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-- Microsoft SQL Server T-SQL Fundamentals

-- Chapter 06 - Set Operators

-- Exercises

-- © Itzik Ben-Gan

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-- 1

-- Explain the difference between the UNION ALL and UNION operators

-- In what cases are they equivalent?

-- When they are equivalent, which one should you use?

-- 2

-- Write a query that generates a virtual auxiliary table of 10 numbers

-- in the range 1 through 10

-- Tables involved: no table

--Desired output

n

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1

2

3

4

5

6

7

8

9

10

(10 row(s) affected)

-- 3

-- Write a query that returns customer and employee pairs

-- that had order activity in January 2016 but not in February 2016

-- Tables involved: TSQLV4 database, Orders table

--Desired output

custid empid

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1 1

3 3

5 8

5 9

6 9

7 6

9 1

12 2

16 7

17 1

20 7

24 8

25 1

26 3

32 4

38 9

39 3

40 2

41 2

42 2

44 8

47 3

47 4

47 8

49 7

55 2

55 3

56 6

59 8

63 8

64 9

65 3

65 8

66 5

67 5

70 3

71 2

75 1

76 2

76 5

80 1

81 1

81 3

81 4

82 6

84 1

84 3

84 4

88 7

89 4

(50 row(s) affected)

-- 4

-- Write a query that returns customer and employee pairs

-- that had order activity in both January 2016 and February 2016

-- Tables involved: TSQLV4 database, Orders table

--Desired output

custid empid

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20 3

39 9

46 5

67 1

71 4

(5 row(s) affected)

-- 5

-- Write a query that returns customer and employee pairs

-- that had order activity in both January 2016 and February 2016

-- but not in 2015

-- Tables involved: TSQLV4 database, Orders table

--Desired output

custid empid

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67 1

46 5

(2 row(s) affected)

-- 6 (Optional, Advanced)

-- You are given the following query:

SELECT country, region, city

FROM HR.Employees

UNION ALL

SELECT country, region, city

FROM Production.Suppliers;

-- You are asked to add logic to the query

-- such that it would guarantee that the rows from Employees

-- would be returned in the output before the rows from Suppliers,

-- and within each segment, the rows should be sorted

-- by country, region, city

-- Tables involved: TSQLV4 database, Employees and Suppliers tables

--Desired output

country region city

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UK NULL London

UK NULL London

UK NULL London

UK NULL London

USA WA Kirkland

USA WA Redmond

USA WA Seattle

USA WA Seattle

USA WA Tacoma

Australia NSW Sydney

Australia Victoria Melbourne

Brazil NULL Sao Paulo

Canada Québec Montréal

Canada Québec Ste-Hyacinthe

Denmark NULL Lyngby

Finland NULL Lappeenranta

France NULL Annecy

France NULL Montceau

France NULL Paris

Germany NULL Berlin

Germany NULL Cuxhaven

Germany NULL Frankfurt

Italy NULL Ravenna

Italy NULL Salerno

Japan NULL Osaka

Japan NULL Tokyo

Netherlands NULL Zaandam

Norway NULL Sandvika

Singapore NULL Singapore

Spain Asturias Oviedo

Sweden NULL Göteborg

Sweden NULL Stockholm

UK NULL London

UK NULL Manchester

USA LA New Orleans

USA MA Boston

USA MI Ann Arbor

USA OR Bend

(38 row(s) affected)