**Problem Statement:**

You are given the cost of changing M pairs of lowercase characters x to y. You are also given a string S.

You can change a character in string to another lowercase character by spending the cost you were given earlier. Determine the minimum cost that is required to make S a palindrome.

You can assume that it is always possible to make S a palindrome.

Notes:

    Each pair of characters is there at most 1 time in the input.

    A string S is called a palindrome if it reads the same if it is read backwards. For example, 'radar', 'madam', 'racecar' are palindromes whereas 'pizza' is not.

**Input format:**

    The first line contains string S

    The next line contains integer M

    The next M lines each contain a pair of lowercase characters x, y, and cost C. You can change character x to character y or vice versa spending cost C

**Output format:**

Print the minimum cost that is required to make S a palindrome.

Constraints:

1 <= |S| <= 10^5

0 <= M <= 325

1 <= Ci <= 10^8 where Ci is the cost of changing the ith pair of characters

**Example:**

   Input:

   mat

   2

   m t 15

   a m 7

   Output:

   15