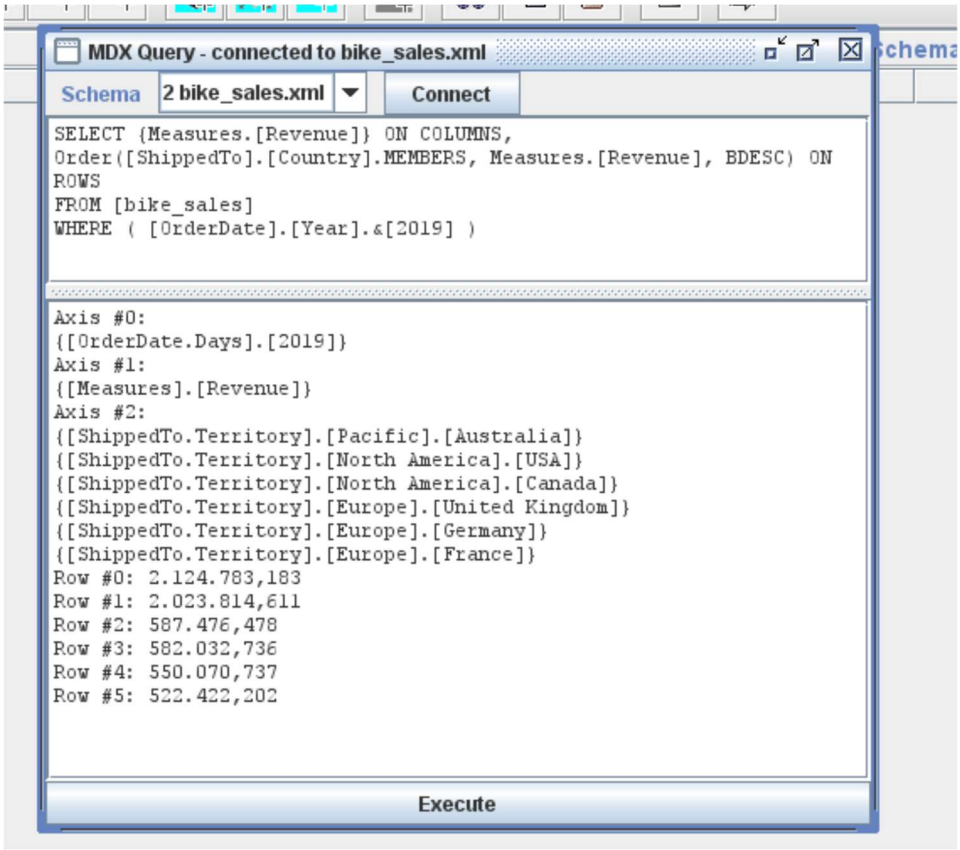
3.1

```
1  select ProductTopCategoryName as 'Product Top Category',
2  sum(OrderLineProfit) as Profit
3  from Dim_Product p
4  join Fact_InternetSales f on f.ProductKey=p.ProductKey
5  where year(OrderDate) = 2021
6  group by ProductTopCategoryName
7  order by sum(OrderLineProfit) desc;
```

