/\*Homework 5\*/

/\*Pourna Sengupta\*/

USE HW\_5\_DW;

/\*1. Show a list of Customer Name, Gender, Sales Person Name and Sales Person's City

for all products sold on September 2015, whose Sales Price is more than 20 and Quantity

sold is more than 8.\*/

SELECT c.CustomerName, c.Gender, s.SalesPersonName, s.City AS SalesPersonCity

FROM Dim\_Customer c, Dim\_SalesPerson s, Dim\_Date d, Fact\_ProductSales f

WHERE c.CustomerID = f.CustomerID

AND s.SalesPersonID = f.SalesPersonID

AND d.DateKey = f.SalesDateKey

AND d.MONTHNAME = 'September'

AND d.YEAR = '2015'

AND f.SalesPrice > 20

AND f.Quantity > 8;

/\*

'Linda Ronstadt','F','Tom Petty','Boulder'

'Elon Musk','M','Jacob Leis','Lafayette'

\*/

/\*2. Show a list of Store Name, Store's City and Product Name for all products sold on

March 2017, whose Product Cost is less than 50 and store located in 'Boulder'.\*/

SELECT st.StoreName, st.City AS StoreCity, p.ProductName

FROM Dim\_Store st, Dim\_Product p, Dim\_Date d, Fact\_ProductSales f

WHERE st.StoreID = f.StoreID

AND p.ProductKey = f.ProductID

AND d.DateKey = f.SalesDateKey

AND d.MONTHNAME = 'March'

AND d.YEAR = '2017'

AND f.ProductCost < 50

AND st.City = 'Boulder';

/\*

'ValueMart Boulder','Boulder','Wheat Flour 1kg'

'ValueMart Boulder','Boulder','Jasmine Rice 5kg'

'ValueMart Boulder','Boulder','SunFlower Oil 1 ltr'

\*/

/\*3. Show a list of Top 2 Sales Person by their Total Revenue for 2017,

i.e. Top 2 sales person with HIGHEST Total Revenue.\*/

SELECT top.SalesPersonName, SUM(top.TotalRevenue) AS TopSalesRevenue

FROM

(SELECT sp.SalesPersonName, f.ProductID, ((SUM(f.Quantity)) \* f.SalesPrice) AS TotalRevenue

FROM Fact\_ProductSales f, Dim\_SalesPerson sp, Dim\_Date d

WHERE f.SalesPersonID = sp.SalesPersonID

AND d.DateKey = f.SalesDateKey

AND YEAR = '2017'

GROUP BY f.SalesPersonID, sp.SalesPersonName, f.ProductID, f.Quantity, f.SalesPrice) top

GROUP BY top.SalesPersonName

ORDER BY TopSalesRevenue Desc

LIMIT 2;

/\*

'Julian Brand','2588.00'

'Jasmin Farah','1158.00'

\*/

/\*4. Display a Customer Name and Total Revenue who has LOWEST Total Revenue in 2017.\*/

SELECT c.CustomerName, SUM(f.SalesPrice \* f.Quantity) AS TotalRevenue

FROM Fact\_ProductSales f

JOIN Dim\_Customer c ON (f.CustomerID = c.CustomerID)

JOIN Dim\_Date d ON (f.SalesDateKey = d.DateKey)

WHERE (d.Year = '2017')

GROUP BY c.CustomerName

ORDER BY SUM(f.SalesPrice \* f.Quantity) ASC

LIMIT 1;

/\*

'Melinda Gates' , '437.50'

\*/

/\*5. Show a list of Store Name (in alphabetical order) and their 'Total Sales Price' for

the year between 2010 and 2017.\*/

SELECT s.StoreName, SUM(f.SalesPrice) As TotalSalesPrice

FROM Fact\_ProductSales f

JOIN Dim\_Store s ON (f.StoreID = s.StoreID)

JOIN Dim\_Date d ON (f.SalesDateKey = d.DateKey)

WHERE(d.Year = '2017')

OR (d.Year = '2016')

OR (d.Year = '2015')

OR (d.Year = '2014')

OR (d.Year = '2013')

OR (d.Year = '2012')

OR (d.Year = '2011')

OR (d.Year = '2010')

GROUP BY s.StoreName

ORDER BY s.StoreName ASC;

/\*

'ValueMart Berthoud','1554.00'

'ValueMart Boulder','7961.00'

'ValueMart Lyons','1759.50'

\*/

/\*6. Display a list of Store Name, Product Name and their Total Profits from product name

like 'Jasmine Rice' for 2010.\*/

SELECT s.StoreName, p.ProductName, SUM((f.SalesPrice \* f.Quantity) - (f.ProductCost \* f.Quantity)) AS TotalProfit

FROM Fact\_ProductSales f

JOIN Dim\_Store s ON (f.StoreID = s.StoreID)

JOIN Dim\_Product p ON (f.ProductID = p.ProductKey)

JOIN Dim\_Date d ON (f.SalesDateKey = d.DateKey)

WHERE p.ProductName LIKE 'Jasmine Rice%' AND d.Year = '2010'

GROUP BY s.StoreName,p.ProductName;

/\*

'ValueMart Boulder','Jasmine Rice 5kg','50.00'

'ValueMart Lyons','Jasmine Rice 5kg','19.00'

'ValueMart Berthoud','Jasmine Rice 5kg','18.00'

