

# 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 <= n <= 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 {

    }
}

```

### Swift Solution:

```

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

    }
}

```

### 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 {

    }
}

```

### 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?)  
)
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