

Problem 1571: Warehouse Manager

Problem Information

Difficulty: Easy

Acceptance Rate: 87.34%

Paid Only: Yes

Tags: Database

Problem Description

Table: `Warehouse`

+-----+-----+ | Column Name | Type | +-----+-----+ | name | varchar || product_id | int | | units | int | +-----+-----+ (name, product_id) is the primary key (combination of columns with unique values) for this table. Each row of this table contains the information of the products in each warehouse.

Table: `Products`

+-----+-----+ | Column Name | Type | +-----+-----+ | product_id | int || product_name | varchar || Width | int || Length | int || Height | int | +-----+-----+ product_id is the primary key (column with unique values) for this table. Each row of this table contains information about the product dimensions (Width, Length, and Height) in feet of each product.

Write a solution to report the number of cubic feet of ****volume**** the inventory occupies in each warehouse.

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

The query result format is in the following example.

****Example 1:****

****Input:**** Warehouse table: +-----+-----+-----+ | name | product_id | units | +-----+-----+-----+ | LCHouse1 | 1 | 1 | | LCHouse1 | 2 | 10 | | LCHouse1 | 3 |

5 | | LCHouse2 | 1 | 2 | | LCHouse2 | 2 | 2 | | LCHouse3 | 4 | 1 |
+-----+-----+-----+ Products table:
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
Length | Height | +-----+-----+-----+-----+-----+-----+-----+
| 2 | LC-KeyChain | 5 | 5 | 5 | | 3 | LC-Phone | 2 | 10 | 10 | | 4 | LC-T-Shirt | 4 | 10 | 20 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
warehouse_name | volume | +-----+-----+-----+-----+-----+-----+-----+
| LCHouse1 | 12250 | | LCHouse2 | 20250 | | LCHouse3 | 800 |
+-----+-----+-----+-----+-----+-----+-----+-----+
Explanation: Volume of product_id = 1 (LC-TV), $5 \times 5 \times 40 = 10000$ Volume of product_id = 2 (LC-KeyChain), $5 \times 5 \times 5 = 125$ Volume of product_id = 3 (LC-Phone), $2 \times 10 \times 10 = 200$ Volume of product_id = 4 (LC-T-Shirt), $4 \times 10 \times 20 = 800$
LCHouse1: 1 unit of LC-TV + 10 units of LC-KeyChain + 5 units of LC-Phone. Total volume: $1 \times 10000 + 10 \times 125 + 5 \times 200 = 12250$ cubic feet
LCHouse2: 2 units of LC-TV + 2 units of LC-KeyChain. Total volume: $2 \times 10000 + 2 \times 125 = 20250$ cubic feet
LCHouse3: 1 unit of LC-T-Shirt. Total volume: $1 \times 800 = 800$ cubic feet.

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
```