https://course.acciojob.com/idle?question=db17a315-4713-441a-a494-42c25fe5f503

- EASY
- Max Score: 30 Points

Number Is Sparse Or Not

Given a number `N`. The task is to check whether it is sparse or not. A number is said to be a sparse number if no two or more consecutive bits are set in the binary representation.

Input Format

First line contains a single integer `N`.

Output Format

Print `YES` if number is sparse else Print `NO`

Example 1

Input

```
2
```

Output

```
YES
```

Explanation

Binary Representation of 2 is 10, which is not having consecutive set bits. So, it is sparse number.

Example 2

Input

```
3
```

Output

```
NO
```

Explanation

Binary Representation of 3 is 11, which is having consecutive set bits in it. So, it is not a sparse number.

Constraints

1 <= N <= 10^9

Topic Tags

- **Math**

My code

```
// n java
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
	public static void main (String[] args) throws
java.lang.Exception
	{
		//your code here
```

```
    //this is also answer ie dot prodct of binary if((n & (n>>1)) >=1)
return 0; return 1;
    Scanner s=new Scanner(System.in);
    int n=s.nextInt();
    int c=0,co=0;
    while(n>0)
     {
       int r=n%2;

       if((co)==0) {c=r;co=1;}
       else if(c==1&&r==1) break;
       else c=r;
       n=n/2;
     }
     if(n==0)
       System.out.print("1");
    else System.out.print("0");
     }
}
```