Write a query for each of the following questions using the Bike database. For each question your SQL statement must not use views unless necessary. The database is called Bike, just like your database is called CIS310XX. You can access it by choosing it from the Dropdown menu on the upper left corner of the screen in the query window. You must use the given output format for each question. The date functions you may find useful: YEAR, MONTH, DATEDIFF.

Use of View: You may read the pages 377-379 in your textbook for how to create a view. In this assignment you will use views (virtual table) for a few questions. In all those cases a view can be used to store intermediate results. Once a view is created you may use it just like a table (at least for our purposes).

- 1. List the customers from California who bought red mountain bikes in September 2003. Use order date as date bought.
- 2. List the employees who sold race bikes shipped to Wisconsin without the help of a retail store in 2001
- 3. List all of the (distinct) rear derailleurs installed on road bikes sold in Florida in 2002.
- 4. Who bought the largest (frame size) full suspension mountain bike sold in Georgia in 2004?
- 5. Which manufacturer gave us the largest discount on an order in 2003?
- 6. What is the most expensive road bike component we stock that has a quantity on hand greater than 200 units?
- 7. Which inventory item represents the most money sitting on the shelf—based on estimated cost?
- 8. What is the greatest number of components ever installed in one day by one employee?
- 9. What was the most popular letter style on race bikes in 2003?
- 10. Which customer spent the most money with us and how many bicycles did that person buy in 2002?
- 11. Have the sales of mountain bikes (full suspension or hard tail) increased or decreased from 2000 to 2004 (by count not by value)? You will list the number sold by year in descending order.
- 12. Which component did the company spend the most money on in 2003?
- 13. Which employee painted the most red race bikes in May 2003?
- 14. Which California bike shop helped sell the most bikes (by value) in 2003?
- 15. What is the total weight of the components on bicycle 11356?
- 16. What is the total list price of all items in the 2002 Campy Record groupo?
- 17. In 2003, were more race bikes built from carbon or titanium (based on the down tube)?
- 18. What is the average price paid for the 2001 Shimano XTR rear derailleurs?
- 19. What is the average top tube length for a 54 cm (frame size) road bike built in 1999?
- 20. On average, which costs (list price) more: road tires or mountain bike tires?
- 21. In May 2003, which employees sold road bikes that they also painted?
- 22. In 2002, was the Old English letter style more popular with some paint jobs?
- 23. Which race bikes in 2003 sold for more than the average price of race bikes in 2002?
- 24. Which component that had no sales (installations) in 2004 has the highest inventory value (cost basis)?
- 25. Create a vendor contacts list of all manufacturers and retail stores in California. Include only the columns for VendorName and Phone. The retail stores should only include stores that participated in the sale of at least one bicycle in 2004
- 26. List all of the employees who report to Venetiaan.
- 27. List the components where the company purchased at least 25 percent more units than it used through June 30, 2000. An item is used if it has an install date.
- 28. In which years did the average build time for the year exceed the overall average build time for all years? The build time is the difference between order date and ship date.

Output format for each question.

1CustomerID LastName FirstName ModelType ColorList

Orde

2EmployeeID	LastName	SaleState	ModelType	StoreID	Orde e
3ComponentID	ManufacturerNam e	ProductNumb er			
4CustomerID	LastName	FirstName	ModelType	SaleState	Fram e
5ManufacturerID	ManufacturerNam e				
6ComponentID	ManufacturerNam e	er		Category	ListP
7ComponentID	ManufacturerNam e	ProductNumb er		Year	Value
8EmployeeID	LastName	DateInstalled	CountOfCompor ents	1	
9LetterStyleID	CountOfSerialNum ber				
10CustomerID	LastName	FirstName	Number of Bikes	Amount Spent	
11SaleYear	CountOfSerialNum ber			·	
12ComponentID	ManufacturerNam e	CI	Category	Value	
13EmployeeID	LastName	Number Painted			
14StoreID					
15TotalWeight					
16GroupName	SumOfListPrice				
17Material	CountOfSerialNum ber				
18AvgOfPricePaid 19AvgOfTopTube					
20Road	AvgOfListPrice				
21EmployeeID	LastName				
22PaintID	ColorName	Number of Bi	kes Painted		
23SerialNumber	ModelType	OrderDate	SalePrice		
24ManufacturerName	ProductNumber	Category	Valu	e Component D	1
25 Store Name Or Manufacturer Name	Phone				
26Manager Name	EmployeeID	LastName	FirstName	Title	
27ComponentID	ManufacturerNam e	ProductNumb er	Category	TotalReceive d	e Totall
28Year	BuildTime				

Submit the assignment (the SQL statements) before the due date and time on Blackboard. Also submit a stapled printed copy in class on the due date.

