## **ASSIGNMENT 7**

Due date 3/21/2018

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USE Bike
SELECT B.CUSTOMERID, C.LASTNAME, C.FIRSTNAME, B.MODELTYPE, P.COLORLIST, B.ORDERDATE,
FROM BICYCLE B INNER JOIN CUSTOMER C ON B.CUSTOMERID = C.CUSTOMERID
INNER JOIN PAINT P ON B.PAINTID = P.PAINTID INNER JOIN CITY CI ON CI.CITYID = C.CityID
WHERE CI.STATE = 'CA' AND P.COLORLIST = 'RED' AND B.MODELTYPE LIKE 'MOUNTAIN%' AND
B.ORDERDATE BETWEEN '9-1-03' AND '9-30-03'
SELECT E.EMPLOYEEID, E.LASTNAME, B.SALESTATE, B.MODELTYPE, R.STOREID, B.ORDERDATE
     EMPLOYEE E INNER JOIN BICYCLE B ON E.EMPLOYEEID = B.EMPLOYEEID
INNER JOIN RETAILSTORE R ON R.STOREID = B.STOREID INNER JOIN CUSTOMER C ON
C.CUSTOMERID = B.CUSTOMERID INNER JOIN CITY CI ON CI.CITYID = C.CITYID
WHERE B.MODELTYPE = 'RACE' AND CI.STATE = 'WI' AND R.STOREID IN ('1', '2') AND
B.ORDERDATE BETWEEN '1-1-01' AND '12-31-01'
--3
SELECT DISTINCT C.COMPONENTID, M.MANUFACTURERNAME, C.PRODUCTNUMBER
FROM COMPONENT C INNER JOIN BIKEPARTS BP ON C.COMPONENTID = BP.COMPONENTID
INNER JOIN BICYCLE B ON B.SerialNumber = BP.SerialNumber INNER JOIN Manufacturer M
ON M.ManufacturerID = C.ManufacturerID
WHERE B.SaleState = 'FL' AND B.ORDERDATE BETWEEN '1-01-02' AND '12-31-02' AND
B.ModelType = 'ROAD' AND C.CATEGORY = 'REAR DERAILLEUR'
SELECT TOP 1 C.CUSTOMERID, C.LASTNAME, C.FIRSTNAME, B.MODELTYPE, B.SALESTATE,
B.FRAMESIZE, B.ORDERDATE
FROM CUSTOMER C INNER JOIN BICYCLE B ON C.CUSTOMERID = B.CUSTOMERID INNER JOIN
BIKEPARTS BP ON BP.SERIALNUMBER = B.SERIALNUMBER INNER JOIN COMPONENT CT ON
CT.COMPONENTID = BP.COMPONENTID
WHERE B.SALESTATE = 'GA' AND B.ORDERDATE BETWEEN '01-01-04' AND '12-31-04'
AND B.MODELTYPE = 'MOUNTAIN FULL'
ORDER BY
           B.FRAMESIZE DESC
--5
SELECT TOP 1 M.MANUFACTURERID, M.MANUFACTURERNAME
      PURCHASEORDER P INNER JOIN PURCHASEITEM I ON P.PURCHASEID = I.PURCHASEID
INNER JOIN COMPONENT C ON I.COMPONENTID = C.COMPONENTID INNER JOIN MANUFACTURER M ON
C.MANUFACTURERID = M.MANUFACTURERID
WHERE P.ORDERDATE BETWEEN '01-01-2003' AND '12-31-2003'
ORDER BY
            P.DISCOUNT DESC
SELECT TOP 1 C.COMPONENTID, M.MANUFACTURERNAME, C.PRODUCTNUMBER, C.ROAD, C.CATEGORY,
C.LISTPRICE, C.QUANTITYONHAND
FROM MANUFACTURER M INNER JOIN COMPONENT C ON M.MANUFACTURERID = C.MANUFACTURERID
WHERE C.QUANTITYONHAND > 200 AND C.ROAD = 'ROAD'
ORDER BY
            C.LISTPRICE DESC
--7
SELECT TOP 1 C.COMPONENTID, M.MANUFACTURERNAME, C.PRODUCTNUMBER, C.CATEGORY, C.YEAR,
C.ESTIMATEDCOST * C.OUANTITYONHAND AS 'VALUE'
FROM MANUFACTURER M INNER JOIN COMPONENT C ON M.MANUFACTURERID = C.MANUFACTURERID
ORDER BY
             VALUE DESC
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SELECT TOP 1 E.EMPLOYEEID, E.LASTNAME, BP.DATEINSTALLED, COUNT(C.COMPONENTID) AS
'COUNTOFCOMPONENTID'
FROM EMPLOYEE E INNER JOIN BICYCLE B ON E.EMPLOYEEID = B.EMPLOYEEID
INNER JOIN BIKEPARTS BP ON BP. SERIALNUMBER = B. SERIALNUMBER INNER JOIN COMPONENT C
