NAME:Shivadeepthi
SJSUID:009386351

Team Group:20

SQL QUERIES

1. SELECT * FROM Customers

WHERE Country='Venezuela'

AND (City='Caracas' OR City='I. de Margarita');

2. select * from Customers,Employees,Shippers,Orders,OrderDetails,Suppliers,Products,Categories
   where Customer.CustomerID=Orders.CustomerID AND Employees.EmployeeID=Orders.EmployeeID AND
   Shippers.ShipperID=Orders.ShipperID AND Orders.OrderID=OrderDetails.OrderID AND
   Products.ProductID=OrderDetails.ProductID AND Products.SupplierID=Supplier.SupplierID
   AND Products.CategoryID=Categories.categoryID limit 1;
3. SELECT * from Categories Order By
   Categoryname;
4. SELECT Shippers.ShipperName,COUNT(Orders.OrderID) AS NumberOfOrders FROM Orders
   LEFT JOIN Shippers
   ON Orders.ShipperID=Shippers.ShipperID
   GROUP BY ShipperName;
5. SELECT Employees.LastName, COUNT(Orders.OrderID) AS NumberOfOrders FROM (Orders
   INNER JOIN Employees
   ON Orders.EmployeeID=Employees.EmployeeID)
   GROUP BY LastName
   HAVING COUNT(Orders.OrderID) <10;

MONGO QUERIES

1. db.storeSchema.find({$and :[{'Country':'Venezuela'},
   {City:{$in:['Caracas','I. de Margarita']}}]});
2. db.storeSchema.findOne();
3. db.storeSchema.aggregate(
   { $unwind: '$OrderDetails' },
   {$project:{"OrderDetails.Products.Categories.CategoryID":1,
   "OrderDetails.Products.Categories.Categoryname":1,
   "OrderDetails.Products.Categories.CategoryDescription":1}},
   { $sort: {'OrderDetails.Products.Categories.Categoryname': 1}});
4. db.storeSchema.aggregate([
   { $unwind: '$OrderDetails' },
   {$group:{_id:"$OrderDetails.Shippers.ShipperName",NumberOfOrders:{$sum:1}}}]);
5. SELECT Employees.LastName, COUNT(Orders.OrderID) AS NumberOfOrders FROM (Orders
   INNER JOIN Employees

ON Orders.EmployeeID=Employees.EmployeeID)
GROUP BY LastName
HAVING COUNT(Orders.OrderID) <10;

SQL/Mongo QUERY 1.

```
mysql> SELECT * FROM Customers
    -> WHERE Country='Venezuela'
    -> AND (City='Caracas' OR City='I. de Margarita');
+------------+--------------------+-----------------+-------------------------+----------------+------------+-----------+
| CustomerID | CustomerName       | CustomerContact | Address                 | City           | PostalCode | Country   |
+------------+--------------------+-----------------+-------------------------+----------------+------------+-----------+
|         33 | GROSELLA-Restaurante | Manuel Pereira  | 5_ Ave. Los Palos Grandes | Caracas      | 1081       | Venezuela |
|         47 | LINO-Delicateses   | Felipe Izquierdo | Ave. 5 de Mayo Porlamar | I. de Margarita | 4980       | Venezuela |
+------------+--------------------+-----------------+-------------------------+----------------+------------+-----------+
2 rows in set (0.00 sec)
```

ds043210.mongolab.com:43210 cmpe_281_lp

```
db.storeSchema.find({$and :[{'Country':'Venezuela'},
 {City:{$in:['Caracas','I. de Margarita']}}]});
```

storeSchema 0.088 sec. 0 50

```
/* 0 */
{
    "_id" : ObjectId("545d92b0fe5f3e7fa5630adb"),
    "CustomerId" : 47,
    "CustomerName" : "LINO-Delicateses",
    "CustomerContact" : "Felipe Izquierdo",
    "Address" : "Ave. 5 de Mayo Porlamar",
    "City" : "I. de Margarita",
    "PostalCode" : "4980",
    "Country" : "Venezuela",
    "OrderDetails" : [
        {
            "OrderDetailID" : 420,
            "Quantity" : 50,
            "Employees" : {
                "EmployeeID" : 1,
                "LastName" : "Davolio",
                "FirstName" : "Nancy",
                "BirthDate" : "1968-12-08",
                "Photo" : "EmpID1.pic",
                "Notes" : "Education includes a BA in psychology from Colorado State University. She also completed (The Art of the Col
            },
            "OrderDate" : "1997-01-06 00:00:00",
            "Shippers" : {
                "ShipperID" : 1,
                "ShipperName" : "Speedy Express",
                "Phone" : "(503) 555-9831"
```

