2511. Partition String Into Substrings With Values at Most K

Difficulty : Medium

https://leetcode.com/problems/partition-string-into-substrings-with-values-at-most-k

You are given a string `s` consisting of digits from `1` to `9` and an integer `k`.

A partition of a string `s` is called **good** if:

- Each digit of `s` is part of **exactly** one substring.
- The value of each substring is less than or equal to `k`.

Return *the **minimum** number of substrings in a **good** partition of* `s`. If no **good** partition of `s` exists, return `-1`.

Note that:

- The **value** of a string is its result when interpreted as an integer. For example, the value of `"123"` is `123` and the value of `"1"` is `1`.
- A **substring** is a contiguous sequence of characters within a string.

Example 1:

```
Input: s = "165462", k = 60
Output: 4
Explanation: We can partition the string into substrings "16", "54", "6", and "2". Each substring has a value less than or equal to k = 60.
It can be shown that we cannot partition the string into less than 4 substrings.
```

Example 2:

```
Input: s = "238182", k = 5
Output: -1
Explanation: There is no good partition for this string.
```

Constraints:

- `1 <= s.length <= 10^5`
- `s[i]` is a digit from `'1'` to `'9'`.
- `1 <= k <= 10^9`