

## Leetcode Problem 1. (Easy)

### Add Binary

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:

- $1 \leq a.length, b.length \leq 10^4$
- *a* and *b* consist only of '0' or '1' characters.
- Each string does not contain leading zeros except for the zero itself.

Link: <https://leetcode.com/problems/add-binary/>

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

        StringBuilder sb = new StringBuilder();
        int i = a.length() - 1;
        int j = b.length() - 1;
        int carry = 0;

        while (i >= 0 || j >= 0) {
            int sum = carry;
            if (i >= 0) {
                sum += a.charAt(i--) - '0';
            }
            if (j >= 0) {
                sum += b.charAt(j--) - '0';
            }
            sb.append(sum % 2);
            carry = sum / 2;
        }
    }
}
```

```
        if (carry != 0) {
            sb.append(carry);
        }

        return sb.reverse().toString();
    }
}
```

LeetCode

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989. Add to Array-Form of Integer

All statuses

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Accepted

a few seconds ago

Java

Close

Sakib Rahman

Apr 19, 2023 11:29

Details

+ Solution

Java

Runtime 1 ms

Beats 100%

Memory 40.9 MB

Beats 95.97%

Click the distribution chart to view more details

Notes

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 int j = b.length() - 1;  
 int carry = 0;  
  
 while (i >= 0 || j >= 0) {  
 int sum = carry;  
 if (i >= 0) {  
 sum += a.charAt(i--);  
 }  
 if (j >= 0) {  
 sum += b.charAt(j--);  
 }  
 carry = sum / 2;  
 sb.append(sum % 2);  
 }  
 return sb.reverse().toString();  
 }  
}

Console

Run

Submit