6:41 PM 2018-01-29

Week 3

Querying multiple tables

Equi Joins

Q29. Display the employee names as well as the names of the departments that they work for.

```
mysql> desc employees;
+----------------+--------------+------+-----+---------+-------+
| Field          | Type         | Null | Key | Default | Extra |
+----------------+--------------+------+-----+---------+-------+
| Employee_id    | decimal(6,0) | NO   | PRI | NULL    |       |
| First_Name     | varchar(20)  | YES  |     | NULL    |       |
| Last_Name      | varchar(25)  | NO   |     | NULL    |       |
| Email          | varchar(20)  | YES  |     | NULL    |       |
| Phone_Number   | varchar(20)  | YES  |     | NULL    |       |
| Hire_Date      | date         | NO   |     | NULL    |       |
| Job_Id         | varchar(10)  | YES  |     | NULL    |       |
| Salary         | decimal(8,2) | YES  |     | NULL    |       |
| Commission_Pct | decimal(2,2) | YES  |     | NULL    |       |
| Manager_Id     | decimal(6,0) | YES  |     | NULL    |       |
| Department_Id  | decimal(4,0) | YES  | MUL | NULL    |       |
+----------------+--------------+------+-----+---------+-------+
11 rows in set (0.16 sec)

mysql> desc departments;
+-----------------+--------------+------+-----+---------+-------+
| Field           | Type         | Null | Key | Default | Extra |
+-----------------+--------------+------+-----+---------+-------+
| Department_Id   | decimal(4,0) | NO   | PRI | NULL    |       |
| Department_Name | varchar(30)  | NO   |     | NULL    |       |
| Manager_Id      | decimal(6,0) | YES  |     | NULL    |       |
| Location_Id     | decimal(4,0) | YES  | MUL | NULL    |       |
+-----------------+--------------+------+-----+---------+-------+
4 rows in set (0.01 sec)
```

Standard Syntax

```
mysql> Select employees.last_name Name, departments.department_name
Department
    -> from employees, departments
    -> where employees.department_id = departments.department_id;
```

```
+-----------+----------------+
| Name      | Department     |
+-----------+----------------+
| Whalen    | Administration |
| Hartstein | Marketing      |
| Fay       | Marketing      |
| Mourgos   | Shipping       |
| Rajs      | Shipping       |
| Davies    | Shipping       |
| Matos     | Shipping       |
| Vargas    | Shipping       |
| Hunold    | IT             |
| Ernst     | IT             |
| Lorentz   | IT             |
| Zlotkey   | Sales          |
| Abel      | Sales          |
| Taylor    | Sales          |
| King      | Executive      |
| Kochhar   | Executive      |
| Higgins   | Accounting     |
| Gietz     | Accounting     |
+-----------+----------------+
18 rows in set (0.08 sec)

Standard Syntax using aliases

mysql> Select e.last_name Name, d.department_name Department
    -> from employees e, departments d
    -> where e.department_id = d.department_id;
+-----------+----------------+
| Name      | Department     |
+-----------+----------------+
| Whalen    | Administration |
| Hartstein | Marketing      |
| Fay       | Marketing      |
| Mourgos   | Shipping       |
| Rajs      | Shipping       |
| Davies    | Shipping       |
| Matos     | Shipping       |
| Vargas    | Shipping       |
| Hunold    | IT             |
| Ernst     | IT             |
| Lorentz   | IT             |
| Zlotkey   | Sales          |
| Abel      | Sales          |
| Taylor    | Sales          |
| King      | Executive      |
| Kochhar   | Executive      |
| Higgins   | Accounting     |
| Gietz     | Accounting     |
```

```
+-----------+----------------+
18 rows in set (0.00 sec)

Syntax 1999

mysql> Select e.last_name Name, d.department_name Department
    -> from employees e JOIN departments d
    ->      ON e.department_id = d.department_id;
+-----------+----------------+
| Name      | Department     |
+-----------+----------------+
| Whalen    | Administration |
| Hartstein | Marketing      |
| Fay       | Marketing      |
| Mourgos   | Shipping       |
| Rajs      | Shipping       |
| Davies    | Shipping       |
| Matos     | Shipping       |
| Vargas    | Shipping       |
| Hunold    | IT             |
| Ernst     | IT             |
| Lorentz   | IT             |
| Zlotkey   | Sales          |
| Abel      | Sales          |
| Taylor    | Sales          |
| King      | Executive      |
| Kochhar   | Executive      |
| Higgins   | Accounting     |
| Gietz     | Accounting     |
+-----------+----------------+
18 rows in set (0.01 sec)


Q30. Display department id, department name , location id and city
where thew department is located.



mysql> desc departments;
+-----------------+-------------+------+-----+---------+-------+
| Field           | Type        | Null | Key | Default | Extra |
+-----------------+-------------+------+-----+---------+-------+
| Department_Id   | decimal(4,0) | NO   | PRI | NULL    |       |
| Department_Name | varchar(30)  | NO   |     | NULL    |       |
| Manager_Id      | decimal(6,0) | YES  |     | NULL    |       |
| Location_Id     | decimal(4,0) | YES  | MUL | NULL    |       |
+-----------------+-------------+------+-----+---------+-------+
4 rows in set (0.00 sec)

mysql> desc locations;
```

```
+----------------+--------------+------+-----+---------+-------+
| Field          | Type         | Null | Key | Default | Extra |
+----------------+--------------+------+-----+---------+-------+
| Location_Id    | decimal(4,0) | NO   | PRI | NULL    |       |
| Street_Address | varchar(40)  | YES  |     | NULL    |       |
| Postal_Code    | varchar(12)  | YES  |     | NULL    |       |
| City           | varchar(30)  | NO   |     | NULL    |       |
| State_Province | varchar(25)  | YES  |     | NULL    |       |
| Country_Id     | char(2)      | YES  | MUL | NULL    |       |
+----------------+--------------+------+-----+---------+-------+
6 rows in set (0.00 sec)
```

