**AdventureWorksDW 2017 SQL Queries Ashish Kumar**

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use AdventureWorksDW2017;

/\*1. What are the sales, product costs, profit, number of orders

& quantity ordered for internet sales by product category and ranked by sales?\*/

SELECT DENSE\_RANK() OVER (order by sum (Sales.SalesOrderHeader.TotalDue) desc) as Ranking,

DC.ENGLISHPRODUCTCATEGORYNAME,FS.ORDERQUANTITY,FS.UNITPRICE,

SUM(FS.ORDERQUANTITY)AS No\_of\_ORDERS,

SUM(FS.ORDERQUANTITY\*FS.SALESAMOUNT) AS TOTAL\_SALES,

(FS.SALESAMOUNT-FS.TOTALPRODUCTCOST)\*SUM(FS.ORDERQUANTITY) AS PROFIT

FROM DBO.DIMPRODUCT DP, DBO.DIMPRODUCTSUBCATEGORY

DS,DBO.DIMPRODUCTCATEGORY DC, DBO.FACTINTERNETSALES FS

WHERE DP.PRODUCTSUBCATEGORYKEY=DS.PRODUCTSUBCATEGORYKEY

AND DS.PRODUCTCATEGORYKEY=DC.PRODUCTCATEGORYKEY

AND DP.PRODUCTKEY=FS.PRODUCTKEY

GROUP BY DC.ENGLISHPRODUCTCATEGORYNAME,FS.ORDERQUANTITY,FS.UNITPRICE,FS.SALESAMOUNT, FS.TOTALPRODUCTCOST

ORDER BY TOTAL\_SALES DESC;

/\*(46 rows affected)\*/

/\*2.What are the sales, product costs, profit, number of orders &

quantity ordered for reseller sales by product category and ranked by sales?\*/

SELECT DPC.ENGLISHPRODUCTCATEGORYNAME ,FIS.ORDERQUANTITY,

SUM(FIS.ORDERQUANTITY) AS NOOFORDERS,

SUM(FIS.ORDERQUANTITY\*FIS.SALESAMOUNT) AS TOTALSALES,

(FIS.SALESAMOUNT-FIS.TOTALPRODUCTCOST)\*(FIS.ORDERQUANTITY) AS PROFIT

FROM DBO.DimProduct DP, DBO.DIMPRODUCTSUBCATEGORY

DSC,DBO.DIMPRODUCTCATEGORY DPC,DBO.FACTRESELLERSALES FIS

WHERE DP.PRODUCTSUBCATEGORYKEY=DSC.PRODUCTSUBCATEGORYKEY

AND DSC.PRODUCTCATEGORYKEY=DPC.PRODUCTCATEGORYKEY

AND DP.PRODUCTKEY=FIS.PRODUCTKEY

GROUP BY

DPC.ENGLISHPRODUCTCATEGORYNAME,FIS.ORDERQUANTITY ,FIS.SALESAMOUNT,

FIS.TOTALPRODUCTCOST

ORDER BY TOTALSALES DESC;

/\*(1556 rows affected)\*/

/\*3. What are the sales, product costs, profit, number of orders &

quantity ordered for both internet & reseller sales by product category and ranked by sales?\*/

