

Problem 1990: Count the Number of Experiments

Problem Information

Difficulty: **Medium**

Acceptance Rate: 0.00%

Paid Only: No

Problem Description

Table:

Experiments

+-----+-----+ | Column Name | Type | +-----+-----+ | experiment_id | int | |
platform | enum | | experiment_name | enum | +-----+-----+ experiment_id is the
column with unique values for this table. platform is an enum (category) type of values
('Android', 'IOS', 'Web'). experiment_name is an enum (category) type of values ('Reading',
'Sports', 'Programming'). This table contains information about the ID of an experiment done
with a random person, the platform used to do the experiment, and the name of the
experiment.

Write a solution to report the

number of experiments

done on each of the three platforms for each of the three given experiments. Notice that all the
pairs of (platform, experiment) should be included in the output

including

the pairs with

zero experiments

Return the result table in

any order

The result format is in the following example.

Example 1:

Input:

Experiments table: +-----+-----+-----+ | experiment_id | platform |
experiment_name | +-----+-----+-----+ | 4 | IOS | Programming | | 13 | IOS |
Sports | | 14 | Android | Reading | | 8 | Web | Reading | | 12 | Web | Reading | | 18 | Web |
Programming | +-----+-----+-----+

Output:

+-----+-----+-----+ | platform | experiment_name | num_experiments |
+-----+-----+-----+ | Android | Reading | 1 | | Android | Sports | 0 | |
Android | Programming | 0 | | IOS | Reading | 0 | | IOS | Sports | 1 | | IOS | Programming | 1 | |
Web | Reading | 2 | | Web | Sports | 0 | | Web | Programming | 1 |
+-----+-----+-----+

Explanation:

On the platform "Android", we had only one "Reading" experiment. On the platform "IOS", we had one "Sports" experiment and one "Programming" experiment. On the platform "Web", we had two "Reading" experiments and one "Programming" experiment.

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
```

Oracle:

```
/* Write your PL/SQL query statement below */
```

Pandas:

```
import pandas as pd

def count_experiments(experiments: pd.DataFrame) -> pd.DataFrame:
```

Solutions

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