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CSCI 331 - Database Systems

G745\_2 group project

```
1 USE AdventureWorksDW2017;
2 --get all the customers and their regions
3 --from the DimCustomer table and inner join
4 --with DimGeography
5 --where GeographyKeys match from both columns
6 SELECT C.CustomerKey,
7         C.GeographyKey,
8         C.FirstName,
9         C.LastName,
10        G.City
11 FROM dbo.DimCustomer AS C
12      INNER JOIN dbo.DimGeography AS G
13            ON G.GeographyKey = C.GeographyKey
14 ORDER BY G.City DESC;
```

Results Messages

	CustomerKey	GeographyKey	FirstName	LastName	City
1	11385	279	Miguel	Allen	York
2	11388	279	Joseph	Martin	York
3	11468	278	Jaclyn	Andersen	York
4	11469	278	Edwin	Raji	York
5	11542	278	Alejandro	Tang	York
6	11557	278	Felicia	Ramos	York
7	11586	278	Alberto	Romero	York
8	11609	277	Eugene	Ye	York
9	12326	279	Glenn	Zhou	York
10	12329	278	Bonnie	Shan	York
11	12404	278	Krystal	Liang	York
12	12473	277	Sergio	Sai	York
13	12503	279	Casey	Shen	York
14	12610	278	Wendy	Gutierrez	York
15	12645	277	Audrey	Ruiz	York
16	12658	279	Joy	Gomez	York
17	12730	279	Karla	Becker	York
18	12803	279	Heather	Li	York
19	12808	277	Marc	Schmidt	York
20	13509	279	Lucas	Johnson	York
21	13590	277	Louis	Xie	York
22	13591	278	Latasha	Alonso	York
23	13689	277	Teresa	Ramos	York
24	13792	279	Charles	Taylor	York
25	13841	278	Clayton	Kumar	York
26	14158	277	Craig	Moreno	York
27	14840	277	Autumn	Zhu	York
28	14937	278	Brendan	Xu	York
29	15077	279	Dominiq...	Lopez	York
30	15111	278	Ray	Fernan	York

>

✓ Query executed successfully.

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```

98 --In the following query the proposition is to
99 --find employees from the HumanResources.Employee table
100 --who have the same birth year and whose employer ids
101 --are not equal
102 USE Northwinds2020TSQLV6;
103 SELECT Emp1.EmployeeFirstName, Emp1.EmployeeLastName, Emp1.BirthDate
104 FROM
105 (
106     SELECT e.EmployeeId,
107            e.EmployeeLastName,
108            e.EmployeeFirstName,
109            e.BirthDate,
110            YEAR(e.BirthDate) AS YY
111     FROM HumanResources.Employee AS e
112 ) AS Emp1
113 INNER JOIN
114 (
115     SELECT e.EmployeeId,
116            e.EmployeeLastName,
117            e.EmployeeFirstName,
118            e.BirthDate,
119            YEAR(e.BirthDate) AS YY
120     FROM HumanResources.Employee AS e
121 ) AS Emp2
122 ON Emp2.YY = Emp1.YY
123 AND Emp1.EmployeeId <> Emp2.EmployeeId;
124

```

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Results		Messages	
	EmployeeFirstName	EmployeeLastName	BirthDate
1	Judy	Lew	1983-08-30
2	Paul	Suurs	1983-07-02

```
59 |
60 | -- A query that returns Customers
61 | -- who placed orders on or after May 31st, 2016
62 | -- Tables involved: WorldWideImporters, Invoices and Orders tables
63 | SELECT OrderID, CustomerID
64 | FROM Sales.Invoices
65 | WHERE CustomerID IN
66 |     (SELECT O.CustomerID
67 |      FROM Sales.Orders AS O
68 |      WHERE O.OrderDate >= '20160531')
69 | ORDER BY OrderID;
```

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Results



Messages

	OrderID	CustomerID
1	11	586
2	17	910
3	32	972
4	40	995
5	41	910
6	53	586
7	58	910
8	68	972
9	75	995
10	76	910
11	90	586
12	91	910
13	92	82
14	111	28
15	115	551
16	134	586
17	147	551
18	156	911
19	178	919
20	187	972
21	189	989
22	194	82
23	201	983
24	207	488
25	211	911
26	226	972



Query executed successfully.