Standard syntax

```
mysql> select d.department_id Id, d.department_name Department,
d.location_id Location, l.city City
    -> from departments d, locations l
    -> where d.location_id = l.location_id;
+-----+----------------+----------+--------------------+
| Id  | Department     | Location | City               |
+-----+----------------+----------+--------------------+
|  10 | Administration |     1700 | Seattle            |
|  20 | Marketing      |     1800 | Toronto            |
|  50 | Shipping       |     1500 | South San Francisco |
|  60 | IT             |     1400 | Southlake          |
|  80 | Sales          |     2500 | Oxford             |
|  90 | Executive      |     1700 | Seattle            |
| 110 | Accounting     |     1700 | Seattle            |
| 190 | Contracting    |     1700 | Seattle            |
+-----+----------------+----------+--------------------+
8 rows in set (0.03 sec)
```

Syntax 1999

```
mysql> select d.department_id Id, d.department_name Department,
d.location_id Location, l.city City
    -> from departments d JOIN locations l
    ->      ON d.location_id = l.location_id;
+-----+----------------+----------+--------------------+
| Id  | Department     | Location | City               |
+-----+----------------+----------+--------------------+
|  10 | Administration |     1700 | Seattle            |
|  20 | Marketing      |     1800 | Toronto            |
|  50 | Shipping       |     1500 | South San Francisco |
|  60 | IT             |     1400 | Southlake          |
|  80 | Sales          |     2500 | Oxford             |
|  90 | Executive      |     1700 | Seattle            |
| 110 | Accounting     |     1700 | Seattle            |
```

```
| 190 | Contracting    |     1700 | Seattle             |
+-----+----------------+----------+---------------------+
8 rows in set (0.00 sec)
```

