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CSCI 3287-320  
Homework 5-DW

1. SELECT a.CustomerName, a.Gender, b.SalesPersonName, b.City  
FROM Fact\_ProductSales d  
INNER JOIN Dim\_Customer a ON a.CustomerID = d.CustomerID  
INNER JOIN Dim\_SalesPerson b ON b.SalesPersonID = d.SalesPersonID  
INNER JOIN Dim\_Date c ON c.DateKey = d.SalesDateKey  
WHERE c.MONTHNAME = 'September' AND c.YEAR = '2015' AND d.SalesPrice > 20  
AND d.Quantity > 8;

	CustomerName	Gender	SalesPersonName	City
►	Linda Ronstadt	F	Tom Petty	Boulder
	Elon Musk	M	Jacob Leis	Lafayette

2. SELECT a.StoreName, a.City, b.ProductName  
FROM Fact\_ProductSales d  
INNER JOIN Dim\_Store a ON a.StoreID = d.StoreID  
INNER JOIN Dim\_Product b ON b.ProductKey = d.ProductID  
INNER JOIN Dim\_Date c ON c.DateKey = d.SalesDateKey  
WHERE c.MONTHNAME = 'March' and c.YEAR = '2017'  
AND d.ProductCost < 50 AND a.City = 'Boulder';

	StoreName	StoreCity	ProductName
►	ValueMart Boulder	Boulder	Wheat Flour 1kg
	ValueMart Boulder	Boulder	Jasmine Rice 5kg
	ValueMart Boulder	Boulder	SunFlower Oil 1 ltr

3. SELECT e.SalesPersonName, Sum(e.TotalRevenue) AS Top2SalesRevenue  
FROM(SELECT b.SalesPersonName, a.ProductID, ((Sum(a.Quantity)) \* a.SalesPrice)  
AS TotalRevenue  
FROM Fact\_ProductSales a  
INNER JOIN Dim\_SalesPerson b ON a.SalesPersonID = b.SalesPersonID  
INNER JOIN Dim\_Date c ON c.DateKey = a.SalesDateKey  
WHERE c.YEAR = 2017  
GROUP BY a.SalesPersonID, b.SalesPersonName, a.ProductID, a.Quantity,  
a.SalesPrice) e  
GROUP BY e.SalesPersonName  
ORDER BY Top2SalesRevenue Desc  
LIMIT 2;

	SalesPersonName	Top2SalesRevenue
►	Julian Brand	2588.00
	Jasmin Farah	1158.00

4. SELECT e.CustomerName, Sum(e.TotalRevenue) AS LowestTotalRevenue  
FROM(SELECT b.CustomerName, a.ProductID, ((Sum(a.Quantity)) \* a.SalesPrice) AS  
TotalRevenue  
FROM Fact\_ProductSales a  
INNER JOIN Dim\_Customer b ON a.CustomerID = b.CustomerID  
INNER JOIN Dim\_Date c ON c.DateKey = a.SalesDateKey  
WHERE c.YEAR = 2017  
GROUP BY a.CustomerID, b.CustomerName, a.ProductID, a.Quantity, a.SalesPrice) e  
GROUP BY e.CustomerName  
ORDER BY LowestTotalRevenue  
LIMIT 1;

	CustomerName	LowestTotalRevenue
►	Melinda Gates	437.50

5. SELECT e.StoreName, Sum(e.Total\_Sales\_Price) AS 'Total Sales Price'  
 FROM(SELECT a.StoreName, c.ProductID, ((Sum(c.Quantity)) \* c.SalesPrice) AS  
 Total\_Sales\_Price  
 FROM Fact\_ProductSales c  
 INNER JOIN Dim\_Store a ON a.StoreID = c.StoreID  
 INNER JOIN Dim\_Date b ON b.DateKey = c.SalesDateKey  
 WHERE b.YEAR BETWEEN '2010' AND '2017'  
 GROUP BY c.StoreID, a.StoreName, c.ProductID, c.SalesPrice, c.Quantity) e  
 GROUP BY e.StoreName  
 ORDER BY e.StoreName;

	StoreName	Total Sales Price
►	ValueMart Berthoud	8375.00
	ValueMart Boulder	37745.50
	ValueMart Lyons	9496.50

6. SELECT b.StoreName,a.ProductName,SUM((c.SalesPrice \* c.Quantity)-(c.ProductCost  
 \* c.Quantity)) AS TotalProfit  
 FROM Fact\_ProductSales c  
 INNER JOIN Dim\_Product a ON c.ProductID=a.ProductKey  
 INNER JOIN Dim\_Store b ON b.StoreID = c.StoreID  
 INNER JOIN Dim\_Date d ON c.SalesDateKey=d.DateKey  
 WHERE a.ProductName LIKE '%Jasmine Rice%'  
 AND D.YEAR= 2010  
 GROUP BY b.StoreName,a.ProductName;

