**Week 4 Performance Assessment: Outer Joins Part 1**

The following questions come from the Check your understanding examples of each section of chapter 14 in your textbook.

After you are finished, please submit the Microsoft Word file that contains screenshots of the SQL script and the resulting tables. Your document should be named **W4\_PA\_OuterJoins1\_Lastname.docx**.

(14-3) Question 1:

The following *select* statement shows all the employees who are in each department. First run this code as it is—as an inner join. Then change it to a left outer join. What is the difference in the result tables?

*select a.department\_name,*

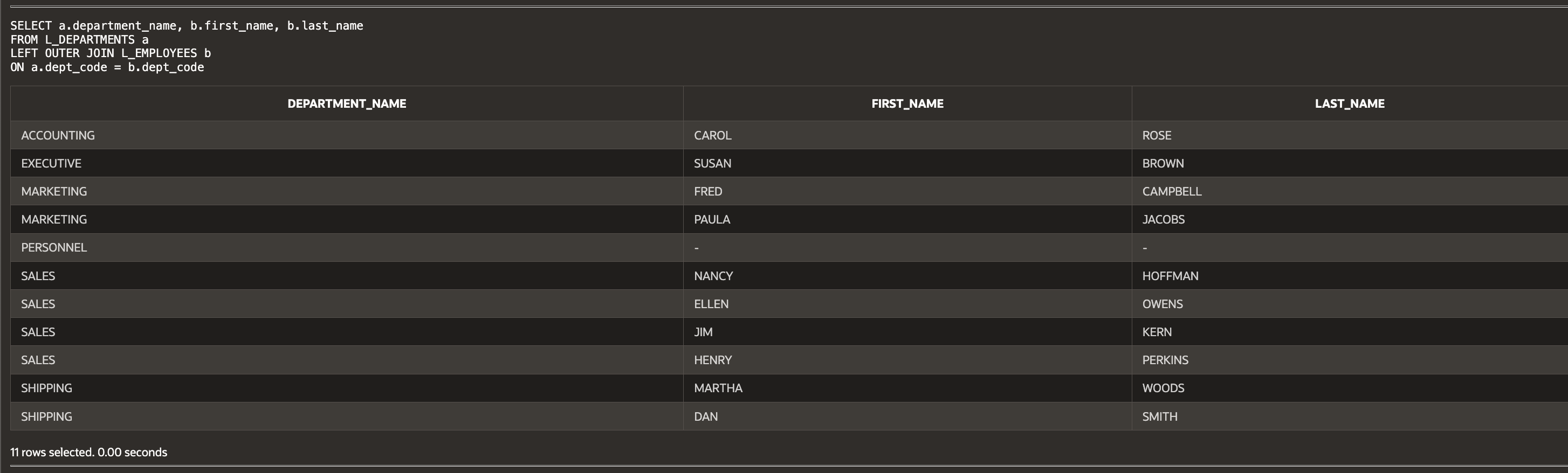
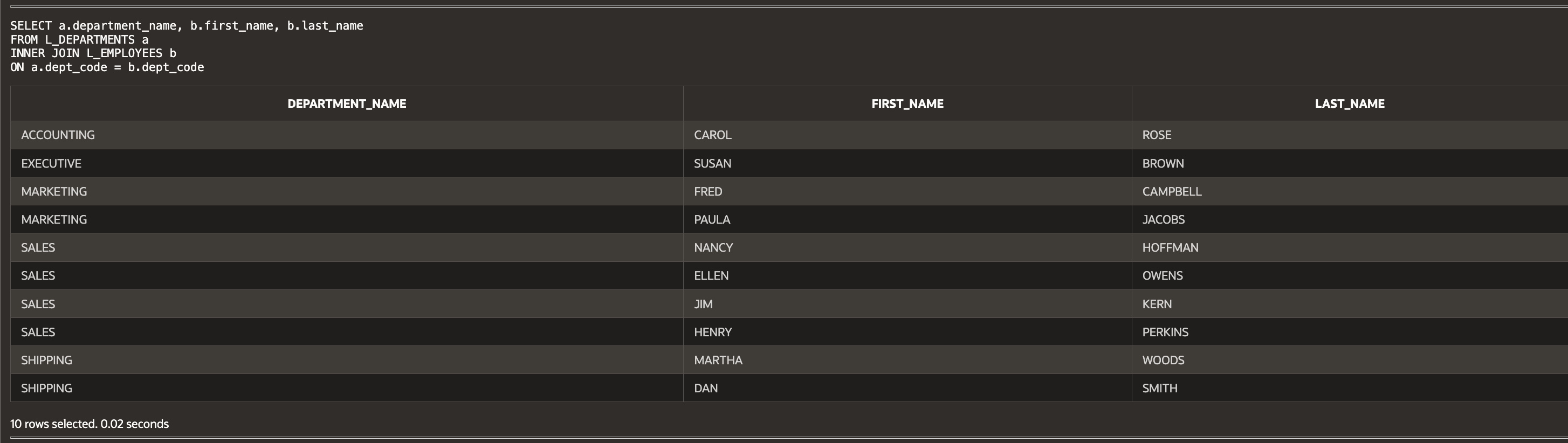
*b.first\_name,*

