Testing

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1 Introduction

In this document i will explain the home task step by step.

2 Tasks

2.1 PERFORM JOIN ON ANY TABLE IN NORTH WIND SCHEMA

```
SELECT ORDERS.OrderID, ORDERS.CustomerID,[OrderDetails].UnitPrice
FROM ORDERS
JOIN [Order Details]
ON [Order Details].OrderID = ORDERS.OrderID
```

	OrderID	CustomerID	UnitPrice
1	10248	VINET	14.00
2	10248	VINET	9.80
3	10248	VINET	34.80
4	10249	TOMSP	18.60
5	10249	TOMSP	42.40
6	10250	HANAR	7.70
7	10250	HANAR	42.40
8	10250	HANAR	16.80
9	10251	VICTE	16.80
10	10251	VICTE	15.60
11	10251	VICTE	16.80

2.2 PERFORM SELF AND CROSS JOIN

```
SELECT E.FirstName,M.FirstName
FROM Employees E
JOIN Employees M
ON E.ReportsTo = M.EmployeeID
```

	FirstName	FirstName
1	Janet	Andrew
2	Margaret	Andrew
3	Steven	Andrew
4	Michael	Steven
5	Robert	Steven
6	Laura	Andrew
7	Anne	Steven

2.3 RETURN CUSTOMERS WITH THEIR ORDERS INCLUDING CUSTOMERS WHICH HAVE PLACED NO ORDERS

```
SELECT C.CompanyName,ORDERS.OrderID, Orders.OrderDate
FROM Customers C
LEFT JOIN Orders
ON C.CustomerID = ORDERS.CustomerID
```

	CompanyName	OrderID	OrderDate
1	Vins et alcools Chevalier	10248	1996-07-04 00:00:00.000
2	Toms Spezialitäten	10249	1996-07-05 00:00:00.000
3	Hanari Carnes	10250	1996-07-08 00:00:00.000
4	Victuailles en stock	10251	1996-07-08 00:00:00.000
5	Suprêmes délices	10252	1996-07-09 00:00:00.000
6	Hanari Carnes	10253	1996-07-10 00:00:00.000
7	Chop-suey Chinese	10254	1996-07-11 00:00:00.000
8	Richter Supermarkt	10255	1996-07-12 00:00:00.000
9	Wellington Importadora	10256	1996-07-15 00:00:00.000
10	HILARION-Abastos	10257	1996-07-16 00:00:00.000
11	Centro comercial Moctezuma	10259	1996-07-18 00:00:00.000

2.4 REPORT ONLY THOSE CUSTOMERS WHO NEVER PLACED ANY ORDER

```
SELECT C.CompanyName,ORDERS.OrderID, Orders.OrderDate
FROM Customers C
```

```
LEFT  JOIN  Orders
ON C. CustomerID  =  ORDERS. CustomerID
WHERE ORDERS. OrderID  IS  NULL
```

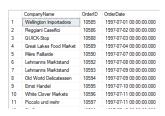|	CompanyName	OrderID	OrderDate
1	Paris spécialités	NULL	NULL
2	FISSA Fabrica Inter. Salchichas S.A.	NULL	NULL

2.5 Report those customers who have placed order on July,1997

```
SELECT  C. CompanyName ,ORDERS. OrderID , Orders . OrderDate
FROM  Customers  C
JOIN  Orders
ON C. CustomerID  =  ORDERS. CustomerID
WHERE YEAR( OrderDate )  =  1997  AND
    MONTH( OrderDate )  =  7
```

	CompanyName	OrderID	OrderDate
1	Wellington Importadora	10585	1997-07-01 00:00:00.000
2	Reggiani Caseifici	10586	1997-07-02 00:00:00.000
3	QUICK-Stop	10588	1997-07-03 00:00:00.000
4	Great Lakes Food Market	10589	1997-07-04 00:00:00.000
5	Mère Paillarde	10590	1997-07-07 00:00:00.000
6	Lehmanns Marktstand	10592	1997-07-08 00:00:00.000
7	Lehmanns Marktstand	10593	1997-07-09 00:00:00.000
8	Old World Delicatessen	10594	1997-07-09 00:00:00.000
9	Ernst Handel	10595	1997-07-10 00:00:00.000
10	White Clover Markets	10596	1997-07-11 00:00:00.000
11	Piccolo und mehr	10597	1997-07-11 00:00:00.000

2.6 REPORT TOTAL ORDERS OF EACH CUSTOMER

```
SELECT  C. CustomerID ,COUNT(ORDERS. OrderID )
FROM  Customers  C
JOIN  Orders
ON C. CustomerID  =  ORDERS. CustomerID
GROUP  BY  C. CustomerID
```

