

Problem 3465: Find Products with Valid Serial Numbers

Problem Information

Difficulty: Easy

Acceptance Rate: 0.00%

Paid Only: No

Problem Description

Table:

products

+-----+-----+ | Column Name | Type | +-----+-----+ | product_id | int | |
product_name | varchar | | description | varchar | +-----+-----+ (product_id) is the
unique key for this table. Each row in the table represents a product with its unique ID, name,
and description.

Write a solution to find all products whose description

contains a valid serial number

pattern. A valid serial number follows these rules:

It starts with the letters

SN

(case-sensitive).

Followed by exactly

digits.

It must have a hyphen (-)

followed by exactly

4

digits.

The serial number must be within the description (it may not necessarily start at the beginning).

Return

the result table ordered by

product_id

in

ascending

order

.

The result format is in the following example.

Example:

Input:

products table:

```
+-----+-----+-----+ | product_id |
product_name | description |
+-----+-----+-----+ | 1 | Widget A | This is a
sample product with SN1234-5678 | | 2 | Widget B | A product with serial SN9876-1234 in the
```

description | | 3 | Widget C | Product SN1234-56789 is available now | | 4 | Widget D | No
serial number here | | 5 | Widget E | Check out SN4321-8765 in this description |

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

Output:

+-----+-----+-----+-----+ | product_id |

product_name | description |

+-----+-----+-----+-----+ | 1 | Widget A | This is a
sample product with SN1234-5678 | | 2 | Widget B | A product with serial SN9876-1234 in the
description | | 5 | Widget E | Check out SN4321-8765 in this description |

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

Explanation:

Product 1:

Valid serial number SN1234-5678

Product 2:

Valid serial number SN9876-1234

Product 3:

Invalid serial number SN1234-56789 (contains 5 digits after the hyphen)

Product 4:

No serial number in the description

Product 5:

Valid serial number SN4321-8765

The result table is ordered by product_id in ascending order.

Code Snippets

MySQL:

```
# Write your MySQL query statement below
```

MS SQL Server:

```
/* Write your T-SQL query statement below */
```

PostgreSQL:

```
-- Write your PostgreSQL query statement below
```

Oracle:

```
/* Write your PL/SQL query statement below */
```

Pandas:

```
import pandas as pd

def find_valid_serial_products(products: pd.DataFrame) -> pd.DataFrame:
```

Solutions

MySQL Solution:

```
# Write your MySQL query statement below
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