Assignment LAB 05

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1 Case Study Questions

- Return customers and their orders, including customers who placed no orders (CustomerID, OrderID,OrderDate)
- Report only those customer IDs who never placed any order. (CustomerID, OrderID, OrderDate)
- Report those customers who placed orders on July,1997. (CustomerID, OrderID, OrderDate)
- Report the total orders of each customer. (customerID, totalorders)
- Write a query to generate a five copies of each employee. (EmployeeID, FirstName, LastName)
- Write a query that returns a row for each employee and day in the range 04-07-1996 through 04-08- 1997. (EmployeeID, Date)
- Return US customers, and for each customer return the total number of orders and total quantities. (CustomerID, Totalorders, totalquantity)
- Write a query that returns all customers in the output, but matches them with their respective orders only if they were placed on July 04,1997. (CustomerID, CompanyName, OrderID, Orderdate)
- List that names of those employees and their ages. (EmployeeName, Age, Manager Age)
- List the names of products which were ordered on 8th August 1997. (ProductName, OrderDate)

2 Answers

1.
```
SELECT Customers.CustomerID,
Orders.OrderID,
Orders.OrderDate
FROM Customers
LEFT JOIN Orders ON Customers.CustomerID = Orders.CustomerID
ORDER BY Customers.CustomerID, Orders.OrderID
```

2.
```
SELECT customers.CustomerID,
orders.OrderID, orders.OrderDate
FROM customers
LEFT JOIN orders ON customers.CustomerID =
orders.CustomerID
WHERE orders.OrderID IS NULL;
```

4.
```
SELECT customerID, COUNT(*) as
 totalorders
 FROM orders
 GROUP BY customerID
```

```
5. SELECT EmployeeID, FirstName, LastName
 FROM (
    SELECT EmployeeID, FirstName, LastName, 1 as copy_num FROM employees
    UNION ALL
    SELECT EmployeeID, FirstName, LastName, 2 as copy_num FROM employees
    UNION ALL
    SELECT EmployeeID, FirstName, LastName, 3 as copy_num FROM employees
    UNION ALL
    SELECT EmployeeID, FirstName, LastName, 4 as copy_num FROM employees
    UNION ALL
    SELECT EmployeeID, FirstName, LastName, 5 as copy_num FROM employees
) AS copies
ORDER BY EmployeeID, copy_num
```

```
6. SELECT e.EmployeeID, d.Date
FROM Employees e
CROSS JOIN (
  SELECT CAST('1996-04-07' AS DATE) AS Date
  UNION ALL
  SELECT DATEADD(DAY, 1, Date) AS Date
  FROM (
    SELECT CAST('1996-04-07' AS DATE) AS Date
    UNION ALL
    SELECT DATEADD(DAY, 1, Date) AS Date
    FROM (
      SELECT CAST('1996-04-07' AS DATE) AS Date
    ) AS StartDate
    WHERE Date < '1997-04-08'
  ) AS Dates
) AS d
ORDER BY e.EmployeeID, d.Date
```

```
7.    SELECT
  Customers.CustomerID,
  COUNT(Orders.OrderID) AS TotalOrders,
  SUM([Order Details].Quantity) AS TotalQuantity
FROM
  Customers
  JOIN Orders ON Customers.CustomerID = Orders.CustomerID
  JOIN [Order Details] ON Orders.OrderID = [Order Details].OrderID
WHERE
  Customers.Country = 'USA'
GROUP BY
  Customers.CustomerID
```

```
8. SELECT c.CustomerID, c.CompanyName, o.OrderID, o.OrderDate
FROM Customers c
LEFT JOIN Orders o ON c.CustomerID = o.CustomerID AND o.OrderDate = '1997-07-04'
```

```
9. SELECT CONCAT(e.FirstName, ' ', e.LastName) AS EmployeeName,
       DATEDIFF(YEAR, e.BirthDate, GETDATE()) AS Age,
       DATEDIFF(YEAR, m.BirthDate, GETDATE()) AS ManagerAge
FROM Employees e
INNER JOIN Employees m ON e.ReportsTo = m.EmployeeID AND e.BirthDate > m.BirthDate
```

```
10.
SELECT p.ProductName, o.OrderDate
FROM Products p
```

```
JOIN [Order Details] od ON p.ProductID = od.ProductID
JOIN Orders o ON od.OrderID = o.OrderID AND o.OrderDate = '1997-08-08'
```