```

159 SELECT *
160 FROM Production.Supplier
161 WHERE SupplierCountry = N'Italy';
162 DROP FUNCTION IF EXISTS Production.TopSuppliers;
163 GO
164 CREATE FUNCTION Production.TopSuppliers
165 (
166     @country AS NVARCHAR(25),
167     @n AS INT
168 )
169 RETURNS TABLE
170 AS
171 RETURN SELECT TOP (@n)
172         o.OrderId,
173         o.CustomerId,
174         o.EmployeeId,
175         o.OrderDate,
176         o.ShipToDate,
177         o.ShipToName,
178         o.ShipToCity,
179         o.ShipToCountry,
180         p.SupplierId,
181         p.SupplierCompanyName,
182         p.SupplierCity,
183         p.SupplierCountry
184     FROM Sales.[Order] AS o
185         INNER JOIN Production.Supplier AS p
186             ON o.ShipperId = p.SupplierId
187     WHERE o.ShipToCountry = @country;
188
189 GO
190 -- Function to test query
191 SELECT *
192 FROM Production.TopSuppliers(N'Italy', 2) AS S
193 ORDER BY SupplierId DESC;
194

```

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Results		Messages									
	SupplierId	SupplierCompanyName	SupplierContactName	SupplierContactTitle	SupplierAddress	SupplierCity	SupplierRegion	SupplierPostalCode	SupplierCountry	SupplierPhoneNumber	SupplierFaxNumber
1	14	Supplier KEREV	Keil, Kendall	Sales Representative	Viale Dante, 6789	Ravenna	NULL	10015	Italy	(0544) 56789	(0544) 34567
2	26	Supplier ZWZDM	Cunha, Gonçalo	Order Administrator	Via dei Gelsomi...	Salerno	NULL	10020	Italy	(089) 4567890	(089) 4567890

```

223 USE Northwinds2020TSQLV6;
224 DROP FUNCTION IF EXISTS Production.TopProducts;
225 GO
226 CREATE FUNCTION Production.TopProducts
227     (@supid AS INT, @n AS INT)
228     RETURNS TABLE
229 AS
230 RETURN
231     SELECT TOP (@n) ProductId, ProductName, UnitPrice
232     FROM Production.Product
233     WHERE SupplierId = @supid
234     ORDER BY UnitPrice DESC;
235 GO
236
237 -- Using the CROSS APPLY operator
238 -- and the function, return
239 -- the five most expensive products
240 SELECT S.SupplierId, S.SupplierCompanyName, P.ProductId, P.ProductName, P.UnitPrice
241 FROM Production.Supplier AS S
242     CROSS APPLY Production.TopProducts(S.SupplierId, 5) AS P;
243

```

Results Messages

	SupplierId	SupplierCompanyName	ProductId	ProductName	UnitPrice
1	1	Supplier SWRXU	2	Product RECZE	19.00
2	1	Supplier SWRXU	1	Product HHYDP	18.00
3	1	Supplier SWRXU	3	Product IMEHJ	10.00
4	2	Supplier VHQZD	4	Product KSBRM	22.00
5	2	Supplier VHQZD	5	Product EPEIM	21.35
6	2	Supplier VHQZD	65	Product XYWBZ	21.05
7	2	Supplier VHQZD	66	Product LQMGN	17.00
8	3	Supplier STUAZ	8	Product WVJFP	40.00
9	3	Supplier STUAZ	7	Product HMLNI	30.00
10	3	Supplier STUAZ	6	Product VAIIV	25.00
11	4	Supplier QOVFD	9	Product AOBJ...	97.00
12	4	Supplier QOVFD	10	Product YHXGE	31.00
13	4	Supplier QOVFD	74	Product BKAJZ	10.00
14	5	Supplier EQPNC	12	Product OSFNS	38.00
15	5	Supplier EQPNC	11	Product QMV...	21.00
16	6	Supplier QWUSF	14	Product PWCJB	23.25
17	6	Supplier QWUSF	15	Product KSZOI	15.50
18	6	Supplier QWUSF	13	Product POXFU	6.00
19	7	Supplier GQRCV	18	Product CKEDC	62.50
20	7	Supplier GQRCV	63	Product ICKNK	43.90
21	7	Supplier GQRCV	17	Product BLCAX	39.00
22	7	Supplier GQRCV	16	Product PAFRH	17.45
23	7	Supplier GQRCV	70	Product TOONT	15.00
24	8	Supplier BWGYE	20	Product QHFFP	81.00
25	8	Supplier BWGYE	68	Product TBTBL	12.50
26	8	Supplier BWGYE	21	Product VJZZH	10.00
27	8	Supplier BWGYE	19	Product XKXDO	9.20
28	9	Supplier QQYEU	22	Product CPHFY	21.00
29	9	Supplier QQYEU	23	Product JLUZD	9.00
30	10	Supplier UNAHG	24	Product QOG...	4.50
31	11	Supplier ZPYVS	27	Product SMIOH	43.90
32	11	Supplier ZPYVS	26	Product HLGZA	31.23
33	11	Supplier ZPYVS	25	Product LYLNI	14.00

✓ Query executed successfully.



