

Problem H

Zencrypted Zessage

Zohn Zick is in a load of trouble! He was spotted during a reconnaissance mission in enemy territory and has run out of ammo. Luckily he receives a message from his friend about a secret escape tunnel used for exfiltration. Since his friend wasn't sure that the message was guaranteed to reach Zohn Zick he decided to encrypt it so that only Zohn would be able to find the passage.

The encrypted letter contains two things: the message itself and a list of Pairabellums. In Zohn's line of work, the Pairabellum is a pair of numbers marking a position and an associated priority for it. In order to decrypt the message, he'll need to split up the original at these positions to form new substrings. By reordering these substrings in increasing priority, he can find the true message and make his getaway.

The letter contains the string "lopeflapenve". Following it are three Pairabellums: (4, 20), (0, 3), and (8, 0). From these positions Zohn splits the message into the substrings "lope", "flap", and "enve", with priorities 3, 20, and 0 respectively. A quick reordering reveals the real message: "envelopeflap". Flipping the flap back, he finds hidden behind it another encrypted message.

Given this encrypted message and it's Pairabellums, find the decoded message so that Zohn can finally get out!

Input

The first line contains two integers $1 \leq m \leq n \leq 100\,000$, the length of the secret message and the number of characters which have a priority.

The next line contains a string of length n , consisting of only lower case alphabets.

m lines follow. Each line contains two integers x_i, j_i , $0 \leq i < m$, indicating character x_i has a priority y_i , $0 \leq x_i < n$, $0 \leq y_i < m$. x_i 's are unique and y_i 's are unique for all $0 \leq i < n$. It's guaranteed one $x_i = 0$.

Output

Output the decrypted message.

Sample Input	Sample Output
8 2 sidewest 0 1 4 0	westside

Sample Input

```
3 3
abc
0 100
2 1
1 10
```

Sample Output

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cba
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