LeetCode SQL Solutions (20 Problems)

# 1. 175. Combine Two Tables

## Question

Return the first name, last name, city, and state of each person by joining the Person and Address tables. Include all persons even if they have no address.

## Solution

SELECT p.FirstName, p.LastName, a.City, a.State  
FROM Person p  
LEFT JOIN Address a ON p.PersonId = a.PersonId;

# 2. 176. Second Highest Salary

## Question

Find the second highest distinct salary from the Employee table. If no such salary exists, return NULL.

## Solution

SELECT IFNULL(  
 (SELECT DISTINCT Salary  
 FROM Employee  
 ORDER BY Salary DESC  
 LIMIT 1 OFFSET 1),  
 NULL) AS SecondHighestSalary;

# 3. 177. Nth Highest Salary

## Question

Create a function getNthHighestSalary(N) that returns the N-th highest distinct salary in the Employee table.

## Solution

CREATE FUNCTION getNthHighestSalary(N INT) RETURNS INT  
BEGIN  
 RETURN (  
 SELECT IFNULL(  
 (SELECT DISTINCT Salary  
 FROM Employee  
 ORDER BY Salary DESC  
 LIMIT 1 OFFSET N-1),  
 NULL)  
 );  
END;

# 4. 178. Rank Scores

## Question

Rank each score in the Scores table using dense ranking. Higher scores should get better (lower) ranks.

## Solution

SELECT s.Score,  
 (SELECT COUNT(DISTINCT Score)  
 FROM Scores  
 WHERE Score >= s.Score) AS 'Rank'  
FROM Scores s  
ORDER BY s.Score DESC;

# 5. 180. Consecutive Numbers

## Question

Find all numbers that appear at least three times consecutively in the Logs table.

## Solution

SELECT DISTINCT l1.Num AS ConsecutiveNums  
FROM Logs l1  
JOIN Logs l2 ON l1.Id = l2.Id - 1  
JOIN Logs l3 ON l2.Id = l3.Id - 1  
WHERE l1.Num = l2.Num  
 AND l2.Num = l3.Num;

# 6. 181. Employees Earning More Than Their Managers

## Question

List the names of employees who earn strictly more than their manager.

## Solution

SELECT e.Name AS Employee  
FROM Employee e  
JOIN Employee m ON e.ManagerId = m.Id  
WHERE e.Salary > m.Salary;

# 7. 182. Duplicate Emails

## Question

Find all duplicate email addresses in the Person table.

## Solution

SELECT Email  
FROM Person  
GROUP BY Email  
HAVING COUNT(\*) > 1;

# 8. 183. Customers Who Never Order

## Question

Show names of customers who never made an order.

## Solution

SELECT c.Name AS Customers  
FROM Customers c  
LEFT JOIN Orders o ON c.Id = o.CustomerId  
WHERE o.Id IS NULL;

# 9. 184. Department Highest Salary

## Question

For each department, list the employee(s) who have the highest salary.

## Solution

SELECT d.Name AS Department, e.Name AS Employee, e.Salary  
FROM Employee e  
JOIN Department d ON e.DepartmentId = d.Id  
WHERE (e.DepartmentId, e.Salary) IN (  
 SELECT DepartmentId, MAX(Salary)  
 FROM Employee  
 GROUP BY DepartmentId  
);

# 10. 185. Department Top Three Salaries

## Question

List employees earning one of the top three distinct salaries in their respective departments.

## Solution

SELECT d.Name AS Department, e.Name AS Employee, e.Salary  
FROM Employee e  
JOIN Department d ON e.DepartmentId = d.Id  
WHERE 3 > (  
 SELECT COUNT(DISTINCT e2.Salary)  
 FROM Employee e2  
 WHERE e2.DepartmentId = e.DepartmentId  
 AND e2.Salary > e.Salary  
);

# 11. 196. Delete Duplicate Emails

## Question

Delete all duplicate rows in the Person table, keeping the row with the smallest Id.

## Solution

DELETE p1  
FROM Person p1  
JOIN Person p2  
ON p1.Email = p2.Email AND p1.Id > p2.Id;

# 12. 197. Rising Temperature

## Question

Find the Ids of records whose temperature is higher than the temperature of the previous day.

## Solution

SELECT w.Id  
FROM Weather w  
JOIN Weather prev  
 ON DATE\_SUB(w.RecordDate, INTERVAL 1 DAY) = prev.RecordDate  
WHERE w.Temperature > prev.Temperature;

# 13. 595. Big Countries

## Question

Output the name, population, and area of countries with area >= 3,000,000 or population >= 25,000,000.

## Solution

SELECT name, population, area  
FROM World  
WHERE area >= 3000000  
 OR population >= 25000000;

# 14. 620. Not Boring Movies

## Question

Find movies with an odd id and description not equal to 'boring', ordered by rating descending.

## Solution

SELECT id, movie, description, rating  
FROM Cinema  
WHERE description <> 'boring'  
 AND id % 2 = 1  
ORDER BY rating DESC;

# 15. 627. Swap Salary

## Question

Swap all 'm' and 'f' values (male/female) in the sex column of the Salary table.

## Solution

UPDATE Salary  
SET sex = CASE sex WHEN 'm' THEN 'f' ELSE 'm' END;

# 16. 1148. Article Views I

## Question

List the ids of users who viewed their own articles.

## Solution

SELECT DISTINCT viewer\_id AS id  
FROM Views  
WHERE viewer\_id = article\_id  
ORDER BY id;

# 17. 1321. Restaurant Growth

## Question

Report the 7‑day rolling sum and average amount spent in the Customer table.

## Solution

SELECT visited\_on,  
 SUM(amount) OVER (ORDER BY visited\_on ROWS BETWEEN 6 PRECEDING AND CURRENT ROW) AS amount,  
 ROUND(AVG(amount) OVER (ORDER BY visited\_on ROWS BETWEEN 6 PRECEDING AND CURRENT ROW), 2) AS average\_amount  
FROM (  
 SELECT visited\_on, SUM(amount) AS amount  
 FROM Customer  
 GROUP BY visited\_on  
) t  
ORDER BY visited\_on;

# 18. 1350. Students With Invalid Departments

## Question

List all students whose department\_id is NULL or does not exist in the Departments table.

## Solution

SELECT id, name  
FROM Students  
WHERE department\_id IS NULL  
 OR department\_id NOT IN (SELECT id FROM Departments);

# 19. 1378. Replace Employee ID With The Unique Identifier

## Question

Replace the id field with unique\_id in the result by joining Employees and EmployeeUNI.

## Solution

SELECT eu.unique\_id, e.name  
FROM Employees e  
LEFT JOIN EmployeeUNI eu ON e.id = eu.id;

# 20. 1517. Find User With Valid Email

## Question

Find users with a valid LeetCode email that matches the pattern name@leetcode.com.

## Solution

SELECT user\_id, name, mail  
FROM Users  
WHERE mail REGEXP '^[A-Za-z][A-Za-z0-9\_.\-]\*@leetcode\.com$';