*b.last\_name*

*from L\_DEPARTMENTS a,*

*L\_EMPLOYEES b*

*where a.dept\_code = b.dept\_code;*

Difference: The LEFT OUTER JOIN includes all departments, while the INNER JOIN only includes those with employees.

(14-4) Question 2:

This is a modification of the exercise in **section 14-3**. The only thing that has been changed is the order of the tables in the *from* clause. First run this code as it is—as an inner join. Then change this select statement to a right outer join. What is the difference in the result tables?

*select a.department\_name,*

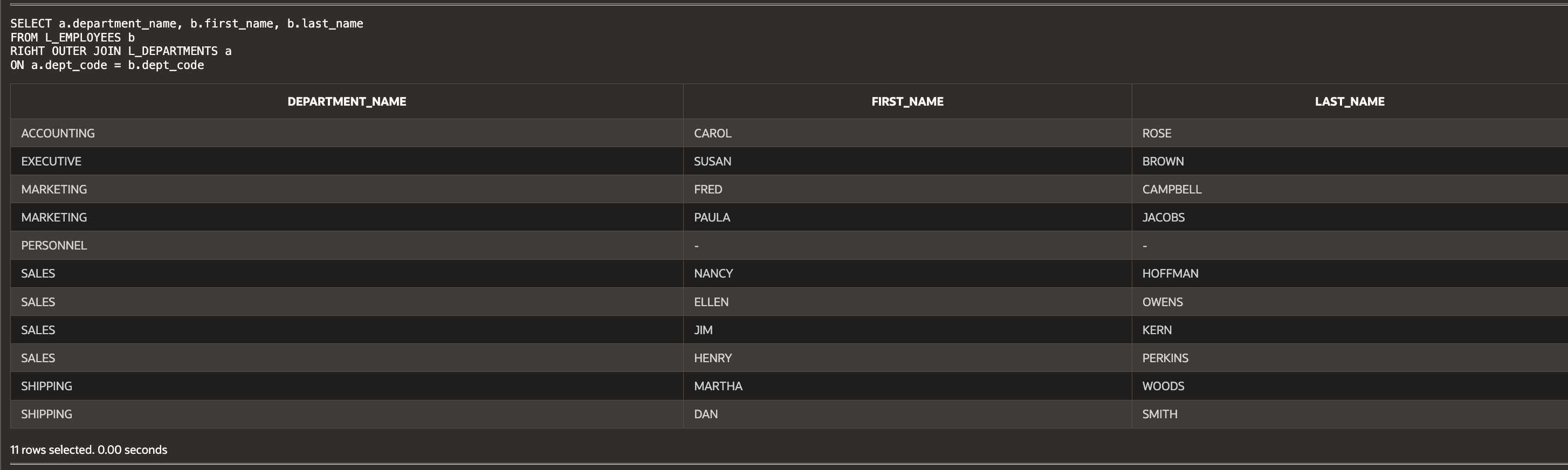
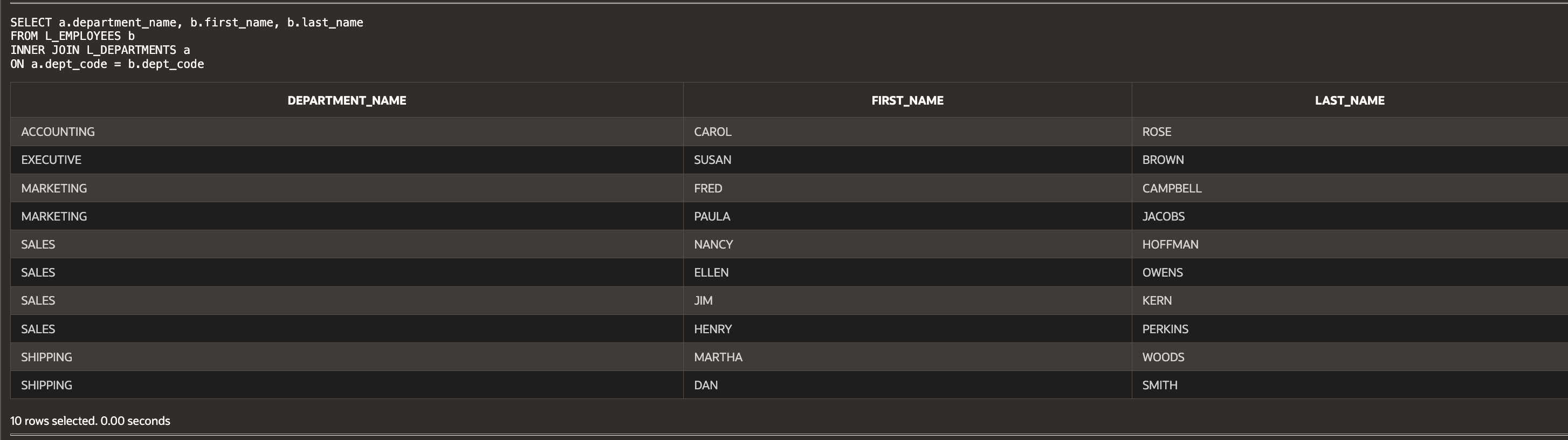
*b.first\_name,*

