

# Problem 67: Add Binary

## Problem Information

**Difficulty:** Easy

**Acceptance Rate:** 56.45%

**Paid Only:** No

**Tags:** Math, String, Bit Manipulation, Simulation

## Problem Description

Given two binary strings `a` and `b`, return `their sum as a binary string`.

**Example 1:**

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

**Example 2:**

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

**Constraints:**

`1 <= a.length, b.length <= 104` `a` and `b` consist only of `'0'` or `'1'` characters. `Each string does not contain leading zeros except for the zero itself.`

## Code Snippets

**C++:**

```
class Solution {
public:
    string addBinary(string a, string b) {

    }
};
```

**Java:**

```
class Solution {  
    public String addBinary(String a, String b) {  
  
    }  
}
```

**Python3:**

```
class Solution:  
    def addBinary(self, a: str, b: str) -> str:
```