



/*

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 O)
```

/*

Query # 7: Return order with minimum order id for each customer correlated subquery

*/

```
SELECT custid,orderid, empid, orderdate
FROM Sales.Orders AS O1
WHERE orderid = (
    SELECT MIN(O2.orderid)
    FROM Sales.Orders AS O2
    WHERE O2.custid = O1.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 O2
     WHERE O2.orderid < O1.orderid) AS prevorderid
FROM Sales.Orders AS O1;
```

/*

Query # 11: Selecting next order

*/

```
SELECT orderid, orderdate, empid, custid,  
       (SELECT MIN(02.orderid)  
        FROM Sales.Orders AS 02  
        WHERE 02.orderid > 01.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
O.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(O.orderdate)
     FROM Sales.Orders AS O);
```

/*

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 O.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;
```