class Solution {

public:

string addBinary(string a, string b) {

int carry = 0;

string s = "";

int i = a.size() - 1;

int j = b.size() - 1;

while(i >= 0 || j >= 0 || carry){

int num1 = i < 0 ? 0 : a[i] - '0';

int num2 = j < 0 ? 0 : b[j] - '0';

int sum = num1 + num2 + carry;

s.push\_back(sum % 2 + '0');

carry = sum / 2;

i--;

j--;

}

reverse(s.begin(), s.end());

return s;

}

};