Queries:

The following have been spaced out for viewing in word.

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-- Tim Mahan

- - 1

SELECT C.CUSTOMERID, C.FIRSTNAME, C.LASTNAME, B.MODELTYPE, P.COLORLIST, B.ORDERDATE, B.SaleState
FROM CUSTOMER C INNER JOIN BICYCLE B ON C.CUSTOMERID = B.CUSTOMERID INNER JOIN PAINT P ON B.PAINTID = P.PAINTID
WHERE P.COLORLIST = 'RED' AND YEAR(B.ORDERDATE) = 2003 AND
MONTH(B.ORDERDATE) = 09 AND B.SaleState = 'CA' AND B.MODELTYPE LIKE '%MOUNTAIN%'
ORDER BY B.ORDERDATE

--2

SELECT E.EMPLOYEEID, E.LASTNAME, E.FIRSTNAME, B.MODELTYPE, B.STOREID, B.ORDERDATE
FROM EMPLOYEE E INNER JOIN BICYCLE B ON E.EMPLOYEEID = B.EMPLOYEEID
INNER JOIN CUSTOMER C ON C.CUSTOMERID = B.CUSTOMERID
INNER JOIN CITY CI ON C.CITYID = CI.CITYID
WHERE CI.STATE = 'WI'AND B.ModelType = 'RACE' AND YEAR(B.ORDERDATE) = 2001 AND B.STOREID = NULL

- - 3

SELECT DISTINCT C.COMPONENTID, M.MANUFACTURERNAME, C.PRODUCTNUMBER FROM COMPONENT C INNER JOIN MANUFACTURER M ON C.MANUFACTURERID = M.ManufacturerID

INNER JOIN BIKEPARTS BP ON BP.COMPONENTID = C.COMPONENTID
INNER JOIN BICYCLE B ON B.SERIALNUMBER = BP.SERIALNUMBER
INNER JOIN CUSTOMER CM ON CM.CustomerID = B.CustomerID
INNER JOIN CustomerTransaction CT ON CT.CustomerID = CM.CustomerID
WHERE C.CATEGORY = 'REAR DERAILLEUR' AND B.SALESTATE = 'FL' AND
B.MODELTYPE = 'ROAD' AND YEAR(CT.TransactionDate) = 2002

- - 4

SELECT 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

```
WHERE B.FRAMESIZE IN (SELECT MAX(B.FRAMESIZE) FROM BICYCLE B WHERE B.SALESTATE = 'GA' AND B.MODELTYPE = 'MOUNTAIN FULL'
AND YEAR(B.ORDERDATE) = 2004) AND B.SALESTATE = 'GA' AND B.MODELTYPE = 'MOUNTAIN FULL'
AND YEAR(B.ORDERDATE) = 2004
```

