

2976. Minimum Cost to Convert String I

Description

You are given two **0-indexed** strings `source` and `target`, both of length `n` and consisting of **lowercase** English letters. You are also given two **0-indexed** character arrays `original` and `changed`, and an integer array `cost`, where `cost[i]` represents the cost of changing the character `original[i]` to the character `changed[i]`.

You start with the string `source`. In one operation, you can pick a character `x` from the string and change it to the character `y` at a cost of `z` if there exists **any** index `j` such that `cost[j] == z`, `original[j] == x`, and `changed[j] == y`.

Return *the minimum cost to convert the string `source` to the string `target` using any number of operations. If it is impossible to convert `source` to `target`*, *return* `-1`.

Note that there may exist indices `i`, `j` such that `original[j] == original[i]` and `changed[j] == changed[i]`.

Example 1:

```
Input: source = "abcd", target = "acbe", original = ["a","b","c","c","e","d"], changed = ["b","c","b","e","b","e"], cost = [2,5,5,1,2,20]
Output: 28
Explanation: To convert the string "abcd" to string "acbe":
- Change value at index 1 from 'b' to 'c' at a cost of 5.
- Change value at index 2 from 'c' to 'e' at a cost of 1.
- Change value at index 2 from 'e' to 'b' at a cost of 2.
- Change value at index 3 from 'd' to 'e' at a cost of 20.
The total cost incurred is 5 + 1 + 2 + 20 = 28.
It can be shown that this is the minimum possible cost.
```

Example 2:

```
Input: source = "aaaa", target = "bbbb", original = ["a","c"], changed = ["c","b"], cost = [1,2]
Output: 12
Explanation: To change the character 'a' to 'b' change the character 'a' to 'c' at a cost of 1, followed by changing the character 'c' to 'b' at a cost of 2, for a total cost of 1 + 2 = 3. To change all occurrences of 'a' to 'b', a total cost of 3 * 4 = 12 is incurred.
```

Example 3:

```
Input: source = "abcd", target = "abce", original = ["a"], changed = ["e"], cost = [10000]
Output: -1
Explanation: It is impossible to convert source to target because the value at index 3 cannot be changed from 'd' to 'e'.
```

Constraints:

- `1 <= source.length == target.length <= 105`
- `source`, `target` consist of lowercase English letters.
- `1 <= cost.length == original.length == changed.length <= 2000`
- `original[i]`, `changed[i]` are lowercase English letters.
- `1 <= cost[i] <= 106`
- `original[i] != changed[i]`