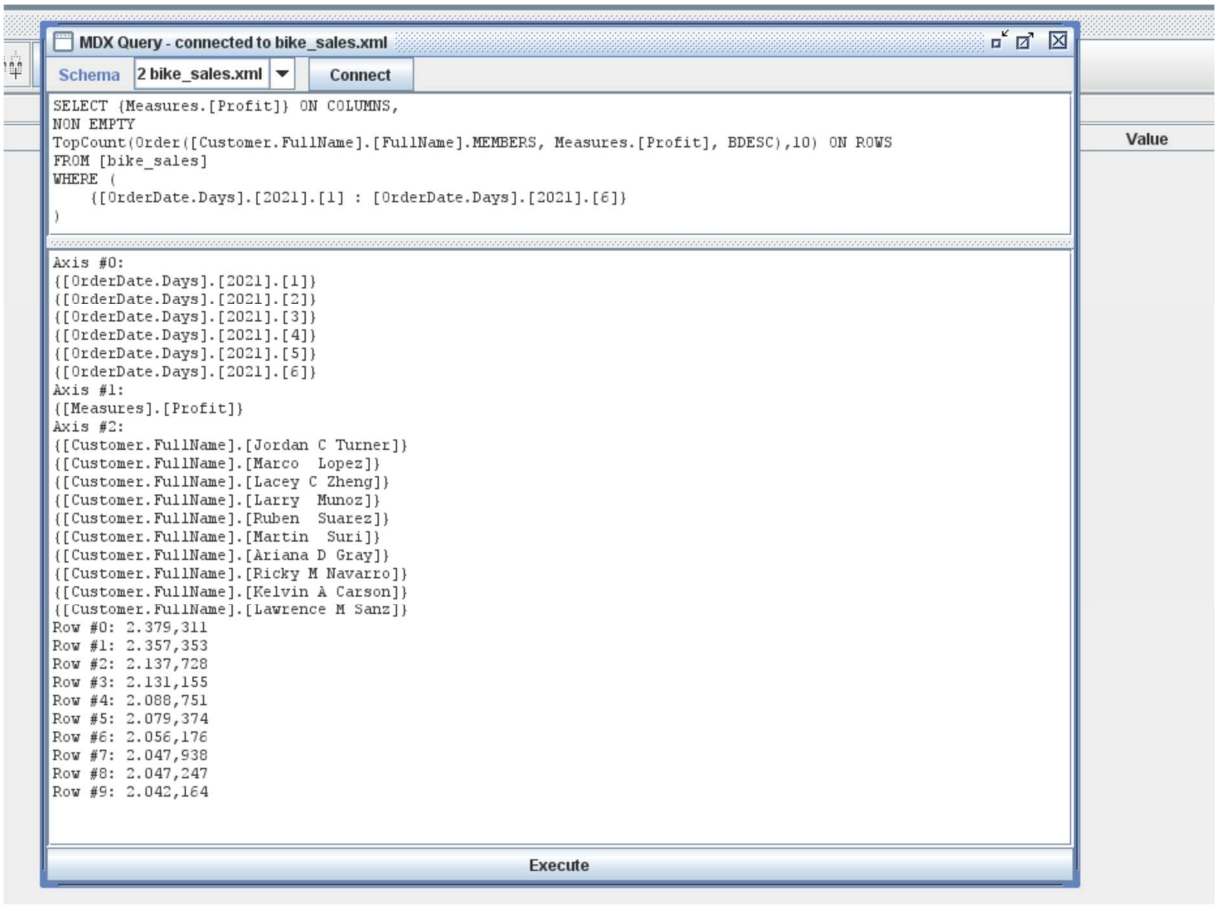
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Product Top Category	Profit
Bikes	3183670.3256
Accessories	217753.8488
Clothing	69062.1949

