

# Problem 3706: Maximum Distance Between Unequal Words in Array II

## Problem Information

Difficulty: **Medium**

Acceptance Rate: 0.00%

Paid Only: No

## Problem Description

You are given a string array

words

.

Find the

maximum distance

between two

distinct

indices

i

and

j

such that:

`words[i] != words[j]`

, and

the distance is defined as

$$j - i + 1$$

.

Return the maximum distance among all such pairs. If no valid pair exists, return 0.

Example 1:

Input:

words = ["leetcode", "leetcode", "codeforces"]

Output:

3

Explanation:

In this example,

words[0]

and

words[2]

are not equal, and they have the maximum distance

$$2 - 0 + 1 = 3$$

.

Example 2:

Input:

```
words = ["a","b","c","a","a"]
```

Output:

4

Explanation:

In this example

```
words[1]
```

and

```
words[4]
```

have the largest distance of

$$4 - 1 + 1 = 4$$

.

Example 3:

Input:

```
words = ["z","z","z"]
```

Output:

0

Explanation:

In this example all the words are equal, thus the answer is 0.

Constraints:

$1 \leq \text{words.length} \leq 10$

5

$1 \leq \text{words}[i].\text{length} \leq 10$

`words[i]`

consists of lowercase English letters.

## Code Snippets

### C++:

```
class Solution {  
public:  
    int maxDistance(vector<string>& words) {  
  
    }  
};
```

### Java:

```
class Solution {  
    public int maxDistance(String[] words) {  
  
    }  
}
```

### Python3:

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

### Python:

```
class Solution(object):  
    def maxDistance(self, words):
```

```
"""
:type words: List[str]
:rtype: int
"""
```

### JavaScript:

```
/**
 * @param {string[]} words
 * @return {number}
 */
var maxDistance = function(words) {

};
```

### TypeScript:

```
function maxDistance(words: string[]): number {

};
```

### C#:

```
public class Solution {
    public int MaxDistance(string[] words) {

    }
}
```

### C:

```
int maxDistance(char** words, int wordsSize) {

}
```

### Go:

```
func maxDistance(words []string) int {

}
```

### Kotlin:

```

class Solution {
    fun maxDistance(words: Array<String>): Int {

    }
}

```

### Swift:

```

class Solution {
    func maxDistance(_ words: [String]) -> Int {

    }
}

```

### Rust:

```

impl Solution {
    pub fn max_distance(words: Vec<String>) -> i32 {

    }
}

```

### Ruby:

```

# @param {String[]} words
# @return {Integer}
def max_distance(words)

end

```

### PHP:

```

class Solution {

    /**
     * @param String[] $words
     * @return Integer
     */
    function maxDistance($words) {

    }
}

```

### Dart:

```
class Solution {  
  int maxDistance(List<String> words) {  
  
  }  
}
```

### Scala:

```
object Solution {  
  def maxDistance(words: Array[String]): Int = {  
  
  }  
}
```

### Elixir:

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

### Erlang:

```
-spec max_distance(Words :: [unicode:unicode_binary()]) -> integer().  
max_distance(Words) ->  
.
```

### Racket:

```
(define/contract (max-distance words)  
  (-> (listof string?) exact-integer?)  
)
```

## Solutions

### C++ Solution:

```

/*
 * Problem: Maximum Distance Between Unequal Words in Array II
 * Difficulty: Medium
 * 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:
    int maxDistance(vector<string>& words) {

    }
};

```

### Java Solution:

```

/**
 * Problem: Maximum Distance Between Unequal Words in Array II
 * Difficulty: Medium
 * 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 int maxDistance(String[] words) {

    }
}

```

### Python3 Solution:

```

"""
Problem: Maximum Distance Between Unequal Words in Array II
Difficulty: Medium
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 maxDistance(self, words: List[str]) -> int:
        # TODO: Implement optimized solution
        pass

```

### Python Solution:

```

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

```

### JavaScript Solution:

```

/**
 * Problem: Maximum Distance Between Unequal Words in Array II
 * Difficulty: Medium
 * Tags: array, string
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
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 */

/**
 * @param {string[]} words
 * @return {number}
 */
var maxDistance = function(words) {

};

```

### TypeScript Solution:

```

/**
 * Problem: Maximum Distance Between Unequal Words in Array II
 * Difficulty: Medium
 * 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 maxDistance(words: string[]): number {

};

```

### C# Solution:

```

/*
 * Problem: Maximum Distance Between Unequal Words in Array II
 * Difficulty: Medium
 * Tags: array, string
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
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 */

public class Solution {
    public int MaxDistance(string[] words) {

    }
}

```

### C Solution:

```

/*
 * Problem: Maximum Distance Between Unequal Words in Array II
 * Difficulty: Medium
 * 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

```

```
*/

int maxDistance(char** words, int wordsSize) {

}
```

### Go Solution:

```
// Problem: Maximum Distance Between Unequal Words in Array II
// Difficulty: Medium
// 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 maxDistance(words []string) int {

}
```

### Kotlin Solution:

```
class Solution {
    fun maxDistance(words: Array<String>): Int {

    }
}
```

### Swift Solution:

```
class Solution {
    func maxDistance(_ words: [String]) -> Int {

    }
}
```

### Rust Solution:

```
// Problem: Maximum Distance Between Unequal Words in Array II
// Difficulty: Medium
// 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 max_distance(words: Vec<String>) -> i32 {

    }
}
```

### Ruby Solution:

```
# @param {String[]} words
# @return {Integer}
def max_distance(words)

end
```

### PHP Solution:

```
class Solution {

    /**
     * @param String[] $words
     * @return Integer
     */
    function maxDistance($words) {

    }
}
```

### Dart Solution:

```
class Solution {
    int maxDistance(List<String> words) {

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### Scala Solution:

```
object Solution {  
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