

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 || LHouse2 | 1 | 2 || LHouse2 | 2 | 2 || LHouse3 | 4 | 1 |
+-----+-----+-----+ Products table:
+-----+-----+-----+-----+-----+ | product_id | product_name | Width |
Length | Height | +-----+-----+-----+-----+ | 1 | LC-TV | 5 | 50 | 40 |
| 2 | LC-KeyChain | 5 | 5 | 5 || 3 | LC-Phone | 2 | 10 | 10 || 4 | LC-T-Shirt | 4 | 10 | 20 |
+-----+-----+-----+-----+-----+ **Output:** +-----+-----+ |
warehouse_name | volume | +-----+-----+ | LHouse1 | 12250 || LHouse2 |
20250 || LHouse3 | 800 | +-----+-----+ **Explanation:** Volume of product_id =
1 (LC-TV), 5x50x40 = 10000 Volume of product_id = 2 (LC-KeyChain), 5x5x5 = 125 Volume
of product_id = 3 (LC-Phone), 2x10x10 = 200 Volume of product_id = 4 (LC-T-Shirt), 4x10x20
= 800 LHouse1: 1 unit of LC-TV + 10 units of LC-KeyChain + 5 units of LC-Phone. Total
volume: 1*10000 + 10*125 + 5*200 = 12250 cubic feet LHouse2: 2 units of LC-TV + 2 units
of LC-KeyChain. Total volume: 2*10000 + 2*125 = 20250 cubic feet LHouse3: 1 unit of
LC-T-Shirt. Total volume: 1*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
```