

Problem 984: String Without AAA or BBB

Problem Information

Difficulty: **Medium**

Acceptance Rate: 0.00%

Paid Only: No

Problem Description

Given two integers

a

and

b

, return

any

string

s

such that:

s

has length

$a + b$

and contains exactly

a

'a'

letters, and exactly

b

'b'

letters,

The substring

'aaa'

does not occur in

s

, and

The substring

'bbb'

does not occur in

s

.

Example 1:

Input:

a = 1, b = 2

Output:

"abb"

Explanation:

"abb", "bab" and "bba" are all correct answers.

Example 2:

Input:

a = 4, b = 1

Output:

"aabaa"

Constraints:

$0 \leq a, b \leq 100$

It is guaranteed such an

s

exists for the given

a

and

b

.

Code Snippets

C++:

```

class Solution {
public:
    string strWithout3a3b(int a, int b) {

    }

};

```

Java:

```

class Solution {
    public String strWithout3a3b(int a, int b) {

    }

}

```

Python3:

```

class Solution:
    def strWithout3a3b(self, a: int, b: int) -> str:

```

Python:

```

class Solution(object):
    def strWithout3a3b(self, a, b):
        """
        :type a: int
        :type b: int
        :rtype: str
        """

```

JavaScript:

```

/**
 * @param {number} a
 * @param {number} b
 * @return {string}
 */
var strWithout3a3b = function(a, b) {

};

```

TypeScript:

```
function strWithout3a3b(a: number, b: number): string {  
  
};
```

C#:

```
public class Solution {  
    public string StrWithout3a3b(int a, int b) {  
  
    }  
}
```

C:

```
char * strWithout3a3b(int a, int b){  
  
}
```

Go:

```
func strWithout3a3b(a int, b int) string {  
  
}
```

Kotlin:

```
class Solution {  
    fun strWithout3a3b(a: Int, b: Int): String {  
  
    }  
}
```

Swift:

```
class Solution {  
    func strWithout3a3b(_ a: Int, _ b: Int) -> String {  
  
    }  
}
```

Rust:

```

impl Solution {
  pub fn str_without3a3b(a: i32, b: i32) -> String {

  }
}

```

Ruby:

```

# @param {Integer} a
# @param {Integer} b
# @return {String}
def str_without3a3b(a, b)

end

```

PHP:

```

class Solution {

  /**
   * @param Integer $a
   * @param Integer $b
   * @return String
   */
  function strWithout3a3b($a, $b) {

  }
}

```

Scala:

```

object Solution {
  def strWithout3a3b(a: Int, b: Int): String = {

  }
}

```

Solutions

C++ Solution:

```

/*
 * Problem: String Without AAA or BBB
 * Difficulty: Medium
 * Tags: string, tree, greedy
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(h) for recursion stack where h is height
 */

class Solution {
public:
    string strWithout3a3b(int a, int b) {

    }
};

```

Java Solution:

```

/**
 * Problem: String Without AAA or BBB
 * Difficulty: Medium
 * Tags: string, tree, greedy
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
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 */

class Solution {
    public String strWithout3a3b(int a, int b) {

    }
}

```

Python3 Solution:

```

"""
Problem: String Without AAA or BBB
Difficulty: Medium
Tags: string, tree, greedy

```

```

Approach: String manipulation with hash map or two pointers
Time Complexity:  $O(n)$  or  $O(n \log n)$ 
Space Complexity:  $O(h)$  for recursion stack where h is height
"""

class Solution:
    def strWithout3a3b(self, a: int, b: int) -> str:
        # TODO: Implement optimized solution
        pass

```

Python Solution:

```

class Solution(object):
    def strWithout3a3b(self, a, b):
        """
        :type a: int
        :type b: int
        :rtype: str
        """

```

JavaScript Solution:

```

/**
 * Problem: String Without AAA or BBB
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 * Time Complexity:  $O(n)$  or  $O(n \log n)$ 
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/**
 * @param {number} a
 * @param {number} b
 * @return {string}
 */
var strWithout3a3b = function(a, b) {

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```


TypeScript Solution:

```
/**
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function strWithout3a3b(a: number, b: number): string {

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C# Solution:

```
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 * Time Complexity: O(n) or O(n log n)
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 */

public class Solution {
    public string StrWithout3a3b(int a, int b) {

    }
}
```

C Solution:

```
/*
 * Problem: String Without AAA or BBB
 * Difficulty: Medium
 * Tags: string, tree, greedy
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
```

```

* Space Complexity: O(h) for recursion stack where h is height
*/

char * strWithout3a3b(int a, int b){

}

```

Go Solution:

```

// Problem: String Without AAA or BBB
// Difficulty: Medium
// Tags: string, tree, greedy
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// Approach: String manipulation with hash map or two pointers
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func strWithout3a3b(a int, b int) string {

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```

Kotlin Solution:

```

class Solution {
    fun strWithout3a3b(a: Int, b: Int): String {

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class Solution {
    func strWithout3a3b(_ a: Int, _ b: Int) -> String {

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impl Solution {
    pub fn str_without3a3b(a: i32, b: i32) -> String {

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Ruby Solution:

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# @param {Integer} a
# @param {Integer} b
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def str_without3a3b(a, b)

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PHP Solution:

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class Solution {

    /**
     * @param Integer $a
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    function strWithout3a3b($a, $b) {

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Scala Solution:

```
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    def strWithout3a3b(a: Int, b: Int): String = {
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