

<https://course.acciojob.com/idle?question=7649c7a2-17ce-4048-924c-f993e8498c7a>

● EASY

● Max Score: 30 Points

Add Binary Strings

You are given two binary strings **A** and **B**.

Your task is to print their sum (also a binary string).

Note

A binary string is a string consisting only of 1 and 0.

Input Format

The first line given is a binary string **A**.

The second line given is a binary string **B**.

Output Format

Print a binary string which is the sum of strings **A** and **B**.

Example 1

Input

```
100
11
```

Output

```
111
```

Explanation

`100 + 11 gives 111.`

Example 2

Input

`1
11`

Output

`100`

Explanation

`1 + 11 gives 100.`

Constraints

`1 <= size of A <= 100000`

`1 <= size of B <= 100000`

Topic Tags

- **Strings**
- **Math**

My code

```
// in java  
import java.util.*;
```

```

import java.lang.*;
import java.io.*;

public class Main
{
    public static void main (String[] args) throws java.lang.Exception
    {
        //your code here
        Scanner sc=new Scanner(System.in);
String s1 = sc.next();
String s2 = sc.next();
int n1=s1.length();
int n2=s2.length();
int c=0;//carry
int i=0,j=0;
String ans="";
while(true)
    {
        if(i>=n1 && j>=n2 && c==0)
            break;
        int a=0,b=0;
        if(i<n1)
        {
            char ch=s1.charAt(n1-1-i);
            a=(int)ch -(int)'0';
        }

        if(j<n2)
        {
            char ch1=s2.charAt(n2-1-j);
            b=(int)ch1-(int)'0';
        }
    }
}

```

```

        int r=a+b+c;
        if(r>1)
            c=1;
        else c=0;

        if(r%2==0)
            ans = '0'+ans;
        else
            ans ='1'+ans;
        // ans= ((char) (r%2+
(int)'0')) + ans;

        // System.out.println(ans);
        // ans=(ans*10)+r%2;
        i++;
        j++;
    }

    System.out.print(ans);
}
}

```