SQL Schema

Table: Customers

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

| Column Name | Type |

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

| customer\_id | int |

| name | varchar |

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

customer\_id is the primary key for this table.

This table contains information about the customers.

Table: Orders

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

| Column Name | Type |

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

| order\_id | int |

| order\_date | date |

| customer\_id | int |

| product\_id | int |

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

order\_id is the primary key for this table.

This table contains information about the orders made by customer\_id.

No customer will order the same product **more than once** in a single day.

Table: Products

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

| Column Name | Type |

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

| product\_id | int |

| product\_name | varchar |

| price | int |

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

product\_id is the primary key for this table.

This table contains information about the products.

Write an SQL query to find the most frequently ordered product(s) for each customer.

The result table should have the product\_id and product\_name for each customer\_id who ordered at least one order. Return the result table in **any order**.

The query result format is in the following example:

Customers

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

| customer\_id | name |

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

| 1 | Alice |

| 2 | Bob |

| 3 | Tom |

| 4 | Jerry |

| 5 | John |

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

Orders

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

| order\_id | order\_date | customer\_id | product\_id |

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

| 1 | 2020-07-31 | 1 | 1 |

| 2 | 2020-07-30 | 2 | 2 |

| 3 | 2020-08-29 | 3 | 3 |

| 4 | 2020-07-29 | 4 | 1 |

| 5 | 2020-06-10 | 1 | 2 |

| 6 | 2020-08-01 | 2 | 1 |

| 7 | 2020-08-01 | 3 | 3 |

| 8 | 2020-08-03 | 1 | 2 |

| 9 | 2020-08-07 | 2 | 3 |

| 10 | 2020-07-15 | 1 | 2 |

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

Products

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

| product\_id | product\_name | price |

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

| 1 | keyboard | 120 |

| 2 | mouse | 80 |

| 3 | screen | 600 |

| 4 | hard disk | 450 |

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

Result table:

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

| customer\_id | product\_id | product\_name |

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

| 1 | 2 | mouse |

| 2 | 1 | keyboard |

| 2 | 2 | mouse |

| 2 | 3 | screen |

| 3 | 3 | screen |

| 4 | 1 | keyboard |

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

Alice (customer 1) ordered the mouse three times and the keyboard one time, so the mouse is the most frquently ordered product for them.

Bob (customer 2) ordered the keyboard, the mouse, and the screen one time, so those are the most frquently ordered products for them.

Tom (customer 3) only ordered the screen (two times), so that is the most frquently ordered product for them.

Jerry (customer 4) only ordered the keyboard (one time), so that is the most frquently ordered product for them.

John (customer 5) did not order anything, so we do not include them in the result table.