1 A's and B's

Alice is learning letters and now knows the letters A and B. And is now playing by arranging those 2 letters in different forms.

Given a string A, count the number of non-empty (contiguous) substrings that have the same number of A's and B's, and all the A's and all the B's in these substrings are grouped consecutively.

If a substring occurs more than once then the count is the number of times it occurs.

Input/Output

Input	Output	Comments
ABABABAABB	**8**	**Input:** A String, should contains only A's and B's **Output:** An Integer, indicates number of substrings, contains equal number of A's and B's. **Explanation:** There are 8 substrings that have equal number of consecutive B's and A's: "AB", "BA","AB", "BA","AB", "BA", "AABB", and "AB". Notice that some of these substrings repeat and are counted the number of times they occur. Also, "ABAB", "ABABAB", "ABAABB", etc. are not valid substrings because all the A's (and B's) are not grouped together.
ABBAABBBA	**6**	**Explanation:** There are 6 substrings that have equal number of consecutive B's and A's: "AB", "BBAA","BA", "AABB","AB", "BA"
ABABAC	**-1**	**Explanation:** Given String, contains other characters 'C' except A's and B's

2 Toppers

One of the top universities in Odisha is offering a free course in AI. A qualifying test is conducted and only top few scorers of that test are offerred the course. Given details of M students(name and score), can you help the university by giving the names of students who can take the course?

Input format:

The first line contains M and S, the number of students and the maximum number of students who can take the course. Each of the next line contains a string and an integer separated by a space. The string denotes the name of the student while the integer represents the student's score.

Output Format:

Output S lines, each containing the name of the student selected. Students with higher score should be printed first and in case of a tie, the lexicographically minimum name should come first.

Constraints :

1<=M<=S<=1000

1<=lengthofname<=20

1<=score<=10^9

Name would only consist of characters in set [a-z]. It is not guaranteed that the names are distinct.

Input/Output

Input	Output	Comments
4 3 james 5 jock 5 ravi 6 ram 7	**ram** **ravi** **james**	**Input Line 1: Two integers -** the number of students and the maximum number of students who can take the course. **Next Lines :** The string denotes the name of the student while the integer represents the student's score. **Output :**Name of the students with higher score should be printed first and in case of a tie, the lexicographically minimum name should come first.
4 2 harish 8 harsha 8 gopi 7 sam 7	**harish** **harsha**	