A8

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--1. List the products with a list price greater than the average list price of all products.

SELECT ItemID, Description, ListPrice

FROM PET..Merchandise

WHERE ListPrice > (SELECT AVG(ListPrice) FROM PET..Merchandise)

--2. Which merchandise items have an average sale price more than 50 percent higher than their average purchase cost?

SELECT M.ItemID, AVG(OI.Cost) AS AvgCost, AVG(SI.SalePrice) AS AvgSalePrice

FROM (PET..OrderItem OI INNER JOIN PET..Merchandise M ON OI.ItemID = M.ItemID)

INNER JOIN PET..SaleItem SI ON M.ItemID = SI.ItemID

GROUP BY M.ItemID

HAVING AVG(SI.SalePrice) > 1.5\*AVG(OI.Cost)

--3. List the employees and their total merchandise sales expressed as a percentage of total merchandise sales for all employees.

SELECT S.EmployeeID, E.LastName, SUM(SI.SalePrice\*SI.Quantity) AS TotalSales, (SUM(SI.SalePrice\*SI.Quantity)/(SELECT SUM(SALEPRICE\*QUANTITY) FROM PET..SaleItem))\*100 AS PctSales

FROM (PET..Employee E INNER JOIN PET..Sale S ON E.EmployeeID = S.EmployeeID)

INNER JOIN PET..SaleItem SI ON S.SaleID = SI.SaleID

GROUP BY S.EmployeeID, E.FirstName, E.LastName

--4. On average, which supplier charges the highest shipping cost as a percent of the merchandise order total?

CREATE VIEW POCost AS

SELECT PONumber, SUM(Quantity\*Cost) AS 'PONumTotal'

FROM Pet..OrderItem

GROUP BY PONumber

CREATE VIEW AvgShippingCost AS

SELECT SupplierID, AVG(MO.ShippingCost/PCT.PONumTotal)\*100 AS 'PctShipCost'

FROM Pet..MerchandiseOrder MO INNER JOIN POCost PCT ON MO.PONumber = PCT.PONumber

GROUP BY SupplierID

SELECT SC.SupplierID, S.Name, PctShipCost

FROM AvgShippingCost SC INNER JOIN PET..Supplier S ON SC.SupplierID = S.SupplierID

WHERE PctShipCost = (SELECT MAX(PctShipCost) FROM AvgShippingCost)

--5. Which customer has given us the most total money for animals and merchandise?

CREATE VIEW AnimalPurch AS

SELECT CustomerID, SUM(SalePrice) AS 'AnimalTotal'

FROM PET..Sale S INNER JOIN PET..SaleAnimal SA ON S.SaleID = SA.SaleID

GROUP BY CustomerID

CREATE VIEW MerchPurch AS

SELECT CustomerID, SUM(SalePrice\*Quantity) AS 'MerchTotal'

FROM PET..Sale S INNER JOIN PET..SaleItem SI ON S.SaleID = SI.SaleID

GROUP BY CustomerID

SELECT TOP 1 C.CustomerID, C.LastName, C.FirstName, AP.AnimalTotal, MP.MerchTotal, SUM(AP.AnimalTotal + MP.MerchTotal) AS GrandTotal

FROM PET..Customer C INNER JOIN MerchPurch MP ON MP.CustomerID = C.CustomerID INNER JOIN AnimalPurch AP ON AP.CustomerID = C.CustomerID

GROUP BY C.CustomerID, C.LastName, C.FirstName, AP.AnimalTotal, MP.MerchTotal

ORDER BY GrandTotal DESC

--6. Which customers who bought more than $100 in merchandise in May also spent more than $50 on merchandise in October?

CREATE VIEW CustPurchMAY AS

SELECT S.CustomerID, SUM(SI.SalePrice \* SI.Quantity) AS 'MayPurch'

FROM PET..SaleItem SI INNER JOIN PET..Sale S on SI.SaleID = S.SaleID

WHERE MONTH(S.SaleDate) = 5

GROUP BY S.CustomerID

CREATE VIEW CustPurchOCT AS

SELECT S.CustomerID, SUM(SI.SalePrice \* SI.Quantity) AS 'OctPurch'

FROM PET..SaleItem SI INNER JOIN PET..Sale S on SI.SaleID = S.SaleID

WHERE MONTH(S.SaleDate) = 10

GROUP BY S.CustomerID

SELECT CPO.CustomerID, C.FirstName, C.LastName, CPM.MayPurch AS 'MayTotal'

FROM CustPurchMAY CPM INNER JOIN CustPurchOCT CPO ON CPM.CustomerID = CPO.CustomerID

INNER JOIN PET..Customer C ON C.CustomerID = CPO.CustomerID

WHERE CPM.MayPurch > 100 AND CPO.OctPurch > 50

--7. What was the net change in quantity on hand for premium canned dog food between January 1 and July 1?

