

Table: Sales

Column Name	Type
sale_id	int
product_id	int
user_id	int
quantity	int

sale_id is the primary key of this table.

product_id is a foreign key to Product table.

Each row of this table shows the ID of the product and the quantity purchased by a user.

Table: Product

Column Name	Type
product_id	int
price	int

product_id is the primary key of this table.

Each row of this table indicates the price of each product.

Write an SQL query that reports for each user the product id on which the user spent the most money. In case the same user spent the most money on two or more products, report all of them.

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

The query result format is in the following example.

Example 1:**

Input:

Sales table:

sale_id	product_id	user_id	quantity
1	1	101	10
2	3	101	7
3	1	102	9

4	2	102	6	
5	3	102	10	
6	1	102	6	
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Product table:

+-----+	
product_id	price
+-----+	
1	10
2	25
3	15
+-----+	

Output:

+-----+	
user_id	product_id
+-----+	
101	3
102	1
102	2
102	3
+-----+	

Explanation:

User 101:

- Spent $10 * 10 = 100$ on product 1.
- Spent $7 * 15 = 105$ on product 3.

User 101 spent the most money on product 3.

User 102:

- Spent $(9 + 7) * 10 = 150$ on product 1.
- Spent $6 * 25 = 150$ on product 2.
- Spent $10 * 15 = 150$ on product 3.

User 102 spent the most money on products 1, 2, and 3.