67. Add Binary

Description | Hints | Submissions | Discuss | Solution

Pick One

Given two binary strings, return their sum (also a binary string).

The input strings are both **non-empty** and contains only characters `1` or `0`.

Example 1:

```
Input: a = "11", b = "1"
Output: "100"
```

Example 2:

```
Input: a = "1010", b = "1011"
Output: "10101"
```

```java
public class L67 {
      public String addBinary(String a, String b) {
          int m = a.length();
            int n = b.length();
            int carry = 0;
            String res = "";
            int maxLen = Math.max(m, n);
            for (int i = 0; i < maxLen; i++) {
                int p=0,q=0;
                if(i<m)
                    p = a.charAt(m-1-i) - '0';
                else
                    p = 0;

                if(i<n)
                    q = b.charAt(n-1-i)-'0';
                else
                    q = 0;

                int tmp = p + q + carry;
                carry = tmp / 2;
                //字符串的拼接是b拼接在a后面
                res = tmp % 2 + res;
            }
            //不需要进位，直接返回，需要进位，则在前面加1
            return (carry == 0) ? res : "1" + res;
      }
      public static void main(String [] args) {
           System.out.println(new L67().addBinary("1010", "1011"));
      }
}
```