SELECT DC.ENGLISHPRODUCTCATEGORYNAME ,

F.ORDERQUANTITY,

F.UNITPRICE AS INTERNET,

FI.UNITPRICE AS RESELLER,

SUM(F.ORDERQUANTITY+FI.ORDERQUANTITY) AS NOOFORDERS,

SUM(F.ORDERQUANTITY\*F.SALESAMOUNT) + SUM(FI.ORDERQUANTITY\*FI.SALESAMOUNT) AS SALES,

SUM((F.SALESAMOUNT-F.TOTALPRODUCTCOST)\*(F.ORDERQUANTITY) +

(FI.SALESAMOUNT-FI.TOTALPRODUCTCOST)\*(FI.ORDERQUANTITY))AS PROFIT

FROM DBO.DIMPRODUCT DP, DBO.DIMPRODUCTSUBCATEGORY DS,DBO.DIMPRODUCTCATEGORY DC,DBO.FACTRESELLERSALES

F,DBO.FACTINTERNETSALES FI

WHERE DP.PRODUCTSUBCATEGORYKEY=DS.PRODUCTSUBCATEGORYKEY

AND DS.PRODUCTCATEGORYKEY=DC.PRODUCTCATEGORYKEY

AND DP.PRODUCTKEY=F.PRODUCTKEY

AND DP.PRODUCTKEY=FI.PRODUCTKEY

GROUP BY

DC.ENGLISHPRODUCTCATEGORYNAME,F.ORDERQUANTITY,F.UNITPRICE,F.SALESAMOUNT,F.TOTALPRODUCTCOST,FI.ORDERQUANTITY,FI.SALESAMOUNT,FI.TOTALPRODUCTCOST,FI.UNITPRICE

ORDER BY SALES DESC;

/\*(691 rows affected)\*/

/\*4. What are the sales, product costs, profit, number of orders & quantity ordered for product category Accessories broken-down by Product Hierarchy

(Category, Subcategory, Model & Product) for both internet & reseller sales?\*/

SELECT DC.ENGLISHPRODUCTCATEGORYNAME

,DS.ENGLISHPRODUCTSUBCATEGORYNAME,DP.ENGLISHPRODUCTNAME,DP.MODELNAME

,F.ORDERQUANTITY,F.UNITPRICE AS INTERNET,FI.UNITPRICE AS RESELLER,

SUM(F.ORDERQUANTITY+FI.ORDERQUANTITY) AS NOOFORDERS,

SUM(F.ORDERQUANTITY\*F.SALESAMOUNT) + SUM(FI.ORDERQUANTITY\*FI.SALESAMOUNT) AS TOTALSALES, SUM((F.SALESAMOUNT-F.TOTALPRODUCTCOST)\*(F.ORDERQUANTITY) + (FI.SALESAMOUNT-FI.TOTALPRODUCTCOST)\*(FI.ORDERQUANTITY))

AS PROFIT

FROM DBO.DIMPRODUCT DP, DBO.DIMPRODUCTSUBCATEGORY DS, DBO.DIMPRODUCTCATEGORY DC, DBO.FACTRESELLERSALES F,DBO.FACTINTERNETSALES FI WHERE DP.PRODUCTSUBCATEGORYKEY=DS.PRODUCTSUBCATEGORYKEY

AND DS.PRODUCTCATEGORYKEY=DC.PRODUCTCATEGORYKEY

AND DP.PRODUCTKEY=F.PRODUCTKEY

AND DP.PRODUCTKEY=FI.PRODUCTKEY

AND DC.ENGLISHPRODUCTCATEGORYNAME='ACCESSORIES'

GROUP BY DC.ENGLISHPRODUCTCATEGORYNAME

,F.ORDERQUANTITY,F.UNITPRICE,F.SALESAMOUNT,F.TOTALPRODUCTCOST,

FI.ORDERQUANTITY,FI.SALESAMOUNT,FI.TOTALPRODUCTCOST,FI.UNITPRICE,DS.ENGLISHPRODUCTSUBCATEGORYNAME,DP.ENGLISHPRODUCTNAME,DP.MODELNAME

ORDER BY TOTALSALES DESC;

/\*5. What are the sales, product costs, profit, number of orders &

quantity ordered for both internet & reseller sales by country and ranked by sales?\*/