SELECT DISTINCT M.MANUFACTURERID, M.MANUFACTURERNAME, PO.DISCOUNT, PO.ORDERDATE FROM MANUFACTURER M INNER JOIN COMPONENT C ON M.MANUFACTURERID = C.MANUFACTURERID INNER JOIN PURCHASEITEM PM ON C.COMPONENTID = PM.COMPONENTID INNER JOIN PURCHASEORDER PO ON PM.PURCHASEID = PO.PURCHASEID WHERE YEAR(PO.ORDERDATE) = 2003 AND PO.DISCOUNT IN (SELECT MAX(PO.DISCOUNT) FROM PURCHASEORDER PO WHERE YEAR(PO.ORDERDATE) = 2003) - - 6 SELECT C.COMPONENTID, M.MANUFACTURERNAME, C.PRODUCTNUMBER, C.ROAD, C.CATEGORY, C.LISTPRICE, C.QUANTITYONHAND FROM COMPONENT C INNER JOIN MANUFACTURER M ON C.MANUFACTURERID = M.MANUFACTURERID WHERE C.LISTPRICE IN (SELECT MAX(C.LISTPRICE) FROM COMPONENT C WHERE C.QUANTITYONHAND >200) - - 7 SELECT C.COMPONENTID, M.MANUFACTURERNAME, C.PRODUCTNUMBER, C.PRODUCTNUMBER, C.CATEGORY, C.YEAR, C.ESTIMATEDCOST AS VALUE FROM COMPONENT C INNER JOIN MANUFACTURER M ON C.MANUFACTURERID = M.MANUFACTURERID WHERE C.ESTIMATEDCOST IN (SELECT MAX(C.ESTIMATEDCOST) FROM COMPONENT C) - - 8 SELECT E.EMPLOYEEID, E.LASTNAME, BP.DATEINSTALLED, COUNT(BP.COMPONENTID) AS 'COUNT OF COMPONENTS' FROM BIKEPARTS BP INNER JOIN EMPLOYEE E ON BP.EMPLOYEEID = E.EMPLOYEEID GROUP BY E.EMPLOYEEID, E.LASTNAME, BP.DATEINSTALLED HAVING COUNT(COMPONENTID) = (SELECT TOP 1 COUNT(BP.COMPONENTID) FROM BIKEPARTS BP INNER JOIN EMPLOYEE E ON BP.EMPLOYEEID = E.EMPLOYEEID WHERE BP.DATEINSTALLED IS NOT NULL

GROUP BY E.EMPLOYEEID, E.LASTNAME, BP.DATEINSTALLED

ORDER BY COUNT(COMPONENTID) DESC)

```
SELECT LS.LETTERSTYLE, COUNT(B.SERIALNUMBER) AS COUNTOFSERIALNUMBER
FROM BICYCLE B INNER JOIN LETTERSTYLE LS ON B.LETTERSTYLEID =
LS.LETTERSTYLE
WHERE YEAR(B.ORDERDATE) = 2003 AND B.MODELTYPE = 'RACE'
GROUP BY LS.LETTERSTYLE
HAVING COUNT(B.SERIALNUMBER) = (SELECT TOP 1 COUNT(B.SERIALNUMBER)
     FROM BICYCLE B INNER JOIN LETTERSTYLE LS ON B.LETTERSTYLEID =
LS.LETTERSTYLE
     WHERE YEAR(B.ORDERDATE) = 2003 AND B.MODELTYPE = 'RACE'
     GROUP BY LS.LETTERSTYLE
     ORDER BY COUNT(B.SERIALNUMBER) DESC)
ORDER BY COUNT(B.SERIALNUMBER) DESC
--10
SELECT DISTINCT CT.AMOUNT, C.CUSTOMERID, C.LASTNAME, C.FIRSTNAME,
COUNT(SERIALNUMBER) AS 'NUMBER OF BIKES'
FROM BICYCLE B INNER JOIN CUSTOMER C ON B.CUSTOMERID = C.CUSTOMERID
     INNER JOIN CUSTOMERTRANSACTION CT ON CT.CUSTOMERID = C.CUSTOMERID
WHERE YEAR(CT.TRANSACTIONDATE) = 2002 AND CT.AMOUNT = (SELECT TOP 1
CT.AMOUNT
     FROM BICYCLE B INNER JOIN CUSTOMER C ON B.CUSTOMERID =
C.CUSTOMERID
     INNER JOIN CUSTOMERTRANSACTION CT ON CT.CUSTOMERID = C.CUSTOMERID
          WHERE YEAR(CT.TRANSACTIONDATE) = 2002
           ORDER BY CT.AMOUNT DESC)
GROUP BY C.CUSTOMERID, C.LASTNAME, C.FIRSTNAME, B.ORDERDATE, CT.AMOUNT
SELECT COUNT(B.SERIALNUMBER) AS 'COUNT OF SERIAL NUMBER',
YEAR(B.ORDERDATE) AS 'SALE YEAR'
FROM BICYCLE B
WHERE B.MODELTYPE LIKE '%MOUNTAIN%' AND YEAR(B.ORDERDATE) BETWEEN 2000
AND 2004
GROUP BY YEAR(B.ORDERDATE)
ORDER BY YEAR(B.ORDERDATE) DESC
```