	StoreName	ProductName	TotalProfit
►	ValueMart Boulder	Jasmine Rice 5kg	50.00
	ValueMart Lyons	Jasmine Rice 5kg	19.00
	ValueMart Berthoud	Jasmine Rice 5kg	18.00

7. SELECT c.QUARTER, (SUM(SalesPrice\*Quantity)) AS TotalRevenue  
 FROM Fact\_ProductSales b  
 INNER JOIN Dim\_Store a ON b.StoreID=a.StoreID  
 INNER JOIN Dim\_Date c ON b.SalesDateKey=c.DateKey  
 WHERE a.StoreName='ValueMart Boulder' AND c.YEAR='2016'  
 GROUP BY c.QUARTER  
 ORDER BY c.QUARTER ASC;

	QUARTER	TotalRevenue
▶	1	1622.50
	2	1144.50
	3	2259.50
	4	1492.50

8. SELECT a.CustomerName,SUM(SalesPrice\*Quantity) AS TotalSales  
 FROM Dim\_Customer a,Fact\_ProductSales b  
 WHERE a.CustomerName='Melinda Gates' OR a.CustomerName='Harrison Ford'  
 GROUP BY a.CustomerName;

	CustomerName	TotalSales
▶	Harrison Ford	55617.00
	Melinda Gates	55617.00

9. SELECT a.StoreName, b.SalesPrice, b.Quantity  
 FROM Fact\_ProductSales b  
 INNER JOIN Dim\_Store a ON b.StoreID=a.StoreID  
 INNER JOIN Dim\_Date c ON b.SalesDateKey=c.DateKey  
 WHERE c.DATE = '2017-12-03';

	StoreName	SalesPrice	Quantity
▶	ValueMart Boulder	6.50	8
	ValueMart Boulder	24.00	3
	ValueMart Boulder	43.50	9

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10. SELECT SP.SalesPersonName, SUM(P.SalesPrice*P.Quantity) AS TotalRevenue
FROM Dim_SalesPerson SP JOIN fact_productsales P ON
SP.SalesPersonID = P.SalesPersonID
GROUP BY SP.SalesPersonID
ORDER BY TotalRevenue DESC LIMIT 1;

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	SalesPersonName	TotalRevenue
▶	Julian Brand	21164.50

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11. SELECT a.ProductName, SUM(((b.SalesPrice * b.Quantity) - (b.ProductCost *
b.Quantity))) AS TotalProfit
FROM Fact_ProductSales b
JOIN Dim_Product a on b.ProductID = a.ProductKey
GROUP BY a.ProductKey
ORDER BY TotalProfit DESC LIMIT 3

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	ProductName	TotalProfit
▶	SunFlower Oil 1 ltr	686.50
	Jasmine Rice 5kg	664.50
	Tide Laundry Detergent 1kg case	584.00

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12. SELECT a.Year, a.MonthName, Sum(b.SalesPrice * b.Quantity) AS TotalRevenue
FROM Fact_ProductSales b
INNER JOIN Dim_Date a ON b.SalesDatekey = a.DateKey
GROUP BY a.Year, a.MonthName
HAVING a.MonthName IN('January', 'February' , 'March') and year = '2017';

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	Year	MonthName	TotalRevenue
▶	2017	January	1417.50
	2017	February	1595.50
	2017	March	1954.00

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13. SELECT a.ProductName , Round(AVG(b.ProductCost),2) AS AvgCost,
      Round(AVG(b.SalesPrice),2) AS AvgSales
      FROM Dim_Product a
      INNER JOIN Fact_ProductSales b ON a.ProductKey = b.ProductID
      INNER JOIN Dim_Date c ON b.SalesDatekey = c.DateKey
      WHERE c.YEAR = 2017
      GROUP BY a.ProductName;

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	ProductName	AvgCost	AvgSales
▶	Wheat Flour 1kg	5.50	6.50
	Jasmine Rice 5kg	22.50	24.00
	SunFlower Oil 1 ltr	42.00	43.50
	Dawn Dish Soap, case	18.00	20.00
	Tide Laundry Detergent 1kg case	135.00	139.00

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14. SELECT a.CustomerName, Round(Avg(b.SalesPrice), 2) AS AvgSales,
      Round(Avg(b.Quantity), 2) AS AvgQuantity
      FROM Dim_Customer a
      INNER JOIN Fact_ProductSales b on a.CustomerID = b.CustomerID
      GROUP BY a.CustomerName HAVING a.CustomerName = 'Melinda Gates';

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	CustomerName	AvgSales	AvgQuantity
▶	Melinda Gates	26.02	4.98

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15. SELECT a.StoreName, Round(Max(b.SalesPrice),2) AS MaxSales,
      Round(Min(b.SalesPrice),2) AS MinSales
      FROM Dim_Store a
      INNER JOIN Fact_ProductSales b ON a.StoreID = b.StoreID
      WHERE a.City = 'Boulder'
      GROUP BY a.StoreName;

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	StoreName	MaxSales	MinSales
▶	ValueMart Boulder	139.00	6.50