\*/

/\*7. Display Total Revenue from 'ValueMart Boulder' Store for each Quarter during 2016,

sort your result by Quarter in chronological order.\*/

SELECT SUM(f.SalesPrice \* f.Quantity)

FROM Fact\_ProductSales f

JOIN Dim\_Store s ON (f.StoreID = s.StoreID)

JOIN Dim\_Date d ON (f.SalesDateKey = d.DateKey)

WHERE s.StoreName = 'ValueMart Boulder' AND (d.Year = '2016')

GROUP BY d.QUARTER

ORDER BY d.QUARTER ASC;

/\*

'1622.50'

'1144.50'

'2259.50'

'1492.50'

\*/

/\*8. Display Customer Name and Total Sales Price for all items purchased by customers

Melinda Gates and Harrison Ford.\*/

SELECT c.CustomerName, SUM(f.SalesPrice) AS TotalSalesPrice

FROM Fact\_ProductSales f

JOIN Dim\_Customer c ON (f.CustomerID = c.CustomerID)

WHERE (c.CustomerName = 'Melinda Gates') OR (c.CustomerName = 'Harrison Ford')

GROUP BY c.CustomerName;

/\*

'Harrison Ford','2234.00'

'Melinda Gates','1717.00'

\*/

/\*9. Display Store Name, Sales Price and Quantity for all items sold in March 12th 2017.\*/

SELECT s.StoreName, f.SalesPrice, f.Quantity

FROM Fact\_ProductSales f

JOIN Dim\_Store s ON (f.StoreID = s.StoreID)

JOIN Dim\_Date d ON (f.SalesDateKey = d.DateKey)

WHERE Date = '2017-03-12';

/\*

'ValueMart Boulder','6.50','8'

'ValueMart Boulder','24.00','3'

'ValueMart Boulder','43.50','9'

\*/

/\*10. Display Sales Person Name and Total Revenue for the best performing Sales Person,

i.e., the Sales Person with the HIGHEST Total Revenue.\*/

SELECT s.SalesPersonName, SUM(f.SalesPrice \* f.Quantity) AS TotalRevenue

FROM Fact\_ProductSales f

JOIN Dim\_SalesPerson s ON (f.SalesPersonID = s.SalesPersonID)

GROUP BY s.SalesPersonName

ORDER BY SUM(f.SalesPrice \* f.Quantity) DESC

LIMIT 1;

/\*

'Julian Brand' , '21164.50'

\*/

/\*11. Display the Top 3 Product Name by their HIGHEST Total Profit.\*/

SELECT p.ProductName

FROM Fact\_ProductSales f

JOIN Dim\_Product p ON (f.ProductID = p.ProductKey)

GROUP BY p.ProductName

ORDER BY SUM((f.SalesPrice \* f.Quantity)-(f.ProductCost \* f.Quantity)) DESC

LIMIT 3;

/\*

'SunFlower Oil 1 ltr'

'Jasmine Rice 5kg'

'Tide Laundry Detergent 1kg case'

\*/

/\*12. Display Year, MonthName and Total Revenue for the 1st 3 months

(i.e. January, February and March) of 2017.\*/

SELECT d.Year, d.MONTHNAME, SUM(f.SalesPrice \* f.Quantity) AS TotalRevenue

FROM Fact\_ProductSales f

JOIN Dim\_Date d ON (f.SalesDateKey = d.DateKey)

WHERE d.Year = '2017' AND d.Quarter = 1

GROUP BY d.MONTHNAME;

/\*

'2017','January','1417.50'

'2017','February','1595.50'

'2017','March','1954.00'

\*/

/\*13. Display Product Name, average product cost and average sales price for the products

sold in 2017. Show averages rounded to 2 decimal places.\*/

SELECT p.ProductName, ROUND(AVG(f.ProductCost),2) AS AverageProductCost, ROUND(AVG(f.SalesPrice),2) AS AverageSalesPrice

FROM Fact\_ProductSales f

JOIN Dim\_Product p ON (f.ProductID = p.ProductKey)

JOIN Dim\_Date d ON (f.SalesDateKey = d.DateKey)

WHERE (d.Year = '2017')

GROUP BY p.ProductName;

/\*

'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'

\*/

/\*14. Display Customer Name, average sales price and average quantity for all items purchased

by customer Melinda Gates. Show averages rounded to 2 decimal places.\*/

SELECT c.CustomerName, ROUND(AVG(f.SalesPrice),2) AS AverageSalesPrice, ROUND(AVG(Quantity),2) As AverageQuantity

FROM Fact\_ProductSales f

JOIN Dim\_Customer d ON (f.CustomerID = c.CustomerID)

WHERE (c.CustomerName = 'Melinda Gates');

/\*

'Melinda Gates' , '26.02', '4.98'

\*/

/\*15. Display Store Name, Maximum sales price and Minimum sales price for store located in

'Boulder' city. Show MIN / MAX rounded to 2 decimal places.\*/

SELECT s.StoreName, MAX(f.SalesPrice), MIN(f.SalesPrice)

FROM Fact\_ProductSales f

JOIN Dim\_Store s ON (f.StoreID = s.StoreID)

WHERE s.City = 'Boulder'

GROUP BY s.StoreName;

/\*

'ValueMart Boulder' , '139.00' , '6.50'

\*/