Codility_

CodeCheck Report: training5ZDQES-59K

Test Name:

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Summary Timeline

Tasks summary

Task	Time spent	Score
BinaryGap Java 8 ⚠	2 min	100%

Total score

100%

Tasks Details

1. BinaryGap

Easy

Find longest sequence of zeros in binary representation of an integer.

Task Score	Correctness	Performance
100%	100%	Not assessed

Task description

A *binary gap* within a positive integer N is any maximal sequence of consecutive zeros that is surrounded by ones at both ends in the binary representation of N.

For example, number 9 has binary representation `1001` and contains a binary gap of length 2. The number 529 has binary representation `1000010001` and contains two binary gaps: one of length 4 and one of length 3. The number 20 has binary representation `10100` and contains one binary gap of length 1. The number 15 has binary representation `1111` and has no binary gaps. The number 32 has binary representation `100000` and has no binary gaps.

Write a function:

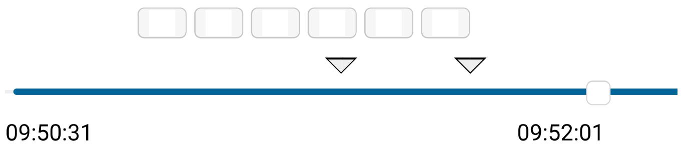
```
class Solution { public int solution(int N); }
```

that, given a positive integer N, returns the length of its longest

Solution

Programming language used:	Java 8
Total time used:	2 minutes
Effective time used:	2 minutes
Notes:	*not defined yet*

Task timeline



binary gap. The function should return 0 if N doesn't contain a binary gap.

For example, given N = 1041 the function should return 5, because N has binary representation `10000010001` and so its longest binary gap is of length 5. Given N = 32 the function should return 0, because N has binary representation '100000' and thus no binary gaps.

Write an **efficient** algorithm for the following assumptions:

- N is an integer within the range [1..2,147,483,647].

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Code: 09:52:01 UTC, java, final, score: **100** show code in pop-up

```
// you can also use imports, for example:
// import java.util.*;

// you can write to stdout for debugging purpo
// System.out.println("this is a debug message"

class Solution {
    public int solution(int N) {
        // write your code in Java SE 8
        int input = N;
                int output = 0;

                String binaryString = Integer.
                boolean continueWhile = true;
                int binaryGap = 0;
                do {
                        int currentBinaryGap =
                        int firstOne = -1;
                        int secondOne = -1;

                        firstOne = binaryStrin

                        if (firstOne != -1) {
                                binaryString =

                                secondOne = bi

                                if(secondOne !
                                        firstO
                                        curren
                                        //Syst
                                        if(cur

                                        }
                                }else {
                                        contin
                                }

                        } else {
                                continueWhile
                        }


                } while (continueWhile);

                output=binaryGap;

                return output;
    }
}
```

Analysis summary

The solution obtained perfect score.

Analysis

expand all **Example tests**

▶ example1 ✓ OK
example test n=1041=10000010001_2

▶ example2 ✓ OK
example test n=15=1111_2

▶	example3 example test n=32=100000_2	✓ OK

expand all **Correctness tests**

▶	extremes n=1, n=5=101_2 and n=2147483647=2**31-1	✓ OK
▶	trailing_zeroes n=6=110_2 and n=328=101001000_2	✓ OK
▶	power_of_2 n=5=101_2, n=16=2**4 and n=1024=2**10	✓ OK
▶	simple1 n=9=1001_2 and n=11=1011_2	✓ OK
▶	simple2 n=19=10011 and n=42=101010_2	✓ OK
▶	simple3 n=1162=10010001010_2 and n=5=101_2	✓ OK
▶	medium1 n=51712=1100101000000000_2 and n=20=10100_2	✓ OK
▶	medium2 n=561892=10001001001011100100_2 and n=9=1001_2	✓ OK
▶	medium3 n=66561=10000010000000001_2	✓ OK
▶	large1 n=6291457=11000000000000000000001_2	✓ OK
▶	large2 n=74901729=100011101101110100011100001	✓ OK
▶	large3 n=805306373=110000000000000000000000000101_2	✓ OK
▶	large4 n=1376796946=1010010000100000100000100010010_2	✓ OK
▶	large5 n=1073741825=1000000000000000000000000000001_2	✓ OK
▶	large6 n=1610612737=1100000000000000000000000000001_2	✓ OK