SELECT DISTINCT DG.ENGLISHCOUNTRYREGIONNAME,

SUM(F.ORDERQUANTITY) AS RESELLERNOOFQUANTITY,

SUM(Fi.ORDERQUANTITY) AS INTERNETNOOFQUANTITY,

COUNT(F.ORDERQUANTITY) AS NO\_OF\_ORDERS\_FOR\_RESELLER,

COUNT(Fi.ORDERQUANTITY) AS NOOFORDERSFORINTERNET,

SUM(F.ORDERQUANTITY\*F.SALESAMOUNT) AS RESELLERSALES,

SUM(Fi.ORDERQUANTITY\*Fi.SALESAMOUNT) AS INTERNETSALES,

SUM((F.SALESAMOUNT-F.TOTALPRODUCTCOST)\*(F.ORDERQUANTITY)) AS RESELLERPROFIT,

SUM((Fi.SALESAMOUNT-Fi.TOTALPRODUCTCOST)\*(Fi.ORDERQUANTITY)) AS INTERNETPROFIT

FROM DBO.DIMPRODUCT DP,DBO.DIMPRODUCTSUBCATEGORY DS,DBO.DIMPRODUCTCATEGORY

DC, DBO.FACTRESELLERSALES F,DBO.FACTINTERNETSALES Fi, DBO.DIMCUSTOMER DCS,

DBO.DIMGEOGRAPHY DG,DBO.DIMRESELLER DR

WHERE DP.PRODUCTSUBCATEGORYKEY=DS.PRODUCTSUBCATEGORYKEY

AND DS.PRODUCTCATEGORYKEY=DC.PRODUCTCATEGORYKEY

AND DP.PRODUCTKEY=F.PRODUCTKEY

AND DP.PRODUCTKEY=Fi.PRODUCTKEY

AND Fi.CUSTOMERKEY=DCS.CUSTOMERKEY

AND DCS.GEOGRAPHYKEY=DG.GEOGRAPHYKEY

AND DG.GEOGRAPHYKEY=DR.GEOGRAPHYKEY

GROUP BY DG.ENGLISHCOUNTRYREGIONNAME

ORDER BY INTERNETSALES DESC ,RESELLERSALES DESC;

/\*(6 rows affected)\*/

/\*6. What are the sales, product costs, profit, number of orders & quantity ordered

for France by city and ranked by sales for both internet & reseller sales?\*/

SELECT DISTINCT DG.ENGLISHCOUNTRYREGIONNAME,DG.CITY

,SUM(F.ORDERQUANTITY) AS RESELLERNOOFQUANTITY,SUM(Fi.ORDERQUANTITY)AS INTERNETNOOFQUANTITY,

COUNT(F.ORDERQUANTITY) AS NOOFORDERSFORRESELLER,COUNT(Fi.ORDERQUANTITY)

AS NOOFORDERSFORINTERNET,

SUM(F.ORDERQUANTITY\*F.SALESAMOUNT) AS RESELLERSALES,

SUM(Fi.ORDERQUANTITY\*Fi.SALESAMOUNT) AS INTERNETSALES,

SUM((F.SALESAMOUNT-F.TOTALPRODUCTCOST)\*(F.ORDERQUANTITY)) AS RESELLERPROFIT,

SUM((Fi.SALESAMOUNT-Fi.TOTALPRODUCTCOST)\*(Fi.ORDERQUANTITY)) AS INTERNETPROFIT

FROM DBO.DIMPRODUCT DP

JOIN DBO.DIMPRODUCTSUBCATEGORY DS

ON DP.PRODUCTSUBCATEGORYKEY=DS.PRODUCTSUBCATEGORYKEY

JOIN DBO.DIMPRODUCTCATEGORY DC

ON DS.PRODUCTCATEGORYKEY=DC.PRODUCTCATEGORYKEY

JOIN DBO.FACTRESELLERSALES F

ON DP.PRODUCTKEY=F.PRODUCTKEY

JOIN DBO.FACTINTERNETSALES Fi

ON DP.PRODUCTKEY=Fi.PRODUCTKEY

JOIN DBO.DIMCUSTOMER DCS

ON Fi.CUSTOMERKEY=DCS.CUSTOMERKEY

JOIN DBO.DIMGEOGRAPHY DG

ON DCS.GEOGRAPHYKEY=DG.GEOGRAPHYKEY

JOIN DBO.DIMRESELLER DR

ON DG.GEOGRAPHYKEY=DR.GEOGRAPHYKEY

WHERE DG.ENGLISHCOUNTRYREGIONNAME='FRANCE'

GROUP BY DG.ENGLISHCOUNTRYREGIONNAME,DG.CITY

ORDER BY [INTERNETSALES] DESC ,RESELLERSALES DESC;\

/\*(21 rows affected)\*/

/\*7. What are the top ten resellers by reseller hierarchy (business type, reseller name) ranked by sales?\*/