SQL/MONGO Query 2.

```
------+
| CustomerID | CustomerName | CustomerContact   | Address          | City   | PostalCode | Country | EmployeeID | LastName | FirstName | BirthDate  | P
hoto      | Notes
                                                                                                                                                 | ShipperID | ShipperName      |
 Phone          | OrderID | CustomerID | EmployeeID | OrderDate           | ShipperID | OrderDetailID | OrderID | ProductID | Quantity | SupplierID | Su
pplierName                    | ContactName      | Address        | City      | PostalCode | Country | Phone          | ProductID | ProductName
          | SupplierID | CategoryID | Unit                | Price | CategoryID | Categoryname   | Description
      |
+------------+--------------+-------------------+------------------+--------+------------+---------+------------+----------+-----------+------------+---
----------+-----------------------------------------------------------------------------------------------------------------------------------------------
-----------------------------------------------------------------------------------------------------------------+-----------+------------------+
---------------+---------+------------+------------+---------------------+-----------+---------------+---------+-----------+----------+------------+---
-----------------------------------+------------------+----------------+-----------+------------+---------+----------------+-----------+-----------------
----------+------------+------------+---------------------+-------+------------+----------------+-------------------------------------------------
------+
|          11 | Bs Beverages | Victoria Ashworth | Fauntleroy Circus | London | EC2 5NT    | UK      |          7 | King     | Robert    | 1960-05-29 | E
mpID7.pic | Robert King served in the Peace Corps and traveled extensively before completing his degree in English at the University of Michigan and the
n joining the company. After completing a course entitled 'Selling in Europe', he was transferred to the London office. |         3 | Federal Shipping |
 (503) 555-9931 |   10289 |         11 |          7 | 1996-08-26 00:00:00 |         3 |           110 |   10289 |         3 |       30 |          1 | Ex
otic Liquid                    | Charlotte Cooper | 49 Gilbert St. | Londona   | EC1 4SD    | UK      | (171) 555-2222 |         3 | Aniseed Syrup
          |          1 |          2 | 12 - 550 ml bottles | 10.00 |          2 | Condiments     | Sweet and savory sauces, relishes, spreads, and seaso
nings |
|          11 | Bs Beverages | Victoria Ashworth | Fauntleroy Circus | London | EC2 5NT    | UK      |          7 | King     | Robert    | 1960-05-29 | E
mpID7.pic | Robert King served in the Peace Corps and traveled extensively before completing his degree in English at the University of Michigan and the
n joining the company. After completing a course entitled 'Selling in Europe', he was transferred to the London office. |         3 | Federal Shipping |
 (503) 555-9931 |   10289 |         11 |          7 | 1996-08-26 00:00:00 |         3 |           111 |   10289 |        64 |        9 |         12 | P1
utzer Lebensmittelgro_m_rkte AG   | Martin Bein      | Bogenallee 51  | Frankfurt | 60439      | Germany | (069) 992755   |        64 | Wimmers gute Sem
melkn_del  |         12 |          5 | 20 bags x 4 pieces  | 33.25 |          5 | Grains/Cereals | Breads, crackers, pasta, and cereal
      |
+------------+--------------+-------------------+------------------+--------+------------+---------+------------+----------+-----------+------------+---
----------+-----------------------------------------------------------------------------------------------------------------------------------------------
-----------------------------------------------------------------------------------------------------------------+-----------+------------------+
---------------+---------+------------+------------+---------------------+-----------+---------------+---------+-----------+----------+------------+---
-----------------------------------+------------------+----------------+-----------+------------+---------+----------------+-----------+-----------------
----------+------------+------------+---------------------+-------+------------+----------------+-------------------------------------------------
------+
2 rows in set (0.00 sec)
```

```
db.storeSchema.findOne()
```

0.095 sec.


```
/* 0 */
{
    "_id" : ObjectId("545d7d019ad99ebe2bf608d8"),
    "CustomerId" : 11,
    "CustomerName" : "Bs Beverages",
    "CustomerContact" : "Victoria Ashworth",
    "Address" : "Fauntleroy Circus",
    "City" : "London",
    "PostalCode" : "EC2 5NT",
    "Country" : "UK",
    "OrderDetails" : [
        {
            "OrderDetailID" : 110,
            "Quantity" : 30,
            "Employees" : {
                "EmployeeID" : 7,
                "LastName" : "King",
                "FirstName" : "Robert",
                "BirthDate" : 1926,
                "Photo" : "EmpID7.pic",
                "Notes" : "Robert King served in the Peace Corps and traveled extensively before completing his degree in English at th
            },
            "OrderDate" : "1996-08-26 00:00:00",
            "Shippers" : {
                "ShipperID" : 3,
                "ShipperName" : "Federal Shipping",
                "Phone" : "(503) 555-9931"
            },
```


SQL/MONGO Query 3.

```
db.storeSchema.aggregate(
    { $unwind: '$OrderDetails' },
    {$project:{"OrderDetails.Products.Categories.CategoryID":1,
        "OrderDetails.Products.Categories.Categoryname":1,
        "OrderDetails.Products.Categories.CategoryDescription":1}},
    { $sort: {'OrderDetails.Products.Categories.Categoryname': 1}}
);
```