ON C.COMPONENTID = BP.COMPONENTID
GROUP BY
             E.EMPLOYEEID, E.LASTNAME, BP.DATEINSTALLED
ORDER BY COUNTOFCOMPONENTID DESC
--9
SELECT TOP 1 LETTERSTYLEID, COUNT(SERIALNUMBER) AS 'COUNTOFSERIALNUMBER'
FROM BICYCLE
WHERE ORDERDATE BETWEEN '01-01-03' AND '12-31-03' AND MODELTYPE = 'RACE'
GROUP BY
            LETTERSTYLEID
ORDER BY
             COUNTOFSERIALNUMBER DESC
--10
Select C.CustomerID, C.LastName, C.FirstName,
(
Select Count(*)
from Customer C INNER JOIN Bicycle B on
C.CustomerID = B.CustomerID
where year(B.OrderDate) = 2002
group by C.CustomerID, C.LastName, C.FirstName
having sum(B.SalePrice + B.SalesTax
select top 1 SUM(SalePrice + SalesTax)
from Bicycle
group by CustomerID
order by Sum(SalePrice + SalesTax) desc
) as [Number of Bikes], SUM(B.SalePrice + B.SalesTax) as [Amount Spend]
From Customer C INNER JOIN Bicycle B on
C.CustomerID = B.CustomerID
Group by C.CustomerID, C.LastName, C.FirstName
Having SUM(B.SalePrice + B.SalesTax) = (
select top 1 SUM(SalePrice + SalesTax)
from Bicycle
group by CustomerID
order by Sum(SalePrice + SalesTax) desc
)
--11
SELECT COUNT(MODELTYPE) AS [SOLD IN 2002]
FROM BIKE..BICYCLE
WHERE MODELTYPE LIKE '%MOUNTAIN%' AND ORDERDATE LIKE '%2000%'
SELECT COUNT(MODELTYPE) AS [SOLD IN 2004]
FROM BIKE..BICYCLE
WHERE MODELTYPE LIKE '%MOUNTAIN%' AND ORDERDATE LIKE '%2004%'
--12
SELECT I.COMPONENTID, M.MANUFACTURERNAME, C.PRODUCTNUMBER, C.CATEGORY, SUM(I.PRICEPAID)
AS [VALUE]
FROM BIKE..PURCHASEORDER PO INNER JOIN BIKE..PURCHASEITEM I ON PO.PURCHASEID =
I.PURCHASEID
             INNER JOIN BIKE..COMPONENT C ON I.COMPONENTID = C.COMPONENTID
              INNER JOIN BIKE..MANUFACTURER M ON C.MANUFACTURERID = M.MANUFACTURERID
WHERE ORDERDATE LIKE '%2003%'
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GROUP BY I.COMPONENTID, M.MANUFACTURERNAME, C.PRODUCTNUMBER, C.CATEGORY
HAVING SUM(I.PRICEPAID) = (SELECT TOP 1 SUM(PRICEPAID)
                                                 FROM BIKE..PURCHASEITEM P INNER JOIN
BIKE..PURCHASEORDER PO ON P.PURCHASEID = PO.PURCHASEID
                                                WHERE PO.ORDERDATE LIKE '%2003%'
                                                 GROUP BY COMPONENTID
                                                 ORDER BY SUM(PRICEPAID) DESC
--13
SELECT E.EMPLOYEEID, E.LASTNAME, COUNT(B.PAINTID) AS [NUMBERPAINTED]
FROM BIKE..EMPLOYEE E INNER JOIN BIKE..BICYCLE B ON E.EMPLOYEEID = B.EMPLOYEEID
                 INNER JOIN BIKE..PAINT P ON B.PAINTID = P.PAINTID
WHERE ORDERDATE BETWEEN '05/01/2003' AND '05/31/2003'
GROUP BY E.EMPLOYEEID, E.LASTNAME
--14
SELECT B.STOREID, R.STORENAME, C.CITY, SUM(B.SALEPRICE) AS "SumOfSalePrice"
      BIKE..BICYCLE B INNER JOIN BIKE..RETAILSTORE R ON B.STOREID = R.STOREID
              INNER JOIN BIKE..CITY C ON R.CITYID = C.CITYID
WHERE B.SALESTATE = 'CA' AND
              YEAR(B.ORDERDATE) = '2003'
GROUP BY B.STOREID, R.STORENAME, C.CITY
HAVING SUM(B.SALEPRICE) = (SELECT TOP 1 SUM(SALEPRICE)
