DROP DATABASE IF EXISTS emp;

CREATE DATABASE emp;

USE emp;

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');

SELECT e.emp\_id, e.name, d.dept\_name

FROM Employees e

INNER JOIN Departments d

ON e.dept\_id = d.dept\_id

WHERE d.dept\_name = 'IT';

SELECT d.dept\_id, d.dept\_name

FROM Departments d

LEFT JOIN Employees e

ON d.dept\_id = e.dept\_id

WHERE e.emp\_id IS NULL;

SELECT e.name, d.dept\_name

FROM Employees e

CROSS JOIN Departments d;

SELECT e.name, d.dept\_name

FROM Employees e

LEFT JOIN Departments d

ON e.dept\_id = d.dept\_id

UNION

SELECT e.name, d.dept\_name

FROM Employees e

RIGHT JOIN Departments d

ON e.dept\_id = d.dept\_id;

SELECT e.emp\_id, e.name

FROM Employees e

LEFT JOIN Departments d

ON e.dept\_id = d.dept\_id

WHERE e.dept\_id IS NULL;