0.372 sec.


```
{
    "result" : [
        {
            "_id" : ObjectId("545dbd3efe5f3e7fa5630adc"),
            "OrderDetails" : {
                "Products" : {
                    "Categories" : {
                        "CategoryID" : 1,
                        "Categoryname" : "Beverages"
                    }
                }
            }
        },
        {
            "_id" : ObjectId("545d9232fe5f3e7fa5630ad7"),
            "OrderDetails" : {
                "Products" : {
                    "Categories" : {
                        "CategoryID" : 1,
                        "Categoryname" : "Beverages"
                    }
                }
            }
```


```
mysql> SELECT * from Categories Order By
    -> Categoryname;
+------------+----------------+--------------------------------------------------------------+
| CategoryID | Categoryname   | Description                                                  |
+------------+----------------+--------------------------------------------------------------+
|          1 | Beverages      | Soft drinks, coffees, teas, beers, and ales                  |
|          2 | Condiments     | Sweet and savory sauces, relishes, spreads, and seasonings   |
|          3 | Confections    | Desserts, candies, and sweet breads                          |
|          4 | Dairy Products | Cheeses                                                      |
|          5 | Grains/Cereals | Breads, crackers, pasta, and cereal                          |
|          6 | Meat/Poultry   | Prepared meats                                               |
|          7 | Produce        | Dried fruit and bean curd                                    |
|          8 | Seafood        | Seaweed and fish                                             |
+------------+----------------+--------------------------------------------------------------+
8 rows in set (0.00 sec)
```

SQL/MONGO Query4.

```
mysql> SELECT Shippers.ShipperName,COUNT(Orders.OrderID) AS NumberOfOrders FROM Orders
    -> LEFT JOIN Shippers
    -> ON Orders.ShipperID=Shippers.ShipperID
    -> GROUP BY ShipperName;
+------------------+----------------+
| ShipperName      | NumberOfOrders |
+------------------+----------------+
| Federal Shipping |              9 |
| Speedy Express   |              4 |
| United Package   |              3 |
+------------------+----------------+
3 rows in set (0.00 sec)
```

```
db.storeSchema.aggregate([
{ $unwind: '$OrderDetails' },
{$group:{_id:"$OrderDetails.Shippers.ShipperName",NumberOfOrders:{$sum:1}}}]);
```

16.508 sec.

```
/* 0 */
{
    "result" : [
        {
            "_id" : "United Package",
            "NumberOfOrders" : 4
        },
        {
            "_id" : "Speedy Express",
            "NumberOfOrders" : 3
        },
        {
            "_id" : "Federal Shipping",
            "NumberOfOrders" : 16
        }
    ],
    "ok" : 1
}
```

SQL/MONGO Query 5.

```
mysql> SELECT Employees.LastName, COUNT(Orders.OrderID) AS NumberOfOrders FROM (Orders
    -> INNER JOIN Employees
    -> ON Orders.EmployeeID=Employees.EmployeeID)
    -> GROUP BY LastName
    -> HAVING COUNT(Orders.OrderID) <10;
+-----------+----------------+
| LastName  | NumberOfOrders |
+-----------+----------------+
| Callahan  |              3 |
| Davolio   |              3 |
| Fuller    |              2 |
| King      |              2 |
| Leverling |              2 |
| Peacock   |              2 |
| Suyama    |              2 |
+-----------+----------------+
7 rows in set (0.01 sec)
```

```
db.storeSchema.aggregate([
{ $unwind: '$OrderDetails' },
{$group:{_id:"$OrderDetails.Employees.LastName", NumberOfOrders:{$sum:1}}},
{$match:{NumberOfOrders :{ $lt : 10}}}]);
```

0.118 sec.


```
    "result" : [
        {
            "_id" : "Callahan",
            "NumberOfOrders" : 3
        },
        {
            "_id" : "Fuller",
            "NumberOfOrders" : 1
        },
        {
            "_id" : "Suyama",
            "NumberOfOrders" : 3
        },
        {
            "_id" : "Davolio",
            "NumberOfOrders" : 5
        },
        {
            "_id" : "Leverling",
            "NumberOfOrders" : 1
        },
        {
            "_id" : "Peacock",
            "NumberOfOrders" : 5
        },
```

Name :Minu

SJSUID:009347221

Team Group:20

1. select * from Customers where (Country='France') AND (CustomerContact='Janine Labrune') AND (CustomerID>10 OR PostalCode='4400');
2. select c.CustomerId,c.CustomerName,c.CustomerContact,c.Address,c.City,c.PostalCode,c.Country, o.OrderDate,od.Quantity,p.ProductName,p.Unit,p.Price from Customers c,Orders o,OrderDetails od,Products p
   where c.CustomerID=o.CustomerID AND o.OrderID=od.OrderID AND od.ProductID=p.ProductID limit 5;
3. SELECT * from Customers Order By
   CustomerName;
4. Select Categories.Categoryname,Count(Products.ProductID) As NumberOfProducts From Products
   LEFT JOIN Categories
   ON Products.CategoryID=Categories.CategoryID
   GROUP By Categoryname;
5. SELECT Customers.CustomerID, COUNT(OrderDetails.OrderDetailID)
   AS NumberOfProducts FROM (Orders INNER JOIN Customers ON
   Orders.CustomerID=Customers.CustomerID)
   INNER JOIN OrderDetails ON Orders.OrderID=OrderDetails.OrderID GROUP BY CustomerID HAVING
   COUNT(OrderDetails.OrderDetailID) < 10;

