3052. Maximize Items

Description

Table: `Inventory`

```
+----------------+---------+
\| Column Name    \| Type    \|
+----------------+---------+
\| item_id        \| int     \|
\| item_type      \| varchar \|
\| item_category  \| varchar \|
\| square_footage \| decimal \|
+----------------+---------+
item_id is the column of unique values for this table.
Each row includes item id, item type, item category and sqaure footage.
```

Leetcode warehouse wants to maximize the number of items it can stock in a `500,000` square feet warehouse. It wants to stock as many **prime** items as possible, and afterwards use the **remaining** square footage to stock the most number of **non-prime** items.

Write a solution to find the number of **prime** and **non-prime** items that can be **stored** in the `500,000` square feet warehouse. Output the item type with `prime_eligible` followed by `not_prime` and the maximum number of items that can be stocked.

Note:

- Item **count** must be a whole number (integer).
- If the count for the **not_prime** category is `0`, you should **output** `0` for that particular category.

Return *the result table ordered by item count in* ***ascending order*** .

The result format is in the following example.

Example 1:

Input:
Inventory table:

```
+---------+---------------+--------------+----------------+
\| item_id \| item_type      \| item_category \| square_footage \|
+---------+---------------+--------------+----------------+
\| 1374    \| prime_eligible \| Watches       \| 68.00          \|
\| 4245    \| not_prime      \| Art           \| 26.40          \|
\| 5743    \| prime_eligible \| Software      \| 325.00         \|
\| 8543    \| not_prime      \| Clothing      \| 64.50          \|
\| 2556    \| not_prime      \| Shoes         \| 15.00          \|
\| 2452    \| prime_eligible \| Scientific    \| 85.00          \|
\| 3255    \| not_prime      \| Furniture     \| 22.60          \|
\| 1672    \| prime_eligible \| Beauty        \| 8.50           \|
\| 4256    \| prime_eligible \| Furniture     \| 55.50          \|
\| 6325    \| prime_eligible \| Food          \| 13.20          \|
+---------+---------------+--------------+----------------+
```

Output:

```
+----------------+-------------+
\| item_type      \| item_count  \|
+----------------+-------------+
\| prime_eligible \| 5400        \|
\| not_prime      \| 8           \|
+----------------+-------------+
```

Explanation:
- The prime-eligible category comprises a total of 6 items, amounting to a combined square footage of 555.20 (68 + 325 + 85 + 8.50 + 55.50 + 13.20). It is possible to store 900 combinations of these 6 items, totaling 5400 items and occupying 499,680 square footage.
- In the not_prime category, there are a total of 4 items with a combined square footage of 128.50. After deducting the storage used by prime-eligible items (500,000 - 499,680 = 320), there is room for 2 combinations of non-prime items, accommodating a total of 8 non-prime items within the available 320 square footage.
Output table is ordered by item count in descending order.