                                                FROM BIKE..BICYCLE B INNER JOIN
BIKE..RETAILSTORE R ON B.STOREID = R.STOREID
                                                              INNER JOIN BIKE..CITY C ON
R.CITYID = C.CITYID
                                                WHERE SALESTATE = 'CA' AND
                                                              YEAR(ORDERDATE) = '2003'
                                                GROUP BY STORENAME
                                                 ORDER BY SUM(SALEPRICE) DESC
--15
SELECT SUM(CO.WEIGHT) AS TOTALWEIGHT
FROM BIKE..COMPONENT CO INNER JOIN BIKE..BIKEPARTS BP ON CO.COMPONENTID = BP.COMPONENTID
WHERE BP.SERIALNUMBER = 11356
--16
SELECT G.GROUPNAME, SUM(CO.LISTPRICE) AS SUMOFLISTPRICE
FROM BIKE..GROUPO G INNER JOIN BIKE..GROUPCOMPONENTS GC ON G.COMPONENTGROUPID =
GC.GROUPID
       INNER JOIN BIKE..COMPONENT CO ON GC.COMPONENTID = CO.COMPONENTID
WHERE G. GROUPNAME = 'CAMPY RECORD 2002'
GROUP BY G. GROUPNAME
ORDER BY SUM(CO.LISTPRICE)
--17
SELECT T.MATERIAL, COUNT(B.SerialNumber) as CountOfSerialNumber
From BIKE..TubeMaterial T INNER JOIN BIke..BicycleTubeUsage BTU on
                   T.TubeID = BTU.TubeID
            INNER JOIN BIKE..Bicycle B on
                   BTU.SerialNumber = B.SerialNumber
            INNER JOIN BIKE..BikeTubes BT on
                   B.SerialNumber = BT.SerialNumber
Where Year(B.StartDate) = 2003 AND
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B.ModelType = 'Race' AND
             (T.Material LIKE '%carbon%' Or
             T.Material LIKE '%Titanium%') AND
             BT.TubeName = 'Down'
Group by T.Material
Order by Count(*) desc
Select AVG(P.PricePaid) as AvgOfPricePaid
From Bike..PurchaseItem P INNER JOIN Bike..Component C on
                       C.ComponentID = P.ComponentID
                       INNER JOIN Bike..GroupComponents GC on
                        C.ComponentID = GC.ComponentID
                       INNER JOIN Bike..Groupo G on
                           GC.GroupID = G.ComponentGroupID
Where C.Category = 'Rear Derailleur' AND
     G.GroupName = 'Shimano XTR 2001'
--19
Select AVG(B.TopTube) as AvgOfTopTube
From Bike..Bicycle B INNER JOIN Bike..BikeTubes BT on
           BT.SerialNumber = B.SerialNumber
      INNER JOIN Bike..BikeParts BP on
           B.SerialNumber = BP.SerialNumber
      INNER JOIN Bike..PurchaseItem P on
           BP.ComponentID = P.ComponentID
Where B.FrameSize = 54 AND
      B.ModelType = 'Road' AND
      Year(B.StartDate) = 1999 AND
     BT.TubeName = 'Top'
--20
Select Road, Avg(ListPrice) as AvgOfListPrice
From Bike..Component
Where Category LIKE '%Wheel%' AND
(Road = 'Road' Or
Road = 'MTB')
Group by Road
Order by AvgOfListPrice desc
--21
Select Distinct E.EmployeeID, E.LastName
From Bike..Bicycle B INNER JOIN Bike..Employee E on
                   B.EmployeeID = E.EmployeeID
Where B.Painter = B.EmployeeID AND