--12 SELECT C.COMPONENTID, M.MANUFACTURERNAME, C.PRODUCTNUMBER, C.CATEGORY, (P.PRICEPAID*P.Quantity) AS 'VALUE' FROM COMPONENT C INNER JOIN MANUFACTURER M ON C.ManufacturerID = M.ManufacturerID INNER JOIN PURCHASEITEM P ON C.COMPONENTID = P.COMPONENTID INNER JOIN PURCHASEORDER PO ON PO.PURCHASEID = P.PURCHASEID WHERE YEAR(PO.ORDERDATE) = 2003 AND (P.PRICEPAID*P.Quantity) = (SELECT)TOP 1 (P.PRICEPAID*P.QUANTITY) FROM COMPONENT C INNER JOIN MANUFACTURER M ON C.ManufacturerID = M.ManufacturerID INNER JOIN PURCHASEITEM P ON C.COMPONENTID = P.COMPONENTID INNER JOIN PURCHASEORDER PO ON PO.PURCHASEID = P.PURCHASEID WHERE YEAR(PO.ORDERDATE) = 2003ORDER BY (P.PRICEPAID * P.QUANTITY) DESC) --13 SELECT E.EMPLOYEEID, E.LASTNAME, COUNT(SERIALNUMBER) AS 'NUMBER PAINTED' FROM EMPLOYEE E INNER JOIN BICYCLE B ON B.EMPLOYEEID = E.EMPLOYEEID INNER JOIN PAINT P ON B.PAINTID = P.PAINTID WHERE MONTH(B.ORDERDATE) = 5 AND YEAR(B.ORDERDATE) = 2003 AND B.ModelType = 'RACE' AND P.ColorList = 'RED' GROUP BY E.EMPLOYEEID, E.LASTNAME HAVING COUNT(SERIALNUMBER) = (SELECT TOP 1 COUNT(SERIALNUMBER) FROM EMPLOYEE E INNER JOIN BICYCLE B ON B.EMPLOYEEID = E.EMPLOYEEID INNER JOIN PAINT P ON B.PAINTID = P.PAINTID WHERE MONTH(B.ORDERDATE) = 5 AND YEAR(B.ORDERDATE) = 2003 AND B.ModelType = 'RACE' AND P.ColorList = 'RED' GROUP BY E.EMPLOYEEID, E.LASTNAME ORDER BY COUNT(SERIALNUMBER) DESC) --14 SELECT DISTINCT B.STOREID

FROM BICYCLE B INNER JOIN CUSTOMER C ON B.CUSTOMERID = C.CUSTOMERID

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INNER JOIN CUSTOMERTRANSACTION CT ON
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CT.CustomerID = C.CustomerID
WHERE B.SALESTATE = 'CA' AND YEAR(CT.TransactionDate) = 2003 AND
CT.AMOUNT = (SELECT TOP 1 MAX(CT.AMOUNT)
FROM BICYCLE B

INNER JOIN CUSTOMER C ON B.CUSTOMERID = C.CUSTOMERID
INNER JOIN CUSTOMERTRANSACTION CT ON CT.CustomerID = C.CustomerID
WHERE B.SALESTATE = 'CA' AND YEAR(CT.TransactionDate) = 2003
ORDER BY MAX(CT.AMOUNT) DESC)

--15

SELECT SUM(CO.WEIGHT) AS 'TOTAL WEIGHT'
FROM BICYCLE B INNER JOIN BIKEPARTS BP ON B.SERIALNUMBER =
BP.SERIALNUMBER

INNER JOIN COMPONENT CO ON CO.COMPONENTID =

BP.COMPONENTID

WHERE B.SERIALNUMBER = 11356

--16

SELECT G.GROUPNAME, SUM(C.LISTPRICE) AS 'SUM OF LIST PRICE' FROM GROUPO G INNER JOIN GROUPCOMPONENTS GC ON GC.GROUPID = G.ComponentGroupID

INNER JOIN COMPONENT C ON C.COMPONENTID =

GC.COMPONENTID

WHERE G.GroupName = 'CAMPY RECORD 2002'
GROUP BY G.GROUPNAME

--17

SELECT TOP 1 TM.MATERIAL, COUNT(B.SERIALNUMBER) AS "COUNT OF SERIAL NUMBER"

FROM BICYCLE B INNER JOIN BICYCLETUBEUSAGE BT ON B.SERIALNUMBER = BT.SERIALNUMBER

INNER JOIN TUBEMATERIAL TM ON TM.TUBEID = BT.TUBEID
WHERE YEAR(STARTDATE) = 2003 AND MODELTYPE = 'RACE' AND (TM.MATERIAL = 'CARBON FIBER' OR TM.MATERIAL = 'TITANIUM')
GROUP BY TM.Material