*b.last\_name*

*from L\_EMPLOYEES b,*

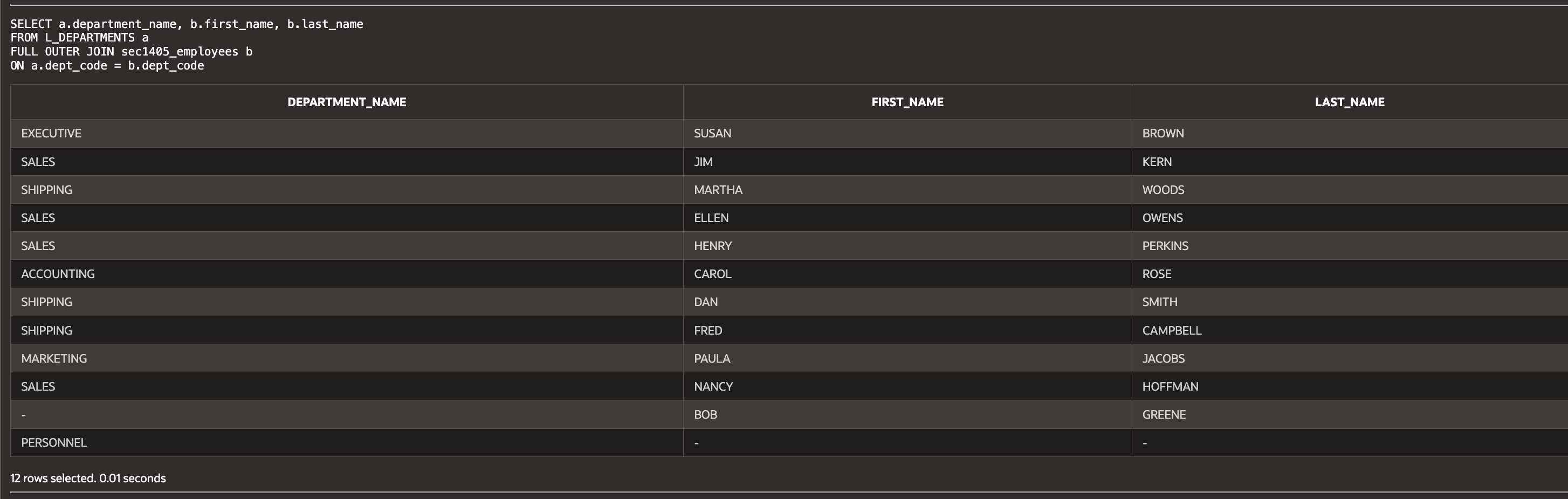
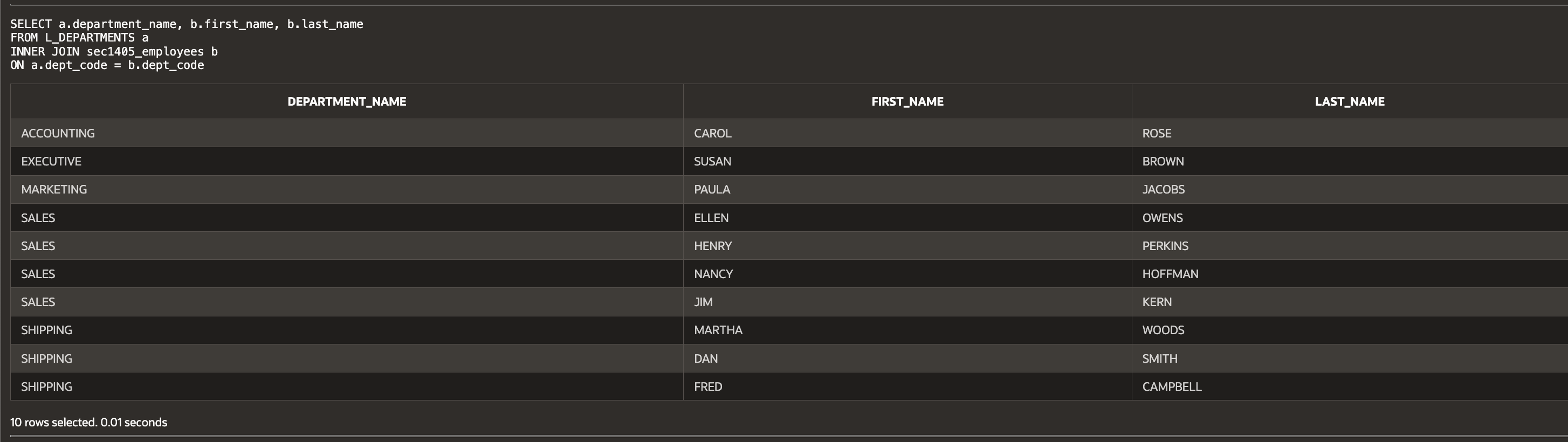
*L\_DEPARTMENTS a*

