Problem 1256: Encode Number

Problem Information

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

Problem Description

Given a non-negative integer

num

, Return its

encoding

string.

The encoding is done by converting the integer to a string using a secret function that you should deduce from the following table:

n	f(n)
0	""
1	"0"
2	"1"
3	"00"
4	"01"
5	"10"
6	"11"
7	"000"

Example 1:

Input:

num = 23

Output:

"1000"

Example 2:

Input:

num = 107

Output:

"101100"

Constraints:

0 <= num <= 10^9

Code Snippets

C++:

```
class Solution {
public:
string encode(int num) {

}
};
```

Java:

```
class Solution {
public String encode(int num) {

}
}
```

Python3:

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

Python:

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

JavaScript:

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

};
```

TypeScript:

```
function encode(num: number): string {

};
```

C#:

```
public class Solution {
public string Encode(int num) {

}
}
```

C:

```


char * encode(int num){

}
```

Go:

```
func encode(num int) string {

}
```

Kotlin:

```
class Solution {
fun encode(num: Int): String {

}
}
```

Swift:

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

}
}
```

Rust:

```
impl Solution {
pub fn encode(num: i32) -> String {

}
}
```

Ruby:

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

end
```

PHP:

```
class Solution {

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

}
}
```

Scala:

```
object Solution {
def encode(num: Int): String = {

}
```

```
}
```

Solutions

C++ Solution:

```
/*
* Problem: Encode Number
* Difficulty: Medium
* Tags: string, math
*
* 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:
string encode(int num) {

}
};
```

Java Solution:

```
/**
* Problem: Encode Number
* Difficulty: Medium
* Tags: string, math
*
* 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 String encode(int num) {

}
}
```

Python3 Solution:

```
"""
Problem: Encode Number
Difficulty: Medium
Tags: string, math

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 encode(self, num: int) -> str:
# TODO: Implement optimized solution
pass
```

Python Solution:

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

JavaScript Solution:

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

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

```
var encode = function(num) {

};
```

TypeScript Solution:

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

function encode(num: number): string {

};
```

C# Solution:

```
/*
* Problem: Encode Number
* Difficulty: Medium
* Tags: string, math
*
* 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 string Encode(int num) {

}
}
```

C Solution:

```
/*
* Problem: Encode Number
* Difficulty: Medium
* Tags: string, math
*
* 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
*/



char * encode(int num){

}
```

Go Solution:

```
// Problem: Encode Number
// Difficulty: Medium
// Tags: string, math
//
// 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 encode(num int) string {

}
```

Kotlin Solution:

```
class Solution {
fun encode(num: Int): String {

}
}
```

Swift Solution:

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

```
}
}
```

Rust Solution:

```
// Problem: Encode Number
// Difficulty: Medium
// Tags: string, math
//
// Approach: String manipulation with hash map or two pointers
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impl Solution {
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```

Ruby Solution:

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

end
```

PHP Solution:

```
class Solution {

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

}
}
```

Scala Solution:

```
object Solution {
def encode(num: Int): String = {

}
}
```