## Practice 5

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.

| LOCATION_ID | STREET_ADDRESS | CITY | STATE_PROVINCE | COUNTRY_NAME |
|---|---|---|---|---|
| 1400 | 2014 Jabberwocky Rd | Southlake | Texas | United States of America |
| 1500 | 2011 Interiors Blvd | South San Francisco | California | United States of America |
| 1700 | 2004 Charade Rd | Seattle | Washington | United States of America |
| 1800 | 460 Bloor St. W. | Toronto | Ontario | Canada |
| 2500 | Magdalen Centre, The Oxford Science Park | Oxford | Oxford | United Kingdom |

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

| LAST_NAME | DEPARTMENT_ID | DEPARTMENT_NAME |
|---|---|---|
| Whalen | 10 | Administration |
| Hartstein | 20 | Marketing |
| Fay | 20 | Marketing |
| Mourgos | 50 | Shipping |
| Rajs | 50 | Shipping |
| Davies | 50 | Shipping |
| Vargas | 50 | Shipping |
| ▪ ▪ ▪ | | |
| De Haan | 90 | Executive |
| Higgins | 110 | Accounting |
| Gietz | 110 | Accounting |

19 rows selected.

## Practice 5 (continued)

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

| LAST_NAME | JOB_ID | DEPARTMENT_ID | DEPARTMENT_NAME |
|---|---|---|---|
| Hartstein | MK_MAN | 20 | Marketing |
| Fay | MK_REP | 20 | Marketing |

4. Create a report to display employees' last name and employee number along with their manager's last name and manager number. Label the columns `Employee`, `Emp#`, `Manager`, and `Mgr#`, respectively. Place your SQL statement in a text file named `lab_05_04.sql`.

| Employee | EMP# | Manager | Mgr# |
|---|---|---|---|
| Kochhar | 101 | King | 100 |
| De Haan | 102 | King | 100 |
| Mourgos | 124 | King | 100 |
| Zlotkey | 149 | King | 100 |
| Hartstein | 201 | King | 100 |
| Whalen | 200 | Kochhar | 101 |
| Higgins | 205 | Kochhar | 101 |
| Hunold | 103 | De Haan | 102 |
| Ernst | 104 | Hunold | 103 |
| Lorentz | 107 | Hunold | 103 |
| Rajs | 141 | Mourgos | 124 |
| Davies | 142 | Mourgos | 124 |
| Matos | 143 | Mourgos | 124 |
| Vargas | 144 | Mourgos | 124 |
| **Employee** | **EMP#** | **Manager** | **Mgr#** |
| Abel | 174 | Zlotkey | 149 |
| Taylor | 176 | Zlotkey | 149 |
| Grant | 178 | Zlotkey | 149 |
| Fay | 202 | Hartstein | 201 |
| Gietz | 206 | Higgins | 205 |

19 rows selected.

## Practice 5 (continued)

5. Modify `lab_05_04.sql` to display all employees including King, who has no manager. Order the results by the employee number. Place your SQL statement in a text file named `lab_05_05.sql`. Run the query in `lab_05_05.sql`.

| Employee | EMP# | Manager | Mgr# |
|---|---|---|---|
| King | 100 | | |
| Kochhar | 101 | King | 100 |
| De Haan | 102 | King | 100 |
| Hunold | 103 | De Haan | 102 |
| Ernst | 104 | Hunold | 103 |
| Lorentz | 107 | Hunold | 103 |
| Mourgos | 124 | King | 100 |

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20 rows selected.

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_05_06.sql`.

| DEPARTMENT | EMPLOYEE | COLLEAGUE |
|---|---|---|
| 20 | Fay | Hartstein |
| 20 | Hartstein | Fay |
| 50 | Davies | Matos |
| 50 | Davies | Mourgos |
| 50 | Davies | Rajs |
| 50 | Davies | Vargas |
| 50 | Matos | Davies |
| 50 | Matos | Mourgos |
| 50 | Matos | Rajs |
| 50 | Matos | Vargas |
| 50 | Mourgos | Davies |
| 50 | Mourgos | Matos |
| 50 | Mourgos | Rajs |
| 50 | Mourgos | Vargas |

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42 rows selected.

## Practice 5 (continued)

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.

| Name | Null? | Type |
|---|---|---|
| GRADE_LEVEL | | VARCHAR2(3) |
| LOWEST_SAL | | NUMBER |
| HIGHEST_SAL | | NUMBER |

| LAST_NAME | JOB_ID | DEPARTMENT_NAME | SALARY | GRA |
|---|---|---|---|---|
| Matos | ST_CLERK | Shipping | 2600 | A |
| Vargas | ST_CLERK | Shipping | 2500 | A |
| Lorentz | IT_PROG | IT | 4200 | B |
| Mourgos | ST_MAN | Shipping | 5800 | B |
| Rajs | ST_CLERK | Shipping | 3500 | B |
| Davies | ST_CLERK | Shipping | 3100 | B |
| Whalen | AD_ASST | Administration | 4400 | B |

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19 rows selected.

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.

| LAST_NAME | HIRE_DATE |
|---|---|
| Lorentz | 07-FEB-99 |
| Mourgos | 16-NOV-99 |
| Matos | 15-MAR-98 |
| Vargas | 09-JUL-98 |
| Zlotkey | 29-JAN-00 |
| Taylor | 24-MAR-98 |
| Grant | 24-MAY-99 |
| Fay | 17-AUG-97 |

8 rows selected.

## Practice 5 (continued)

9. The HR department needs to find the names and hire dates for all employees who were hired before their managers, along with their managers' names and hire dates. Save the script to a file named `lab5_09.sql`.

| LAST_NAME | HIRE_DATE | LAST_NAME | HIRE_DATE |
|---|---|---|---|
| Whalen | 17-SEP-87 | Kochhar | 21-SEP-89 |
| Hunold | 03-JAN-90 | De Haan | 13-JAN-93 |
| Rajs | 17-OCT-95 | Mourgos | 16-NOV-99 |
| Davies | 29-JAN-97 | Mourgos | 16-NOV-99 |
| Matos | 15-MAR-98 | Mourgos | 16-NOV-99 |
| Vargas | 09-JUL-98 | Mourgos | 16-NOV-99 |
| Abel | 11-MAY-96 | Zlotkey | 29-JAN-00 |
| Taylor | 24-MAR-98 | Zlotkey | 29-JAN-00 |
| Grant | 24-MAY-99 | Zlotkey | 29-JAN-00 |

9 rows selected.