- conchal
- cosmopolis
- florianopolis
- itajobi
- itapeva
- jaci
- laranjeiras do sul
- lorena
- ourinhos
- pederneiras
- pedregulho
- pinhais
- porto alegre
- rio de janeiro
- sando andre
- santa barbara d oeste
- sao jose dos pinhais
- tabao da serra
- tiete
- serra
- rio verde

- andradas
- barbacena/ minas gerais
- caratinga
- guanhaes
- ibirite
- sabara
- vespasiano
- marechal candido rondon
- serra redonda
- bandeirantes
- california
- cambe
- colorado
- guaira
- itaipulandia
- mandaguacu
- marechal candido rondon
- marialva
- palotina
- parana
- sao jose dos pinhais
- sao jose dos pinhas
- uniao da vitoria
- rio bonito
- volta redonda
- erechim
- ipe
- nova petropolis
- paraíso do sul
- santa rosa
- triunfo
- ararangua
- balenario camboriu
- barra velha
- camboriu
- campos novos
- chapeco
- curitibanos
- garopaba
- gaspar
- itapema
- porto belo
- rio do oeste
- santa catarina
- sao miguel d'oeсте
- sao miguel do oeste
- xanxere
- xaxim
- aracaju
- ao bernardo do campo
- barrinha
- bom jesus dos perdoes
- brotas
- clementina
- cordeiropolis
- guaratingueta
- jacarei / sao paulo
- juiz de fora