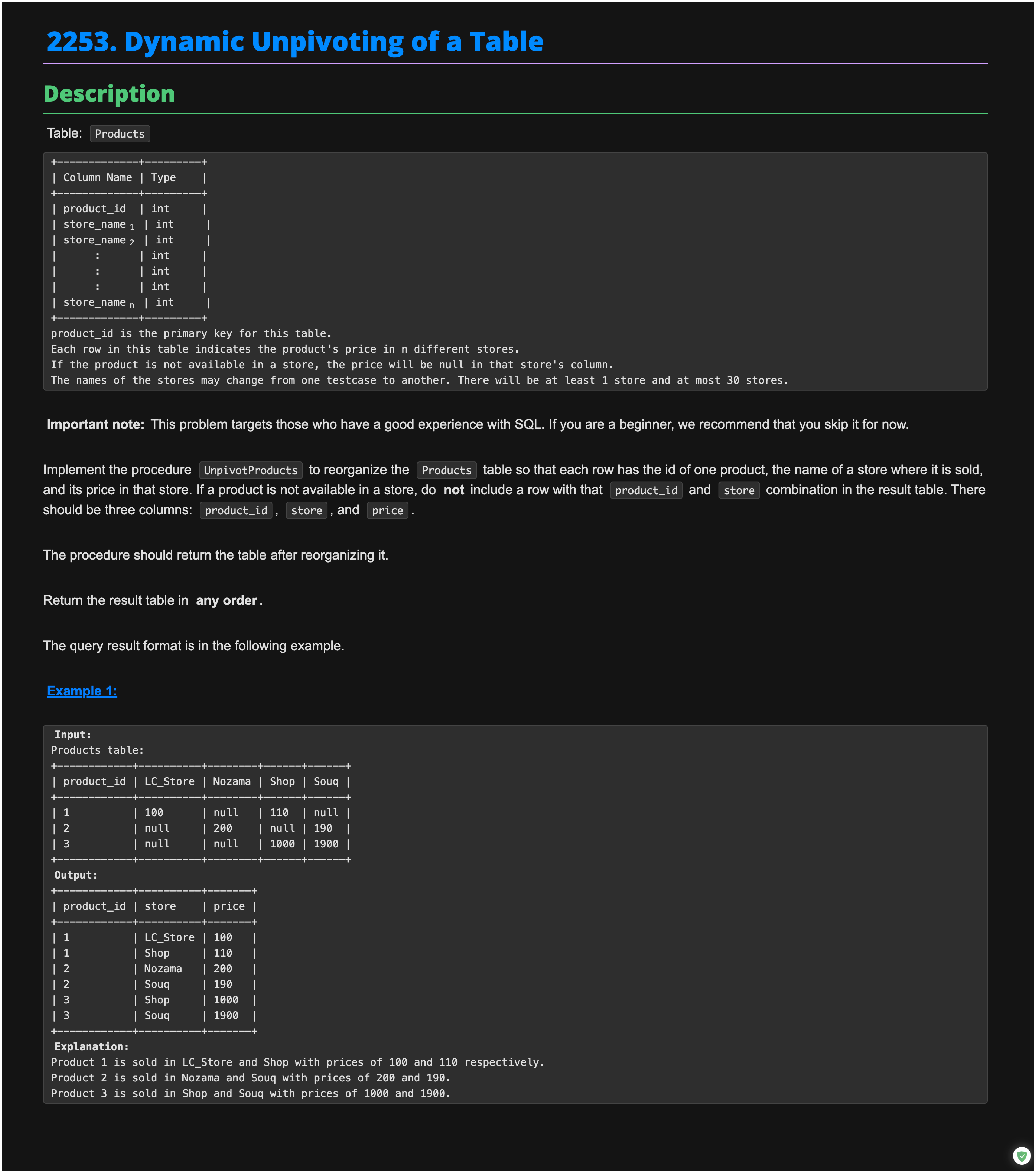

2253. Dynamic Unpivoting of a Table

Description

Table: `Products`

```
+-------------+---------+
| Column Name | Type    |
+-------------+---------+
| product_id  | int     |
| store_name 1 | int     |
| store_name 2 | int     |
|      :      | int     |
|      :      | int     |
|      :      | int     |
| store_name n | int     |
+-------------+---------+
product_id is the primary key for this table.
Each row in this table indicates the product's price in n different stores.
If the product is not available in a store, the price will be null in that store's column.
The names of the stores may change from one testcase to another. There will be at least 1 store and at most 30 stores.
```

Important note: This problem targets those who have a good experience with SQL. If you are a beginner, we recommend that you skip it for now.

Implement the procedure `UnpivotProducts` to reorganize the `Products` table so that each row has the id of one product, the name of a store where it is sold, and its price in that store. If a product is not available in a store, do **not** include a row with that `product_id` and `store` combination in the result table. There should be three columns: `product_id`, `store`, and `price`.

The procedure should return the table after reorganizing it.

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

The query result format is in the following example.

Example 1:

```
Input:
Products table:
+------------+----------+--------+------+------+
| product_id | LC_Store | Nozama | Shop | Souq |
+------------+----------+--------+------+------+
| 1          | 100      | null   | 110  | null |
| 2          | null     | 200    | null | 190  |
| 3          | null     | null   | 1000 | 1900 |
+------------+----------+--------+------+------+
Output:
+------------+----------+-------+
| product_id | store    | price |
+------------+----------+-------+
| 1          | LC_Store | 100   |
| 1          | Shop     | 110   |
| 2          | Nozama   | 200   |
| 2          | Souq     | 190   |
| 3          | Shop     | 1000  |
| 3          | Souq     | 1900  |
+------------+----------+-------+
Explanation:
Product 1 is sold in LC_Store and Shop with prices of 100 and 110 respectively.
Product 2 is sold in Nozama and Souq with prices of 200 and 190.
Product 3 is sold in Shop and Souq with prices of 1000 and 1900.
```