   MONGO QUERIES
1. db.storeSchema.find({
   Country:'France',
   CustomerContact:'Janine Labrune',
   $or: [{CustomerId: { $gt: 10}}, {PostcalCode:'44000'}]
   });
2. db.storeSchema.find({}, { CustomerId: 1, CustomerName: 1, CustomerContact: 1,
   Address: 1,City: 1,PostalCode: 1,Country: 1,"OrderDetails.OrderDate": 1,"OrderDetails.Quantity": 1,
   "OrderDetails.Products.ProductName": 1, "OrderDetails.Products.units":
   1,"OrderDetails.Products.price" : 1,_id:0}).limit(5);
3. db.storeSchema.find({}, { CustomerId: 1, CustomerName: 1, CustomerContact: 1,
   Address: 1,City: 1,PostalCode: 1,Country: 1,_id:0}).sort({CustomerName:+1});
4. db.storeSchema.aggregate([
   { $unwind: '$OrderDetails' },
   {$group:{_id:"$OrderDetails.Products.Categories.Categoryname",NumberOfProducts:{$sum:1}}}]);
5. db.storeSchema.aggregate([
   { $unwind: '$OrderDetails' },
   {$group:{_id:"$CustomerId",NumberOfProducts:{$sum:1}}},
   {$match:{NumberOfProducts:{$lt:10}}}]);

SQL/MONGO Query1.

```
mysql> select * from Customers where (Country='France') AND (CustomerContact='Janine Labrune') AND (CustomerID>10 OR PostalCode='4400');
+------------+----------------+-----------------+---------------------------+--------+------------+---------+
| CustomerID | CustomerName   | CustomerContact | Address                   | City   | PostalCode | Country |
+------------+----------------+-----------------+---------------------------+--------+------------+---------+
|         18 | Du monde entier | Janine Labrune  | 67, rue des Cinquante Otages | Nantes | 44000      | France  |
+------------+----------------+-----------------+---------------------------+--------+------------+---------+
1 row in set (0.00 sec)
```

```
db.storeSchema.find({
    Country:'France',
    CustomerContact:'Janine Labrune',
    $or: [ {CustomerId: { $gt: 10}}, {PostcalCode:'44000'}]
    });
```

storeSchema 0.119 sec. 0 50

```
/* 0 */
{
    "_id" : ObjectId("545d85f99ad99ebe2bf608da"),
    "CustomerId" : 18,
    "CustomerName" : "Du monde entier",
    "CustomerContact" : "Janine Labrune",
    "Address" : "67, rue des Cinquante Otages",
    "City" : "Nantes",
    "PostalCode" : "44000",
    "Country" : "France",
    "OrderDetails" : [
        {
            "OrderDetailID" : 171,
            "Quantity" : 6,
            "Employees" : {
                "EmployeeID" : 1,
                "LastName" : "Davolio",
                "FirstName" : "Nancy",
                "BirthDate" : "1968-12-08",
                "Photo" : "EmpID1.pic",
                "Notes" : "Education includes a BA in psychology from Colorado State University. She also completed (The Art of the Col
            },
            "OrderDate" : "1996-09-20 00:00:00",
            "Shippers" : {
                "ShipperID" : 3
```

SQL/MONGO Query2.

```
db.storeSchema.find({}, { CustomerId: 1, CustomerName: 1, CustomerContact: 1,
Address: 1,City: 1,PostalCode: 1,Country: 1,"OrderDetails.OrderDate": 1,"OrderDetails.Quantity": 1,
"OrderDetails.Products.ProductName": 1, "OrderDetails.Products.units": 1,"OrderDetails.Products.price" : 1,_id:0} ).limit(5)
```

