## **Neba Nfonsang**

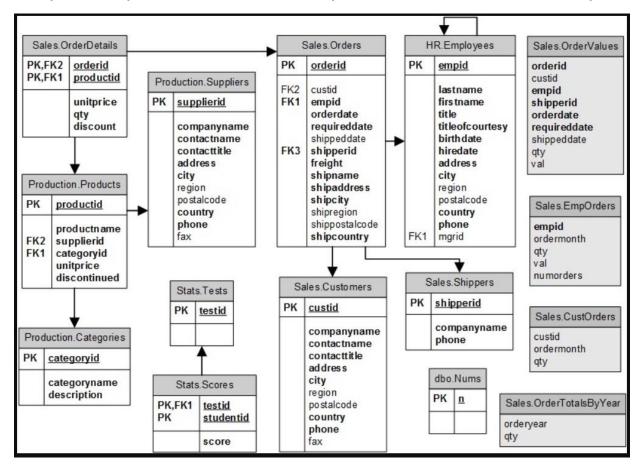
## **SQL** Project 2: Using Subqueries or joins between multiple tables

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USE TSQLV4

-- Download this database from

http://tsql.lucient.com/SampleDatabases/TSQLV4.zip



```
/*
Query # 1: Retrieve order with maximum ID
*/
SELECT *
FROM Sales.Orders
WHERE orderid=(
    SELECT MAX(orderid)
    FROM Sales.Orders);
  - - Note: It is not a very good idea to use SELECT *
/*
Query # 2: Select order for employees whose last
name start with D
*/
SELECT orderid, custid, empid, orderdate
FROM Sales.Orders
WHERE empid IN (
    SELECT empid
    FROM HR. Employees AS E
    WHERE E.lastname LIKE N'D%');
```

```
/*
Query # 3: Using a join query instead to output
order for employees whose names start with D
*/
SELECT O.orderid, O.custid, O.empid, O.orderdate
FROM Sales.Orders as O
                 -- Use upper case for T-SQL keywords
    INNER JOIN Hr. Employees AS E
        ON E.empid = O.empid
WHERE E.lastname LIKE N'D%';
/*
Query # 4: Retrieve Orders for Customers from the
USA
*/
SELECT O.orderid, O.custid, O.empid, O.orderdate
FROM Sales.Orders as O
    INNER JOIN Sales. Customers AS C
        ON C.custid = O.custid
WHERE C.country = N'USA';
```

```
/*
Query # 5: Using NOT IN to select order for
customers not in the USA
*/
SELECT O.orderid, O.custid, O.empid, O.orderdate
FROM Sales.Orders as O
                 -- Use upper case for T-SQL keywords
WHERE O.custid NOT IN (
    SELECT C.custid
    FROM Sales.Customers AS C
    WHERE C.country = N'USA');
/*
Query # 6: Customers who did not place any order
*/
SELECT custid, companyname
FROM Sales.Customers
WHERE custid NOT IN (
    SELECT O.custid
    FROM Sales.Orders AS 0)
```

```
/*
Query # 7: Return order with minimum order id for
each customer correlated subquery
*/
SELECT custid, orderid, empid, orderdate
FROM Sales.Orders AS 01
WHERE orderid = (
    SELECT MIN(02.orderid)
    FROM Sales.Orders AS 02
    WHERE 02.custid = 01.custid);
/*
Query # 8: Select records in customer table where
the customer's country is Mexico, and the customer
exists in the sales order table
*/
SELECT custid, companyname
FROM Sales.Customers AS C
WHERE country = N'Mexico' AND EXISTS (
    SELECT * FROM Sales.Orders AS O
    WHERE O.custid = C.custid);
```

```
/*
Query # 9: negate Exists
*/
SELECT custid, companyname
FROM Sales.Customers AS C
WHERE country = N'FRANCE' AND NOT EXISTS (
    SELECT * FROM Sales.Orders AS O
    WHERE O.custid = C.custid);
/*
Query # 10: Selecting Previous Order
*/
SELECT orderid, orderdate, empid, custid,
    (SELECT MAX(O2.orderid)
    FROM Sales.Orders AS 02
    WHERE O2.orderid < O1.orderid) AS prevorderid
FROM Sales.Orders AS 01;
```

```
/*
Query # 11: Selecting next order
*/
SELECT orderid, orderdate, empid, custid,
    (SELECT MIN(O2.orderid)
    FROM Sales.Orders AS 02
    WHERE O2.orderid > O1.orderid) AS nextorderid
    FROM Sales. Orders AS 01;
/*
Query # 12: Select record with unit prices greater
than average unitprice
*/
SELECT productid, productname, unitprice
FROM Production. Products
WHERE unitprice > (
    SELECT AVG (unitprice)
    FROM Production.Products)
ORDER BY unitprice DESC;
```

```
/*
Query # 13: Exclude Null to check a customer ID in a
set of values
*/
SELECT custid, companyname
FROM Sales.Customers
WHERE custid NOT IN(SELECT
0.custid
    FROM Sales.Orders AS O
    WHERE O.custid IS NOT NULL);
/*
Query # 14: Exclude Null implicitly
*/
SELECT custid, companyname
FROM Sales.Customers AS C
WHERE NOT EXISTS (
    SELECT *
    FROM Sales.Orders AS O
    WHERE O.custid = C.custid);
```

```
/*
Query # 15:
*/
SELECT orderid, orderdate, custid, empid
FROM Sales.Orders
WHERE orderdate =
    (SELECT MAX(0.orderdate)
    FROM Sales.Orders AS 0);
/*
Query # 16:
*/
SELECT custid, orderid, orderdate, empid
FROM Sales.Orders
WHERE custid IN(
    SELECT TOP(2) WITH TIES O.custid
    FROM Sales.Orders AS O
    GROUP BY O.custid
    ORDER BY COUNT(*) DESC);
```

```
/*
Query # 17:
*/
SELECT empid, FirstName, lastname
FROM HR. Employees
WHERE empid NOT IN (
    SELECT O.empid
    FROM Sales.Orders AS O
    WHERE 0.orderdate >= '20160501');
/*
Query # 18:
*/
SELECT DISTINCT country
FROM Sales.Customers
WHERE country NOT IN (
    SELECT E.country
    FROM HR. Employees AS E);
```

```
/*
Query # 19:
*/
SELECT custid, companyname
FROM Sales.Customers AS C
WHERE EXISTS
    (SELECT*
    FROM Sales.Orders AS O
    WHERE O.custid = C.custid
        AND EXISTS
            (SELECT*
            FROM Sales.OrderDetails AS OD
            WHERE OD.orderid = orderid
            AND OD.ProductID=12))
```

```
/*
Query # 20:
*/

SELECT custid, ordermonth, qty,
        (SELECT SUM(02.qty))
        FROM Sales.CustOrders AS 02
        WHERE 02.custid = 01.custid
            AND 02.ordermonth <= 01.ordermonth) AS
runqty
FROM Sales.CustOrders AS 01
ORDER BY custid, ordermonth;</pre>
```