CREATE VIEW PurchasedItems AS

SELECT M.Description, OI.ItemID, Sum(OI.Quantity) AS Purchased

FROM PET..MerchandiseOrder MO INNER JOIN PET..OrderItem OI ON MO.PONumber = OI.PONumber INNER JOIN PET..Merchandise M ON M.ItemID = OI.ItemID

WHERE MO.OrderDate BETWEEN '01-01-2004' AND '07-01-2004'

GROUP BY M.Description, OI.ItemID

HAVING M.Description = 'Dog Food-Can-Premium'

CREATE VIEW SoldItems AS

SELECT M.Description, M.ItemID, Sum(SI.Quantity) AS Sold

FROM PET..Merchandise M INNER JOIN PET..SaleItem SI ON M.ItemID = SI.ItemID INNER JOIN PET..Sale S ON S.SaleID = SI.SaleID

WHERE S.SaleDate BETWEEN '01-01-2004' AND '07-01-2004'

GROUP BY M.Description, M.ItemID

HAVING M.Description = 'Dog Food-Can-Premium'

SELECT PI.Description, PI.ItemID, PI.Purchased, SI.Sold, Purchased-Sold AS NetIncrease

FROM PurchasedItems PI INNER JOIN SoldItems SI ON PI.ItemID = SI.ItemID

--8. Which are the merchandise items with a list price of more than $50 and no sales in July?

SELECT M.ItemID, M.Description, M.ListPrice

FROM PET..Merchandise M

WHERE M.ListPrice > 50 AND M.ItemID NOT IN (SELECT M.ItemID FROM PET..Merchandise M INNER JOIN PET..SaleItem SI ON M.ItemID = SI.ItemID INNER JOIN PET..Sale S ON SI.SaleID = S.SaleID WHERE MONTH(S.SaleDate) = 7 )

ORDER BY M.ItemID DESC

--9. Which merchandise items with more than 100 units on hand have not been ordered in 2004? Use an outer join to answer the question.

SELECT DISTINCT M.ItemID, M.Description, M.QuantityOnHand

FROM PET..Merchandise M LEFT OUTER JOIN PET..OrderItem OI ON M.ItemID = OI.ItemID

LEFT OUTER JOIN PET..MerchandiseOrder MO ON OI.PONumber = MO.PONumber

WHERE M.QuantityOnHand > 100 AND MO.OrderDate IS NULL

--10. Which merchandise items with more than 100 units on hand have not been ordered in 2004? Use a subquery to answer the question.

SELECT M.ItemID, M.Description, M.QuantityOnHand

FROM PET..Merchandise M

WHERE M.QuantityOnHand > 100 AND ItemID NOT IN (SELECT OI.ItemID

FROM PET..MerchandiseOrder MO INNER JOIN PET..OrderItem OI ON MO.PONumber = OI.PONumber

WHERE MO.OrderDate IS NOT NULL

)

--11. Save a query to answer Exercise 5: total amount of money spent by each customer. Create the table shown to categorize customers based on sales.

-- Write a query that lists each customer from the first query and displays the proper label.

CREATE TABLE CATEGORY

(

CATEGORY CHAR(4) NOT NULL,

LOW INT NOT NULL,

HIGH INT NOT NULL,

PRIMARY KEY (CATEGORY)

)

INSERT INTO CATEGORY

VALUES ('WEAK', 0, 200), ('GOOD', 200, 800), ('BEST', 800, 10000)

SELECT C.CustomerID, C.LastName, C.FirstName, GTP.GrandTotal, CATEGORY

FROM GTPurch GTP INNER JOIN PET..Customer C ON GTP.CustomerID = C.CustomerID, CATEGORY

WHERE GTP.GrandTotal BETWEEN LOW AND HIGH

--12. List all suppliers (animals and merchandise) who sold us items in June. Identify whether they sold use animals or merchandise.

SELECT S.Name, 'ANIMAL' AS OrderType

FROM PET..Supplier S INNER JOIN PET..AnimalOrder AO ON S.SupplierID = AO.SupplierID

WHERE MONTH(AO.OrderDate) = 6

UNION ALL

SELECT S.Name, 'MERCHANDISE' AS OrderType

FROM PET..Supplier S INNER JOIN PET..MerchandiseOrder MO ON S.SupplierID = MO.SupplierID

WHERE MONTH(MO.OrderDate) = 6

--13. Drop the table Category. Write a query to create the table Category shown in Exercise 11.

DROP TABLE CATEGORY

CREATE TABLE CATEGORY

(

CATEGORY CHAR(4) NOT NULL,

LOW INT NOT NULL,

HIGH INT NOT NULL,

PRIMARY KEY (CATEGORY)

)

--14. Write a query to insert the first row of data for the table in Exercise 11.

INSERT INTO CATEGORY

VALUES ('WEAK', 0, 200)

--15. Write a query to change the High value to 400 in the first row of the table in Exercise 11.

UPDATE CATEGORY

SET HIGH = 400

WHERE HIGH = 200

--17. Create a query to delete the first row of the table in Exercise 11.

DELETE FROM CATEGORY

WHERE CATEGORY = 'WEAK'

--18. Create a copy of the Employee table structure. Use a delete query to remove all data from the copy. Write a query to copy from the original employee table into the new one.

SELECT \*

INTO CATEGORY

FROM PET..Employee

DELETE FROM CATEGORY

INSERT INTO CATEGORY

SELECT \*

FROM PET..Employee

SELECT \* FROM CATEGORY