Problem 1903: Largest Odd Number in String

Problem Information

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

Problem Description

You are given a string

num

, representing a large integer. Return

the

largest-valued odd

integer (as a string) that is a

non-empty substring

of

num

, or an empty string

""

if no odd integer exists

.

A

substring

is a contiguous sequence of characters within a string.

Example 1:

Input:

num = "52"

Output:

"5"

Explanation:

The only non-empty substrings are "5", "2", and "52". "5" is the only odd number.

Example 2:

Input:

num = "4206"

Output:

""

Explanation:

There are no odd numbers in "4206".

Example 3:

Input:

num = "35427"

Output:

"35427"

Explanation:

"35427" is already an odd number.

Constraints:

1 <= num.length <= 10

5

num

only consists of digits and does not contain any leading zeros.

Code Snippets

C++:

```
class Solution {
public:
string largestOddNumber(string num) {

}
};
```

Java:

```
class Solution {
public String largestOddNumber(String num) {

}
}
```

Python3:

```
class Solution:
def largestOddNumber(self, num: str) -> str:
```

Python:

```
class Solution(object):
def largestOddNumber(self, num):
"""
:type num: str
:rtype: str
"""
```

JavaScript:

```
/**
* @param {string} num
* @return {string}
*/
var largestOddNumber = function(num) {

};
```

TypeScript:

```
function largestOddNumber(num: string): string {

};
```

C#:

```
public class Solution {
public string LargestOddNumber(string num) {

}
}
```

C:

```
char* largestOddNumber(char* num) {

}
```

Go:

```
func largestOddNumber(num string) string {

}
```

Kotlin:

```
class Solution {
fun largestOddNumber(num: String): String {

}
}
```

Swift:

```
class Solution {
func largestOddNumber(_ num: String) -> String {

}
}
```

Rust:

```
impl Solution {
pub fn largest_odd_number(num: String) -> String {

}
}
```

Ruby:

```
# @param {String} num
# @return {String}
def largest_odd_number(num)

end
```

PHP:

```
class Solution {

/**
* @param String $num
* @return String
```

```
*/
function largestOddNumber($num) {

}
}
```

Dart:

```
class Solution {
String largestOddNumber(String num) {

}
}
```

Scala:

```
object Solution {
def largestOddNumber(num: String): String = {

}
}
```

Elixir:

```
defmodule Solution do
@spec largest_odd_number(num :: String.t) :: String.t
def largest_odd_number(num) do

end
end
```

Erlang:

```
-spec largest_odd_number(Num :: unicode:unicode_binary()) ->
unicode:unicode_binary().
largest_odd_number(Num) ->
.
```

Racket:

```
(define/contract (largest-odd-number num)
(-> string? string?)
```

```
)
```

Solutions

C++ Solution:

```
/*
* Problem: Largest Odd Number in String
* Difficulty: Easy
* Tags: string, tree, greedy, math
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(h) for recursion stack where h is height
*/

class Solution {
public:
string largestOddNumber(string num) {

}
};
```

Java Solution:

```
/**
* Problem: Largest Odd Number in String
* Difficulty: Easy
* Tags: string, tree, greedy, math
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(h) for recursion stack where h is height
*/

class Solution {
public String largestOddNumber(String num) {

}
}
```

Python3 Solution:

```
"""
Problem: Largest Odd Number in String
Difficulty: Easy
Tags: string, tree, greedy, math

Approach: String manipulation with hash map or two pointers
Time Complexity: O(n) or O(n log n)
Space Complexity: O(h) for recursion stack where h is height
"""

class Solution:
def largestOddNumber(self, num: str) -> str:
# TODO: Implement optimized solution
pass
```

Python Solution:

```
class Solution(object):
def largestOddNumber(self, num):
"""
:type num: str
:rtype: str
"""
```

JavaScript Solution:

```
/**
* Problem: Largest Odd Number in String
* Difficulty: Easy
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* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(h) for recursion stack where h is height
*/

/**
* @param {string} num
* @return {string}
*/
```

```
var largestOddNumber = function(num) {

};
```

TypeScript Solution:

```
/**
* Problem: Largest Odd Number in String
* Difficulty: Easy
* Tags: string, tree, greedy, math
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(h) for recursion stack where h is height
*/

function largestOddNumber(num: string): string {

};
```

C# Solution:

```
/*
* Problem: Largest Odd Number in String
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* Tags: string, tree, greedy, math
*
* 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 string LargestOddNumber(string num) {

}
}
```

C Solution:

```c
/*
* Problem: Largest Odd Number in String
* Difficulty: Easy
* Tags: string, tree, greedy, math
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(h) for recursion stack where h is height
*/

char* largestOddNumber(char* num) {

}
```

Go Solution:

```go
// Problem: Largest Odd Number in String
// Difficulty: Easy
// Tags: string, tree, greedy, math
//
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(h) for recursion stack where h is height

func largestOddNumber(num string) string {

}
```

Kotlin Solution:

```kotlin
class Solution {
fun largestOddNumber(num: String): String {

}
}
```

Swift Solution:

```swift
class Solution {
func largestOddNumber(_ num: String) -> String {

}
```

```
}
```

Rust Solution:

```
// Problem: Largest Odd Number in String
// Difficulty: Easy
// Tags: string, tree, greedy, math
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// Approach: String manipulation with hash map or two pointers
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impl Solution {
pub fn largest_odd_number(num: String) -> String {

}
}
```

Ruby Solution:

```
# @param {String} num
# @return {String}
def largest_odd_number(num)

end
```

PHP Solution:

```
class Solution {

/**
* @param String $num
* @return String
*/
function largestOddNumber($num) {

}
}
```

Dart Solution:

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class Solution {
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object Solution {
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