storeSchema 0.094 sec. 0 50


```
/* 0 */
{
    "CustomerId" : 11,
    "CustomerName" : "Bs Beverages",
    "CustomerContact" : "Victoria Ashworth",
    "Address" : "Fauntleroy Circus",
    "City" : "London",
    "PostalCode" : "EC2 5NT",
    "Country" : "UK",
    "OrderDetails" : [
        {
            "Quantity" : 30,
            "OrderDate" : "1996-08-26 00:00:00",
            "Products" : {
                "ProductName" : "Aniseed Syrup",
                "units" : "12 - 550 ml bottles",
                "price" : 10
            }
        },
        {
            "Quantity" : 9,
            "OrderDate" : "1996-08-26 00:00:00",
            "Products" : {
                "ProductName" : "Wimmers gute Semmelknödel",
                "units" : "20 bags x 4 pieces",
                "price" : 33.25
```


```
mysql> select c.CustomerId,c.CustomerName,c.CustomerContact,c.Address,c.City,c.PostalCode,c.Country,
    -> o.OrderDate,od.Quantity,p.ProductName,p.Unit,p.Price from Customers c,Orders o,OrderDetails od,Products p
    -> where c.CustomerID=o.CustomerID AND o.OrderID=od.OrderID AND od.ProductID=p.ProductID limit 5;
+------------+---------------------------+---------------+-------------------------+-------------+------------+----------+---------------------+----------+-----
--------------------+----------------------+--------+
| CustomerId | CustomerName              | CustomerContact | Address                 | City        | PostalCode | Country  | OrderDate           | Quantity | Prod
uctName            | Unit                 | Price  |
+------------+---------------------------+---------------+-------------------------+-------------+------------+----------+---------------------+----------+-----
--------------------+----------------------+--------+
|         13 | Centro comercial Moctezuma | Francisco Chang | Sierras de Granada 9993 | M_xico D.F. | 5022       | Mexico   | 1996-07-18 00:00:00 |       10 | Sir
Rodneys Scones     | 24 pkgs. x 4 pieces  |  10.00 |
|         13 | Centro comercial Moctezuma | Francisco Chang | Sierras de Granada 9993 | M_xico D.F. | 5022       | Mexico   | 1996-07-18 00:00:00 |        1 | Grav
ad lax             | 12 - 500 g pkgs.     |  26.00 |
|         33 | GROSELLA-Restaurante       | Manuel Pereira  | 5_ Ave. Los Palos Grandes | Caracas | 1081       | Venezuela | 1996-07-30 00:00:00 |       10 | Th_r
inger Rostbratwurst  | 50 bags x 30 sausgs. | 123.79 |
|         33 | GROSELLA-Restaurante       | Manuel Pereira  | 5_ Ave. Los Palos Grandes | Caracas | 1081       | Venezuela | 1996-07-30 00:00:00 |        4 | Mozz
arella di Giovanni   | 24 - 200 g pkgs.     |  34.80 |
|         52 | Morgenstern Gesundkost     | Alexander Feuer | Heerstr. 22             | Leipzig     | 4179       | Germany  | 1996-08-09 00:00:00 |       20 | R_ss
le Sauerkraut      | 25 - 825 g cans      |  45.60 |
+------------+---------------------------+---------------+-------------------------+-------------+------------+----------+---------------------+----------+-----
--------------------+----------------------+--------+
5 rows in set (0.01 sec)
```

SQL/Mongo Query 3.

```
mysql> SELECT * from Customers Order By
    -> CustomerName;
+------------+-----------------------------------+------------------+-----------------------------------+----------------+------------+-----------+
| CustomerID | CustomerName                      | CustomerContact  | Address                           | City           | PostalCode | Country   |
+------------+-----------------------------------+------------------+-----------------------------------+----------------+------------+-----------+
|          2 | Ana Trujillo Emparedados y helados | Ana Trujillo     | Avda. de la Constituci_n 2222     | M_xico D.F.    | 5021       | Mexico    |
|          3 | Antonio Moreno Taquer_a           | Antonio Moreno   | Mataderos 2312                    | M_xico D.F.    | 5023       | Mexico    |
|          4 | Around the Horn                   | Thomas Hardy     | 120 Hanover Sq.                   | London         | WA1 1DP    | UK        |
|         11 | Bs Beverages                      | Victoria Ashworth | Fauntleroy Circus                 | London         | EC2 5NT    | UK        |
|          8 | B_lido Comidas preparadas         | Mart_n Sommer    | C Araquil 67                      | Madrid         | 28023      | Spain     |
|         13 | Centro comercial Moctezuma        | Francisco Chang  | Sierras de Granada 9993           | M_xico D.F.    | 5022       | Mexico    |
|         18 | Du monde entier                   | Janine Labrune   | 67, rue des Cinquante Otages      | Nantes         | 44000      | France    |
|         27 | Franchi S.p.A.                    | Paolo Accorti    | Via Monte Bianco 34               | Torino         | 10100      | Italy     |
|         31 | Gourmet Lanchonetes               | Andr_ Fonseca    | Av. Brasil, 442                   | Campinas       | 04876-786  | Brazil    |
|         33 | GROSELLA-Restaurante              | Manuel Pereira   | 5_ Ave. Los Palos Grandes         | Caracas        | 1081       | Venezuela |
|         47 | LINO-Delicateses                  | Felipe Izquierdo | Ave. 5 de Mayo Porlamar           | I. de Margarita | 4980       | Venezuela |
|         52 | Morgenstern Gesundkost            | Alexander Feuer  | Heerstr. 22                       | Leipzig        | 4179       | Germany   |
|         54 | Oc_ano Atl_ntico Ltda.            | Yvonne Moncada   | Ing. Gustavo Moncada 8585 Piso 20-A | Buenos Aires | 1010       | Argentina |
|         77 | The Big Cheese                    | Liz Nixon        | 89 Jefferson Way Suite 2          | Portland       | 97201      | USA       |
|         91 | Wolski                            | Zbyszek          | ul. Filtrowa 68                   | Walla          | 01-012     | Poland    |
+------------+-----------------------------------+------------------+-----------------------------------+----------------+------------+-----------+
15 rows in set (0.00 sec)
```

```
db.storeSchema.find({}, { CustomerId: 1, CustomerName: 1, CustomerContact: 1,
Address: 1,City: 1,PostalCode: 1,Country: 1,_id:0} ).sort({CustomerName:1})
```