SELECT TOP 10 DR.RESELLERNAME,DR.BUSINESSTYPE,SUM(F.ORDERQUANTITY\*F.SALESAMOUNT) AS

SALES FROM DBO.DIMRESELLER DR, DBO.FACTRESELLERSALES F

WHERE DR.RESELLERKEY=F.RESELLERKEY

GROUP BY DR.RESELLERNAME,DR.BUSINESSTYPE

ORDER BY SALES DESC;

/\*(10 rows affected)\*/

/\*8. What are the top ten (internet) customers ranked by sales?\*/

SELECT CONCAT\_WS(' ',E.FIRSTNAME,E.MIDDLENAME,E.LASTNAME) AS EMPLOYEENAME,

SUM(FRS.SALESAMOUNT\*FRS.ORDERQUANTITY) AS SALESAMOUNT

FROM FACTRESELLERSALES AS FRS INNER JOIN DIMEMPLOYEE AS E

ON FRS.EMPLOYEEKEY=E.EMPLOYEEKEY

GROUP BY E.FIRSTNAME,E.MIDDLENAME,E.LASTNAME

ORDER BY SALESAMOUNT DESC;

/\*(17 rows affected)\*/

/\*9. What are the sales, product costs, profit, number of orders & quantity ordered by Customer Occupation?\*/

SELECT DC.ENGLISHOCCUPATION ,COUNT(F.ORDERQUANTITY) AS NUMBEROFORDERS,SUM(F.ORDERQUANTITY) AS QUANTITYORDERED

,SUM(F.ORDERQUANTITY\*F.SALESAMOUNT) AS SALES

,SUM((F.SALESAMOUNT-F.TOTALPRODUCTCOST)\*(F.ORDERQUANTITY)) AS PROFIT

FROM DBO.DIMCUSTOMER DC,DBO.FACTINTERNETSALES F

WHERE DC.CUSTOMERKEY=F.CUSTOMERKEY

GROUP BY DC.ENGLISHOCCUPATION

ORDER BY SALES;

/\*(5 rows affected)\*/

/\*10. What are the ranked sales of the sales people (employees)?\*/

SELECT CONCAT\_WS(' ',E.FIRSTNAME,E.MIDDLENAME,E.LASTNAME) AS 'EMPLOYEE NAME',

SUM(F.SALESAMOUNT\*F.ORDERQUANTITY) AS SALESAMOUNT

FROM FACTRESELLERSALES AS F INNER JOIN DIMEMPLOYEE AS E

ON F.EMPLOYEEKEY=E.EMPLOYEEKEY

GROUP BY E.FIRSTNAME,E.MIDDLENAME,E.LASTNAME

ORDER BY SALESAMOUNT DESC;

/\*(17 rows affected)\*/

/\*11. What are the sales, discount amounts (promotion discounts), profit and promotion %

of sales for Reseller Sales by Promotion Hierarchy (Category, Type & Name) – sorted descending by sales.?\*/

SELECT DP.ENGLISHPROMOTIONCATEGORY,DP.ENGLISHPROMOTIONTYPE,DP.ENGLISHPROMOTIONNAME, SUM((DP.DISCOUNTPCT\*F.SALESAMOUNT)) AS DISCOUNTAMOUNTS,

F.DISCOUNTAMOUNT,SUM(F.ORDERQUANTITY\*((F.SALESAMOUNT)-

(DP.DISCOUNTPCT\*F.SALESAMOUNT))) AS SALES,

SUM((((F.SALESAMOUNT)-(DP.DISCOUNTPCT\*F.SALESAMOUNT))-

F.TOTALPRODUCTCOST)\*(F.ORDERQUANTITY)) AS PROFIT,

100\*(SUM((DP.DISCOUNTPCT\*F.SALESAMOUNT)))/SUM(F.ORDERQUANTITY\*((F.SALESAMOUNT

)-(DP.DISCOUNTPCT\*F.SALESAMOUNT))) AS PercentOFPROMOTIONSALE

FROM DBO.DIMPROMOTION DP

JOIN DBO.FACTRESELLERSALES F

ON DP.PROMOTIONKEY=F.PROMOTIONKEY

GROUP BY

DP.ENGLISHPROMOTIONCATEGORY,DP.ENGLISHPROMOTIONTYPE,DP.ENGLISHPROMOTIONNAME,DP.DISCOUNTPCT,F.DISCOUNTAMOUNT

ORDER BY SALES DESC;

