

# Problem 1374: Generate a String With Characters That Have Odd Counts

## Problem Information

Difficulty: [Easy](#)

Acceptance Rate: 0.00%

Paid Only: No

## Problem Description

Given an integer

n

,

return a string with

n

characters such that each character in such string occurs

an odd number of times

.

The returned string must contain only lowercase English letters. If there are multiples valid strings, return

any

of them.

Example 1:

Input:

$n = 4$

Output:

"pppz"

Explanation:

"pppz" is a valid string since the character 'p' occurs three times and the character 'z' occurs once. Note that there are many other valid strings such as "ohhh" and "love".

Example 2:

Input:

$n = 2$

Output:

"xy"

Explanation:

"xy" is a valid string since the characters 'x' and 'y' occur once. Note that there are many other valid strings such as "ag" and "ur".

Example 3:

Input:

$n = 7$

Output:

"holasss"

Constraints:

$1 \leq n \leq 500$

## Code Snippets

### C++:

```
class Solution {  
public:  
    string generateTheString(int n) {  
  
    }  
};
```

### Java:

```
class Solution {  
    public String generateTheString(int n) {  
  
    }  
}
```

### Python3:

```
class Solution:  
    def generateTheString(self, n: int) -> str:
```

### Python:

```
class Solution(object):  
    def generateTheString(self, n):  
        """  
        :type n: int  
        :rtype: str  
        """
```

### JavaScript:

```
/**  
 * @param {number} n  
 * @return {string}  
 */
```

```
var generateTheString = function(n) {  
};
```

### TypeScript:

```
function generateTheString(n: number): string {  
};
```

### C#:

```
public class Solution {  
    public string GenerateTheString(int n) {  
        }  
    }
```

### C:

```
char* generateTheString(int n) {  
}
```

### Go:

```
func generateTheString(n int) string {  
}
```

### Kotlin:

```
class Solution {  
    fun generateTheString(n: Int): String {  
        }  
    }
```

### Swift:

```
class Solution {  
    func generateTheString(_ n: Int) -> String {
```

```
}
```

```
}
```

### Rust:

```
impl Solution {
    pub fn generate_the_string(n: i32) -> String {
        }
    }
```

### Ruby:

```
# @param {Integer} n
# @return {String}
def generate_the_string(n)

end
```

### PHP:

```
class Solution {

    /**
     * @param Integer $n
     * @return String
     */
    function generateTheString($n) {

    }
}
```

### Dart:

```
class Solution {
    String generateTheString(int n) {
        }
    }
```

### Scala:

```
object Solution {  
    def generateTheString(n: Int): String = {  
          
    }  
}
```

### Elixir:

```
defmodule Solution do  
    @spec generate_the_string(n :: integer) :: String.t  
    def generate_the_string(n) do  
  
    end  
end
```

### Erlang:

```
-spec generate_the_string(N :: integer()) -> unicode:unicode_binary().  
generate_the_string(N) ->  
.
```

### Racket:

```
(define/contract (generate-the-string n)  
  (-> exact-integer? string?)  
)
```

## Solutions

### C++ Solution:

```
/*  
 * Problem: Generate a String With Characters That Have Odd Counts  
 * Difficulty: Easy  
 * Tags: string  
 *  
 * Approach: String manipulation with hash map or two pointers  
 * Time Complexity: O(n) or O(n log n)  
 * Space Complexity: O(1) to O(n) depending on approach  
 */
```

```
class Solution {  
public:  
    string generateTheString(int n) {  
  
    }  
};
```

### Java Solution:

```
/**  
 * Problem: Generate a String With Characters That Have Odd Counts  
 * Difficulty: Easy  
 * Tags: string  
 *  
 * Approach: String manipulation with hash map or two pointers  
 * Time Complexity: O(n) or O(n log n)  
 * Space Complexity: O(1) to O(n) depending on approach  
 */  
  
class Solution {  
public String generateTheString(int n) {  
  
}  
}
```

### Python3 Solution:

```
"""  
Problem: Generate a String With Characters That Have Odd Counts  
Difficulty: Easy  
Tags: string  
  
Approach: String manipulation with hash map or two pointers  
Time Complexity: O(n) or O(n log n)  
Space Complexity: O(1) to O(n) depending on approach  
"""  
  
class Solution:  
    def generateTheString(self, n: int) -> str:  
        # TODO: Implement optimized solution  
        pass
```

### Python Solution:

```
class Solution(object):
    def generateTheString(self, n):
        """
        :type n: int
        :rtype: str
        """
```

### JavaScript Solution:

```
/**
 * Problem: Generate a String With Characters That Have Odd Counts
 * Difficulty: Easy
 * Tags: string
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

/**
 * @param {number} n
 * @return {string}
 */
var generateTheString = function(n) {

};
```

### TypeScript Solution:

```
/**
 * Problem: Generate a String With Characters That Have Odd Counts
 * Difficulty: Easy
 * Tags: string
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

function generateTheString(n: number): string {
```

```
};
```

### C# Solution:

```
/*
 * Problem: Generate a String With Characters That Have Odd Counts
 * Difficulty: Easy
 * Tags: string
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

public class Solution {
    public string GenerateTheString(int n) {

    }
}
```

### C Solution:

```
/*
 * Problem: Generate a String With Characters That Have Odd Counts
 * Difficulty: Easy
 * Tags: string
 *
 * Approach: String manipulation with hash map or two pointers
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

char* generateTheString(int n) {

}
```

### Go Solution:

```
// Problem: Generate a String With Characters That Have Odd Counts
// Difficulty: Easy
```

```
// Tags: string
//
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(1) to O(n) depending on approach

func generateTheString(n int) string {

}
```

### Kotlin Solution:

```
class Solution {
    fun generateTheString(n: Int): String {
        return "a".repeat(n)
    }
}
```

### Swift Solution:

```
class Solution {
    func generateTheString(_ n: Int) -> String {
        return "a".repeating(n)
    }
}
```

### Rust Solution:

```
// Problem: Generate a String With Characters That Have Odd Counts
// Difficulty: Easy
// Tags: string
//
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(1) to O(n) depending on approach

impl Solution {
    pub fn generate_the_string(n: i32) -> String {
        let mut s = String::new();
        for _ in 0..n {
            s.push('a');
        }
        return s;
    }
}
```

### Ruby Solution:

```
# @param {Integer} n
# @return {String}
def generate_the_string(n)

end
```

### PHP Solution:

```
class Solution {

    /**
     * @param Integer $n
     * @return String
     */
    function generateTheString($n) {

    }
}
```

### Dart Solution:

```
class Solution {
String generateTheString(int n) {

}
```

### Scala Solution:

```
object Solution {
def generateTheString(n: Int): String = {

}
```

### Elixir Solution:

```
defmodule Solution do
@spec generate_the_string(n :: integer) :: String.t
def generate_the_string(n) do
```

```
end  
end
```

### Erlang Solution:

```
-spec generate_the_string(N :: integer()) -> unicode:unicode_binary().  
generate_the_string(N) ->  
.
```

### Racket Solution:

```
(define/contract (generate-the-string n)  
(-> exact-integer? string?)  
)
```