SQL PRACTICE 4

create database eeee;

use eeee;

CREATE TABLE Employees (

  emp_id INT PRIMARY KEY,

  name VARCHAR(50),

  dept_id INT

);

CREATE TABLE Departments (

  dept_id INT PRIMARY KEY,

  dept_name VARCHAR(50)

);

INSERT INTO Employees (emp_id, name, dept_id) VALUES

(1, 'Ravi', 101),

(2, 'Priya', 102),

(3, 'Karan', 101),

(4, 'Anjali', 103),

(5, 'Manish', NULL);

INSERT INTO Departments (dept_id, dept_name) VALUES

(101, 'IT'),

(102, 'HR'),

(103, 'Finance'),

(104, 'Marketing');

1.)Find employees who are in the "IT" department.

Query with output:

```
27  ●     SELECT e.emp_id, e.name, d.dept_name
28        FROM Employees e
29        INNER JOIN Departments d ON e.dept_id = d.dept_id
30        WHERE d.dept_name = 'IT';
```

| Result Grid | | Filter Rows: | Export: | Wrap Cell Content: |

	emp_id	name	dept_name
▶	1	Ravi	IT
	3	Karan	IT

2.) List departments with no employees.

Query with output:

```
31 •   SELECT d.dept_id, d.dept_name
32     FROM Departments d
33     LEFT JOIN Employees e ON d.dept_id = e.dept_id
34     WHERE e.emp_id IS NULL;
35
```

	dept_id	dept_name
▶	104	Marketing

3.) Show each employee's name along with every department they could potentially work in.

Query with output:

```
35 •   SELECT e.name, d.dept_name
36     FROM Employees e
37     CROSS JOIN Departments d;
```

	name	dept_name
▶	Ravi	Marketing
	Ravi	Finance
	Ravi	HR
	Ravi	IT
	Priya	Marketing
	Priya	Finance
	Priya	HR
	Priya	IT
	Karan	Marketing
	Karan	Finance
	Karan	HR
	Karan	IT
	Anjali	Marketing
	Anjali	Finance
	Anjali	HR

4.) Get all employees and all departments (even if no match).

Query with output:

```
38 •    SELECT e.name, d.dept_name
39      FROM Employees e
40      LEFT JOIN Departments d ON e.dept_id = d.dept_id
41      UNION
42      SELECT e.name, d.dept_name
43      FROM Employees e
44      RIGHT JOIN Departments d ON e.dept_id = d.dept_id;
```

| Result Grid | | Filter Rows: | Export: | Wrap Cell Content: |

name	dept_name
▶ Ravi	IT
Priya	HR
Karan	IT
Anjali	Finance
Manish	NULL
NULL	Marketing

5.) Find employees who do not belong to any department.

Query with output:

```
45 •    SELECT e.emp_id, e.name
46      FROM Employees e
47      LEFT JOIN Departments d ON e.dept_id = d.dept_id
48      WHERE d.dept_id IS NULL;
```

| Result Grid | | Filter Rows: | Export: | Wrap Cell Content: |

emp_id	name
▶ 5	Manish