Q31. Display the department names and the names of their corresponding managers.

```
mysql> Select d.department_name Department, e.last_name Manager
    -> From employees e, departments d
    -> where e.department_id = d.department_id AND e.employee_id =
d.manager_id;
+----------------+-----------+
| Department     | Manager   |
+----------------+-----------+
| Administration | Whalen    |
| Marketing      | Hartstein |
| Shipping       | Mourgos   |
| IT             | Hunold    |
| Sales          | Zlotkey   |
| Executive      | King      |
| Accounting     | Higgins   |
+----------------+-----------+
7 rows in set (0.02 sec)

mysql> Select d.department_name Department, e.last_name Manager
    -> From employees e JOIN departments d
    ->      ON e.department_id = d.department_id
    -> Where e.employee_id = d.manager_id;
+----------------+-----------+
| Department     | Manager   |
+----------------+-----------+
| Administration | Whalen    |
| Marketing      | Hartstein |
| Shipping       | Mourgos   |
| IT             | Hunold    |
| Sales          | Zlotkey   |
| Executive      | King      |
| Accounting     | Higgins   |
+----------------+-----------+

7 rows in set (0.00 sec)
```

Q32. Display the names of employees that work for the Accounting department.

Standard Syntax

```
mysql> select e.last_name Name, d.department_name Department
    -> from employees e, departments d
    -> where e.department_id = d.department_id AND d.department_name =
'Accounting';
+---------+------------+
| Name    | Department |
+---------+------------+
| Higgins | Accounting |
| Gietz   | Accounting |
+---------+------------+
2 rows in set (0.02 sec)
```

Syntax 1999

```
mysql> select e.last_name Name, d.department_name Department
    -> from employees e JOIN departments d
    ->      ON e.department_id = d.department_id
    -> where d.department_name = 'Accounting';
+---------+------------+
| Name    | Department |
+---------+------------+
| Higgins | Accounting |
| Gietz   | Accounting |
+---------+------------+
2 rows in set (0.00 sec)

mysql> select e.last_name Name, d.department_name Department
    -> from employees e INNER JOIN departments d
    ->      ON e.department_id = d.department_id
    -> where d.department_name = 'Accounting';
+---------+------------+
| Name    | Department |
+---------+------------+
| Higgins | Accounting |
| Gietz   | Accounting |
+---------+------------+
2 rows in set (0.00 sec)
```

~~~Q33. Who works for the Admin department?

```
mysql> desc employees;
+---------------+--------------+------+-----+---------+-------+
| Field         | Type         | Null | Key | Default | Extra |
+---------------+--------------+------+-----+---------+-------+
```
~~~

```
| Employee_id    | decimal(6,0) | NO   | PRI | NULL    |       |
| First_Name     | varchar(20)  | YES  |     | NULL    |       |
| Last_Name      | varchar(25)  | NO   |     | NULL    |       |
| Email          | varchar(20)  | YES  |     | NULL    |       |
| Phone_Number   | varchar(20)  | YES  |     | NULL    |       |
| Hire_Date      | date         | NO   |     | NULL    |       |
| Job_Id         | varchar(10)  | YES  |     | NULL    |       |
| Salary         | decimal(8,2) | YES  |     | NULL    |       |
| Commission_Pct | decimal(2,2) | YES  |     | NULL    |       |
| Manager_Id     | decimal(6,0) | YES  |     | NULL    |       |
| Department_Id  | decimal(4,0) | YES  | MUL | NULL    |       |<---
+----------------+--------------+------+-----+---------+-------+
11 rows in set (0.00 sec)

mysql> desc departments;
+-----------------+--------------+------+-----+---------+-------+
| Field           | Type         | Null | Key | Default | Extra |
+-----------------+--------------+------+-----+---------+-------+
| Department_Id   | decimal(4,0) | NO   | PRI | NULL    |       |<---
| Department_Name | varchar(30)  | NO   |     | NULL    |       |
| Manager_Id      | decimal(6,0) | YES  |     | NULL    |       |
| Location_Id     | decimal(4,0) | YES  | MUL | NULL    |       |
+-----------------+--------------+------+-----+---------+-------+
4 rows in set (0.00 sec)

Admin is not the name of the Department [Name is: Administration]

mysql> select e.last_name Name
    -> from employees e, departments d
    -> where e.department_id = d.department_id AND d.department_name =
'Admin';
Empty set (0.00 sec)



Standard Syntax

mysql>Select e.last_name Name
    ->From employees e, departments d
    ->Where e.department_id = d.department_id AND d.department_name =
'Administration';

+--------+
| Name   |
+--------+
| Whalen |
+--------+
1 row in set (0.00 sec)

Syntax 1999
```

```
mysql>Select e.last_name Name
    ->From employees e JOIN departments d
    ->     ON e.department_id = d.department_id
    ->Where d.department_name = 'Administration';

+--------+
| Name   |
+--------+
| Whalen |
+--------+
1 row in set (0.00 sec)
```