storeSchema 0.093 sec. 0 50


```
{
    "CustomerId" : 2,
    "CustomerName" : "Ana Trujillo Emparedados y helados",
    "CustomerContact" : "Ana Trujillo",
    "Address" : "Avda. de la Constituci_n 2222",
    "City" : "Mexico D.F.",
    "PostalCode" : "5021",
    "Country" : "Mexico"
}

/* 2 */
{
    "CustomerId" : 3,
    "CustomerName" : "Antonio Moreno Taquer_a",
    "CustomerContact" : "Antonio Moreno",
    "Address" : "Mataderos 2312",
    "City" : "Mexico D.F.",
    "PostalCode" : "5023",
    "Country" : "Mexico"
}

/* 3 */
{
    "CustomerId" : 4,
    "CustomerName" : "Around the Horn",
    "CustomerContact" : "Thomas Hardy",
    "Address" : "120 Hanover Sq.",
    "City" : "London"
```


SQL/Mongo Query 4.

```
mysql> Select Categories.Categoryname,Count(Products.ProductID) As NumberOfProducts From Products LEFT JOIN Categories
    -> ON Products.CategoryID=Categories.CategoryID
    -> GROUP By Categoryname;
+----------------+------------------+
| Categoryname   | NumberOfProducts |
+----------------+------------------+
| Beverages      |                2 |
| Condiments     |                2 |
| Confections    |                5 |
| Dairy Products |                5 |
| Grains/Cereals |                4 |
| Meat/Poultry   |                1 |
| Produce        |                2 |
| Seafood        |                3 |
+----------------+------------------+
8 rows in set (0.00 sec)
```

```
db.storeSchema.aggregate([
{ $unwind: '$OrderDetails' },
{$group:{_id:"$OrderDetails.Products.Categories.Categoryname",NumberOfProducts:{$sum:1}}}])
```

0.094 sec.


```
    "result" : [
        {
            "_id" : "Produce",
            "NumberOfProducts" : 1
        },
        {
            "_id" : "Seafood ",
            "NumberOfProducts" : 1
        },
        {
            "_id" : "Seafood",
            "NumberOfProducts" : 2
        },
        {
            "_id" : "Meat/Poultry",
            "NumberOfProducts" : 1
        },
        {
            "_id" : "Beverages",
            "NumberOfProducts" : 2
        },
        {
            "_id" : "Dairy Products",
            "NumberOfProducts" : 7
        },
```


SQL/Mongo Query 5.

```
mysql> SELECT Customers.CustomerID, COUNT(OrderDetails.OrderDetailID)
    -> AS NumberOfProducts FROM (Orders INNER JOIN Customers ON Orders.CustomerID=Customers.CustomerID)
    -> INNER JOIN OrderDetails ON Orders.OrderID=OrderDetails.OrderID GROUP BY CustomerID HAVING
    ->  COUNT(OrderDetails.OrderDetailID) < 10;
+------------+------------------+
| CustomerID | NumberOfProducts |
+------------+------------------+
|          2 |                2 |
|          3 |                1 |
|          4 |                5 |
|          8 |                3 |
|         11 |                2 |
|         13 |                2 |
|         27 |                1 |
|         31 |                2 |
|         33 |                2 |
|         47 |                1 |
|         52 |                2 |
|         54 |                2 |
|         91 |                2 |
+------------+------------------+
13 rows in set (0.00 sec)
```

```
db.storeSchema.aggregate([
{ $unwind: '$OrderDetails' },
{$group:{_id:"$CustomerId",NumberOfProducts:{$sum:1}}},
{$match:{NumberOfProducts:{$lt:10}}}]);
```

0.096 sec.


```
/* 0 */
{
    "result" : [
        {
            "_id" : 91,
            "NumberOfProducts" : 2
        },
        {
            "_id" : 11,
            "NumberOfProducts" : 2
        },
        {
            "_id" : 13,
            "NumberOfProducts" : 2
        },
        {
            "_id" : 8,
            "NumberOfProducts" : 3
        },
        {
            "_id" : 47,
            "NumberOfProducts" : 1
        },
        {
            "_id" : 4,
```


Name: Laxmi Phalak

SJSU ID: 009394671

Team Group:20

SQL Queries:

1. SELECT * FROM Customers WHERE Country='Mexico' AND (CustomerID=11 OR CustomerID=13 OR CustomerID=18);

2. SELECT o.OrderDate, od.Quantity, c.CustomerName, c.Country, p.ProductName, p.Price FROM Orders o, Customers c, OrderDetails od, Products p WHERE o.CustomerID=c.CustomerID and o.OrderID=od.OrderID and od.ProductID=p.ProductID AND ProductName like 'Aniseed%' AND c.Country='UK';

