

<https://course.acciojob.com/idle?question=d6a8385f-d917-41ca-b936-2cb489564507>

● MEDIUM

● Max Score: 40 Points



Generate Binary Numbers

Given a number N. The task is to generate and print binary representation for all numbers from 1 to N.

Try solving this using a queue.

Input Format

The only line of input contains a single integer N.

Output Format

In one line, print binary representation for all numbers from 1 to N. These representations should be space separated.

Example 1

Input

5

Output

1 10 11 100 101

Explanation

```
For n=1, binary representation is 1.  
For n=2, binary representation is 10.  
For n=3, binary representation is 11.  
For n=4, binary representation is 100.  
For n=5, binary representation is 101.
```

Example 2

Input

2

Output

1 10

Explanation

```
For n=1, binary representation is 1.  
For n=2, binary representation is 10.
```

Constraints

$1 \leq N \leq 50000$

Topic Tags

- **Bit Manipulation**

My code

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

```

import java.io.*;

public class Main
{
    static void    print_bin(int i)
    {
        String str="";
        while(i>0)
        {
            int r=i%2;
            i/=2;
            String st=Integer.toString(r);
            str=st+str;
        }
        System.out.print(str);
    }
    public static void main (String[] args) throws
java.lang.Exception
    {
        //your code here
        Scanner s=new Scanner(System.in);

        int n=s.nextInt();

        for(int i=1;i<=n;i++)
        {
            print_bin(i);
            System.out.print(" ");
        }
    }
}

```

}