3253. Construct String with Minimum Cost (Easy) `Premium`

Medium 💡 Hint

You are given a string `target`, an array of strings `words`, and an integer array `costs`, both arrays of the same length.

Imagine an empty string `s`.

You can perform the following operation any number of times (including **zero**):

- Choose an index `i` in the range `[0, words.length - 1]`.
- Append `words[i]` to `s`.
- The cost of operation is `costs[i]`.

Return the **minimum** cost to make `s` equal to `target`. If it's not possible, return -1.

Example 1:

Input: `target = "abcdef"`, `words = ["abdef","abc","d","def","ef"]`, `costs = [100,1,1,10,5]`

Output: 7

Explanation:

The minimum cost can be achieved by performing the following operations:

- Select index 1 and append `"abc"` to `s` at a cost of 1, resulting in `s = "abc"`.
- Select index 2 and append `"d"` to `s` at a cost of 1, resulting in `s = "abcd"`.
- Select index 4 and append `"ef"` to `s` at a cost of 5, resulting in `s = "abcdef"`.

Example 2:

Input: `target = "aaaa"`, `words = ["z","zz","zzz"]`, `costs = [1,10,100]`

Output: -1

Explanation:

It is impossible to make `s` equal to `target`, so we return -1.

Constraints:

- `1 <= target.length <= 2000`
- `1 <= words.length == costs.length <= 50`
- `1 <= words[i].length <= target.length`
- `target` and `words[i]` consist only of lowercase English letters.
- `1 <= costs[i] <= 10^5`

Seen this question in a real interview before?   1/5

Yes   No

Accepted **423** | Submissions **748** | Acceptance Rate **56.6%**

💡 Hint 1

Let `dp[i]` denote the minimum cost to make `s` equal to the prefix of `target` of length `i`.

💡 Hint 2

`dp[i] = min(costs[k] + dp[j])`, where `j > i` and `words[k] == target[i..j]`.

💬 Discussion (2)