ORDER BY "COUNT OF SERIAL NUMBER" DESC

--18

SELECT AVG(P.PRICEPAID) AS 'AVERAGE OF PRICE PAID' FROM COMPONENT C INNER JOIN PURCHASEITEM P ON C.ComponentID = P.ComponentID

INNER JOIN MANUFACTURER M ON M.ManufacturerID = C.ManufacturerID WHERE M.MANUFACTURERNAME LIKE '%SHIMANO%' AND C.Category LIKE '%REAR DERAILLEUR%' AND C.ProductNumber LIKE '%XTR%'

--19

SELECT AVG(B.TOPTUBE) AS 'AVG OF TOP TUBE'

```
FROM BICYCLE B
WHERE B.FRAMESIZE = 54 AND B.MODELTYPE = 'ROAD' AND YEAR(B.SHIPDATE) =
1999
--20
SELECT TOP 1 CO.ROAD, AVG(CO.LISTPRICE) AS 'AVG OF LIST PRICE'
FROM COMPONENT CO
WHERE CO.CATEGORY = 'TIRE' AND CO.ROAD IN ('MTB', 'ROAD')
GROUP BY CO.ROAD
ORDER BY AVG(LISTPRICE) DESC
--21
SELECT DISTINCT B.EMPLOYEEID, E.LASTNAME
FROM BICYCLE B INNER JOIN EMPLOYEE E ON E.EMPLOYEEID = B.EMPLOYEEID
           INNER JOIN CUSTOMER C ON C.CUSTOMERID = B.CUSTOMERID
           INNER JOIN CUSTOMERTRANSACTION CT ON CT.CUSTOMERID =
WHERE YEAR(CT.TransactionDate) = 2003 AND MONTH(CT.TRANSACTIONDATE) =
5 AND CT.EMPLOYEEID = B.PAINTER AND B.MODELTYPE = 'ROAD'
--22
SELECT P.PAINTID, P.COLORNAME, COUNT(SERIALNUMBER) AS 'NUMBER OF BIKES
PAINTED'
FROM PAINT P INNER JOIN BICYCLE B ON P.PAINTID = B.PAINTID
     INNER JOIN LETTERSTYLE LS ON B.LETTERSTYLEID = LS.LETTERSTYLE
WHERE YEAR(B.SHIPDATE) = 2002 AND LS.LETTERSTYLE = 'ENGLISH'
GROUP BY P.PAINTID, P.COLORNAME
ORDER BY COUNT(SERIALNUMBER) DESC
--23 Which race bikes in 2003 sold for more than the average price of
race bikes in 2002?
-- 23 SerialNumber
                     ModelType OrderDate SalePrice
SELECT B.SERIALNUMBER, B.MODELTYPE, B.ORDERDATE, B.SALEPRICE
FROM BICYCLE B
WHERE MODELTYPE = 'RACE' AND YEAR(B.ORDERDATE) = 2003 AND B.SALEPRICE
(SELECT AVG(B.SALEPRICE)
     FROM BICYCLE B
              WHERE B.MODELTYPE = 'RACE' AND YEAR(B.ORDERDATE) = 2002)
ORDER BY B.SALEPRICE ASC
- - 24
SELECT M.MANUFACTURERNAME, C.PRODUCTNUMBER, C.CATEGORY, C.COMPONENTID,
MAX(P.PricePaid) AS VALUE
FROM MANUFACTURER M INNER JOIN COMPONENT C ON M.MANUFACTURERID =
C.MANUFACTURERID
           INNER JOIN PURCHASEITEM P ON P.ComponentID = C.ComponentID
```

