Suppose you have a string made up of only 'a' and 'b'. Write a recursive function that checks if the string was generated using the following rules:

a. The string begins with an 'a'

b. Each 'a' is followed by nothing or an 'a' or "bb"

c. Each "bb" is followed by nothing or an 'a'

If all the rules are followed by the given string, return true otherwise return false.

import java.util.Scanner;

public class Checkab {

public static void main(String[] args) {

Scanner s = new Scanner(System.*in*);

String input = s.next();

System.*out*.println(*checkAB*(input));

}

public static boolean checkAB(String input) {

// Write your code here

if(input.length()==0){

return true;

}

if(input.length()==1){

if(input=="a"){

return true;

}

return true;

}

if(input.charAt(0)=='a'){

if(input.charAt(1)=='a'){

return *checkAB*(input.substring(1));

}

if(input.charAt(1)=='b'){

if(input.charAt(2)=='b'){

return *checkAB*(input.substring(3));

}

return false;

}

return false;

}

if(input.charAt(0)=='b'){

return false;

}

return true;

}

}