      Year(B.OrderDate) = 2003 AND
     Month(B.OrderDate) = 5 AND
     B.ModelType = 'Road'
Select P.PaintID, P.ColorName, Count(*) as [Number of Bikes Painted]
From Bike..Paint P INNER JOIN Bike..Bicycle B on
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P.PaintID = B.PaintID
Where Year(B.StartDate) = 2002 AND
           B.LetterStyleID = 'English'
Group by P.PaintID, P.ColorName
Order by [Number of Bikes Painted] desc
--23
SELECT SERIALNUMBER, MODELTYPE, ORDERDATE, SALEPRICE
FROM BICYCLE
WHERE MODELTYPE = 'RACE' AND
         YEAR(ORDERDATE) = 2003 AND
         SALEPRICE > ( SELECT AVG(SALEPRICE) FROM BICYCLE WHERE MODELTYPE = 'RACE' AND
YEAR(ORDERDATE) = 2002);
--24
SELECT DISTINCT M.MANUFACTURERNAME, C.PRODUCTNUMBER, C.CATEGORY, (C.ESTIMATEDCOST *
C.QUANTITYONHAND) AS VALUE, C.COMPONENTID
FROM COMPONENT C
INNER JOIN BIKEPARTS BP ON C.COMPONENTID = BP.COMPONENTID
INNER JOIN MANUFACTURER M ON C.MANUFACTURERID = M.MANUFACTURERID
WHERE YEAR(BP.DATEINSTALLED) <> 2004 AND (C.ESTIMATEDCOST * C.OUANTITYONHAND) =
(SELECT MAX(C.ESTIMATEDCOST*C.QUANTITYONHAND)
FROM COMPONENT C
INNER JOIN BIKEPARTS BP ON C.COMPONENTID = BP.COMPONENTID
WHERE YEAR(BP.DATEINSTALLED) <> 2004);
--25
SELECT R.STORENAME, R.PHONE
FROM RETAILSTORE R
INNER JOIN BICYCLE B ON B.STOREID = R.STOREID
INNER JOIN CITY C ON C.CITYID = R.CITYID
WHERE YEAR(B.ORDERDATE) = 2004 AND (C.STATE = 'CA' OR B.SALESTATE = 'CA')
GROUP BY R.STORENAME, R.PHONE
--26
SELECT (SELECT LASTNAME
       FROM EMPLOYEE
      WHERE EMPLOYEEID = (SELECT EMPLOYEEID
                         FROM EMPLOYEE
                        WHERE LASTNAME = 'VENETIAAN')) AS [MANAGER NAME], EMPLOYEEID,
      FIRSTNAME, LASTNAME, TITLE
FROM FMPI OYFF
WHERE CURRENTMANAGER = (SELECT EMPLOYEEID
                    FROM EMPLOYEE
                    WHERE LASTNAME = 'VENETIAAN');
--27
SELECT C.COMPONENTID, M.MANUFACTURERNAME, C.PRODUCTNUMBER, C.CATEGORY,
SUM(QUANTITYRECEIVED) AS [TOTAL RECEIVED], SUM(B.QUANTITY) AS [TOTAL USE],
SUM(QUANTITYRECEIVED) - SUM(B.QUANTITY) AS [NETGAIN], (SUM(QUANTITYRECEIVED) -
SUM(B.QUANTITY)) / SUM(B.QUANTITY) AS [NETPCT], LISTPRICE
FROM MANUFACTURER M
INNER JOIN COMPONENT C ON M.MANUFACTURERID = C.MANUFACTURERID
INNER JOIN PURCHASEITEM P ON P.COMPONENTID = C.COMPONENTID
INNER JOIN PURCHASEORDER PO ON P.PURCHASEID = PO.PURCHASEID
INNER JOIN BIKEPARTS B ON C.COMPONENTID = B.COMPONENTID
WHERE B.DATEINSTALLED < '2000-07-01' AND ORDERDATE < '2000-07-01'
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GROUP BY C.COMPONENTID, M.MANUFACTURERNAME, C.PRODUCTNUMBER, C.CATEGORY, LISTPRICE HAVING (SUM(QUANTITYRECEIVED) - SUM(B.QUANTITY)) / SUM(B.QUANTITY) >= 1.25;

--28

SELECT YEAR(ORDERDATE) AS [YEAR], AVG(DATEDIFF(DAY, ORDERDATE, SHIPDATE)) AS [BUILD TIME] FROM BICYCLE GROUP BY YEAR(ORDERDATE)
HAVING AVG(DATEDIFF(DAY, ORDERDATE, SHIPDATE)) > (SELECT AVG(DATEDIFF(DAY, ORDERDATE, SHIPDATE)) AS [TOTAL AVERAGE]

FROM BICYCLE);
```