INNER JOIN BIKEPARTS BP ON BP.COMPONENTID = C.COMPONENTID

WHERE YEAR(DATEINSTALLED) NOT LIKE 2004

```
C.COMPONENTID
HAVING MAX(P.PRICEPAID) = (SELECT TOP 1 MAX(P.PRICEPAID)
     FROM MANUFACTURER M INNER JOIN COMPONENT C ON M.MANUFACTURERID =
     C.MANUFACTURERID
           INNER JOIN PURCHASEITEM P ON P.ComponentID = C.ComponentID
           INNER JOIN BIKEPARTS BP ON BP.COMPONENTID = C.COMPONENTID
     WHERE YEAR(DATEINSTALLED) NOT LIKE 2004)
--25
CREATE VIEW STORES AS SELECT R.STORENAME AS 'STOREORMANUFACTURERNAME',
R.PHONE AS 'PHONE'
FROM BIKE..RETAILSTORE R INNER JOIN BIKE..BICYCLE B ON B.STOREID =
R.STOREID
      INNER JOIN BIKE..CITY C ON C.CITYID = R.CityID
      INNER JOIN BIKE..CUSTOMER CM ON CM.CustomerID = B.CustomerID
      INNER JOIN BIKE..CustomerTransaction CT ON CT.CustomerID =
CM.CustomerID
WHERE YEAR(CT.TransactionDate) = 2004 AND C.STATE = 'CA'
CREATE VIEW MANUFACTURERS AS SELECT M.MANUFACTURERNAME AS
'STOREORMANUFACTURERNAME', M.PHONE AS 'PHONE'
FROM BIKE..Manufacturer M INNER JOIN BIKE..ManufacturerTransaction MT
ON M.ManufacturerID = MT.ManufacturerID
     INNER JOIN BIKE..CITY C ON C.CityID = M.CityID
WHERE YEAR(MT.TRANSACTIONDATE) = 2004 AND C.STATE = 'CA'
CREATE VIEW CONTACTS AS (SELECT * FROM MANUFACTURERS UNION SELECT*
FROM STORES)
SELECT * FROM CONTACTS
- - 26
SELECT (SELECT E.LASTNAME
          FROM EMPLOYEE E
          WHERE E.LASTNAME = 'VENETIAAN') 'MANAGER NAME',
E.EMPLOYEEID, E.LASTNAME, E.FIRSTNAME, E.TITLE
FROM EMPLOYEE E INNER JOIN EMPLOYEE M ON E.EMPLOYEEID = M.EMPLOYEEID
WHERE E.CURRENTMANAGER = (SELECT E.EMPLOYEEID
                                   FROM EMPLOYEE E
                                   WHERE E.LASTNAME = 'VENETIAAN')
--27
 SELECT C.COMPONENTID, M.MANUFACTURERNAME, C.PRODUCTNUMBER,
C.CATEGORY, PI.QUANTITYRECEIVED AS "TOTAL RECEIVED",
           ((COUNT(DATEINSTALLED)-PI.QuantityReceived)*(C.LISTPRICE -
PI.PRICEPAID)) AS "NET GAIN",
```

GROUP BY M.MANUFACTURERNAME, C.PRODUCTNUMBER, C.CATEGORY,

COUNT(P.DATEINSTALLED) AS "TOTAL USED", C.ListPrice, ((COUNT(DATEINSTALLED)-PI.QuantityReceived)/(C.LISTPRICE-PI.PRICEPAID)) AS "NETPCT"

FROM COMPONENT C INNER JOIN MANUFACTURER M ON M.MANUFACTURERID = C.MANUFACTURERID

INNER JOIN BIKEPARTS P ON P.COMPONENTID = C.COMPONENTID
INNER JOIN PURCHASEITEM PI ON PI.COMPONENTID = C.COMPONENTID
INNER JOIN PURCHASEORDER PO ON PO.PURCHASEID = PI.PURCHASEID
WHERE PO.ReceiveDate <= '30-JUN-2000'
GROUP BY C.ComponentID, M.ManufacturerName, C.ProductNumber,</pre>

GROUP BY C.ComponentID, M.ManufacturerName, C.ProductNumber, C.Category, PI.QuantityReceived, C.LISTPRICE, PI.PRICEPAID HAVING PI.QuantityReceived >= 1.25 * COUNT(P.DATEINSTALLED)

--28
SELECT YEAR(B.ORDERDATE) AS 'YEAR', AVG(DATEDIFF(DAY, B.ORDERDATE, B.SHIPDATE)) AS 'BUILD TIME'
FROM BICYCLE B
GROUP BY YEAR(B.ORDERDATE)
HAVING AVG(DATEDIFF(DAY, B.ORDERDATE, B.SHIPDATE)) > (SELECT AVG(DATEDIFF(DAY, B.ORDERDATE, B.SHIPDATE)) AS 'TOTAL AVERAGE'
FROM BICYCLE B)

ORDER BY YEAR(ORDERDATE) ASC