3. SELECT * FROM Shippers ORDER BY ShipperName;

4. Select Suppliers.SupplierName,Count(Products.ProductID) As NumberOfProducts From Products LEFT JOIN Suppliers ON Products.SupplierID=Suppliers.SupplierID GROUP BY SupplierName;

5. SELECT ShipperID, COUNT(OrderID) AS NumberOfProducts FROM Orders GROUP BY ShipperID HAVING COUNT(OrderID) < 100;

Mongo DB Queries:

1. db.storeSchema.find({$and :[{'Country':'Mexico'}, {CustomerId:{$in:[11,13,18]}}]});

2. db.storeSchema.findOne({$and :[{'Country':'UK'}]});

3. db.storeSchema.aggregate(

   { $unwind: '$OrderDetails' },

   {$project:{"OrderDetails.Shippers.ShipperID":1,

   "OrderDetails.Shippers.ShipperName":1,

   "OrderDetails.Shippers.Phone":1}},

   { $sort: {'OrderDetails.Shippers.ShipperName': 1}});

4. db.storeSchema.aggregate([

   { $unwind: '$OrderDetails' },

   {$group:{_id:"$OrderDetails.Products.Suppliers.SupplierName",NumberOfProducts:{$sum:1}}}]);

5. db.storeSchema.aggregate([

   { $unwind: '$OrderDetails' },

   {$group:{_id:"$OrderDetails.Shippers.ShipperId",NumberOfProducts:{$sum:1}}},

   {$match:{NumberOfProducts:{$lt:100}}}]);

Screenshots:

Query 1:

MySQL

```
mysql> SELECT * FROM Customers  WHERE Country='Mexico'  AND (CustomerID=11 OR CustomerID=13 OR CustomerID=18);

+------------+---------------------------+-----------------+-------------------------+-------------+------------+---------+
| CustomerID | CustomerName              | CustomerContact | Address                 | City        | PostalCode | Country |
+------------+---------------------------+-----------------+-------------------------+-------------+------------+---------+
|         13 | Centro comercial Moctezuma | Francisco Chang | Sierras de Granada 9993 | M_xico D.F. | 5022       | Mexico  |
+------------+---------------------------+-----------------+-------------------------+-------------+------------+---------+
1 row in set (0.00 sec)
```

MongoDB

```
db.storeSchema.find({$and :[{'Country':'Mexico'},
 {CustomerId:{$in:[11,13,18]}}]});
```

storeSchema 0.601 sec. 0 50


```
/* 0 */
{
    "_id" : ObjectId("545d824f9ad99ebe2bf608d9"),
    "CustomerId" : 13,
    "CustomerName" : "Centro comercial Moctezuma",
    "CustomerContact" : "Francisco Chang",
    "Address" : "Sierras de Granada 9993",
    "City" : "Mexico D.F.",
    "PostalCode" : "5022",
    "Country" : "Mexico",
    "OrderDetails" : [
        {
            "OrderDetailID" : 33,
            "Quantity" : 10,
            "Employees" : {
                "EmployeeID" : 4,
                "LastName" : "Peacock",
                "FirstName" : "Margaret",
                "BirthDate" : "1958-09-19",
                "Photo" : "EmpID4.pic",
                "Notes" : "Margaret holds a BA in English literature from Concordia College and an MA from the American
            },
            "OrderDate" : "1996-07-18 00:00:00",
            "Shippers" : {
                "ShipperID" : 3,
                "ShipperName" : "Federal Shipping",
```


Query 2:

MySQL

```
mysql> SELECT o.OrderDate, od.Quantity, c.CustomerName, c.Country, p.ProductName, p.Price FROM Orders o, Customers c, OrderDetails od, Products p WHERE o.Custome
rID=c.CustomerID and o.OrderID=od.OrderID and od.ProductID=p.ProductID AND ProductName like 'Aniseed%' AND c.Country='UK';
+---------------------+----------+--------------+---------+--------------+-------+
| OrderDate           | Quantity | CustomerName | Country | ProductName  | Price |
+---------------------+----------+--------------+---------+--------------+-------+
| 1996-08-26 00:00:00 |       30 | B's Beverages | UK      | Aniseed Syrup | 10.00 |
+---------------------+----------+--------------+---------+--------------+-------+
1 row in set (0.00 sec)
```