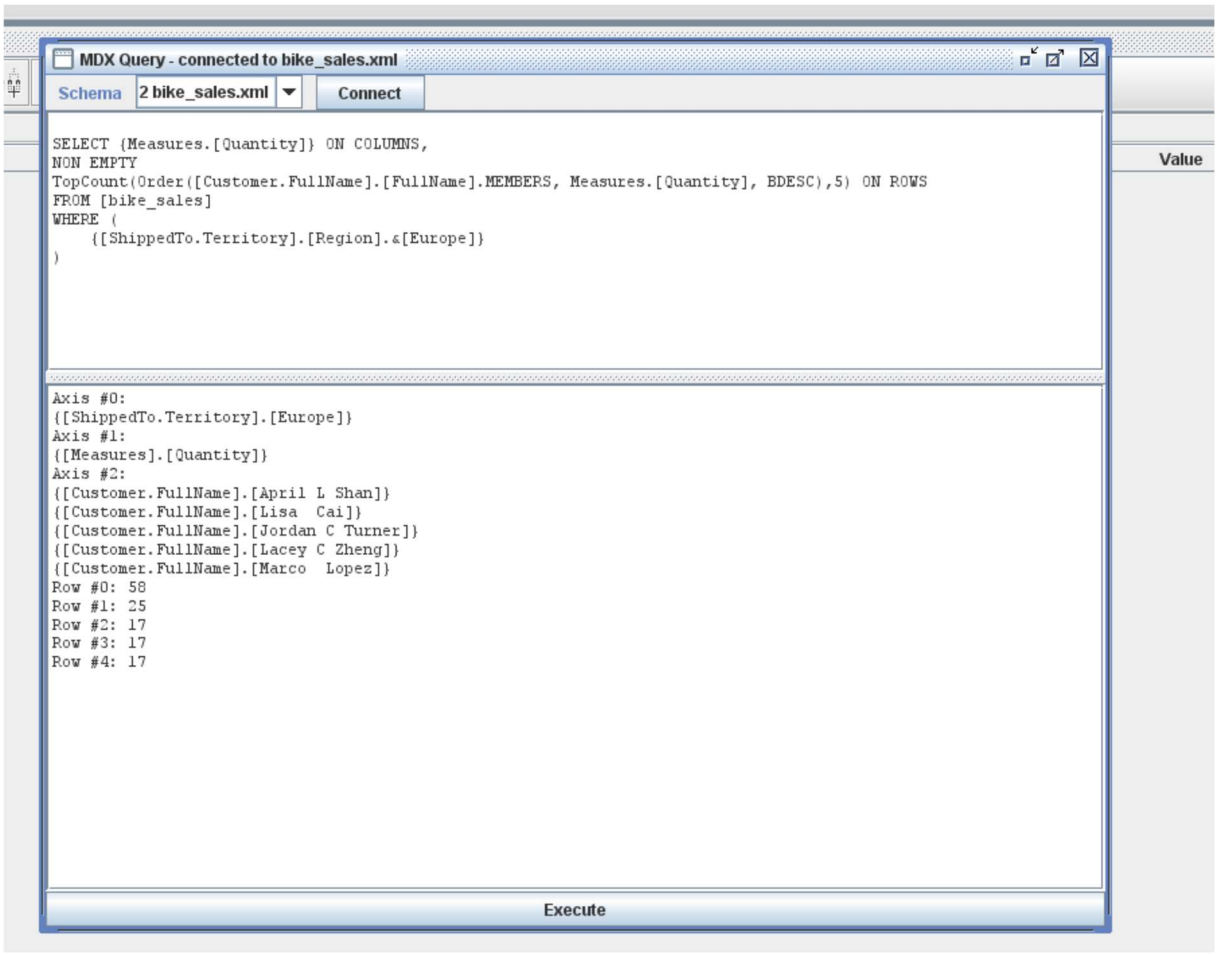
3.2



3.3

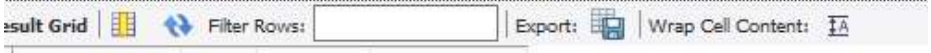

MDX Query - connected to bike_sales.xml
Schema
2 bike_sales.xml
Connect
SELECT {Measures.[Profit]} ON COLUMNS,
NON EMPTY
TopCount(Order([Customer.FullName].[FullName].MEMBERS, Measures.[Profit], BDESC),10) ON ROWS
FROM [bike_sales]
WHERE (
{[OrderDate.Days].[2021].[1] : [OrderDate.Days].[2021].[6]}
)
Axis #0:
{[OrderDate.Days].[2021].[1]}
{[OrderDate.Days].[2021].[2]}
{[OrderDate.Days].[2021].[3]}
{[OrderDate.Days].[2021].[4]}
{[OrderDate.Days].[2021].[5]}
{[OrderDate.Days].[2021].[6]}
Axis #1:
{[Measures].[Profit]}
Axis #2:
{[Customer.FullName].[Jordan C Turner]}
{[Customer.FullName].[Marco Lopez]}
{[Customer.FullName].[Lacey C Zheng]}
{[Customer.FullName].[Larry Munoz]}
{[Customer.FullName].[Ruben Suarez]}
{[Customer.FullName].[Martin Suri]}
{[Customer.FullName].[Ariana D Gray]}
{[Customer.FullName].[Ricky M Navarro]}
{[Customer.FullName].[Kelvin A Carson]}
{[Customer.FullName].[Lawrence M Sanz]}
Row #0: 2.379,311
Row #1: 2.357,353
Row #2: 2.137,728
Row #3: 2.131,155
Row #4: 2.088,751
Row #5: 2.079,374
Row #6: 2.056,176
Row #7: 2.047,938
Row #8: 2.047,247
Row #9: 2.042,164
Execute
Value