Example of failing to join the tables

```
mysql> select e.last_name Name, d.department_name Department
    -> from employees e, departments d
    -> where d.department_name = 'Administration';
+-----------+----------------+
| Name      | Department     |
+-----------+----------------+
| King      | Administration |
| Kochhar   | Administration |
| Hunold    | Administration |
| Ernst     | Administration |
| Lorentz   | Administration |
| Mourgos   | Administration |
| Rajs      | Administration |
| Davies    | Administration |
| Matos     | Administration |
| Vargas    | Administration |
| Zlotkey   | Administration |
| Abel      | Administration |
| Taylor    | Administration |
| Grant     | Administration |
| Whalen    | Administration |
| Hartstein | Administration |
| Fay       | Administration |
| Higgins   | Administration |
| Gietz     | Administration |
+-----------+----------------+
19 rows in set (0.00 sec)
```

Example of a Cartesian Product

```
mysql> select e.last_name Name, d.department_name Department
    -> from employees e, departments d;
```

Name	Department
King	Administration
King	Marketing
King	Shipping
King	IT
King	Sales
King	Executive
King	Accounting
King	Contracting
Kochhar	Administration
Kochhar	Marketing
Kochhar	Shipping
Kochhar	IT
Kochhar	Sales
Kochhar	Executive
Kochhar	Accounting
Kochhar	Contracting
Hunold	Administration
Hunold	Marketing
Hunold	Shipping
Hunold	IT
Hunold	Sales
Hunold	Executive
Hunold	Accounting
Hunold	Contracting
Ernst	Administration
Ernst	Marketing
Ernst	Shipping
Ernst	IT
Ernst	Sales
Ernst	Executive
Ernst	Accounting
Ernst	Contracting
Lorentz	Administration
Lorentz	Marketing
Lorentz	Shipping
Lorentz	IT
Lorentz	Sales
Lorentz	Executive
Lorentz	Accounting
Lorentz	Contracting
Mourgos	Administration
Mourgos	Marketing
Mourgos	Shipping
Mourgos	IT
Mourgos	Sales
Mourgos	Executive
Mourgos	Accounting

Mourgos	Contracting
Rajs	Administration
Rajs	Marketing
Rajs	Shipping
Rajs	IT
Rajs	Sales
Rajs	Executive
Rajs	Accounting
Rajs	Contracting
Davies	Administration
Davies	Marketing
Davies	Shipping
Davies	IT
Davies	Sales
Davies	Executive
Davies	Accounting
Davies	Contracting
Matos	Administration
Matos	Marketing
Matos	Shipping
Matos	IT
Matos	Sales
Matos	Executive
Matos	Accounting
Matos	Contracting
Vargas	Administration
Vargas	Marketing
Vargas	Shipping
Vargas	IT
Vargas	Sales
Vargas	Executive
Vargas	Accounting
Vargas	Contracting
Zlotkey	Administration
Zlotkey	Marketing
Zlotkey	Shipping
Zlotkey	IT
Zlotkey	Sales
Zlotkey	Executive
Zlotkey	Accounting
Zlotkey	Contracting
Abel	Administration
Abel	Marketing
Abel	Shipping
Abel	IT
Abel	Sales
Abel	Executive
Abel	Accounting
Abel	Contracting
Taylor	Administration

