

Easy

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:

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
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Output:

warehouse_name	volume
LCHouse1	12250
LCHouse2	20250
LCHouse3	800

Explanation:

Volume of product_id = 1 (LC-TV), $5 \times 50 \times 40 = 10000$

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.

Write your MySQL query statement below

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SELECT w.name AS warehouse_name, SUM(Width*Length*Height*units) AS volume
FROM Products p
JOIN Warehouse w USING (product_id)
GROUP BY w.name
```