

# Problem 830: Positions of Large Groups

## Problem Information

**Difficulty:** [Easy](#)

**Acceptance Rate:** 0.00%

**Paid Only:** No

## Problem Description

In a string

s

of lowercase letters, these letters form consecutive groups of the same character.

For example, a string like

s = "abbxxxxzzy"

has the groups

"a"

,

"bb"

,

"xxxx"

,

"z"

, and

"yy"

.

A group is identified by an interval

[start, end]

, where

start

and

end

denote the start and end indices (inclusive) of the group. In the above example,

"xxxx"

has the interval

[3,6]

.

A group is considered

large

if it has 3 or more characters.

Return

the intervals of every

large

group sorted in

increasing order by start index

.

Example 1:

Input:

`s = "abbxxxxzzy"`

Output:

`[[3,6]]`

Explanation:

"xxxx" is the only

large group with start index 3 and end index 6.

Example 2:

Input:

`s = "abc"`

Output:

`[]`

Explanation:

We have groups "a", "b", and "c", none of which are large groups.

Example 3:

Input:

```
s = "abcddeeeeaabbcd"
```

Output:

```
[[3,5],[6,9],[12,14]]
```

Explanation:

The large groups are "ddd", "eeee", and "bbb".

Constraints:

```
1 <= s.length <= 1000
```

s

contains lowercase English letters only.

## Code Snippets

C++:

```
class Solution {
public:
    vector<vector<int>> largeGroupPositions(string s) {
        }
    };
```

Java:

```
class Solution {
public List<List<Integer>> largeGroupPositions(String s) {
        }
    }
```

### **Python3:**

```
class Solution:  
    def largeGroupPositions(self, s: str) -> List[List[int]]:
```

### **Python:**

```
class Solution(object):  
    def largeGroupPositions(self, s):  
        """  
        :type s: str  
        :rtype: List[List[int]]  
        """
```

### **JavaScript:**

```
/**  
 * @param {string} s  
 * @return {number[][][]}  
 */  
var largeGroupPositions = function(s) {  
  
};
```

### **TypeScript:**

```
function largeGroupPositions(s: string): number[][][] {  
  
};
```

### **C#:**

```
public class Solution {  
    public IList<IList<int>> LargeGroupPositions(string s) {  
        }  
    }
```

### **C:**

```
/**  
 * Return an array of arrays of size *returnSize.  
 * The sizes of the arrays are returned as *returnColumnSizes array.
```

```
* Note: Both returned array and *columnSizes array must be malloced, assume
caller calls free().

*/
int** largeGroupPositions(char* s, int* returnSize, int** returnColumnSizes)
{
}

}
```

### Go:

```
func largeGroupPositions(s string) [][]int {
}
```

### Kotlin:

```
class Solution {
    fun largeGroupPositions(s: String): List<List<Int>> {
    }
}
```

### Swift:

```
class Solution {
    func largeGroupPositions(_ s: String) -> [[Int]] {
    }
}
```

### Rust:

```
impl Solution {
    pub fn large_group_positions(s: String) -> Vec<Vec<i32>> {
    }
}
```

### Ruby:

```
# @param {String} s
# @return {Integer[][]}
```

```
def large_group_positions(s)

end
```

### PHP:

```
class Solution {

    /**
     * @param String $s
     * @return Integer[][][]
     */
    function largeGroupPositions($s) {

    }
}
```

### Dart:

```
class Solution {
List<List<int>> largeGroupPositions(String s) {
    }
}
```

### Scala:

```
object Solution {
def largeGroupPositions(s: String): List[List[Int]] = {
    }
}
```

### Elixir:

```
defmodule Solution do
@spec large_group_positions(s :: String.t) :: [[integer]]
def large_group_positions(s) do
    end
end
```

### Erlang:

```
-spec large_group_positions(S :: unicode:unicode_binary()) -> [[integer()]].  
large_group_positions(S) ->  
. 
```

