

# Problem 2346: Compute the Rank as a Percentage

## Problem Information

**Difficulty:** Medium

**Acceptance Rate:** 33.89%

**Paid Only:** Yes

**Tags:** Database

## Problem Description

Table: `Students`

+-----+-----+ | Column Name | Type | +-----+-----+ | student\_id | int || department\_id | int || mark | int | +-----+-----+ student\_id contains unique values. Each row of this table indicates a student's ID, the ID of the department in which the student enrolled, and their mark in the exam.

Write a solution to report the rank of each student in their department as a percentage, where the rank as a percentage is computed using the following formula:

`(student\_rank\_in\_the\_department - 1) \* 100 / (the\_number\_of\_students\_in\_the\_department - 1)`. The `percentage` should be \*\*rounded to 2 decimal places\*\*.

`student\_rank\_in\_the\_department` is determined by \*\*descending\*\*\*\*`mark`\*\*, such that the student with the highest `mark` is `rank 1`. If two students get the same mark, they also get the same rank.

Return the result table in \*\*any order\*\*.

The result format is in the following example.

**Example 1:**

**Input:** Students table: +-----+-----+-----+ | student\_id | department\_id | mark | +-----+-----+-----+ | 2 | 2 | 650 | | 8 | 2 | 650 | | 7 | 1 | 920 | | 1 | 1 | 610 | | 3 | 1 | 530 | +-----+-----+-----+ **Output:** +-----+-----+-----+ | student\_id | department\_id | percentage | +-----+-----+-----+ | 7 | 1 | 0.0 | | 1 | 1 | 50.0 | | 3

```
| 1 | 100.0 || 2 | 2 | 0.0 || 8 | 2 | 0.0 | +-----+-----+-----+ **Explanation:** For  
Department 1: - Student 7: percentage = (1 - 1) * 100 / (3 - 1) = 0.0 - Student 1: percentage =  
(2 - 1) * 100 / (3 - 1) = 50.0 - Student 3: percentage = (3 - 1) * 100 / (3 - 1) = 100.0 For  
Department 2: - Student 2: percentage = (1 - 1) * 100 / (2 - 1) = 0.0 - Student 8: percentage =  
(1 - 1) * 100 / (2 - 1) = 0.0
```

## 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
```