*where a.dept\_code = b.dept\_code;*

Difference: The RIGHT OUTER JOIN includes all departments, even those without employees, similar to the LEFT OUTER JOIN but from the opposite perspective.

(14-5) Question 3:

This is a modification of the exercise in **section 14-3**. The only thing that has changed is that table *sec1405\_employees* replaces table *L\_EMPLOYEES*. The new table contains one new employee who has not been assigned to any department yet. First run this code as it is—as an inner join. Then change this *select* statement to a full outer join. What is the difference in the result tables?

Difference: The FULL OUTER JOIN ensures that all employees and all departments are included, regardless of whether they have a match.

(14-7) Question 4:

The table *sec1407\_departments* has the same format as the *L\_DEPARTMENTS* table. Write a *select* statement that shows the union of the two tables.



**Script:**

-- Haley Archer

-- (14-3) Question 1:

-- The following select statement shows all the employees who are in each department.

-- First run this code as it is—as an inner join. Then change it to a left outer join.

-- What is the difference in the result tables?

SELECT a.department\_name, b.first\_name, b.last\_name

FROM L\_DEPARTMENTS a

INNER JOIN L\_EMPLOYEES b

ON a.dept\_code = b.dept\_code;

-- Left Outer Join Version:

SELECT a.department\_name, b.first\_name, b.last\_name

FROM L\_DEPARTMENTS a

LEFT OUTER JOIN L\_EMPLOYEES b

ON a.dept\_code = b.dept\_code;

-- (14-4) Question 2:

-- This is a modification of the exercise in section 14-3.

-- The only thing that has been changed is the order of the tables in the from clause.

-- First run this code as it is—as an inner join.

-- Then change this select statement to a right outer join.

SELECT a.department\_name, b.first\_name, b.last\_name

FROM L\_EMPLOYEES b

INNER JOIN L\_DEPARTMENTS a

ON a.dept\_code = b.dept\_code;

-- Right Outer Join Version:

SELECT a.department\_name, b.first\_name, b.last\_name

FROM L\_EMPLOYEES b

RIGHT OUTER JOIN L\_DEPARTMENTS a

ON a.dept\_code = b.dept\_code;

-- (14-5) Question 3:

-- This is a modification of the exercise in section 14-3.

-- The only thing that has changed is that table sec1405\_employees replaces table L\_EMPLOYEES.

-- The new table contains one new employee who has not been assigned to any department yet.

-- First run this code as it is—as an inner join.

-- Then change this select statement to a full outer join.

SELECT a.department\_name, b.first\_name, b.last\_name

FROM L\_DEPARTMENTS a

INNER JOIN sec1405\_employees b

ON a.dept\_code = b.dept\_code;

-- Full Outer Join Version:

SELECT a.department\_name, b.first\_name, b.last\_name

FROM L\_DEPARTMENTS a

FULL OUTER JOIN sec1405\_employees b

ON a.dept\_code = b.dept\_code;

-- (14-7) Question 4:

-- The table sec1407\_departments has the same format as the L\_DEPARTMENTS table.

-- Write a select statement that shows the union of the two tables.

SELECT department\_name, dept\_code

FROM L\_DEPARTMENTS

UNION

SELECT department\_name, dept\_code

FROM sec1407\_departments;