

Add Binary

```
1 class Solution(object):
2     def addBinary(self, a, b):
3         """
4         input: string a, string b
5         return: string
6         """
7         # write your solution here
8         if not a:
9             return b
10        if not b:
11            return a
12        res = []
13        i = len(a) - 1
14        j = len(b) - 1
15        carry = 0
16        while j >= 0 or i >= 0:
17            sum = carry
18            if i >= 0:
19                sum += int(a[i])
20                i -= 1
21            if j >= 0:
22                sum += int(b[j])
23                j -= 1
24            res.append(str(sum%2))
25            carry = sum // 2
26        if carry == 1:
27            res.append('1')
28        res.reverse()
29        return ''.join(res)
```