1757. Recyclable and Low Fat Products

SOURCE:

Table: Products

```
+-------------+---------+
| Column Name | Type    |
+-------------+---------+
| product_id  | int     |
| low_fats    | enum    |
| recyclable  | enum    |
+-------------+---------+
```
product_id is the primary key (column with unique values) for this table.
low_fats is an ENUM (category) of type ('Y', 'N') where 'Y' means this product is low fat and 'N' means it is not.
recyclable is an ENUM (category) of types ('Y', 'N') where 'Y' means this product is recyclable and 'N' means it is not.

The result format is in the following example.

Example 1:

Input:
Products table:
```
+-------------+----------+------------+
| product_id  | low_fats | recyclable |
```

```
+------------+---------+-----------+
| 0          | Y       | N         |
| 1          | Y       | Y         |
| 2          | N       | Y         |
| 3          | Y       | Y         |
| 4          | N       | N         |
+------------+---------+-----------+
```

Output:
```
+------------+
| product_id |
+------------+
| 1          |
| 3          |
+------------+
```

Explanation: Only products 1 and 3 are both low fat and recyclable.

Q) Write a solution to find the ids of products that are both low fat and recyclable. Return the result table in any order.

Ans:

SELECT product_id
FROM Products
WHERE recyclable='Y' AND low_fats='Y';

Explanation:

1. `SELECT product_id`

- This part tells the database **what** to return.

- In this case, you're asking for only the `product_id` column.

2. `FROM Products`

- This specifies the **table** from which to retrieve the data.

- Here, the table is called `Products`.

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3. `WHERE recyclable = 'Y' AND low_fats = 'Y'`

- This is the **filtering condition**. It narrows down the rows that are selected from the table.

- You are saying:

  - Only return rows **where the `recyclable` column has the value `'Y'`** (i.e., Yes, the product is recyclable),

  - **AND** the `low_fats` column also has the value `'Y'` (i.e., Yes, the product is low in fat).

✅ Result

- The query returns the `product_id`s of **products that are both recyclable and low in fat**.

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