150da00c3966b84c013afd99d43001ac

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	256 megabytes

MajorKaks, during his regular practice sessions, came across the following problem which he wasn't able to solve. Kindly help him solve this problem.

Given a string S, there will be Q queries.

Each query is described by an integer k, followed by a set of k ranges $[l_1, r_1]$, $[l_2, r_2]$, $[l_3, r_3]$ ... $[l_k, r_k]$ such that $\forall i \in [1, k] 1 \leq l_i \leq r_i \leq |S|$.

For every query, construct a string T as follows :

$$T = S_{l_1 \ldots r_1} + S_{l_2 \ldots r_2} + \ldots + S_{l_k \ldots r_k}$$

where $S_{l_i \ldots r_i}$ represents the substring of string S starting at index l_i and ending at index r_i. The $+$ operator represents concatenation of two strings. Hence, the constructed string T is a concatenation of k substrings of the given string S where the i'th substring is defined by the i'th range $[l_i, r_i]$.

If the constructed string T is a palindrome, then print YES else print NO.

Every query should be processed independently and answer to a query is either YES or NO based on whether the constructed string T is a palindrome or not.

Input

First line contains N and Q, the length of string and number of queries. Second line contains the string. Next, every query is described by line contains k, which denotes the number of strings which are going to be concatenated, which is followed by k lines each containing 2 integers l_i and r_i.

Output

Output YES or NO, the answer to the query.

Example

standard input	standard output
10 5 shivammavi 1 1 1 1 4 7 2 5 6 5 5 5 1 2 2 3 3 4 4 5 5 6 2 3 4 9 10	YES NO YES NO YES

Note

$N \leq 10^5$. $Q \leq 10^5$. $K \leq 10^4$. Sum of K over all queries $\leq 2 * 10^5$.