3.4


MDX Query - connected to bike_sales.xml
Schema
2 bike_sales.xml
Connect
SELECT {Measures.[Quantity]} ON COLUMNS,
NON EMPTY
TopCount(Order([Customer.FullName].[FullName].MEMBERS, Measures.[Quantity], BDESC),5) ON ROWS
FROM [bike_sales]
WHERE (
{[ShippedTo.Territory].[Region].&[Europe]}
)
Axis #0:
{[ShippedTo.Territory].[Europe]}
Axis #1:
{[Measures].[Quantity]}
Axis #2:
{[Customer.FullName].[April L Shan]}
{[Customer.FullName].[Lisa Cai]}
{[Customer.FullName].[Jordan C Turner]}
{[Customer.FullName].[Lacey C Zheng]}
{[Customer.FullName].[Marco Lopez]}
Row #0: 58
Row #1: 25
Row #2: 17
Row #3: 17
Row #4: 17
Execute
Value

3.5

```
1  select l.Country,
2  year(OrderDate) as "Year",
3  EnglishMonthName as "Month",
4  SUM(OrderLineShippingCost) AS "Shipping costs"
5  from Dim_Location l
6  join Fact_InternetSales f on f.ShipToLocationKey =l.LocationKey
7  join Dim_Date d on d.DateKey=f.OrderDateKey
8  where l.Country ='United Kingdom'
9  and ShipMethod = 'Cargo International'
10 and f.OrderDate BETWEEN '2020-01-01' AND '2020-06-30'
11 group by l.Country,year(OrderDate),EnglishMonthName;
```



Country	Year	Month	Shipping costs
United Kingdom	2020	January	195.0000
United Kingdom	2020	February	390.0000
United Kingdom	2020	March	312.0000
United Kingdom	2020	April	351.0000
United Kingdom	2020	May	332.0000
United Kingdom	2020	June	1473.0000

3.6

```sql
WITH RankedProducts AS (select p.ProductTopCategoryName ,
p.ProductSubCategoryName,
p.ProductModelName,
SUM(f.OrderQty) as "Sold",
ROW_NUMBER() OVER (PARTITION BY p.ProductTopCategoryName ORDER BY SUM(f.OrderQty) DESC) AS "Ranking"
from Dim_Product p
join Fact_InternetSales f on f.ProductKey=P.ProductKey
group by p.ProductTopCategoryName,p.ProductSubCategoryName,p.ProductModelName
)
SELECT
    ProductTopCategoryName as "Product Top Category",
    ProductSubCategoryName  as "Product Sub Category",
    ProductModelName as "Product Model" ,
    Sold as "Quantity Sold"
FROM
    RankedProducts
WHERE
    Ranking <= 3
ORDER BY
    ProductTopCategoryName, Ranking;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Product Top Category	Product Sub Category	Product Model	Quantity Sold
Accessories	Helmets	Sport-100	6440
Accessories	Bottles and Cages	Water Bottle	4244
Accessories	Tires and Tubes	Patch kit	3191
Bikes	Mountain Bikes	Mountain-200	3552
Bikes	Road Bikes	Road-250	1903
Bikes	Road Bikes	Road-150	1551
Clothing	Caps	Cycling Cap	2190
Clothing	Jerseys	Long-Sleeve Logo Jersey	1736
Clothing	Jerseys	Short-Sleeve Classic Jersey	1596

3.7

```
select l.Country,
SUM(OrderLineProfit) AS "Profit"
from Dim_Location l
join Fact_InternetSales f on f.ShipToLocationKey =l.LocationKey
where f.UnitPrice BETWEEN 1000 AND 2000
group by l.Country
order by SUM(OrderLineProfit)  desc
limit 3;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch r

Country	Profit
USA	415614.1974
Australia	343058.6932
United Kingdom	163509.0315

3.8

```
select year(OrderDate) as "Year",
EnglishMonthName as "Month",
l.Country,
SUM(OrderLineTaxAmt) AS "Tax Amount"
from Dim_Location l
join Fact_InternetSales f on f.ShipToLocationKey =l.LocationKey
join Dim_Date d on d.DateKey=f.OrderDateKey
where l.Country in ('France','Germany')
and f.OrderDate BETWEEN '2021-01-01' AND '2021-06-30'
group by year(OrderDate),EnglishMonthName,month(OrderDate),l.Country
order by year(OrderDate),month(OrderDate);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Year	Month	Country	Tax Amount
2021	January	France	28179.9395
2021	January	Germany	16455.8284
2021	February	France	19852.6459
2021	February	Germany	17006.6435
2021	March	France	29396.2691
2021	March	Germany	21615.9339
2021	April	France	25516.9813
2021	April	Germany	21735.8471
2021	May	France	33606.1848
2021	May	Germany	23530.6368
2021	June	France	563.2117
2021	June	Germany	380.1160