Practices for Lesson 7: Displaying Data from Multiple Tables Using Joins Chapter 7 Copyright © 2016, Oracle and/or its affiliates. All rights reserved.

Practices for Lesson 7: Overview

Practice Overview

This practice covers the following topics:

- Joining tables using an equijoin
- Performing outer and self-joins
- Adding conditions

Practice 7-1: Displaying Data from Multiple Tables by Using Joins

Overview

In this practice, you extract data from multiple tables using SQL:1999-compliant joins.

Tasks

1. Write a query for the HR department to produce the addresses of all the departments. Use the LOCATIONS and COUNTRIES tables. Show the location ID, street address, city, state or province, and country in the output. Use a NATURAL JOIN to produce the results.

∯ LO	CATION_ID STREET_ADDRESS	∯ CITY		CE COUNTRY_NAME
1	1400 2014 Jabberwocky Rd	South1ake	Texas	United States of America
2	1500 2011 Interiors Blvd	South San Francisco	California	United States of America
3	1700 2012 Charade Rd	Seattle	Washington	United States of America
4	1800 460 Bloor St. W.	Toronto	Ontario	Canada
5	2500 Magdalen Centre, The Oxford Science Park	Oxford	Oxford	United Kingdom

2. The HR department needs a report of all employees with corresponding departments. Write a query to display the last name, department number, and department name for these employees.



3. The HR department needs a report of employees in Toronto. Display the last name, job, department number, and the department name for all employees who work in Toronto.



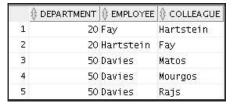
4. Create a report to display employees' last names and employee numbers along with their managers' last names and manager numbers. Label the columns Employee, Emp#, Manager, and Mgr#, respectively. Save your SQL statement as lab_07_04.sql. Run the query.

		∯ Emp#	Manager	∯ Mgr#
1	Huno1d	103	De Haan	102
2	Fay	202	Hartstein	201
3	Gietz	206	Higgins	205
4	Ernst	104	Huno1d	103
5	Lorentz	107	Huno1d	103
6	Kochhar	101	King	100
7	De Haan	102	King	100
8	Mourgos	124	King	100
9	Z1otkey	149	King	100
10	Hartstein	201	King	100
11	Wha1en	200	Kochhar	101
12	Higgins	205	Kochhar	101
13	Rajs	141	Mourgos	124
14	Davies	142	Mourgos	124
15	Matos	143	Mourgos	124
16	Vargas	144	Mourgos	124
17	Abe1	174	Z1otkey	149
18	Taylor	176	Z1otkey	149
	Grant	178	Z1otkey	149

5. Modify $lab_07_04.sq1$ to display all employees, including King, who has no manager. Order the results by employee number. Save your SQL statement as $lab_07_05.sq1$. Run the query in $lab_07_05.sq1$.

	Employee	⊕ EMP#		∯ Mgr#
1	King	100	(null)	(nu11)
2	Kochhar	101	King	100
3	De Haan	102	King	100
4	Huno1d	103	De Haan	102
5	Ernst	104	Huno1d	103
6	Lorentz	107	Huno1d	103
7	Mourgos	124	King	100
8	Rajs	141	Mourgos	124
9	Davies	142	Mourgos	124
10	Matos	143	Mourgos	124
11	Vargas	144	Mourgos	124
12	Z1otkey	149	King	100
13	Abe1	174	Z1otkey	149
14	Taylor	176	Z1otkey	149
15	Grant	178	Z1otkey	149
16	Wha1en	200	Kochhar	101
17	Hartstein	201	King	100
18	Fay	202	Hartstein	201
19	Higgins	205	Kochhar	101
20	Gietz	206	Higgins	205

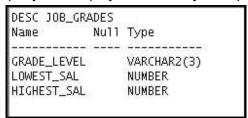
6. Create a report for the HR department that displays employee last names, department numbers, and all the employees who work in the same department as a given employee. Give each column an appropriate label. Save the script to a file named lab 07 06.sql.

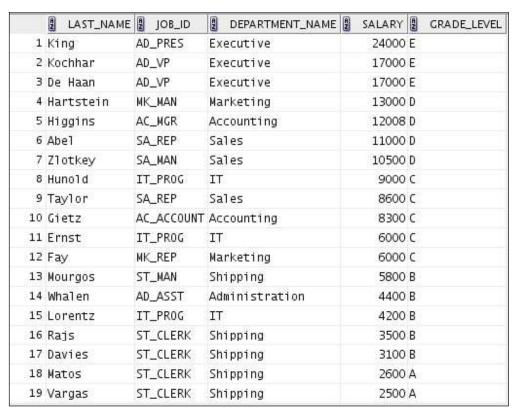


. . .

38	90 King	Kochhar
39	90 Kochhar	De Haan
40	90 Kochhar	King
41	110 Gietz	Higgins
42	110 Higgins	Gietz

7. The HR department needs a report on job grades and salaries. To familiarize yourself with the JOB_GRADES table, first show the structure of the JOB_GRADES table. Then create a query that displays the name, job, department name, salary, and grade for all employees.





If you want an extra challenge, complete the following exercises:

8. The HR department wants to determine the names of all employees who were hired after Davies. Create a query to display the name and hire date of any employee hired after employee Davies.



9. The HR department needs to find the names and hire dates of all employees who were hired before their managers, along with their managers' names and hire dates. Save the script to a file named lab_07_09.sql.

♦ LAST_NAME	# HIRE_DATE		Manager_hire_date
1 Kochhar	21-SEP-09	King	17-JUN-11
2 De Haan	13-JAN-09	King	17-JUN-11
3 Rajs	17-0CT-11	Mourgos	16-N0V-15
4 Davies	29-JAN-13	Mourgos	16-N0V-15
5 Matos	15-MAR-14	Mourgos	16-N0V-15
6 Vargas	09-JUL-14	Mourgos	16-N0V-15
7 Abel	11-MAY-12	Z1otkey	29-JAN-16
8 Taylor	24-MAR-14	Z1otkey	29-JAN-16
9 Grant	24-MAY-15	Z1otkey	29-JAN-16