Taylor	Marketing
Taylor	Shipping
Taylor	IT
Taylor	Sales
Taylor	Executive
Taylor	Accounting
Taylor	Contracting
Grant	Administration
Grant	Marketing
Grant	Shipping
Grant	IT
Grant	Sales
Grant	Executive
Grant	Accounting
Grant	Contracting
Whalen	Administration
Whalen	Marketing
Whalen	Shipping
Whalen	IT
Whalen	Sales
Whalen	Executive
Whalen	Accounting
Whalen	Contracting
Hartstein	Administration
Hartstein	Marketing
Hartstein	Shipping
Hartstein	IT
Hartstein	Sales
Hartstein	Executive
Hartstein	Accounting
Hartstein	Contracting
Fay	Administration
Fay	Marketing
Fay	Shipping
Fay	IT
Fay	Sales
Fay	Executive
Fay	Accounting
Fay	Contracting
Higgins	Administration
Higgins	Marketing
Higgins	Shipping
Higgins	IT
Higgins	Sales
Higgins	Executive
Higgins	Accounting
Higgins	Contracting
Gietz	Administration
Gietz	Marketing
Gietz	Shipping

```
| Gietz     | IT             |
| Gietz     | Sales          |
| Gietz     | Executive      |
| Gietz     | Accounting     |
| Gietz     | Contracting    |
+-----------+----------------+
152 rows in set (0.00 sec)
```

~~~Q35. Display the country name where the city of Toronto is located.

```
mysql> Select c.country_name Country
    -> From locations l, countries c
    -> where l.country_id = c.country_id AND l.city = 'Toronto';
+---------+
| Country |
+---------+
| Canada  |
+---------+
1 row in set (0.03 sec)

mysql> Select c.country_name Country
    -> From locations l JOIN countries c
    ->      ON l.country_id = c.country_id
    -> Where l.city = 'Toronto';
+---------+
| Country |
+---------+
| Canada  |
+---------+
1 row in set (0.00 sec)
```

```
mysql> desc employees;
+----------------+-------------+------+-----+---------+-------+
| Field          | Type        | Null | Key | Default | Extra |
+----------------+-------------+------+-----+---------+-------+
| Employee_id    | decimal(6,0) | NO   | PRI | NULL    |       |
| First_Name     | varchar(20)  | YES  |     | NULL    |       |
| Last_Name      | varchar(25)  | NO   |     | NULL    |       |
| Email          | varchar(20)  | YES  |     | NULL    |       |
| Phone_Number   | varchar(20)  | YES  |     | NULL    |       |
| Hire_Date      | date         | NO   |     | NULL    |       |
| Job_Id         | varchar(10)  | YES  |     | NULL    |       |
| Salary         | decimal(8,2) | YES  |     | NULL    |       |
| Commission_Pct | decimal(2,2) | YES  |     | NULL    |       |
| Manager_Id     | decimal(6,0) | YES  |     | NULL    |       |
| Department_Id  | decimal(4,0) | YES  | MUL | NULL    |       |
```
~~~

```
+----------------+--------------+------+-----+---------+-------+
11 rows in set (0.00 sec)

mysql> desc departments;
+-----------------+--------------+------+-----+---------+-------+
| Field           | Type         | Null | Key | Default | Extra |
+-----------------+--------------+------+-----+---------+-------+
| Department_Id   | decimal(4,0) | NO   | PRI | NULL    |       |
| Department_Name | varchar(30)  | NO   |     | NULL    |       |
| Manager_Id      | decimal(6,0) | YES  |     | NULL    |       |
| Location_Id     | decimal(4,0) | YES  | MUL | NULL    |       |
+-----------------+--------------+------+-----+---------+-------+
4 rows in set (0.00 sec)



mysql> desc employees;
+----------------+--------------+------+-----+---------+-------+
| Field          | Type         | Null | Key | Default | Extra |
+----------------+--------------+------+-----+---------+-------+
| Employee_id    | decimal(6,0) | NO   | PRI | NULL    |       |
| First_Name     | varchar(20)  | YES  |     | NULL    |       |
| Last_Name      | varchar(25)  | NO   |     | NULL    |       |
| Email          | varchar(20)  | YES  |     | NULL    |       |
| Phone_Number   | varchar(20)  | YES  |     | NULL    |       |
| Hire_Date      | date         | NO   |     | NULL    |       |
| Job_Id         | varchar(10)  | YES  |     | NULL    |       |
| Salary         | decimal(8,2) | YES  |     | NULL    |       |
| Commission_Pct | decimal(2,2) | YES  |     | NULL    |       |
| Manager_Id     | decimal(6,0) | YES  |     | NULL    |       |
| Department_Id  | decimal(4,0) | YES  | MUL | NULL    |       |
+----------------+--------------+------+-----+---------+-------+
11 rows in set (0.00 sec)

mysql> desc departments;
+-----------------+--------------+------+-----+---------+-------+
| Field           | Type         | Null | Key | Default | Extra |
+-----------------+--------------+------+-----+---------+-------+
| Department_Id   | decimal(4,0) | NO   | PRI | NULL    |       |
| Department_Name | varchar(30)  | NO   |     | NULL    |       |
| Manager_Id      | decimal(6,0) | YES  |     | NULL    |       |
| Location_Id     | decimal(4,0) | YES  | MUL | NULL    |       |
+-----------------+--------------+------+-----+---------+-------+
4 rows in set (0.00 sec)


