

# Problem 1768: Merge Strings Alternately

## Problem Information

Difficulty: [Easy](#)

Acceptance Rate: 0.00%

Paid Only: No

## Problem Description

You are given two strings

word1

and

word2

. Merge the strings by adding letters in alternating order, starting with

word1

. If a string is longer than the other, append the additional letters onto the end of the merged string.

Return

the merged string.

Example 1:

Input:

word1 = "abc", word2 = "pqr"

Output:

"apbqcr"

Explanation:

The merged string will be merged as so: word1: a b c word2: p q r merged: a p b q c r

Example 2:

Input:

word1 = "ab", word2 = "pqrs"

Output:

"apbqrs"

Explanation:

Notice that as word2 is longer, "rs" is appended to the end. word1: a b word2: p q r s merged: a p b q r s

Example 3:

Input:

word1 = "abcd", word2 = "pq"

Output:

"apbqcd"

Explanation:

Notice that as word1 is longer, "cd" is appended to the end. word1: a b c d word2: p q merged: a p b q c d

Constraints:

1 <= word1.length, word2.length <= 100

word1

and

word2

consist of lowercase English letters.

## Code Snippets

### C++:

```
class Solution {  
public:  
    string mergeAlternately(string word1, string word2) {  
        }  
    };
```

### Java:

```
class Solution {  
    public String mergeAlternately(String word1, String word2) {  
        }  
    }
```

### Python3:

```
class Solution:  
    def mergeAlternately(self, word1: str, word2: str) -> str:
```

### Python:

```
class Solution(object):  
    def mergeAlternately(self, word1, word2):  
        """  
        :type word1: str  
        :type word2: str  
        :rtype: str
```

```
"""
```

### JavaScript:

```
/**  
 * @param {string} word1  
 * @param {string} word2  
 * @return {string}  
 */  
var mergeAlternately = function(word1, word2) {  
  
};
```

### TypeScript:

```
function mergeAlternately(word1: string, word2: string): string {  
  
};
```

### C#:

```
public class Solution {  
    public string MergeAlternately(string word1, string word2) {  
  
    }  
}
```

### C:

```
char * mergeAlternately(char * word1, char * word2){  
  
}
```

### Go:

```
func mergeAlternately(word1 string, word2 string) string {  
  
}
```

### Kotlin:

```
class Solution {  
    fun mergeAlternately(word1: String, word2: String): String {  
        }  
        }  
}
```

### Swift:

```
class Solution {  
    func mergeAlternately(_ word1: String, _ word2: String) -> String {  
        }  
        }  
}
```

### Rust:

```
impl Solution {  
    pub fn merge_alternately(word1: String, word2: String) -> String {  
        }  
        }  
}
```

### Ruby:

```
# @param {String} word1  
# @param {String} word2  
# @return {String}  
def merge_alternately(word1, word2)  
  
end
```

### PHP:

```
class Solution {  
  
    /**  
     * @param String $word1  
     * @param String $word2  
     * @return String  
     */  
    function mergeAlternately($word1, $word2) {  
  
    }
```

```
}
```

### Scala:

```
object Solution {  
    def mergeAlternately(word1: String, word2: String): String = {  
          
    }  
}
```

### Racket:

```
(define/contract (merge-alternately word1 word2)  
  (-> string? string? string?)  
  )
```

## Solutions

### C++ Solution:

```
/*  
 * Problem: Merge Strings Alternately  
 * Difficulty: Easy  
 * Tags: array, string  
 *  
 * Approach: Use two pointers or sliding window technique  
 * Time Complexity: O(n) or O(n log n)  
 * Space Complexity: O(1) to O(n) depending on approach  
 */  
  
class Solution {  
public:  
    string mergeAlternately(string word1, string word2) {  
          
    }  
};
```

### Java Solution:

```

/**
 * Problem: Merge Strings Alternately
 * Difficulty: Easy
 * Tags: array, string
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

class Solution {
    public String mergeAlternately(String word1, String word2) {
        }
    }
}

```

### Python3 Solution:

```

"""
Problem: Merge Strings Alternately
Difficulty: Easy
Tags: array, string

Approach: Use two pointers or sliding window technique
Time Complexity: O(n) or O(n log n)
Space Complexity: O(1) to O(n) depending on approach
"""

class Solution:
    def mergeAlternately(self, word1: str, word2: str) -> str:
        # TODO: Implement optimized solution
        pass

```

### Python Solution:

```

class Solution(object):
    def mergeAlternately(self, word1, word2):
        """
:type word1: str
:type word2: str
:rtype: str
"""

```

### JavaScript Solution:

```
/**  
 * Problem: Merge Strings Alternately  
 * Difficulty: Easy  
 * Tags: array, string  
 *  
 * Approach: Use two pointers or sliding window technique  
 * Time Complexity: O(n) or O(n log n)  
 * Space Complexity: O(1) to O(n) depending on approach  
 */  
  
/**  
 * @param {string} word1  
 * @param {string} word2  
 * @return {string}  
 */  
var mergeAlternately = function(word1, word2) {  
  
};
```

### TypeScript Solution:

```
/**  
 * Problem: Merge Strings Alternately  
 * Difficulty: Easy  
 * Tags: array, string  
 *  
 * Approach: Use two pointers or sliding window technique  
 * Time Complexity: O(n) or O(n log n)  
 * Space Complexity: O(1) to O(n) depending on approach  
 */  
  
function mergeAlternately(word1: string, word2: string): string {  
  
};
```

### C# Solution:

```
/*  
 * Problem: Merge Strings Alternately  
 * Difficulty: Easy
```

```

* Tags: array, string
*
* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(1) to O(n) depending on approach
*/
public class Solution {
    public string MergeAlternately(string word1, string word2) {
}
}

```

### C Solution:

```

/*
 * Problem: Merge Strings Alternately
 * Difficulty: Easy
 * Tags: array, string
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
*/
char * mergeAlternately(char * word1, char * word2){

}

```

### Go Solution:

```

// Problem: Merge Strings Alternately
// Difficulty: Easy
// Tags: array, string
//
// Approach: Use two pointers or sliding window technique
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(1) to O(n) depending on approach

```

```
func mergeAlternately(word1 string, word2 string) string {  
}  
}
```

### Kotlin Solution:

```
class Solution {  
    fun mergeAlternately(word1: String, word2: String): String {  
        }  
    }  
}
```

### Swift Solution:

```
class Solution {  
    func mergeAlternately(_ word1: String, _ word2: String) -> String {  
        }  
    }  
}
```

### Rust Solution:

```
// Problem: Merge Strings Alternately  
// Difficulty: Easy  
// Tags: array, string  
//  
// Approach: Use two pointers or sliding window technique  
// Time Complexity: O(n) or O(n log n)  
// Space Complexity: O(1) to O(n) depending on approach  
  
impl Solution {  
    pub fn merge_alternately(word1: String, word2: String) -> String {  
        }  
    }  
}
```

### Ruby Solution:

```
# @param {String} word1  
# @param {String} word2  
# @return {String}
```

```
def mergeAlternately(word1, word2)

end
```

### PHP Solution:

```
class Solution {

    /**
     * @param String $word1
     * @param String $word2
     * @return String
     */
    function mergeAlternately($word1, $word2) {

    }
}
```

### Scala Solution:

```
object Solution {
  def mergeAlternately(word1: String, word2: String): String = {
    }
}
```

### Racket Solution:

```
(define/contract (merge-alternately word1 word2)
  (-> string? string? string?))

)
```