SQL Schema

Table: Warehouse

+--------------+---------+

| Column Name | Type |

+--------------+---------+

| name | varchar |

| product\_id | int |

| units | int |

+--------------+---------+

(name,product) is the primary key for this table.

Each row of this table contains the information of the products in each warehouse.

Table: Products

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| Column Name | Type |

+---------------+---------+

| product\_id | int |

| product\_name | varchar |

| Width | int |

| Length | int |

| Height | int |

+---------------+---------+

product\_id is the primary key for this table.

Each row of this table contains the information about the product dimensions (Width, Lenght and Height) in feets of each product.

Write an SQL query to report, How much cubic feet of **volume**does the inventory occupy in each warehouse.

* warehouse\_name
* volume

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

The query result format is in the following example.

Warehouse table:

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| 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 |

+------------+--------------+------------+----------+-----------+

Result table:

+----------------+------------+

| warehouse\_name | volume |

+----------------+------------+

| LCHouse1 | 12250 |

| LCHouse2 | 20250 |

| LCHouse3 | 800 |

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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

LCHouse1: 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

LCHouse2: 2 units of LC-TV + 2 units of LC-KeyChain.

  Total volume: 2\*10000 + 2\*125 = 20250 cubic feet

LCHouse3: 1 unit of LC-T-Shirt.

Total volume: 1\*800 = 800 cubic feet.