2707. Extra Characters in a String

Description

You are given a **0-indexed** string `s` and a dictionary of words `dictionary`. You have to break `s` into one or more **non-overlapping** substrings such that each substring is present in `dictionary`. There may be some **extra characters** in `s` which are not present in any of the substrings.

Return *the **minimum** number of extra characters left over if you break up* `s` *optimally.*

Example 1:

```
Input: s = "leetscode", dictionary = ["leet","code","leetcode"]
Output: 1
Explanation: We can break s in two substrings: "leet" from index 0 to 3 and "code" from index 5 to 8. There is only 1 unused character (at index 4), so we return 1.
```

Example 2:

```
Input: s = "sayhelloworld", dictionary = ["hello","world"]
Output: 3
Explanation: We can break s in two substrings: "hello" from index 3 to 7 and "world" from index 8 to 12. The characters at indices 0, 1, 2 are not used in any substring and thus are considered as extra characters. Hence, we return 3.
```

Constraints:

- `1 <= s.length <= 50`
- `1 <= dictionary.length <= 50`
- `1 <= dictionary[i].length <= 50`
- `dictionary[i]` and `s` consists of only lowercase English letters
- `dictionary` contains distinct words