MongoDB

```
db.storeSchema.findOne({$and :[{'Country':'UK'}]});
```

0.089 sec.


```
/* 0 */
{
    "_id" : ObjectId("545d7d019ad99ebe2bf608d8"),
    "CustomerId" : 11,
    "CustomerName" : "Bs Beverages",
    "CustomerContact" : "Victoria Ashworth",
    "Address" : "Fauntleroy Circus",
    "City" : "London",
    "PostalCode" : "EC2 5NT",
    "Country" : "UK",
    "OrderDetails" : [
        {
            "OrderDetailID" : 110,
            "Quantity" : 30,
            "Employees" : {
                "EmployeeID" : 7,
                "LastName" : "King",
                "FirstName" : "Robert",
                "BirthDate" : 1926,
                "Photo" : "EmpID7.pic",
                "Notes" : "Robert King served in the Peace Corps and traveled extensively before compl
            },
            "OrderDate" : "1996-08-26 00:00:00",
            "Shippers" : {
                "ShipperID" : 3,
                "ShipperName" : "Federal Shipping",
```


Query 3:

MySQL

```
mysql> SELECT * FROM Shippers ORDER BY ShipperName;
+-----------+-----------------+----------------+
| ShipperID | ShipperName     | Phone          |
+-----------+-----------------+----------------+
|         3 | Federal Shipping | (503) 555-9931 |
|         1 | Speedy Express   | (503) 555-9831 |
|         2 | United Package   | (503) 555-3199 |
+-----------+-----------------+----------------+
3 rows in set (0.18 sec)
```

MongoDB

```
db.storeSchema.aggregate(
{ $unwind: '$OrderDetails' },
{$project:{"OrderDetails.Shippers.ShipperID":1,
"OrderDetails.Shippers.ShipperName":1,
"OrderDetails.Shippers.Phone":1}},
{ $sort: {'OrderDetails.Shippers.ShipperName': 1}});
```

0.106 sec.

```
                }
            }
        },
        {
            "_id" : ObjectId("545d927dfe5f3e7fa5630ad9"),
            "OrderDetails" : {
                "Shippers" : {
                    "ShipperID" : 1,
                    "ShipperName" : "Federal Shipping",
                    "Phone" : "(503) 555-9931"
                }
            }
        },
        {
            "_id" : ObjectId("545d7d019ad99ebe2bf608d8"),
            "OrderDetails" : {
                "Shippers" : {
                    "ShipperID" : 3,
                    "ShipperName" : "Federal Shipping",
                    "Phone" : "(503) 555-9931"
                }
            }
```

Query 4:

MySQL

```
mysql> Select Suppliers.SupplierName,Count(Products.ProductID) As NumberOfProducts From Products LEFT JOIN Suppliers  ON Products.SupplierID=Suppliers.SupplierI
D  GROUP BY SupplierName;
+----------------------------------------+------------------+
| SupplierName                           | NumberOfProducts |
+----------------------------------------+------------------+
| Aux joyeux eccl_siastiques             |                2 |
| Bigfoot Breweries                      |                3 |
| Cooperativa de Quesos 'Las Cabras'     |                2 |
| Escargots Nouveaux                     |                1 |
| Exotic Liquid                          |                3 |
| For_ts d'_rables                       |                2 |
| Formaggi Fortini s.r.l.                |                3 |
| G'day, Mate                            |                3 |
| Gai p_turage                           |                2 |
| Grandma Kelly's Homestead              |                3 |
| Heli S__waren GmbH & Co. KG            |                3 |
| Karkki Oy                              |                3 |
| Leka Trading                           |                3 |
| Lyngbysild                             |                2 |
| Ma Maison                              |                2 |
| Mayumi's                               |                3 |
| New England Seafood Cannery            |                2 |
```

MongoDB

```
db.storeSchema.aggregate([
{ $unwind: '$OrderDetails' },
{$group:{_id:"$OrderDetails.Products.Suppliers.SupplierName",NumberOfProducts:{$sum:1}}}]);
```

0.092 sec.


```
/* 0 */
{
    "result" : [
        {
            "_id" : "Plutzer Lebensmittelgro_m_rkte AG",
            "NumberOfProducts" : 2
        },
        {
            "_id" : "Exotic Liquid",
            "NumberOfProducts" : 2
        },
        {
            "_id" : "Karkki Oy",
            "NumberOfProducts" : 1
        },
        {
            "_id" : "Plutzer Lebensmittelgro_m_rkte AG ",
            "NumberOfProducts" : 1
        },
        {
            "_id" : "For_ts d'_rables",
            "NumberOfProducts" : 1
        },
```


Query 5:

MySQL

```
mysql> SELECT ShipperID, COUNT(OrderID) AS NumberOfProducts FROM Orders GROUP BY ShipperID HAVING COUNT(OrderID) < 100;
+-----------+-----------------+
| ShipperID | NumberOfProducts |
+-----------+-----------------+
|         1 |              54 |
|         2 |              74 |
|         3 |              68 |
+-----------+-----------------+
3 rows in set (0.00 sec)
```

```
db.storeSchema.aggregate([
 { $unwind: '$OrderDetails' },
 {$group:{_id:"$OrderDetails.Shippers.ShipperId",NumberOfProducts:{$sum:1}}},
 {$match:{NumberOfProducts:{$lt:100}}}]);
```

0.104 sec.

```
/* 0 */
{
    "result" : [
        {
            "_id" : null,
            "NumberOfProducts" : 27
        }
    ],
    "ok" : 1
}
```