Problem 267: Palindrome Permutation II

Problem Information

Difficulty: Medium
Acceptance Rate: 0.00%
Paid Only: No

Problem Description

Given a string s, return

all the palindromic permutations (without duplicates) of it

.

You may return the answer in

any order

. If

s

has no palindromic permutation, return an empty list.

Example 1:

Input:

s = "aabb"

Output:

["abba","baab"]

Example 2:

Input:

s = "abc"

Output:

[]

Constraints:

1 <= s.length <= 16

s

consists of only lowercase English letters.

Code Snippets

C++:

```
class Solution {
public:
vector<string> generatePalindromes(string s) {

}
};
```

Java:

```
class Solution {
public List<String> generatePalindromes(String s) {

}
}
```

Python3:

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

Python:

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

JavaScript:

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

};
```

TypeScript:

```
function generatePalindromes(s: string): string[] {

};
```

C#:

```
public class Solution {
public IList<string> GeneratePalindromes(string s) {

}
}
```

C:

```
/**
* Note: The returned array must be malloced, assume caller calls free().
*/
char** generatePalindromes(char* s, int* returnSize) {
```

```
}
```

Go:

```
func generatePalindromes(s string) []string {

}
```

Kotlin:

```
class Solution {
fun generatePalindromes(s: String): List<String> {

}
}
```

Swift:

```
class Solution {
func generatePalindromes(_ s: String) -> [String] {

}
}
```

Rust:

```
impl Solution {
pub fn generate_palindromes(s: String) -> Vec<String> {

}
}
```

Ruby:

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

end
```

PHP:

```
class Solution {

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

}
}
```

Dart:

```
class Solution {
List<String> generatePalindromes(String s) {

}
}
```

Scala:

```
object Solution {
def generatePalindromes(s: String): List[String] = {

}
}
```

Elixir:

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

end
end
```

Erlang:

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

Racket:

```
(define/contract (generate-palindromes s)
(-> string? (listof string?))
)
```

Solutions

C++ Solution:

```
/*
* Problem: Palindrome Permutation II
* Difficulty: Medium
* Tags: string, hash
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(n) for hash map
*/

class Solution {
public:
vector<string> generatePalindromes(string s) {

}
};
```

Java Solution:

```
/**
* Problem: Palindrome Permutation II
* Difficulty: Medium
* Tags: string, hash
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(n) for hash map
*/

class Solution {
public List<String> generatePalindromes(String s) {
```

```
}
}
```

Python3 Solution:

```
"""
Problem: Palindrome Permutation II
Difficulty: Medium
Tags: string, hash

Approach: String manipulation with hash map or two pointers
Time Complexity: O(n) or O(n log n)
Space Complexity: O(n) for hash map
"""

class Solution:
def generatePalindromes(self, s: str) -> List[str]:
# TODO: Implement optimized solution
pass
```

Python Solution:

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

JavaScript Solution:

```
/**
* Problem: Palindrome Permutation II
* Difficulty: Medium
* Tags: string, hash
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* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
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*/
```

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

};
```

TypeScript Solution:

```
/**
* Problem: Palindrome Permutation II
* Difficulty: Medium
* Tags: string, hash
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(n) for hash map
*/

function generatePalindromes(s: string): string[] {

};
```

C# Solution:

```
/*
* Problem: Palindrome Permutation II
* Difficulty: Medium
* Tags: string, hash
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
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*/

public class Solution {
public IList<string> GeneratePalindromes(string s) {

}
```

```
}
```

C Solution:

```
/*
* Problem: Palindrome Permutation II
* Difficulty: Medium
* Tags: string, hash
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
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*/

/**
* Note: The returned array must be malloced, assume caller calls free().
*/
char** generatePalindromes(char* s, int* returnSize) {

}
```

Go Solution:

```
// Problem: Palindrome Permutation II
// Difficulty: Medium
// Tags: string, hash
//
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(n) for hash map

func generatePalindromes(s string) []string {

}
```

Kotlin Solution:

```
class Solution {
fun generatePalindromes(s: String): List<String> {

}
```

```
}
```

Swift Solution:

```
class Solution {
func generatePalindromes(_ s: String) -> [String] {

}
}
```

Rust Solution:

```
// Problem: Palindrome Permutation II
// Difficulty: Medium
// Tags: string, hash
//
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(n) for hash map

impl Solution {
pub fn generate_palindromes(s: String) -> Vec<String> {

}
}
```

Ruby Solution:

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

end
```

PHP Solution:

```
class Solution {

/**
* @param String $s
* @return String[]
```

```
*/
function generatePalindromes($s) {

}
}
```

Dart Solution:

```
class Solution {
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object Solution {
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