

This query retrieves all rows in the EMPLOYEES table, even if there is no match in the DEPARTMENTS table. It also retrieves all rows in the DEPARTMENTS table, even if there is no match in the EMPLOYEES table.

Find the Solution for the following:

1. Write a query to display the last name, department number, and department name for all employees.

```
SELECT e.last-name, e.department-number, d.department-name  
FROM employees e JOIN departments d ON e.department-id = d.department-id;
```

2. Create a unique listing of all jobs that are in department 80. Include the location of the department in the output.

```
SELECT DISTINCT e.job-id, l.location, l.city FROM employees  
JOIN department d ON e.department-id = d.department-id, JOIN  
locations l ON d.location-id = l.location-id WHERE e.commission-pct;
```

3. Write a query to display the employee last name, department name, location ID, and city of all employees who earn a commission.

```
SELECT DISTINCT e.job-id, l.location, l.city FROM employees  
e JOIN department d ON e.department-id = d.department-id  
JOIN locations l ON d.department-id = 80;
```

4. Display the employee last name and department name for all employees who have an 'a' (lowercase) in their last names.

```
SELECT e.last-name, d.department-name FROM employees e JOIN  
departments d ON e.department-id = d.department-id WHERE e.last-name LIKE '%a%';
```

5. Write a query to display the last name, job, department number, and department name for all employees who work in Toronto.

```
SELECT e.last-name, e.job-id, e.department, d.department-name  
FROM employees e JOIN departments d ON e.department-id = d.department-id  
JOIN locations l ON d.location-id = l.location-id;
```

6. Display the employee last name and employee number along with their manager's last name and manager number. Label the columns Employee, Emp#, Manager, and Mgr#. Respectively

```
SELECT e.last-name AS 'Employee', e.employee-id AS 'Emp#'  
m.last-name AS 'Manager', m.employee-id AS 'Mgr#', employees  
LEFT JOIN employees m ON
```

7. Modify lab4_6.sql to display all employees including King, who has no manager. Order the results by the employee number.

```
SELECT e.last-name AS employee, e.employee_id AS 'Emp#'  
      m.last-name AS 'manager', m.employee_id AS 'Mgr#'  
   FROM employees m ON e.manager_id = 3
```

8. Create a query 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

```
SELECT e.last-name AS employee, e.department_id AS DEPT-ID,  
      e2.last-name AS colleague FROM employee e1 JOIN  
      employee e2 ON e1.department_id = e2.department_id
```

9. Show the structure of the JOB_GRADES table. Create a query that displays the name, job, department name, salary, and grade for all employees

DESCRIBE job_grades, SELECT e.last-name, e.job_id,
 d.department_name, e.salary, j.grade_level FROM employees
 e JOIN departments d ON e.department_id BETWEEN j.lower_bound
 AND j.upper_bound;

10. Create a query to display the name and hire date of any employee hired after employee Davies.

```
SELECT e.last-name, e.hire-date FROM employees  
  e WHERE e.hire-date > (Select hire-date FROM  
  employees WHERE last-name = "Davies");
```

11. Display the names and hire dates for all employees who were hired before their managers, along with their manager's names and hire dates. Label the columns Employee, Emp Hired, Manager, and Mgr Hired, respectively.

```
SELECT e.last-name AS employee, e.hire-date AS  
  emp-hired, m.last-name AS manager, m.hire-date  
  Mgr-hired FROM employees m ON e.manager_id =  
  m.employee_id WHERE e.hire-date < m.hire-date
```

Evaluation Procedure	Marks awarded
Query(5)	5
Execution (5)	5
Viva(5)	5
Total (15)	15
Faculty Signature	B.A.