```

244 -- An inline function that accepts as inputs
245 -- an employee id (@supid AS INT),
246 -- and a requested number of employees (@n AS INT)
247 -- The function returns top @n employees
248 -- that are supplied by the given employee id
249 -- Tables involved: HumanResources.Employee
250 USE Northwinds2020TSQV6;
251 DROP FUNCTION IF EXISTS HumanResources.TopEmployees;
252 GO
253 CREATE FUNCTION HumanResources.TopEmployees
254     (@empid AS INT, @n AS INT)
255     RETURNS TABLE
256     AS
257     RETURN
258     SELECT TOP (@n) EmployeeId, EmployeeFirstName, EmployeeLastName
259     FROM HumanResources.Employee
260     WHERE EmployeeId = @empid
261     ORDER BY BirthDate DESC;
262 Go
263
264 SELECT S.CustomerId, E.EmployeeId, E.EmployeeFirstName, E.EmployeeLastName
265 FROM Sales.[Order] AS S
266 CROSS APPLY HumanResources.TopEmployees(S.EmployeeId, 3) AS E;

```

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Results



Messages

	CustomerId	EmployeeId	EmployeeFirstName	EmployeeLastName
1	85	5	Sven	Mortensen
2	79	6	Paul	Suurs
3	34	4	Yael	Peled
4	84	3	Judy	Lew
5	76	4	Yael	Peled
6	34	3	Judy	Lew
7	14	5	Sven	Mortensen
8	68	9	Patricia	Doyle
9	88	3	Judy	Lew
10	35	4	Yael	Peled
11	20	1	Sara	Davis
12	13	4	Yael	Peled
13	56	4	Yael	Peled
14	61	4	Yael	Peled
15	65	8	Maria	Cameron
16	20	9	Patricia	Doyle
17	24	6	Paul	Suurs
18	7	2	Don	Funk
19	87	3	Judy	Lew
20	25	4	Yael	Peled
21	33	8	Maria	Cameron
22	89	5	Sven	Mortensen
23	87	1	Sara	Davis
24	75	6	Paul	Suurs
25	65	6	Paul	Suurs
26	63	3	Judy	Lew
27	85	6	Paul	Suurs
28	49	1	Sara	Davis

&gt;



Query executed successfully.