~~~Q35. Display the country name where the city of Toronto is located.


mysql> desc locations;
```

```
+----------------+--------------+------+-----+---------+-------+
| Field          | Type         | Null | Key | Default | Extra |
+----------------+--------------+------+-----+---------+-------+
| Location_Id    | decimal(4,0) | NO   | PRI | NULL    |       |
| Street_Address | varchar(40)  | YES  |     | NULL    |       |
| Postal_Code    | varchar(12)  | YES  |     | NULL    |       |
| City           | varchar(30)  | NO   |     | NULL    |       |
| State_Province | varchar(25)  | YES  |     | NULL    |       |
| Country_Id     | char(2)      | YES  | MUL | NULL    |       |
+----------------+--------------+------+-----+---------+-------+
6 rows in set (0.00 sec)

mysql> desc countries;
+--------------+--------------+------+-----+---------+-------+
| Field        | Type         | Null | Key | Default | Extra |
+--------------+--------------+------+-----+---------+-------+
| Country_Id   | char(2)      | NO   | PRI | NULL    |       |
| Country_Name | varchar(40)  | YES  |     | NULL    |       |
| Region_Id    | decimal(2,0) | YES  | MUL | NULL    |       |
+--------------+--------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> select c.country_name Country
    -> from locations l, countries c
    -> where l.country_id = c.country_id AND l.city = 'Toronto';
+---------+
| Country |
+---------+
| Canada  |
+---------+
1 row in set (0.03 sec)