	CustomerID	(No column name)
1	ALFKI	4
2	ANATR	4
3	ANTON	6
4	AROUT	10
5	BERGS	14
6	BLAUS	7
7	BLONP	11
8	BOLID	3
9	BONAP	14
10	BOTTM	12
11	BSBEV	9

2.7 WRITE A QUERY TO GENERATE FIVE COPIES OF EACH EMPLOYEE

```
SELECT E.EmployeeID,E.FirstName,E.LastName
FROM Employees AS E,(SELECT TOP(5) Employees.EmployeeID
    FROM  Employees) AS M
```

	EmployeeID	FirstName	LastName
1	2	Andrew	Fuller
2	3	Janet	Leverling
3	4	Margaret	Peacock
4	5	Steven	Buchanan
5	6	Michael	Suyama
6	7	Robert	King
7	8	Laura	Callahan
8	9	Anne	Dodsworth
9	2	Andrew	Fuller
10	3	Janet	Leverling
11	4	Margaret	Peacock

2.8 SELECT EMPLOYEES WITH DAY IN GIVEN YEAR

```
DECLARE @dStart DATE,
        @dEnd DATE
SET @dStart = CAST('1996-07-04' AS datetime)
SET @dEnd = CAST('1997-08-04' AS datetime)
;WITH CTE AS
(
    SELECT @dStart AS dDay
    UNION ALL
    SELECT DATEADD (DAY, 1, dDay)
    FROM CTE
    WHERE dDay < @dEnd
)
SELECT Employees.EmployeeID,dDAY
```

```
FROM CTE, Employees
OPTION (MaxRecursion 32767)
```

	EmployeeID	dDAY
1	2	1996-07-04
2	3	1996-07-04
3	4	1996-07-04
4	5	1996-07-04
5	6	1996-07-04
6	7	1996-07-04
7	8	1996-07-04
8	9	1996-07-04

2.9 Return total all USA customers with with total number of orders and total quantity

```
select C.CustomerID ,COUNT(O.OrderID) AS TOTAL_ORDERS,COUNT(OD.Quantity) AS Q
from Customers C
JOIN Orders O
ON O.CustomerID = C.CustomerID
JOIN [Order Details] OD
ON O.OrderID = OD.OrderID
WHERE C.Country = 'USA'
GROUP BY C.CustomerID
```

	CustomerID	TOTAL_ORDERS	QUANTITY
1	GREAL	18	18
2	HUNGC	7	7
3	LAZYK	1	1
4	LETSS	8	8
5	LONEP	11	11
6	OLDWO	21	21
7	RATTC	35	35

2.10 List the name of Employees with age who are older there manager

```
SELECT E.FirstName ,YEAR(GETDATE()) − YEAR(E.BirthDate) AS [EMPLOYEE AGE] ,
YEAR(GETDATE()) − YEAR(M.BirthDate) AS [MANAGER AGE]
FROM Employees E
Join Employees M
```

```
on E.EmployeeID = M.ReportsTo
where E.BirthDate < M.BirthDate
```

	FirstName	EMPLOYEE AGE	MANAGER AGE
1	Andrew	71	60
2	Andrew	71	68
3	Steven	68	60
4	Steven	68	63
5	Andrew	71	65
6	Steven	68	57

2.11   Product which are ordered on July 4,1997

```
select P.ProductName
FROM [Order Details] OD
JOIN ORDERS O
ON O.OrderID = OD.OrderID
JOIN Products P
ON OD.ProductID = P.ProductID
WHERE O.OrderDate = CAST('1997-08-08' AS datetime)
```

	ProductName
1	Tofu
2	Singaporean Hokkien Fried Mee
3	Camembert Pierrot

2.12   all orders which were serviced by Anne and were shipped late

```
SELECT Address ,CITY, Country
FROM ORDERS O
JOIN Employees E
ON O.EmployeeID = E.EmployeeID
WHERE E.FirstName ='ANNE' AND
      O.ShippedDate > RequiredDate
```

	Address	CITY	Country
1	7 Houndstooth Rd.	London	UK
2	7 Houndstooth Rd.	London	UK
3	7 Houndstooth Rd.	London	UK
4	7 Houndstooth Rd.	London	UK

2.13 LIST NAME OF COUNTRY TO WHICH BEVER-AGES HAVE BEEN SHIPPED

```
SELECT DISTINCT O.ShipCountry
FROM ORDERS O
JOIN [Order Details] OD
ON O.OrderID = OD.OrderID
JOIN Products P
ON OD.ProductID = P.ProductID
JOIN Categories C
ON C.CategoryID = P.CategoryID
WHERE C.CategoryName = 'BEVERAGES'
```

	ShipCountry
1	Argentina
2	Austria
3	Belgium
4	Brazil
5	Canada
6	Denmark
7	Finland