```
51
52 --a query to get all the orders from Sales.Order table
53 --where quantity is more than 50
54 --by inner join with customer table
55 --and then inner join with order detail
56 USE Northwinds2020TSQLV6;
57 GO
58 SELECT c.CustomerCompanyName,
59        O.OrderId,
60        od.Quantity
61 FROM Sales.[Order] AS O
62     INNER JOIN Sales.Customer AS c
63         ON c.CustomerId = O.CustomerId
64     INNER JOIN Sales.OrderDetail AS od
65         ON od.OrderId = O.OrderId
66 WHERE od.Quantity IN
67      (
68         SELECT od.Quantity FROM Sales.OrderDetail AS od WHERE od.Quantity > 50
69      )
70 ORDER BY od.Quantity;
```



Results



Messages

	CustomerCompanyName	OrderId	Quantity
1	Customer THHDP	10836	52
2	Customer IRRVL	10361	54
3	Customer IRRVL	10361	55
4	Customer IRRVL	10658	55
5	Customer IRRVL	10418	55
6	Customer IRRVL	10549	55
7	Customer IRRVL	10451	55
8	Customer LCOUJ	11064	55
9	Customer LCOUJ	10847	55
10	Customer LCOUJ	10984	55
11	Customer LCOUJ	10612	55
12	Customer AHPOP	10359	56
13	Customer LCOUJ	11002	56
14	Customer AZJED	10342	56
15	Customer AZJED	11012	60
16	Customer UMTLM	10601	60
17	Customer UMTLM	10490	60
18	Customer THHDP	10263	60
19	Customer THHDP	10263	60
20	Customer CYZTN	10762	60
21	Customer CYZTN	11001	60
22	Customer AZJED	10929	60
23	Customer AZJED	10670	60
24	Customer AZJED	10396	60
25	Customer IBVRG	10981	60
26	Customer UMTLM	10641	60
27	Customer FRXZL	10567	60
28	Customer FRXZL	10912	60
29	Customer GLLAG	10817	60
30	Customer XPNIK	10461	60
31	Customer PSQUZ	10485	60
32	Customer PSQUZ	10638	60
33	Customer PSQUZ	11039	60



Query executed successfully.

```

4
3 -- The proposition is to join the customer and
4 -- the order table to match customers with
5 -- their orders, and then join the result of the first join
6 -- with the orderdetail table to match orders with their order lines
7 -----
8 USE Northwinds2020TSQLV6;
9
10 SELECT
11     C.CustomerId, C.CustomerCompanyName, O.orderid,
12     OD.productid, OD.Quantity
13 FROM Sales.Customer AS C
14     INNER JOIN Sales.[Order] AS O
15         ON C.CustomerId = O.CustomerId
16     INNER JOIN Sales.OrderDetail AS OD
17         ON O.orderid = OD.orderid;
18
19 -----

```

18

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Results Messages

	CustomerId	CustomerCompanyName	orderid	productid	Quantity
1	85	Customer ENQZT	10248	11	12
2	85	Customer ENQZT	10248	42	10
3	85	Customer ENQZT	10248	72	5
4	79	Customer FAPSM	10249	14	9
5	79	Customer FAPSM	10249	51	40
6	34	Customer IBVRG	10250	41	10
7	34	Customer IBVRG	10250	51	35
8	34	Customer IBVRG	10250	65	15
9	84	Customer NRCSK	10251	22	6
10	84	Customer NRCSK	10251	57	15
11	84	Customer NRCSK	10251	65	20
12	76	Customer SFOGW	10252	20	40
13	76	Customer SFOGW	10252	33	25
14	76	Customer SFOGW	10252	60	40
15	34	Customer IBVRG	10253	31	20
16	34	Customer IBVRG	10253	39	42

> Query executed successfully. | localhost,13001 (15.0 RTM) | sa (7

```

29 USE AdventureWorks2017;
30 --Using sales.salesperson table display
31 --Salespersons who are also employees
32 SELECT
33     S.BusinessEntityID, s.TerritoryID
34 FROM Sales.SalesPerson AS S
35     INNER JOIN HumanResources.Employee AS E
36         ON S.BusinessEntityID = E.BusinessEntityID;
37

```

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Results Messages

	BusinessEntityID	TerritoryID
1	274	NULL
2	275	2
3	276	4
4	277	3
5	278	6
6	279	5
7	280	1
8	281	4
9	282	6
10	283	1
11	284	1
12	285	NULL
13	286	9
14	287	NULL
15	288	8
16	289	10

✓ Query executed successfully.

localhost