

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 last_name, department_number, 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  
location 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.location_id = l.location_id WHERE e.commission_pct;
```

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  
department 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_id, 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 WHERE l.city = 'Toronto';
```

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#  
FROM employees e LEFT JOIN employees m ON e.manager_id = m.employee_id;
```

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;
```

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 employees e1 JOIN  
employees 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 51 - lowest;
```

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	