/\*(514 rows affected)\*/

/\*12. What are the sales, product costs, profit, number of orders & quantity ordered by Sales Territory Hierarchy

(Group, Country, region) and ranked by sales for both internet & reseller sales?\*/

SELECT DT.SALESTERRITORYGROUP,DT.SALESTERRITORYCOUNTRY,DT.SALESTERRITORYREGION,

SUM(F.ORDERQUANTITY) AS RESELLERNOOFQUANTITY,SUM(FCT.ORDERQUANTITY) AS

INTERNETNOOFQUANTITY,

COUNT(F.ORDERQUANTITY) AS NOOFORDERSFORRESELLER,COUNT(FCT.ORDERQUANTITY)

AS NOOFORDERSFORINTERNET,

SUM(F.ORDERQUANTITY\*F.SALESAMOUNT) AS RESELLERSALES,

SUM(FCT.ORDERQUANTITY\*FCT.SALESAMOUNT) AS INTERNETSALE,

SUM((F.SALESAMOUNT-F.TOTALPRODUCTCOST)\*(F.ORDERQUANTITY)) AS RESELLERPROFIT,

SUM((FCT.SALESAMOUNT-FCT.TOTALPRODUCTCOST)\*(FCT.ORDERQUANTITY)) AS INTERNETPROFIT

FROM DBO.DIMSALESTERRITORY DT, DBO.FACTINTERNETSALES F,DBO.FACTRESELLERSALES

FCT

WHERE DT.SALESTERRITORYKEY=F.SALESTERRITORYKEY

AND FCT.SALESTERRITORYKEY=DT.SALESTERRITORYKEY

GROUP BY

DT.SALESTERRITORYGROUP,DT.SALESTERRITORYCOUNTRY,DT.SALESTERRITORYREGION;

/\*(10 rows affected)\*/

/\*13. What are the sales by year by sales channels (internet, reseller & total)?\*/

SELECT FSQ.CALENDARYEAR AS YEAR, SUM(FIS.ORDERQUANTITY\*FIS.SALESAMOUNT) AS

INTERNETSALES, SUM(F.ORDERQUANTITY\*F.SALESAMOUNT) AS RESELLERSALES, SUM(FIS.ORDERQUANTITY\*FIS.SALESAMOUNT)+SUM(F.ORDERQUANTITY\*F.SALESAMOUNT)

AS TOTALSALES

FROM FACTSALESQUOTA AS FSQ JOIN DIMEMPLOYEE AS E

ON FSQ.EMPLOYEEKEY=E.EMPLOYEEKEY JOIN FACTRESELLERSALES AS F

ON E.EMPLOYEEKEY=F.EMPLOYEEKEY JOIN DIMPRODUCT AS P

ON F.PRODUCTKEY=P.PRODUCTKEY JOIN FACTINTERNETSALES AS FIS

ON FIS.PRODUCTKEY=P.PRODUCTKEY

GROUP BY FSQ.CALENDARYEAR

ORDER BY INTERNETSALES DESC;

/\*(4 rows affected)\*/

/\*14. What are the total sales by month (& year)?\*/

SELECT MONTH(FSQ.DATE) AS MONTH, YEAR(FSQ.DATE) AS YEAR,

SUM(FIS.ORDERQUANTITY\*FIS.SALESAMOUNT)+SUM(F.ORDERQUANTITY\*F.SALESAMOUNT)

AS TOTALSALES

FROM FACTSALESQUOTA AS FSQ JOIN DIMEMPLOYEE AS E

ON FSQ.EMPLOYEEKEY=E.EMPLOYEEKEY JOIN FACTRESELLERSALES AS F

ON E.EMPLOYEEKEY=F.EMPLOYEEKEY JOIN DIMPRODUCT AS P

ON F.PRODUCTKEY=P.PRODUCTKEY JOIN FACTINTERNETSALES AS FIS

ON FIS.PRODUCTKEY=P.PRODUCTKEY

GROUP BY MONTH(FSQ.DATE), YEAR(FSQ.DATE)

ORDER BY TOTALSALES DESC;

/\*(12 rows affected)\*/