

John Furlong
CSCI 3287
Extra Credit Assignment #2
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Data Warehouse Lab

1. Which salesperson produced the most total revenue for this organization during 2012?
(Total Revenue = SalesPrice * Quantity)

```
SELECT FORMAT(SUM(F.SalesPrice * F.Quantity), 2) as Revenue, S.SalesPersonName as  
Name
```

```
FROM sales_dw.fact_productsales as F  
INNER JOIN sales_dw.dim_salesperson as S  
ON F.SalesPersonID = S.SalesPersonID  
INNER JOIN sales_dw.dim_date as D  
ON D.DateKey = F.SalesDateKey  
WHERE D.YEAR = '2012'  
GROUP BY Name;
```

Revenue	Name
2,316.00	Tom Petty
1,898.00	John Paul Jones
1,079.50	Danny Weller
2,885.50	Julian Brand
2,084.50	Jasmin Farah
486.00	Jacob Leis

Julian Brand produced the most total revenue for the organization during 2012.

2. Which customer's revenue increased the most from 2012 to 2013? (Total Revenue = SalesPrice * Quantity)

```
SELECT
    C.CustomerName as Name,
    SUM( CASE WHEN D.YEAR = '2012' THEN (F.SalesPrice * F.Quantity) ELSE 0 END) AS
'2012rev',
    SUM( CASE WHEN D.YEAR = '2013' THEN (F.SalesPrice * F.Quantity) ELSE 0 END) AS
'2013rev'
FROM sales_dw.fact_productsales as F
    INNER JOIN sales_dw.dim_customer as C
    ON F.CustomerID = C.CustomerID
    INNER JOIN sales_dw.dim_date as D
    ON D.DateKey = F.SalesDateKey
WHERE D.YEAR = '2012' OR '2013'
GROUP BY Name
```

Name	2012rev	2013rev
Harrison Ford	1162.50	1423.00
Melinda Gates	1898.00	361.00
Elon Musk	1565.50	342.00
Aldous Huxley	4970.00	852.00
Linda Ronstadt	1153.50	0.00

Harrison Ford's Revenue increased the most from 2012 to 2013.

3. Rank all stores by their total revenue for each year represented in the data warehouse. In other words, for a given year rank the three stores by revenue for that year.

```
SELECT FORMAT(SUM(F.SalesPrice * F.Quantity), 2) as Revenue, D.YEAR as year,  
S.StoreName as store  
FROM sales_dw.fact_productsales as F  
INNER JOIN sales_dw.dim_store as S  
ON F.StoreID = S.StoreID  
INNER JOIN sales_dw.dim_date as D  
ON D.DateKey = F.SalesDateKey  
GROUP BY store, year  
ORDER BY year DESC;
```

Revenue	year	store
783.50	2017	ValueMart Berthoud
437.50	2017	ValueMart Lyons
3,746.00	2017	ValueMart Boulder
1,711.00	2016	ValueMart Berthoud
2,339.00	2016	ValueMart Lyons
6,519.00	2016	ValueMart Boulder
1,112.50	2015	ValueMart Berthoud
1,062.00	2015	ValueMart Lyons
4,608.00	2015	ValueMart Boulder
342.00	2013	ValueMart Berthoud
361.00	2013	ValueMart Lyons
2,275.00	2013	ValueMart Boulder
1,565.50	2012	ValueMart Berthoud
1,898.00	2012	ValueMart Lyons
7,286.00	2012	ValueMart Boulder
1,737.50	2011	ValueMart Berthoud
2,168.00	2011	ValueMart Lyons
7,336.00	2011	ValueMart Boulder
1,231.00	2010	ValueMart Lyons
5,975.50	2010	ValueMart Boulder
1,123.00	2010	ValueMart Berthoud

4. Which product yielded the highest profit in 2015? (Profit = (sales price – actual cost) * quantity)

```
SELECT FORMAT(SUM((F.SalesPrice - F.ProductCost)*F.Quantity), 2) as Profit,  
P.ProductName as Name  
FROM sales_dw.fact_productsales as F  
INNER JOIN sales_dw.dim_product as P  
ON F.ProductID = P.ProductKey  
INNER JOIN sales_dw.dim_date as D  
ON D.DateKey = F.SalesDateKey  
WHERE D.YEAR = '2015'  
GROUP BY Name;
```

Profit	Name
49.00	Wheat Flour 1kg
102.00	Jasmine Rice 5kg
81.00	SunFlower Oil 1 ltr
12.00	Dawn Dish Soap, case
68.00	Tide Laundry Detergent 1kg case

Jasmine Rice yielded the highest profit in 2015.

5. In which calendar quarter in 2016 did the Boulder store show the highest revenue?

```
SELECT FORMAT(SUM(F.SalesPrice * F.Quantity), 2) as Revenue, S.StoreName as Name,  
D.QUARTER as quarter  
FROM sales_dw.fact_productsales as F  
INNER JOIN sales_dw.dim_store as S  
ON F.StoreID = S.StoreID  
INNER JOIN sales_dw.dim_date as D  
ON D.DateKey = F.SalesDateKey  
WHERE S.StoreName = "ValueMart Boulder" AND D.YEAR = '2016'  
GROUP BY quarter;
```

Revenue	Name	quarter
1,622.50	ValueMart Boulder	1
1,144.50	ValueMart Boulder	2
2,259.50	ValueMart Boulder	3
1,492.50	ValueMart Boulder	4

The Boulder Branch had the highest revenue in Q3 of 2016.