

Description Editorial Solutions (649) Submissions

## 1280. Students and Examinations

Easy 920 117 ☆ ↺

Companies

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Table: Students

Column Name	Type
student_id	int
student_name	varchar

student\_id is the primary key (column with unique values) for this table.  
Each row of this table contains the ID and the name of one student in the school.

Table: Subjects

Column Name	Type
subject_name	varchar

subject\_name is the primary key (column with unique values) for this table.  
Each row of this table contains the name of one subject in the school.

Table: Examinations

Column Name	Type
student_id	int
subject_name	varchar

There is no primary key (column with unique values) for this table. It may contain duplicates.  
Each student from the Students table takes every course from the Subjects table.  
Each row of this table indicates that a student with ID student\_id attended the exam of subject\_name.

Write a solution to find the number of times each student attended each exam.

Return the result table ordered by student\_id and subject\_name.

The result format is in the following example.

## Example 1:

## Input:

Students table:

student_id	student_name
1	Alice
2	Bob
13	John
6	Alex

Subjects table:

subject_name
Math
Physics
Programming

Examinations table:

student_id	subject_name
1	Math
1	Physics
1	Programming
2	Programming
1	Physics
1	Math
13	Math
13	Programming
13	Physics
2	Math
1	Math

## Output:

student_id	student_name	subject_name	attended_exams
1	Alice	Math	3
1	Alice	Physics	2
1	Alice	Programming	1
2	Bob	Math	1
2	Bob	Physics	0
2	Bob	Programming	1
6	Alex	Math	0
6	Alex	Physics	0
6	Alex	Programming	0
13	John	Math	1
13	John	Physics	1
13	John	Programming	1

## Explanation:

The result table should contain all students and all subjects.  
Alice attended the Math exam 3 times, the Physics exam 2 times, and the Programming exam 1 time.  
Bob attended the Math exam 1 time, the Programming exam 1 time, and did not attend the Physics exam.  
Alex did not attend any exams.  
John attended the Math exam 1 time, the Physics exam 1 time, and the Programming exam 1 time.

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Seen this question in a real interview before? 1/4

Yes No

Discussion (41)

Related Topics

MySQL Auto

```
1 # Write your MySQL query statement below
2 SELECT
3     s.student_id,
4     s.student_name,
5     su.subject_name,
6     COALESCE(e.attended_exams, 0) AS attended_exams
7 FROM Students s
8 CROSS JOIN Subjects su
9 LEFT JOIN
10     (SELECT student_id, subject_name, COUNT(*) AS attended_exams
11 FROM Examinations
12 GROUP BY student_id, subject_name, subject_name) e
13 ON s.student_id = e.student_id
14 AND su.subject_name = e.subject_name
15 GROUP BY s.student_id, s.student_name, su.subject_name
16 ORDER BY s.student_id, su.subject_name
```

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Console ^

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Run

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