Problem 3465: Find Products with Valid Serial Numbers

Problem Information

Difficulty: Easy
Acceptance Rate: 34.57%
Paid Only: No
Tags: Database

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 `4` 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
```