mysql> select c.country_name Country
    -> from locations l INNER JOIN countries c
    ->      ON l.country_id = c.country_id
    -> Where l.city = 'Toronto';
+---------+
| Country |
+---------+
| Canada  |
+---------+
1 row in set (0.00 sec)

~~~Q36. Which department has more than 4 employees?

mysql> Select d.department_name Department
    -> From employees e, departments d
    -> where e.department_id = d.department_id
    -> Group by d.department_id
    -> Having count(e.department_id) > 4;
```

```
+------------+
| Department |
+------------+
| Shipping   |
+------------+
1 row in set (0.03 sec)

mysql> Select d.department_name Department
    -> From employees e JOIN departments d
    ->      ON e.department_id = d.department_id
    -> Group by d.department_id
    -> Having count(e.department_id) > 4;
+------------+
| Department |
+------------+
| Shipping   |
+------------+
1 row in set (0.00 sec)

mysql> Select d.department_name Department, count(e.department_id)
"Number of Employees"
    -> From employees e JOIN departments d
    ->      ON e.department_id = d.department_id
    -> Group by d.department_id
    -> Having count(e.department_id) > 4;
+------------+--------------------+
| Department | Number of Employees |
+------------+--------------------+
| Shipping   |                  5 |
+------------+--------------------+
1 row in set (0.00 sec)

mysql> Select d.department_name Department, count(e.department_id)
"Number of Employees"
    -> From employees e, departments d
    -> where e.department_id = d.department_id
    -> Group by d.department_id
    -> Having count(e.department_id) > 4;
+------------+--------------------+
| Department | Number of Employees |
+------------+--------------------+
| Shipping   |                  5 |
+------------+--------------------+
1 row in set (0.00 sec)

====================================
Using the LIKE operator and Functions
LEFT(string,#chrs)
RIGHT(string, #chrs)
SUBSTR(string, sp, #chrs)
```

Function Arguments Indicate

string = input string
sp = starting position
#chrs = Number of characters

==========

Q37. Find last Name and first name of those employees whose last names start with the letter k

```
mysql> select last_name, first_name
    -> from employees
    -> where last_name LIKE 'k%';
+-----------+------------+
| last_name | first_name |
+-----------+------------+
| King      | Steven     |
| Kochhar   | Neena      |
+-----------+------------+
2 rows in set (0.05 sec)
```

Q38. Same as Q37 but using the function LEFT

```
mysql> select last_name, first_name
    -> from employees
    -> where LEFT(last_name,1) = 'k';
+-----------+------------+
| last_name | first_name |
+-----------+------------+
| King      | Steven     |
| Kochhar   | Neena      |
+-----------+------------+
2 rows in set (0.02 sec)
```

Q39. Find last name and first name of those employees whose last name last 3 characaters are ing

```
mysql> select last_name, first_name
    -> from employees
    -> where RIGHT(last_name,3) = 'ing';
+-----------+------------+
| last_name | first_name |
+-----------+------------+
| King      | Steven     |
+-----------+------------+
```

```
1 row in set (0.00 sec)

Q40. Find last name and first name of those employees whose last
name's second letter is the letter o
----
using the function SUBSTRING, SUBSTR
--

mysql> select last_name, first_name
    -> from employees
    -> where SUBSTRING(last_name,2,1) = 'o';
+-----------+------------+
| last_name | first_name |
+-----------+------------+
| Kochhar   | Neena      |
| Lorentz   | Diana      |
| Mourgos   | Kevin      |
+-----------+------------+
3 rows in set (0.00 sec)

Same result with SUBSTR function


mysql> select last_name, first_name
    -> from employees
    -> where SUBSTR(last_name,2,1) = 'o';
+-----------+------------+
| last_name | first_name |
+-----------+------------+
| Kochhar   | Neena      |
| Lorentz   | Diana      |
| Mourgos   | Kevin      |
+-----------+------------+
3 rows in set (0.00 sec)


mysql> exit;
============================== Extra Question to Practice
=======================================


Remember to use aliases for the table names.

P1. Join tables Departments and Employees (display one column of each
table-- your choice)

a. Standard Syntax
b. Syntax 1999

P2. Join tables Departments and Locations (display one column of each
```

table-- your choice)

a. Standard Syntax
b. Syntax 1999

P3. Join tables Locations and Countries (display one column of each table-- your choice)

a. Standard Syntax
b. Syntax 1999

P4. Join tables Countries and Regions (display one column of each table-- your choice)

a. Standard Syntax
b. Syntax 1999

Now answer the following questions:

QH1. How many employees work in each department? Display department Name and number of employees.

a. Standard Syntax

b. Syntax 1999

QH2. Display the region (name) of the world corresponding to each country.
Display Country Name, and Region Name

a. Standard Syntax

b. Syntax 1999

Have a good week

---------- End of file
