Problem 3204: Bitwise User Permissions Analysis

Problem Information

Difficulty: Medium
Acceptance Rate: 93.66%
Paid Only: Yes
Tags: Database

Problem Description

Table: `user_permissions`

+-------------+---------+ | Column Name | Type | +-------------+---------+ | user_id | int | | permissions | int | +-------------+---------+ user_id is the primary key. Each row of this table contains the user ID and their permissions encoded as an integer.

Consider that each bit in the `permissions` integer represents a different access level or feature that a user has.

Write a solution to calculate the following:

* common_perms: The access level granted to **all users**. This is computed using a **bitwise AND** operation on the `permissions` column. * any_perms: The access level granted to **any user**. This is computed using a **bitwise OR** operation on the `permissions` column.

Return _the result table in**any** order_.

The result format is shown in the following example.

Example:

Input:

user_permissions table:

+---------+-------------+ | user_id | permissions | +---------+-------------+ | 1 | 5 | | 2 | 12 | | 3 | 7 | | 4 | 3 | +---------+-------------+

Output:

+--------------+--------------+ | common_perms | any_perms | +--------------+-------------+ | 0 | 15 | +--------------+-------------+

Explanation:

* **common_perms:** Represents the bitwise AND result of all permissions: * For user 1 (5): 5 (binary 0101) * For user 2 (12): 12 (binary 1100) * For user 3 (7): 7 (binary 0111) * For user 4 (3): 3 (binary 0011) * Bitwise AND: 5 & 12 & 7 & 3 = 0 (binary 0000) * **any_perms:** Represents the bitwise OR result of all permissions: * Bitwise OR: 5 | 12 | 7 | 3 = 15 (binary 1111)

Code Snippets

MySQL:

```
# Write your MySQL query statement below
```

MS SQL Server:

```
/* Write your T-SQL query statement below */
```

PostgreSQL:

```
-- Write your PostgreSQL query statement below
```