### Racket:

```
(define/contract (large-group-positions s)  
(-> string? (listof (listof exact-integer?)))  
) 
```

## Solutions

### C++ Solution:

```
/*  
 * Problem: Positions of Large Groups  
 * Difficulty: Easy  
 * Tags: string, sort  
 *  
 * 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:  
    vector<vector<int>> largeGroupPositions(string s) {  
  
    }  
}; 
```

### Java Solution:

```
/**  
 * Problem: Positions of Large Groups  
 * Difficulty: Easy  
 * Tags: string, sort  
 *  
 * 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 List<List<Integer>> largeGroupPositions(String s) {
        }
    }
}

```

### Python3 Solution:

```

"""
Problem: Positions of Large Groups
Difficulty: Easy
Tags: string, sort

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 largeGroupPositions(self, s: str) -> List[List[int]]:
        # TODO: Implement optimized solution
        pass

```

### Python Solution:

```

class Solution(object):
    def largeGroupPositions(self, s):
        """
        :type s: str
        :rtype: List[List[int]]
        """

```

### JavaScript Solution:

```

/**
 * Problem: Positions of Large Groups
 * Difficulty: Easy
 */

```

```

* Tags: string, sort
*
* 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 {string} s
* @return {number[][]}
*/
var largeGroupPositions = function(s) {
}

```

### TypeScript Solution:

```

/** 
* Problem: Positions of Large Groups
* Difficulty: Easy
* Tags: string, sort
*
* 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 largeGroupPositions(s: string): number[][] {
}

```

### C# Solution:

```

/*
* Problem: Positions of Large Groups
* Difficulty: Easy
* Tags: string, sort
*
* 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 IList<IList<int>> LargeGroupPositions(string s) {
        }
    }
}

```

### C Solution:

```

/*
 * Problem: Positions of Large Groups
 * Difficulty: Easy
 * Tags: string, sort
 *
 * 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
 */

/**
 * Return an array of arrays of size *returnSize.
 * The sizes of the arrays are returned as *returnColumnSizes array.
 * Note: Both returned array and *columnSizes array must be malloced, assume
 caller calls free().
 */
int** largeGroupPositions(char* s, int* returnSize, int** returnColumnSizes)
{
}

```

### Go Solution:

```

// Problem: Positions of Large Groups
// Difficulty: Easy
// Tags: string, sort
//
// 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 largeGroupPositions(s string) [][]int {  
    }  
}
```

### Kotlin Solution:

```
class Solution {  
    fun largeGroupPositions(s: String): List<List<Int>> {  
        }  
        }  
    }
```

### Swift Solution:

```
class Solution {  
    func largeGroupPositions(_ s: String) -> [[Int]] {  
        }  
        }  
    }
```

### Rust Solution:

```
// Problem: Positions of Large Groups  
// Difficulty: Easy  
// Tags: string, sort  
//  
// 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 large_group_positions(s: String) -> Vec<Vec<i32>> {  
        }  
        }  
    }
```

### Ruby Solution:

```
# @param {String} s  
# @return {Integer[][]}  
def large_group_positions(s)
```

```
end
```

### PHP Solution:

```
class Solution {  
  
    /**  
     * @param String $s  
     * @return Integer[][]  
     */  
    function largeGroupPositions($s) {  
  
    }  
}
```

### Dart Solution:

```
class Solution {  
List<List<int>> largeGroupPositions(String s) {  
  
}  
}
```

### Scala Solution:

```
object Solution {  
def largeGroupPositions(s: String): List[List[Int]] = {  
  
}  
}
```

### Elixir Solution:

```
defmodule Solution do  
@spec large_group_positions(s :: String.t) :: [[integer]]  
def large_group_positions(s) do  
  
end  
end
```

### Erlang Solution:

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-spec large_group_positions(S :: unicode:unicode_binary()) -> [[integer()]].  
large_group_positions(S) ->  
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### Racket Solution:

```
(define/contract (large-group-positions s)  
(-> string? (listof (listof exact-integer?)))  
) 
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